



# 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)

## Approval Sheet For Product Specification

Product Name: SAW Filter 160MHz DIP 35.0×12.8mm

TST Parts No.:TB0811A

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

Customer signature required

Company:\_\_\_\_\_

Division:\_\_\_\_\_

Approved by :\_\_\_\_\_

Date:\_\_\_\_\_

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

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

Date:\_\_\_\_\_ 01/25/2010

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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SAW Filter 160 MHz(BW=4.0MHz) DIP 35.0mmx12.8mm

MODEL NO.: TB0811A

REV.2.0

## A. MAXIMUM RATING:

1. Operating Temperature: -40 °C ~ +85 °C
2. Storage Temperature: -40 °C ~ +105 °C
3. Input power: 10dBm

RoHS Compliant

Lead-free soldering

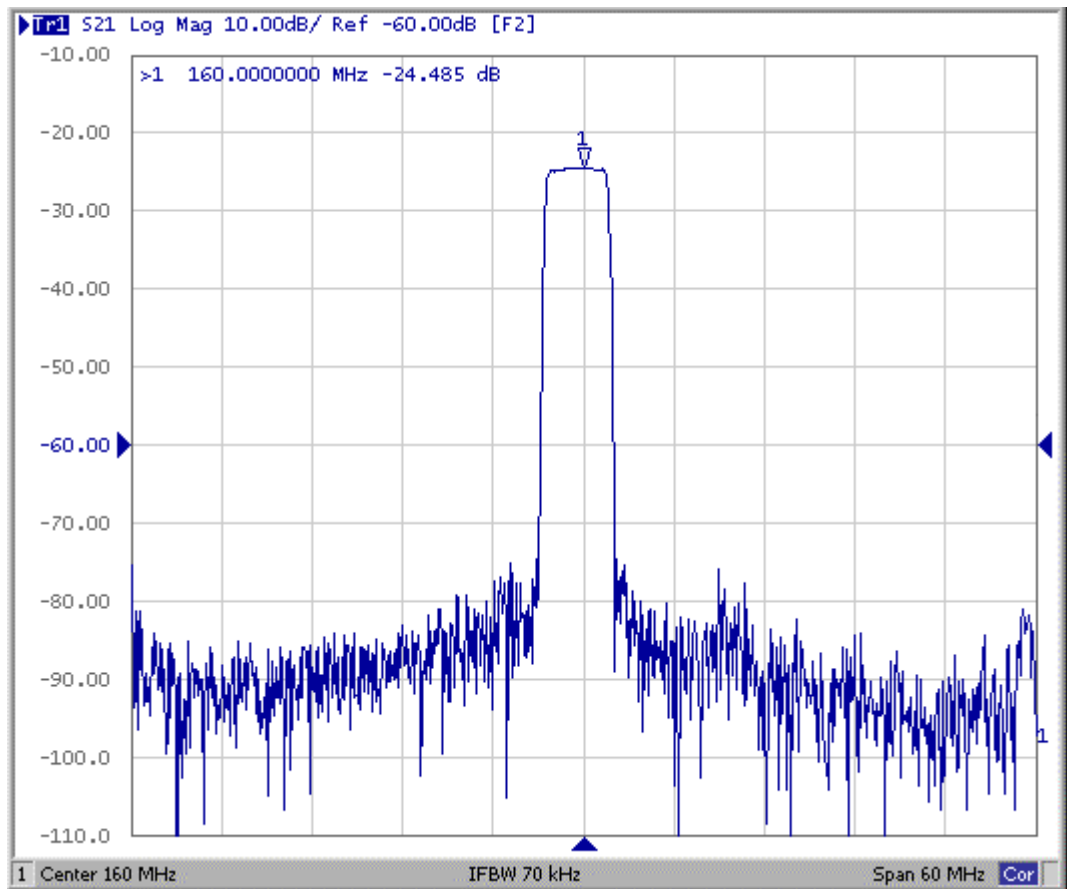
## B. Characteristics :

Ambient Temperature: 25 °C

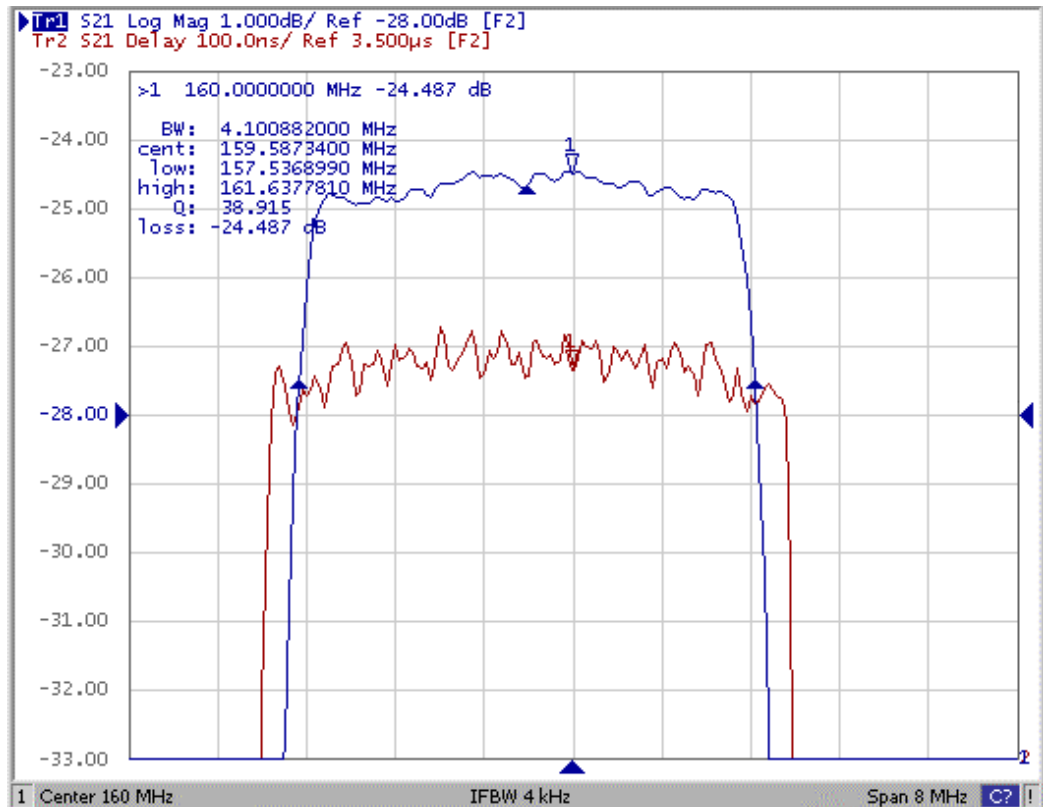
| Characteristics                                             |       | Value |        |       | Note |
|-------------------------------------------------------------|-------|-------|--------|-------|------|
|                                                             |       | Min.  | Typ.   | Max.  |      |
| <b>Center frequency</b> $F_c$                               | MHz   | 159.9 | 160    | 160.1 | -    |
| <b>Minimum Insertion loss</b> I.L.                          | dB    | -     | 24.5   | 28.0  | -    |
| <b>1dB Bandwidth</b>                                        | MHz   | 3.84  | 3.87   | -     | -    |
| <b>3dB Bandwidth</b>                                        | MHz   | 4.1   | 4.12   | -     | -    |
| <b>40dB Bandwidth</b>                                       | MHz   | -     | 4.90   | 5.0   | -    |
| <b>50dB Bandwidth</b>                                       | MHz   | -     | 4.98   | 5.2   | -    |
| <b>Passband Ripple</b>                                      | dB    | -     | 0.6    | 1.0   | -    |
| <b>Absolute Delay</b>                                       | usec  |       | 3.61   |       |      |
| <b>Ultmate Rejection</b>                                    | dB    | 50    | 54     |       |      |
| <b>Temp Coefficient</b>                                     | ppm/K | -     | -0.032 | -     | -    |
| <b>Matching:</b>                                            |       |       |        |       |      |
| 1.The input of the filter will be matched to <u>50 ohm</u>  |       |       |        |       |      |
| 2.The output of the filter will be matched to <u>50 ohm</u> |       |       |        |       |      |

## D. FREQUENCY CHARACTERISTICS :

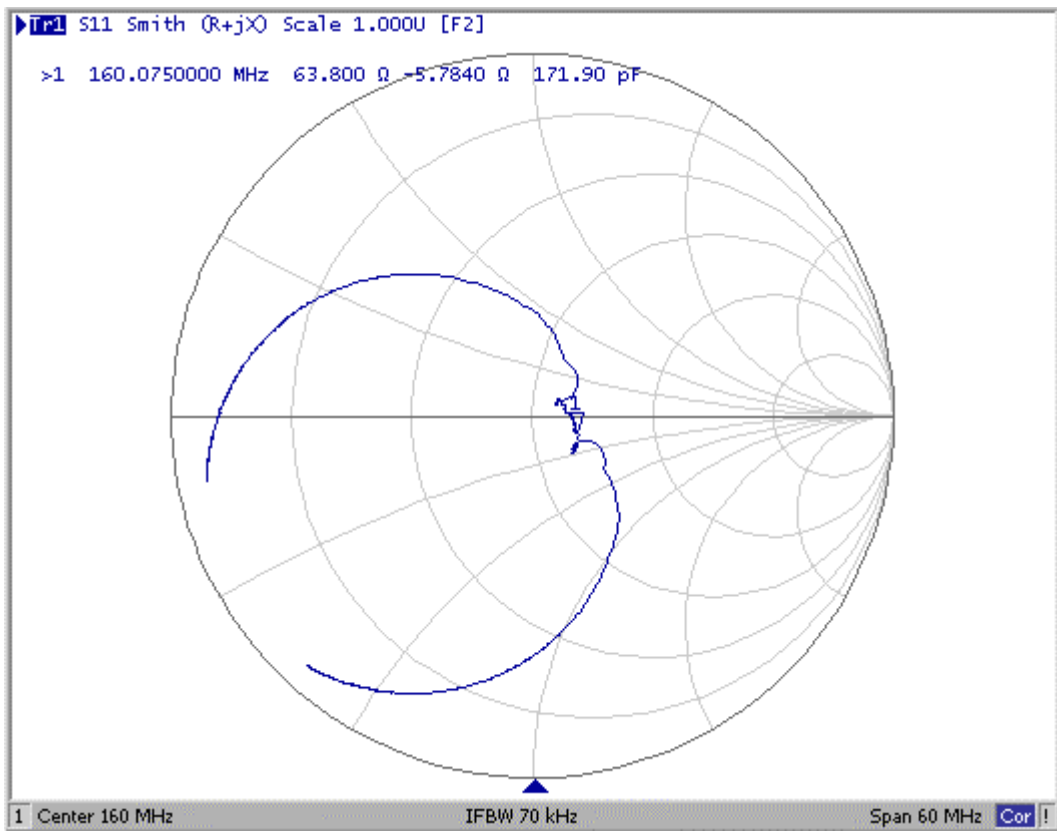
### 1.S21 Response: (span : 60MHz)



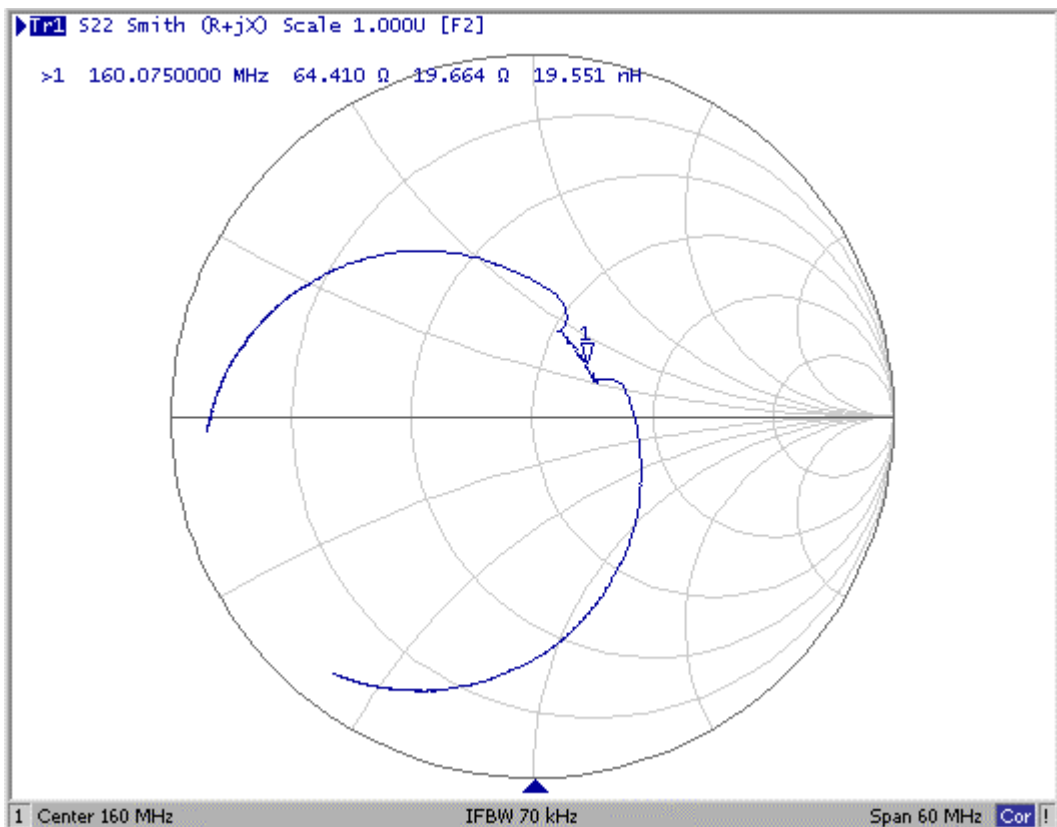
### 2. Group-Delay Ripple: (span : 8MHz)



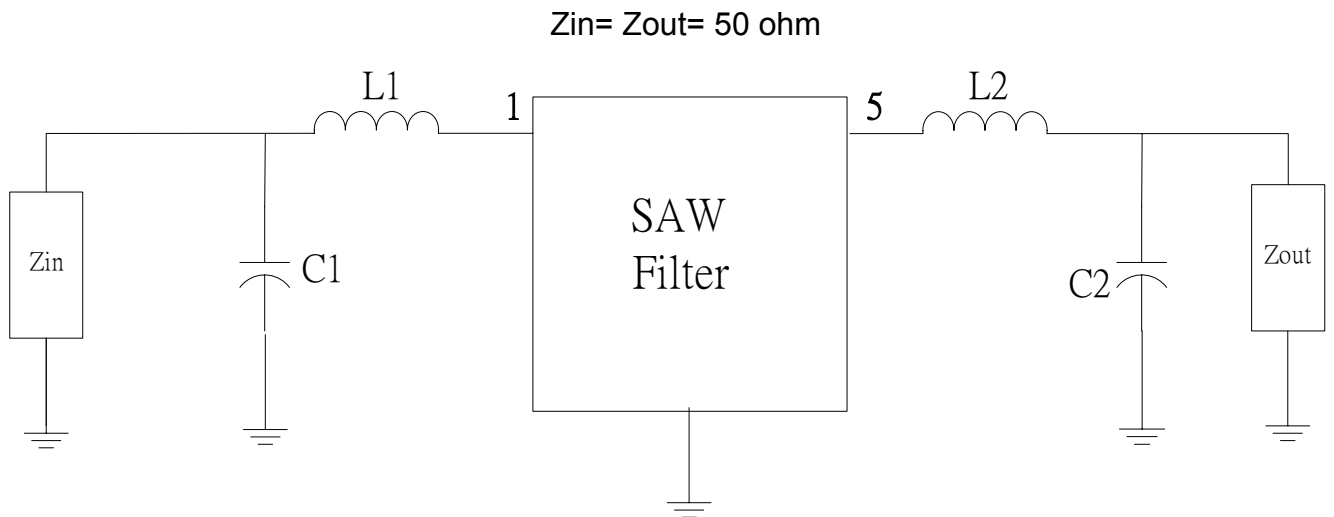
### 3. S11 Smith Chart: (span : 60MHz)



### 4. S22 Smith Chart (span : 60MHz)

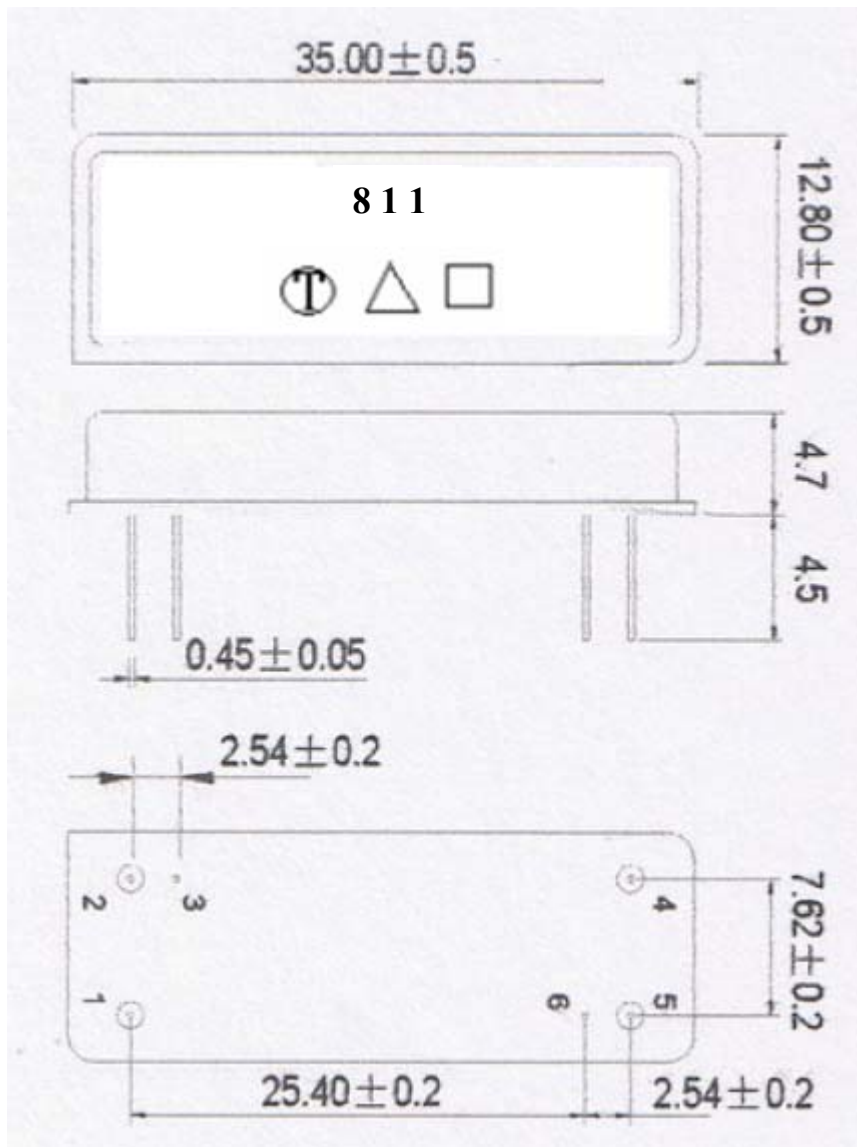


## E. MEASUREMENT CIRCUIT



$L1=47\text{nH}$ ,  $C1=56\text{pF}$ ,  $L2=68\text{nH}$ ,  $C2=47\text{pF}$

## F. OUTLINE DRAWING:



Pin 1: RF input

Pin 5: RF output

Pin 3,6: Case Ground

Pin 2, 4: Ground

□: Week Code (Follow the table from planner each year)

Unit : mm

△ : Product / Year Code

| Year         | 2009 | 2010 | 2011     | 2012     |
|--------------|------|------|----------|----------|
| Product Code | B    | b    | <u>B</u> | <u>b</u> |