



# TAI-SAW TECHNOLOGY CO., LTD.

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## Product Specifications Approval Sheet

Issued Date:

Product Name: SAW IF Filter 70 MHz( package 13.3mm x 6.5 mm )

TST Parts No.: TB0884A

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

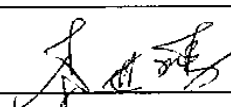
Customer signature required

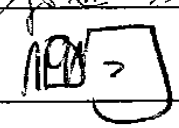
Company: \_\_\_\_\_

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

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

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

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

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

Date: \_\_\_\_\_ 08 / 02 / 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 70MHz 8MHz BW (SMD 13.3×6.5 mm)

MODEL NO.: TB0884A

REV. NO.1

## A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 85°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

## B. Characteristics :

| Item                                               | Unit   | Min. | Type. | Max. |
|----------------------------------------------------|--------|------|-------|------|
| Center frequency, <b>F<sub>c</sub></b>             | MHz    | -    | 70    | -    |
| Insertion Loss, <b>IL</b>                          | dB     | -    | 8.7   | 10.0 |
| -1dB bandwidth                                     | MHz    | 7.35 | 8.0   | -    |
| -3dB bandwidth                                     | MHz    | 8.0  | 9.0   | -    |
| -40dB bandwidth                                    | MHz    | -    | 12.5  | 13.5 |
| Passband Ripple <b>F<sub>c</sub>± 2.5MHz</b>       | dB     | -    | 0.6   | 1.0  |
| Group Delay variation <b>F<sub>c</sub>± 2.5MHz</b> | nsec   | -    | 75    | 120  |
| Absolute Delay                                     | unec   | -    | 0.9   | -    |
| Temperature Coefficient                            | ppm/°C | -    | -94   | -    |
| Source Impedance                                   | Ohm    | -    | 50    | -    |
| Load Impedance                                     | Ohm    | -    | 50    | -    |

## C. Frequency Characteristics :

### (1) Wide band Response:(span 80MHz)

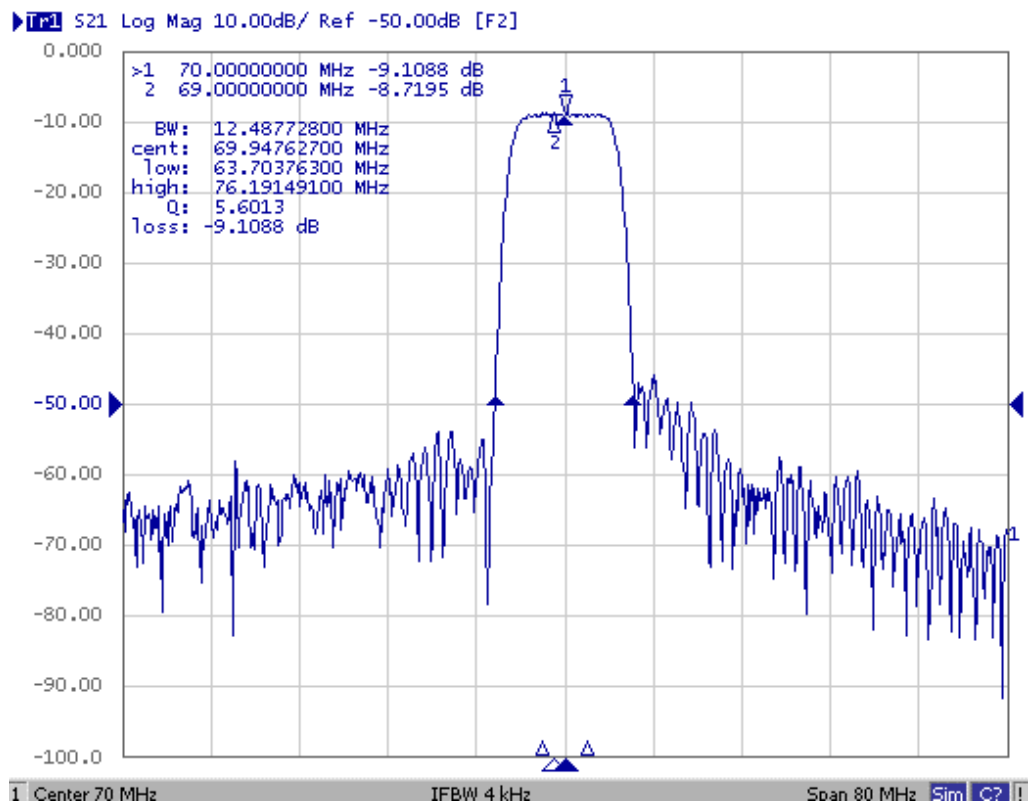


Fig1. Horizontal: 8MHz/Div Vertical: 10dB/Div

### (2) Pass band Response and Group Time Delay response:

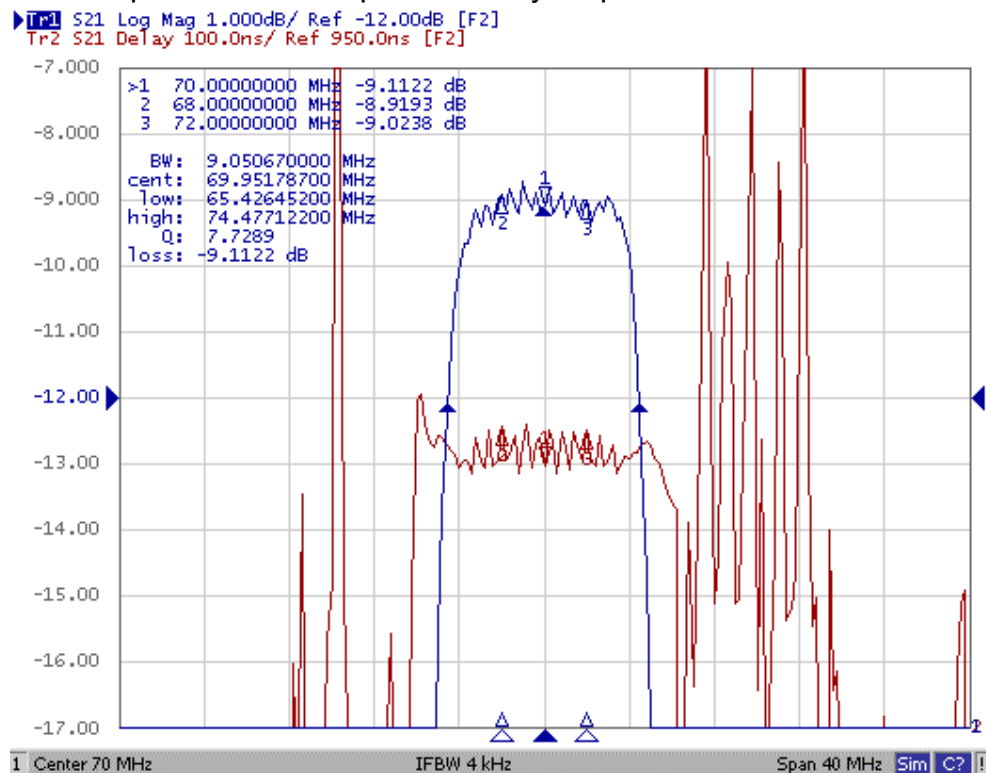


Fig2. Horizontal: 4MHz/Div Vertical: 1dB/Div  
Vertical: 100ns/Div

(3) Wide band Response:

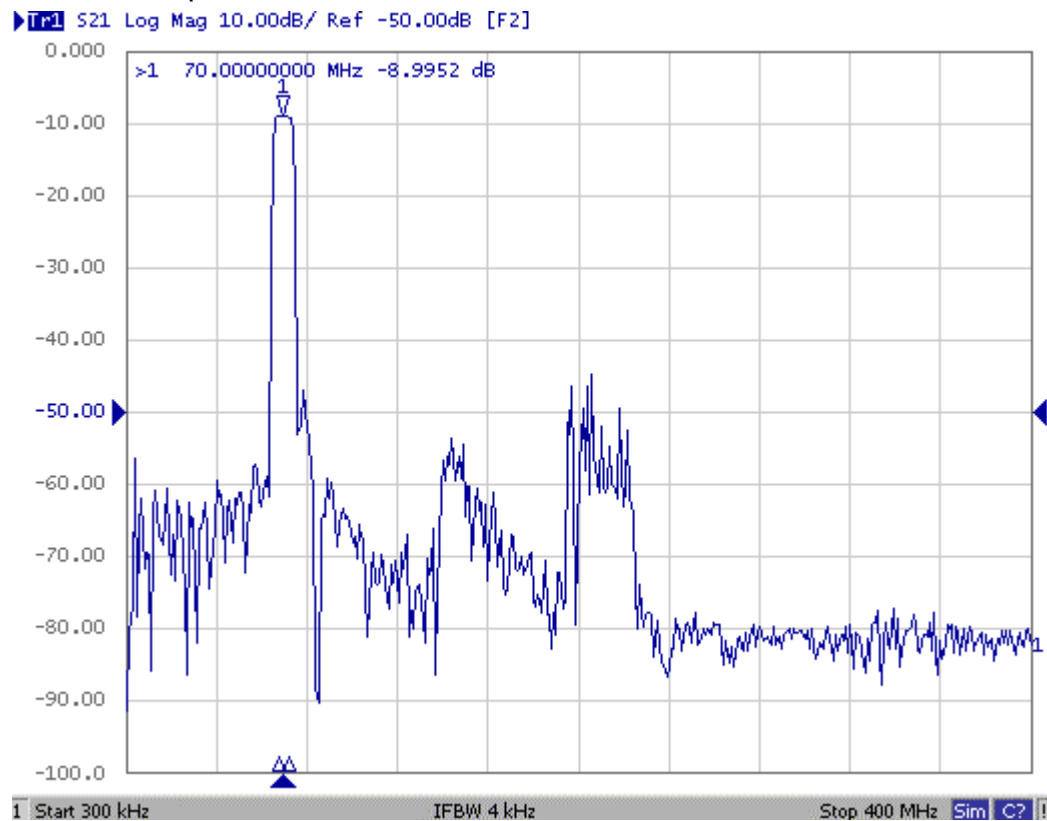
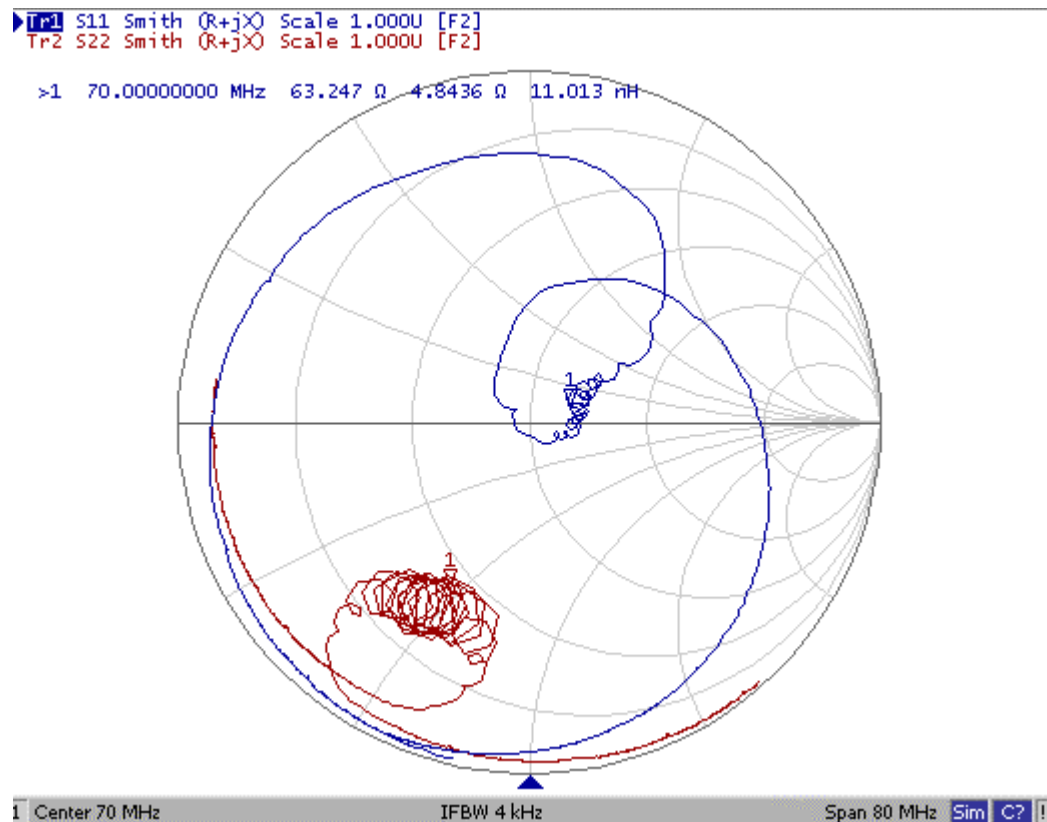
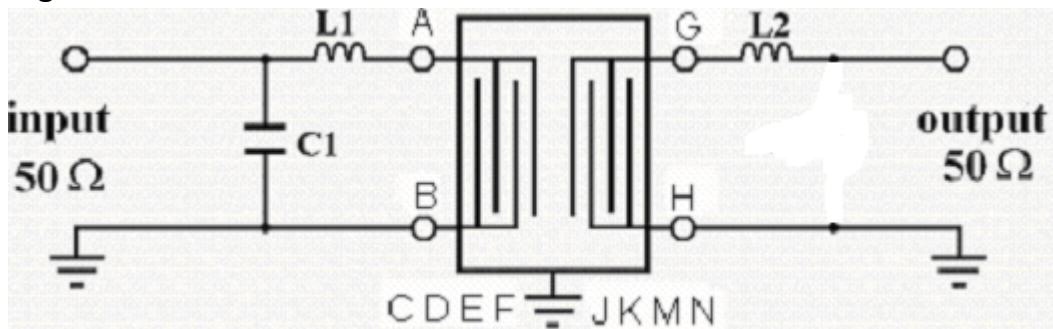


Fig3. Horizontal: 40MHz/Div Vertical: 1dB/Div

(4) Smith Chart:

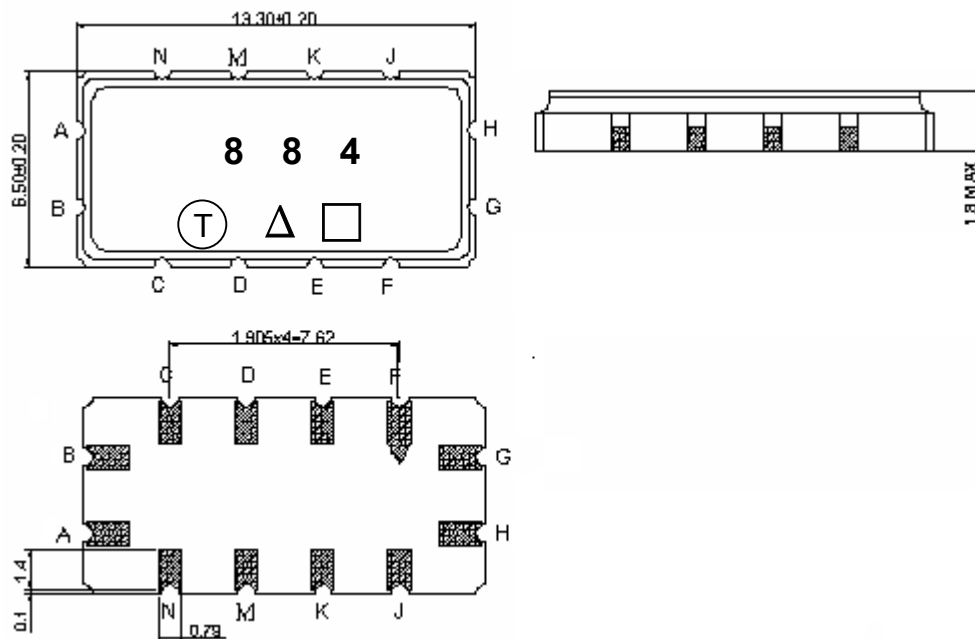


#### D. Matching Circuit:



$L1 = 150 \text{ nH}$ ,  $C1 = 56 \text{ pF}$ ,  $L2 = 39 \text{ nH}$

#### E. Outline Drawing:



Pin A –RF input

Pin B –RF input ground

Pin G –RF output

Pin H –RF output ground

Pin C, D, E, F, J, K, M, N - Ground

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

Unit : mm

△ : Product / Year Code

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



The graph displays the temperature of a substance over time. The y-axis represents Temperature in degrees Celsius, ranging from 20 to 280. The x-axis represents Time in seconds, ranging from 0 to 360. The curve shows a heating phase from 0 to 220 seconds, reaching a maximum temperature of 260°C, followed by a cooling phase from 220 to 360 seconds, ending at 110°C.

| Time (Sec) | Temp (Deg C) |
|------------|--------------|
| 0          | 25           |
| 20         | 28           |
| 40         | 145          |
| 60         | 150          |
| 80         | 158          |
| 100        | 155          |
| 120        | 170          |
| 140        | 178          |
| 160        | 195          |
| 180        | 215          |
| 200        | 250          |
| 220        | 260          |
| 240        | 250          |
| 260        | 175          |
| 280        | 145          |
| 300        | 148          |
| 320        | 135          |
| 340        | 120          |
| 360        | 110          |