



# 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

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## Product Specifications Approval Sheet

Product Name: SAW Filter 403.5 MHz SMD 2.5X2.0 mm (BW=1.6 MHz)

TST Parts No.: TA1376A

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

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

Checked by: \_\_\_\_\_ Hayley Chou *Hayley Chou*

Approval by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2018/12/07

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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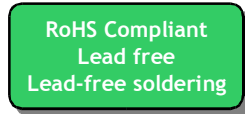
## SAW Filter 403.5 MHz

MODEL NO.: TA1376A

Rev.4.0

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitive Level: Level 1 (MSL 1)



Electrostatic Sensitive Device (ESD)

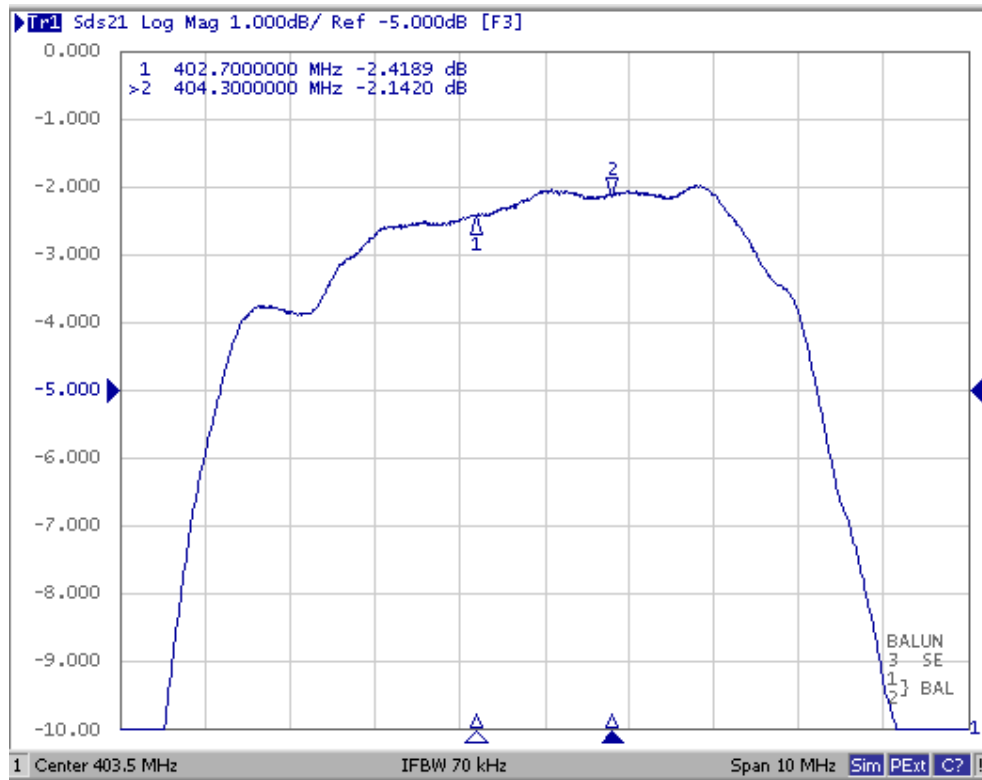
### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance:  $Z_s = 50 \Omega$

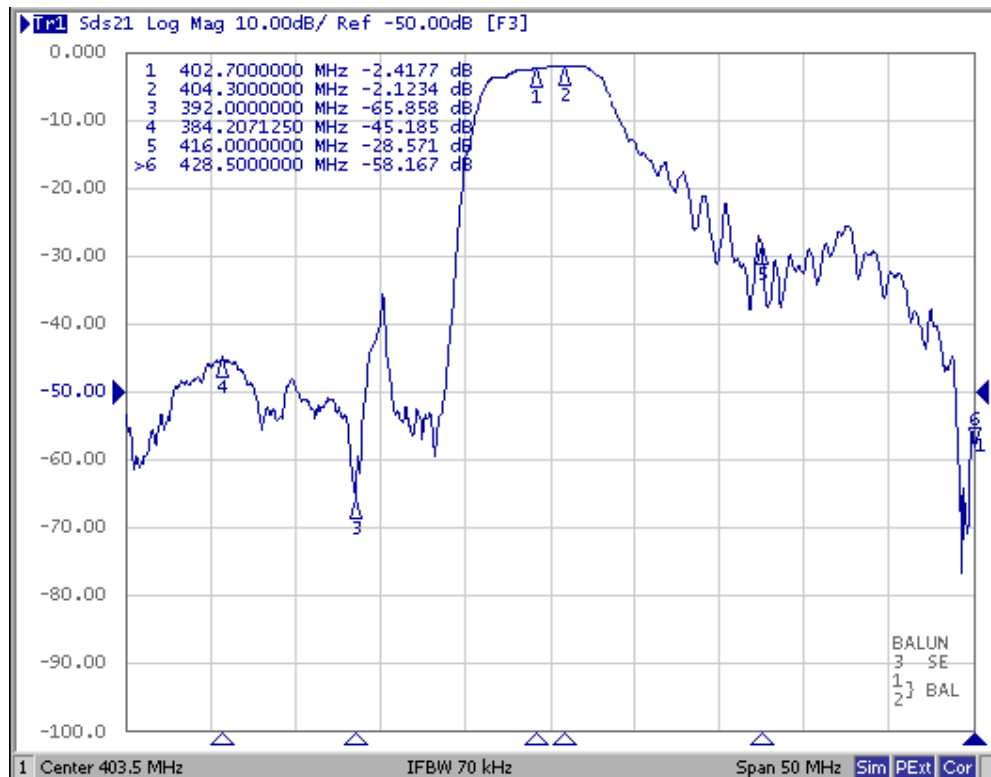
Terminating load impedance:  $Z_L = 200 \Omega$

Item	Unit	Min.	Typ.	Max.
<b>Center Frequency</b> <b>Fc</b>	MHz	402.8	403.2	403.7
<b>Insertion Loss</b> (402.7~404.3 MHz) <b>IL</b>	dB	-	2.4	2.8
<b>VSWR</b> (402.7~404.3 MHz)	-	-	1.5	2.0
<b>Amplitude Ripple</b> (402.7~404.3 MHz)	dB	-	0.36	1.0
<b>Attenuation</b> (Reference level from 0 dB)				
10 ~ 350 MHz	dB	45	51	-
350 ~ 392 MHz	dB	42	45	-
416 ~ 430 MHz	dB	25	28	-
430 ~ 650 MHz	dB	50	58	-
650 ~ 1000 MHz	dB	42	52	-
Package size	mm	SMD 2.5x2.0		
<b>Temperature Coefficient of Frequency</b>	ppm/°C	-36		

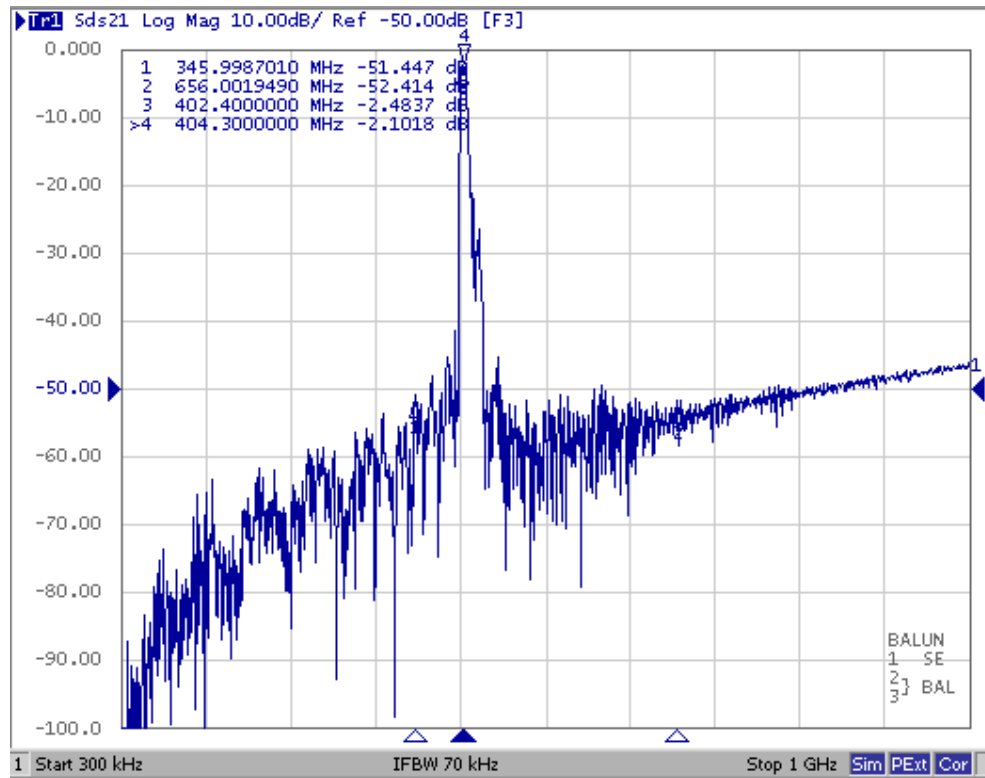
**C.FREQUENCY CHARACTERISTICS:**  
**S21 Pass-band response: (span 10MHz)**



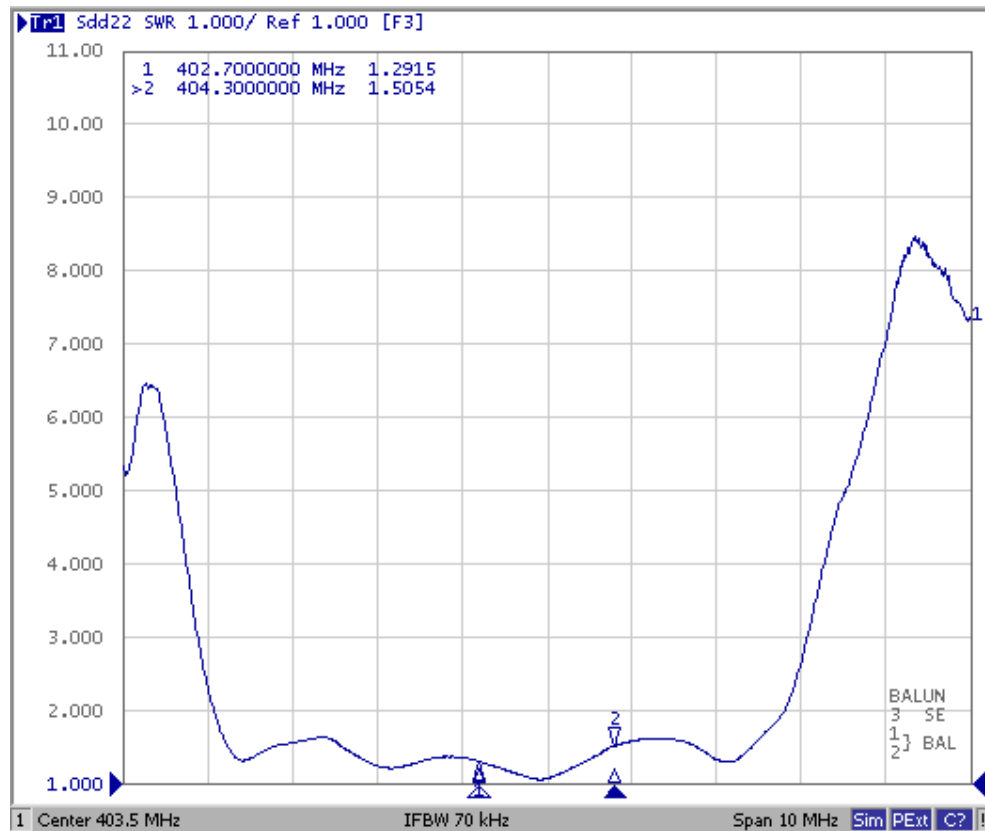
**S21 response: (span 50MHz)**



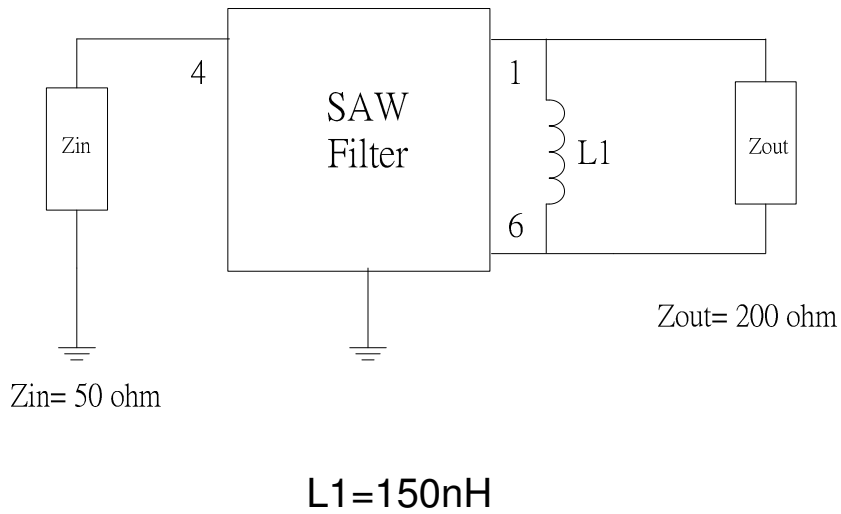
### S21 response: (span 1GHz)



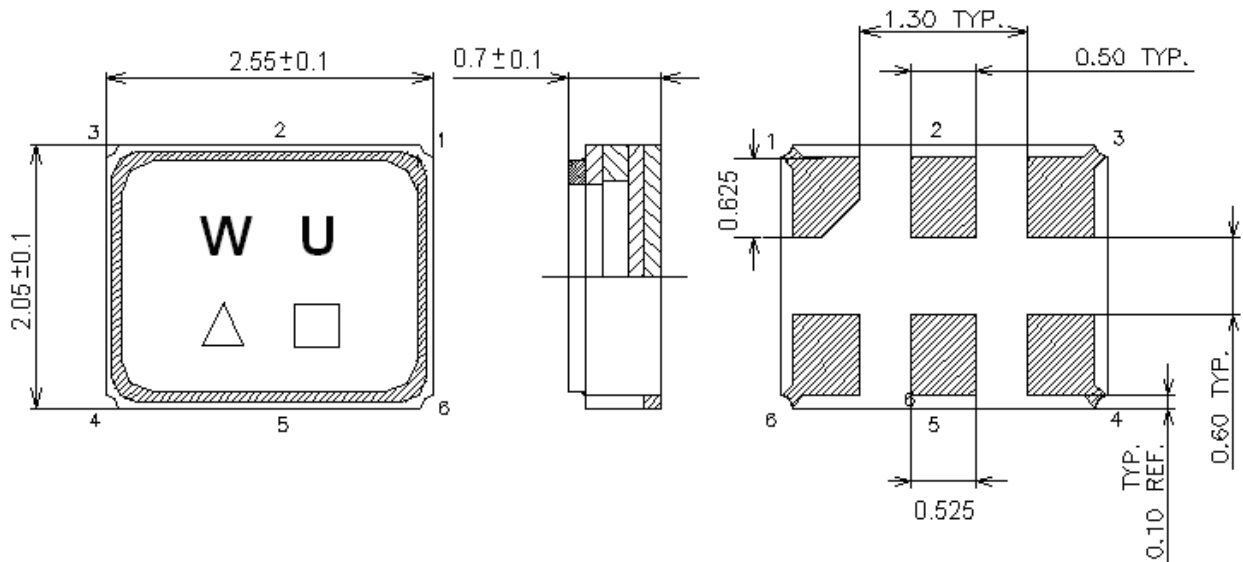
### VSWR



**D. MEASUREMENT CIRCUIT:**



**E. OUTLINE DRAWING:**



\* All tolerance are  $\pm 0.10\mu\text{m}$

Pin 4: RF input

Pin 1, 6: RF balanced output

Pin 2, 3, 5: Ground

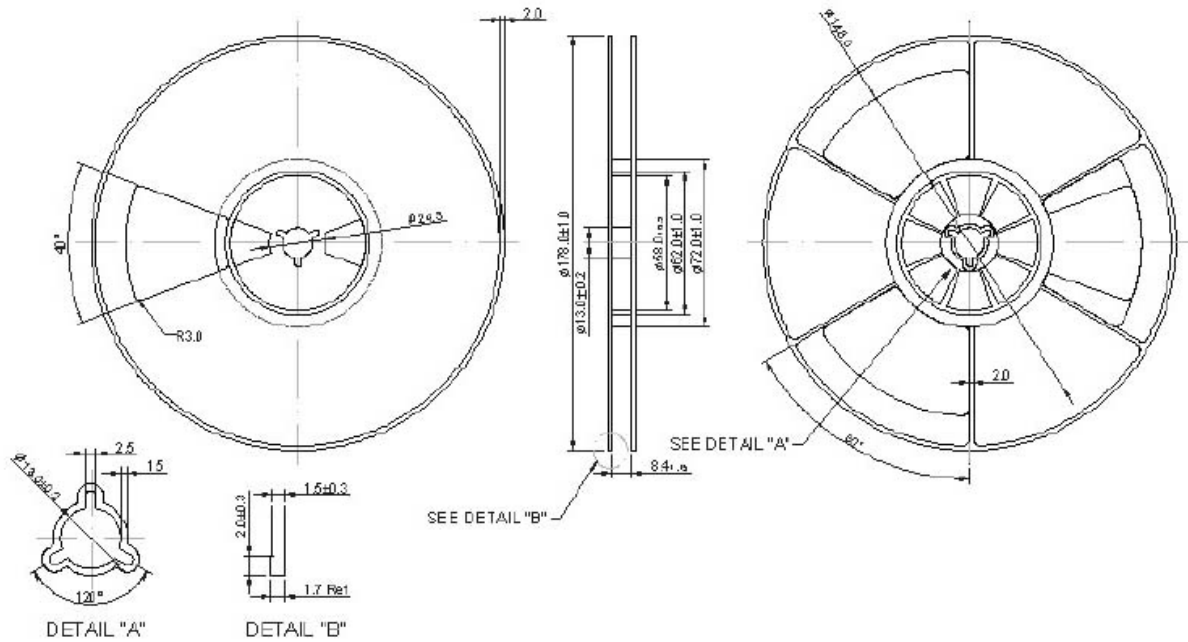
△ : Year Code (2009->9, 2010->0, ..., 2018->8)

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

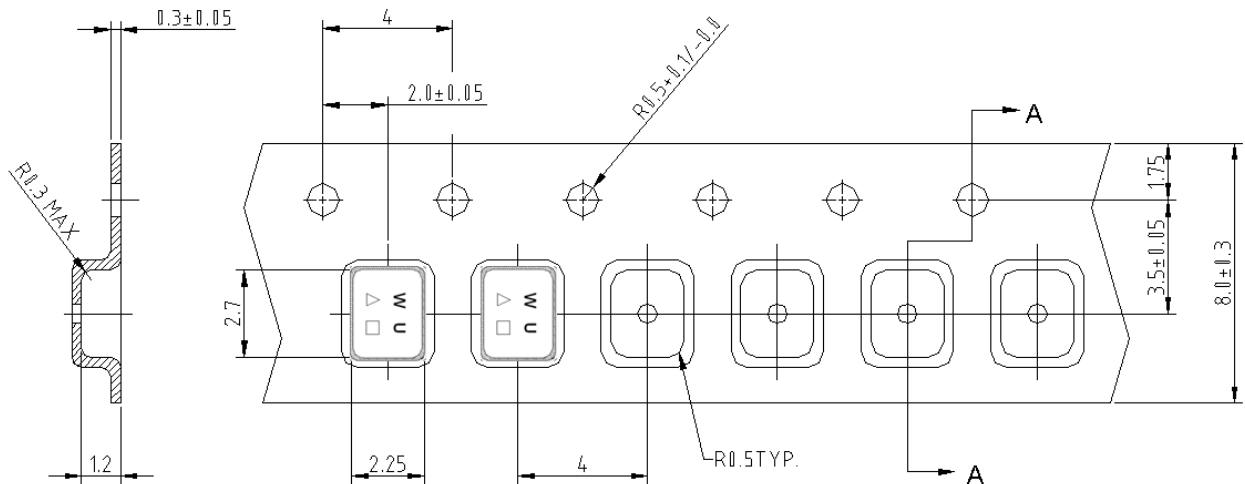
**F. PACKING:** (Ref: WI-75M03)

**1. REEL DIMENSION**

There shall be a trailer of 1000 mm minimum of empty carrier tape sealed with cover tape.  
 There shall be a leader of 160mm minimum of empty carrier tape sealed with cover tape.



**2. TAPE DIMENSION**



Section A-A

Direction of Feed



**G. 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.

