



# 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 Name: 37.8 MHz 5.9MHz BW SMD 13.3 x 6.5 mm SAW IF Filter

TST Parts No.: TB1045B

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

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

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

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

Date: \_\_\_\_\_ 08/ 02 / 2018

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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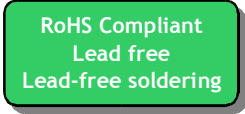
SAW Filter 37.8MHz 5.9MHz BW (SMD 13.3×6.5 mm)

MODEL NO.: TB1045B

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
5. Moisture Sensitivity Level: Level 1(MSL1)



Electrostatic Sensitive Device

## B. CHARACTERISTICS:

Item	Unit	Min.	Type.	Max.
Center frequency, <b>F<sub>c</sub></b>	MHz	-	37.8	-
Insertion Loss, <b>IL</b>	dB	-	18.5	20.2
1dB Band Width	MHz	-	5.8	-
40dB Band Width	MHz	-	9.3	10.5
Amplitude Ripple F <sub>c</sub> +/-2.4MHz	dB	-	0.6	1.2
Attenuation (Reference level from typical Insertion loss )				
F <sub>c</sub> +/-10.5MHz ~ F <sub>c</sub> +/-14MHz	dB	40	45	
F <sub>c</sub> +/-14MHz ~ F <sub>c</sub> +/-20MHz	dB	45	50	
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

### C. FREQUENCY CHARACTERISTICS:

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

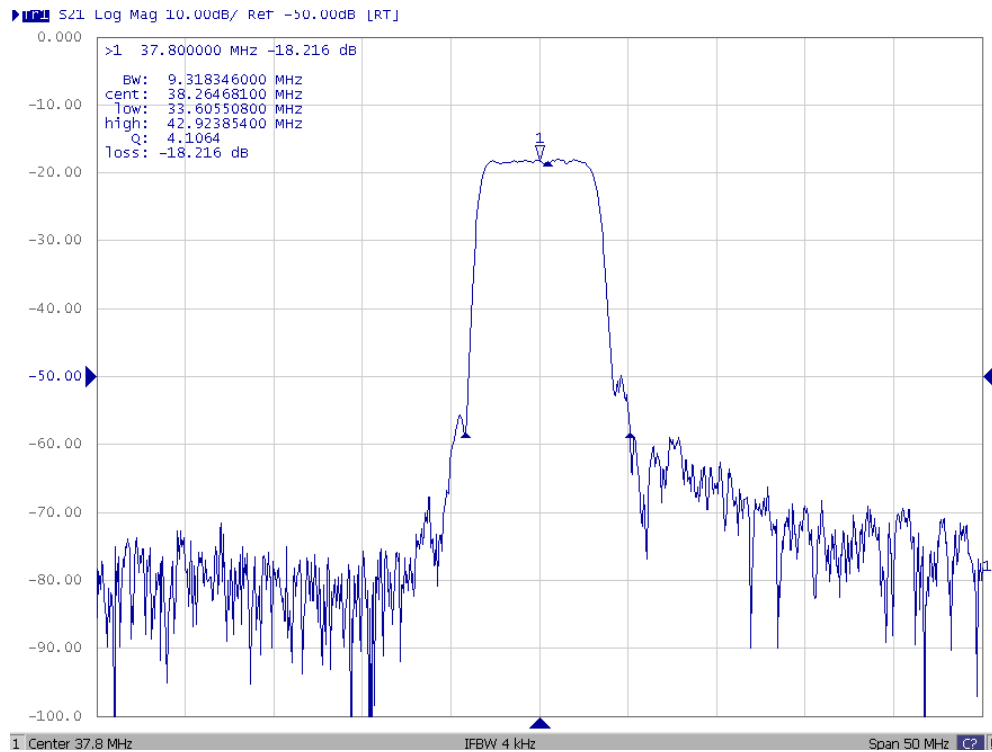


Fig1. Horizontal: 5MHz/Div Vertical: 10dB/Div

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

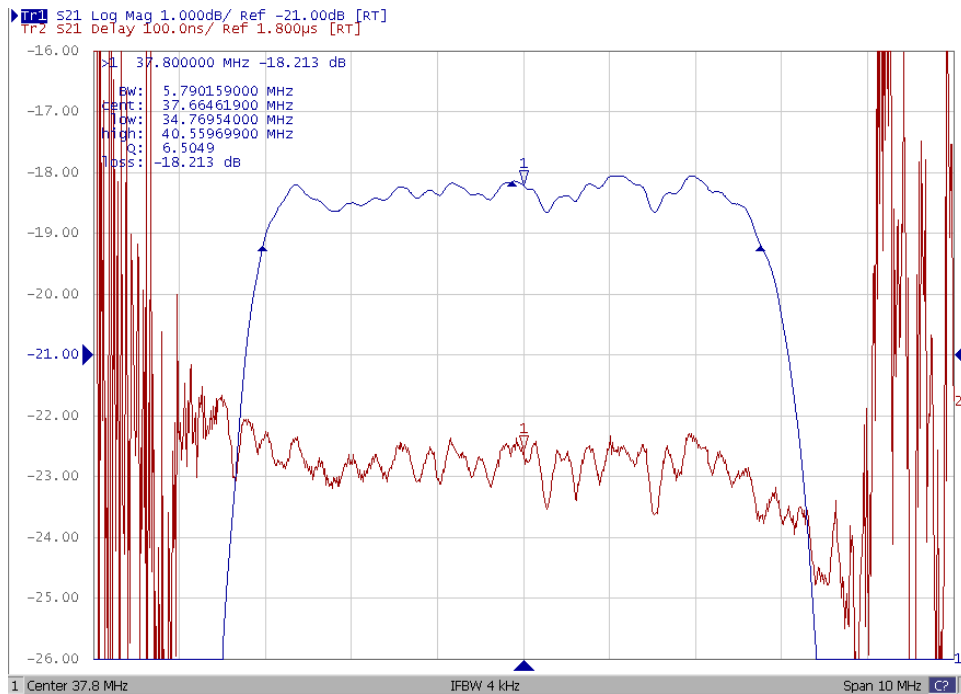
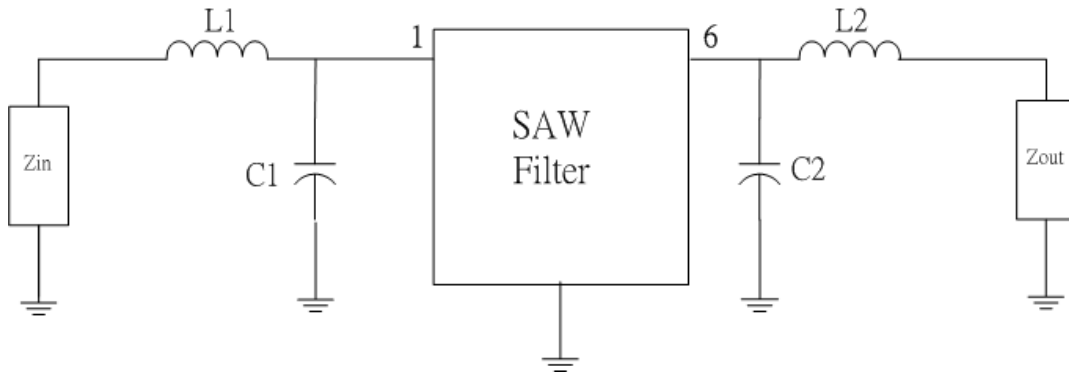


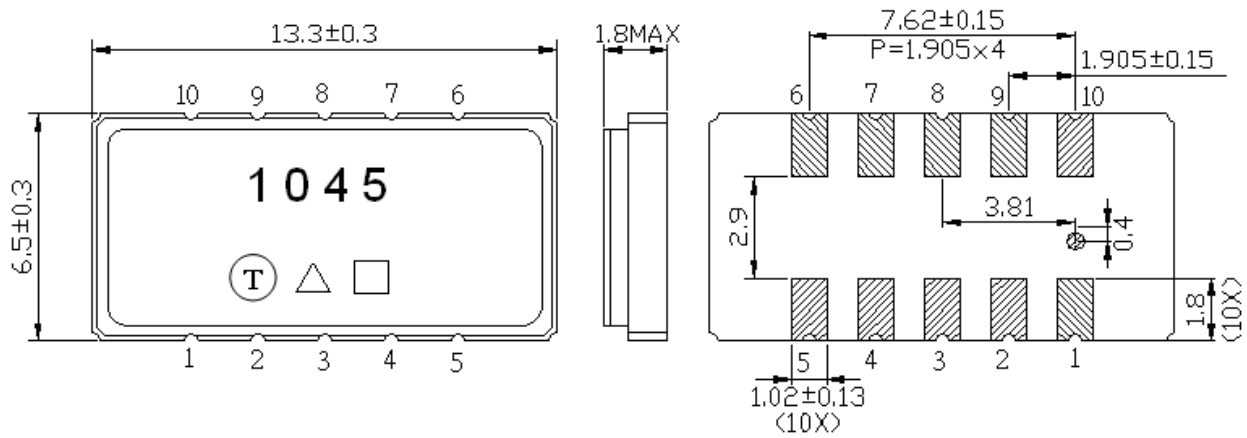
Fig2. Horizontal: 1.0MHz/Div Vertical: 1dB/Div  
Vertical: 100ns/Div

**D. MATCHING CIRCUIT:**



L1=680nH L2=82nH C1=4.7pF C2=4.7pF

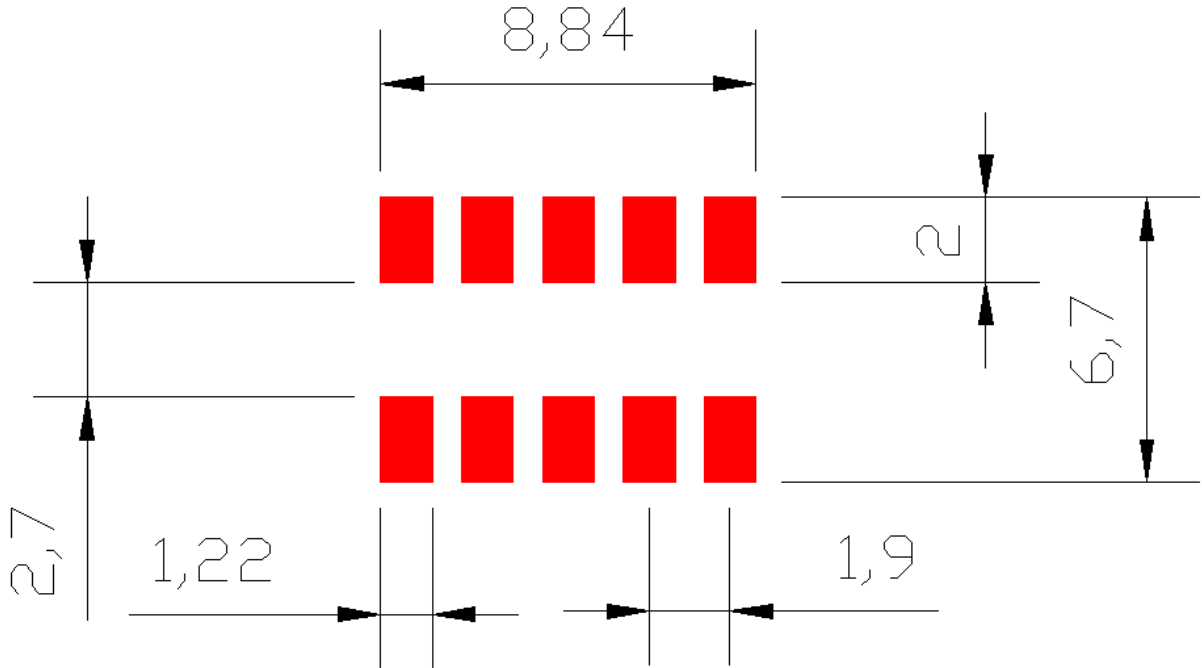
**E. OUTLINE DRAWING:**



- #1: Input
- #10: Input Ground
- #6: Output
- #5: Output Ground
- #2, 3, 4, 7, 8, 9: Ground
- : Week Code
- Unit: mm
- △ : Product / Year Code

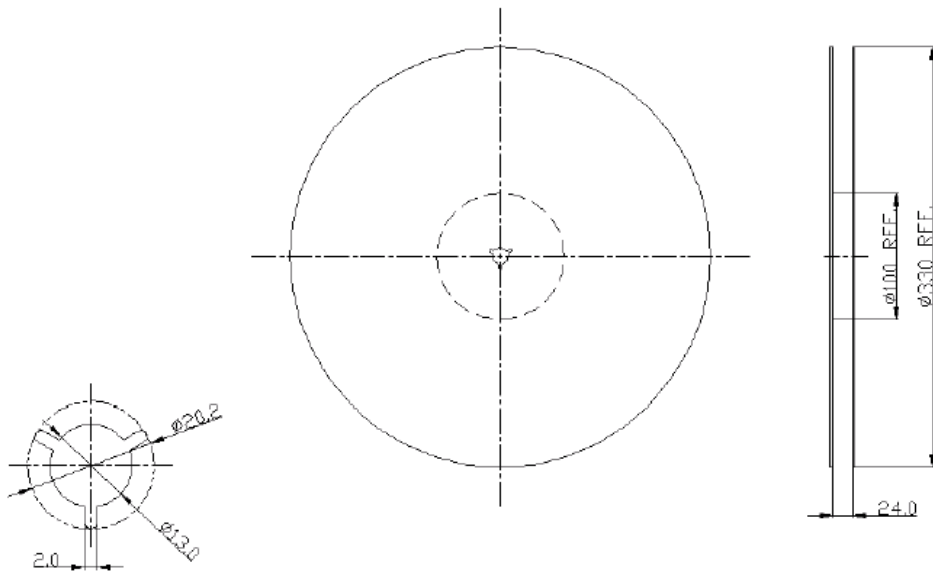
Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	B	b	<u>B</u>	<u>b</u>

**F. PCB FOOTPRINT:**

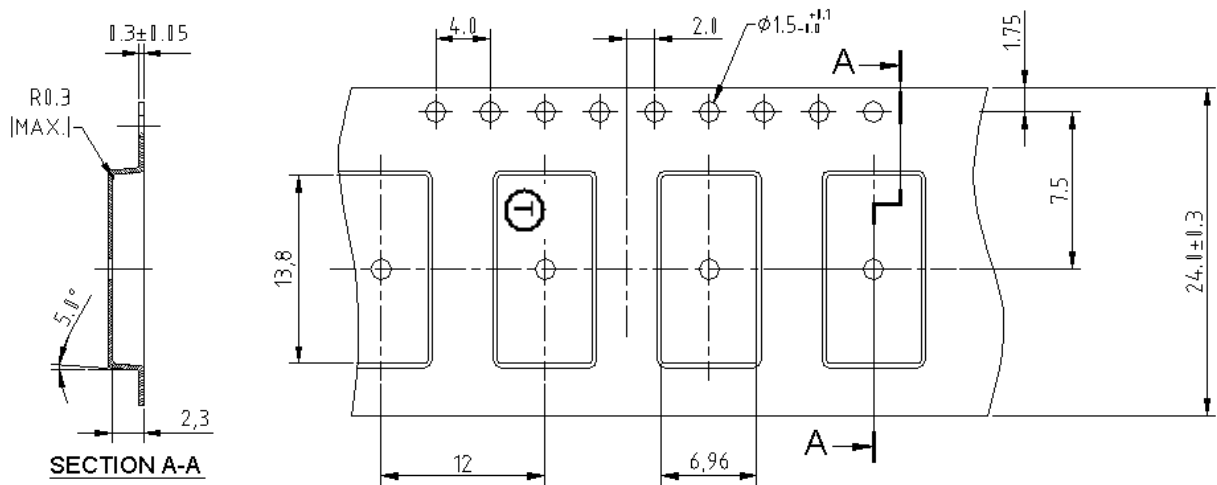


**G. PACKING:**

**1. REEL DIMENSION**



## 2. TAPE DIMENSION



### H. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at  $150 \sim 180^\circ\text{C}$  for  $60 \sim 90$  seconds.
2. Ascending time to preheating temperature  $150^\circ\text{C}$  shall be 30 seconds min.
3. Heating shall be fixed at  $220^\circ\text{C}$  for  $50 \sim 80$  seconds and at  $260^\circ\text{C} + 0/-5^\circ\text{C}$  peak ( $20 \sim 40$ sec).
4. Time: 2 times.

