



# 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: 248.45MHz 0.26MHz BW SMD 3.5×3.5 mm IF SAW Filter

TST Part No.: TB0251A

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

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

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

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2014/12/31

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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## 248.45 MHz PHS IF SAW Filter (SMD 3.5×3.5 mm)

MODEL NO.: TB0251A

REV. NO.:6.0

### A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. Operating Temperature: -30 °C to +85 °C
3. Storage Temperature: -40 °C to +85 °C

RoHS Compliant  
Lead free  
Lead-free soldering

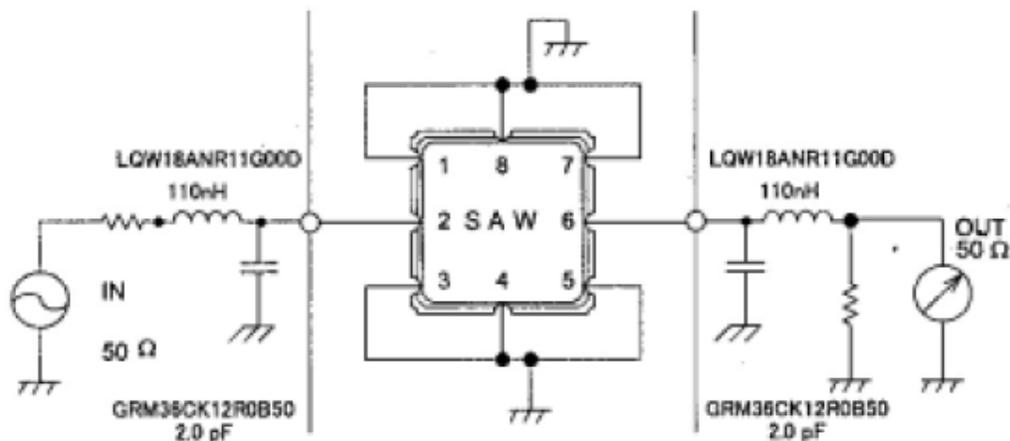
Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

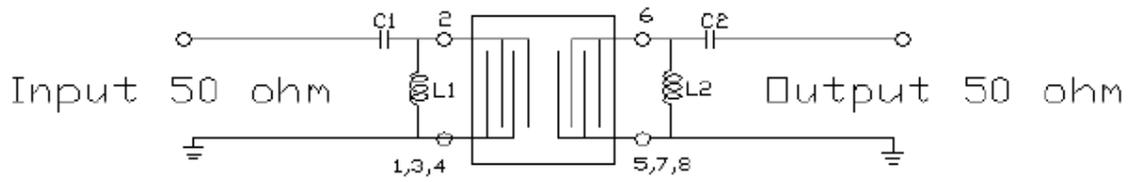
Parameters	Unit	Min.	Typical	Max.
Nominal Center Frequency, Fo	MHz	-	248.45	-
Insertion Loss at Fo	dB	-	4.0	4.5
3 dB Bandwidth	MHz	-	0.56	-
Amplitude Ripple, Fo±100KHz	dB	-	0.55	1.0
Group delay ripple, Fo±100KHz	µsec	-	0.55	1.0
Attenuation:				
Fo±600KHz	dB	25	27	-
Fo±10.7MHz	dB	40	60	-
Fo±21.4MHz	dB	60	65	-

### C. MEASUREMENT CIRCUIT:

Matching circuit (1)



## Matching circuit (2)



$$L1=75\text{nH} \quad C1=3.3\text{pF} \quad L2=68\text{nH} \quad C2=5\text{pF}$$

## D. FREQUENCY CHARACTERISTICS:

### 1. S21 Response

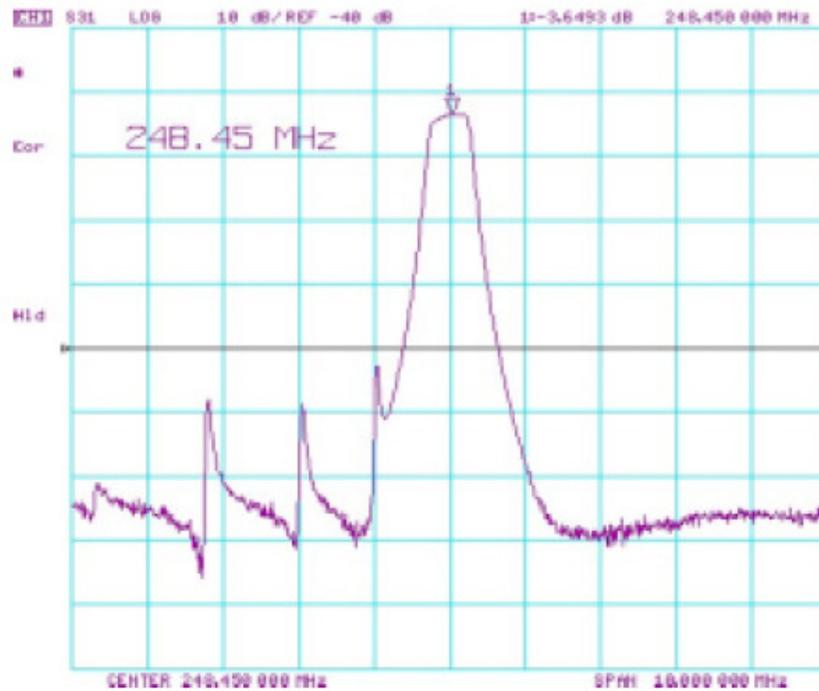


Fig1. Horizontal: 1MHz/Div Vertical: 10dB/Div

2. S21 Response (Passband group delay and Passband ripple)

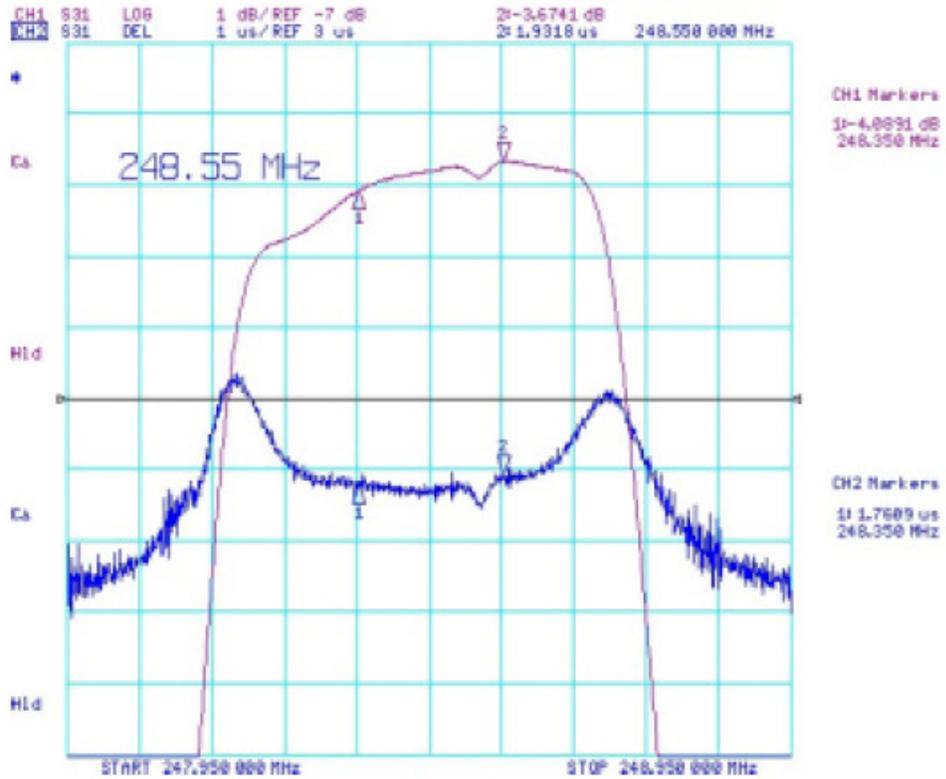
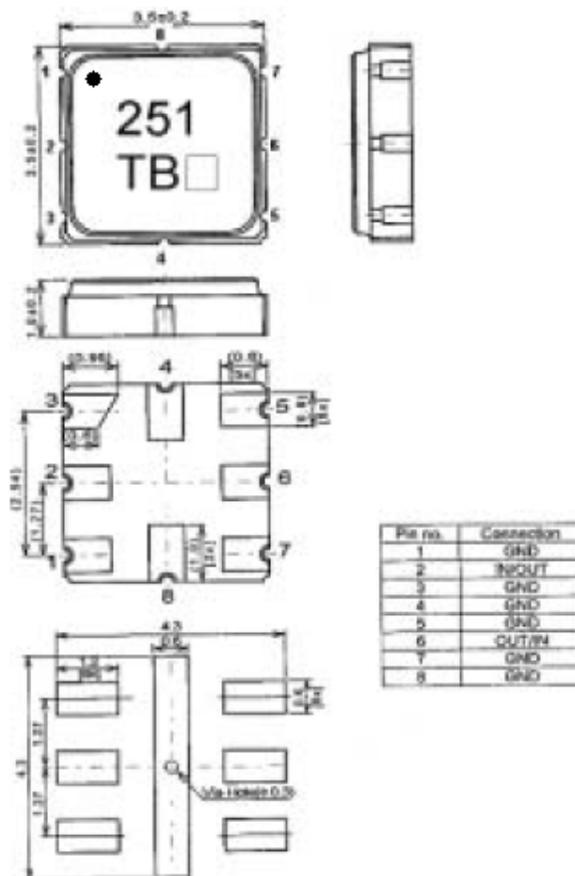


Fig2. Horizontal: 0.1MHz/Div Vertical: 1dB/Div 1μS/div

**E. OUTLINE DRAWING:**

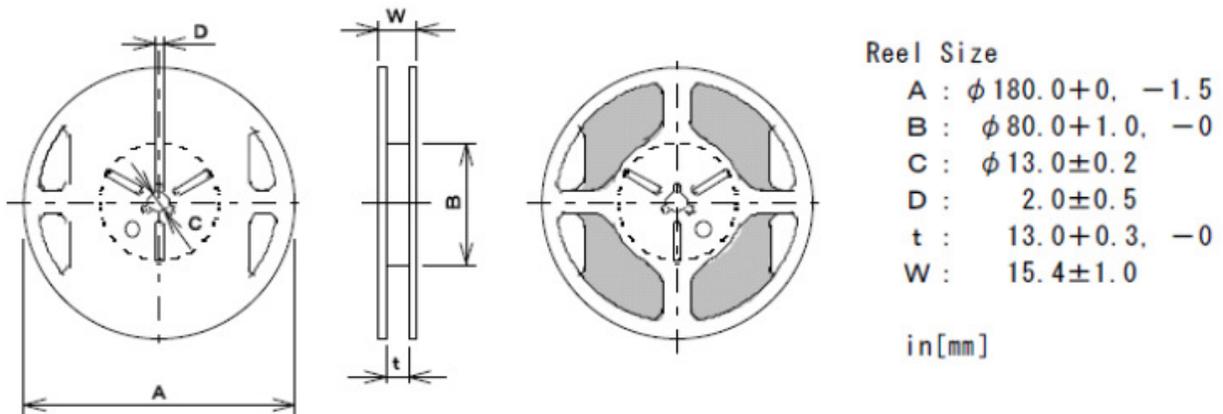


: Week Code

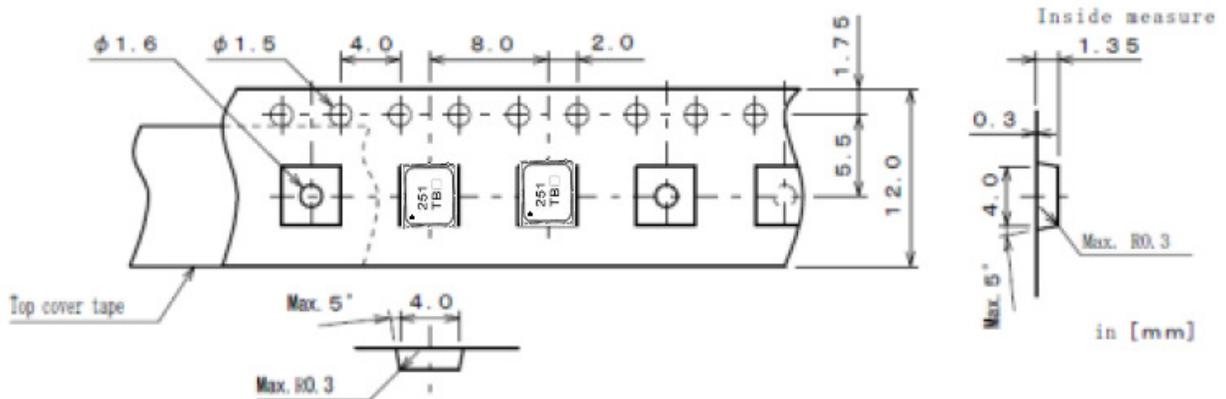
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

## F. PACKING:

### 1. REEL DIMENSION



### 2. TAPE DIMENSION



Direction of Feed

TST DCC  
Release document

**G. RECOMMENDED REFLOW PROFILE :**

