



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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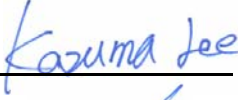
## Product Specifications Approval Sheet


Product Description: 270 MHz 112MHz BW SMD 5.0 x 5.0 mm SAW IF Filter

TST Parts No.: TB1171A

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

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

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

Approval by: \_\_\_\_\_ Bob Chau 

Date: \_\_\_\_\_ 11 / 05 / 2014

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 270MHz 112MHz BW (SMD 5.0x5.0 mm)

MODEL NO.: TB1171A

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

Electrostatic Sensitive Device

## B. Characteristics :

Ambient Temperature: 25C°

Item	Unit	Min.	Type.	Max.
Center frequency, <b>Fc</b>	MHz	-	270	-
Insertion Loss, <b>IL</b>	dB	-	20.0	23.0
Lower -1.2dB frequency	MHz	216	210.3	-
Upper -1.2dB frequency	MHz	-	327.3	324
Lower -3dB frequency	MHz	213	208.7	-
Upper -3dB frequency	MHz	-	329.5	327
Upper -35dB frequency	MHz	-	201.6	180
Lower -35dB frequency	MHz	360	338.6	-
Passband Ripple Fc+/- 54MHz	dB	-	0.5	1.2
Absolute group Delay	us	-	0.30	1.0
Group Delay variation Fc+/- 54MHz	ns	-	15	100
Attenuation (Reference level from minimum Insertion loss )				
10MHz~100MHz	dB	35	44	-
100MHz~170MHz	dB	35	42	-
370MHz~440MHz	dB	35	39	-
440MHz~800MHz	dB	30	39	-
Temperature Coefficient	ppm/°C	-	-72	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

### C. Frequency Characteristics :

#### (1) Narrow band Response:

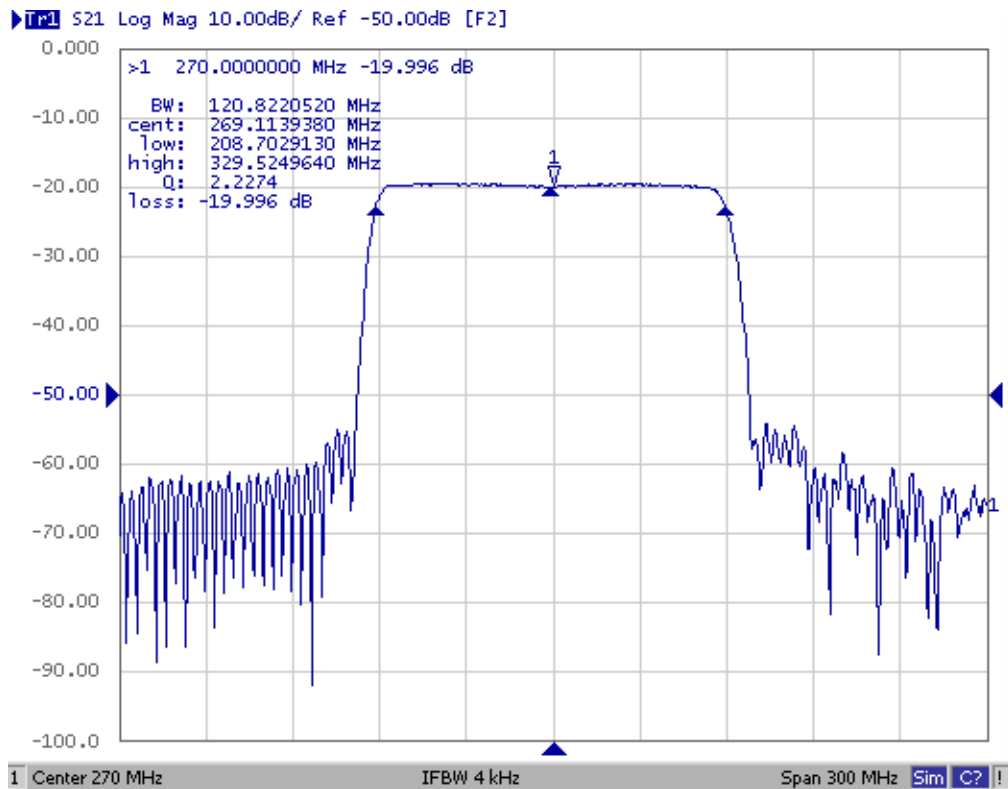


Fig1. Horizontal: 30MHz/Div Vertical: 10dB/Div

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

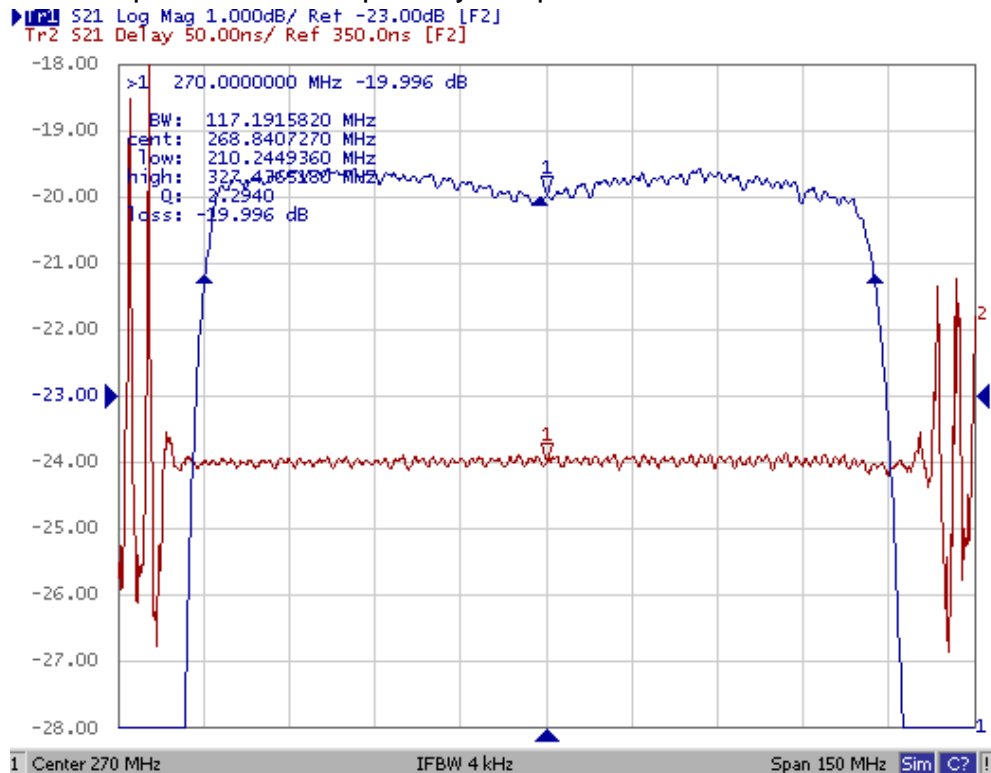
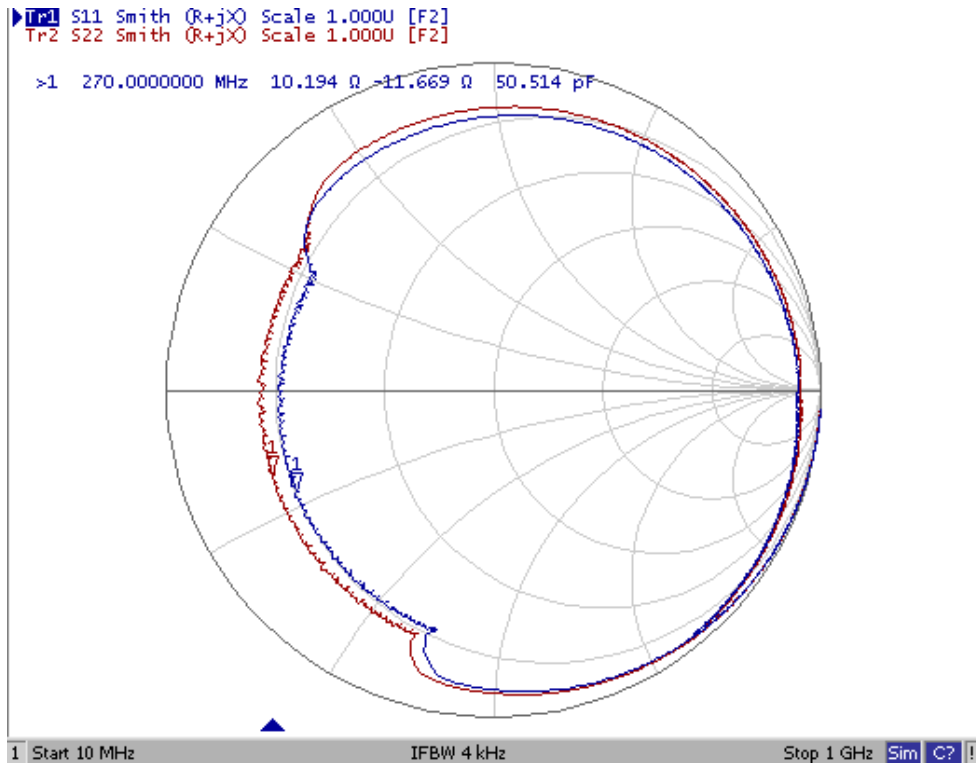


Fig2. Horizontal: 15MHz/Div Vertical: 1dB/Div  
Vertical: 100ns/Div

(3) Smith Chart:



(4) Wide band Response:

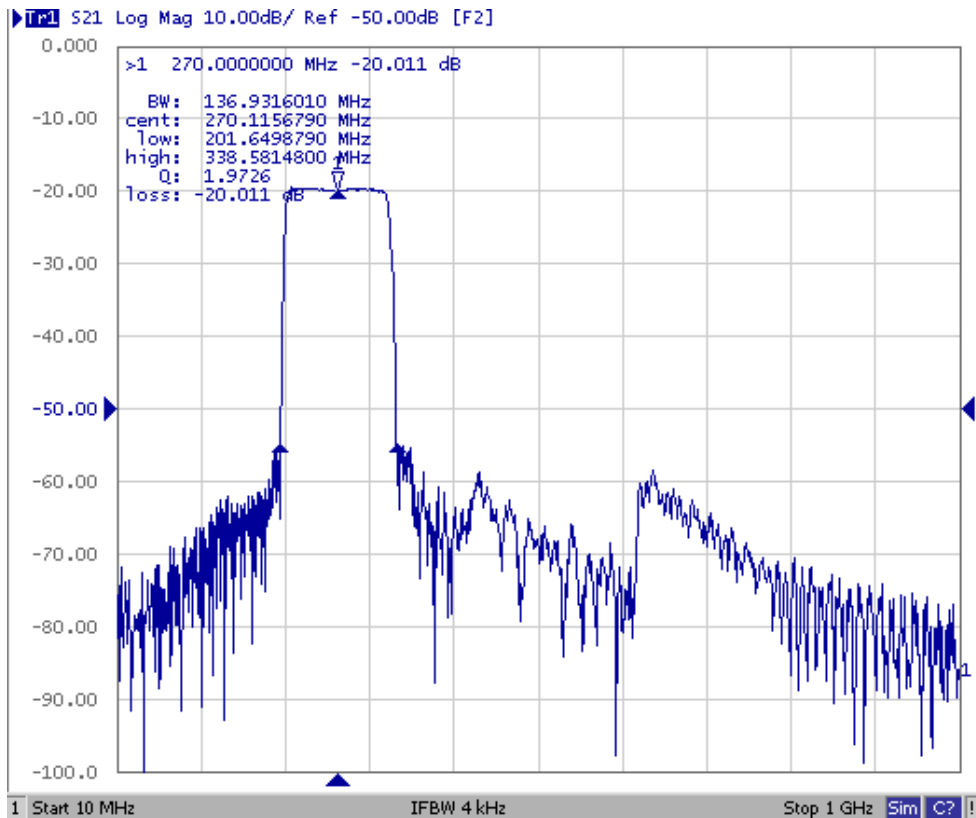
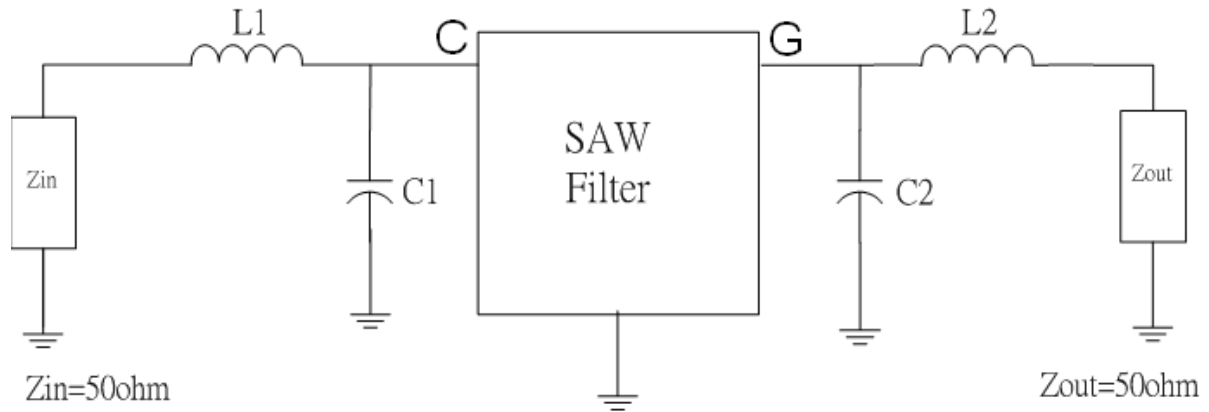


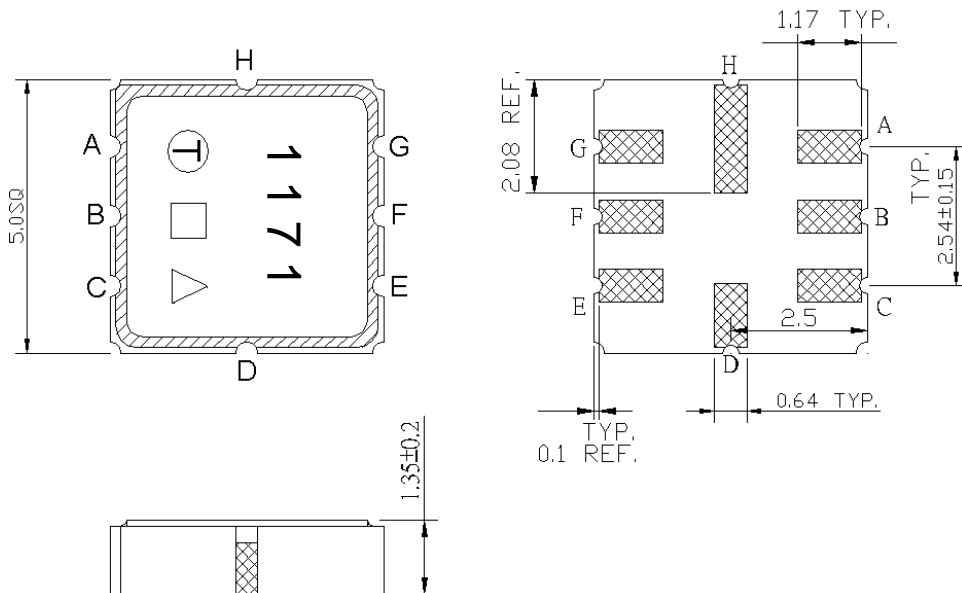
Fig4. Horizontal: 100MHz/Div Vertical: 10dB/Div

**D. Matching Circuit:**



**L1=33nH L2=33nH C1=0.5pF C2=1.5pF**

**E. Outline Drawing:**



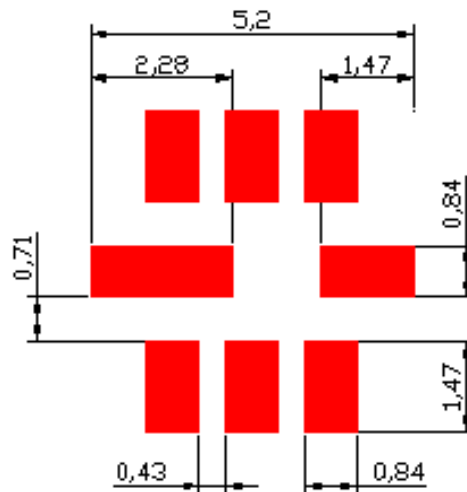
- #C –Input
- #B –Input ground
- #G – Output
- #F – Output ground
- #A,D,E,H – Ground
- : Week Code
- Unit : mm
- △ : Product / Year Code

Year	2013 2017	2014 2018	2015 2019	2016 2020
Product Code	B	b	<u>B</u>	<u>b</u>

## Week Code Table

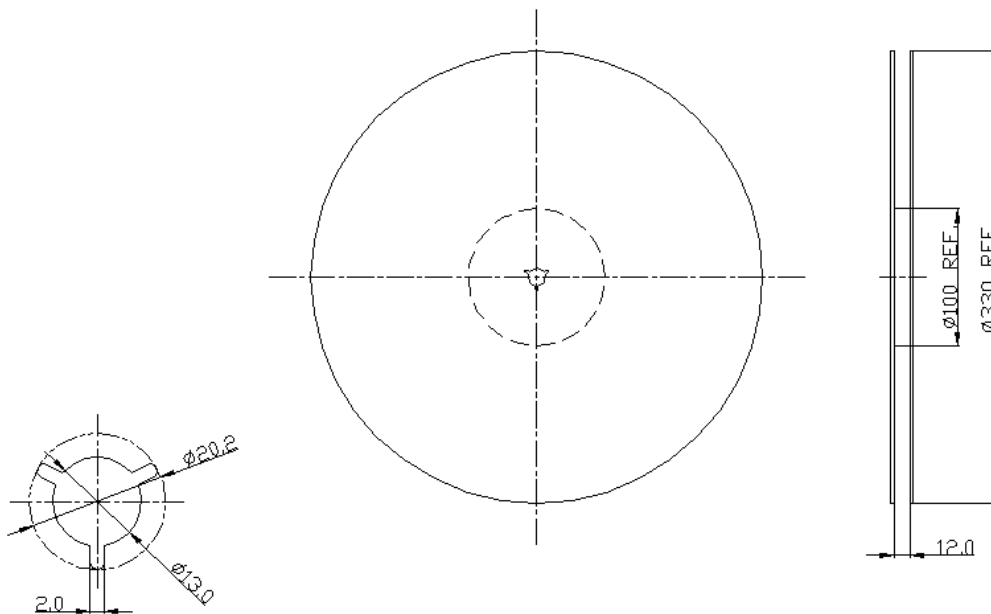
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

## F. PCB Footprint:

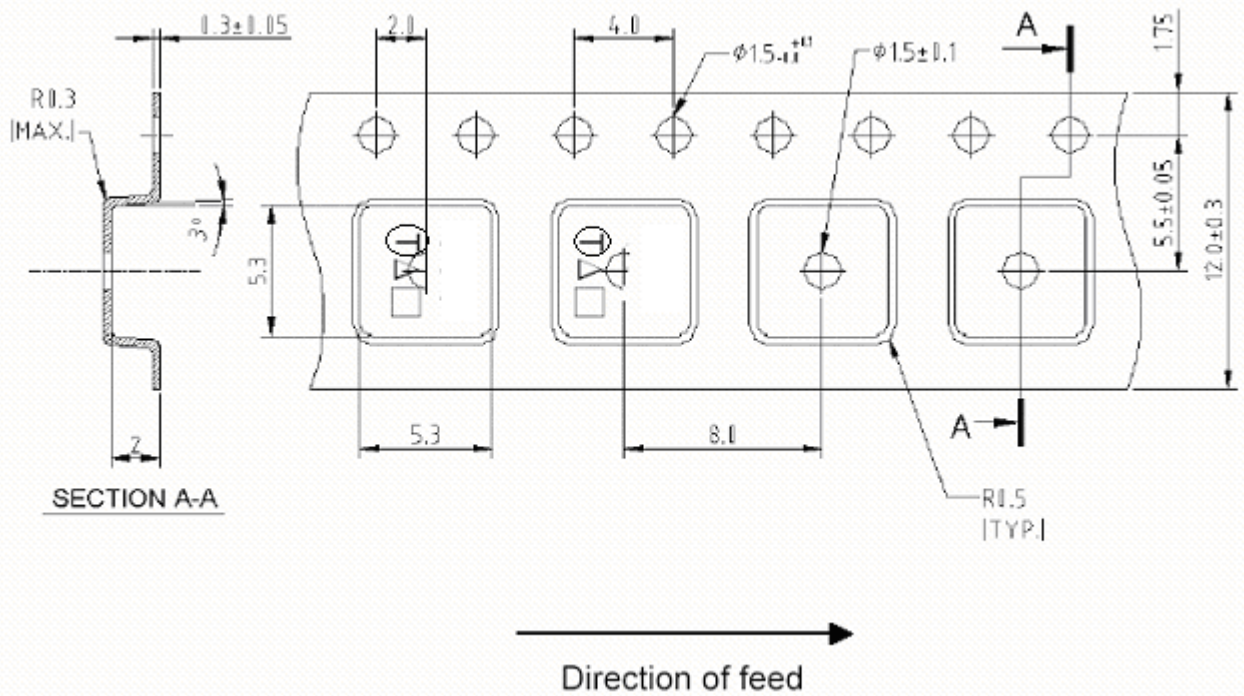


## G. PACKING:

1. REEL DIMENSION: (Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION:



H. RECOMMENDED REFLOW PROFILE:

