



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: 307.2 MHz 41MHz BW SMD 9.1 x 7.1 mm SAW IF Filter

TST Parts No.: TB1180A

Customer Parts No.: _____

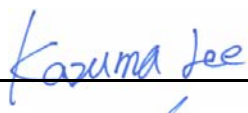
Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee 

Approval by: _____ Bob Chau 

Date: _____ 05 / 25 / 2015

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 307.2MHz 41MHz BW (SMD 9.1×7.1 mm)

MODEL NO.: TB1180A

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:

1. Ambient Temperature: 25 °

Item	Unit	Min.	Type.	Max.
Center frequency, Fc	MHz	-	307.2	-
Insertion Loss, IL	dB	-	10.0	13.0
1.2dB Band Width	MHz	41.0	46.5	-
3dB Band Width	MHz	43.0	48.7	-
Amplitude Ripple Fc+/-20.5MHz	dB	-	0.3	1.0
Group Delay Ripple Fc+/-20.5MHz	ns	-	12	100
Absolute Group Delay at Fc	us	-	0.39	1.00
Attenuation (Reference level from minimum Insertion loss)				
100MHz ~ 210MHz	dB	40	60	-
210MHz ~ 274MHz	dB	38	45	-
340MHz ~ 400MHz	dB	38	40	-
400MHz ~ 600MHz	dB	40	50	-
600MHz ~ 1000MHz	dB	40	60	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. FREQUENCY CHARACTERISTICS:

(1) Wide Band Response:(span 200MHz)

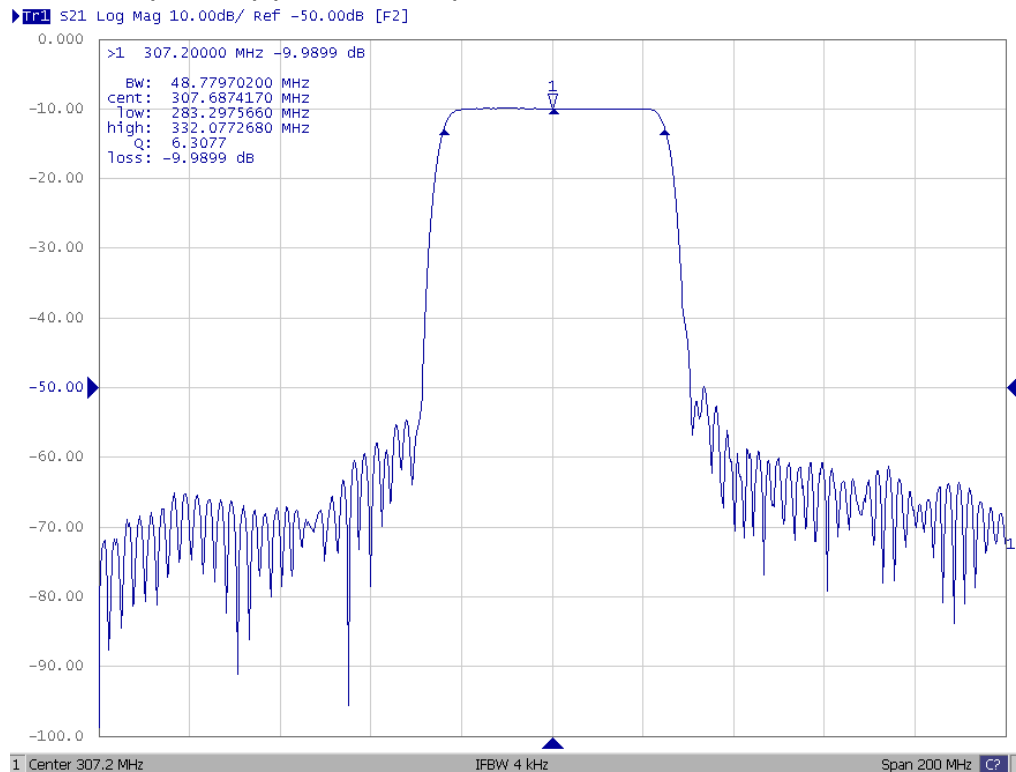


Fig1. Horizontal: 20MHz/Div Vertical: 10dB/Div

(2) Pass Band Response and Group Time Delay Response:

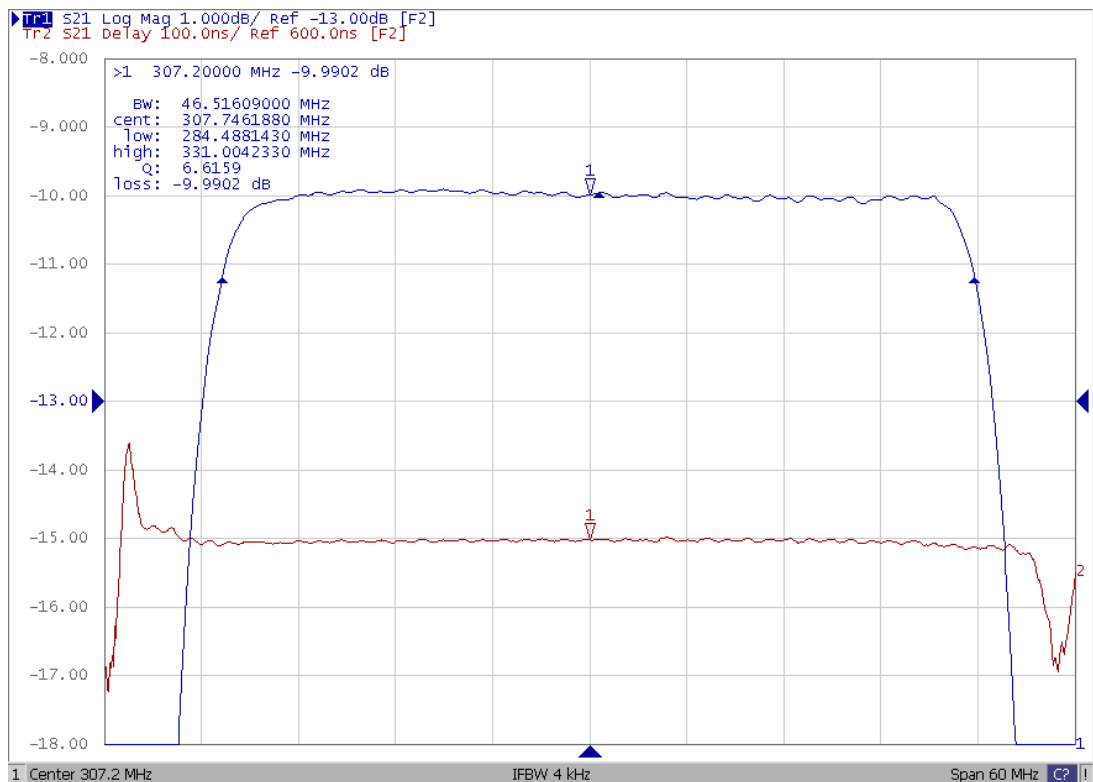


Fig2. Horizontal: 6MHz/Div Vertical: 1dB/Div
Vertical: 100ns/Div

(3) Wide Band Response:

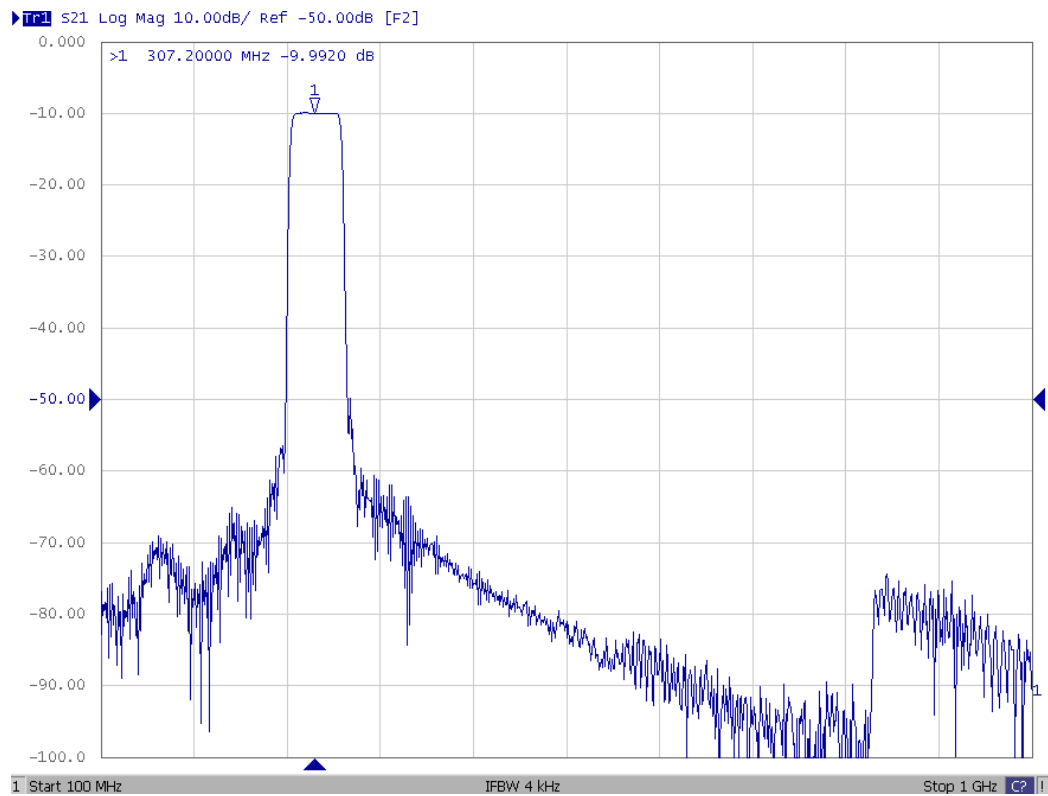
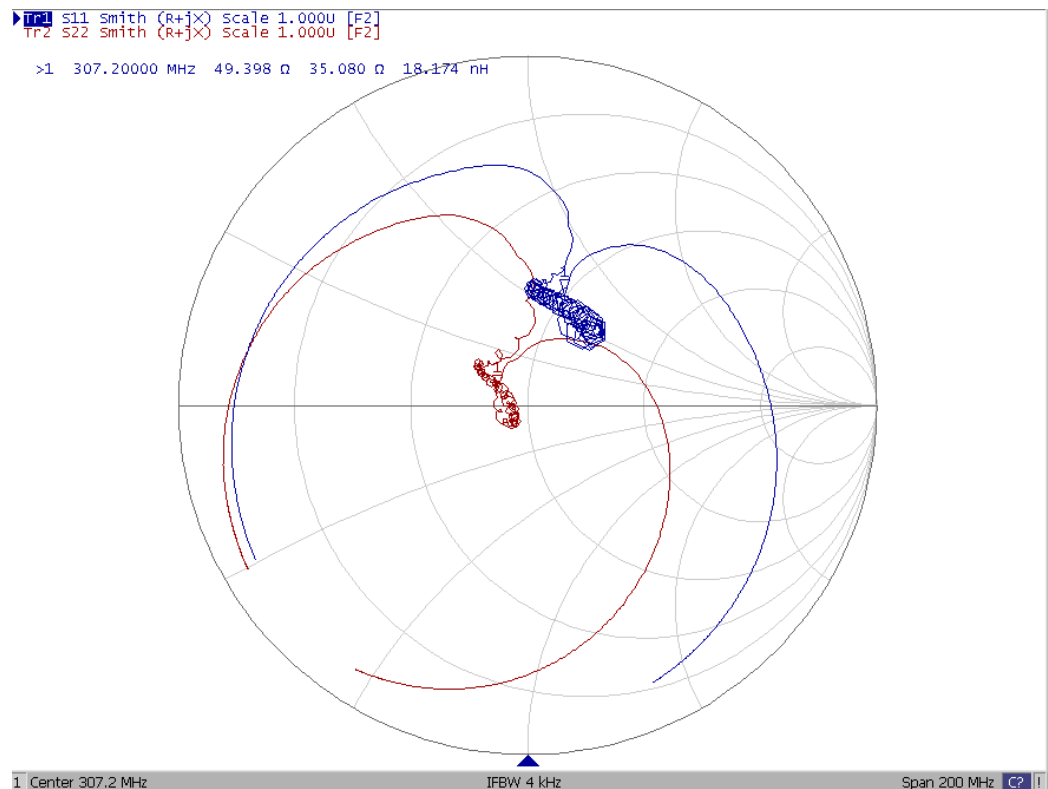
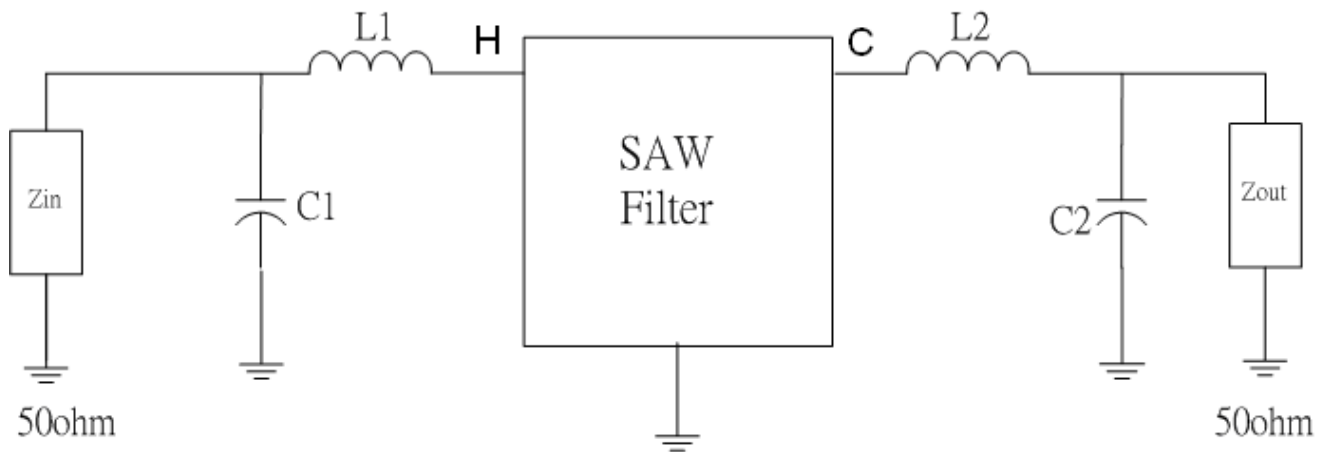


Fig3. Horizontal: 90MHz/Div Vertical: 10dB/Div

(4) Smith Chart:

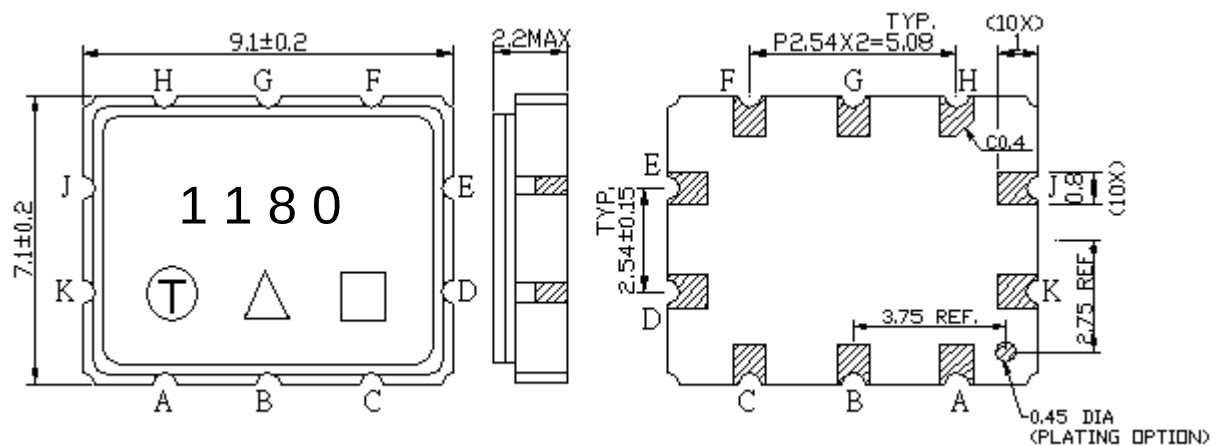


D. MATCHING CIRCUIT:



$$L1=33\text{nH} \quad L2=33\text{nH} \quad C1=8.2\text{pF} \quad C2=15\text{pF}$$

E. OUTLINE DRAWING:



Pin H: RF Input

Pin C: RF Output

Pin A, B, D, E, F, G, J, K : To be ground

Unit : mm

□ : Week Code

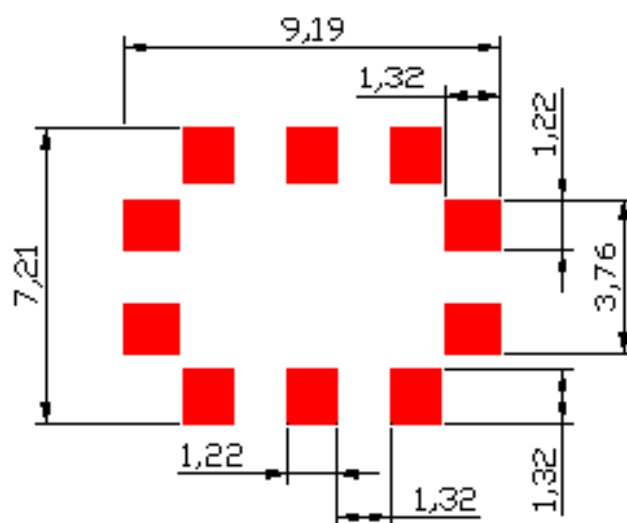
△ : Product / Year Code

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

Week Code Table

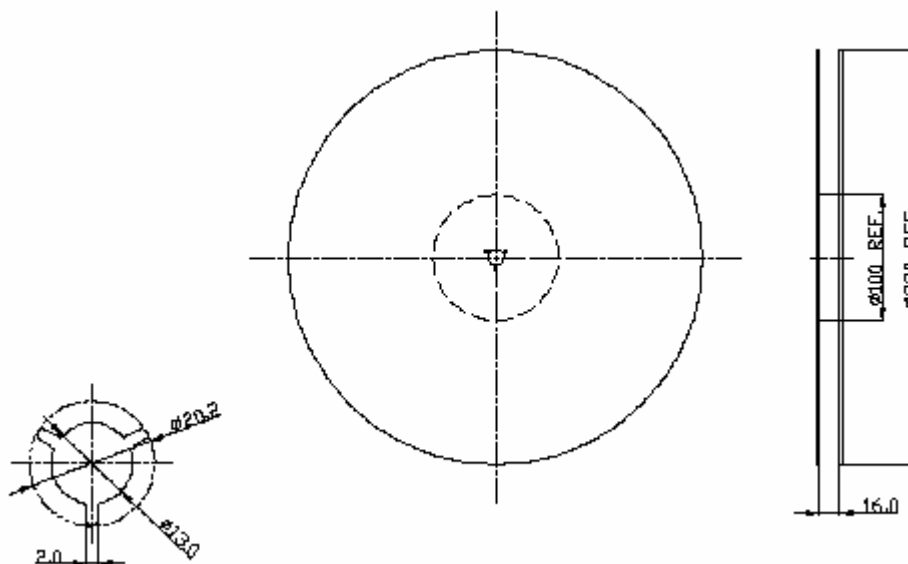
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

F. PCB FOOTPRINT:

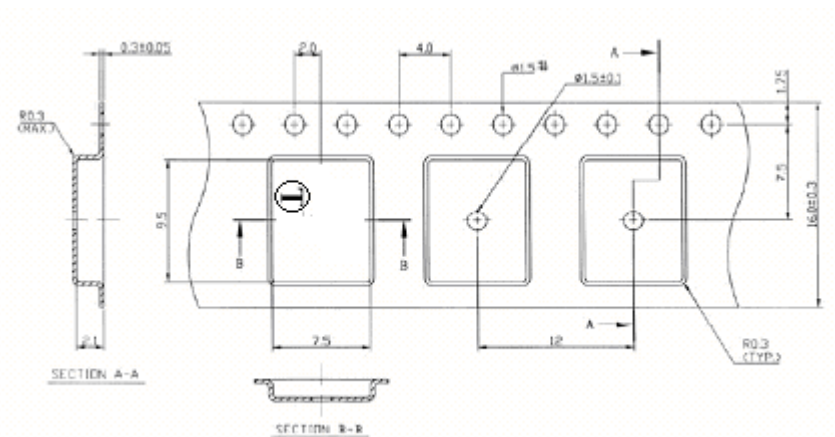


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H. 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 245~260°C peak (min. 10sec).
4. Time : 2 times.

