



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

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product description: 192 MHz 60MHz BW SMD 7.0 x 5.0 mm SAW IF Filter

TST Parts No.: TB1131A

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee 

Approval by: _____ Bob Chau 

Date: _____ 12 / 20 / 2013

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.



TAI-SAW TECHNOLOGY CO., LTD.

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

TEL: 886-3-4690038

FAX: 886-3-4697532

E-mail: tstsales3@mail.taisaw.com Web: www.taisaw.com

SAW Filter 192MHz 60MHz BW (SMD 7.0×5.0 mm)

MODEL NO.: TB1131A

REV. NO.1

A. MAXIMUM RATING:

1. Operating temperature range: -30°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 0V

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. Characteristics :

1. Ambient Temperature: 25°C

Item	Unit	Min.	Type.	Max.
Center frequency, F_c	MHz	-	192	-
Insertion Loss, IL	dB	-	16.5	17.5
1.2dB Bandwidth	MHz	60	64	-
Passband Ripple F_c± 30MHz	dB	-	0.7	1.2
Absolute group Delay	us	-	0.4	-
Group Delay variation F_c± 30MHz	ns	-	40	60
Attenuation (Reference level from minimum Insertion loss)				
10MHz~135.5MHz	dB	40	44	-
135.5MHz~145.5MHz	dB	35	44	-
238.5MHz~248.5MHz	dB	35	42	-
248.5MHz~450MHz	dB	40	42	-
450MHz~770MHz	dB	35	43	-
770MHz~1000MHz	dB	40	60	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. Frequency Characteristics :

(1) Narrow band Response:

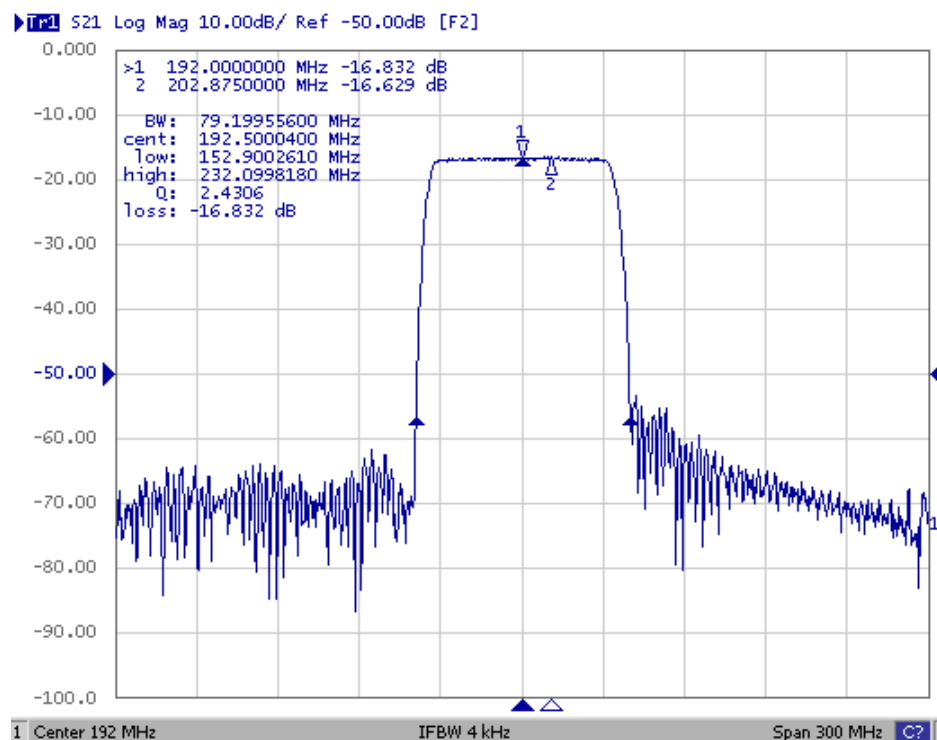


Fig1. Horizontal: 30MHz/Div Vertical: 10dB/Div

(2) Pass band Response and Group Delay Response:

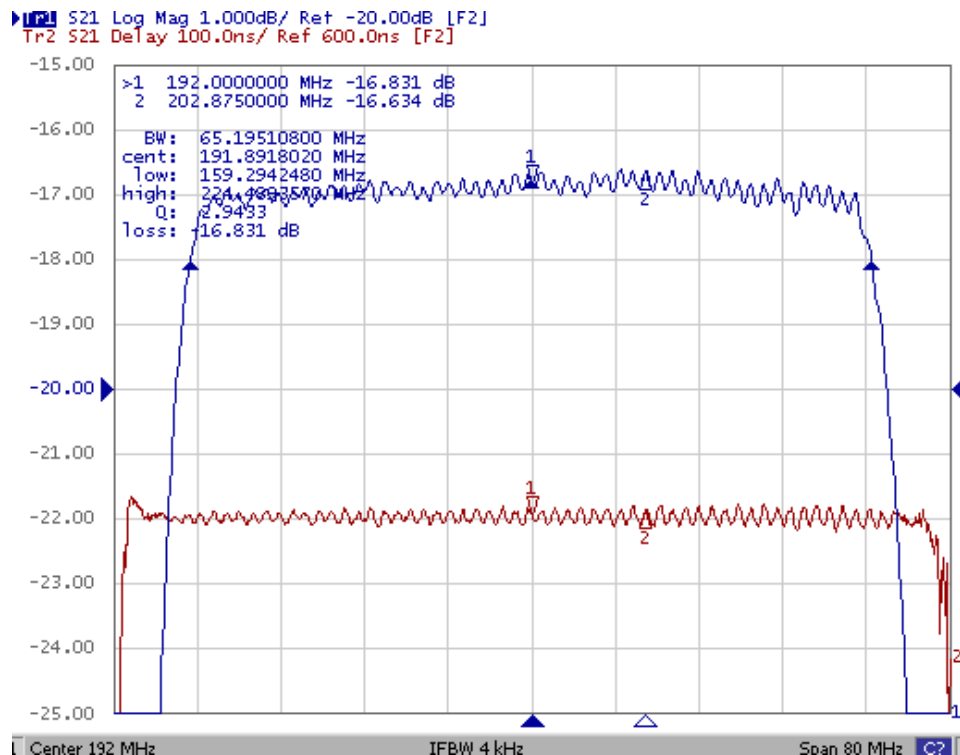
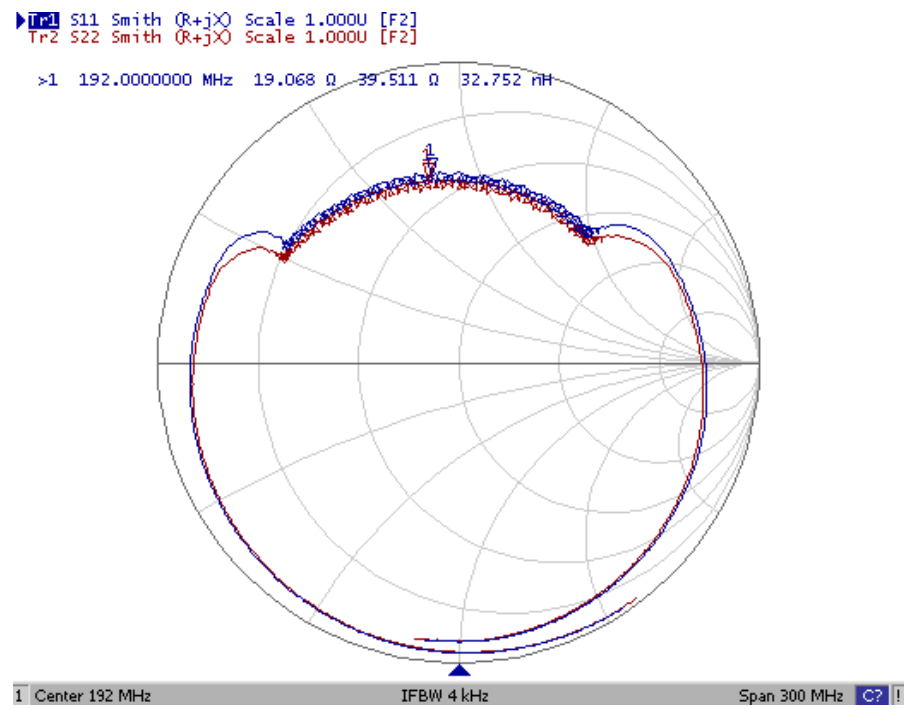


Fig2. Horizontal: 8MHz/Div Vertical: 1dB/Div
Vertical: 100ns/Div

(3) Smith Chart:



(4) Wide band Response:

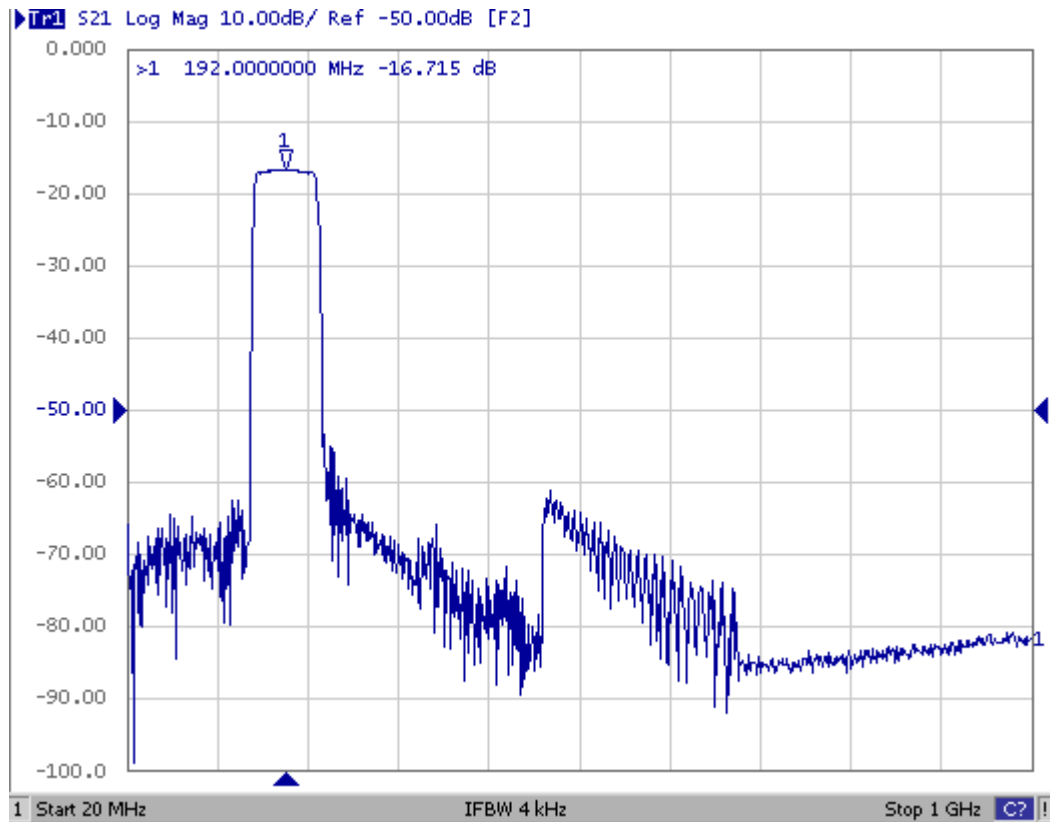
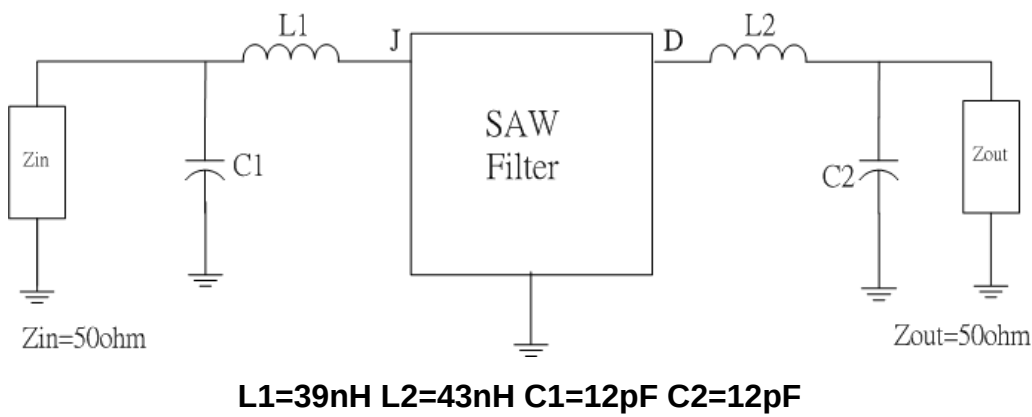
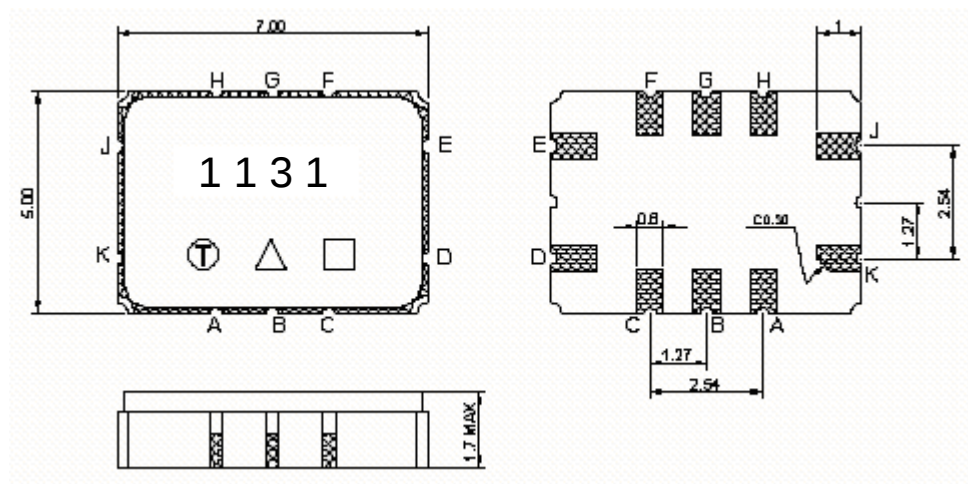


Fig4. Horizontal: 100MHz/Div Vertical: 10dB/Div

D. Matching Circuit:



E. Outline Drawing:



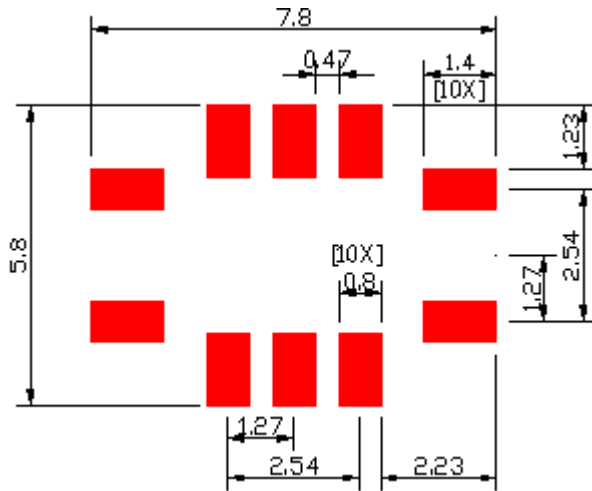
- Pin J –RF input
- Pin K –RF input ground
- Pin D –RF output
- Pin E –RF balance output or to be ground
- Pin A,B,C,F,G,H - Ground
- : Week Code
- Unit : mm
- △ : Product / Year Code

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

Week Code Table

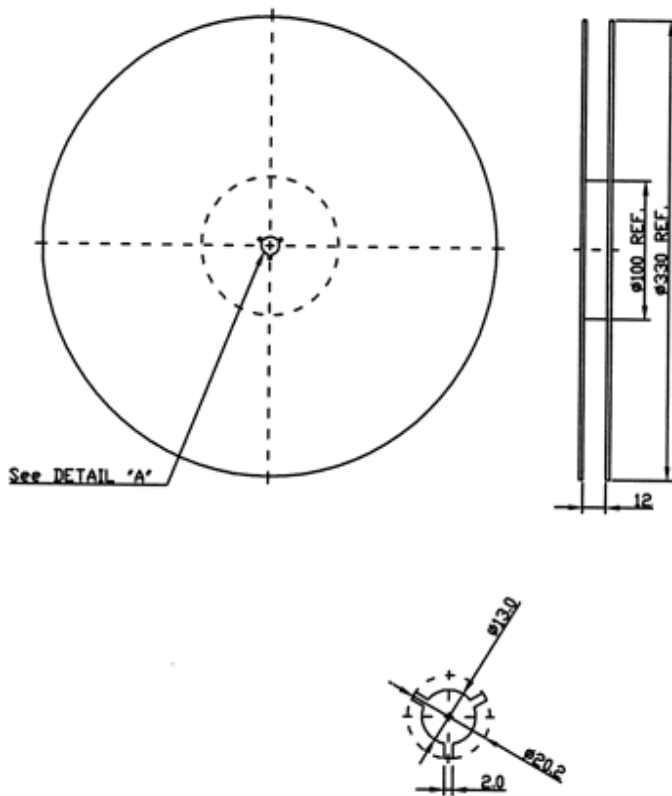
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

F. PCB Footprint:

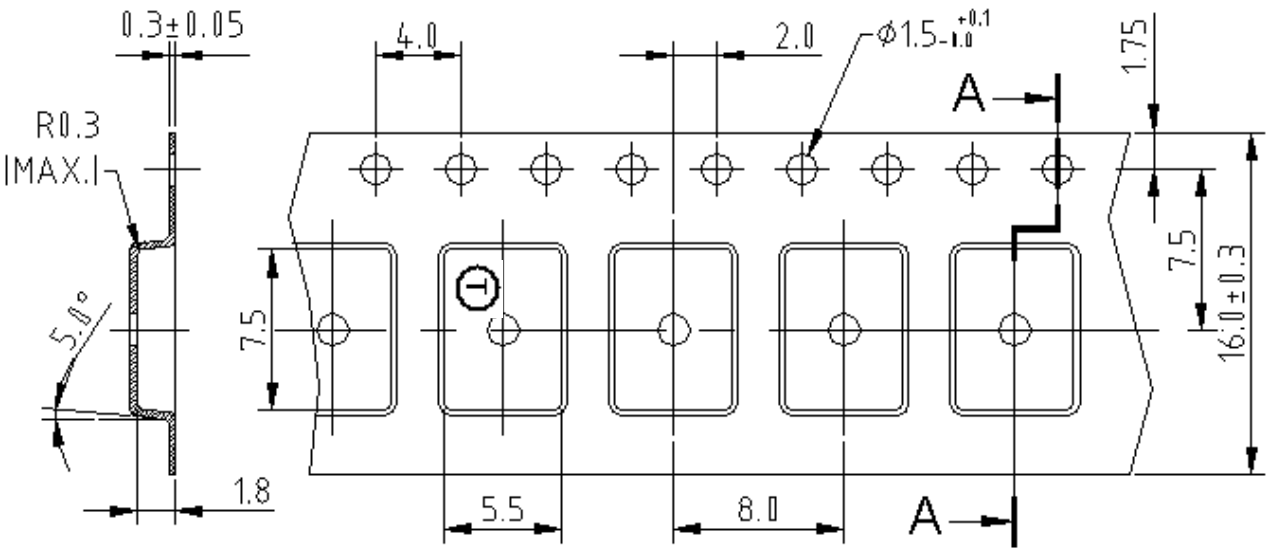


G. PACKING:

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



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE:

