



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: 230.4 MHz 60MHz BW SMD 7.0 x 5.0 mm SAW IF Filter

TST Parts No.: TB1142A

Customer Parts No.: _____

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

Checked by: _____ Kazuma Lee 

Approval by: _____ Bob Chau 

Date: _____ 06 / 30 / 2016

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 230.4MHz 60MHz BW (SMD 7.0×5.0 mm)

MODEL NO.: TB1142A

REV. NO.1

A. MAXIMUM RATING:

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

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. ELECTRICAL CHARACTERISTICS:

1. Ambient Temperature: 25℃

Item	Unit	Min.	Type.	Max.
Center frequency, F_c	MHz	-	230.4	-
Insertion Loss, IL	dB	-	15.5	17.0
1.2dB Bandwidth	MHz	60.0	66.0	-
Passband Ripple F_c±30MHz	dB	-	0.5	1.2
Absolute group Delay	us	-	0.33	-
Group Delay variation F_c±30MHz	ns	-	35	60
Return Loss	dB	-	4	-
Attenuation (Reference level from minimum Insertion loss)				
10MHz~140.4MHz	dB	38	42	-
140.4MHz~184MHz	dB	30	38	-
277MHz~320.4MHz	dB	30	35	-
320.4MHz~489MHz	dB	40	45	-
489MHz~800MHz	dB	35	55	-
800MHz~1000MHz	dB	40	65	-
Temperature Coefficient	ppm/℃	-	-94	-
Source Impedance (Differential)	Ohm	-	200	-
Load Impedance (Differential)	Ohm	-	400	-

C. FREQUENCY CHARACTERISTICS:

(1) Narrow band Response:

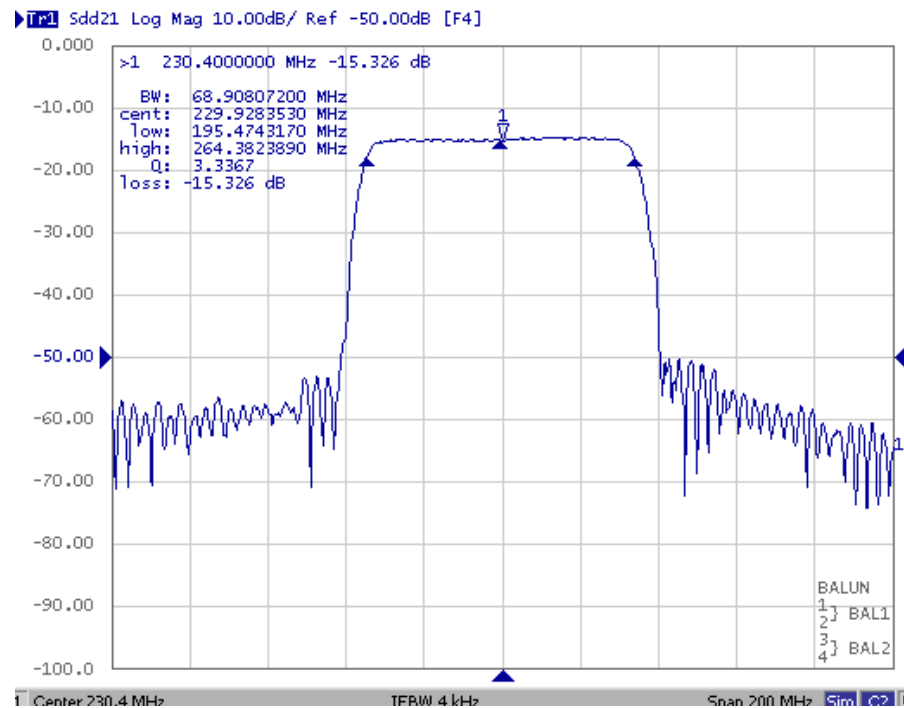


Fig1. Horizontal: 20MHz/Div Vertical: 10dB/Div

(2) Pass band Response and Group Delay Response:

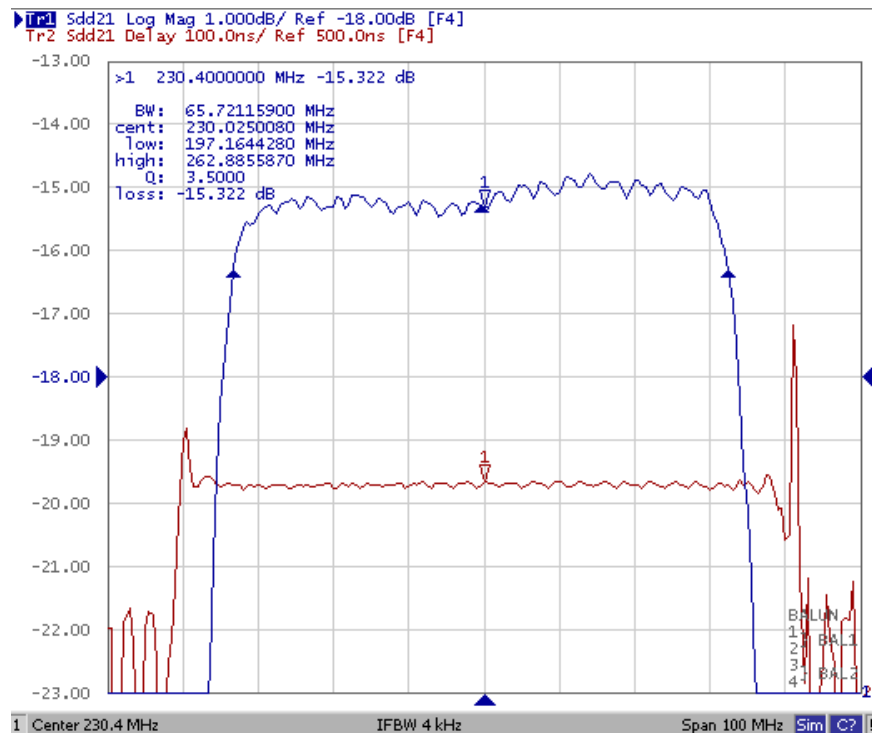


Fig2. Horizontal: 10MHz/Div Vertical: 1dB/Div
 Vertical: 100ns/Div

(3) Wide band Response:

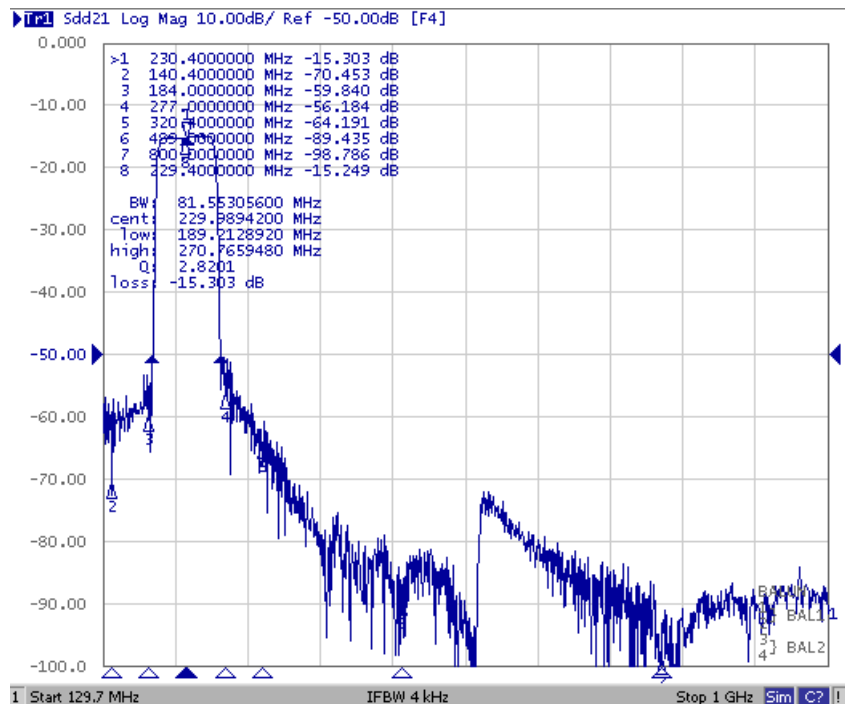
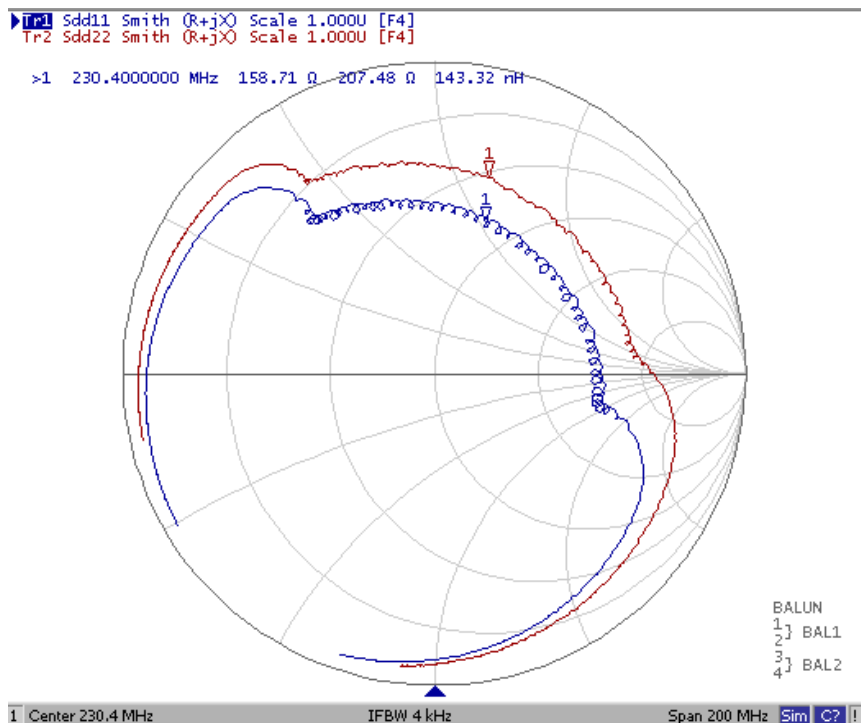


Fig3. Horizontal: 100MHz/Div Vertical: 10dB/Div

(4) Smith Chart:



(5) Return Loss:

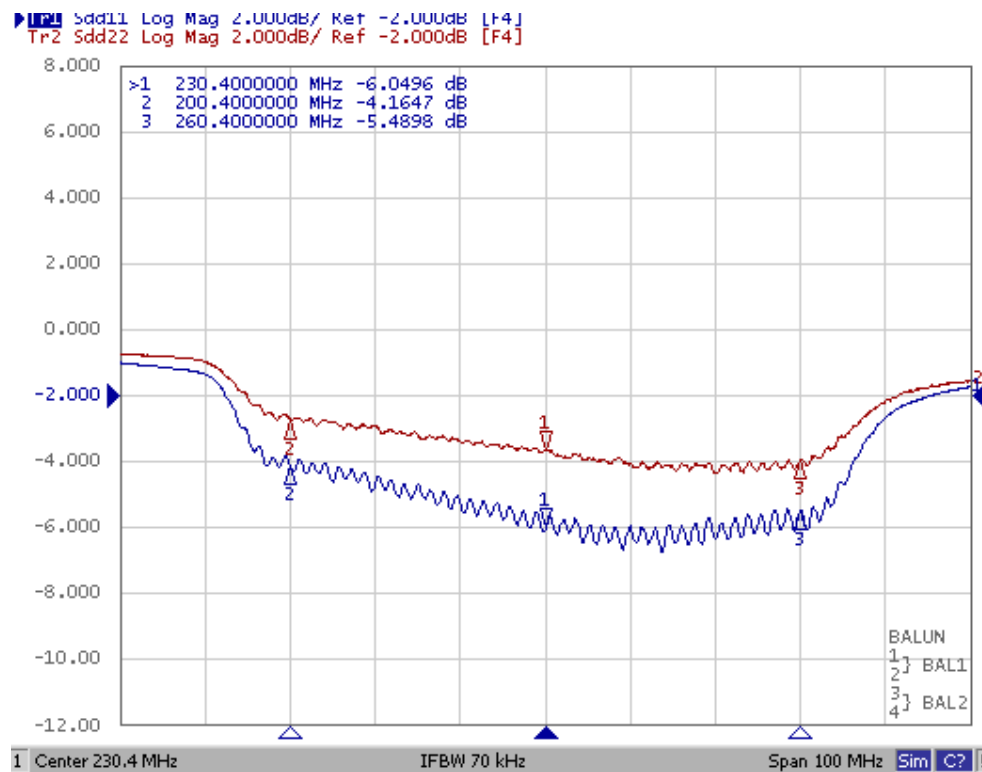
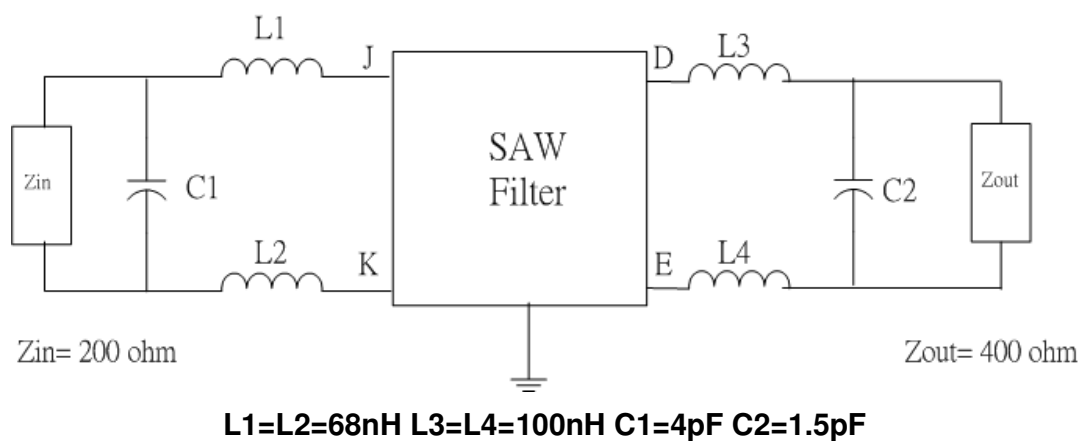
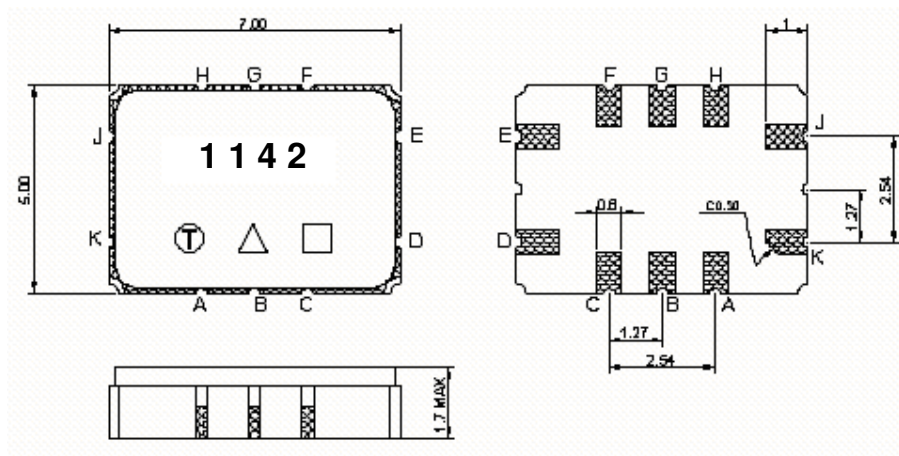


Fig5. Horizontal: 100MHz/Div Vertical: 2dB/Div

D. MATCHING CIRCUIT:



E. OUTLINE DRAWING:



Pin J –RF input

Pin K –RF balance input or to be 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

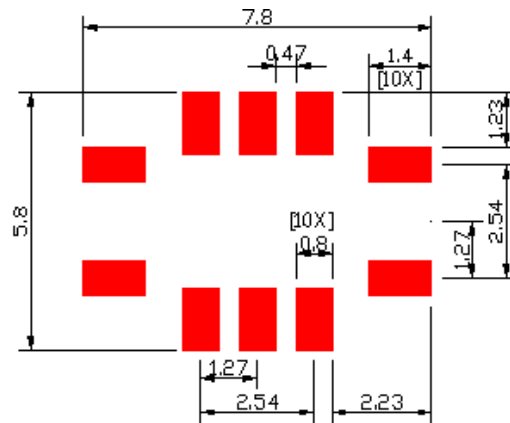
△ : Product / Year Code

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

Week Code Table

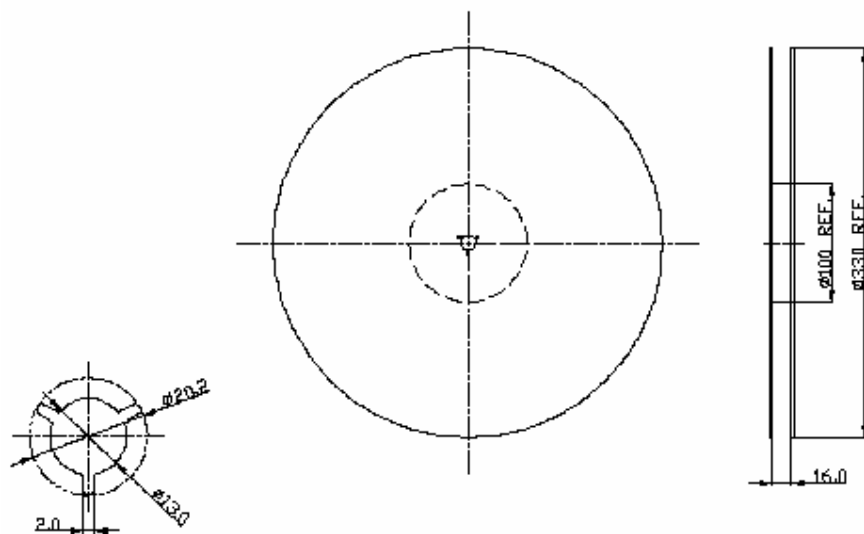
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

F. PCB FOOTPRINT:

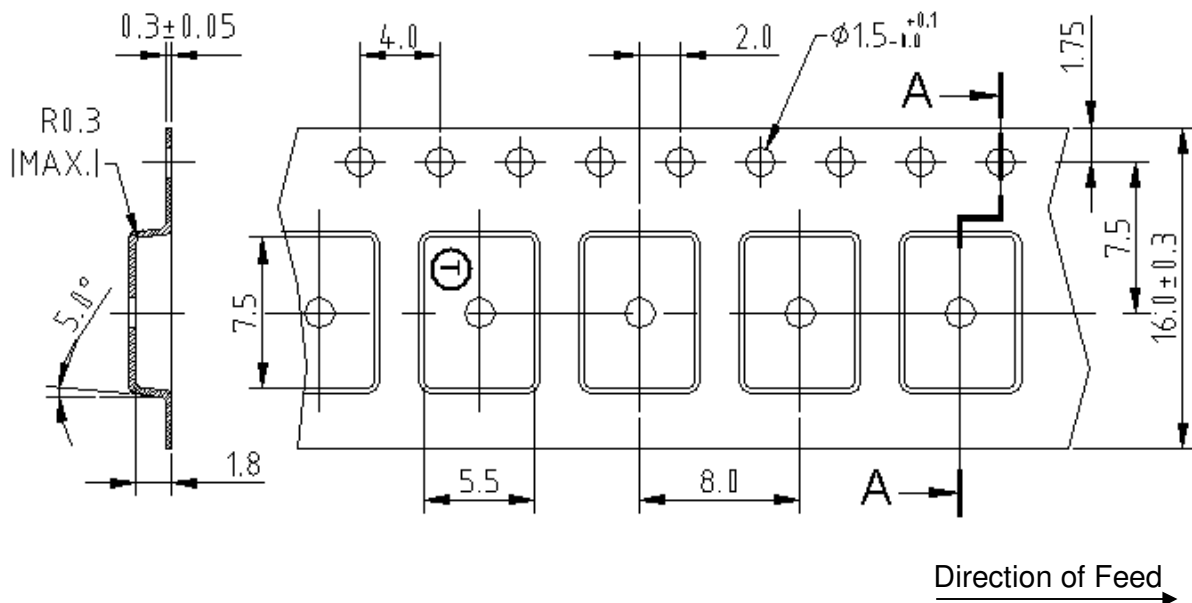


G. PACKING:

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



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at $150 \sim 180^\circ\text{C}$ 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 $260^\circ\text{C} \pm 0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 2 times.

