



# 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

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## Product Specifications Approval Sheet


Product Description: SAW Filter 1649.5 MHz SMD 3.0X3.0 mm (BW=42MHz)

TST Part No.: TA1453B

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

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

Checked by: \_\_\_\_\_ Anne Chen 

Approved by: \_\_\_\_\_ Bob Chau 

Date: \_\_\_\_\_ 06, 24 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 1649.5 MHz

MODEL NO.:TA1453B

REV. NO.:1

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3V
3. Operating Temperature: -40°C to +70°C
4. Storage Temperature: -40°C to +85°C

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

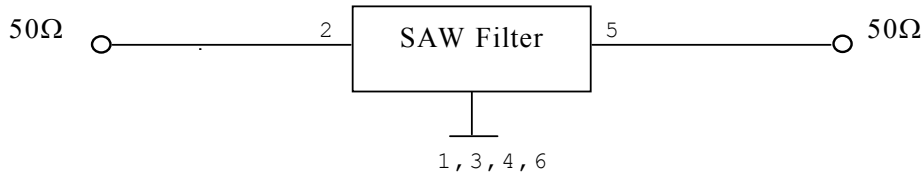
Terminating source impedance (single ended) :  $Z_s = 50 \Omega$

Terminating load impedance (single ended) :  $Z_L = 50 \Omega$

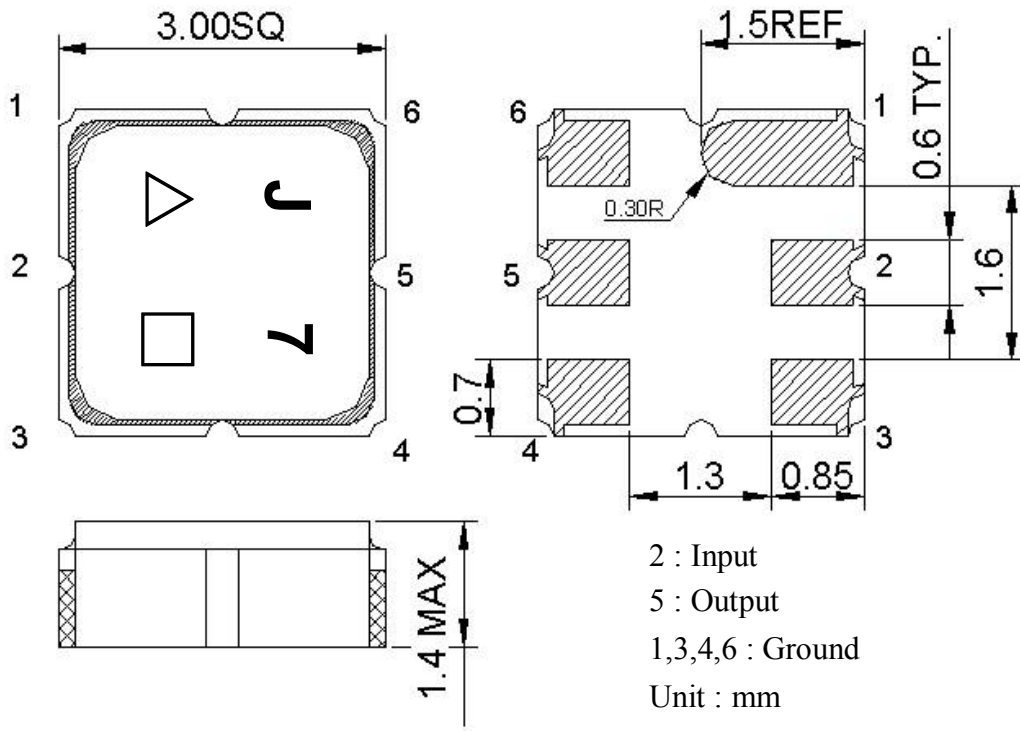
Item	Unit	Min.	Typ.	Max.	Note
<b>Center Frequency</b> $F_c$	MHz	-	1649.5	-	-
<b>Bandwidth</b>	MHz	42	67	-	-
<b>Insertion Loss ( <math>F_c \pm 21</math> MHz )</b>	dB	-	4	5	
<b>Amplitude Ripple ( <math>F_c \pm 21</math> MHz )</b>	dB	-	1.2	2	-
<b>VSWR ( <math>F_c \pm 21</math> MHz )</b>		-	1.7	2.5	-
<b>Attenuation</b> (reference level from 0 dB)					
DC ~ 1576.5 MHz	dB	40	49	-	-
1593 MHz	dB	35	54	-	-
1593 ~ 1605 MHz	dB	25	41	-	-
1751 MHz	dB	25	44	-	-
2400 ~ 2500 MHz	dB	40	44.5	-	-
<b>Temperature Coefficient of Frequency</b>	ppm/°C	-	-36	-	-

### C. MEASUREMENT CIRCUIT:

HP Network analyzer



**D.OUTLINE DRAWING:**



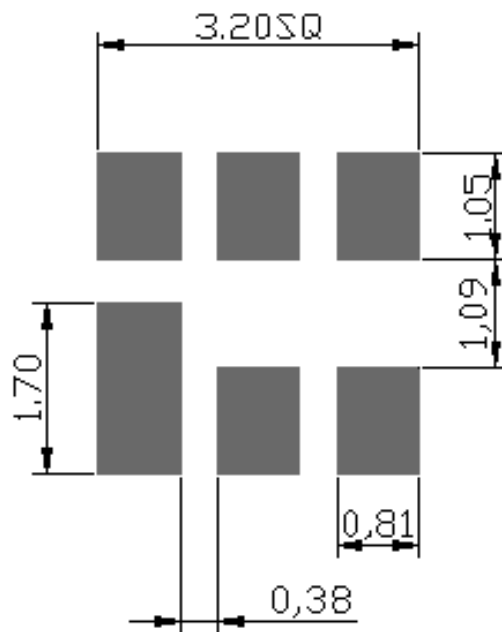
△ : Year Code (2015>5,2020>0..., 2028>8)

□ : Date Code (Follow the table from planner each year)

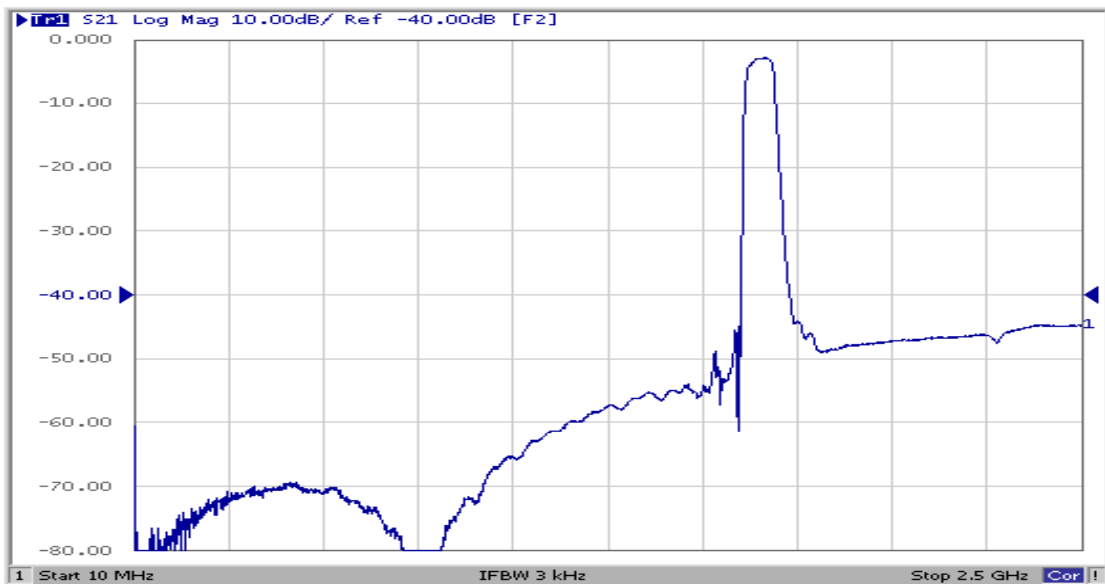
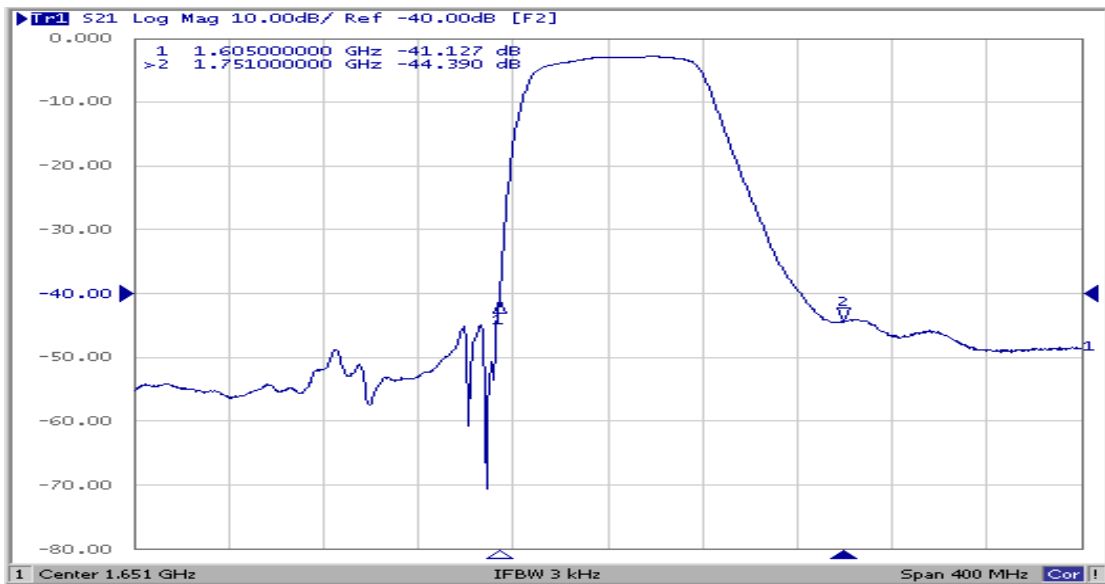
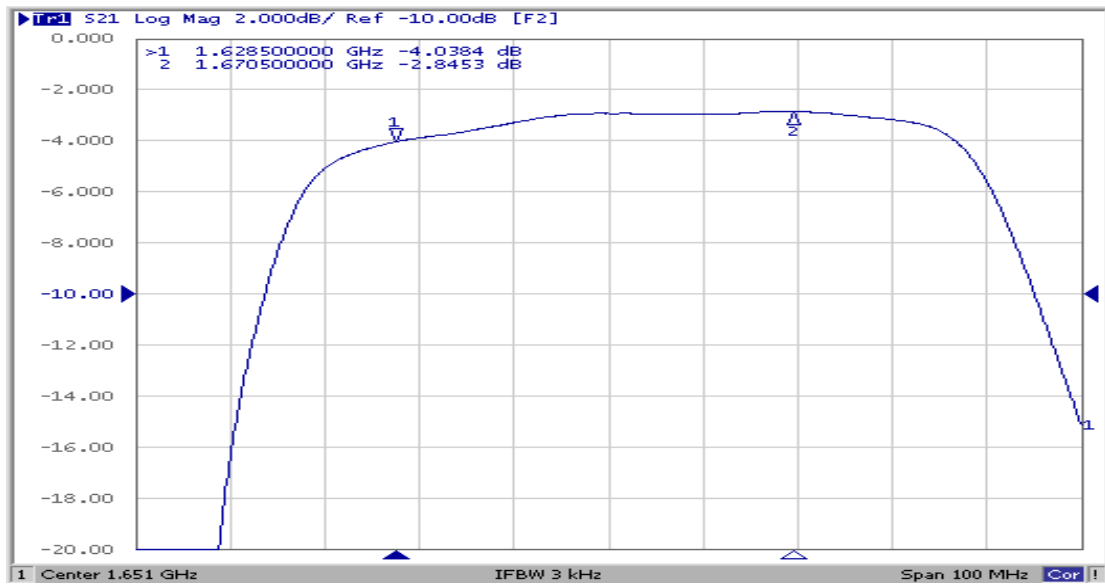
Date Code Table

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

**E. PCB Footprint:**

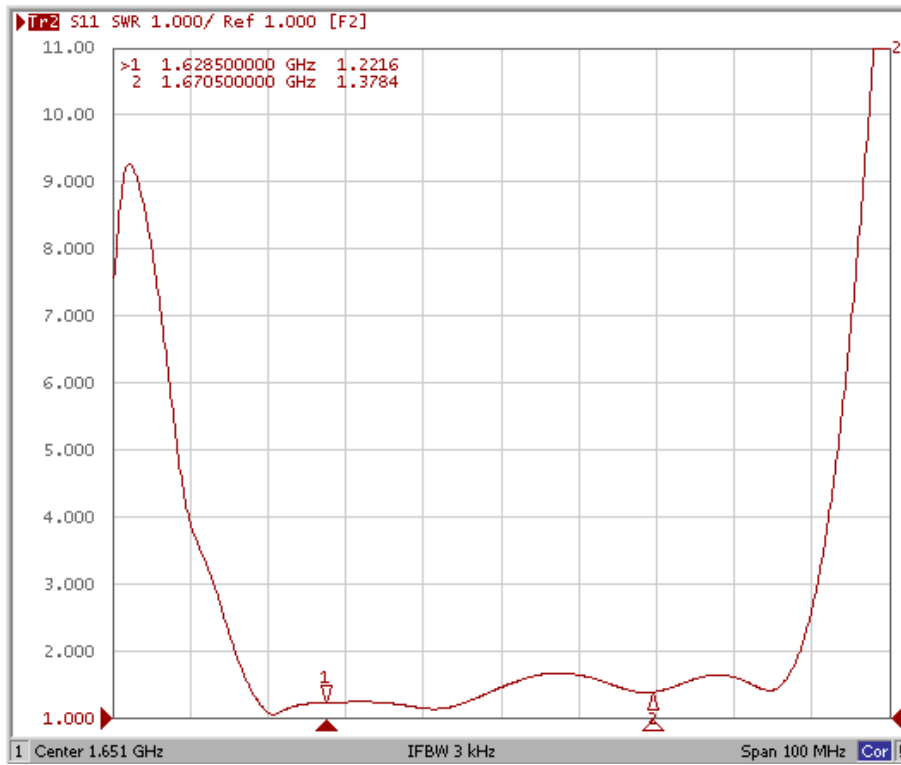


## F. Frequency Characteristics :

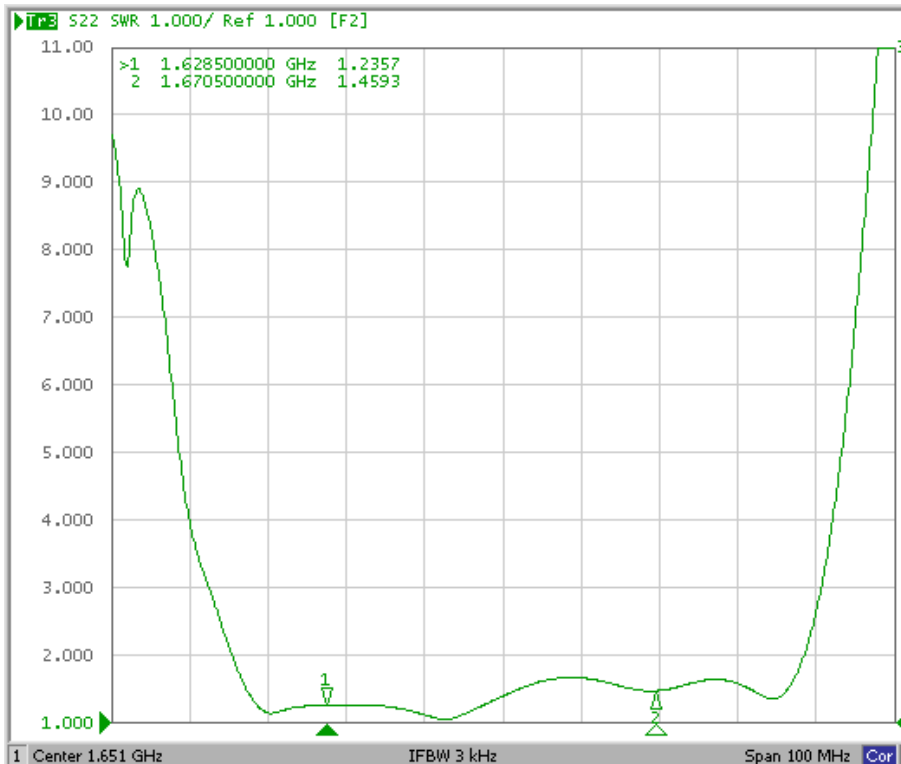


# Reflection Functions :

## S11



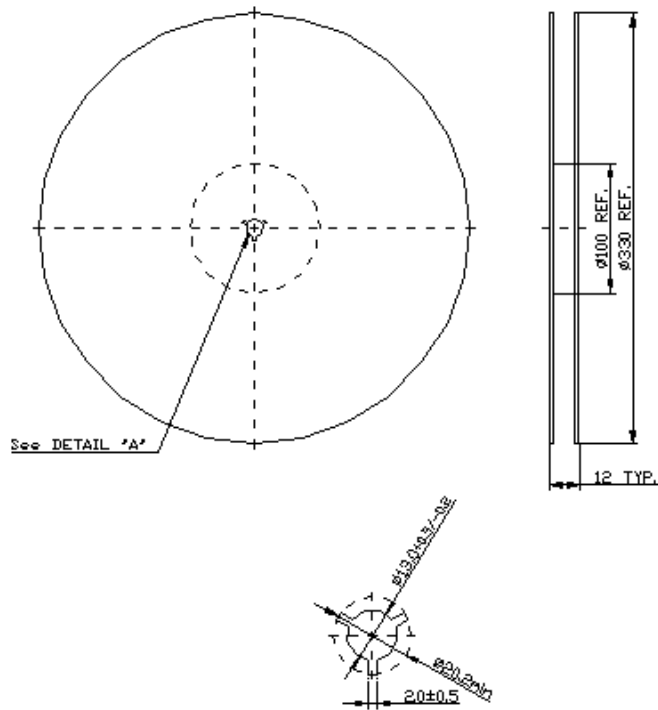
## S22



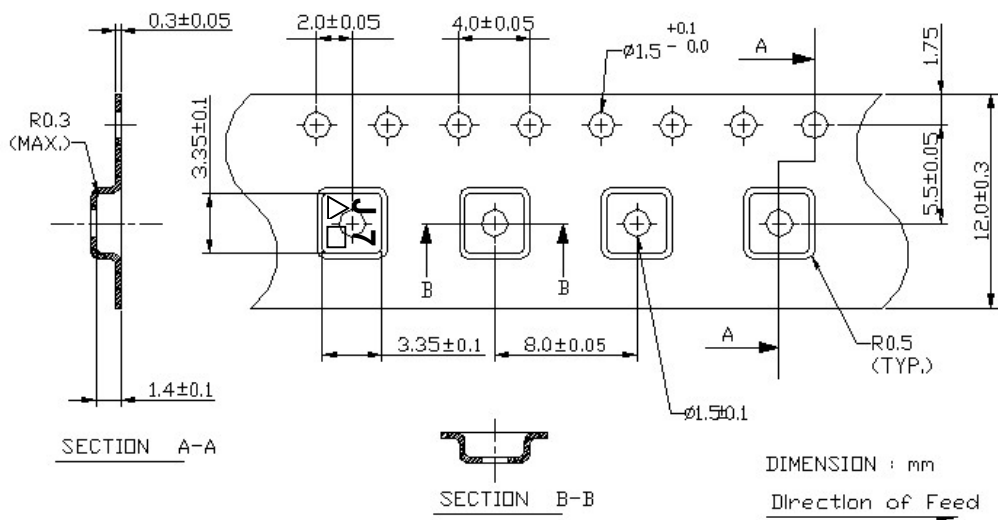
**G. PACKING:**

**1. REEL DIMENSION**

(Please refer to FR-75D10 for packing quantity )



**2. TAPE DIMENSION**



### H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180°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 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

