



# 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 Name: TCSAW Filter 2332.5 MHz SMD 3X3 mm (BW=25MHz)

TST Parts No.: TA2591ATCA (AEC-Q200 compliant )

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

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Bob Chau 

Approval by: \_\_\_\_\_ Andy Yu 

Date: \_\_\_\_\_ 10, 20, 2019

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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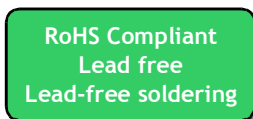
## TCSAW Filter 2332.5MHz BW25MHz SMD 3x3mm

MODEL NO.:TA2591ATCA

REV. NO.:1.0

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -40°C to +105°C
4. Storage Temperature: -40°C to +125°C
5. ESD Machine Mode : 50V
6. ESD Human Body Mode : 100V
7. Moisture Sensitive Level (MSL): Level 1



*HiQ Saw*

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

Temperature range for specification :  $T_{spec} = -40^{\circ}C$  to  $+105^{\circ}C$

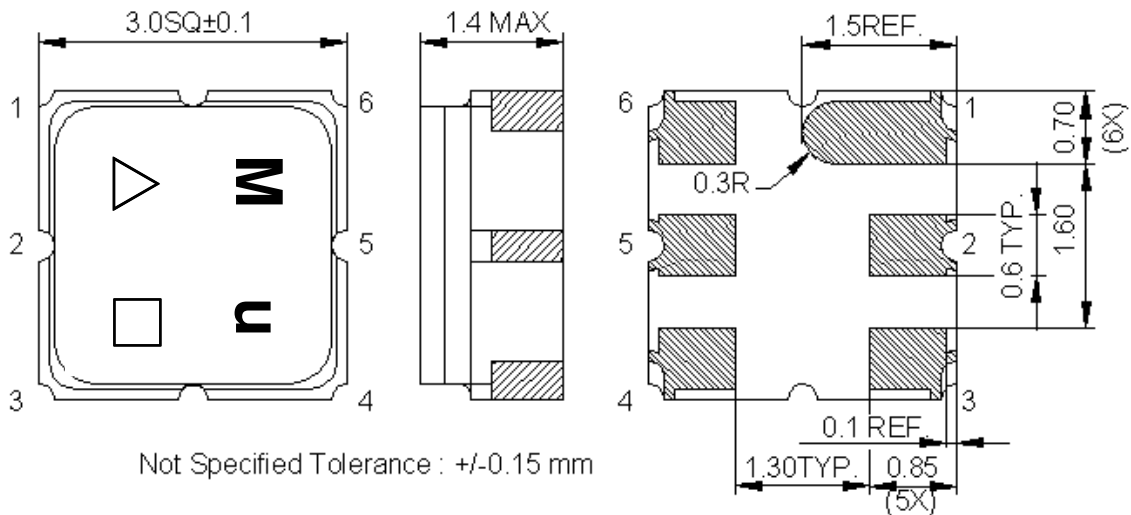
Terminating source impedance :  $Z_s = 50 \Omega$

Terminating load impedance :  $Z_L = 50 \Omega$

Item	Unit	Min.	Typ.	Max.	
<b>Center Frequency</b>	<b>Fc</b>	MHz	-	2332.5	-
<b>Min. Insertion Loss</b> (2320~2345 MHz)	$\alpha$	dB	-	2.9	-
<b>Max. Insertion Loss</b> (2320~2345 MHz)	<b>IL</b>	dB	-	4.6	7
<b>Amplitude Ripple</b> (2320~2324.5 MHz)		dB <sub>p-p</sub>	-	1	2
<b>Amplitude Ripple</b> (2324.5~2328.2 MHz)		dB <sub>p-p</sub>	-	0.2	1.2
<b>Amplitude Ripple</b> (2328.2~2332.5 MHz)		dB <sub>p-p</sub>	-	0.2	1.2
<b>Amplitude Ripple</b> (2332.5~2334.38 MHz)		dB <sub>p-p</sub>	-	0.3	1.2
<b>Amplitude Ripple</b> (2334.38~2336.25 MHz)		dB <sub>p-p</sub>	-	0.3	1.2
<b>Amplitude Ripple</b> (2336.25~2337.75 MHz)		dB <sub>p-p</sub>	-	0.2	1.2
<b>Amplitude Ripple</b> (2337.75~2341.25 MHz)		dB <sub>p-p</sub>	-	0.3	1.2
<b>Amplitude Ripple</b> (2341.25~2343.125 MHz)		dB <sub>p-p</sub>	-	0.2	1.2
<b>Amplitude Ripple</b> (2343.125~2345 MHz)		dB <sub>p-p</sub>	-	0.5	2
<b>VSWR</b> (2320~2345 MHz)			-	1.9	2.2
<b>Attenuation</b> (refer to min. insertion loss $\alpha$ )					
100 ~ 800 MHz		dB	35	60	-
800 ~ 2100 MHz		dB	31	44	-
2100 ~ 2275 MHz		dB	32	36	-

2275 ~ 2288	MHz	dB	30	36	-
2288 ~ 2300	MHz	dB	25	33	-
2300 ~ 2310	MHz	dB	15	21	-
2310 ~ 2315	MHz	dB	3.5	6.5	-
2350 ~ 2355	MHz	dB	3.5	6	-
2355 ~ 2365	MHz	dB	13	19	-
2365 ~ 2377	MHz	dB	39	50	-
2377 ~ 2390	MHz	dB	35	55	-
2390 ~ 3000	MHz	dB	28	39	-
Temperature Coefficient		ppm/°C	-	-8	-

**C.OUTLINE DRAWING:**



Not Specified Tolerance : +/-0.15 mm

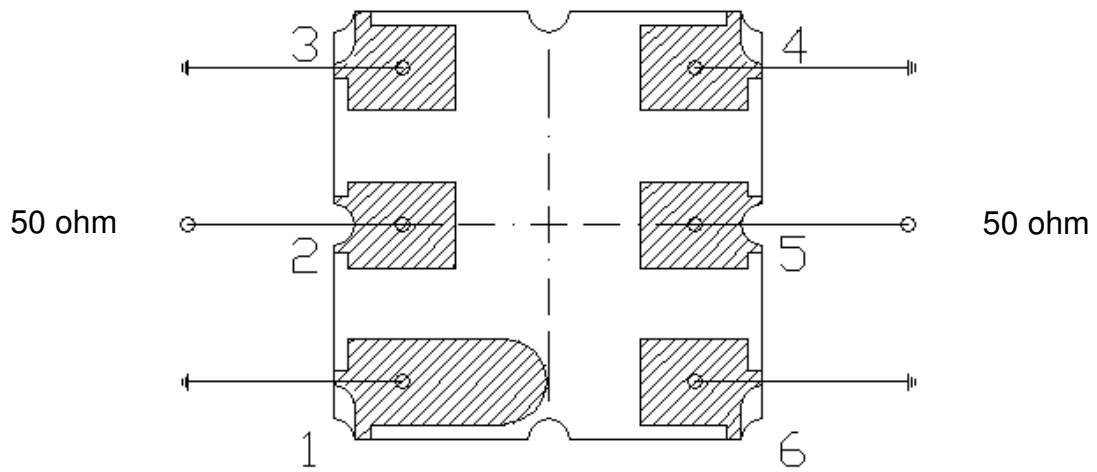
- 2 : Input
- 5 : Output
- 1, 3, 4, 6 : Ground
- Unit : mm

- △ : Year Code (2018->8, 2020->0, ..., 2029->9)
- : Date Code (Follow the table from planner each year)

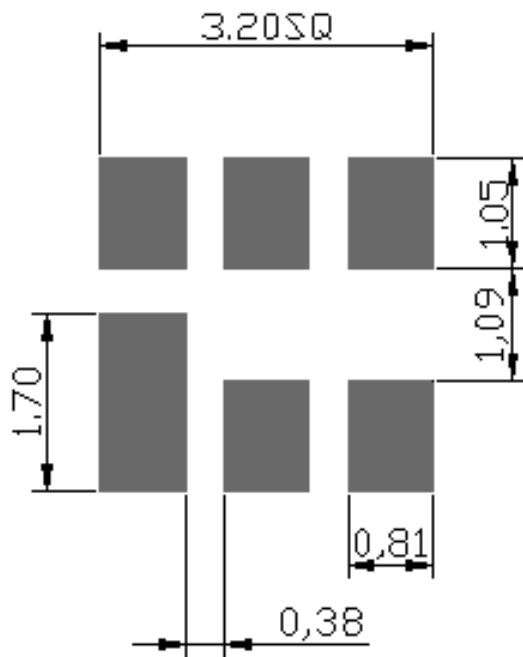
Date Code Table

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

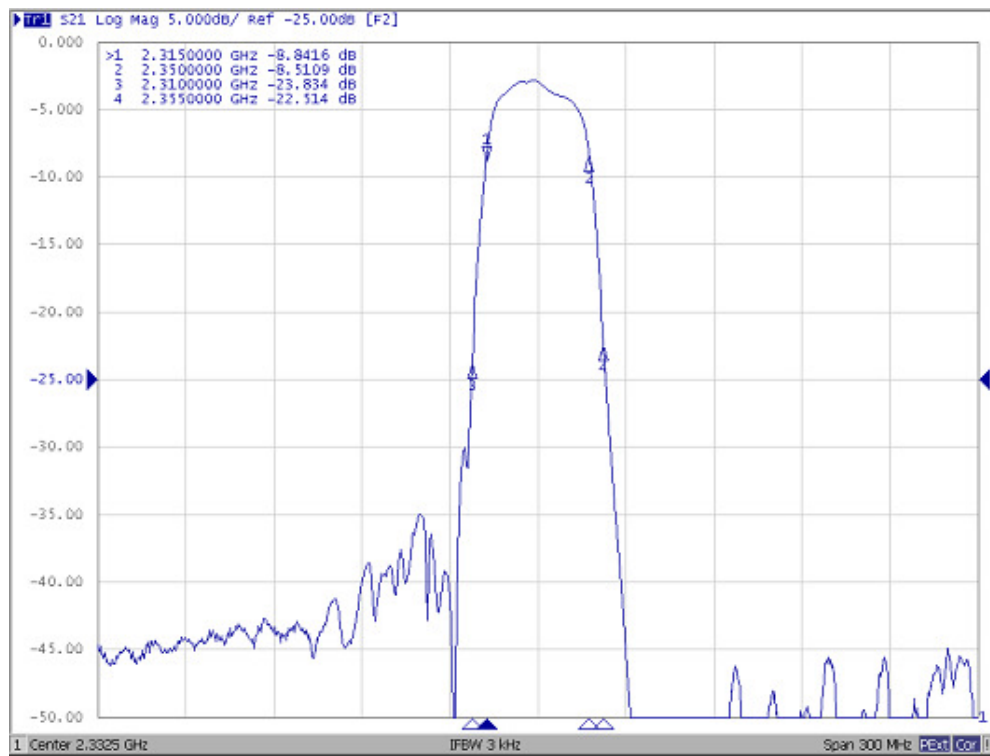
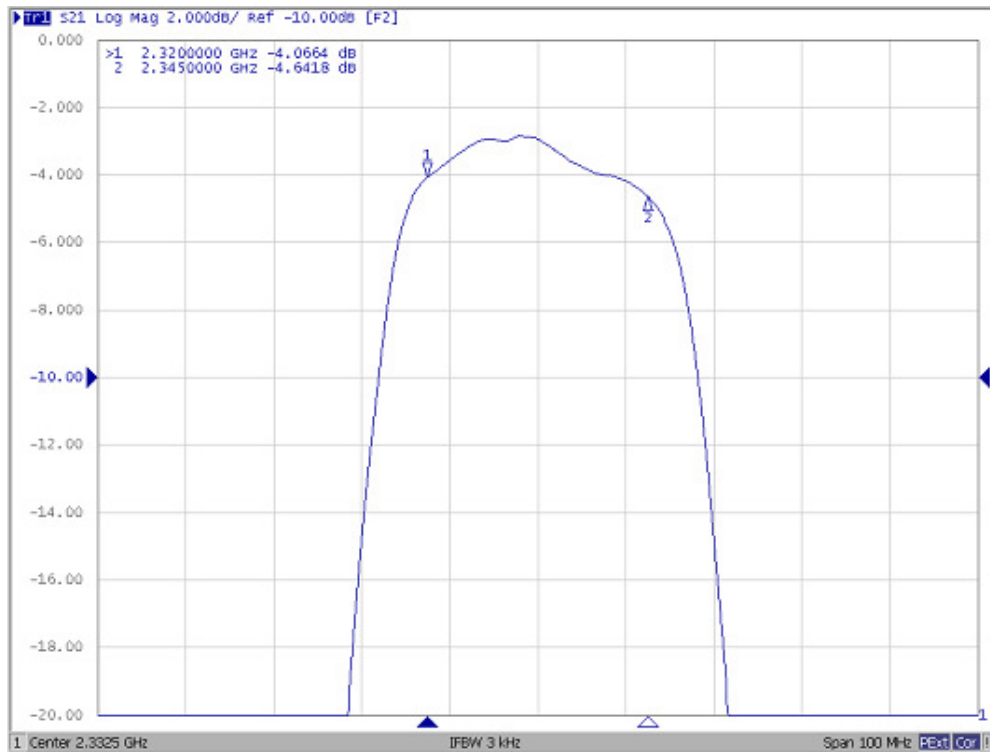
**D. MEASUREMENT CIRCUIT:**

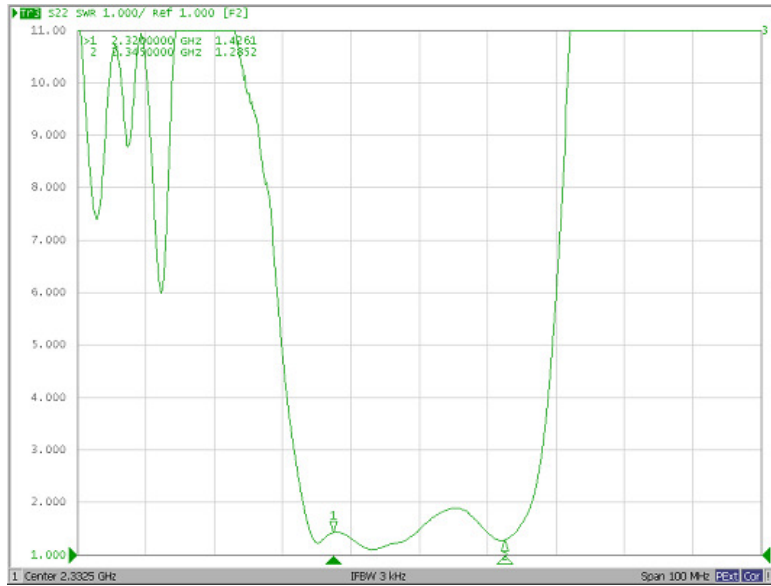
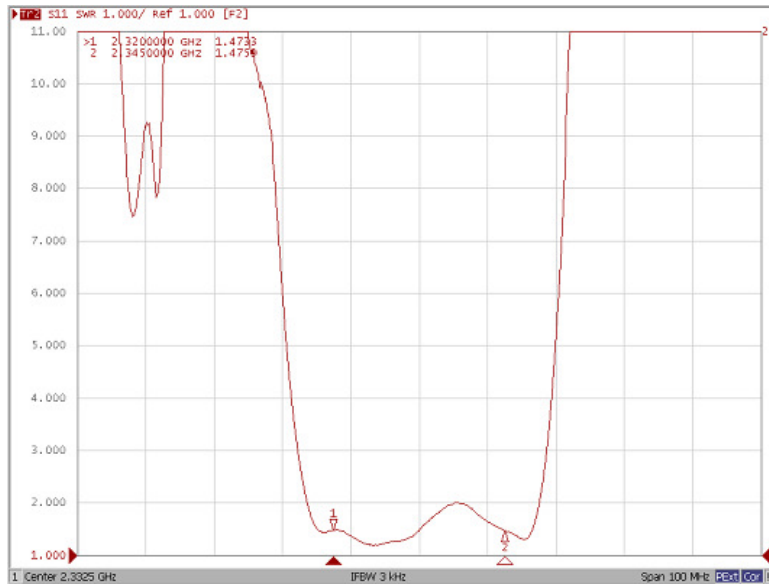
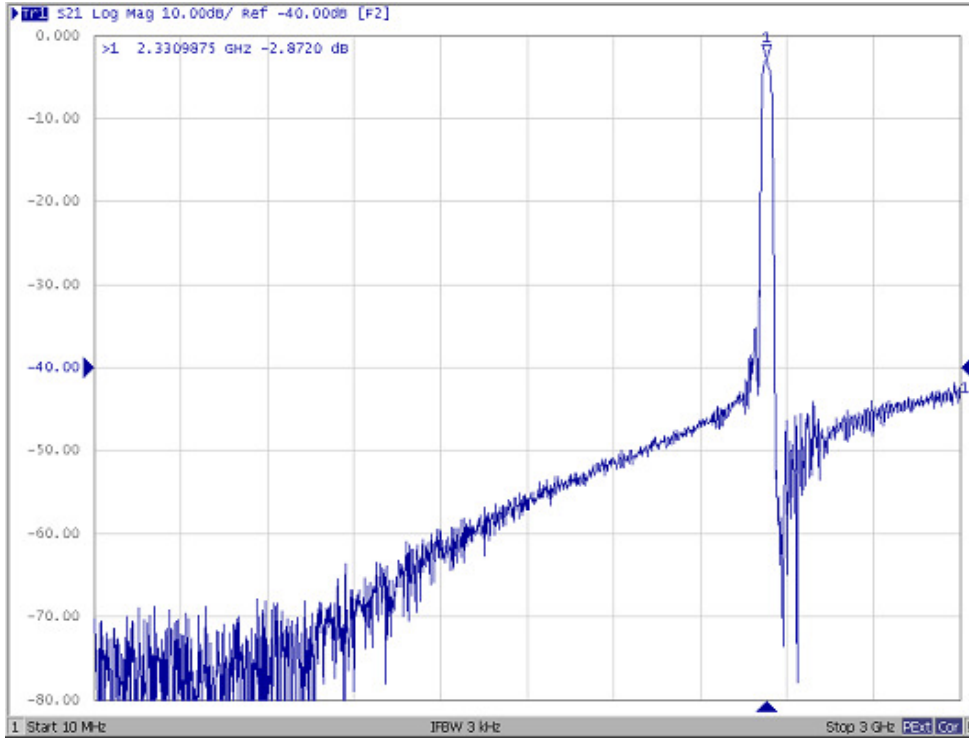


**E. PCB Footprint :**



## F. Frequency Characteristics:

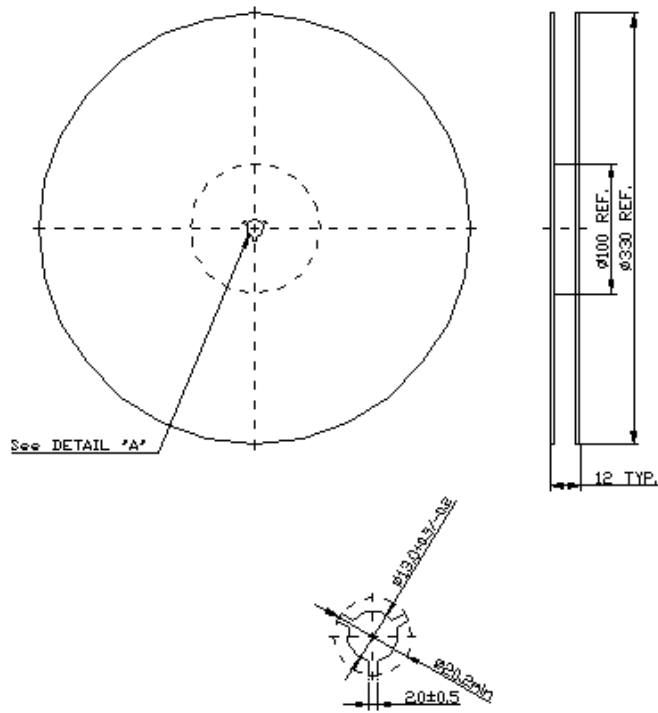




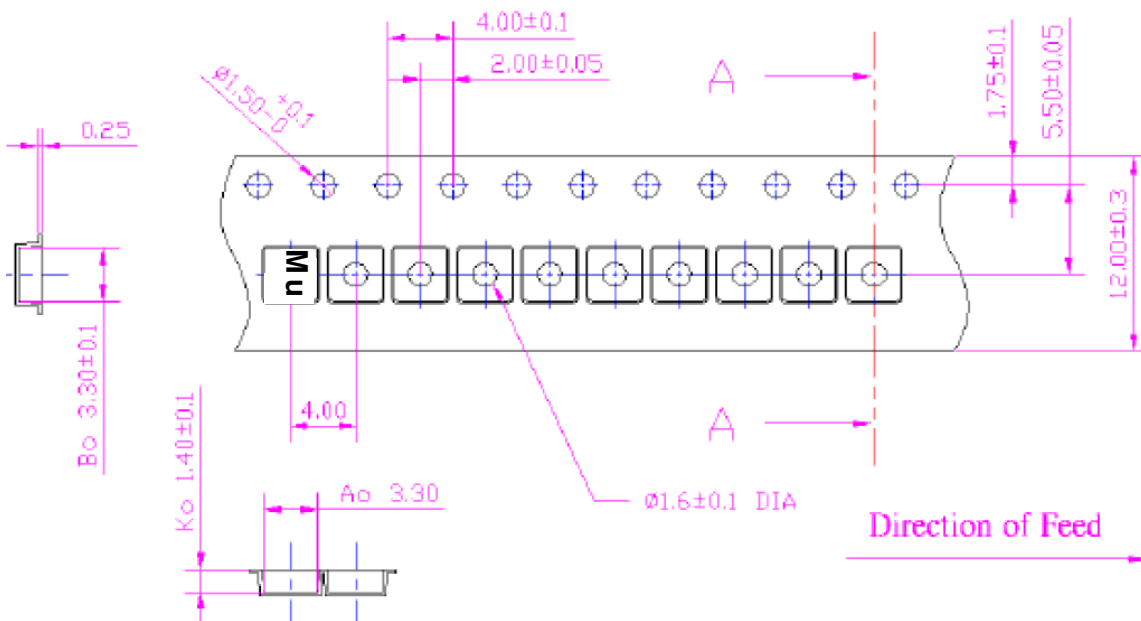
**G. PACKING:**

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

