



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Product Specifications Approval Sheet

Product Description: SAW Filter 163 MHz SMD 5.0X5.0 mm (BW=8 MHz)

TST Part No.: TA0168A

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

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

Checked by: \_\_\_\_\_ Hayley Chou *Hayley Chou*

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2018/08/15

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 163 MHz

MODEL NO.:TA0168A

REV. NO.:3.0

### A. MAXIMUM RATING:

1. Maximum Input Power: 0 dBm
2. Maximum DC Voltage: 10 V
3. Operating Temperature: -10 °C to +50 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

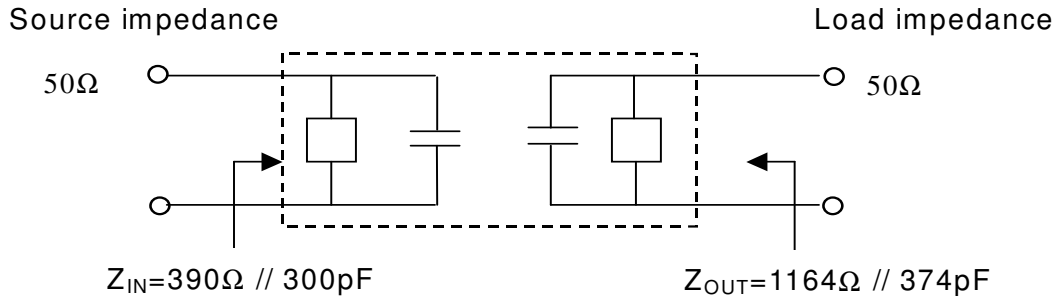
Terminating source impedance:  $Z_s = 50 \Omega$  (Single-ended)

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

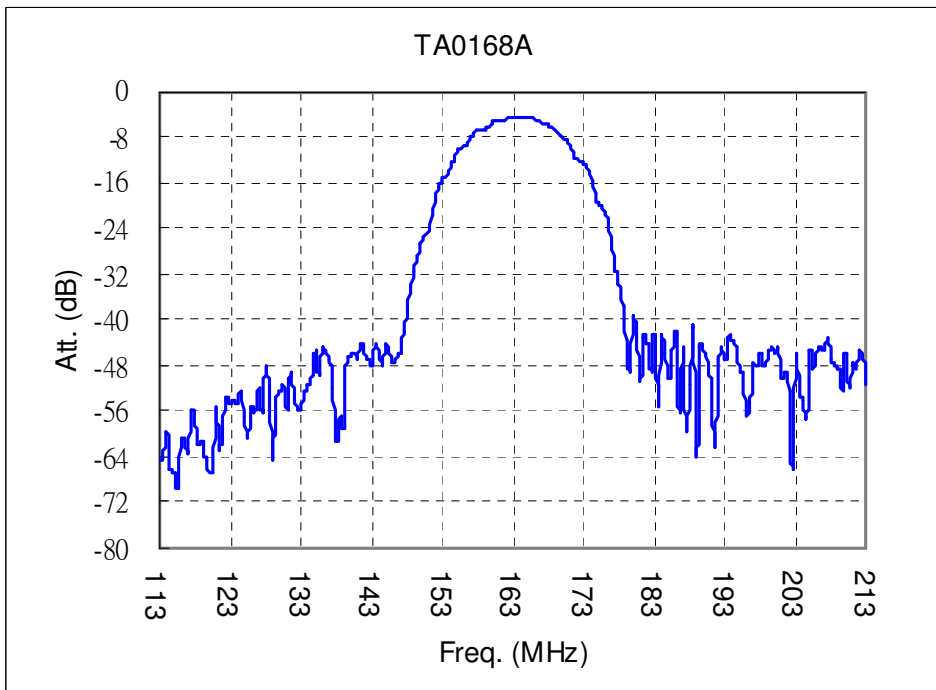
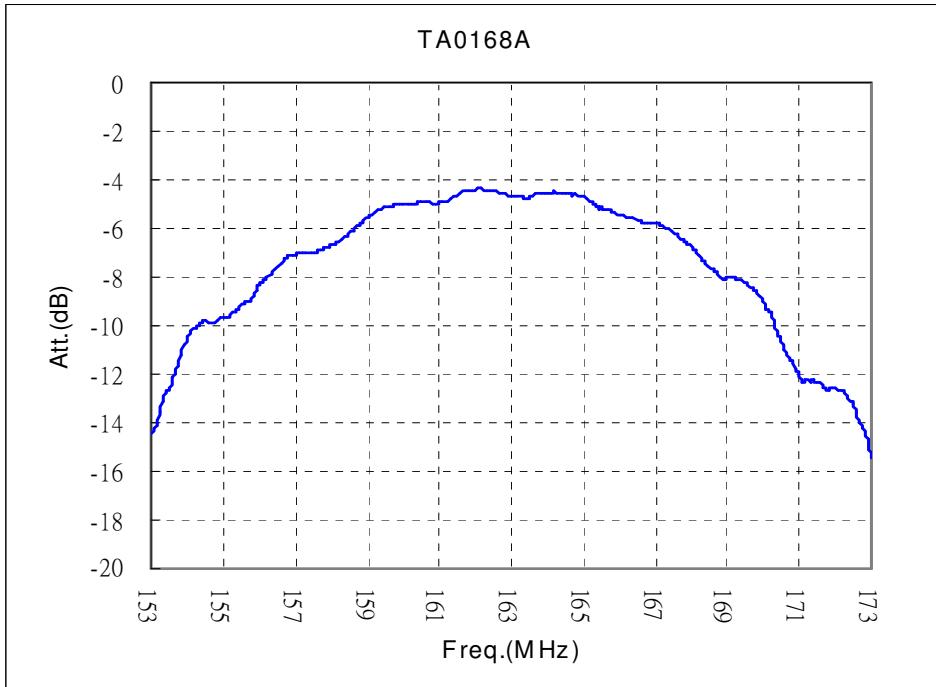
Parameters Description	Unit	Min.	Typ.	Max.	Note
<b>Center Frequency</b> $F_c$	MHz	-	163	-	1
<b>Insertion Loss</b> (Within $F_c \pm 4$ MHz)	dB	-	6.0	6.5	1
<b>Pass band Ripple</b> (Within $F_c \pm 4$ MHz)	dB	-	1.3	2.1	-
<b>Attenuation</b> (Reference level from 0dB)					
$F_c - 100$ MHz to $-38.8$ MHz	dB	50	57	-	1
$F_c + 38.8$ MHz to $+100$ MHz	dB	42	47	-	1
Impedance at $F_c$ ; Input, $Z_{IN} = R_{IN} // C_{IN}$	390 $\Omega$ // 300 pF				2
Impedance at $F_c$ ; Output, $Z_{OUT} = R_{OUT} // C_{OUT}$	1164 $\Omega$ // 374 pF				2

Note 1: The standard definitions is in JIS C 6703

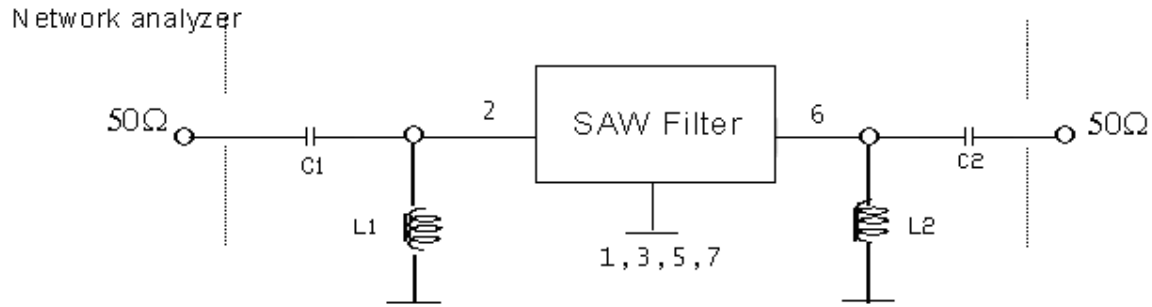
Note 2:



**C. FREQUENCY CHARATERISTIC:**

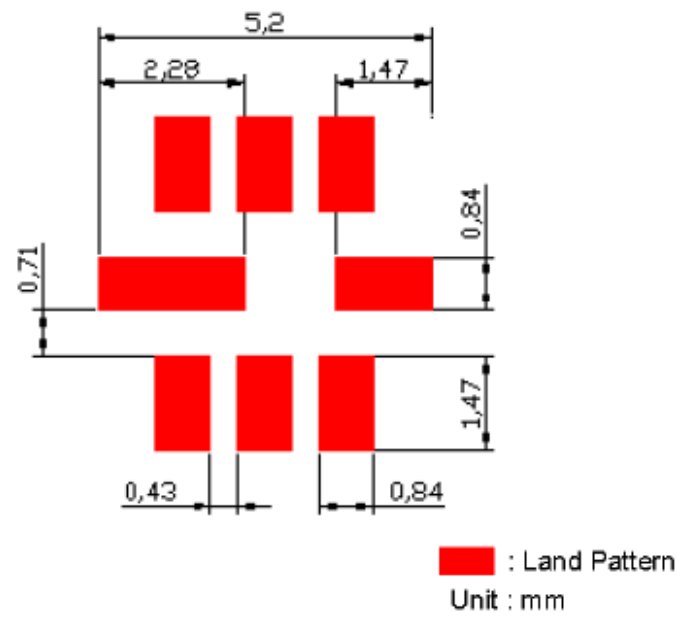


**D. MEASUREMENT CIRCUIT:**

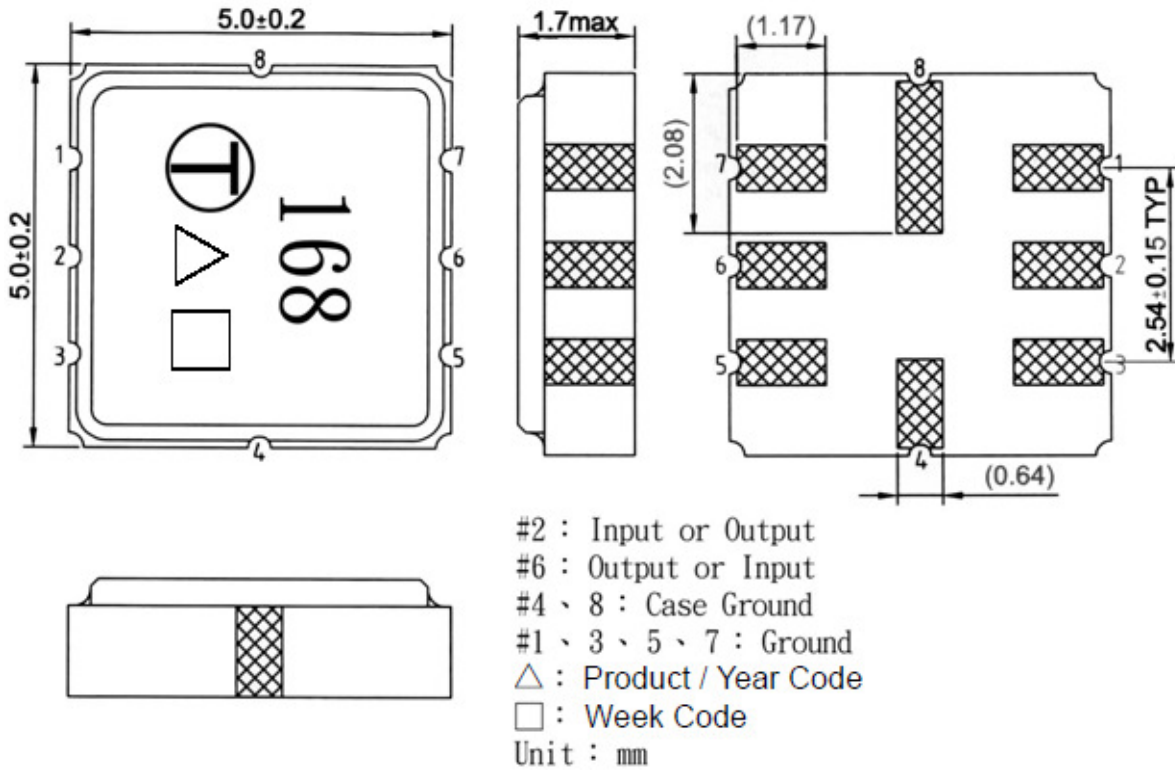


C1 = 12 pF, L1 = 47 nH  
 C2 = 8 pF, L2 = 47 nH

**E. PCB Footprint:**



**F. OUTLINE DRAWING:**



**Product / Year Code Table:**

Year	2009	2010	2011	2012
	2013	2014	2015	2016
	2017	2018	2019	2020
Year Code	<b>A</b>	<b>a</b>	<b>A</b>	<b>a</b>

**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



## H. RECOMMENDED TEMPERATURE PROFILE OF REFLOW SOLDERING:

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.

