



# TAI-SAW TECHNOLOGY CO., LTD.

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## Product Specifications Approval Sheet

Product Name: SAW Filter 500 MHz (BW 20MHz) SMD 3.8X3.8 mm

TST Parts No.: TA2047A

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

Company: \_\_\_\_\_

Division: \_\_\_\_\_

Approved by : \_\_\_\_\_

Date: \_\_\_\_\_

Checked by: \_\_\_\_\_ Sam Lin *Sam Lin*

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

Date: \_\_\_\_\_ 2018/11/26

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

## SAW Filter 500 MHz

MODEL NO.:TA2047A

REV. NO.:1.0

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 5V
3. Operating Temperature: -30°C to +60°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

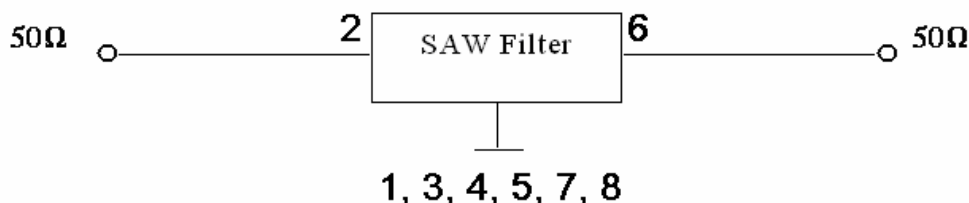
Terminating source impedance (single) :  $Z_s = 50 \Omega$

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

Item	Unit	Min	Type.	Max
Center frequency	MHz	-	500	-
Insertion Loss (490 ~ 510 MHz)	dB	-	2.4	2.8
2dB Band Width	MHz	20	24	-
Attenuation (Reference level from 0 dB)				
100 ~ 300 MHz	dB	50	57	-
400 ~ 455 MHz	dB	40	55	-
514 ~ 535 MHz (@ -25°C to +55°C)	dB	5	10	-
545 ~ 555 MHz	dB	30	55	-
555 ~ 600 MHz	dB	40	55	-
Temperature Coefficient of Frequency	ppm/°C	-	-36	-

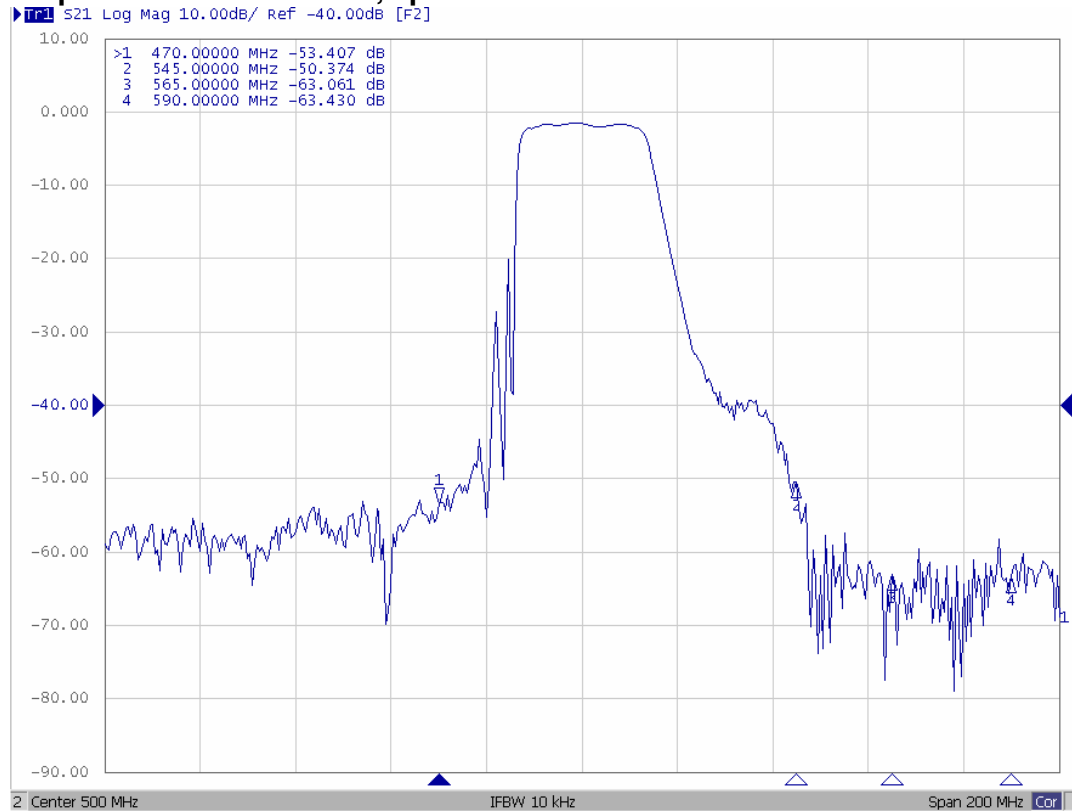
### C. TEST CIRCUIT:

HP Network analyzer

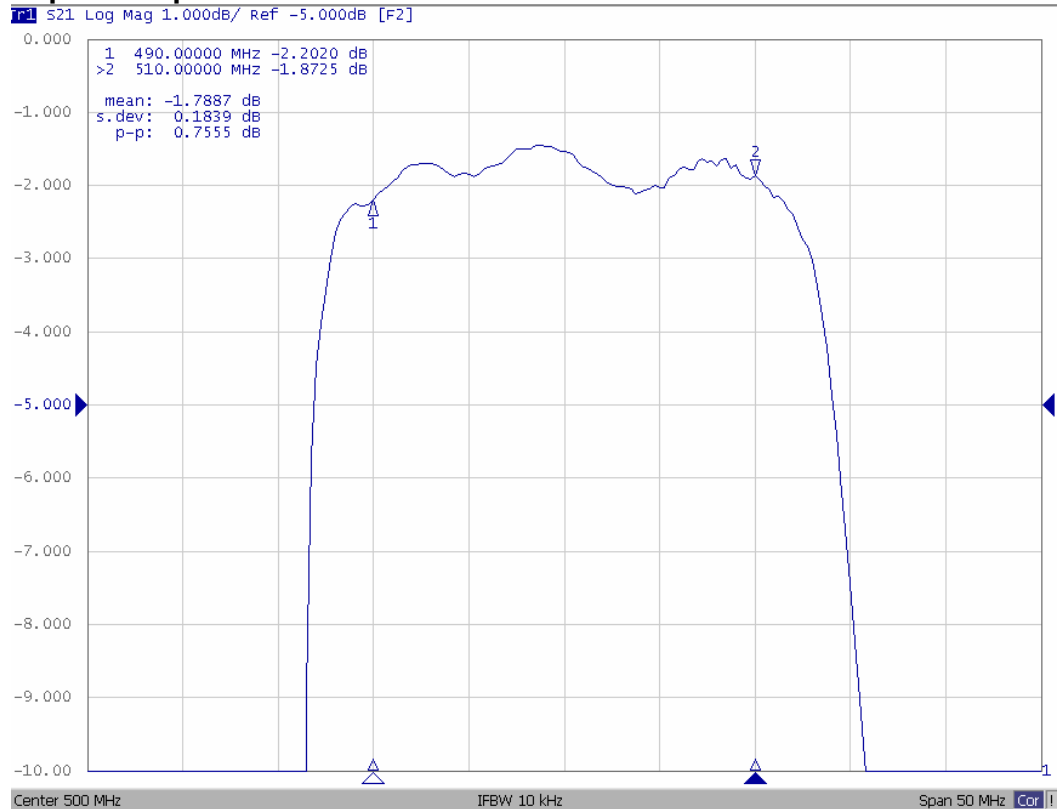


## D. Frequency Characteristics:

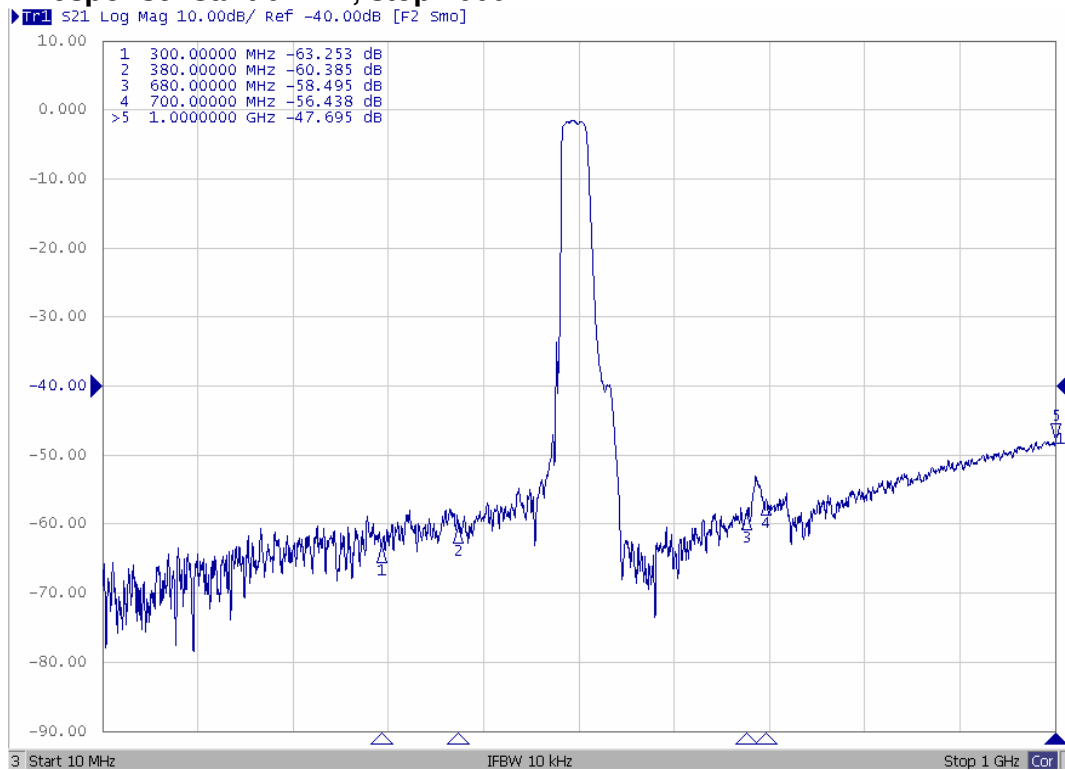
### S21 response: center 500MHz, span 200 MHz



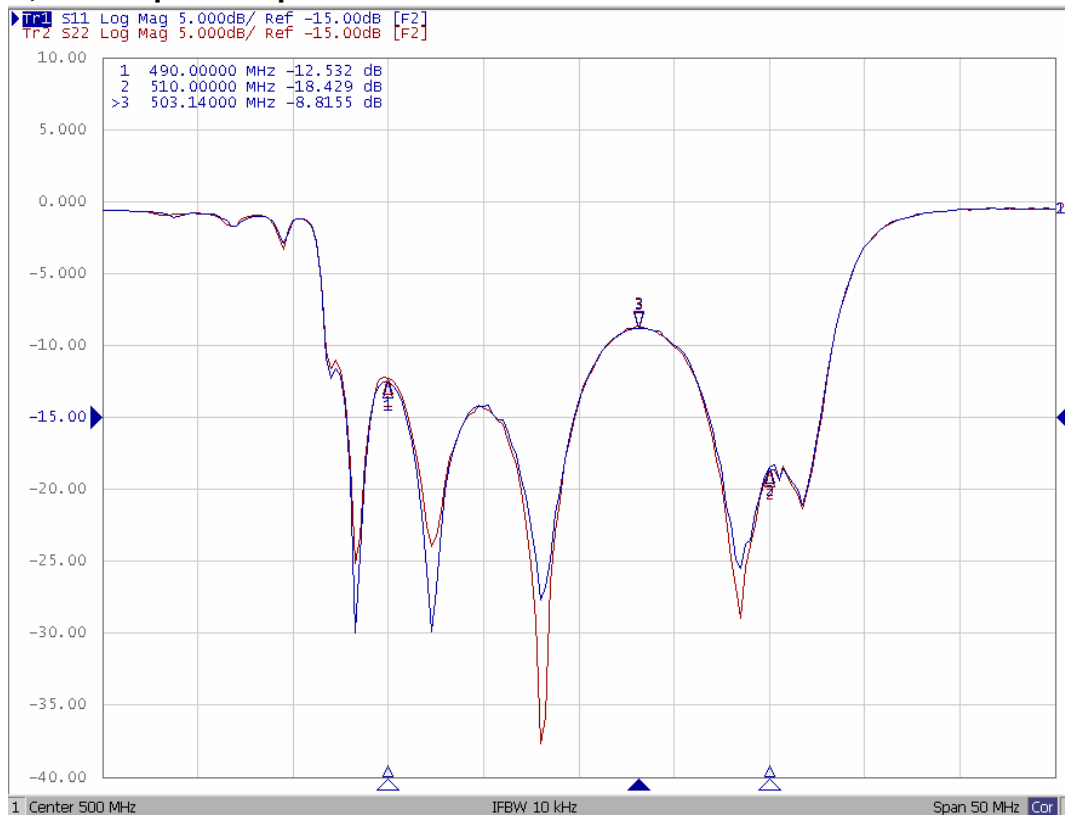
### S21 response: span 50 MHz



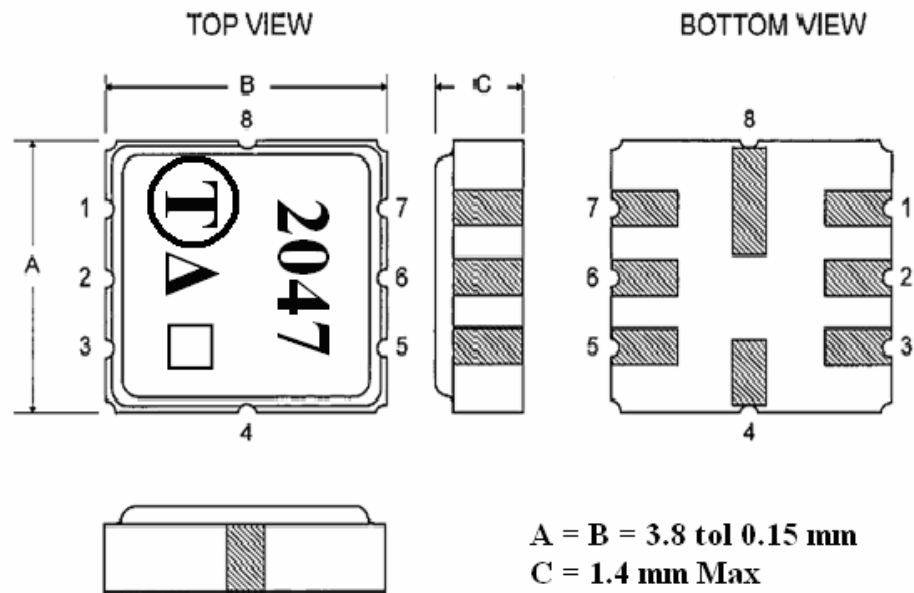
## S21 response: start 0 MHz, stop 1000 MHz



## S11, S22 response: span 50 MHz



E.OUTLINE DRAWING:



2: Input  
6: Output  
Others: Ground  
Unit: mm  
△: Year Code  
□: Date Code

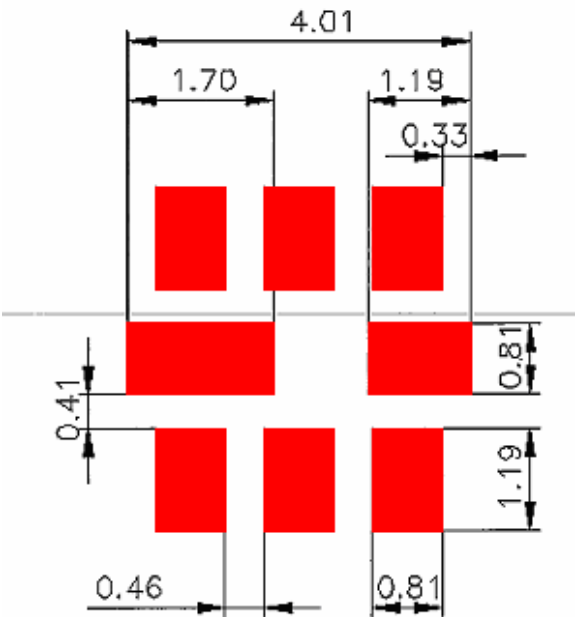
Product Year Code

Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	A	a	A	a

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

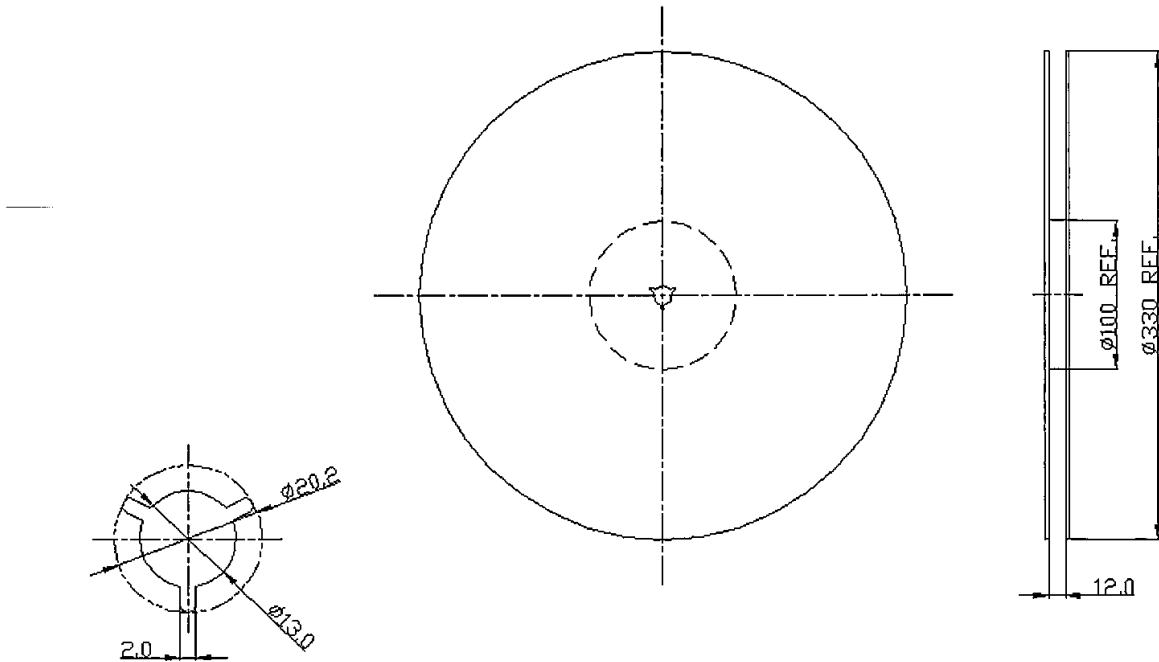
F. PCB FOOTPRINT:



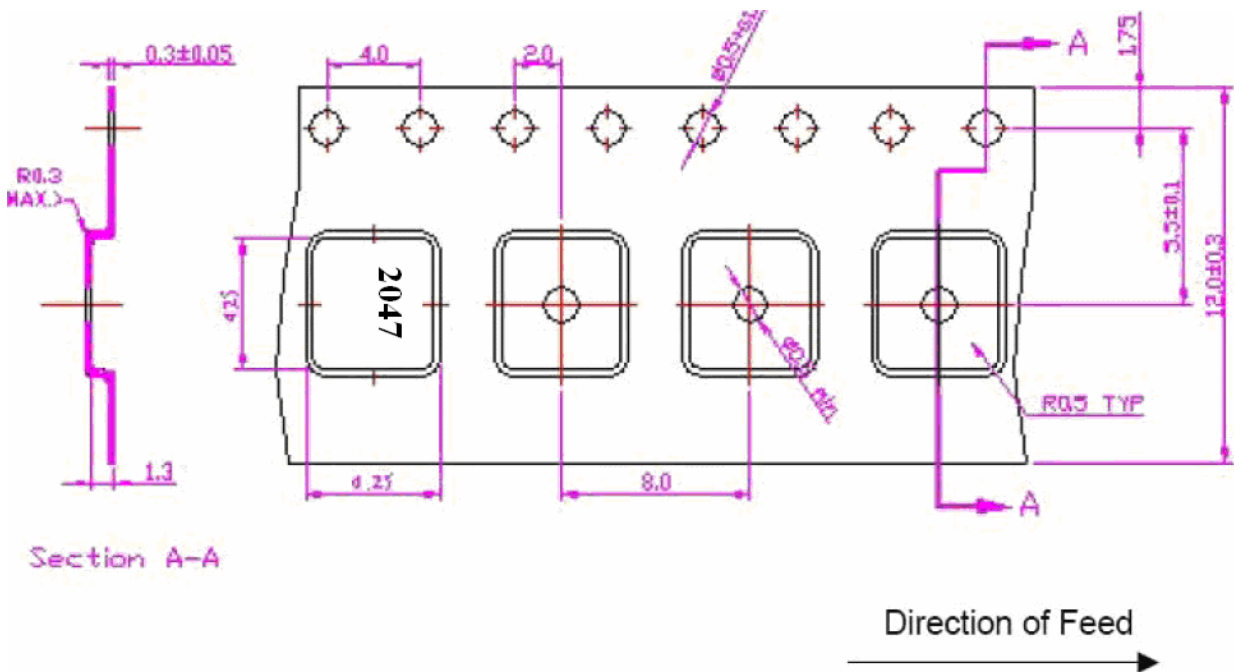
## G. PACKING:

### 1. REEL DIMENSION

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



### 2. TAPE DIMENSION



## H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180°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.

