

## Product Specifications Approval Sheet

Product Name: SAW Filter 923 MHz (BW 5.8MHz) SMD 1.4X1.1 mm

TST Parts No.: TA1780A

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

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

Checked by: \_\_\_\_\_ Michael Yang *Michael*

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

Date: \_\_\_\_\_ 2018/11/06

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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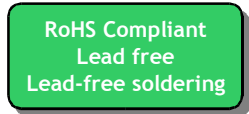
## SAW Filter 923MHz

MODEL NO.:TA1780A

REV. NO.:2.0

### A. MAXIMUM RATING:

1. Input Power Level: 13 dBm
2. DC Voltage : 0V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 3(MSL3)



Electrostatic Sensitive Device (ESD)

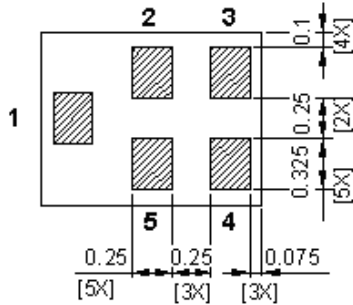
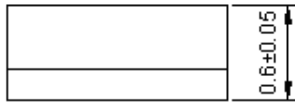
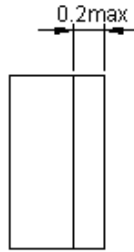
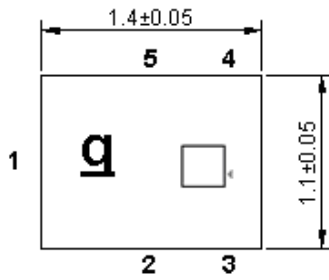
### B. ELECTRICAL CHARACTERISTICS:

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

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

Item	Unit	Min	Type.	Max
<b>Center Frequency</b> Fc	MHz	-	923	-
<b>Insertion Loss (920.1~925.9 MHz)</b> IL	dB		2.5	3.0max
Amplitude ripple(920.1~925.9 MHz)	dB		0.6	1.2max
VSWR			1.4	2.0
Input(920.1~925.9 MHz)			1.4	2.0
Ouput(920.1~925.9 MHz)				
<b>Attenuation</b>				
10 ~ 813 MHz	dB	40	45	
813 ~ 873 MHz	dB	35	40	
873 ~ 903 MHz	dB	20	25	
903 ~ 905 MHz	dB	15	20	
945 ~ 950 MHz	dB	20	25	
950 ~ 1150 MHz	dB	25	30	
1150 ~ 1856 MHz	dB	30	35	
1856 ~ 2500 MHz	dB	26	30	
Package size	mm	SMD 1411		

### C.OUTLINE DRAWING:



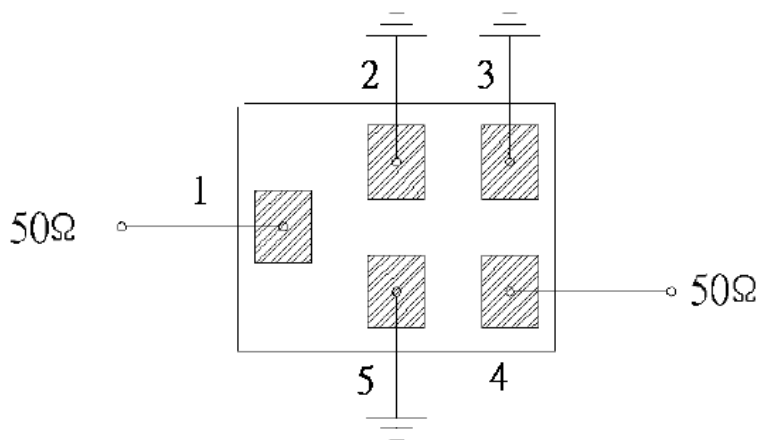
All tolerances are +/-0.05 mm unless otherwise specified  
 Coplanarity : 0.1 mm max.  
 1 to 5 : Pin No.  
 Unit : mm

Pin No.↕	Symbol↕	Function↕
1↕	IN↕	Input↕
2↕	GND↕	Ground↕
3↕	GND↕	Ground↕
4↕	OUT↕	Output↕
5↕	GND↕	Ground↕

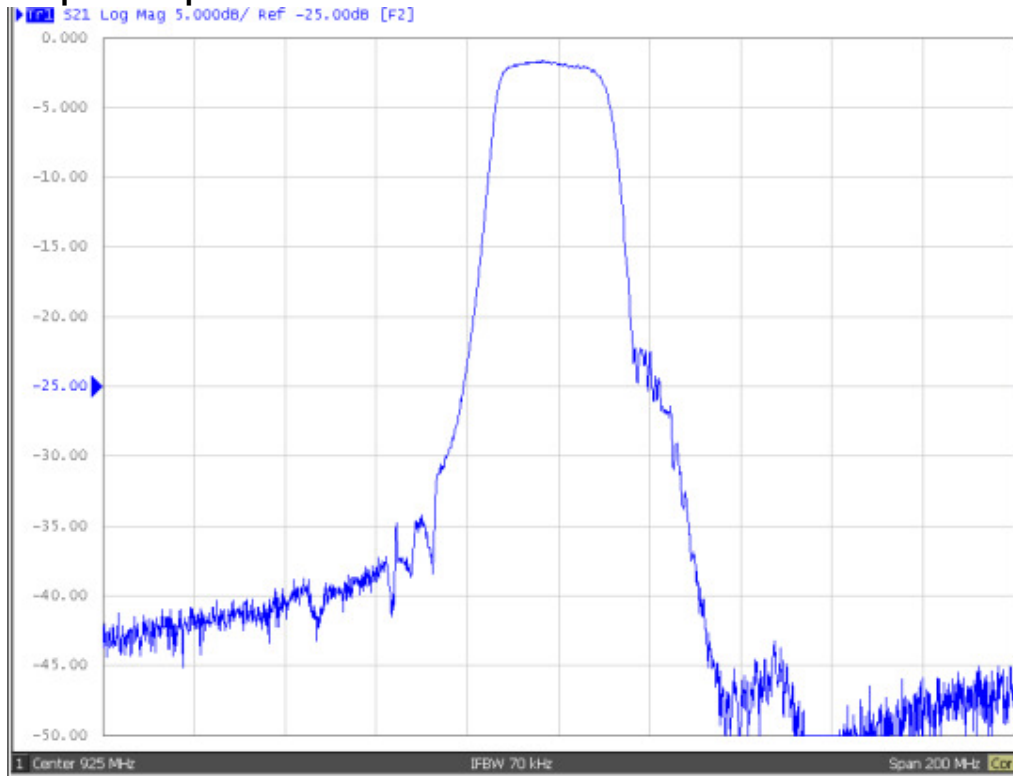
□ : Year/Month Code (Follow the table)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2019	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>i</u>	<u>k</u>	<u>l</u>	<u>m</u>
2020	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

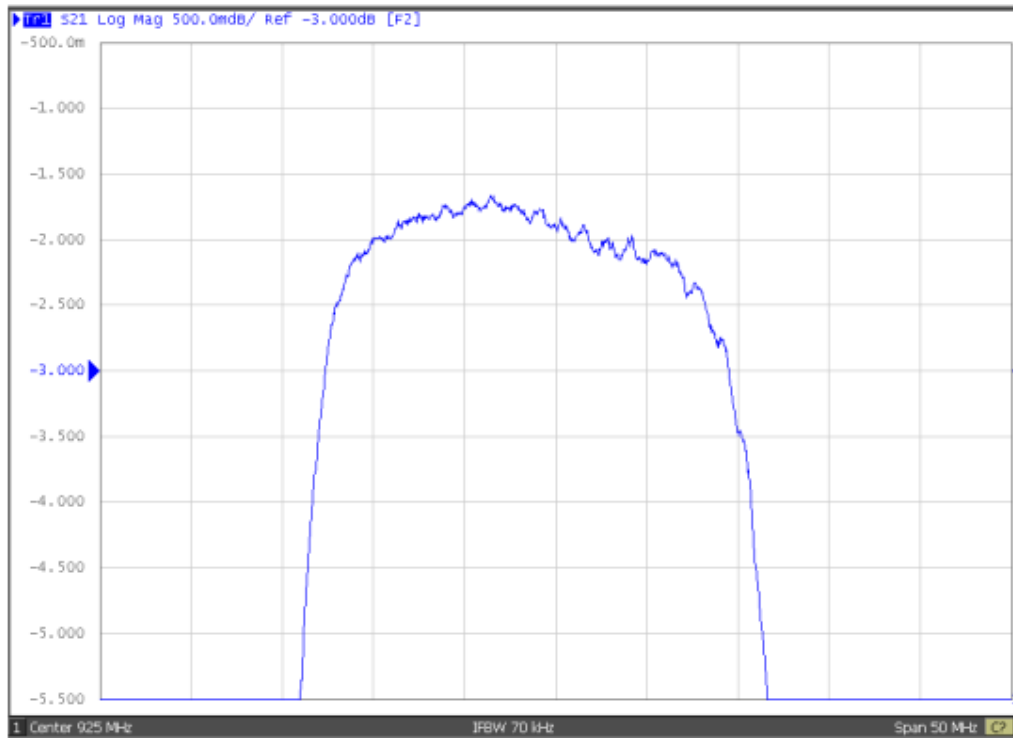
### D. MEASUREMENT CIRCUIT:



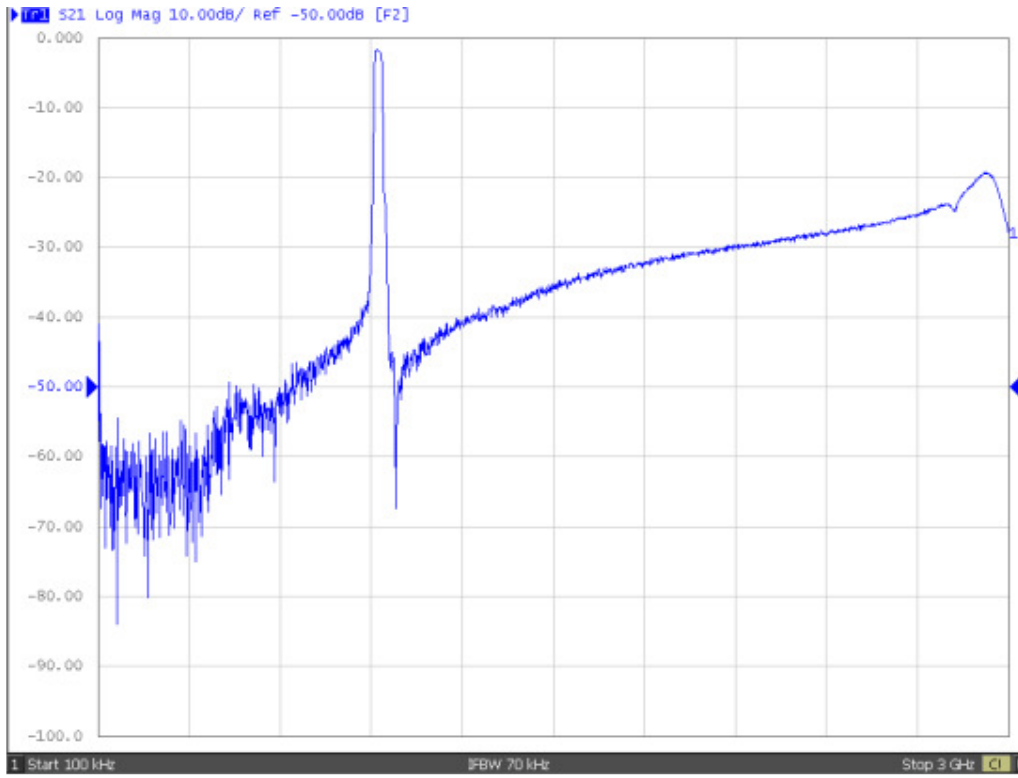
**D. Frequency Characteristics:  
S21 response: span 200MHz**



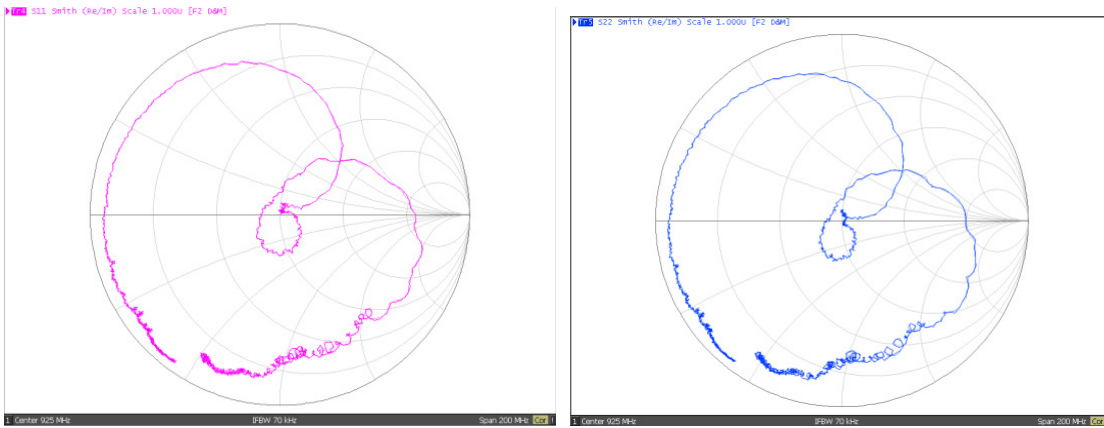
**S21 response: span 50MHz**



## S21 response: span 3GHz

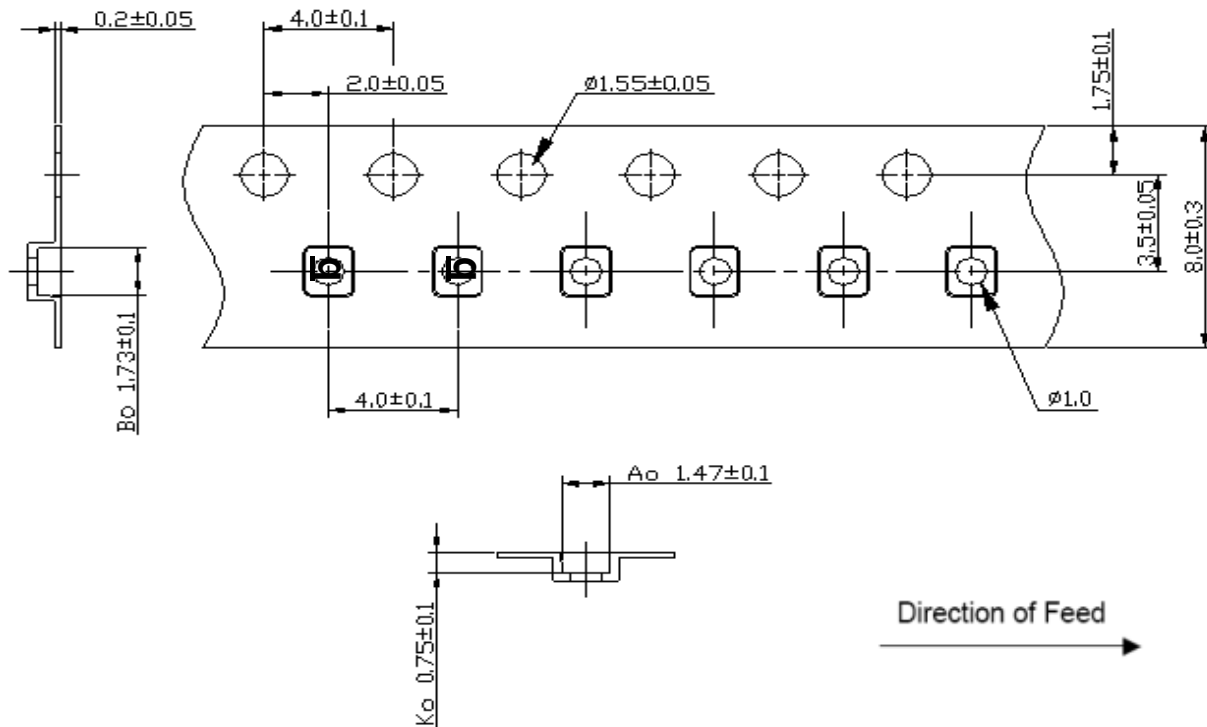


## S11/S22





## 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  $150^\circ\text{C}$  shall be 30 seconds min.
3. Heating shall be fixed at  $220^\circ\text{C}$  for 50~80 seconds and at  $260^\circ\text{C} \pm 0/-5^\circ\text{C}$  peak (20~40sec).
4. Time: 2 times.

