



# 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 Description: SAW Filter 869 MHz (BW 2MHz) SMD 3X3 mm

TST Part No.: TA1404A (This part is compliant with AEC-Q200)

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

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

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

Approval by: \_\_\_\_\_ Kazuma Lee *Kazuma Lee*

Date: \_\_\_\_\_ 2021/10/19

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 869MHz

MODEL NO.:TA1404A

REV. NO.:7.0

### A. MAXIMUM RATING:

1. Input Power Level: 13 dBm
2. DC Voltage : 6V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL1)



Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

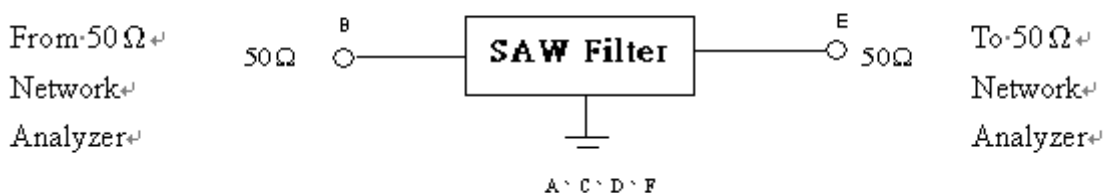
Terminating source impedance (single) :  $Z_s = 50 \Omega$

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

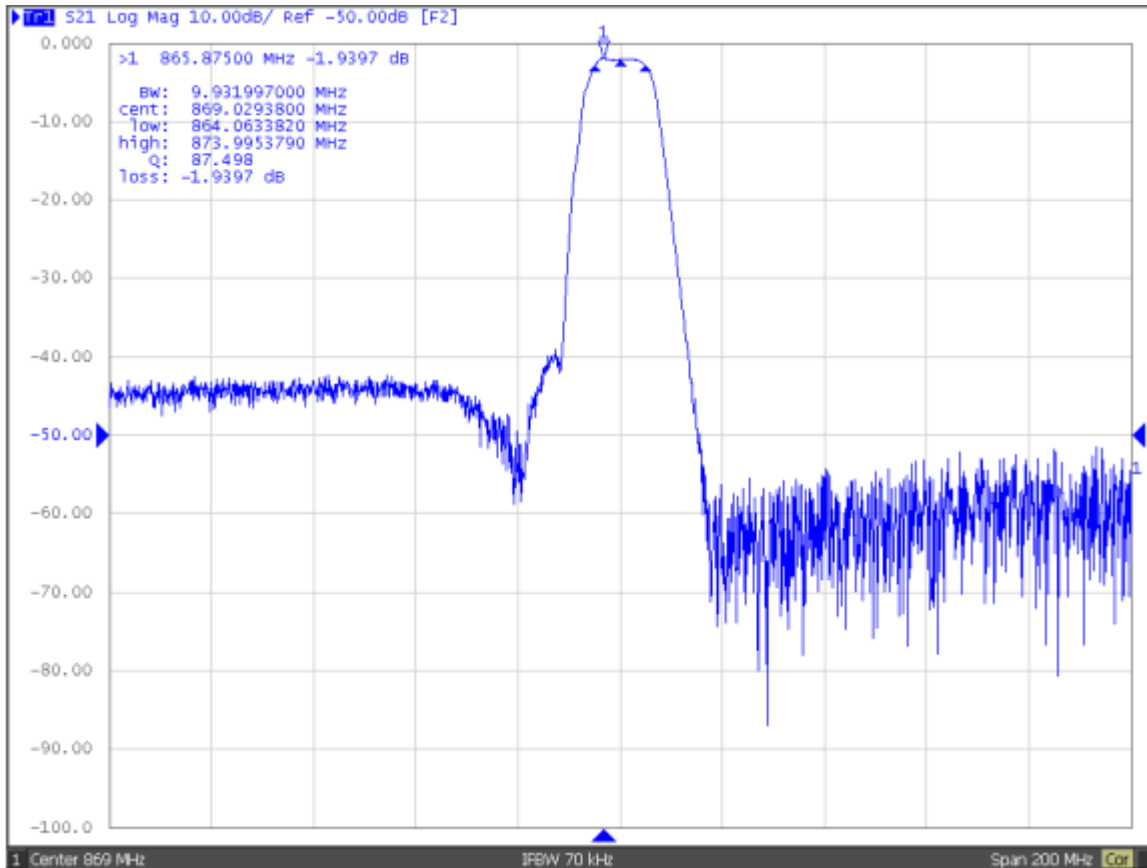
Item	Unit	Min	Type.	Max
<b>Center Frequency</b> <b>Fc</b>	MHz	-	869	-
<b>Insertion Loss</b> (868~870 MHz) <b>IL</b>	dB		2.3	3.0max
Amplitude ripple(868~870 MHz)	dB		0.3	0.6max
<b>Attenuation</b>				
100 ~ 300 MHz	dB	45	50	
300 ~ 845 MHz	dB	40	45	
845 ~ 853 MHz	dB	38	43	
879 ~ 883 MHz	dB	15	30	
883 ~ 915 MHz	dB	40	45	
915 ~ 945 MHz	dB	45	50	
945 ~ 1200 MHz	dB	45	55	
1200 ~ 2000 MHz	dB	35	40	
Package size	mm	SMD 3x3		

### C. TEST CIRCUIT:

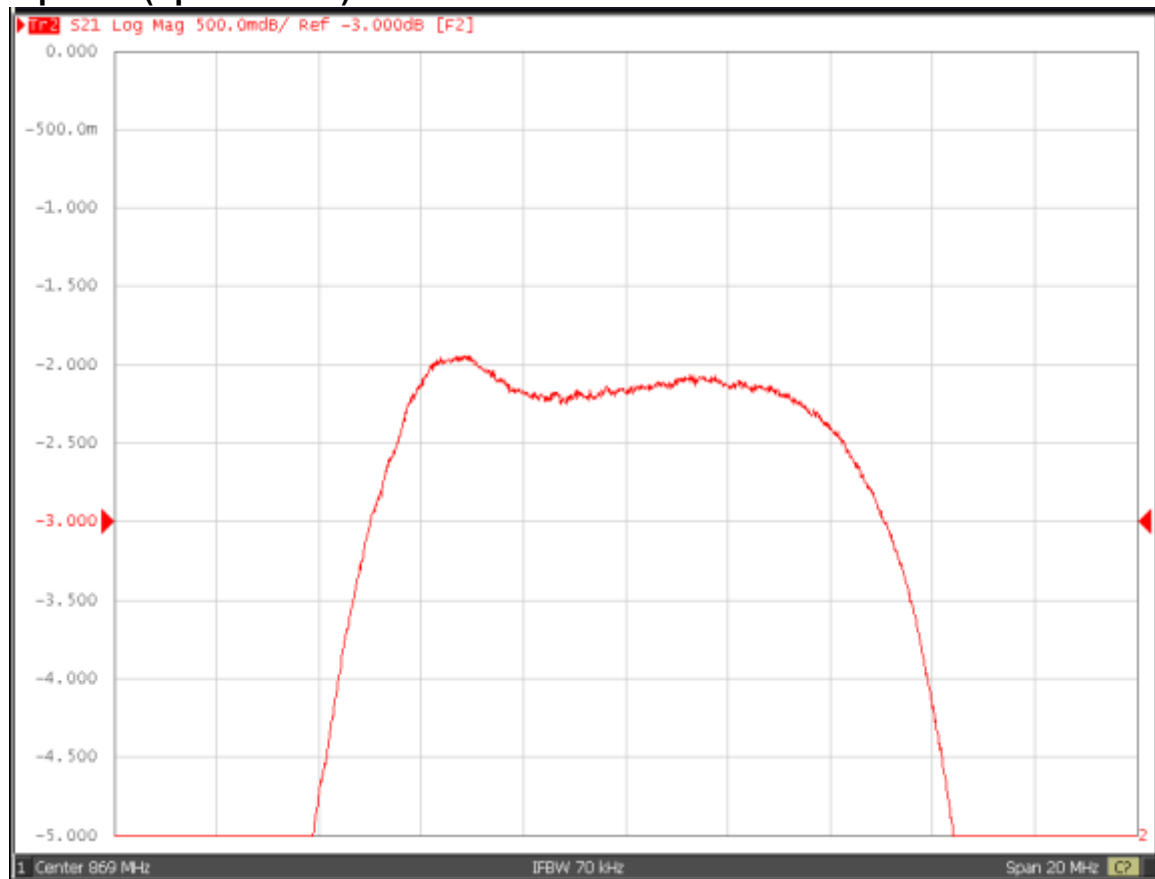
Network analyzer



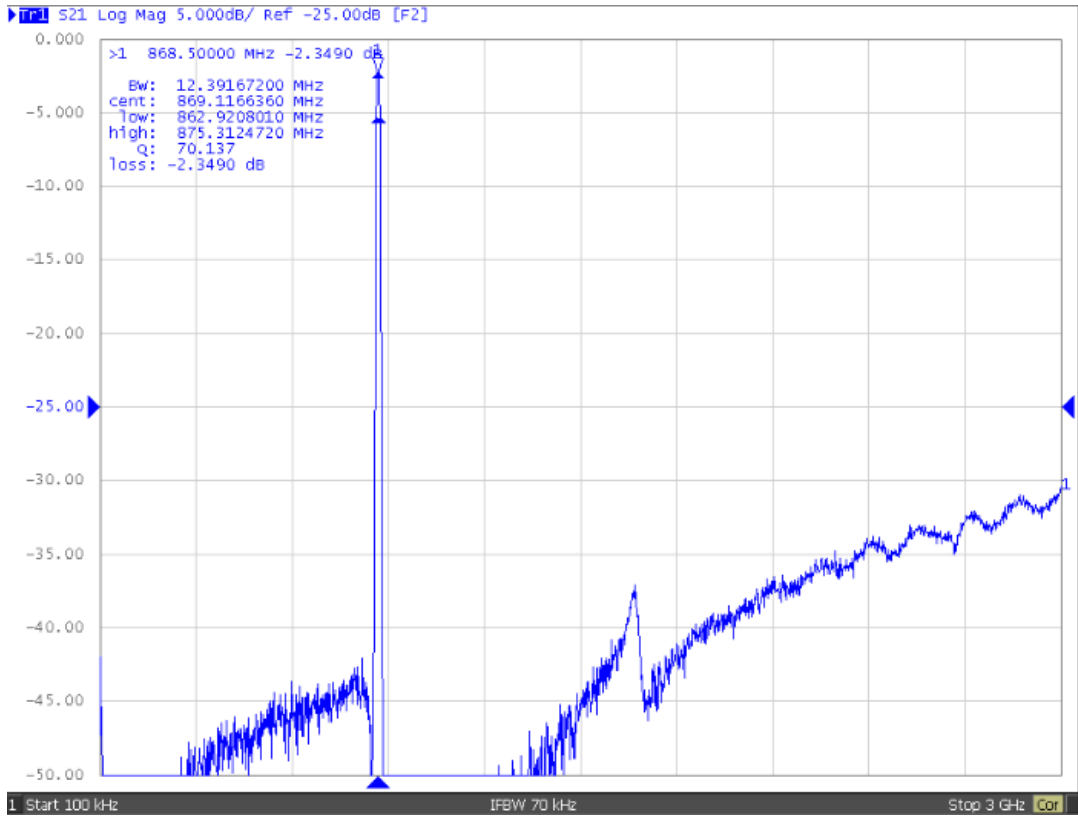
**D. Frequency Characteristics : S21 response:(Span 200MHz)**



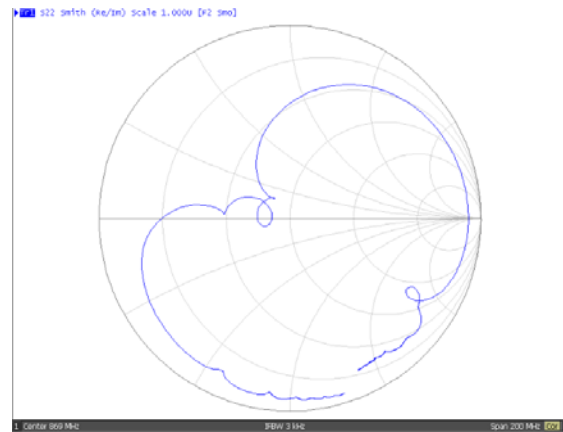
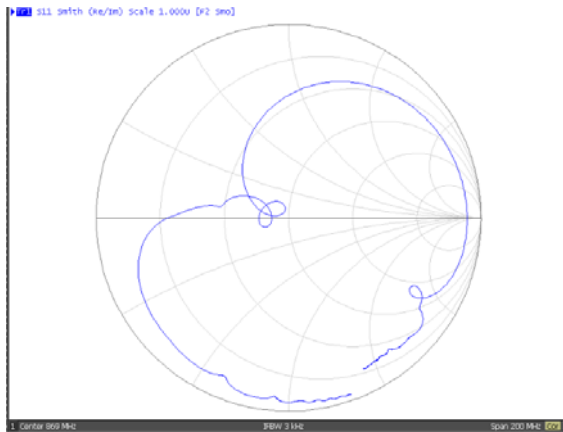
**S21 response:(Span 20MHz)**



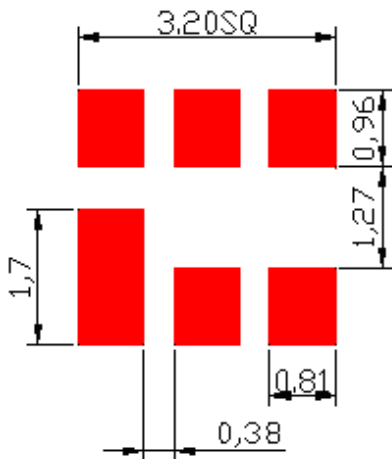
**S21 response:(100KHz ~ 3GHz)**



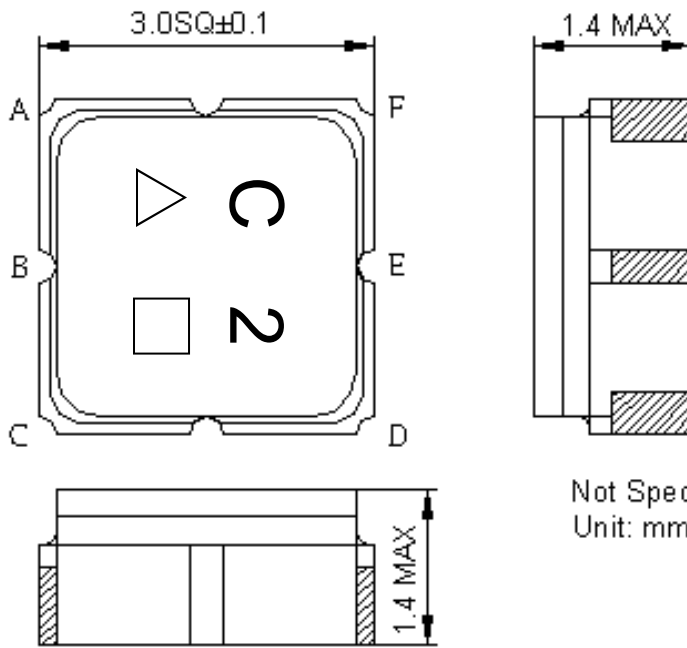
**S11/S22 response:**



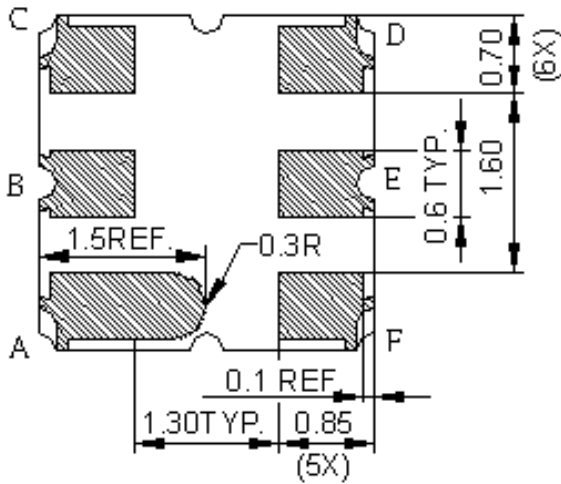
**E. PCB FOOTPRINT:**



**F.OUTLINE DRAWING:**



Not Specified Tolerance : +/-0.15 mm  
Unit: mm



- #B : Input
- #E : Output
- #A、C、D、F : Ground
- △ : Year code(ex 2021→1)
- : Date code
- Unit : mm

△ Year code : See the table- 10year cycle

<b>Year</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	...	<b>2029</b>	<b>2030</b>
<b>Code</b>	<b>8</b>	<b>9</b>	<b>0</b>	<b>1</b>	...	<b>9</b>	<b>0</b>

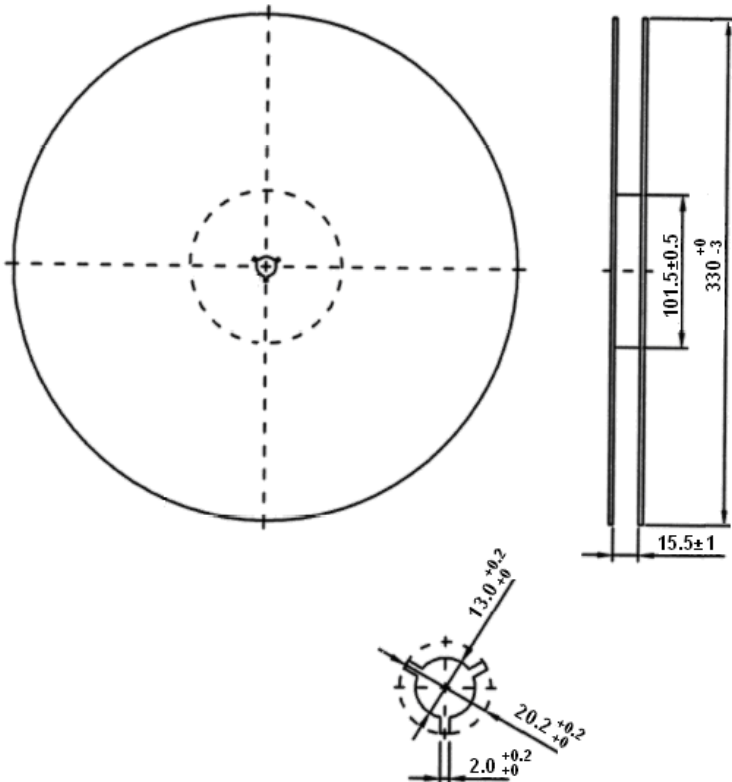
□ Data code : See the table

<b>WK01</b>	<b>WK02</b>	<b>WK03</b>	<b>WK04</b>	<b>WK05</b>	<b>WK06</b>	<b>WK07</b>	<b>WK08</b>	<b>WK09</b>	<b>WK10</b>	<b>WK11</b>	<b>WK12</b>	<b>WK13</b>
A	B	C	D	E	F	G	H	I	J	K	L	M
<b>WK14</b>	<b>WK15</b>	<b>WK16</b>	<b>WK17</b>	<b>WK18</b>	<b>WK19</b>	<b>WK20</b>	<b>WK21</b>	<b>WK22</b>	<b>WK23</b>	<b>WK24</b>	<b>WK25</b>	<b>WK26</b>
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
<b>WK27</b>	<b>WK28</b>	<b>WK29</b>	<b>WK30</b>	<b>WK31</b>	<b>WK32</b>	<b>WK33</b>	<b>WK34</b>	<b>WK35</b>	<b>WK36</b>	<b>WK37</b>	<b>WK38</b>	<b>WK39</b>
a	b	c	d	e	f	g	h	i	j	k	l	m
<b>WK40</b>	<b>WK41</b>	<b>WK42</b>	<b>WK43</b>	<b>WK44</b>	<b>WK45</b>	<b>WK46</b>	<b>WK47</b>	<b>WK48</b>	<b>WK49</b>	<b>WK50</b>	<b>WK51</b>	<b>WK52</b>
n	o	p	q	r	s	t	u	v	w	x	y	z

**G. PACKING:**

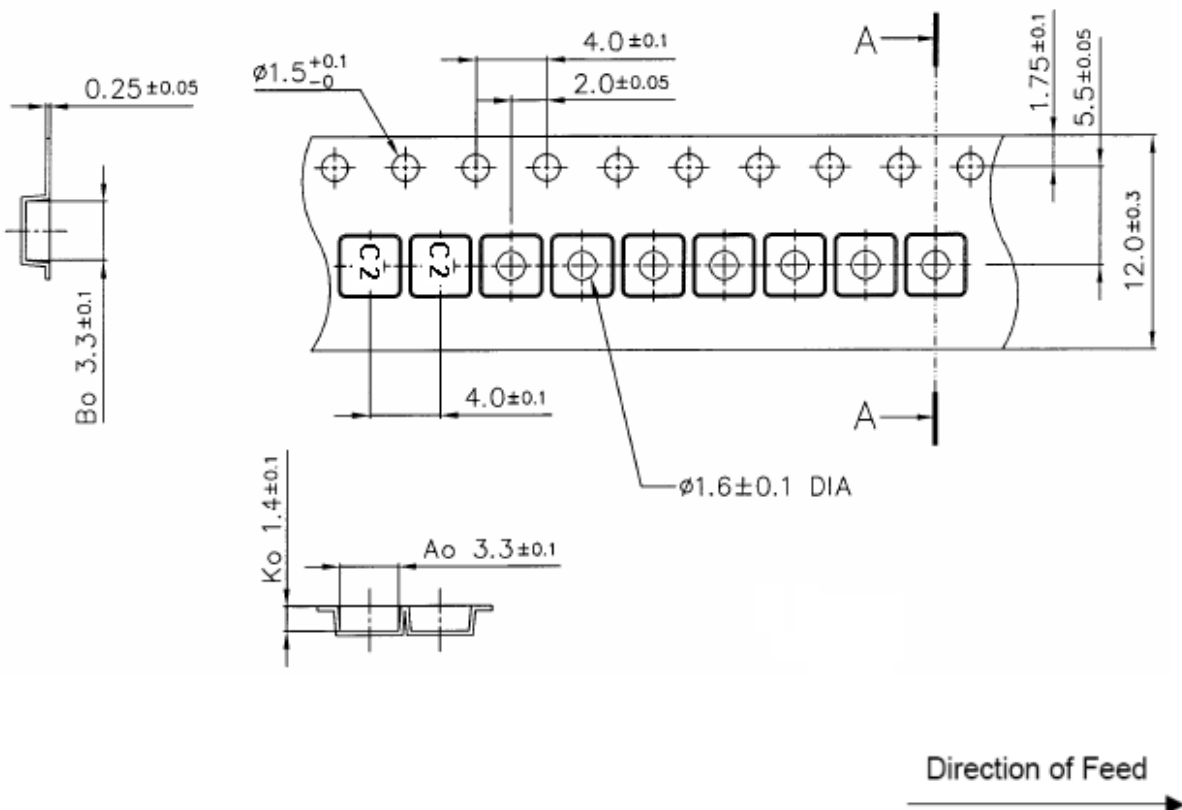
1. REEL DIMENSION

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



Unit: mm

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.

