



# 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 2441.75MHz (BW 83.5MHz) SMD 1.1X0.9mm

TST Parts No.:TA2104BTCA

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

Customer signature required

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

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

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

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

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

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

Date:\_\_\_\_\_ 2021/08/02

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.



# 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)

## SAW Filter 2441.75MHz (BW 83.5MHz) SMD 1.1x0.9x0.5mm(TC SAW)

MODEL NO.:TA2104BTCA

REV. NO.:2.0

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +105°C
5. Moisture Sensitivity Level: Level 3(MSL3)



Electrostatic Sensitive Device

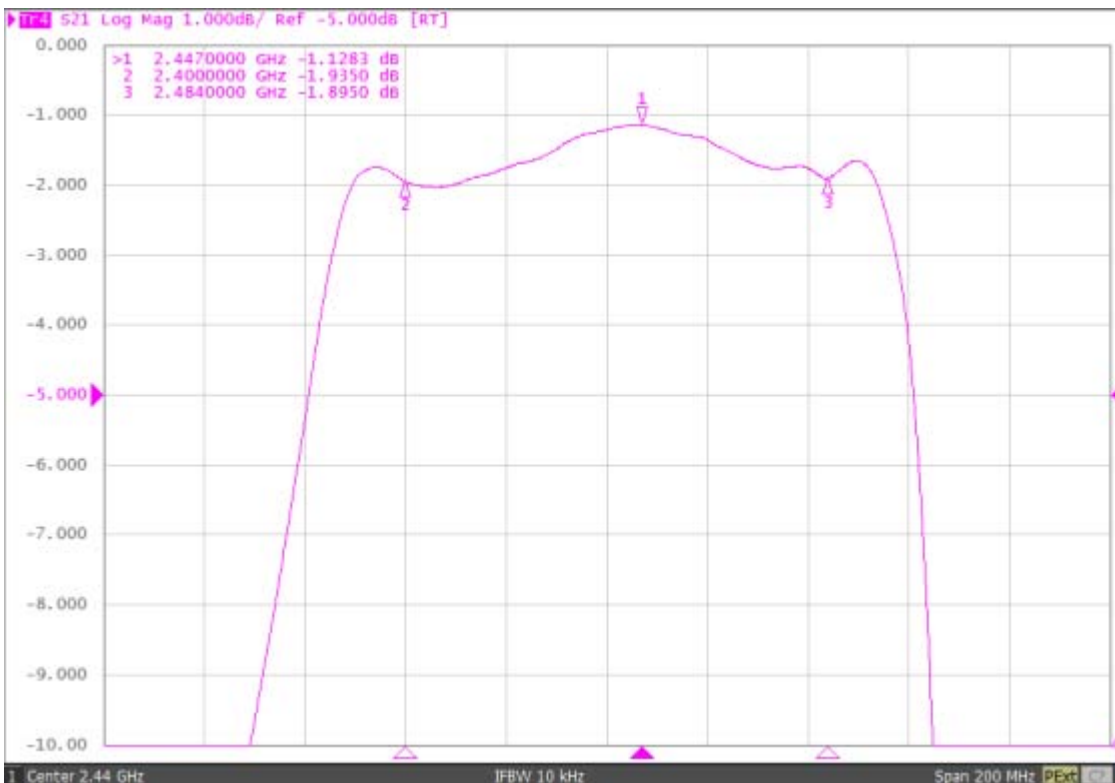
### B. ELECTRICAL CHARACTERISTICS:

| Item                                       | Unit   | Min         | Type.   | Max |
|--------------------------------------------|--------|-------------|---------|-----|
| <b>Center Frequency</b> <b>Fc</b>          | MHz    | -           | 2441.75 | -   |
| <b>Insertion Loss</b> IL 2400 ~ 2483.5 MHz | dB     |             | 1.7     | 2.2 |
| <b>Amplitude ripple</b> 2400 ~ 2483.5 MHz  |        |             | 0.7     | 1.2 |
| <b>VSWR</b> 2400 ~ 2483.5 MHz              |        |             | 2.0     | 2.2 |
| <b>Attenuation</b>                         |        |             |         |     |
| 0.1 – 960 MHz                              | dB     | 33          | 38      |     |
| 1570 – 1990 MHz                            | dB     | 37          | 42      |     |
| 2110 – 2170 MHz                            | dB     | 32          | 37      |     |
| 2170 – 2300 MHz                            | dB     | 26          | 31      |     |
| 2300 – 2320 MHz                            | dB     | 25          | 30      |     |
| 2320 – 2345 MHz                            | dB     | 20          | 23      |     |
| 2345 – 2365 MHz                            | dB     | 8           | 13      |     |
| 2550 – 2800 MHz                            | dB     | 15          | 19      |     |
| 2800 – 4000 MHz                            | dB     | 25          | 30      |     |
| 4000 – 5000 MHz                            | dB     | 25          | 30      |     |
| Temperature coefficient                    | ppm/°C | -18         |         |     |
| Package size                               | mm     | SMD 1.1x0.9 |         |     |

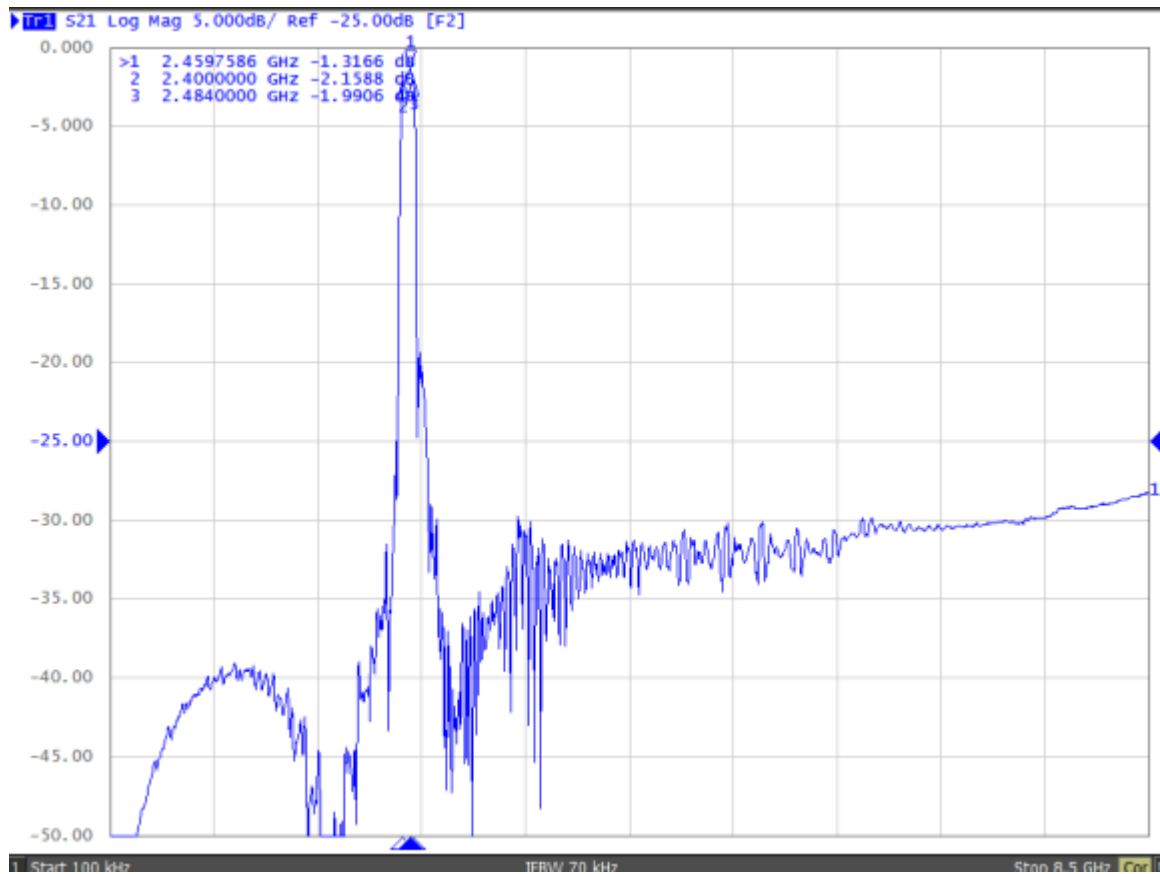
**C.FREQUENCY CHARACTERISTICS:**  
**S21 response: (span 500MHz)**



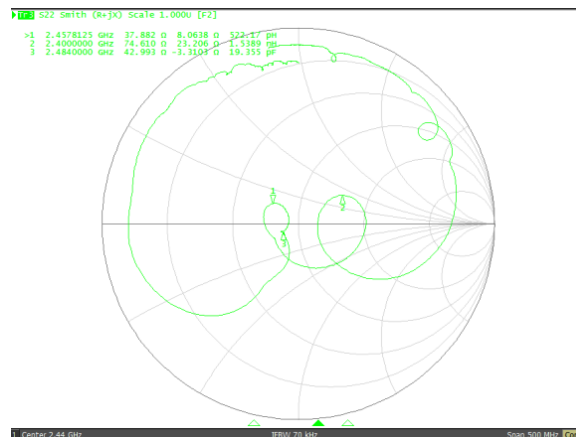
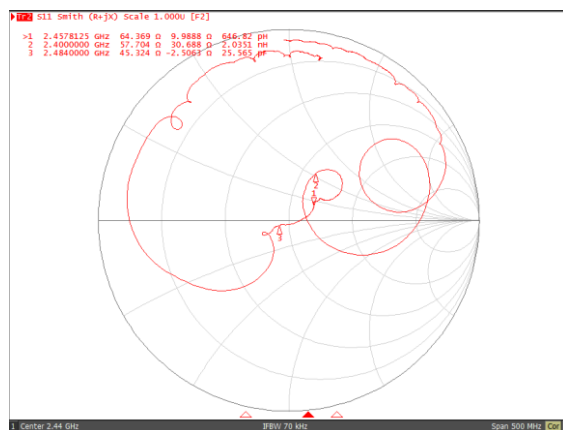
**S21 response: (span 200MHz)**



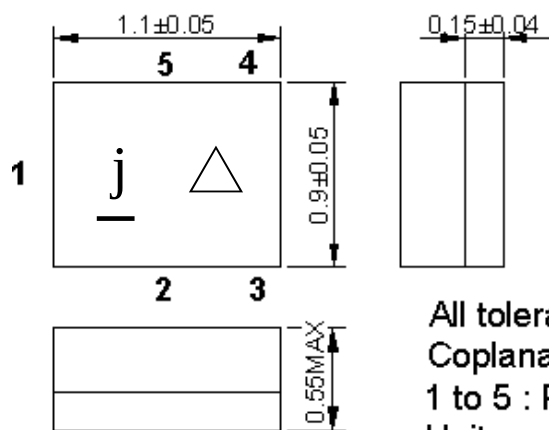
## S21 response: (span 8.5GHz)



## S11/S22 response:



## D.OUTLINE DRAWING:

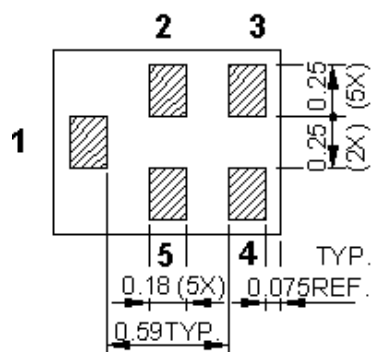


All tolerances are +/-0.05 mm unless otherwise specified

Coplanarity : 0.1 mm max.

1 to 5 : Pin No.

Unit : mm

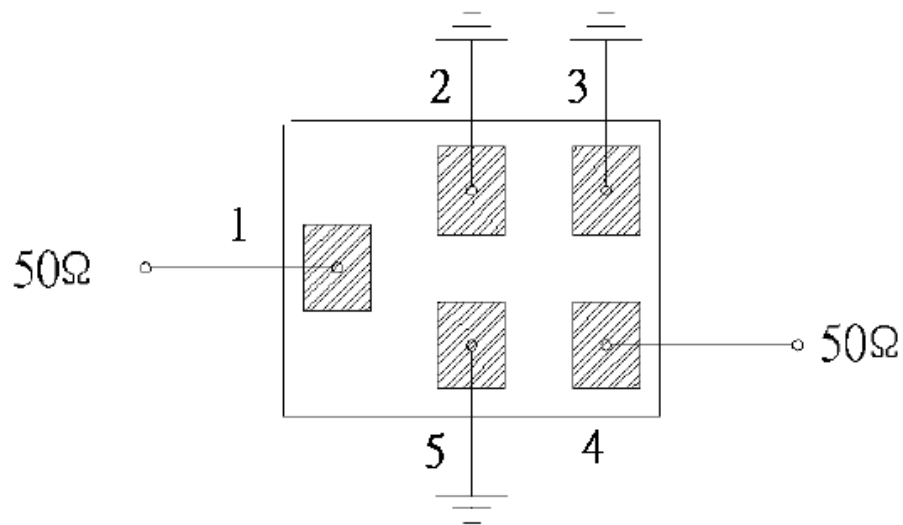


| Pin No. | Symbol | Function |
|---------|--------|----------|
| 1       | IN     | Input    |
| 2       | GND    | Ground   |
| 3       | GND    | Ground   |
| 4       | OUT    | Output   |
| 5       | GND    | Ground   |

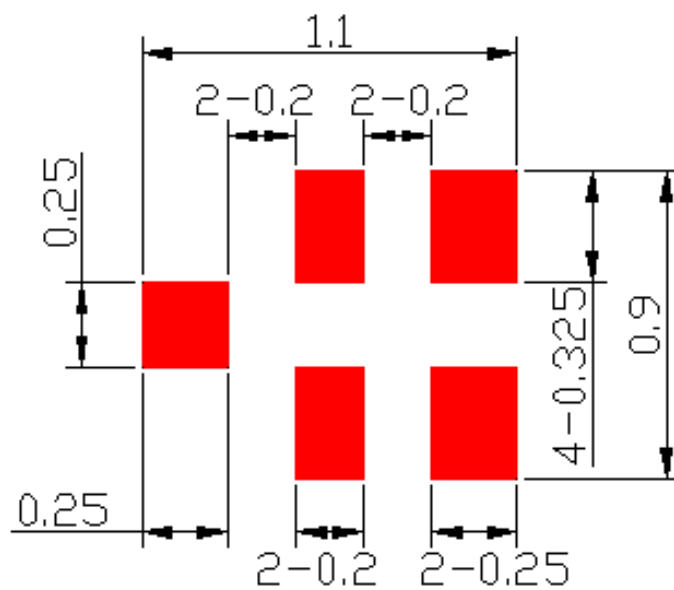
## Δ : Year/Month Code (Follow the table)

| YEAR/Month | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       | 11       | 12       |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2021       | A        | B        | C        | D        | E        | F        | G        | H        | J        | K        | L        | M        |
| 2022       | N        | P        | Q        | R        | S        | T        | U        | V        | W        | X        | Y        | Z        |
| 2023       | a        | b        | c        | d        | e        | f        | g        | h        | j        | k        | l        | m        |
| 2024       | n        | p        | q        | r        | s        | t        | u        | v        | w        | x        | y        | z        |
| 2025       | <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> |
| 2026       | <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> |
| 2027       | <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> |
| 2028       | <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> |

### E. MEASUREMENT CIRCUIT:



### F. FOOT PRINT :



 : Land Pattern  
Unit: mm

**1. REEL DIMENSION**  
**(Please refer to FR-75D10 for packing quantity)**



#### 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.

