

# 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

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# **Product Specifications Approval Sheet**

| Product Description | : SAW Filter 1254. | 15 MHz SMD 2 | 2.0×1.6 mm | (BW=68.7 MHz) |
|---------------------|--------------------|--------------|------------|---------------|
| TST Part No.: TA23  | 52A                |              |            |               |
| Customer Part No.:  |                    |              |            |               |
| Customer signature  | required           |              |            |               |
| Company:            |                    |              |            |               |
| Division:           |                    |              |            |               |
| Approved by :       |                    |              |            |               |
|                     |                    |              |            |               |
| Checked by:         | David Chang        |              |            | -             |
| Approved by:        | Andy Yu            | Andy In      |            |               |
| Date:               | 2020/02/26         |              |            |               |

- 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.



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#### SAW Filter 1254.15 MHz

MODEL NO.: TA2352A REV. NO.:1

#### A. MAXIMUM RATING:

1.Input Power Level: 10 dB<sub>m</sub>

2.DC voltage: 3 V

3. Operating Temperature: -40°C to +105°C

4.Storage Temperature: -40 °C to +105 °C

5. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant

Lead-free soldering

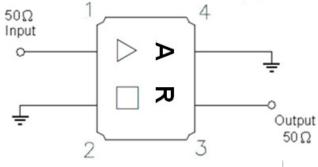
Electrostatic Sensitive Device (ESD)

#### **B. ELECTRICAL CHARACTERISTICS:**

| Item                                    | Unit | Min.  | Тур. | Max.    | Note |           |  |  |  |
|---|------|-------|------|---------|------|-----------|--|--|--|
| Center frequency                        | Fc   | MHz   | -    | 1254.15 | -    | -         |  |  |  |
| Insertion Loss (1219.8~1288.5 MHz)      | IL   | dB    | -    | 4       | 5.0  | -40~+85℃  |  |  |  |
| Insertion Loss (1219.8~1288.5 MHz)      | IL   | dB    | -    | 4       | 5.2  | -40~+105℃ |  |  |  |
| Amplitude Ripple (1219.8~1288.5 MHz)    |      | dB    | -    | 1.1     | 2.0  | -         |  |  |  |
| Group Delay Ripple (1219.8~1288.5 MHz   | z)   | ns    | -    | 4       | 20   | -         |  |  |  |
| Return Loss (1219.8~1288.5 MHz)         |      | dB    | 6.5  | 7.5     | -    | -         |  |  |  |
| Attenuation (Reference level from 0 dB) |      |       |      |         |      |           |  |  |  |
| 800 ~ 920 MHz                           |      | dB    | 37   | 41      | -    | -         |  |  |  |
| 1710 ~ 1780 MHz                         |      | dB    | 39   | 43      | -    | -         |  |  |  |
| 1850 ~ 1910 MHz                         |      | dB    | 39   | 42      | -    | -         |  |  |  |
| 1920 ~ 1980 MHz                         |      | dB    | 40   | 44      | -    | -         |  |  |  |
| 2400 ~ 2500 MHz                         |      | dB    | 41   | 46      | -    | -         |  |  |  |
| Temperature coefficient of frequency    |      | ppm/k | -    | -80     | -    | -         |  |  |  |

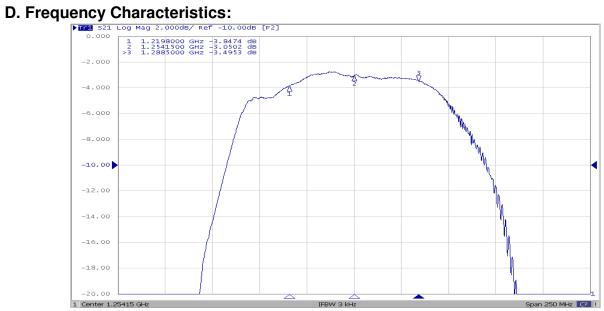
Note. Test setup only test spec of -40~+85 ℃.

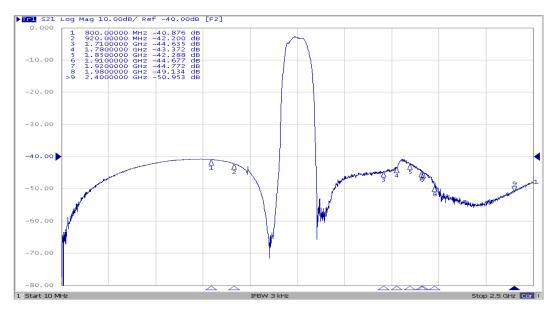
#### C. MEASUREMENT CIRCUIT:



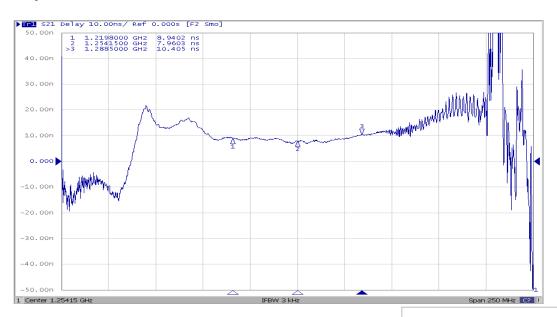
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**TST DCC**Release document





## **Group Delay**

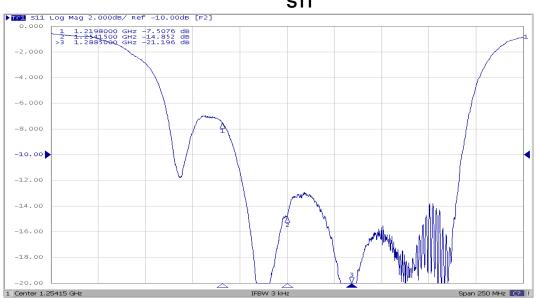


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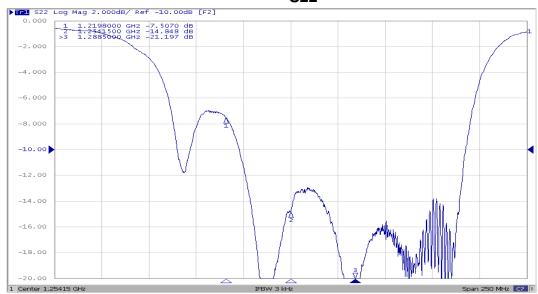
**TST DCC** Release document

### **Reflection Functions:**

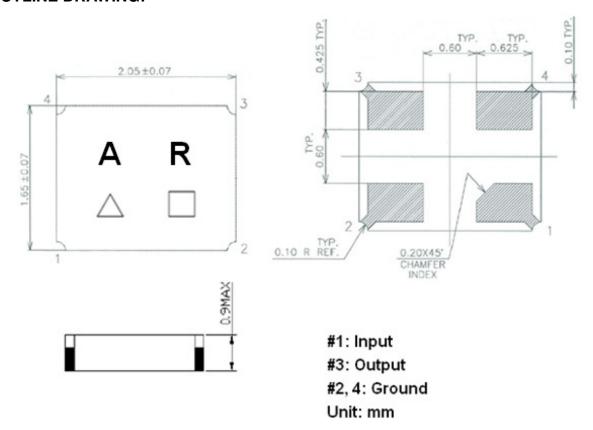




#### **S22**



#### **E. OUTLINE DRAWING:**



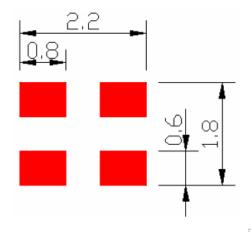
∆: Year Code (2020->0, 2021->1,...,2029->9)

: Date Code (Follow the table from planner each year)

## Date Code Table:

| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Α    | В    | C    | D    | E    | F    | G    | Н    | - 1  | J    | K    | L    | M    |
| WK14 | WK15 | WK16 | WK17 | WK18 | WK19 | WK20 | WK21 | WK22 | WK23 | WK24 | WK25 | WK26 |
| N    | 0    | P    | Q    | R    | S    | Т    | U    | V    | W    | Х    | Y    | Z    |
| WK27 | WK28 | WK29 | WK30 | WK31 | WK32 | WK33 | WK34 | WK35 | WK36 | WK37 | WK38 | WK39 |
| а    | b    | С    | d    | е    | f    | g    | h    | i    | j    | k    | 1    | m    |
| WK40 | WK41 | WK42 | WK43 | WK44 | WK45 | WK46 | WK47 | WK48 | WK49 | WK50 | WK51 | WK52 |
| n    | 0    | р    | q    | г    | S    | t    | u    | ٧    | W    | ×    | У    | Z    |

## F. PCB Footprint:

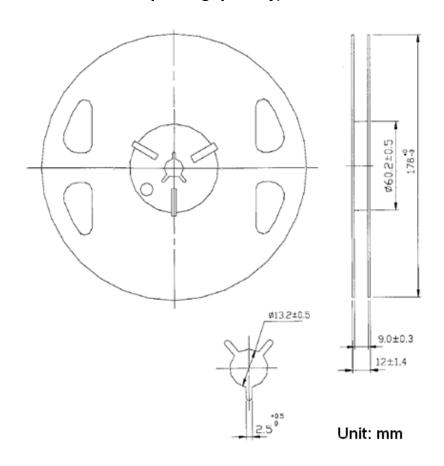


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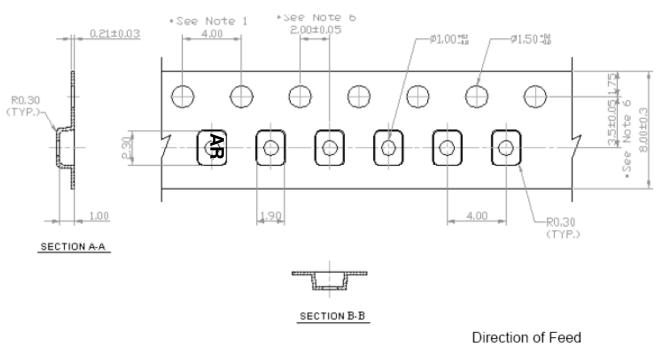
# G. PACKING: (Ref. WI-75M03)

1. REEL DIMENSION

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



#### 2. TAPE DIMENSION



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#### H. Recommended Reflow Profile:

- 1. Preheating shall be fixed at  $150 \sim 180$ °C for  $60 \sim 90$  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.

