TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

| ⊃ro | duct Description: 70MHz | IF SAW Filter | (BW=35 MHz) |) |
|-------------|----------------------------|---------------|-------------|------|
| TS1 | Parts No.: TB0474A | | | |
| Cus | stomer Parts No.: | | | |
| | | | | |
| | Customer signature require | d | | |
| | Company: | | | _ |
| | Division: | | | _ |
| | Approved by : | | | _ |
| | Date: | | | - |
| | | | | |
| Checked by: | | Ava Wang | Ava | Wang |
| ٩рр | proved by: | Kazuma Lee | Kasuma | Jee |
| | e: | | | |
| | | | | |

- 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.

TST DCC Release document



TAI-SAW TECHNOLOGY CO., LTD.

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SAW Filter 70MHz (SMD 13.3×6.5 mm)

MODEL NO.: TB0474A Rev. NO. 2.0

A. MAXIMUM RATINGS:

1. Operating Temperature: -30°C to 60°C

2. Storage Temperature: -40°C to 85°C

3. Input Power: 15dBm

4. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant Lead free Lead-free soldering

Electrostatic Sensitive Device

B. <u>ELECTRICAL CHARACTERISTICS:</u>

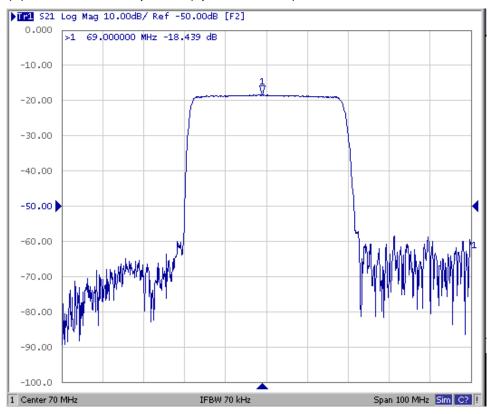
1. Ambient Temperature: 25 °C

| Item | Unit | Min. | Type. | Max. |
|------------------------------------|--------|------|-------|------|
| Center frequency, Fc | MHz | - | 70 | - |
| Insertion Loss, IL | dB | - | 18.4 | 20 |
| Upper -1dB frequency | MHz | 87.5 | 87.7 | - |
| Lower -1dB frequency | MHz | - | 52.2 | 52.5 |
| Upper -45dB frequency | MHz | - | 92.7 | 94 |
| Lower -45dB frequency | MHz | 47 | 49.5 | - |
| Ultimate rejection | | | | |
| 1MHz~45MHz | dB | 40 | 47 | |
| 95MHz~120MHz | dB | 35 | 41 | |
| Passband Ripple 52.5 – 87.5 MHz | dB | - | 0.85 | 1.2 |
| Absolute Group Time Delay | nsec | - | 960 | 1000 |
| Temperature Coefficient | ppm/°C | - | -72 | - |
| Source Impedance (Balanced) | Ohm | - | 50 | - |
| Load Impedance (Balanced) | Ohm | - | 50 | - |

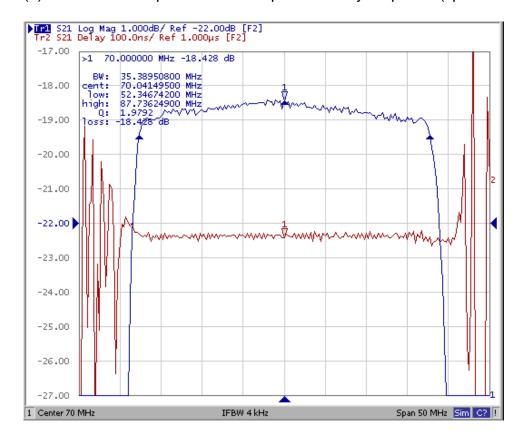
2

C. FREQUENCY CHARACTERISTICS:

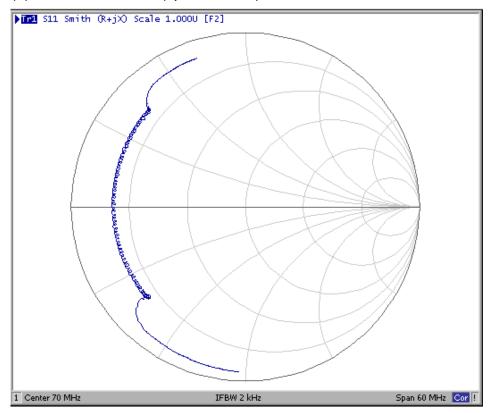
(1) Wide band Response:(span 100MHz)



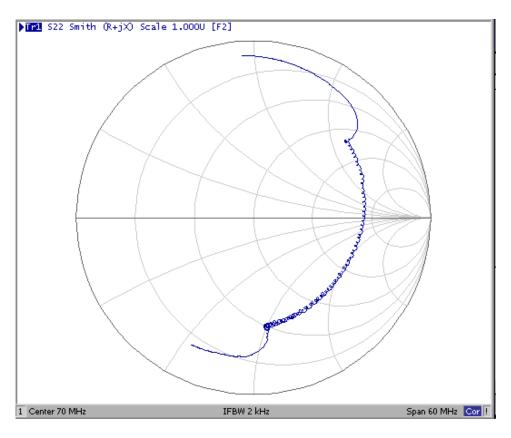
(2) Pass band Response and Group Time Delay response:(span 50MHz)



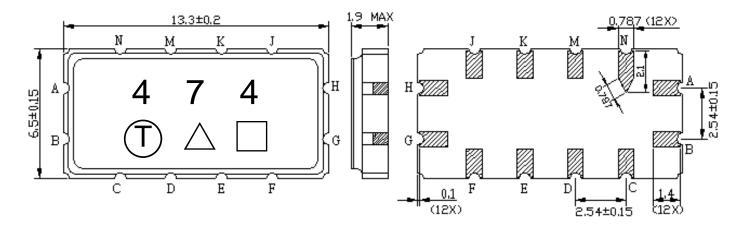
(3) S11 Smith-Chart: (span 60MHz)



(4) (4)S22 Smith-Chart: (span 60MHz)



D. **OUTLINE DRAWING:**



Pin A=B: RF input Pin H=G: RF output

Pin C, D, E, F, J, K, M, N: To be Ground

Unit: mm

 \triangle : Product / Year Code

☐ : Week Code (Follow the table from planner each year)

Product / Year Code- 4year cycle

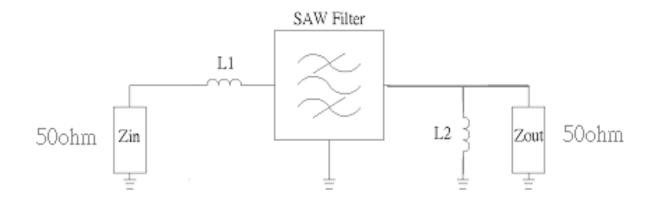
| Year | 2021 | 2022 | 2023 2024 | | |
|--------------|------|------|-----------|----------|--|
| | 2025 | 2026 | 2027 2028 | | |
| Product Code | В | b | <u>B</u> | <u>b</u> | |

Week Code Table

| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| А | В | С | D | Е | F | G | Н | 1 | J | K | L | М |
| WK14 | WK15 | WK16 | WK17 | WK18 | WK19 | WK20 | WK21 | WK22 | WK23 | WK24 | WK25 | WK26 |
| N | 0 | Р | Q | R | S | Т | U | V | W | X | Υ | 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 | I | m |
| WK40 | WK41 | WK42 | WK43 | WK44 | WK45 | WK46 | WK47 | WK48 | WK49 | WK50 | WK51 | WK52 |
| n | 0 | р | q | r | s | t | u | V | W | х | у | Z |

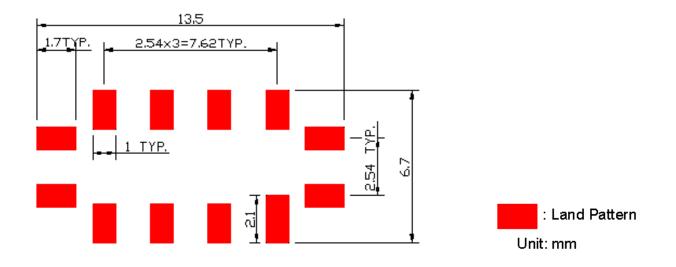
5

E. MATCHING CIRCUIT:



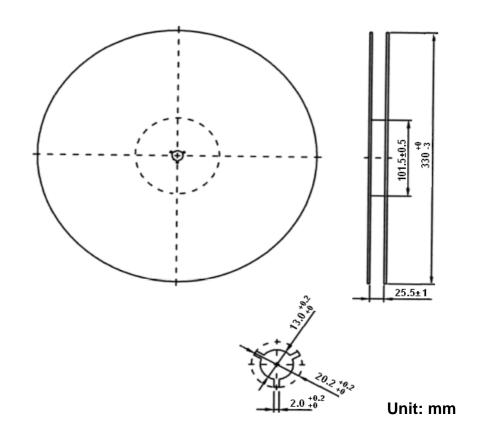
L1=90nH; L2=110nH.

F. PCB FOOTPRINT:

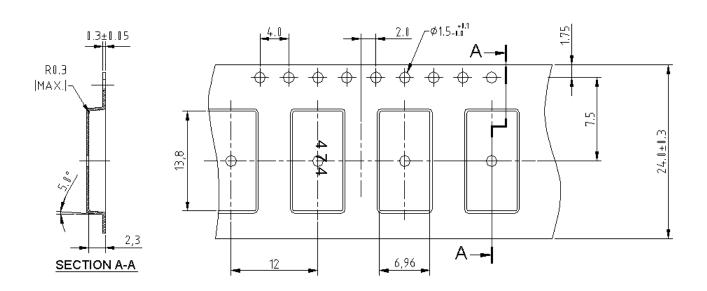


G. PACKING:

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



2. TAPE DIMENSION



Direction of feed

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.

