



# 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

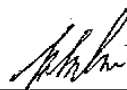
Product Description: SAW Filter 109 MHz SMD 9.1x7.1 mm (BW=35 KHz)

TST Part No.: TB0768B

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

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

Checked by: \_\_\_\_\_ David Chang 張閔智

Approved by: \_\_\_\_\_ Bob Chau 

Date: \_\_\_\_\_ 2013/06/19

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 109 MHz

MODEL NO.:TB0768B

REV. NO.:1

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 5V
3. Operating Temperature: -30°C to 70°C
4. Storage Temperature: -40°C to 85°C

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

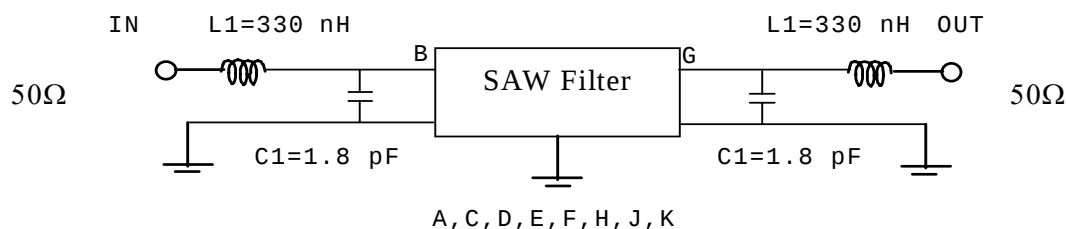
| Item                                 | Unit            | Min.           | Type. | Max. |    |
|--------------------------------------|-----------------|----------------|-------|------|----|
| Center frequency                     | Fc              | MHz            | -     | 109  | -  |
| Minimum Insertion Loss (Fc±17.5KHz ) | IL              | dB             | -     | 2.4  | 6  |
| 3 dB bandwidth                       | BW <sub>3</sub> | KHz            | 35    | 72   | -  |
| Passband Ripple (Fc±17.5KHz )        |                 | dB             | -     | 0.7  | 3  |
| Group delay ripple (Fc±17.5KHz )     | GD              | μs             | -     | 4    | 12 |
| Relative Attenuation                 |                 |                |       |      |    |
| Fc ±200 KHz                          | dB              | 50             | 64    | -    |    |
| Fc ±500 KHz                          | dB              | 40             | 55    | -    |    |
| Temperature coefficient of frequency | TCf             | -0.036 ppm/K^2 |       |      |    |

Note: Considering -8 KHz frequency shift from -30 to +70

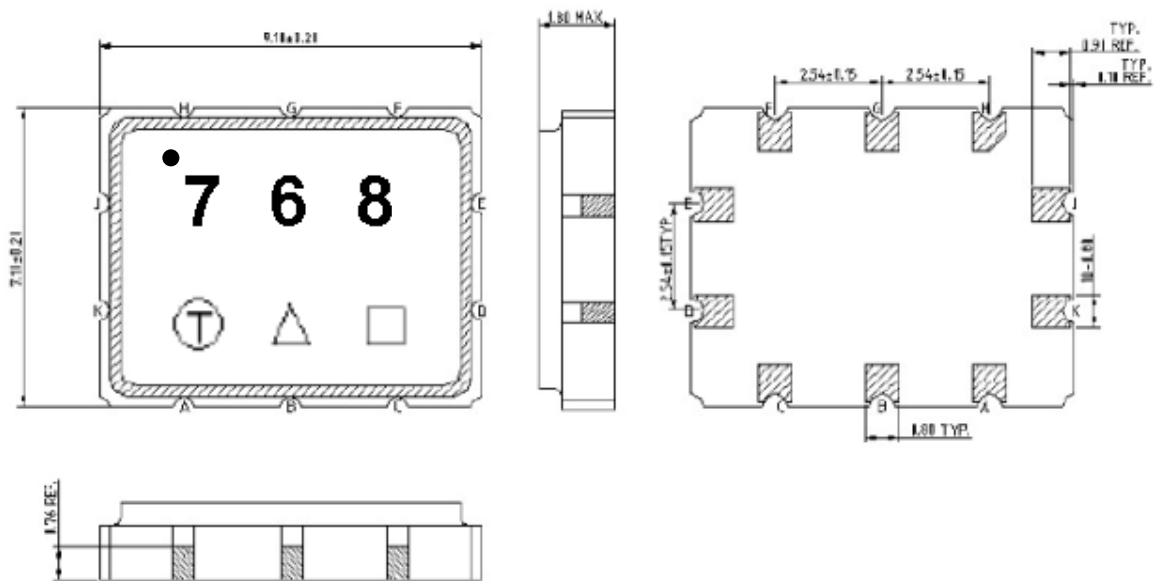
### C. MEASUREMENT CIRCUIT:

#### 50 Ohm Test circuit (single-ended / single-ended)

HP Network analyzer



D. OUTLINE DRAWING:



Pin configuration

#B Input / Output

#G Output / Input

#A,C,D,E,F,H,J,K To be grounded

Unit : mm

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

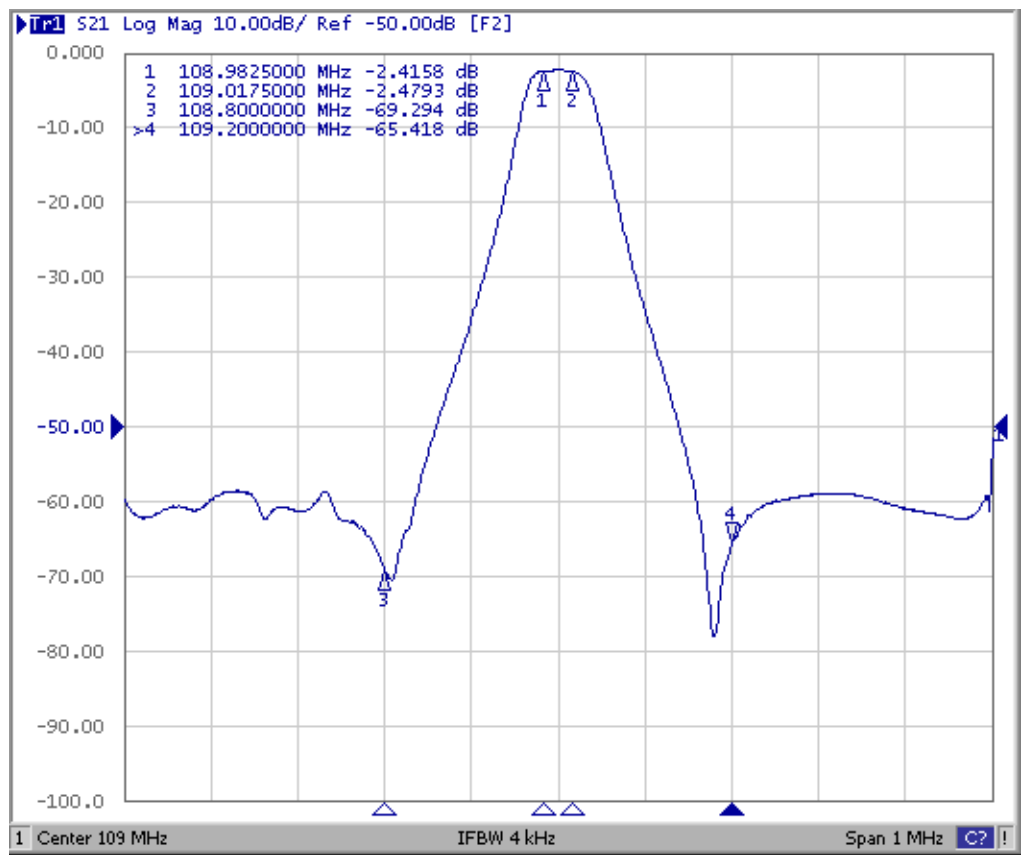
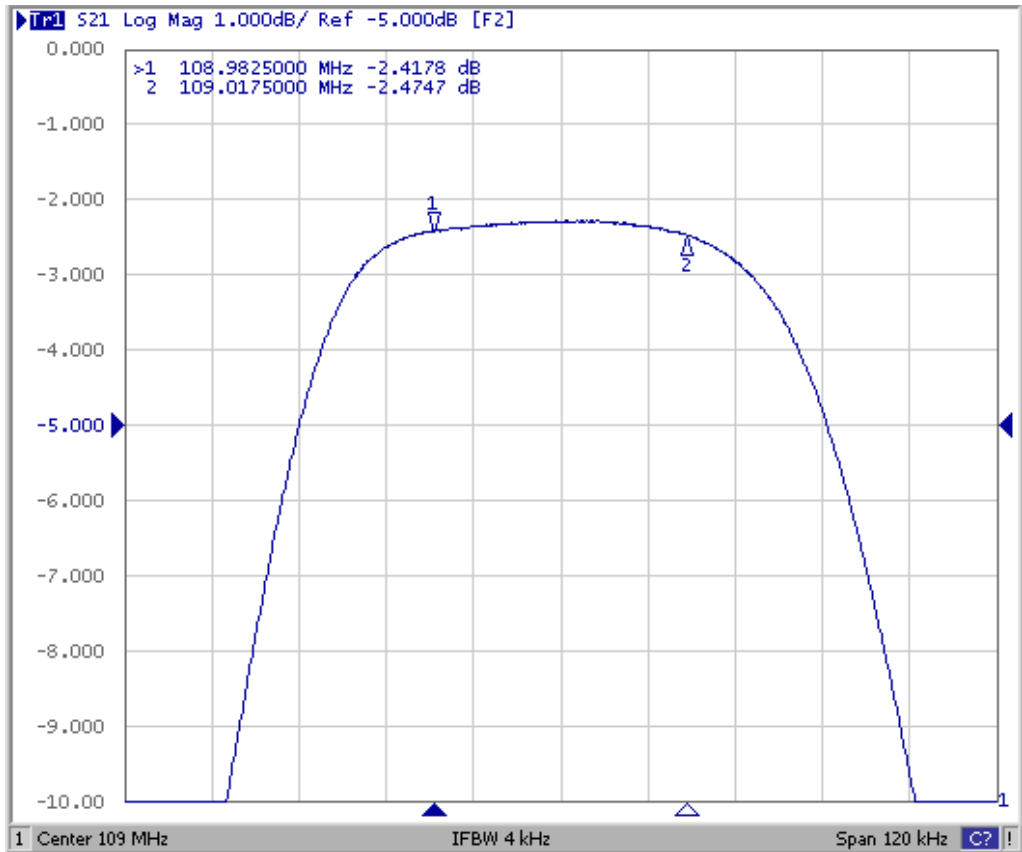
△ : Product / Year Code

| Year         | 2013<br>2017 | 2014<br>2018 | 2015<br>2019 | 2016<br>2020 |
|--------------|--------------|--------------|--------------|--------------|
| Product Code | B            | b            | <u>B</u>     | <u>b</u>     |

Date Code Table:

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

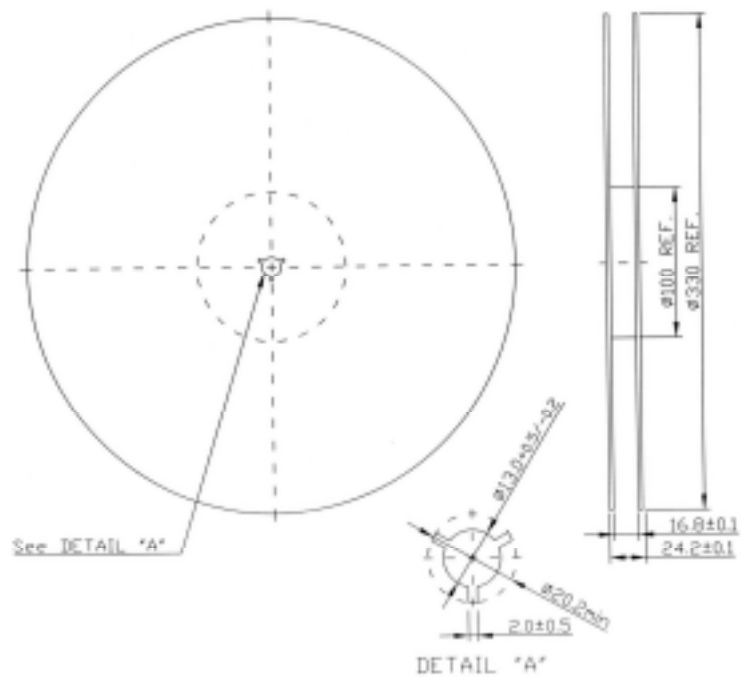
E. Frequency Characteristics:



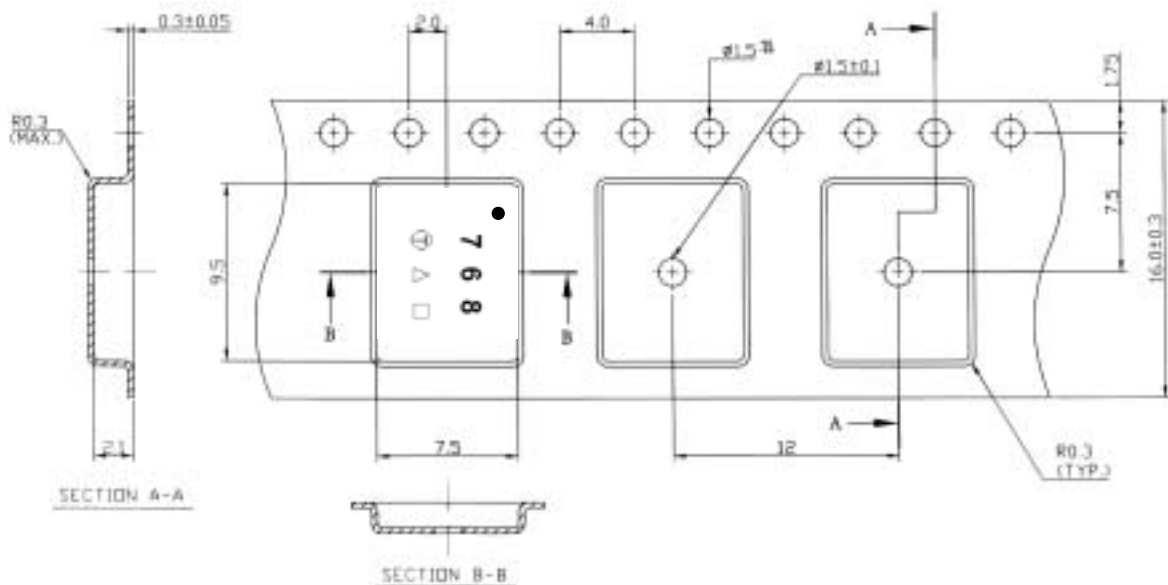
## F. PACKING:

### 1. REEL DIMENSION

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



### 2. TAPE DIMENSION



## G. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150~180 for 60~90 seconds.
2. Ascending time to preheating temperature 150 shall be 30 seconds min.
3. Heating shall be fixed at 220 for 50~80 seconds and at 245~260 peak (min. 10sec).
4. Time: 2 times.

