**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 Web: www.taisaw.com

# Product Specifications Approval Sheet

Product Description: SAW Filter 1176.45 MHz SMD 3.0×3.0mm

TST Part No.: TA2493A

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Sam Lin _____

Approved by:_____ Andy Yu _____

Date:_____ 2019/10/30 _____

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 1176.45 MHz SMD 3.0×3.0mm

MODEL NO.: TA2493A REV. 2.0

### A. MAXIMUM RATING:

1. Input Power Level: 20 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -55℃ to +85℃
4. Storage Temperature: -55℃ to +85℃
5. Moisture Sensitive Level: Level 1 (MSL1)

RoHS Compliant
Lead-free soldering

**E**lectrostatic **S**ensitive **D**evice (**ESD**)

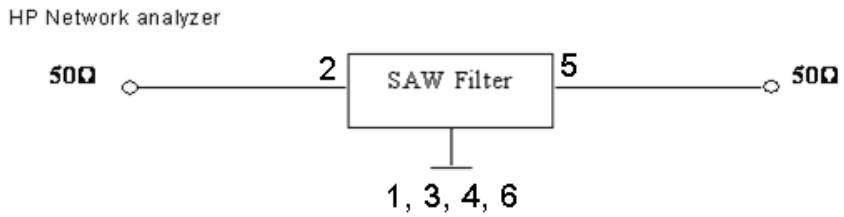
### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: Zs = 50 Ω

Terminating load impedance: $Z_L$ = 50 Ω

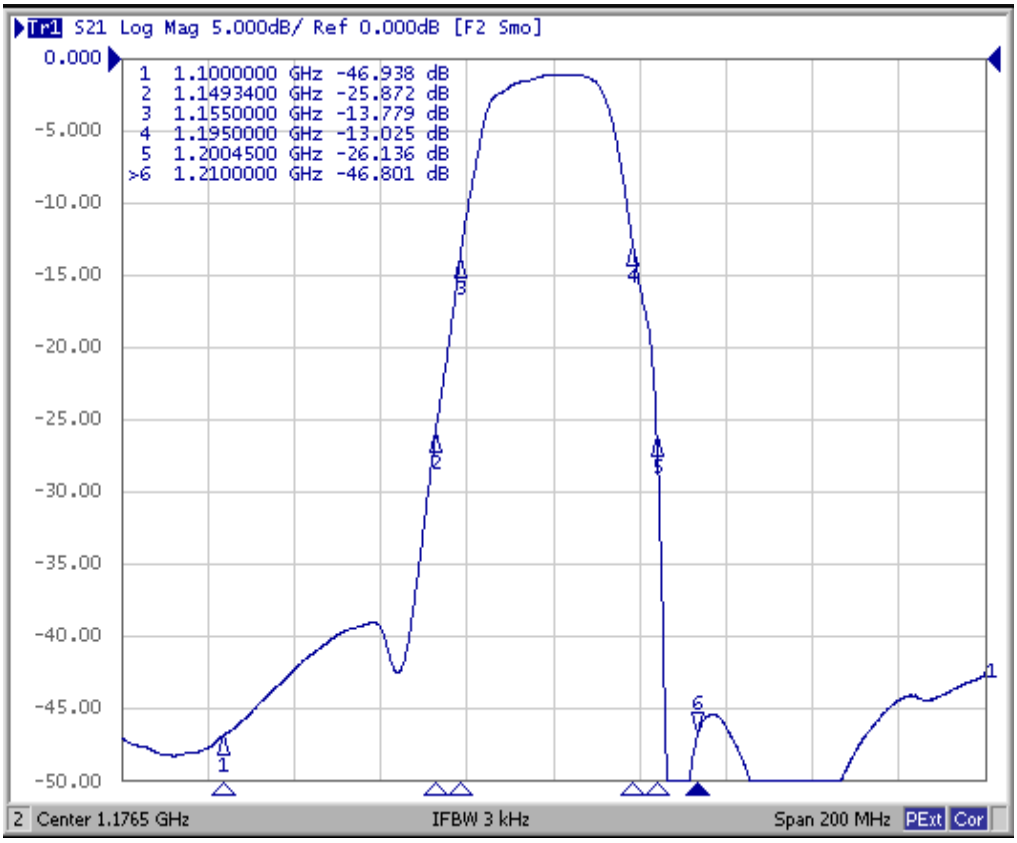
| Item | Unit | Min. | Typ. | Max. |
|---|---|---|---|---|
| **Center Frequency** | MHz | - | 1176.45 | - |
| **Insertion Loss** (1166.23 ~ 1186.67 MHz) | dB | - | 1.9 | 3.5 |
| **Amplitude Ripple** (1166.23 ~ 1186.67 MHz) | dB | - | 0.9 | 2.0 |
| **Group Delay Ripple** (1166.23 ~ 1186.67 MHz) | ns | - | 16 | 25 |
| **Attenuation** | | | | |
| 10 ~ 1100 MHz | dB | 25 | 37 | - |
| 1149.34 MHz | dB | 20 | 26 | - |
| 1155 MHz | dB | 10 | 14 | - |
| 1195 MHz | dB | 5 | 13 | - |
| 1200.45 MHz | dB | 15 | 26 | - |
| 1210 ~ 2000 MHz | dB | 25 | 41 | - |

### C. MEASUREMENT CIRCUIT:

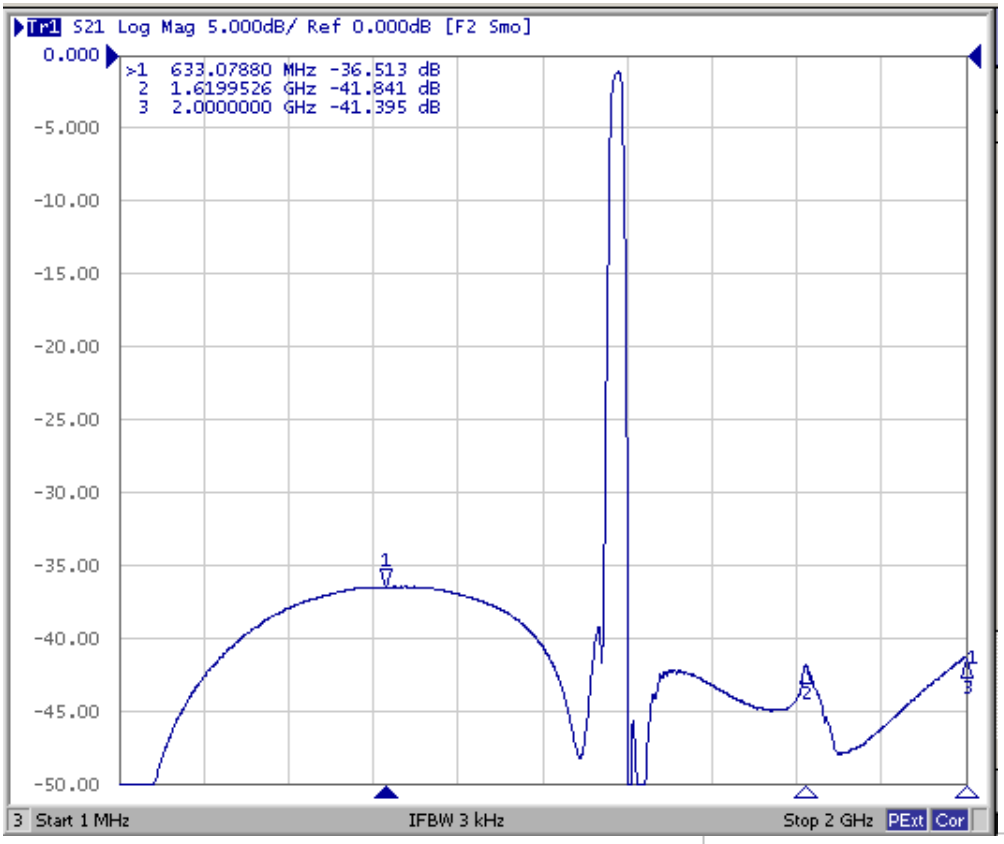


## D. Frequency Characteristics:

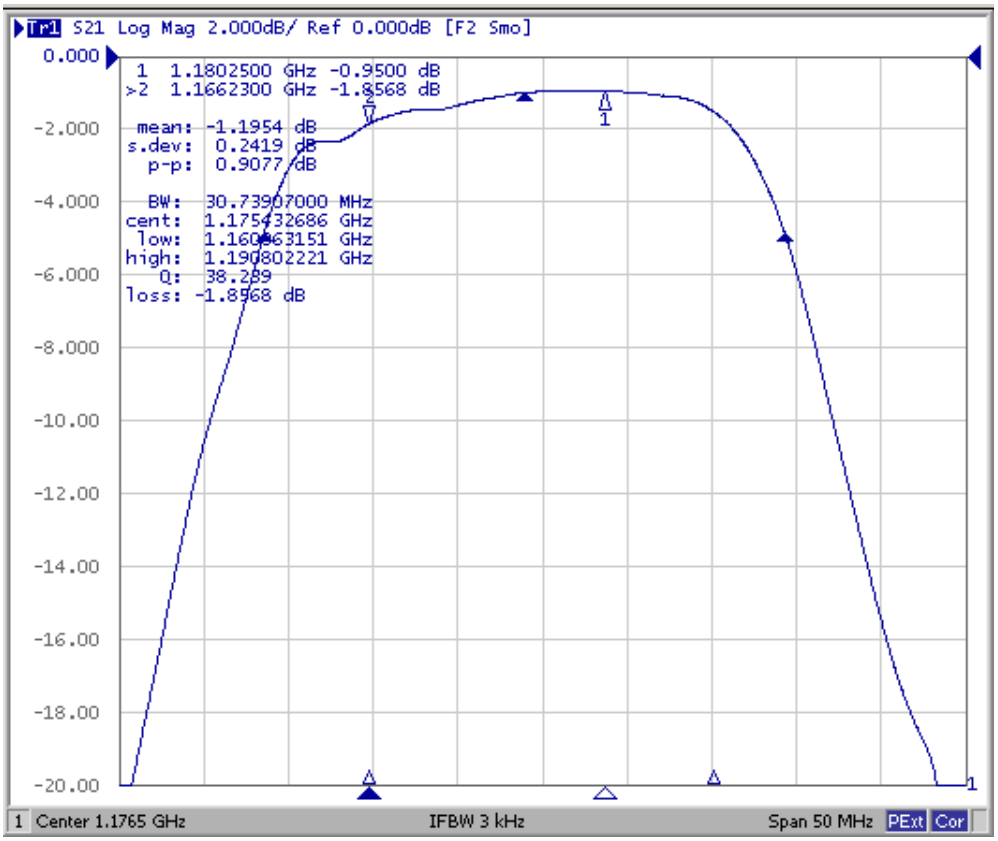
Span 200 MHz



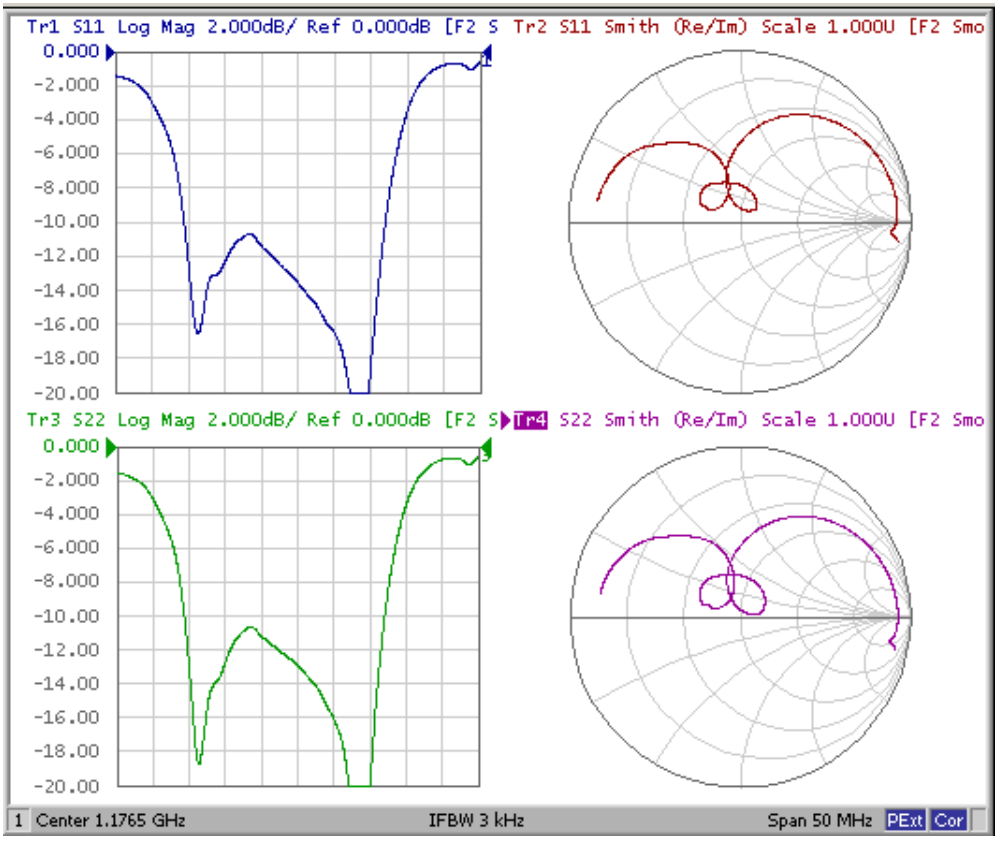

Span 2000 MHz



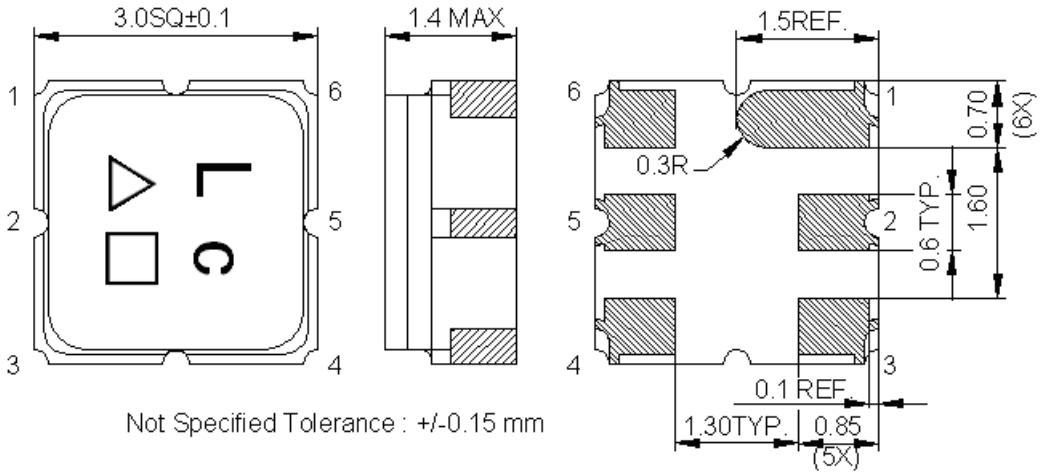
Span 50 MHz




Reflective characteristics



## E. OUTLINE DRAWING:

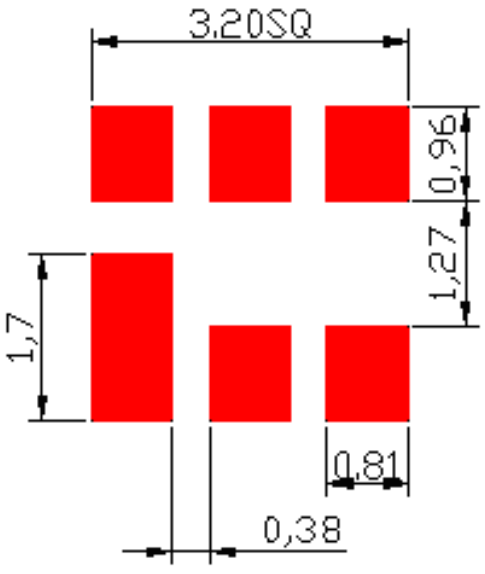



#2: Input
#5: Output
#1, 3, 4, 6: Ground

△ : Year Code (2009->9, 2010->0,…, 2018->8)
□ : Date Code (Follow the table from planner each year)

| 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 |

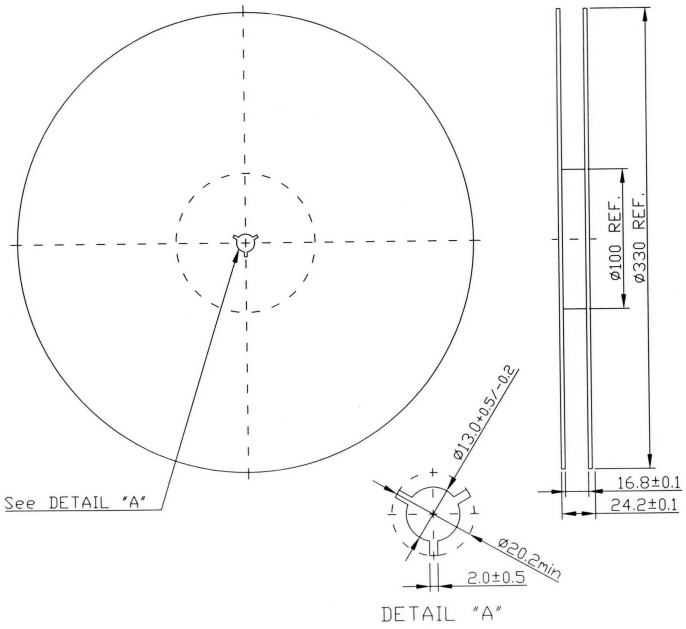
## F. PCB Footprint:



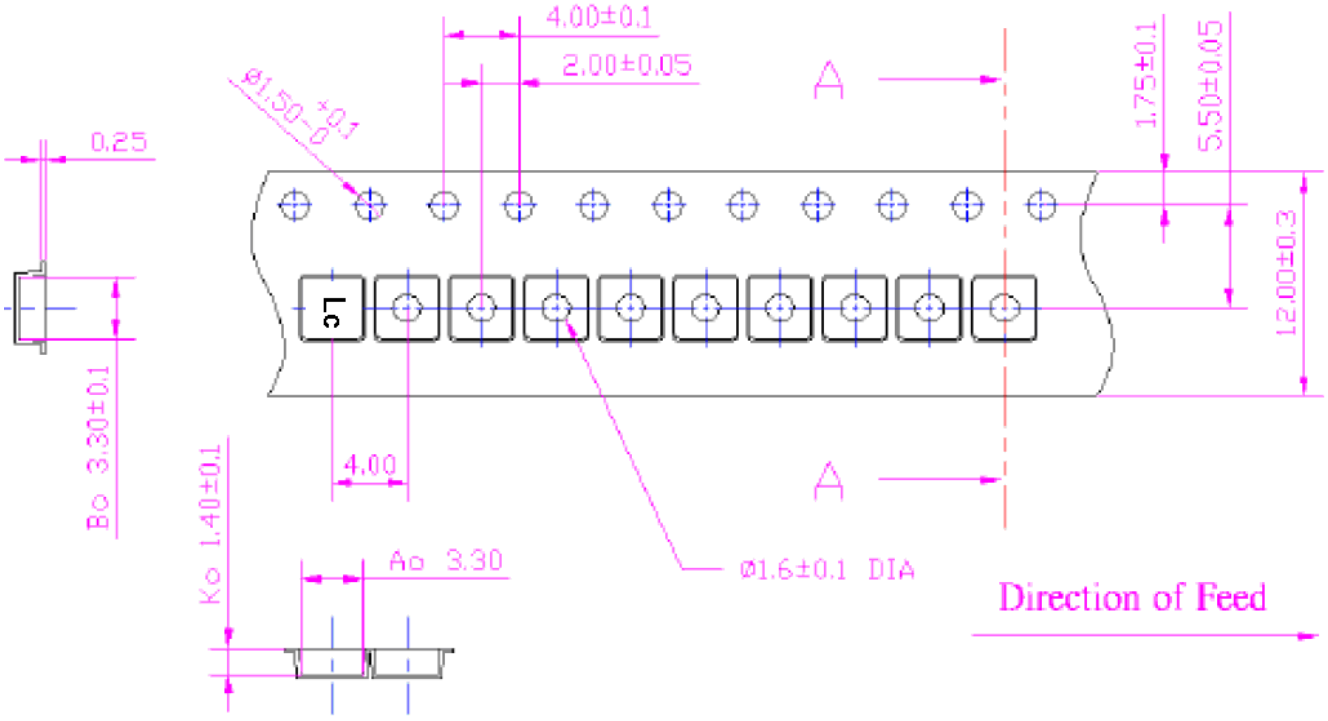
## G. PACKING:

1. REEL DIMENSION

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




2. TAPE DIMENSION



**H. <u>RECOMMENDED REFLOW PROFILE:</u>**

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 260℃+0/-5℃ peak (20~40sec).
4. Time: 2 times.