



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Name: Dielectric Filter 5697MHz SMD 8.6x3.35 mm (BW=360 MHz)

TST Parts No.: TR0026A

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

Customer signature required

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

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

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

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

Checked by: \_\_\_\_\_ Hongpu Lin *Hong Pu Lin*

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2019/11/12

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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## Dielectric filter 5697 MHz

MODEL NO.: TR0026A

REV. NO.:1

### A. MAXIMUM RATING:

1. Input Power Level: 1 W
2. Operating Temperature: -40°C to +85°C
3. Storage Temperature:-40°C to +85°C
4. Moisture Sensitivity Level: Level 2a(MSL2a)



**Electrostatic Sensitive Device (ESD)**

### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance (single ended) :  $Z_s = 50 \Omega$

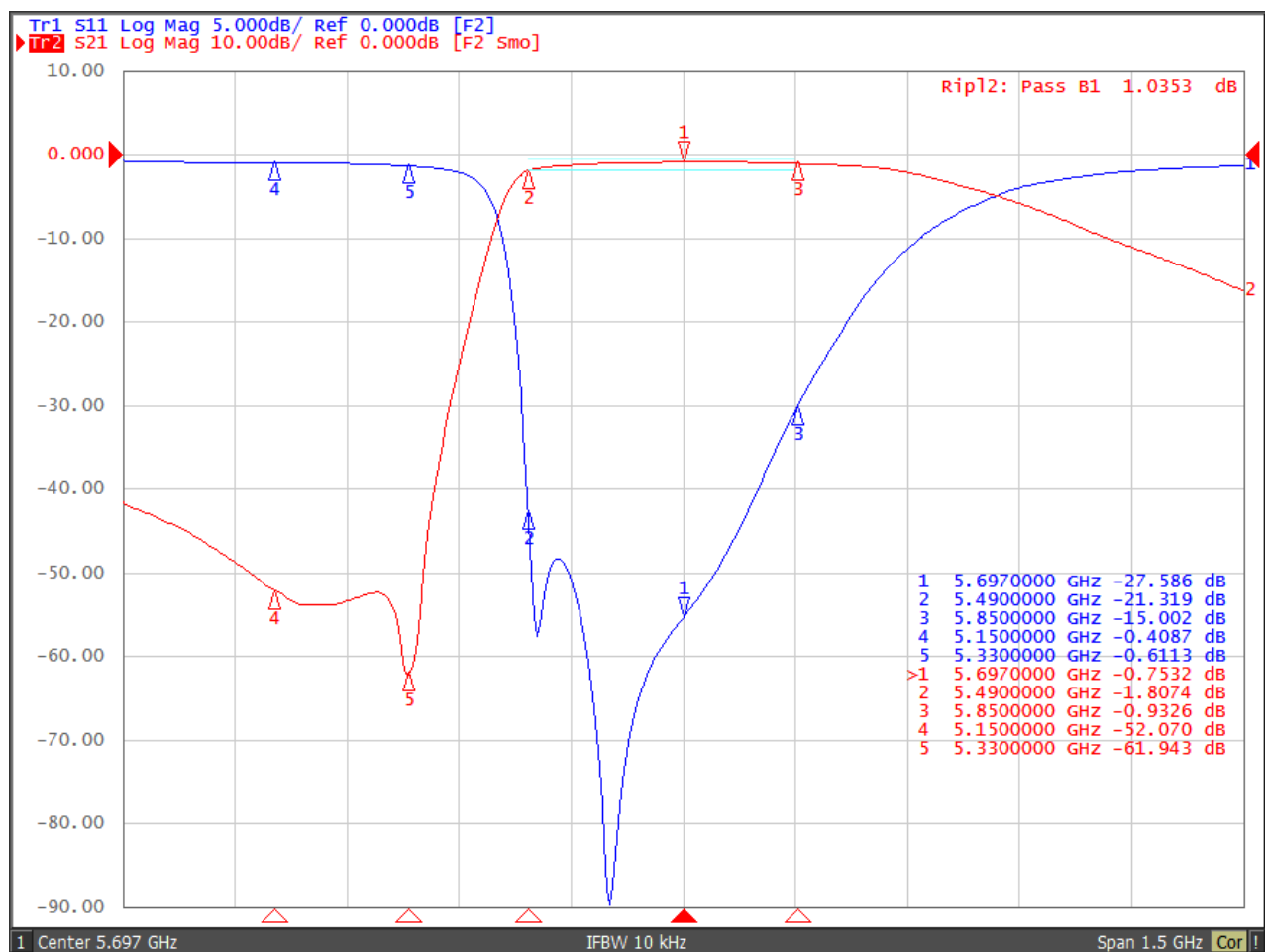
Terminating load impedance (single ended) :  $Z_L = 50 \Omega$

| NO. | ITEM                          |                  | SPECIFICATION |       |       |
|-----|-------------------------------|------------------|---------------|-------|-------|
|     |                               |                  | Min           | Typ.  | Max   |
| 1   | INSERTION LOSS (5490~5850)MHz |                  |               | 2.2dB | 2.5dB |
| 2   | RIPPLE (5490~5850)MHz         |                  |               | 1.2dB | 1.5dB |
| 3   | RETURN LOSS (5490~5850)MHz    |                  | 10dB          | 12dB  |       |
| 4   | STOP-BAND ATTENUATION         | at 5150~5330 MHz | 50dB          | 52dB  |       |

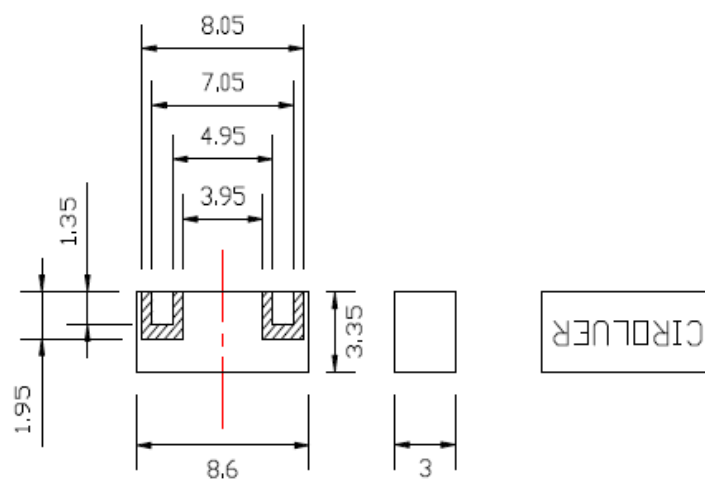
Item NO.4 specifies the absolute value of attenuation.

**Data is measured on TST EVB board**

## C. FREQUENCY CHARACTERISTICS :



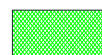
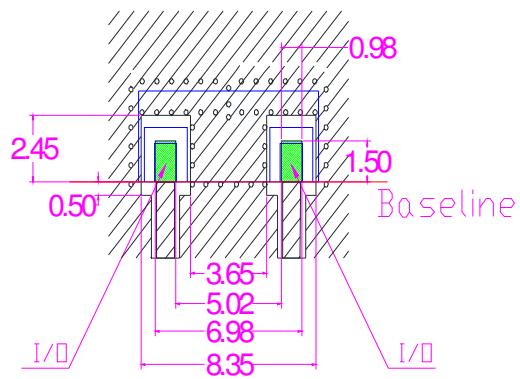
## D. OUTLINE DRAWING:



Dimensions in mm  
 Tolerance :  $\pm 0.25$

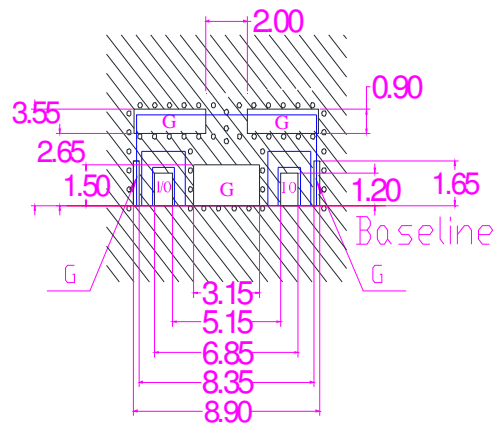
## PCB Footprint

3-2-1  
Conductive Material  
Patten



I/O Pads must be connected to lines with  $50\ \Omega$  impedance. in the application a termination of  $50\ \Omega$  must be realized.

3-2-2  
Solder resist  
Patten

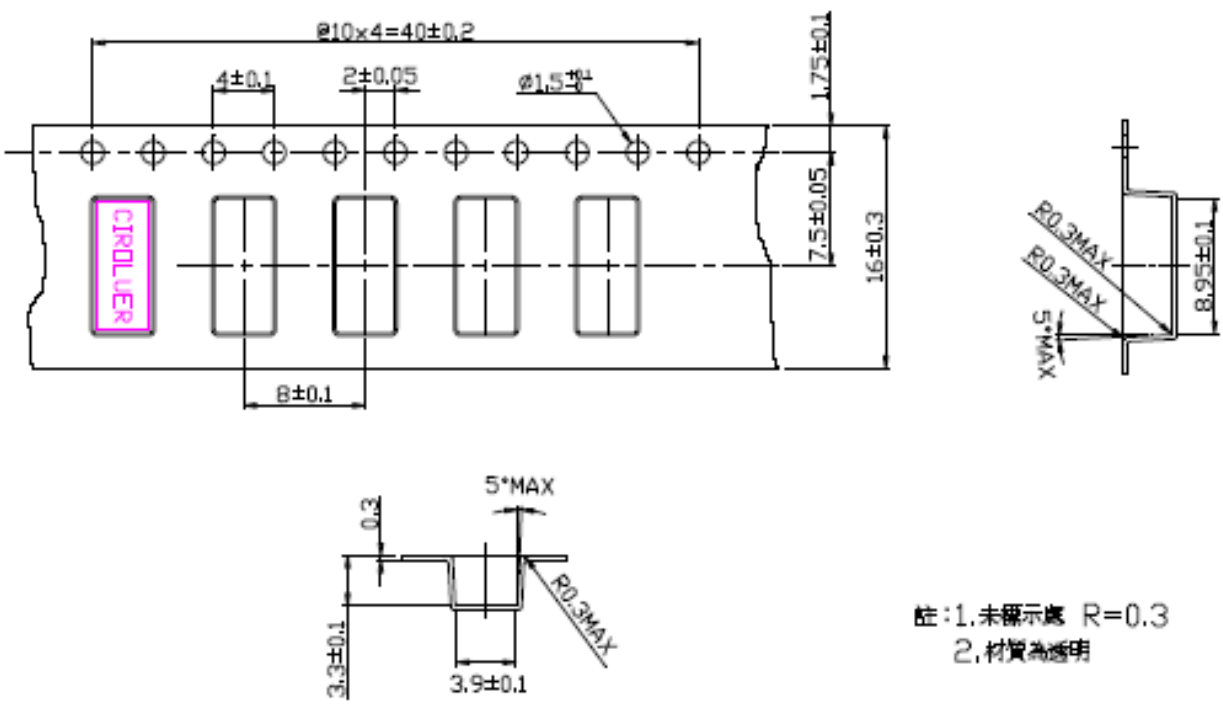


Tolerance:  $\pm 0.2$   
I/O: Input/Output  
G: Ground

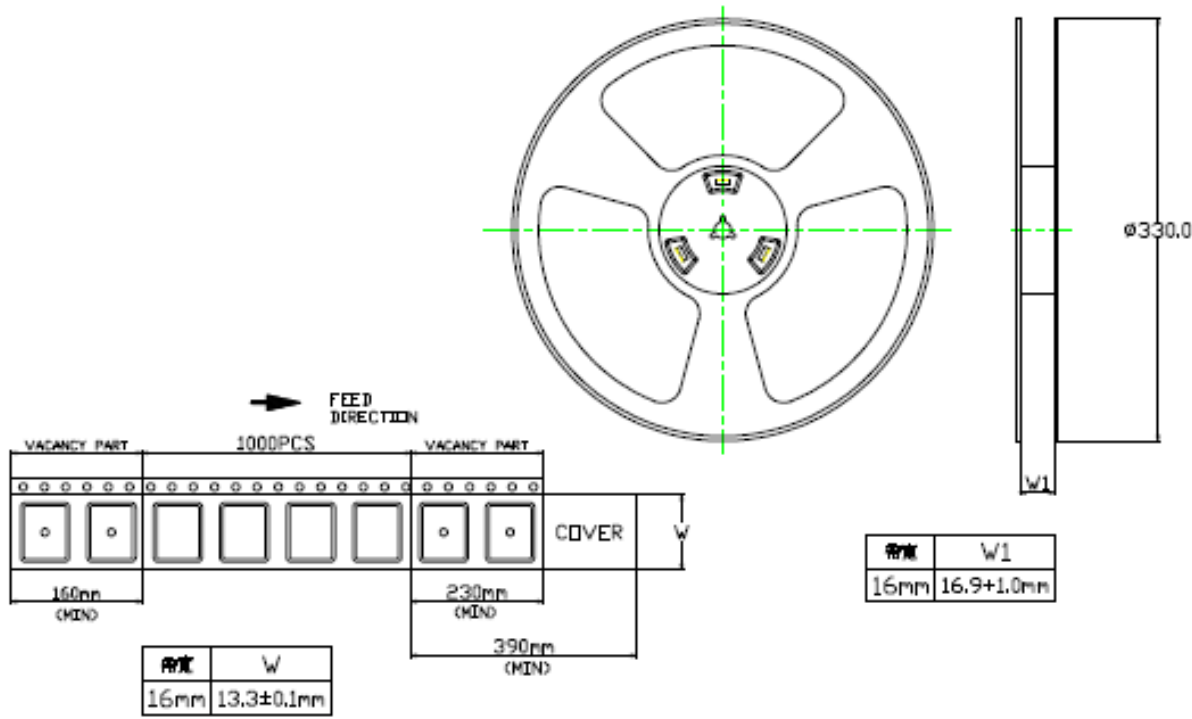


E. PACKING:

1.Carrier tape

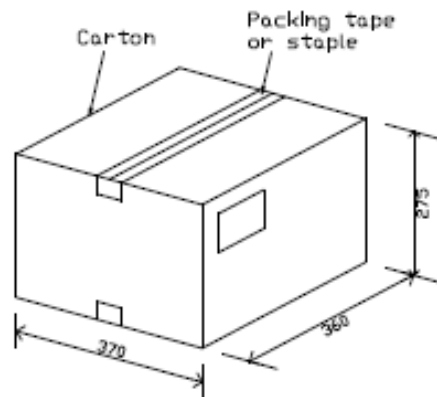


2.Reel

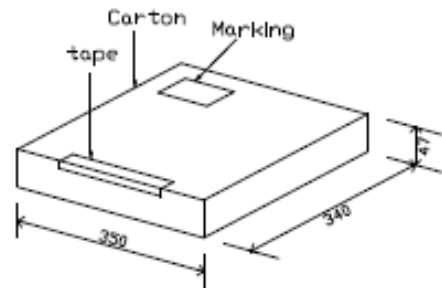


## Package style

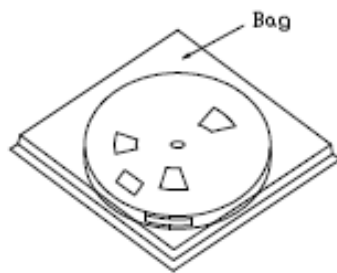
1. Outer Carton  
Quanylty:5000PCS



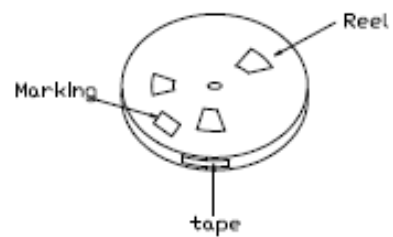
2. Inner Carton  
Quanylty:1000PCS



3. Bag  
Quanylty:1000PCS



4. Taping  
Quanylty:1000PCS



Unit:mm

## F. RECOMMENDED REFLOW PROFILE:

Products can be assembled following Pb-free assembly. According to the Standard **IPC/JEDEC J-STD-020C**, the temperature profile suggested is as follow:

| Phase                              | Profile features                                                                                                     | Pb-Free Assembly (SnAgCu)        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| PREHEAT                            | -Temperature Min( $T_{smin}$ )<br>-Temperature Max( $T_{smax}$ )<br>-Time( $t_s$ ) form ( $T_{smin}$ to $T_{smax}$ ) | 150°C<br>200°C<br>60-120 seconds |
| RAMP-UP                            | Avg. Ramp-up Rate ( $T_{smax}$ to $T_P$ )                                                                            | 3°C/second(max)                  |
| REFLOW                             | -Temperature( $T_L$ )<br>-Total Time above $T_L$ ( $t_L$ )                                                           | 217°C<br>30-100 seconds          |
| PEAK                               | -Temperature( $T_P$ )<br>-Time( $t_p$ )                                                                              | 260°C<br>3 second                |
| RAMP-DOWN                          | Rate                                                                                                                 | 6°C / second max.                |
| Time from 25°C to Peak Temperature |                                                                                                                      | 8 minutes max.                   |
| Composition of solder paste        |                                                                                                                      | 96.5Sn/3Ag/0.5Cu                 |
| Solder Paste Model                 |                                                                                                                      | SHENMAO PF606-P26                |

All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens

