



# 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 Description: Dielectric Filter 4850MHz BW 200MHz Size 8.7x4.6mm  
TST Parts No.:TR0047AA0095

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

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

Checked by: \_\_\_\_\_ Nina Chen *Nina Chen*

Approved by: \_\_\_\_\_ Kazuma Lee *Kazuma Lee*

Date: \_\_\_\_\_ 2022/04/28

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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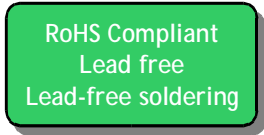
## Dielectric Filter 4850MHz BW 200MHz Size 8.7x4.6mm

MODEL NO.: TR0047AA0095

REV. NO.:1.0

### A. Maximum Rating:

1. Input Power : 1W
2. DC Voltage : 0 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: 1

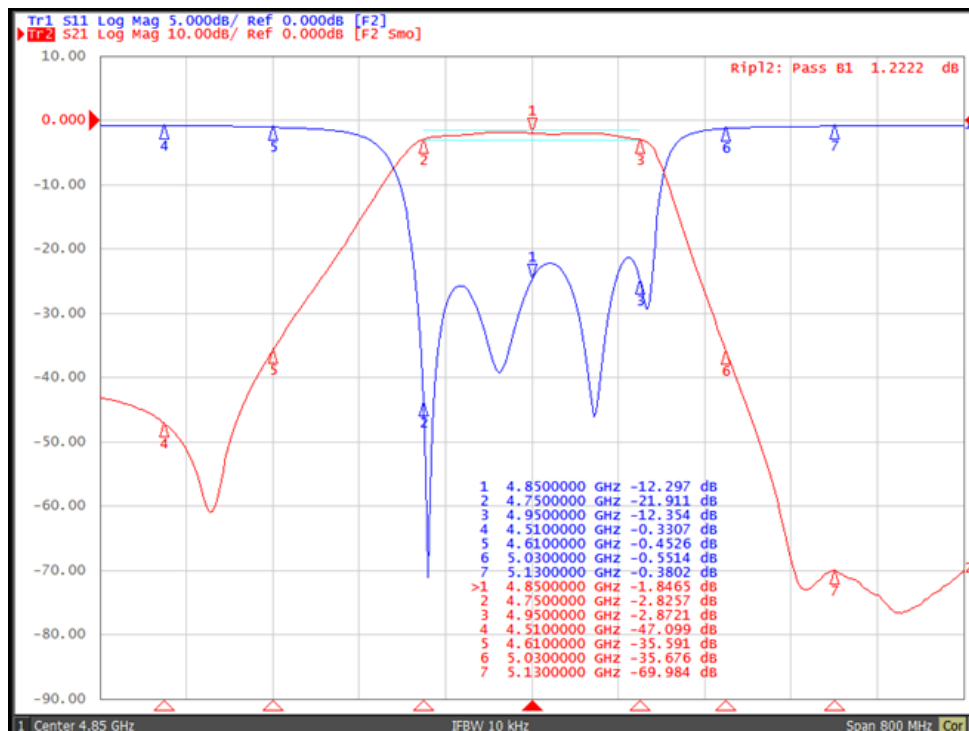


**Electrostatic Sensitive Device (ESD)**

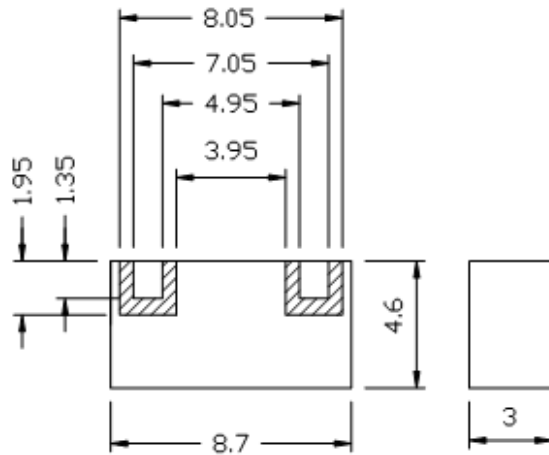
### B. Electrical Characteristics:

Item		Unit	Specification
Center frequency	4750~4950 MHz	MHz	4850
Insertion Loss		dB	3.0(Max)
Amplitude Ripple		dB	1.8(Max)
Return Loss		dB	10(Min)
Attenuation	4510~4610 MHz	dB	30(Min)
	5030~5130 MHz	dB	30(Min)

### C. Frequency Characteristics:



**D. Dimension:**

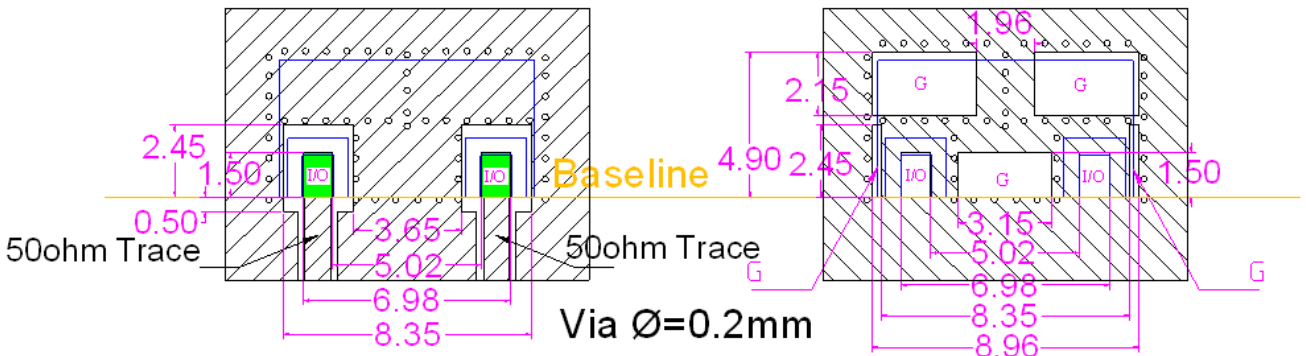


Dimensions in mm  
Tolerance :  $\pm 0.25$

**E. PCB Foot Print:**

**Conductive Material Pattern**

**Solder resist Pattern**




-  Filter outline
-  Via hole

 Electrode



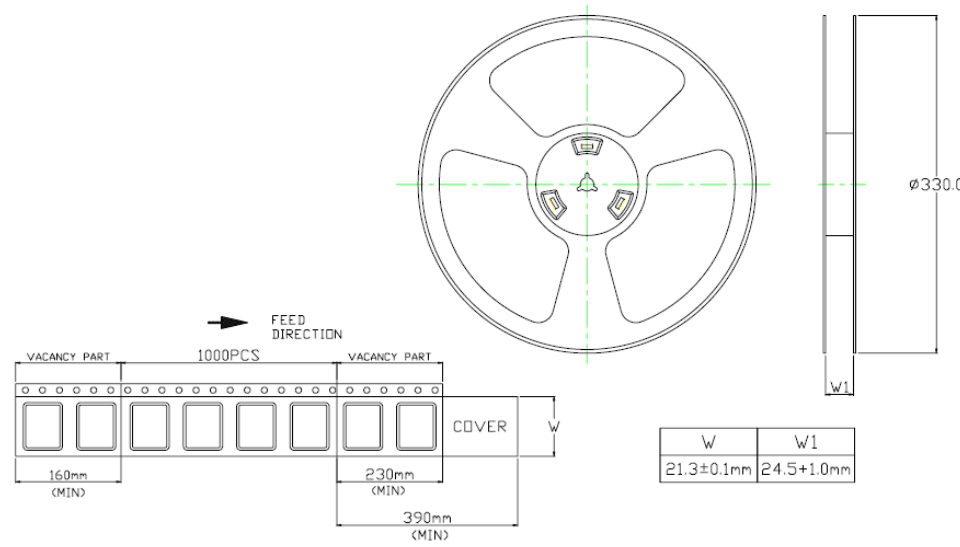
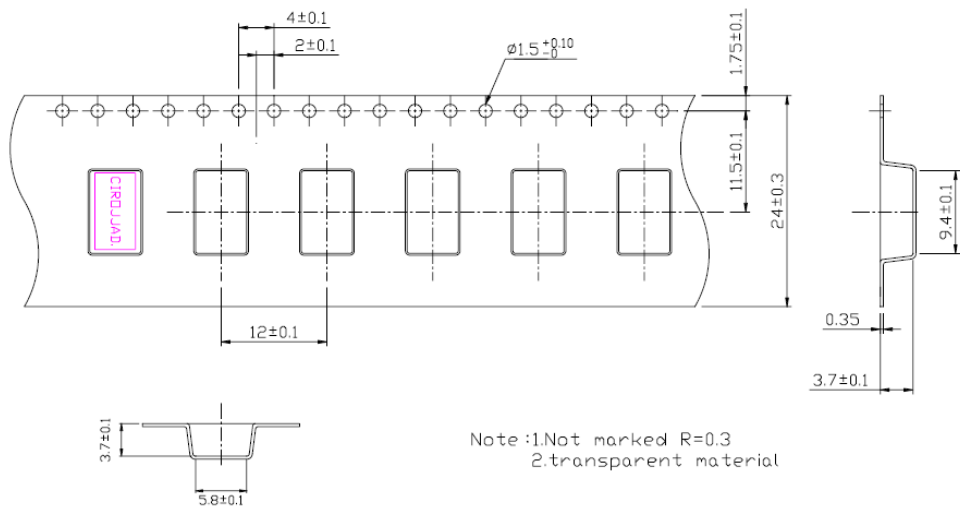
Tolerance:  $\pm 0.2$   
I/O: Input/Output  
G: Ground

 Solder Resist

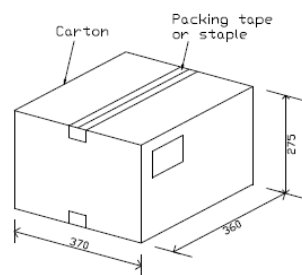
 Solder LAND

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

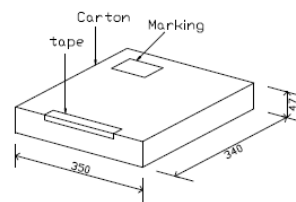
**F.Packing:**



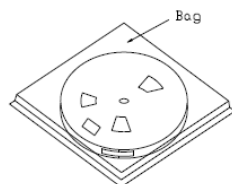
1. Outer Carton  
Quantity: 5000PCS



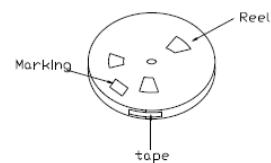
2. Inner Carton  
Quantity: 1000PCS



3. Bag  
Quantity: 1000PCS



4. Taping  
Quantity: 1000PCS



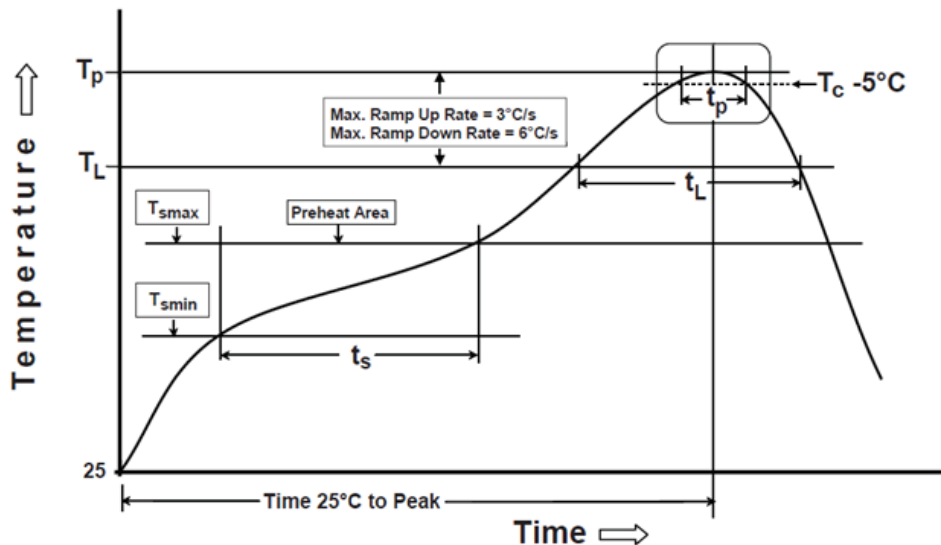
## G. Recommended Reflow Profile:

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(Tsmin) -Temperature Max(Tsmax) -Time(ts) form (Tsmin to Tsmax)	150°C 200°C 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate (Tsmax to TP)	3°C/second(max)
REFLOW	-Temperature(TL) -Total Time above TL (tL)	217°C 30-100 seconds
PEAK	-Temperature(TP) -Time(tp)	260°C 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

Note : 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



### Soldering With Iron:

Soldering condition : Soldering iron temperature  $270 \pm 10$  °C.

Apply preheating at 120°C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature  $270 \pm 10$  °C or 3 seconds, it will make component surface peeling or damage. Soldering iron can not leakage of electricity.