



# 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 3850MHz BW 100MHz Size 15.9x4.5mm  
TST Parts No.: TR0128AA0090

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

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

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

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

Date: \_\_\_\_\_ 2023/06/13

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 3850MHz BW 100MHz Size 15.9x4.5mm

MODEL NO.: TR0128AA0090

REV. NO.:1.0

### A. Maximum Rating:

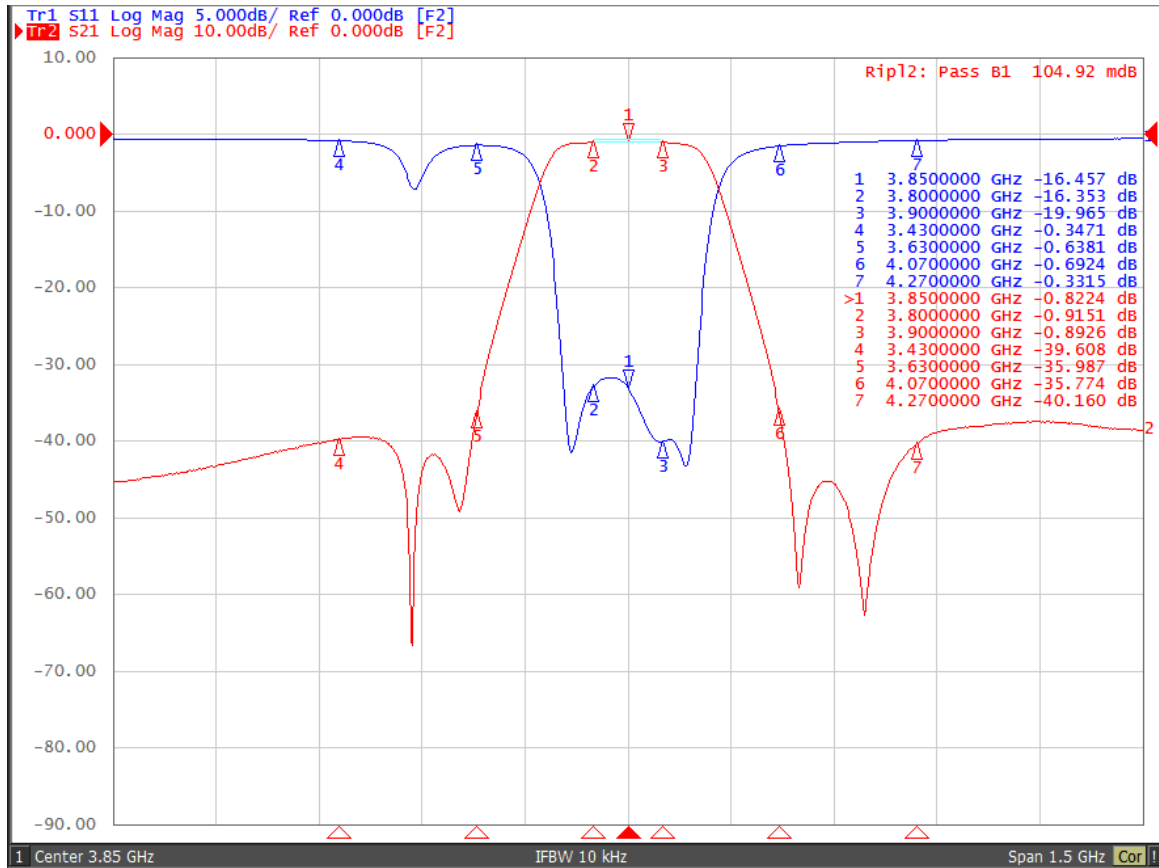
1. Input Power:10W
2. Operating Temperature: -40°C to +105°C
3. Storage Temperature Range: 0 °C to +40 °C
4. Moisture Sensitivity Level: 2a(MSL 2a)

**Electrostatic Sensitive Device (ESD)**

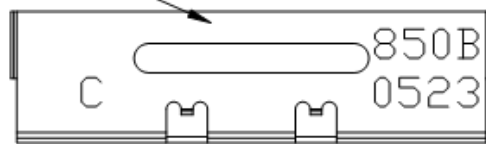
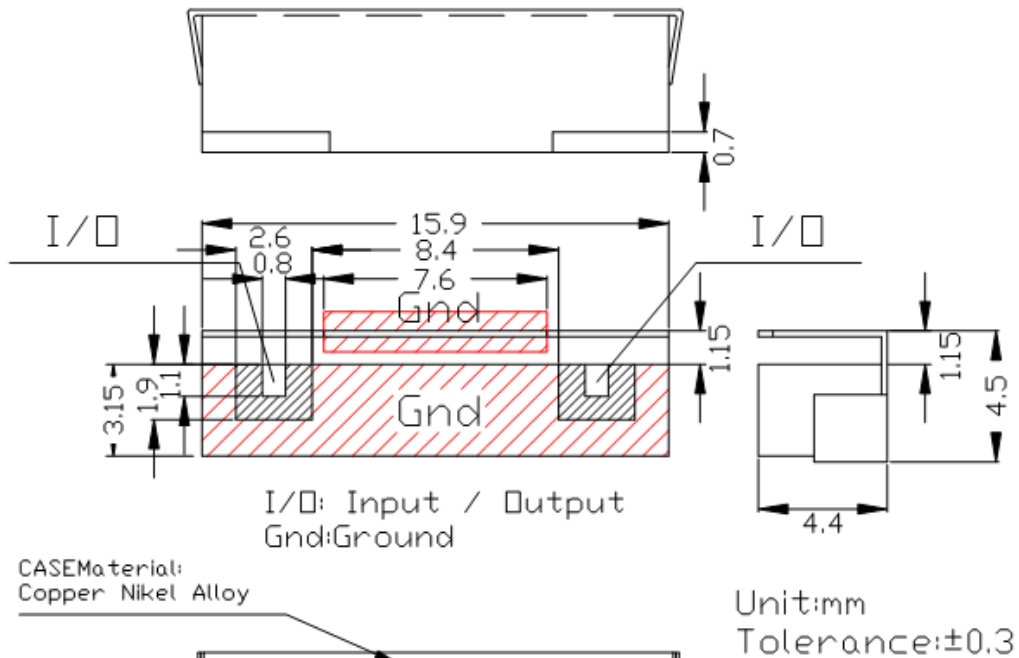
### B. Electrical Characteristics:

ITEM		SPECIFICATION		
		Min.	Typ.	Max
INSERTION LOSS	3800~3900 MHz	-	1.0 dB	1.5 dB
RIPPLE	3800~3900 MHz	-	0.5 dB	1.0 dB
RETURN LOSS	3800~3900 MHz	10 dB	12 dB	-
ATTENUATION	3430 ~ 3630 MHz	30 dB	35 dB	-
	4070 ~ 4270 MHz	30 dB	35 dB	-
ATTENUATION specifies the absolute value of attenuation.				

### C. Frequency Characteristics:



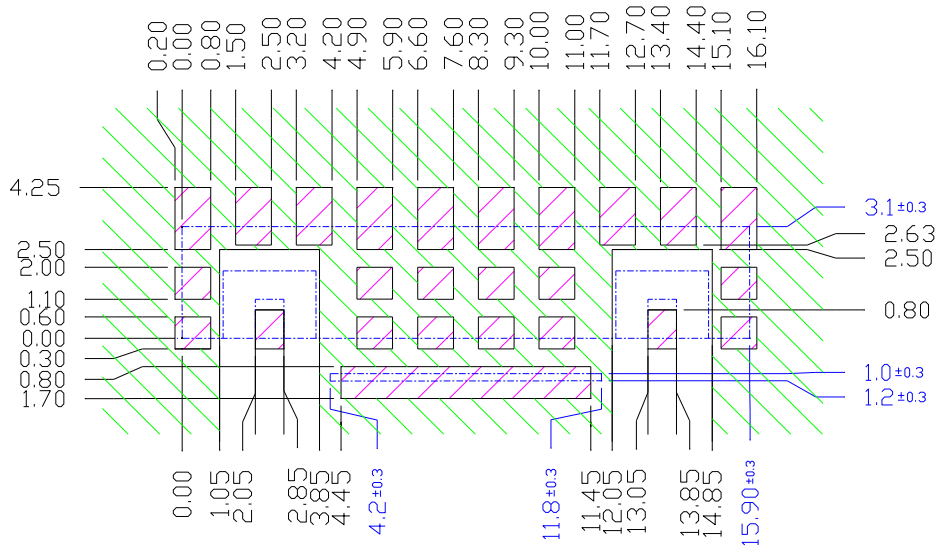
### D. Dimension:



C: Company Code  
850B: Product Name  
0523: Month/Year(05/2023)  
Color: Black

## E. PCB Foot Print:

PCB Layout



Unit:mm

Tolerance: $\pm$ 0.1



Solder Resist  
Over Conductor



Solder Resist  
Over Dielectric



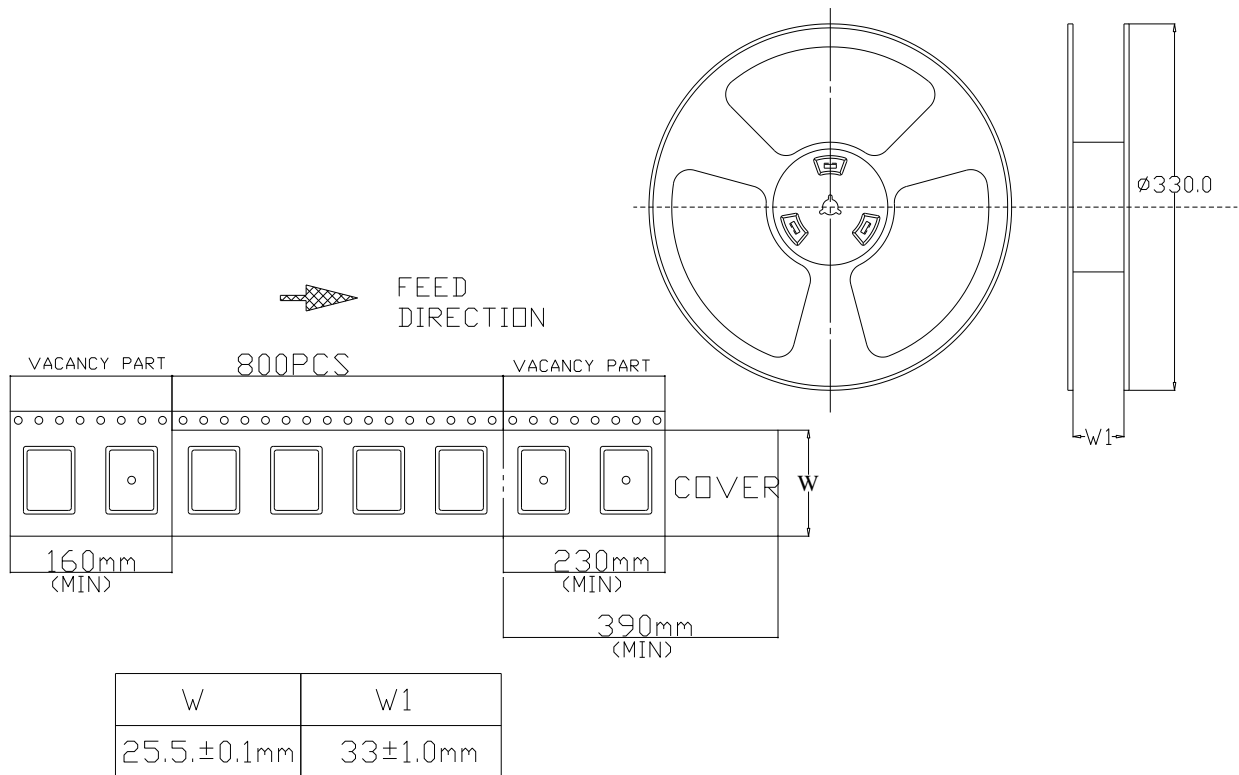
Exposed  
Conductor



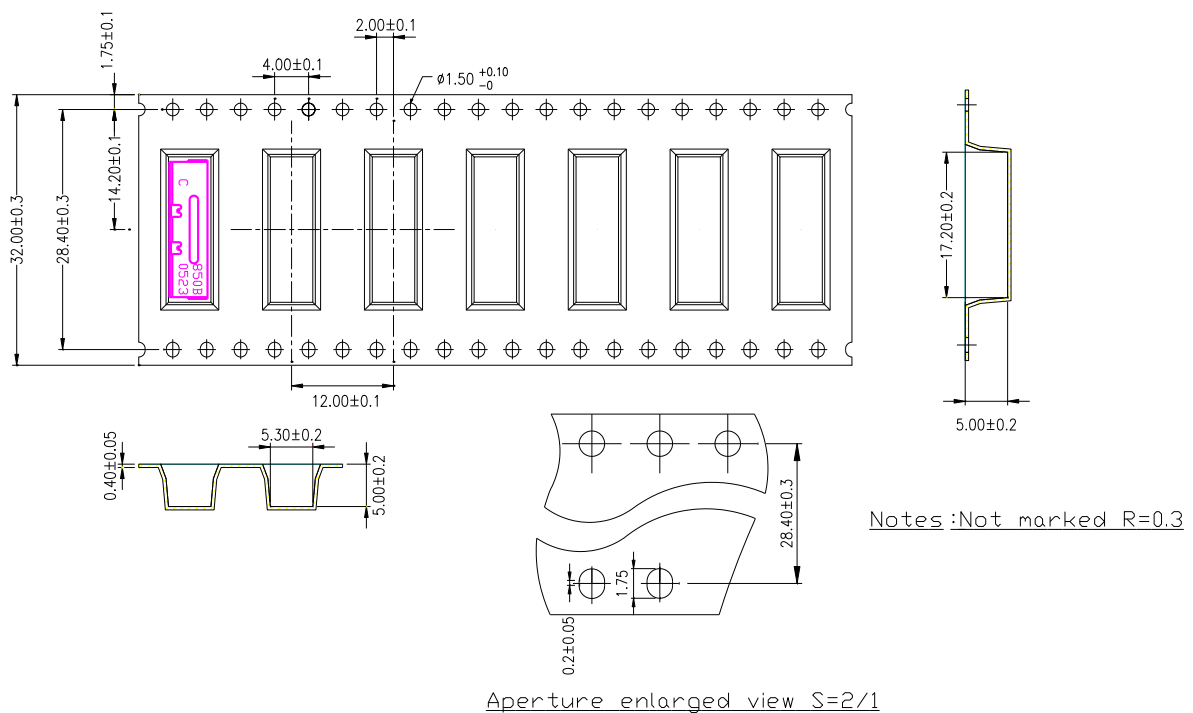
Filter Outline

## F. Packing:

### 1.Reel Dimension



### 2.Tape Dimension



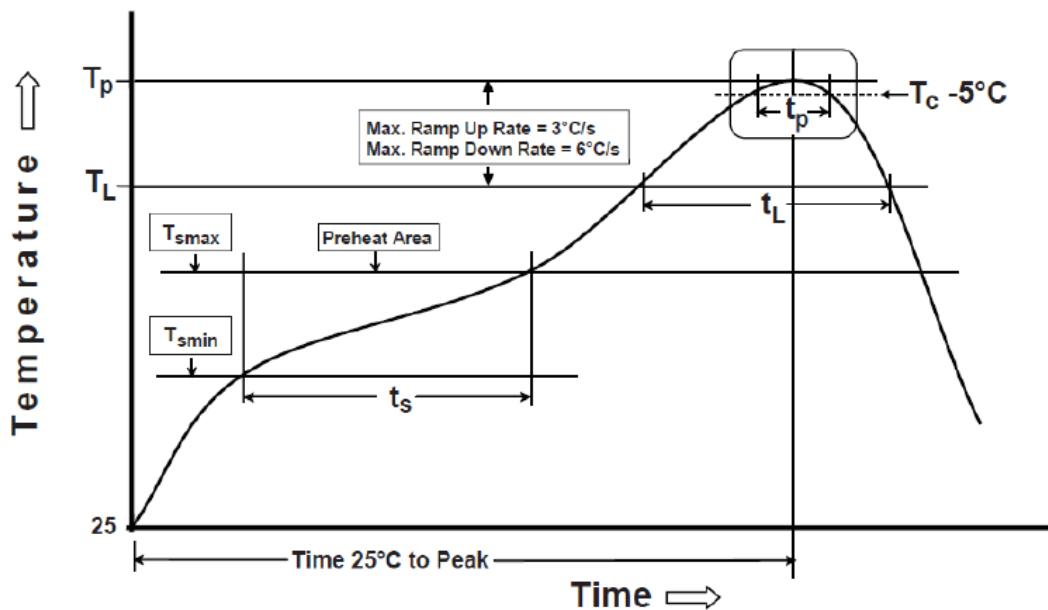
**G.Recommended Reflow Profile:**

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 (t L)	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±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±10 °C or 3 seconds, it will make component surface peeling or damage. Soldering iron can not leakage of electricity.