



# 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 663MHz size11.4x10.75mm

TST Parts No.: TR0030A

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

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

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

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

Date: \_\_\_\_\_ 2020/05/30

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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## Dielectric filter 663MHz size 11.4x10.75mm

MODEL NO.: TR0030A

REV. NO.:1

### A. MAXIMUM RATING:

1. Input Power Level: 1W max.
2. DC Voltage : 0 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature:-40°C to +85°C
5. Input/output impedance: 50 Ω
6. Moisture Sensitive Level: Level 2a (MSL2a)

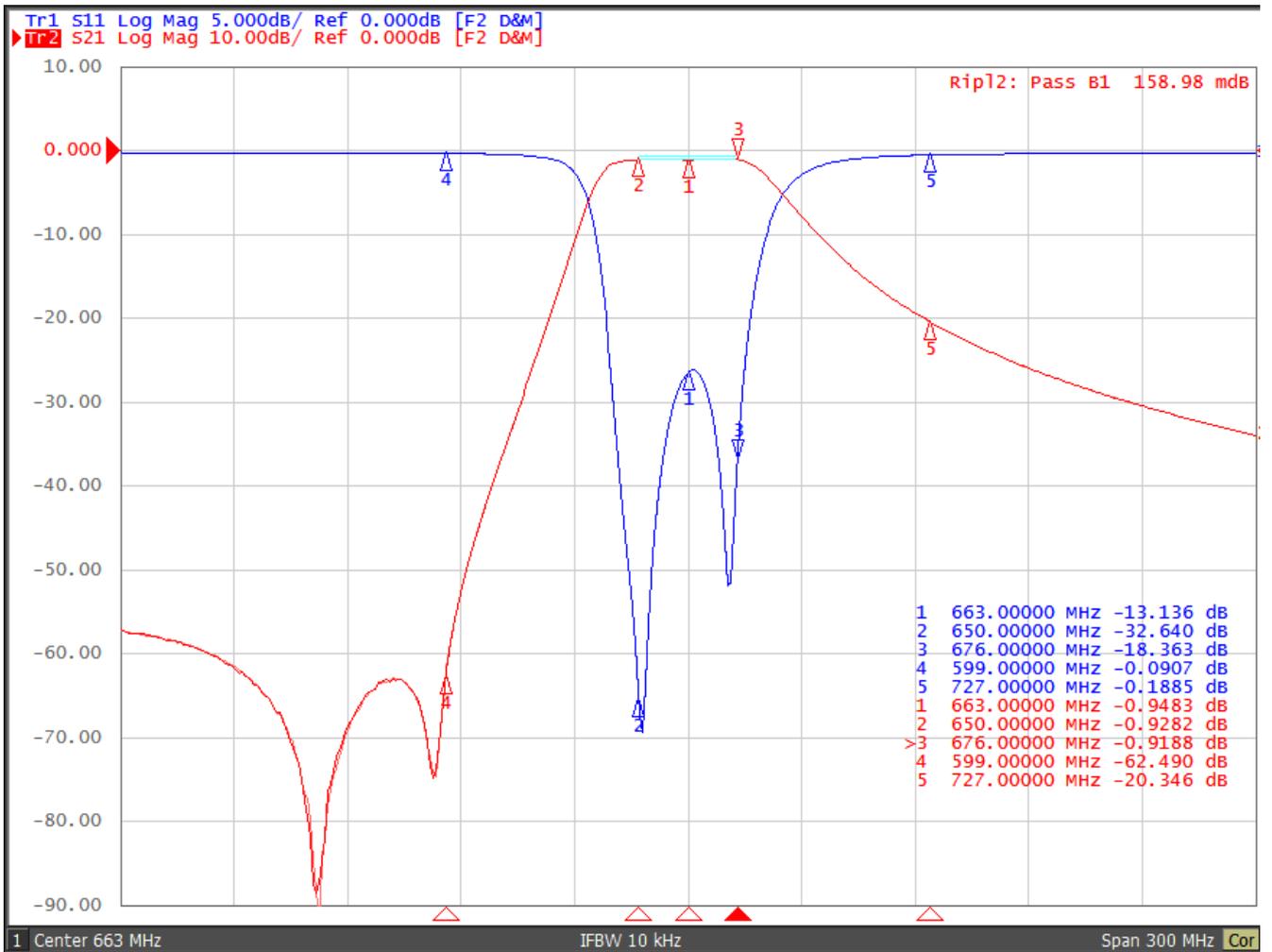
**Electrostatic Sensitive Device (ESD)**

### B. ELECTRICAL CHARACTERISTICS:

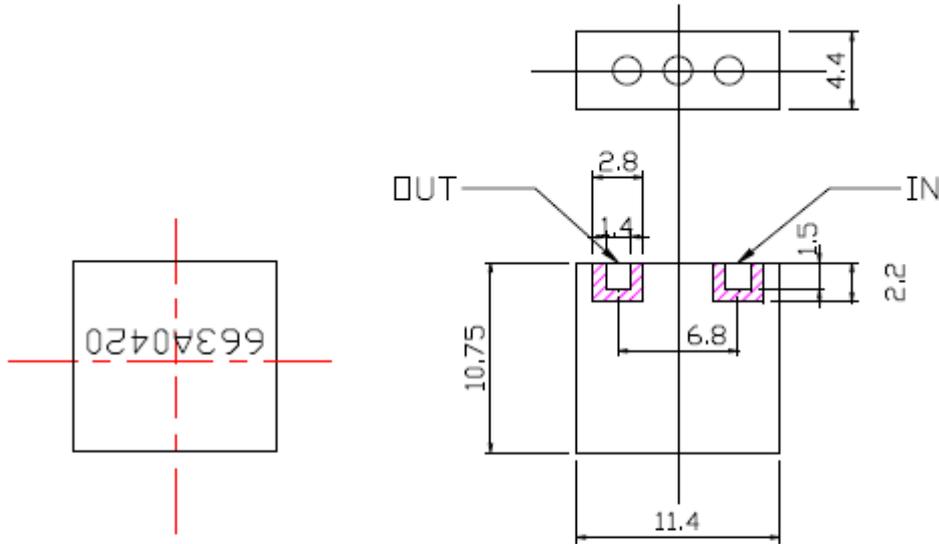
NO.	ITEM	SPECIFICATION	
		Min	Max
1	CENTER FREQUENCY	663MHz	
2	PASS BAND WIDTH	650 ~ 676MHz	
3	PASS BAND INSERTION LOSS		1.5 dB
4	PASS BAND RIPPLE		0.6 dB
5	PASS BAND RETURN LOSS	10 dB	
6	STOP-BAND ATTENUATION	599MHz	40 dB
		727MHz	15 Db
Item NO.6 specifies the absolute value of attenuation.			

※Data is measured on Cirocomm EVB board

### C. FREQUENCY CHARACTERISTICS:



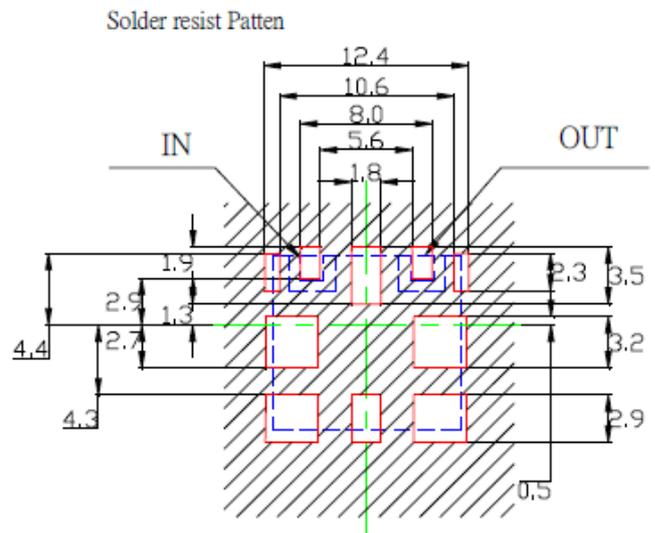
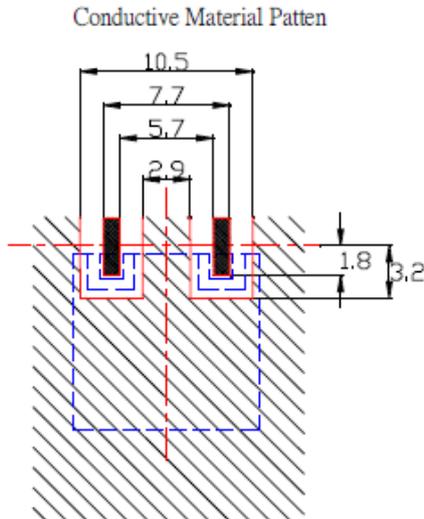
**D. DIMENSION:**



unit: mm  
Tolerance: ±0.3

663A : product name(J663A)  
04 : month  
20 : year (2020)

**E. PCB FOOTPRINT:**

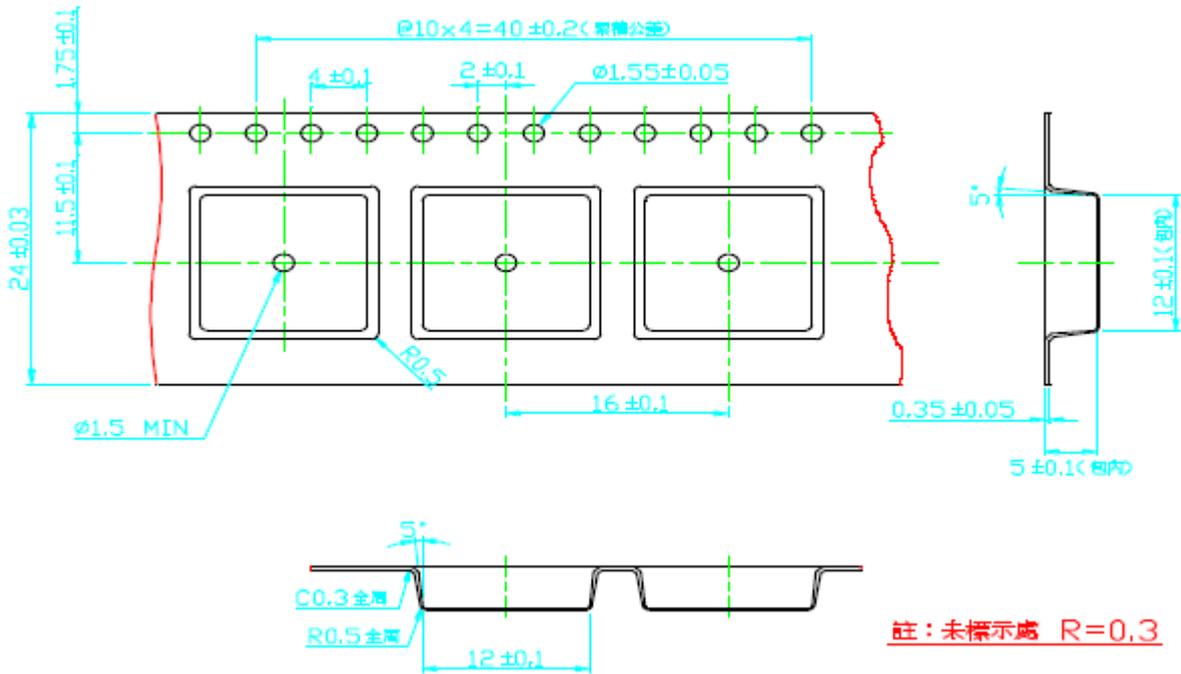


 Conductive Material:  
Ground, connected to lower ground diameter of 0.6mm and max.distance of 3.0 mm.  
 I/O Pads must be connected to lines with 50Ω impedance. in the application a termination of 50Ω must be realized.

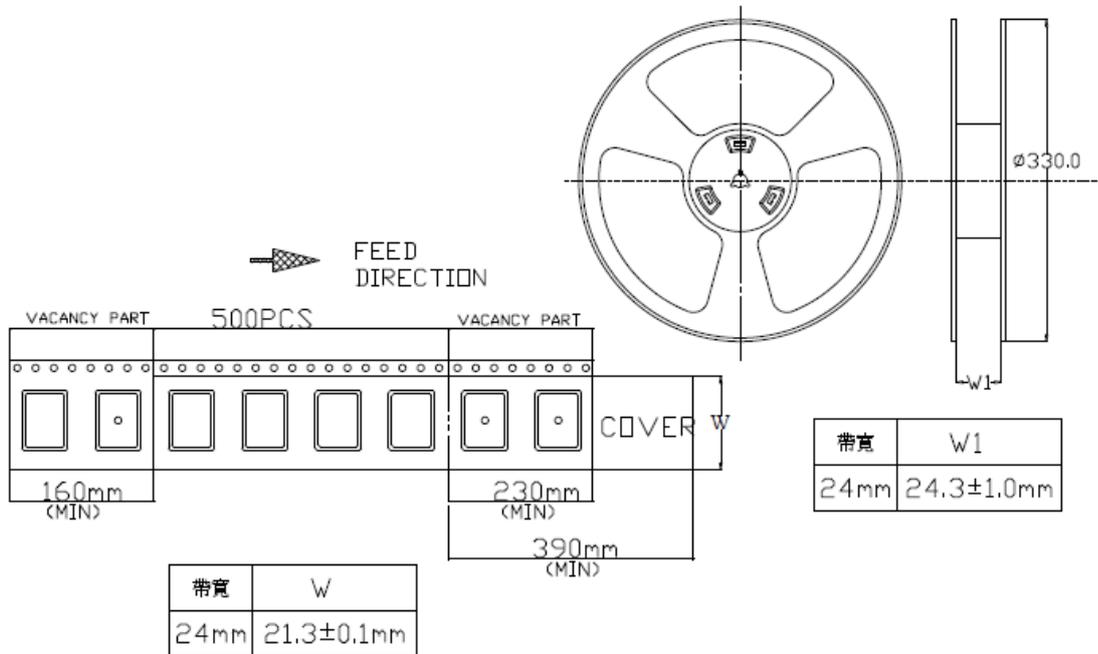
unit : mm  
Tolerance: ±0.1

 covered with solder resist.

**F. PACKING:**



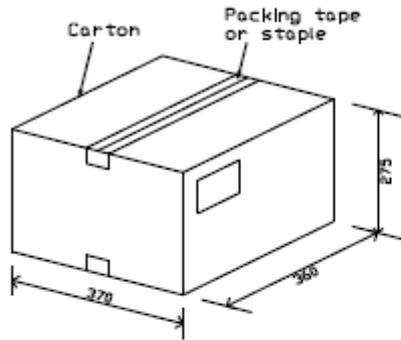
**Reel**



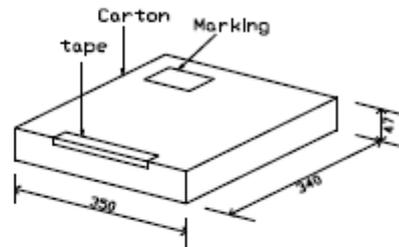
## Package style

Moisture Sensitivity Level: Level 2a (MSL2a)

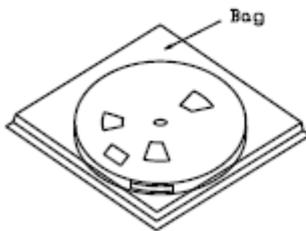
1. Outer Carton  
Quanylty:2500PCS



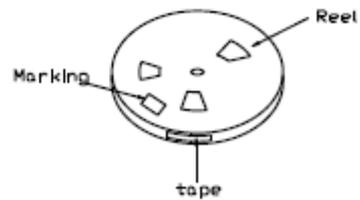
2. Inner Carton  
Quanylty:500PCS



3. Bag  
Quanylty:500PCS



4. Taping  
Quanylty:500PCS



Unit:mm

## G. RECOMMENDED REFLOW PROFILE:

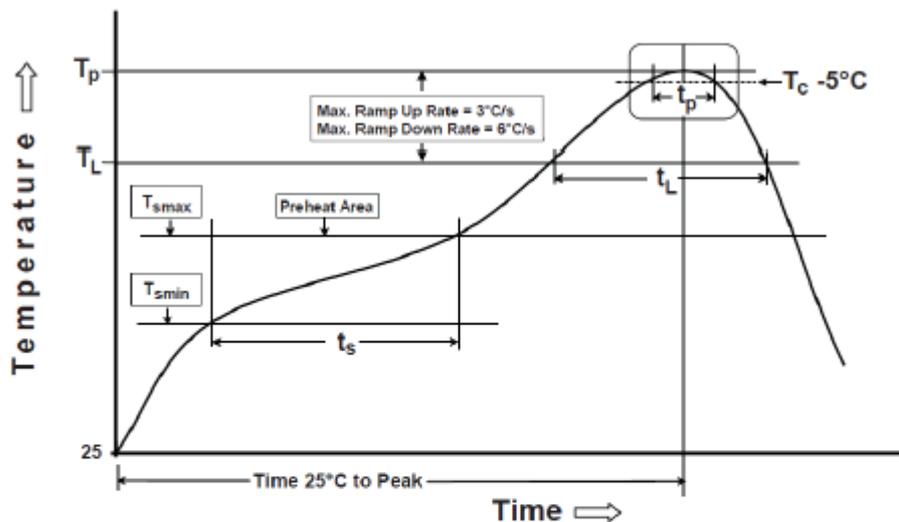
### Recommended Reflow Soldering Profile

Cirocomm 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( $T_{smin}$ ) -Temperature Max( $T_{smax}$ ) -Time( $t_s$ ) form ( $T_{smin}$ to $T_{smax}$ )	150°C 200°C 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate ( $T_{smax}$ to TP)	3°C/second(max)
REFLOW	-Temperature( $T_L$ ) -Total Time above $T_L$ ( $t_L$ )	217°C 30-100 seconds
PEAK	-Temperature( $T_P$ ) -Time( $t_p$ )	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  $270 \pm 10^\circ\text{C}$ .

Apply preheating at  $120^\circ\text{C}$  for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature  $270 \pm 10^\circ\text{C}$  or 3 seconds, it will make component surface peeling or damage.

Soldering iron can not leakage of electricity.