

# 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: Dielectric Filte TST Parts No.: TR0121AA0090	er3700MHz BW 200MHz Size 15.9x6.2mm
Customer Parts No.:	
Customer signature required	
Company:	
Division:	
Approved by :	
Date:	
Checked by:	Nina Chen Nina Chew
Approved by:	Nina Chen Nina Chen Kazuma Lee
Date:	2023/04/17

- 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 3700MHz BW 200MHz Size 15.9x6.2mm

MODEL NO.: TR0121AA0090 REV. NO.:1.0

#### A. Maximum Rating:

1. Input Power:1W

2. Operating Temperature: -40°C to +85°C

3. Storage Temperature: 0°C to +40°C

4. Moisture Sensitivity Level: 2a(MSL 2a)

RoHS Compliant Lead free Lead-free soldering

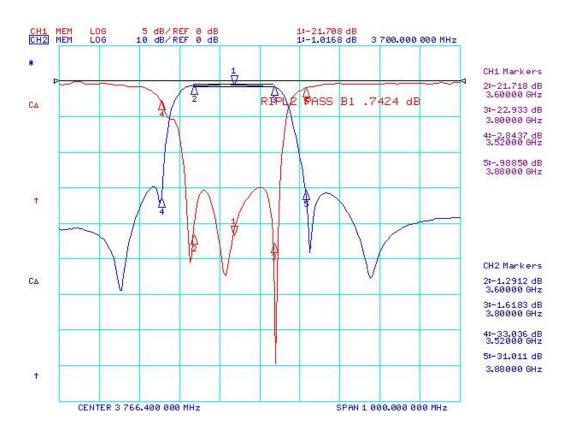
Electrostatic Sensitive Device (ESD)

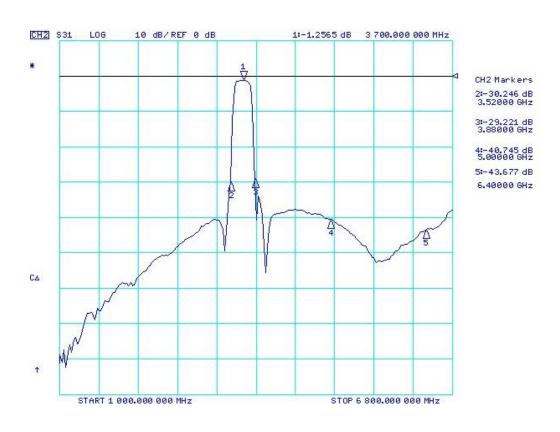
#### B. <u>Electrical Characteristics</u>:

ITEM		SPECIFICATION		
		Min	Тур	Max
INSERTION LOSS	3600~3800 MHz		1.8 dB	2.0 dB
RIPPLE	3600~3800 MHz		0.7 dB	1.0 dB
RETURN LOSS	3600~3800 MHz	10 dB	13 dB	
ATTENUATION	at 3520 MHz	25 dB		
	at 3880MHz	25 dB		

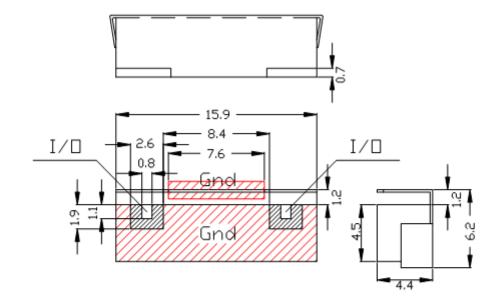
ATTENUATION specifies the absolute value of attenuation.

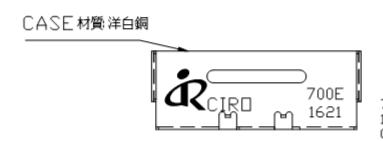
## C. Frequency Characteristics:





## D. <u>Dimension:</u>





I/O: Input / Output Gnd:Ground

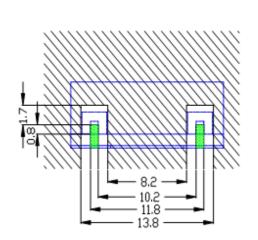
700E: product name 1621: year/week (2016 21th week) Color: Black

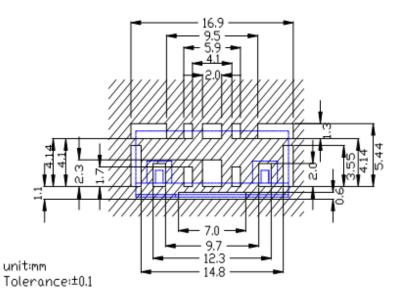
Unit:mm Tolerance:±0.3

#### E. PCB Footprint:

Conductive Material Patten

#### Solder resist Patten





Conductive Material: Ground,connected to lower geound diameter of 0.3mm and max.distance of 3.0mm.



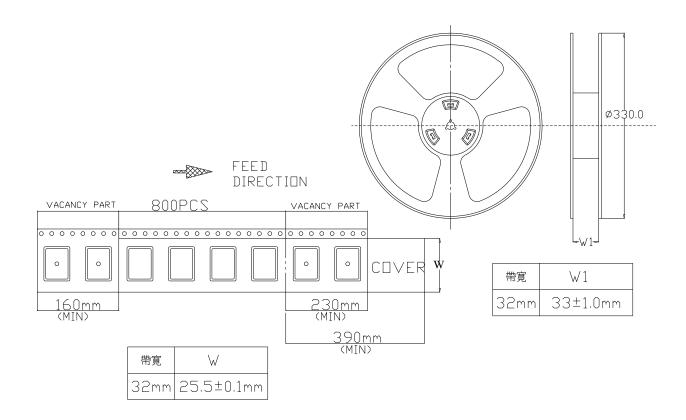
covered with solder resist.



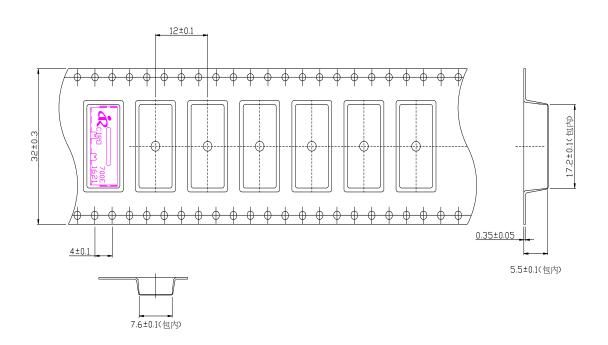
I/O Pads must be connected to lineswith  $50\,\Omega$  impedance, in the application a termination of  $50\,\Omega$  must be realized.

## F.Packing:

#### 1.Reel Dimension:

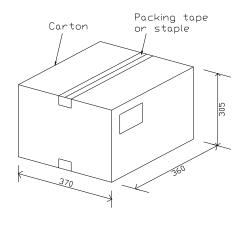


## 2. Tape Dimension:

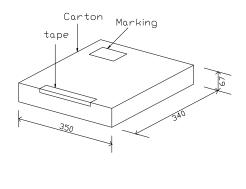


## 3. Package style:

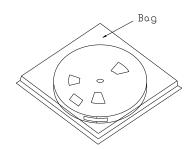
Outer Carton
 Quanyity:3200PCS



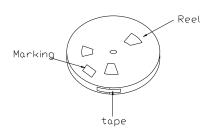
2. Inner Carton Quanyity:800PCS



3. Bag Quanyity:800PCS



4. Taping Quanyity:800PCS



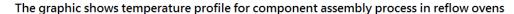
Unit:mm

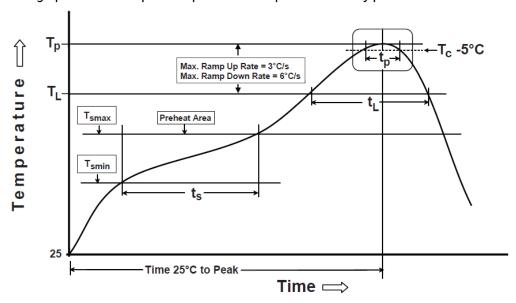
#### **G.** Recommended Reflow Profile:

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.





#### Soldering With Iron:

Soldering condition : Soldering iron temperature  $270\pm10$  °C.

Apply preheating at  $120^{\circ}$ C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature  $270\pm10^{\circ}$ C or 3 seconds, it will make component surface peeling or damage. Soldering iron can not leakage of electricity.