



# 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

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## Product Specifications Approval Sheet

Product Description: LTCC Filter 2450/5425 MHz Size 1.6x0.8 mm

TST Part No.: TL0042AAAT92

Customer Part No.: \_\_\_\_\_

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

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

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

Date: \_\_\_\_\_ 2022/09/01

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 change



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## LTCC Filter 2450/5425 MHz Size 1.6X0.8 mm

MODEL NO.: TL0042AAAT92

REV.2

### A. MAXIMUM RATING:

1. Operating temperature range: -40°C to +85°C
2. Storage temperature range: -40 °C to +85 °C
3. Impedance : 50Ω
4. Moisture Sensitive Level: Level 1



Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

Item	Specifications	
Frequency Range	2400 ~ 2500 MHz	4900 ~ 5950 MHz
Insertion Loss	0.45 dB max. +25°C 0.55 dB max. -40 ~ +85°C	0.6 dB max. +25°C 0.7 dB max. -40 ~ +85°C
Attenuation	20 dB min. @ 4800 ~ 5000 MHz 22 dB min. @ 5000 ~ 5950 MHz 20 dB min. @ 7200 ~ 7500 MHz	26 dB min. @ 824 ~ 2170 MHz 30 dB min. @ 2400 ~ 2500 MHz 25 dB min. @ 9800 ~ 11900 MHz
VSWR	1.8 max.	
Impedance	50Ω	
Power Capacity	3W max.	
Moisture sensitivity levels	LEVEL 1	

### Operating & Storage Condition (Component)

Operation Temperature Range : -40 ~ +85°C

Storage Temperature Range : -40 ~ +85°C

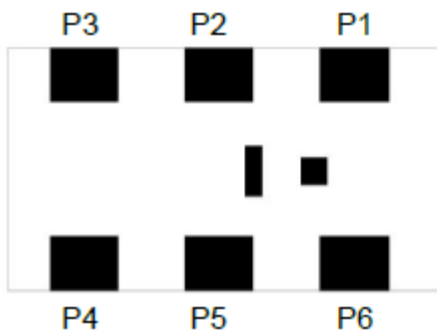
### Storage Condition Before Soldering (Included packaging material)

Storage Temperature Range : +5 ~ +40°C

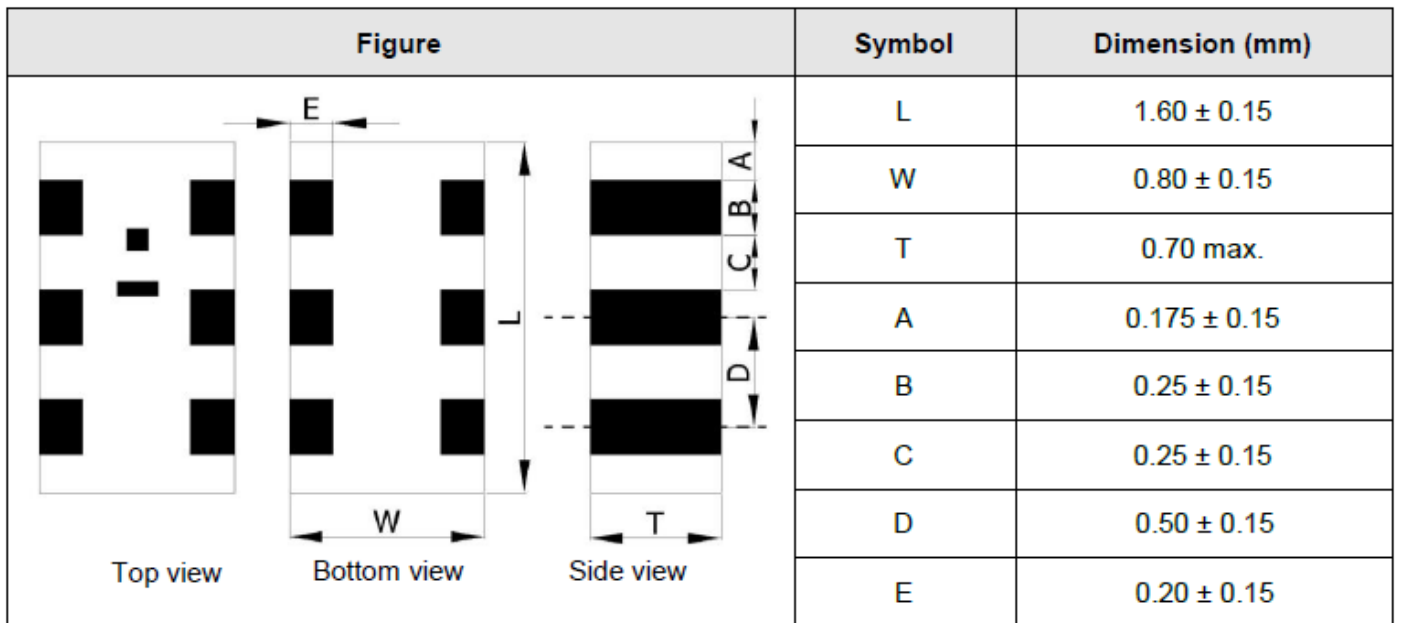
Humidity : 30 to 70% relative humidity

### C. OUTLINE DRAWING:

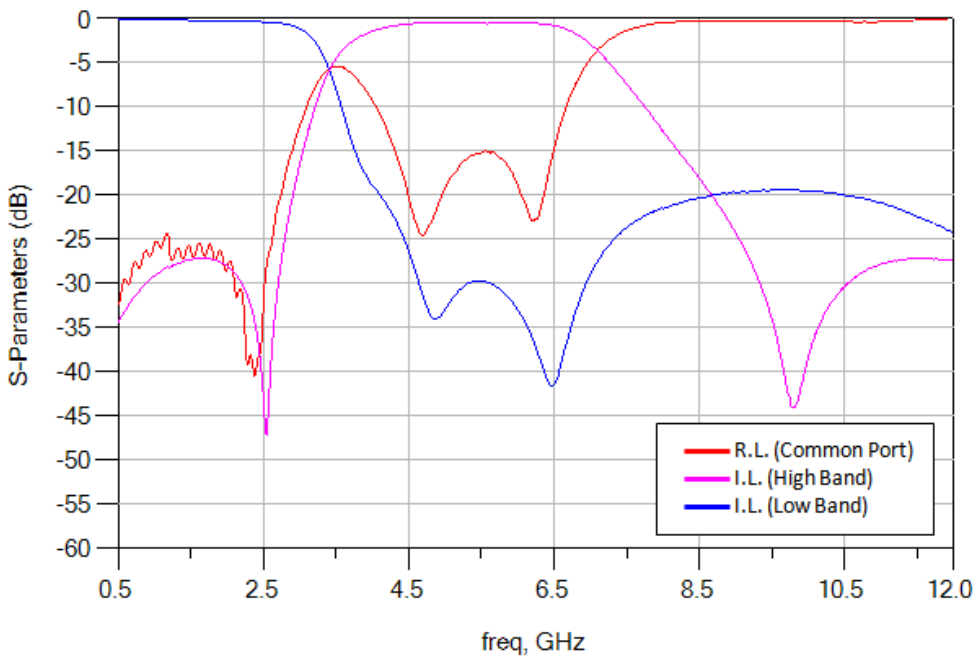
Top view



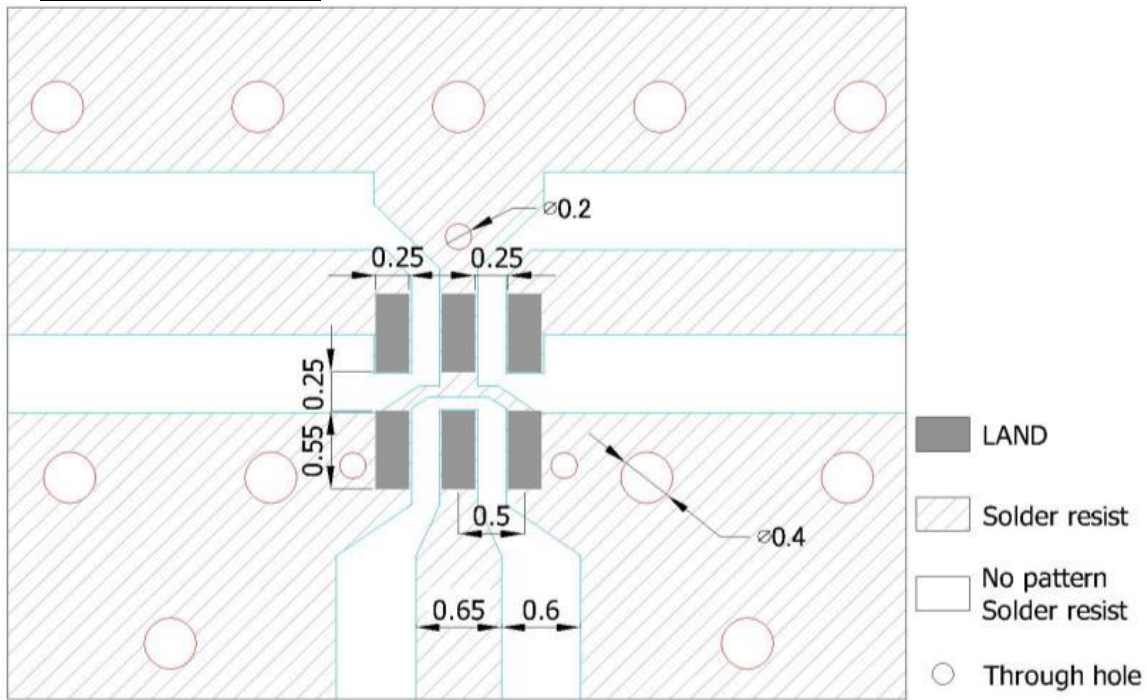
PIN	Connection	PIN	Connection
1	High Band	4	GND
2	GND	5	ANT Port
3	Low Band	6	GND



### D. FREQUENCY CHARACTERISTICS:



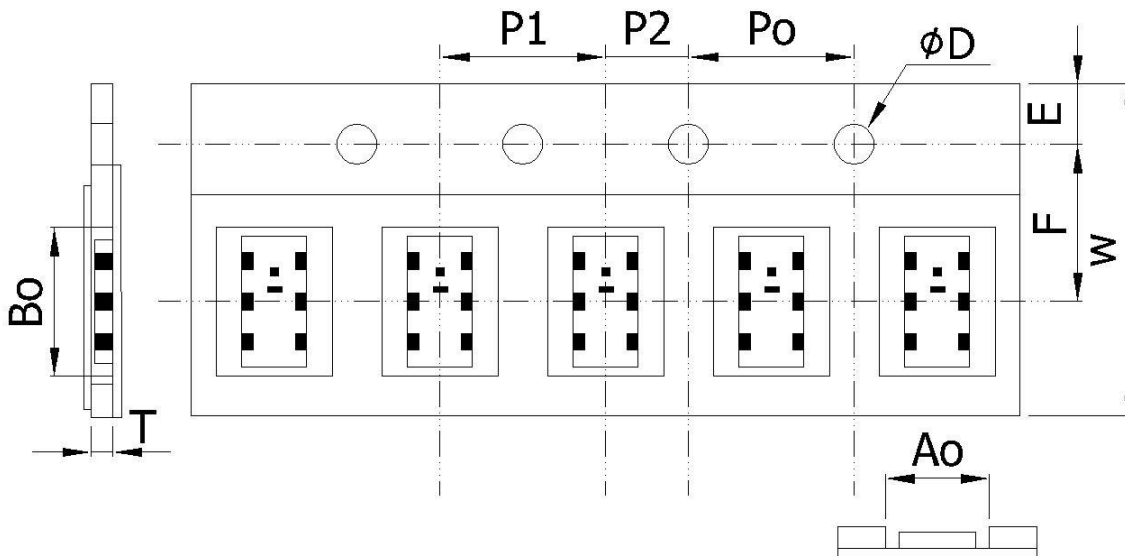
### E. PCB FOOT PRINT:



Unit: mm

Line width should be designed to match 50Ω characteristic impedance , depending on PCB material and thickness.

**F. PACKING:**

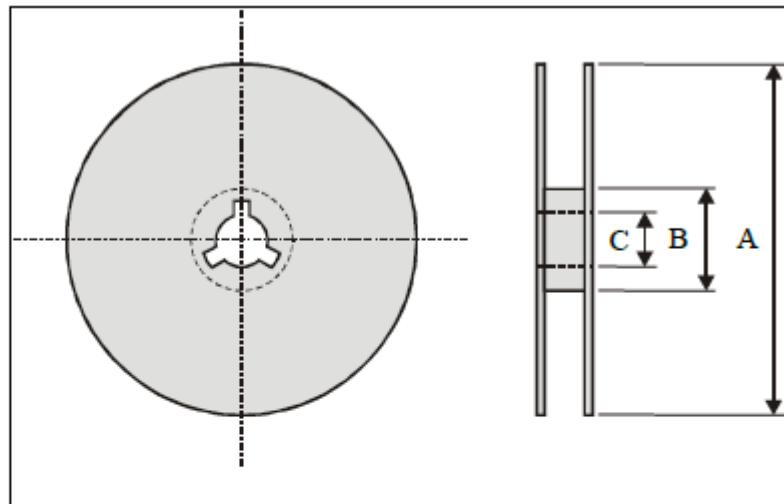


**1. TAPE DIMENSION**

**Paper Tape specifications (unit :mm)**

Index	Ao	Bo	$\phi D$	T	W
Dimension (mm)	$0.975 \pm 0.10$	$1.76 \pm 0.10$	$1.55 \pm 0.05$	$0.75 \pm 0.10$	$8.00 \pm 0.10$
Index	E	F	Po	P1	P2
Dimension (mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.05$

**2. REEL DIMENSION**



Index	A	B	C
Dimension (mm)	$\phi 178.0$	$\phi 60.0$	$\phi 13.0$

Taping Quantity:4000 pieces per 7" reel

**G. RECOMMENDED REFLOW PROFILE:**

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

