

# 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 5788 MHz SMD 2.5x2.0 mm (125MHz BW
TST Part No.: TL0035B
Customer Part No.:
Customer signature required
Company:
Division:
Approved by :
Date:
Checked by: Hong Pu Lin Hong Pu Lin
Approved by: Andy Yu Andy Andy Andy Mn
Date: 2020/02/14

- 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

**TST DCC**Release document



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### LTCC Filter 5788 MHz SMD 2.5X2.0 mm (125 MHz BW)

MODEL NO.:TL0035B REV.1

#### A. MAXIMUM RATING:

1. Operating temperature range: -55 °C to +125 °C

2. Storage temperature range: -55 °C to +125 °C

3. Power capacity: 2W max.

4. Impedance (Unbalanced) :  $50\Omega$ 

5. Moisture Sensitive Level: Level 1 (MSL1) (Refer to : IPC/JEDEC J-STD-020)



Electrostatic Sensitive Device (ESD)

#### **B. ELECTRICAL CHARACTERISTICS:**

Parameters	Specifications	Remark
Center Frequency (Fc)	5788.0	
Pass Band Width (BW)	5725.5 ~ 5850.5 MHz	
Insertion Loss in BW	1.2 dB max.at +25 ℃. 1.5 dB max.at -55 ~ +125 ℃.	
Attenuation	50 dB min. @ 824.0 ~ 1910.0 MHz 15 dB min. @ 9880.0 ~ 11700.0 MHz	
Ripple	1.0 dB max.	
VSWR	2.0 max.	
Impedance (Unbalanced)	50Ω	
Power capacity	2W max.	
Moisture Sensitivity Levels	MSL is LEVEL1 (Refer to : IPC/JEDEC J-STD-020)	

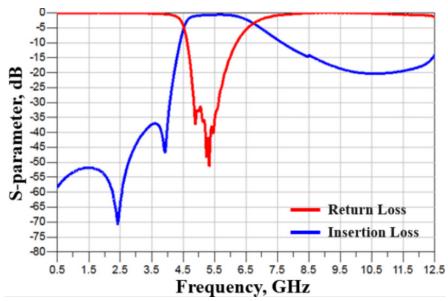
#### **Operating & Storage Condition (Component)**

Operation Temperature Range: -55 ~ +125 °C. Storage Temperature Range: -55 ~ +125 °C.

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

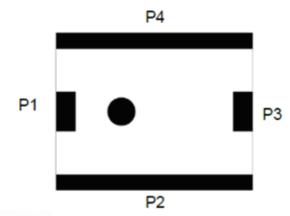
Storage Temperature Range: +5 ~ +40 °C. Humidity: 30 to 70% relative humidity

## C. FREQUENCY CHARACTERISTICS:



#### D. **OUTLINE DRAWING:**

#### CONSTRUCTION

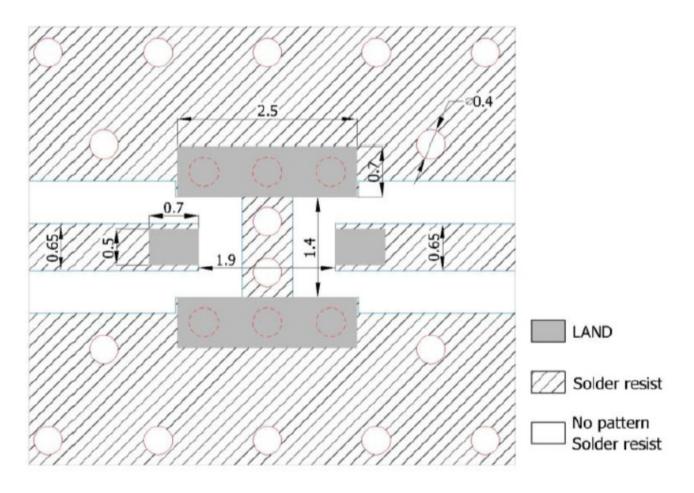


PIN	Definition		
P1	Input		
P2	GND		
P3	Output		
P4	GND		

#### DIMENSIONS

	Figure	Symbol	Dimension (mm)
	L	L	2.50 ± 0.2
Top view ≥		w	2.00 ± 0.2
	<b>≥ ■</b> • <b>■</b>	Т	0.90 ± 0.1
		А	0.20 ± 0.2
Bottom view	D	В	0.55 ± 0.2
	я ч	С	0.50± 0.20
Side view	Side view	D	0.20 ± 0.2
	<b>⊢</b> ;	E	0.20 ± 0.2

## E. PCB FOOT PRINT:

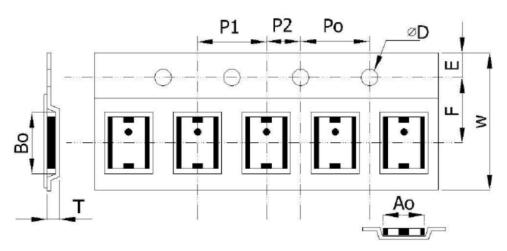


Unit: mm

Line width to be designed to match  $50\Omega$  characteristic impedance, depending on PCB material and thickness.

# F. PACKING:

#### 1. TAPE DIMENSION

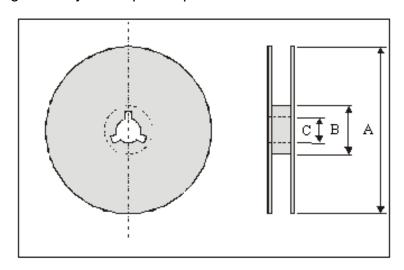


Plastic Tape specifications (unit; mm)

Index	Ao.	Во	ФD	Т	w
Dimension (mm)	2.27 ± 0.10	2.74 ± 0.10	1.55 ± 0.05	1.18 ± 0.05	8.00 ± 0.10
Index	E	F	Po	P1	P2
Dimension (mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05

# 2. REEL DIMENSION

Taping Quantity: 2000 pieces per 7" reel



Index	А	В	С
Dimension (mm)	Ф178.0	Ф60.0	Ф13.0

#### 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.

