



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Product Specifications Approval Sheet

Product Description: LTCC Filter 1880 ~ 2025(1952.5) MHz SMD 1.6x0.8 mm (145MHz BW)

TST Part No.: TL0031A

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

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

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

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

Date: \_\_\_\_\_ 2019/04/18

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



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## LTCC Filter 1880 ~ 2025(1952.5) MHz SMD 1.6X0.8 mm (145 MHz BW)

MODEL NO.: TL0031A

REV.1

### A. MAXIMUM RATING:

1. Operating temperature range: -40 °C to +85 °C
2. Storage temperature range: -40 °C to +85 °C
3. Moisture Sensitive Level: Level 1 (MSL1)

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

Source impedance (unbalanced) :  $Z_s = 50 \Omega$

Load Impedance (balanced) :  $Z_L = 50 \Omega$

Item	Unit	Spec
<b>Frequency Range</b>	MHz	1880 ~ 2025(1952.5)
<b>Insertion loss</b>	dB	1.1 typ.
<b>VSWR</b>		1.2 typ.
<b>Attenuation</b> (Reference level from 0 dB)		
2400 ~ 2500 MHz	dB	29 Min
4020 ~ 4045 MHz	dB	20 Min
6030 ~ 6075 MHz	dB	29 Min

### C. Outline Drawing:

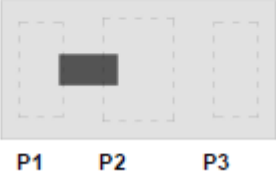
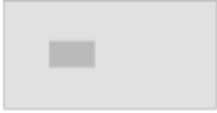
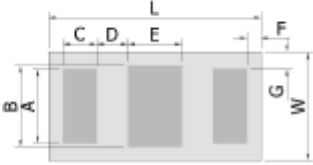
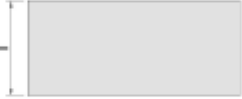
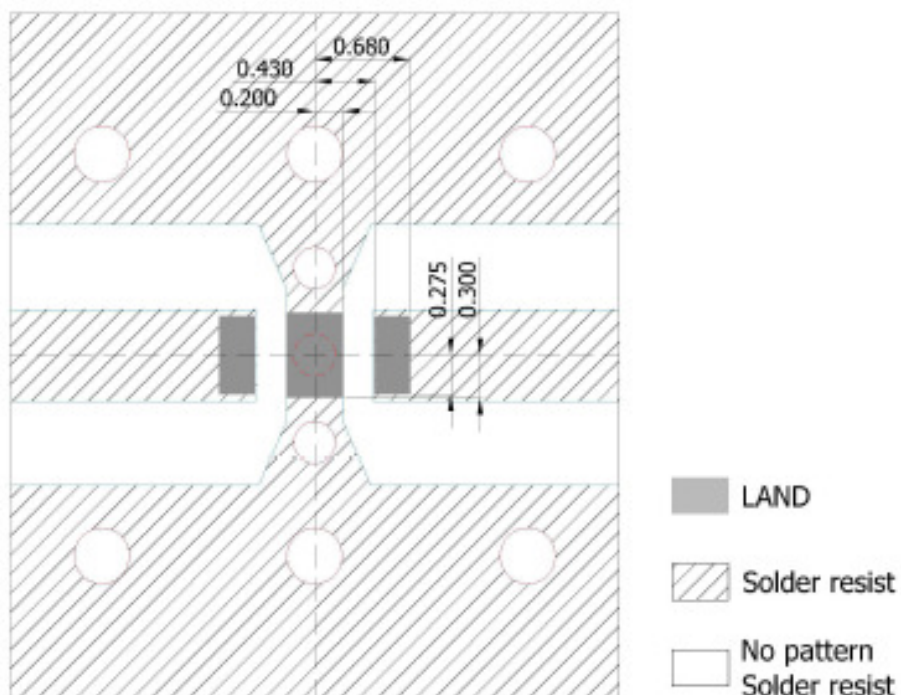
Figure	PIN	Connection
Top view 	1	Input port
	2	GND
	3	Output port

Figure	Symbol	Dimension (mm)
Top view  Bottom view  Bottom view 	L	1.60 ± 0.10
	W	0.80 ± 0.10
	T	0.7 max.
	A	0.55 ± 0.10
	B	0.60 ± 0.10
	C	0.25 ± 0.10
	D	0.23 ± 0.10
	E	0.40 ± 0.10
	F	0.12 ± 0.10
G	0.125 ± 0.10	

### D. PCB Footprint:



UNIT:mm

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

## E. 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 245~260°C peak (min. 10sec).
4. Time : 2 times.

