



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: LTCC Filter 1710 ~ 2025(1867.5) MHz SMD 1.0x0.5 mm 315MHz BW

TST Part No.: TL0030A

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



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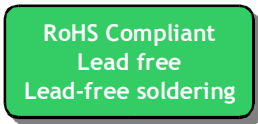
LTCC Filter 1710 ~ 2025(1867.5) MHz SMD 1.0X0.5 mm (315 MHz BW)

MODEL NO.: TL0030A

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)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

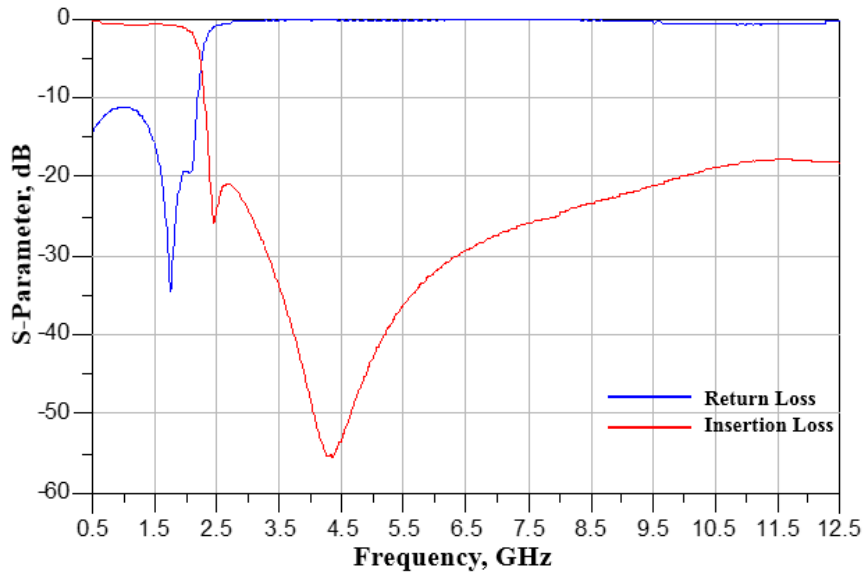
Source impedance (unbalanced) : $Z_s = 50 \Omega$

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

Item		Unit	Spec
Frequency Range		MHz	1710 ~ 2025(1867.5)
Insertion loss	at 25°C	dB	1.4 Max
	at -40 ~ +85°C	dB	1.6 Max
Attenuation (Reference level from 0 dB)			
2400 ~ 2500 MHz		dB	20 Min (25dB typ.)
3760 ~ 4050 MHz		dB	25 Min (31dB typ.)
5150 ~ 5850 MHz		dB	25 Min (32dB typ.)
5640 ~ 6075 MHz		dB	25 Min (36dB typ.)
VSWR			2.0 Min (1.16typ.)

C. FREQUENCY CHARACTERISTICS:

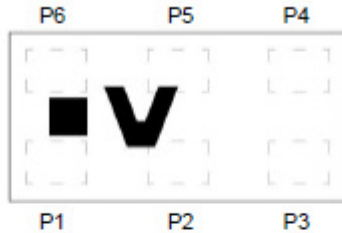
Frequency Response



D. Outline Drawing:

CONSTRUCTION

Top view

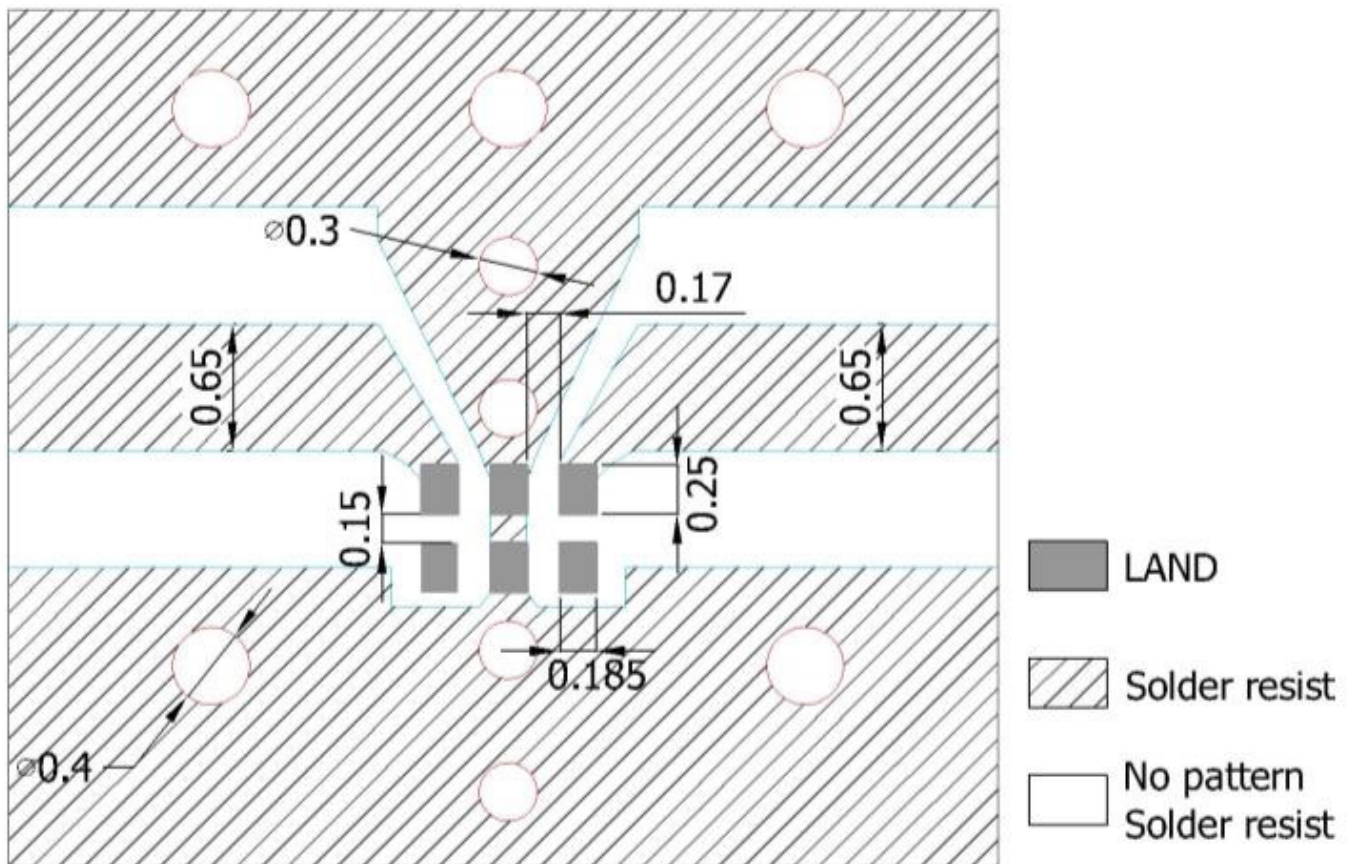


PIN	Connection	PIN	Connection
1	NC	4	Output port
2	GND	5	GND
3	NC	6	Input port

DIMENSIONS

Figure	Symbol	Dimension (mm)
Top view 	L	1.00 ± 0.10
	W	0.50 ± 0.10
	T	0.40 max.
Side view 	A	0.18 ± 0.05
	B	0.18 ± 0.05
Bottom view 	C	0.05 ± 0.05
	D	0.125 ± 0.05
	E	0.15 ± 0.05
	F	0.05 ± 0.05

E. PCB Footprint:



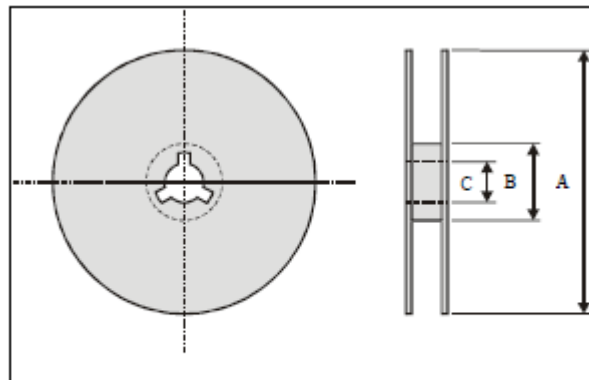
Unit : mm

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

F. PACKING:

1. REEL DIMENSION (4000 PCS)

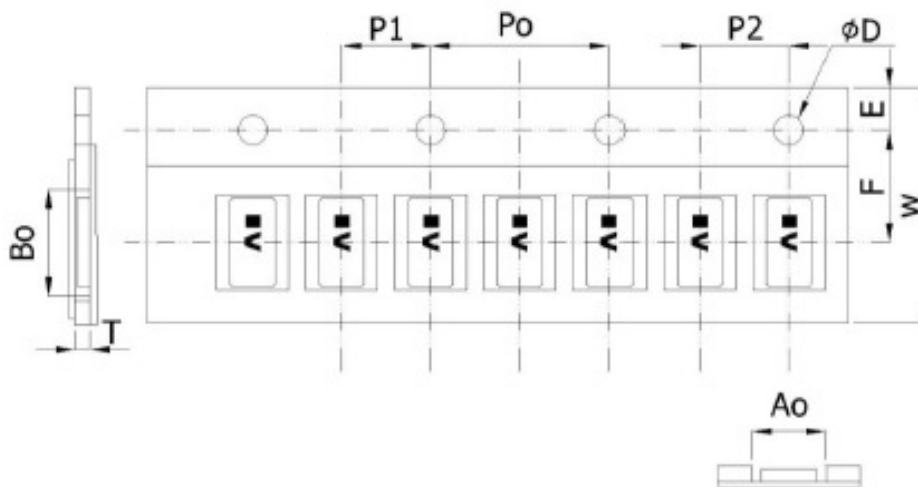
(Please refer to FR-75D10 for packing quantity)



Index	A	B	C
Dimension (mm)	Φ 178.0	Φ 60.0	Φ 13.0

2. TAPE

DIMENSION (unit :mm)



Paper Tape specifications (unit :mm)

Index	A ₀	B ₀	ΦD	T	W
Dimension (mm)	0.67 ± 0.10	1.14 ± 0.10	1.50 + 0.10	0.42 ± 0.10	8.0 ± 0.30
Index	E	F	P ₀	P ₁	P ₂
Dimension (mm)	1.75 ± 0.10	3.50 ± 0.20	4.00 ± 0.10	2.00 ± 0.10	2.00 ± 0.10

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

