



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: LTCC Filter 2450 MHz Size 2.0x1.25 mm

TST Part No.: TL0043AA2095

Customer Part No.: _____

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

Checked by: _____ Hong Pu Lin *Hong Pu Lin*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/08/26

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 MHz SMD 2.0X1.25 mm

MODEL NO.: TL0043AA2095

REV.1

A. MAXIMUM RATING:

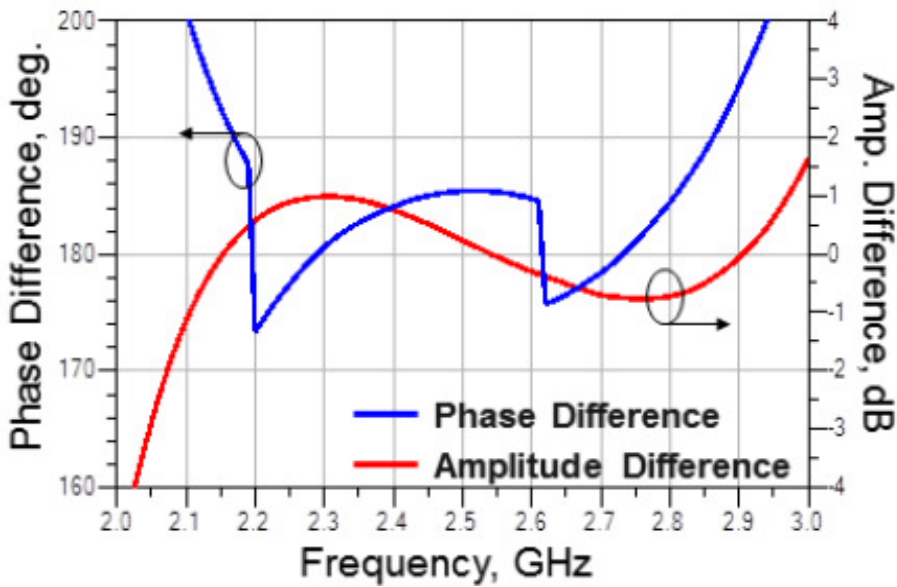
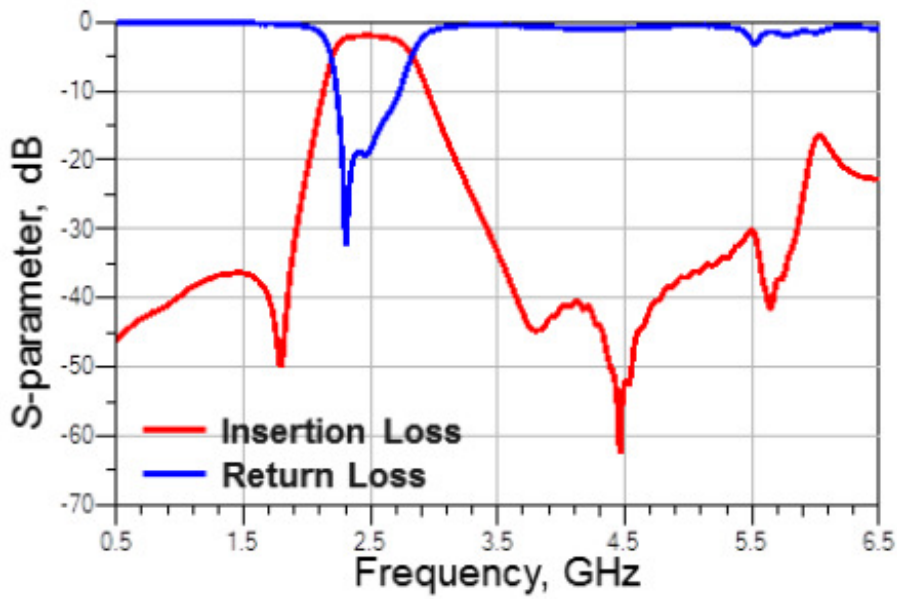
1. Operating temperature range: -40 °C to +85 °C
2. Storage temperature range: -40 °C to +85 °C
3. Impedance (Unbalanced) : 50Ω
4. Moisture Sensitive Level: Level 1 (MSL1) (Refer to : IPC/JEDEC J-STD-020)

Electrostatic Sensitive Device (ESD)

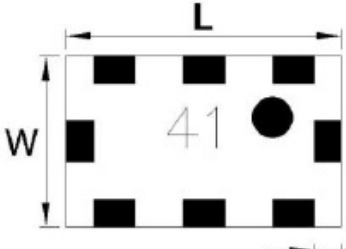
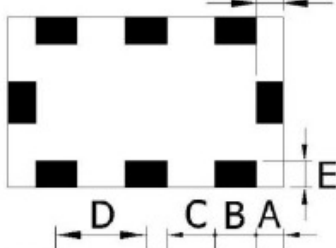
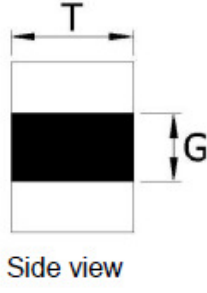
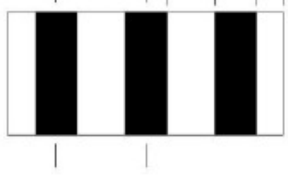
B. ELECTRICAL CHARACTERISTICS:

Item	Specifications
Frequency range	2400 ~ 2500 MHz
Insertion Loss (at 25 °C)	3.50 dB max.
Insertion Loss (at -40 ~ +85 °C)	4.0 dB max.
Attenuation	35 dB Min. (40 dB typ)@ 880 ~ 960 MHz 30 dB Min. (34 dB typ)@ 1710 ~ 1880 MHz 20 dB Min. (22 dB typ)@ 1880 ~ 1990 MHz 30 dB Min. (36 dB typ)@ 4800 ~ 5000 MHz
Phase Difference	180°+-10°
Amplitude Difference	2.0 dB max
VSWR	2.1 Max.
Characteristics Impedance	50Ω
Balanced Impedance	Conjugate match to BC series of Bluetooth chipset
Power Capacity	500mW max.
Moisture sensitivity levels	MSL is LEVEL 1 (Refer to : IPC/JEDEC J-STD-020)
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. FREQUENCY CHARACTERISTICS:

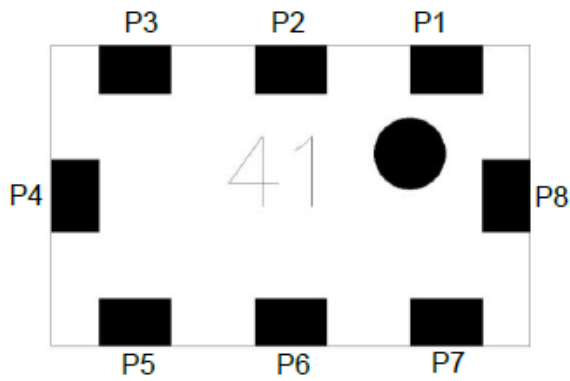


D. OUTLINE DRAWING:

Figure	Symbol	Dimension (mm)
<p>Top view</p> 	L	2.00 ± 0.15
	W	1.25 ± 0.10
	T	0.90 ± 0.10
<p>Bottom view</p> 	A	0.20 ± 0.15
	B	0.30 ± 0.10
	C	0.35 ± 0.10
<p>Side view</p> 	D	0.65 ± 0.10
	E	0.20 ± 0.15
	F	0.20 ± 0.15
<p>Side view</p> 	G	0.30 ± 0.10

E. CONSTRUCTION:

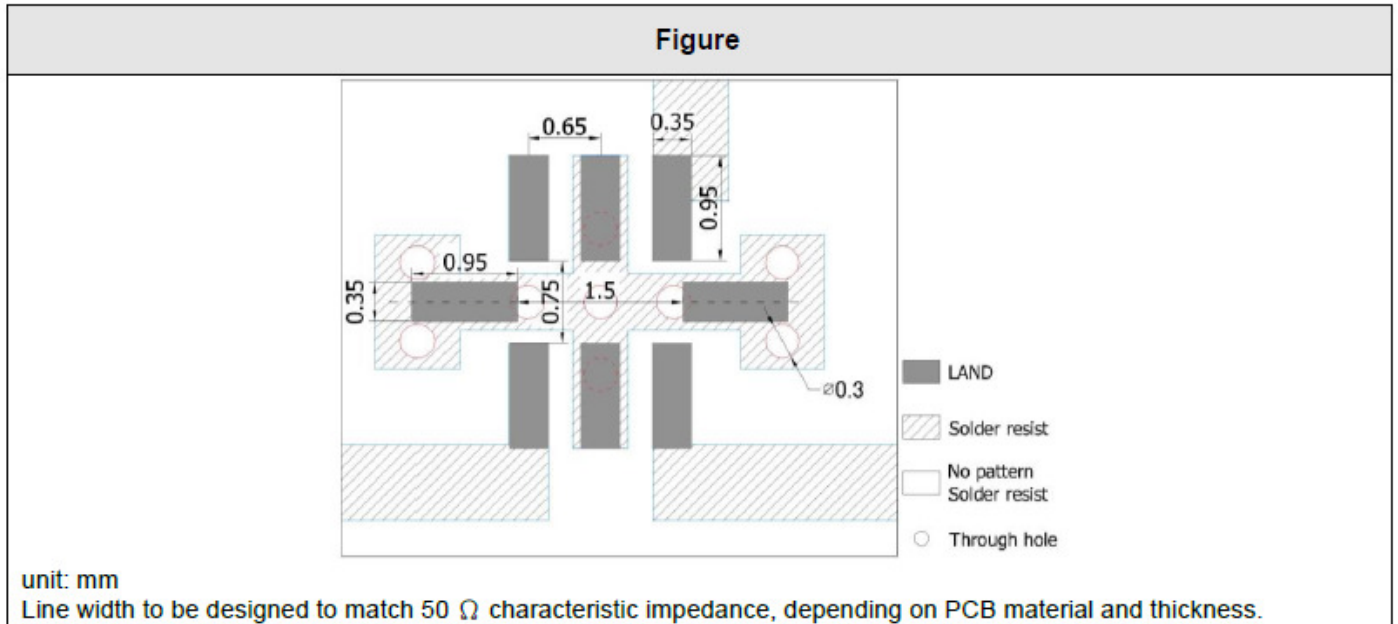
Top view



PIN	Definition	PIN	Definition
P1	Unbalance Port	P5	Balance Port
P2	DC/GND	P6	GND
P3	NC	P7	Balance Port
P4	GND	P8	GND

F. PCB FOOT PRINT:

LAND PATTERN



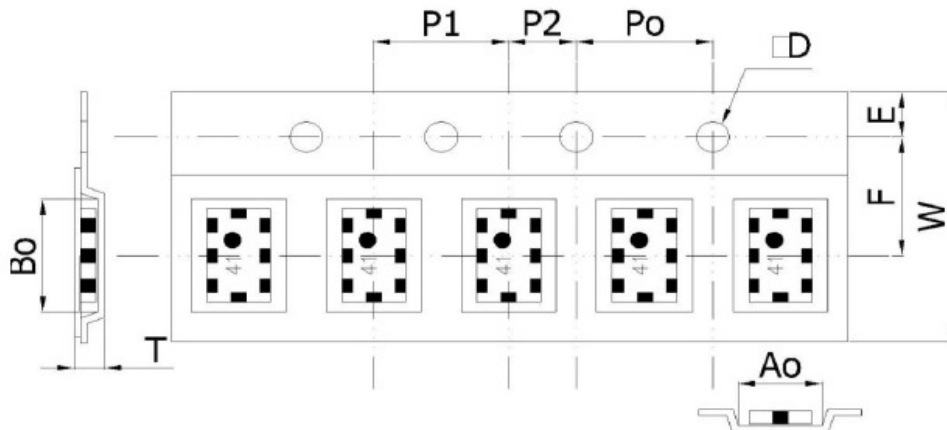
G. PACKING:

ORDERING CODE

RF	BPB	201209	0	A	1	T
Walsin RF Pb free device	Product Code BPB : Balanced Type Band Pass Filter	Dimension code Per 2 digits of Length, Width, Thickness : e.g. : 201209 = Length 20, Width 12, Thickness 9	Unit of dimension 0 : 0.1 mm 1 : 1.0 mm	Application A : 2.4GHz ISM Band	Specification Design Code	Packing T : Reeled

Minimum Ordering Quantity: 2000 pcs per reel.

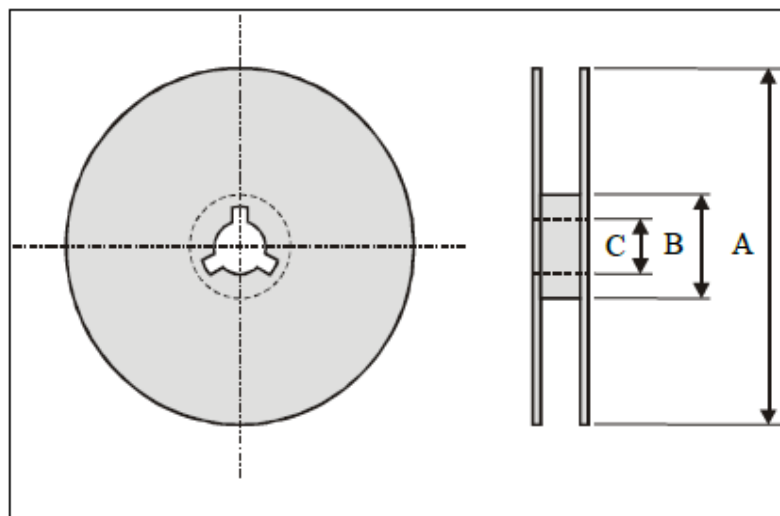
PACKAGING



Plastic Tape specifications (unit :mm)

Index	Ao	Bo	ΦD	T	W
Dimension (mm)	1.30 ± 0.10	2.25 ± 0.10	1.55 ± 0.05	1.10 ± 0.10	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

Reel dimensions



Index	A	B	C
Dimension (mm)	Φ178	Φ60.0	Φ13.5

Taping Quantity: 4000 pieces per 7" reel

H. 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.

