



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: LTCC Filter 2448 MHz SMD 2.0x1.25 mm (72MHz BW)

TST Part No.: TL0025A

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: _____ 2019/01/24

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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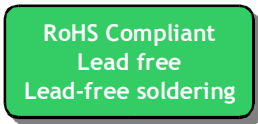
LTCC Filter 2448 MHz SMD 2.0x1.25 mm (72MHz BW)

MODEL NO.:TL0025A

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:

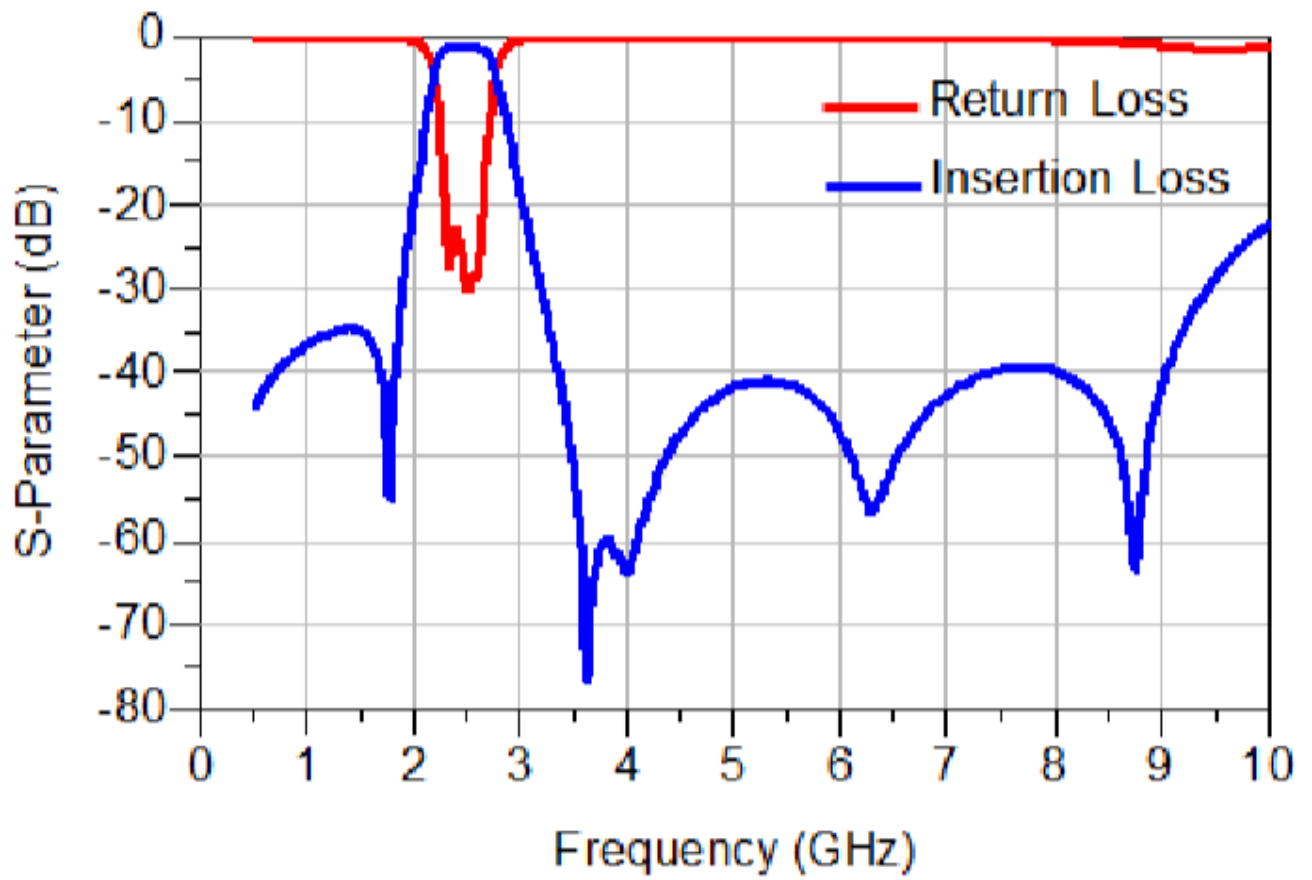
Source impedance (unbalanced) : $Z_s = 50 \Omega$

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

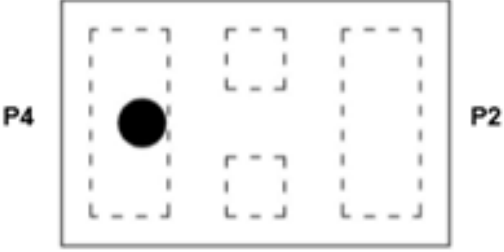
| Item | Unit | Spec |
|----------------------|----------|--|
| Center Frequency(Fc) | MHz | 2448 |
| pass Band Width(BW) | MHz | 2412~2484 |
| Insertion Loss in BW | dB | 1.35 dB (1.1dB typ.) max.+ 25°C 1.55 dB max. -40 ~ + 85°C |
| VSWR | - | 2.0max. |
| Attenuation | dB | 30 dB min. (38 dB typ.)@804~828 MHz |
| | | 20 dB min. (36 dB typ.)@1608~1656 MH |
| | | 30 dB min. (31 dB typ.)@3216~3312 MH |
| | | 40 dB min. (38 dB typ.)@4020~4140 MH |
| | | 20 dB min. (38 dB typ.)@4824~4968 MH |
| | | 20 dB min. (38 dB typ.)@5628~5796 MH |
| | | 20 dB min. (38 dB typ.)@6432~6624 MH |
| | | 35 dB min. (38 dB typ.)@7200~7500 MH |
| | | 20 dB min. (38 dB typ.)@7500~10000 MH |
| Impedance | Ω | 50 |

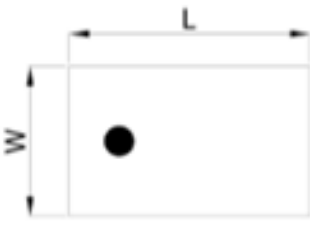


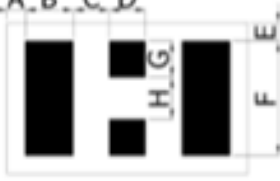
C. FREQUENCY CHARACTERISTICS:

Frequency Response



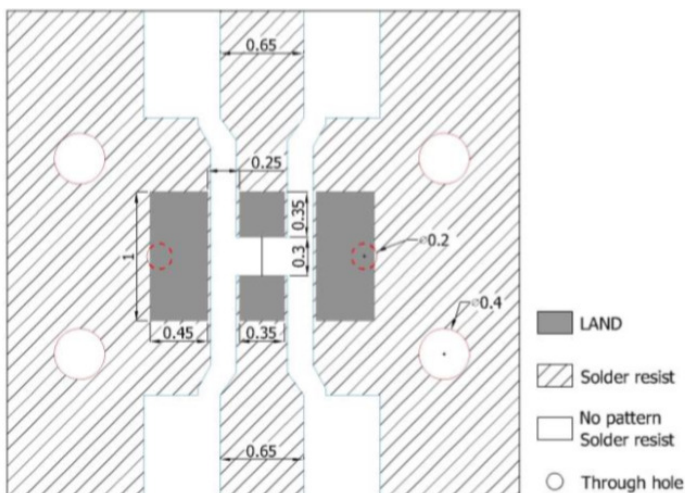
D. Outline Drawing :

| Figure | PIN | Connection |
|---|-----|------------|
| Top view  | 1 | Input |
| | 2 | GND |
| | 3 | OUTPUT |
| | 4 | GND |
| | | |
| | | |
| | | |

| Figure | Symbol | Dimension (mm) |
|---|-----------------|-----------------|
| Top view  Side view  Side view  Bottom view  | L | 2.00 ± 0.15 |
| | W | 1.25 ± 0.10 |
| | T | 0.8 ± 0.10 |
| | A | 0.15 ± 0.10 |
| | B | 0.40 ± 0.10 |
| | C | 0.30 ± 0.10 |
| | D | 0.30 ± 0.10 |
| | E | 0.15 ± 0.10 |
| | F | 0.95 ± 0.10 |
| G | 0.30 ± 0.10 | |
| H | 0.35 ± 0.10 | |

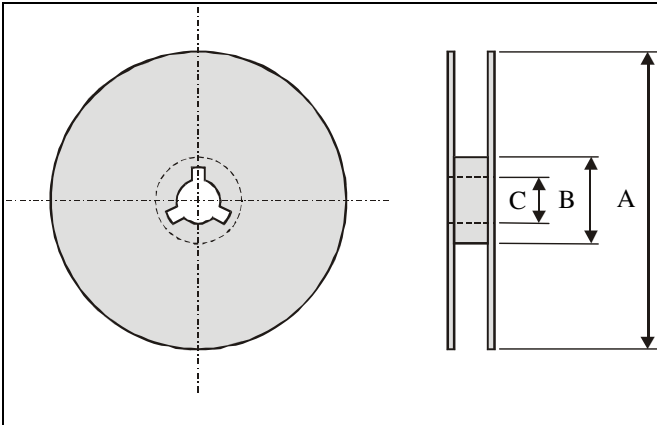
The thickness gap of PAD : 30um max

E. PCB Footprint



F. PACKING:

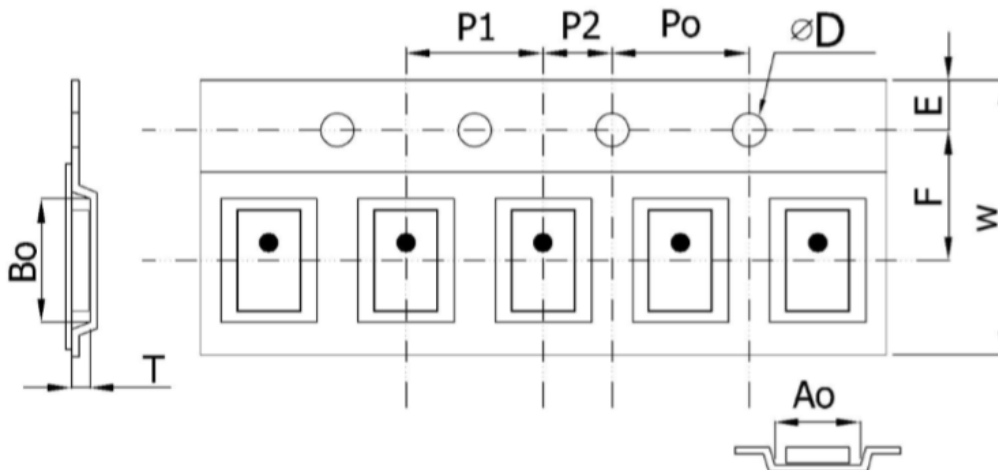
1. REEL DIMENSION



| Index | A | B | C |
|----------------|--------------|-------------|-------------|
| Dimension (mm) | $\Phi 178.0$ | $\Phi 60.0$ | $\Phi 13.0$ |

2. TAPE

DIMENSION



Plastic Tape specifications (unit : mm)

| Index | A ₀ | B ₀ | ΦD | T | W |
|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Dimension (mm) | 1.42 ± 0.10 | 2.25 ± 0.10 | 1.55 ± 0.10 | 0.95 ± 0.10 | 8.00 ± 0.10 |
| Index | E | F | P ₀ | P ₁ | P ₂ |
| Dimension (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 |

G . SOLDERING CONDITION

Typical examples of soldering processes that provide reliable joints without any damage are given in Fig 2,

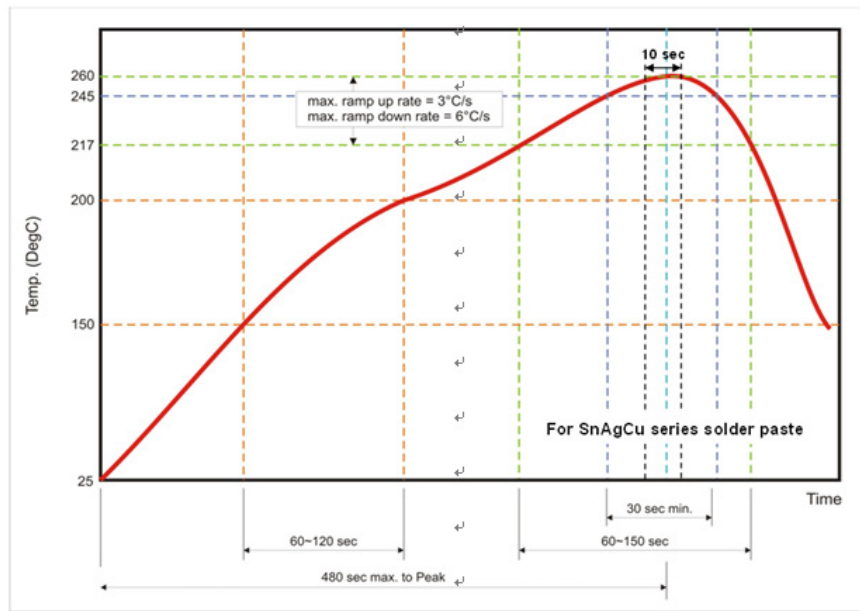


Fig 2. Infrared soldering profile