



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: SAW Filter 1950 MHz Band 1 TX SMD 1.1x0.9 mm (BW=60 MHz)

TST Part No.: TA1815D

Customer Part No.: _____

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

Checked by: _____ David Chang *David*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2017/12/07

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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SAW Filter 1950 MHz Band 1 TX SMD 1.1x0.9 mm

MODEL NO.: TA1815D

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 3 (MSL3)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

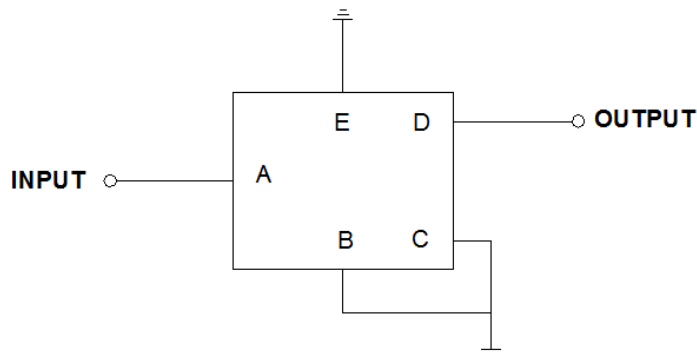
Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

Terminating load impedance: $Z_L = 50 \Omega$ (Single-ended)

| Item | Unit | Min. | Typ. | Max. |
|---|-------------------|------|------|------|
| Center frequency Fc | MHz | - | 1950 | - |
| Insertion Loss (1920~1980 MHz) IL | dB | - | 1.6 | 2.5 |
| Amplitude Ripple (1920~1980 MHz) | dB _{p-p} | - | 0.7 | 2.0 |
| VSWR (1920~1980 MHz) | - | - | 2.0 | 2.4 |
| Attenuation (Reference level from 0 dB) | | | | |
| DC ~ 1577 MHz | dB | 30 | 33 | - |
| 1577 ~ 1880 MHz | dB | 22 | 30 | - |
| 2110 ~ 2170 MHz | dB | 35 | 42 | - |
| 2500 ~ 3120 MHz | dB | 28 | 34 | - |
| 3840 ~ 3960 MHz | dB | 25 | 31 | - |
| 5760 ~ 5940 MHz | dB | 15 | 21 | - |

Notes: No Matching Network.

C. MEASUREMENT CIRCUIT:

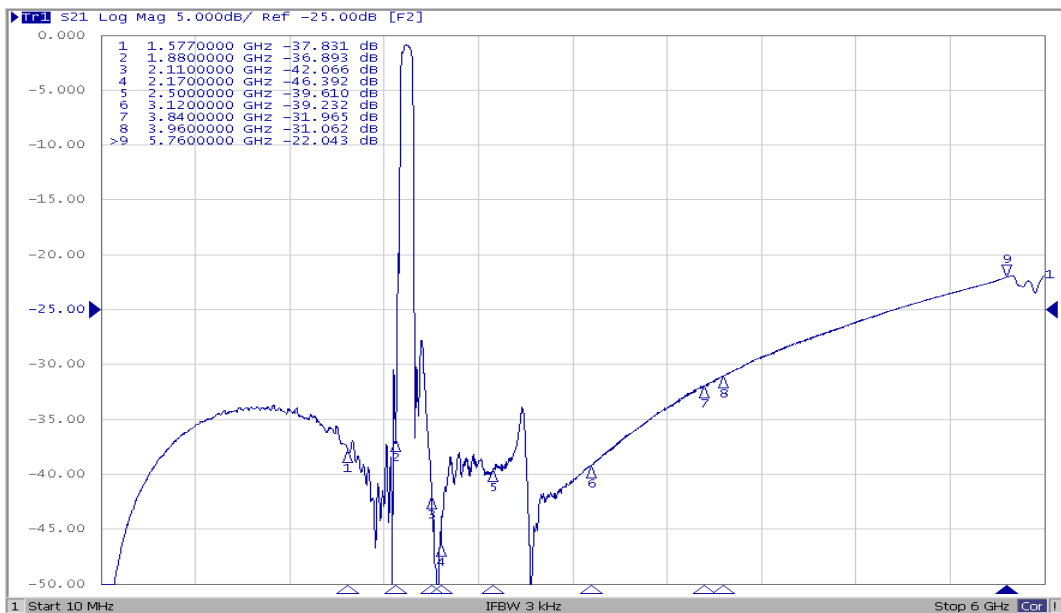
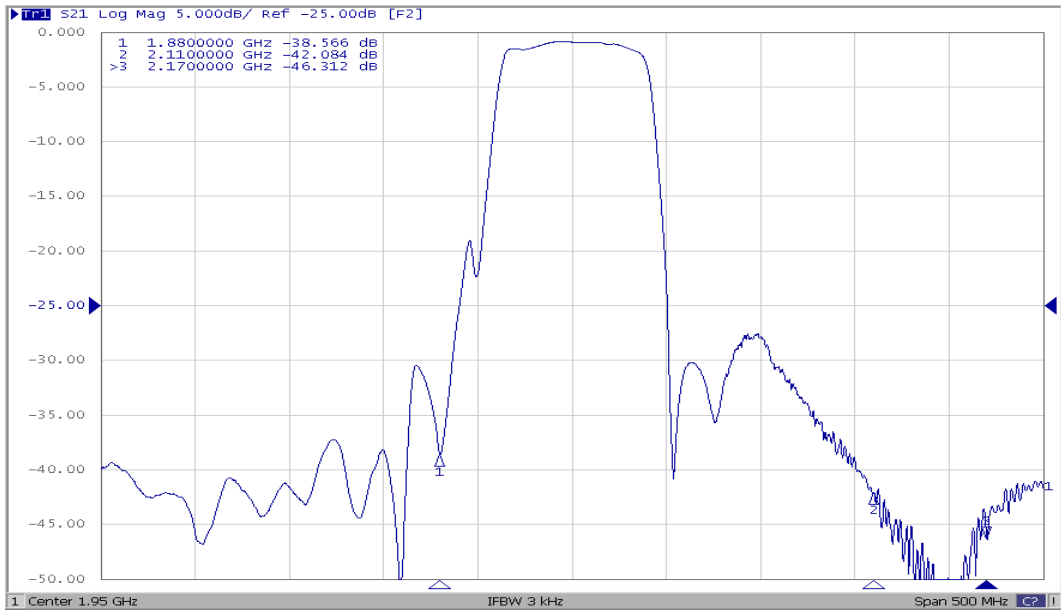
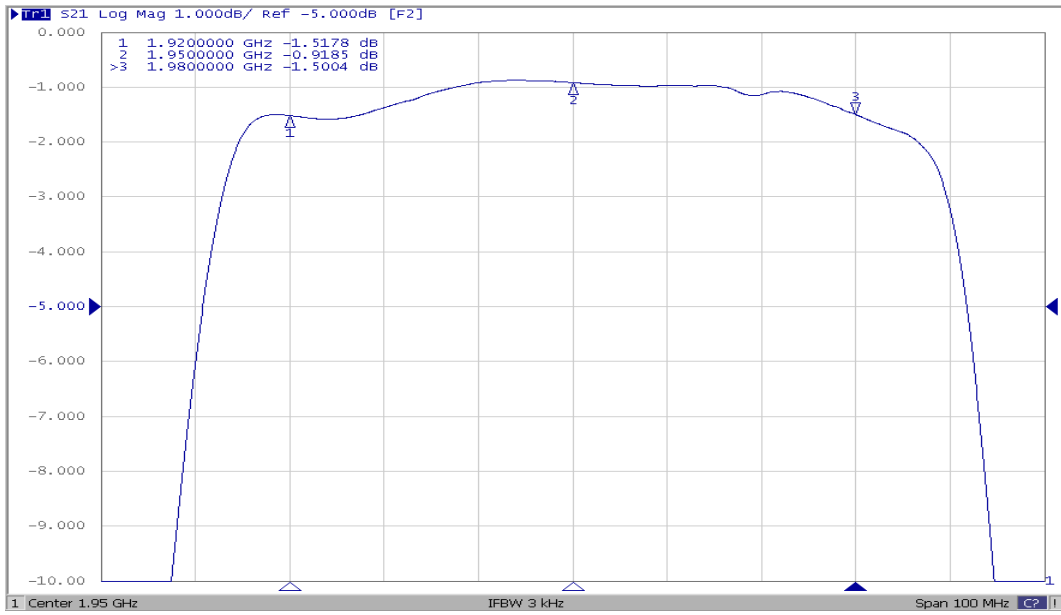


Source & Load Impedance: 50Ω

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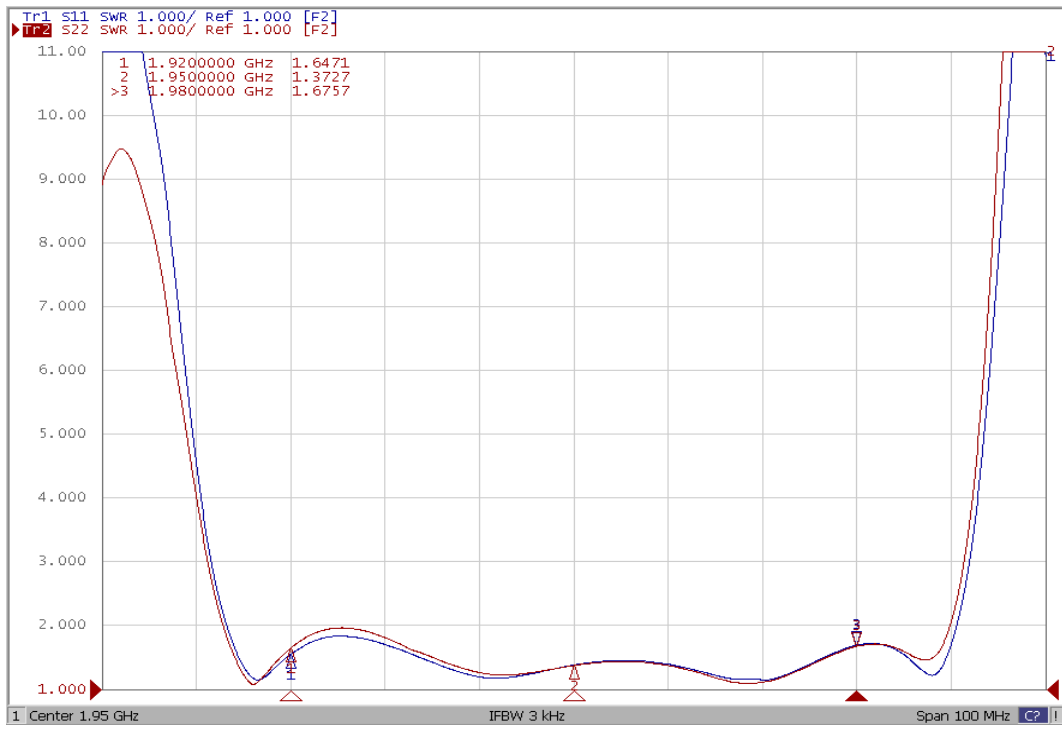
TST DCC
Release document

D. FREQUENCY CHARACTERISTICS:

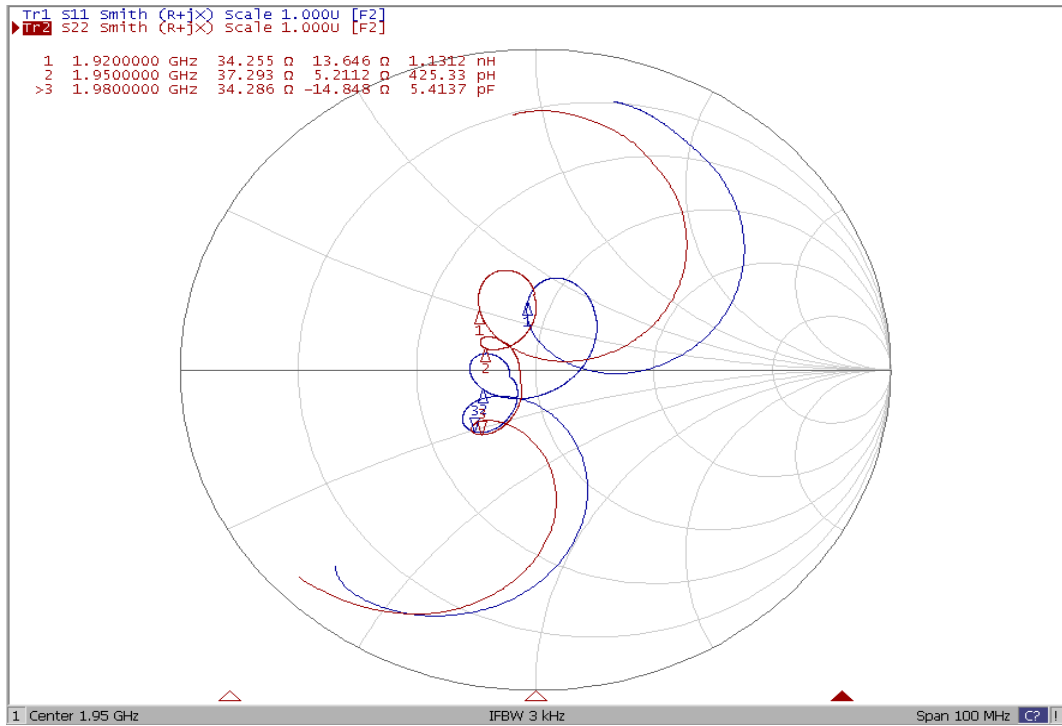


Reflection Functions:

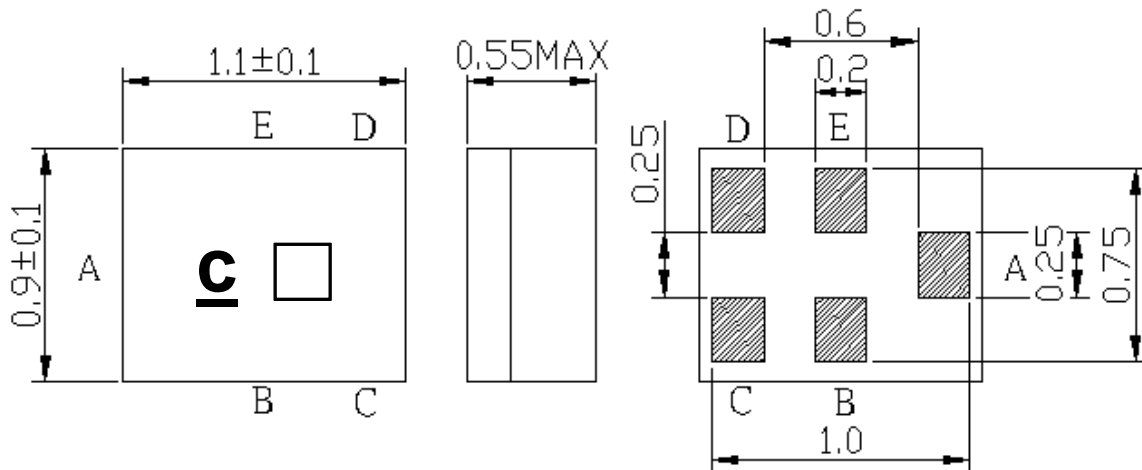
VSWR



Smith Chart



E. OUTLINE DRAWING:



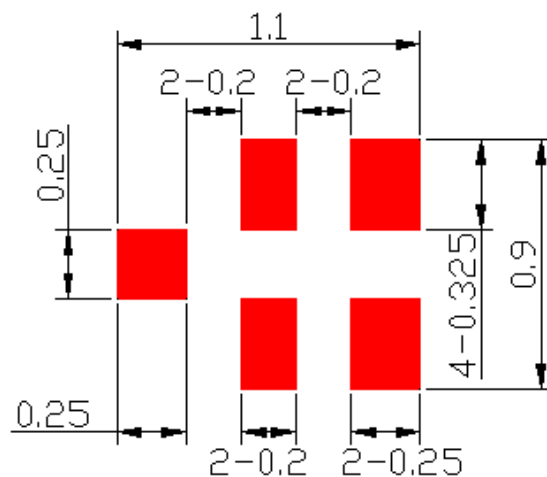
| Pin Description | |
|-----------------|--------|
| B, C, E | Ground |
| A | Input |
| D | Output |

| Marking Descriptions | |
|----------------------|-----------------------|
| | Date Code(Year+Month) |

: Year/Month Code (Follow the table)

| YEAR/Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2013 | A | B | C | D | E | F | G | H | J | K | L | M |
| 2014 | N | P | Q | R | S | T | U | V | W | X | Y | Z |
| 2015 | a | b | c | d | e | f | g | h | j | k | l | m |
| 2016 | n | p | q | r | s | t | u | v | w | x | y | z |
| 2017 | <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | <u>E</u> | <u>F</u> | <u>G</u> | <u>H</u> | <u>J</u> | <u>K</u> | <u>L</u> | <u>M</u> |
| 2018 | <u>N</u> | <u>P</u> | <u>Q</u> | <u>R</u> | <u>S</u> | <u>T</u> | <u>U</u> | <u>V</u> | <u>W</u> | <u>X</u> | <u>Y</u> | <u>Z</u> |
| 2019 | <u>a</u> | <u>b</u> | <u>c</u> | <u>d</u> | <u>e</u> | <u>f</u> | <u>g</u> | <u>h</u> | <u>j</u> | <u>k</u> | <u>l</u> | <u>m</u> |
| 2020 | <u>n</u> | <u>p</u> | <u>q</u> | <u>r</u> | <u>s</u> | <u>t</u> | <u>u</u> | <u>v</u> | <u>w</u> | <u>x</u> | <u>y</u> | <u>z</u> |

F. PCB Footprint :



: Land Pattern

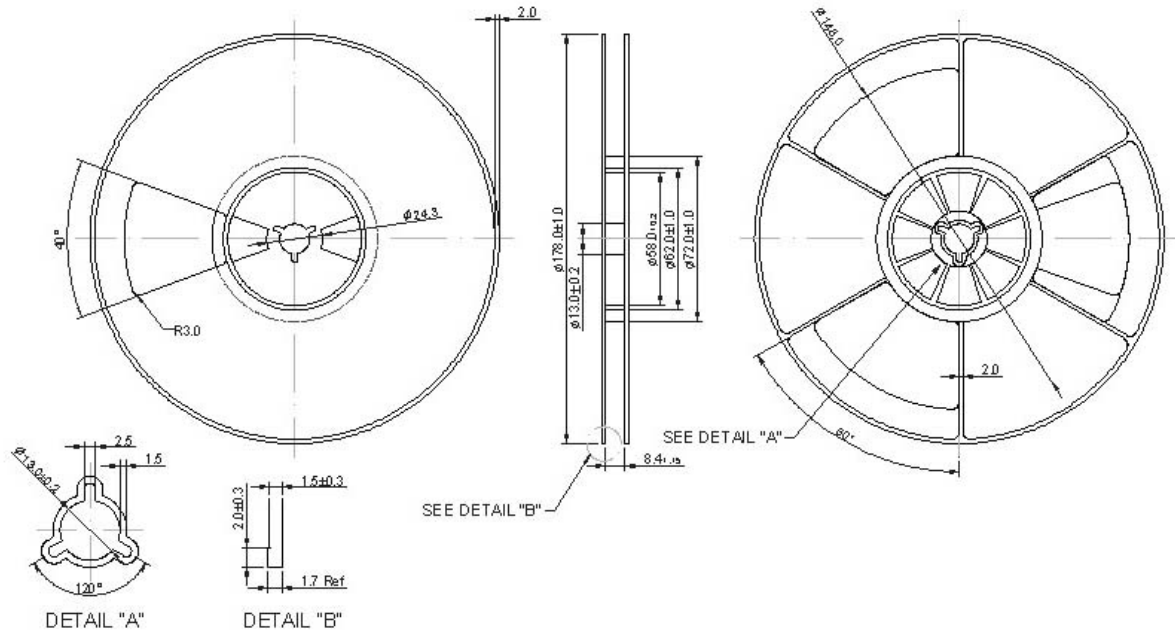
Unit: mm

TST DCC
Release document

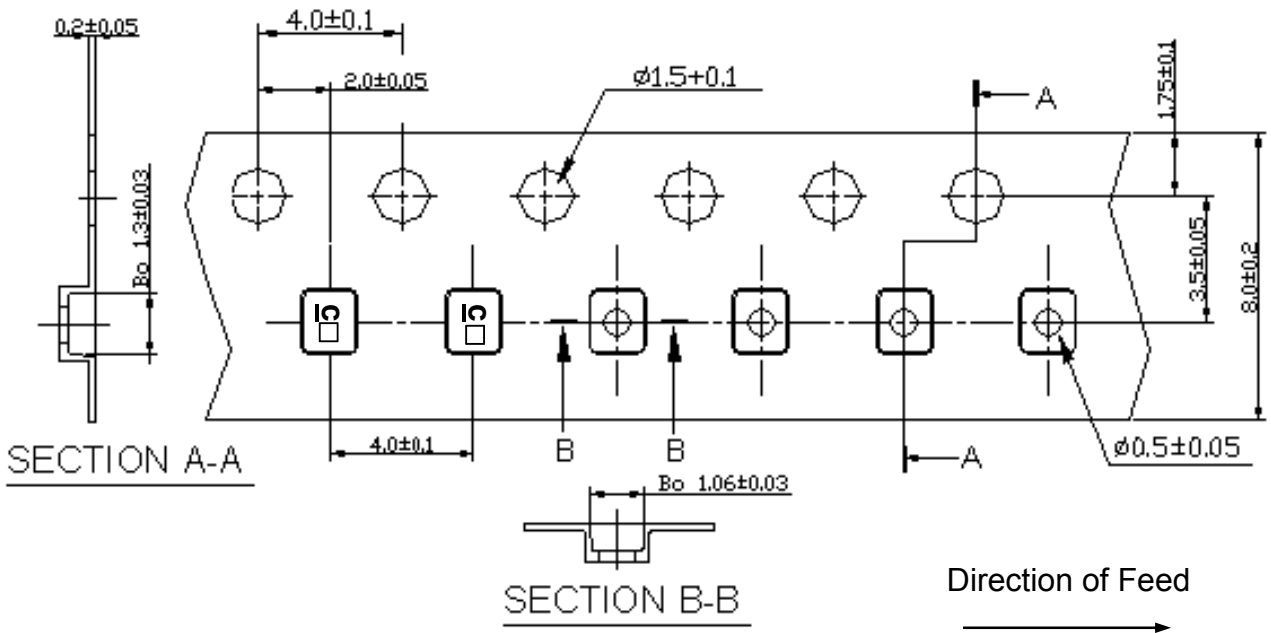
G. PACKING: (Ref. WI-75M03)

1. REEL DIMENSION

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



2. TAPE DIMENSION



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.

