



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 Web: www.taisaw.com

Product Specifications Approval Sheet

Product Name: SAW Filter 1583 MHz (BW 46.79MHz) SMD 1.4X1.1 mm

TST Parts No.: TA1343A

Customer Parts No.: _____

| |
|---------------------|
| Company: _____ |
| Division: _____ |
| Approved by : _____ |
| Date: _____ |

Checked by: _____ Michael Yang *Michael*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/01/07

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 changes



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 Web: www.taisaw.com

SAW Filter 1583MHz

MODEL NO.:TA1343A

REV. NO.:4.0

A. MAXIMUM RATING:

1. Input Power Level: 13 dBm
2. DC Voltage : 3V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 3(MSL3)
6. ESD : 50V(MM) 100V(HBM)

RoHS Compliant
Lead free
Lead-free soldering

B. ELECTRICAL CHARACTERISTICS:

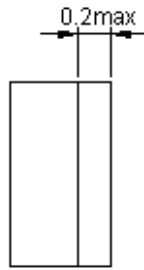
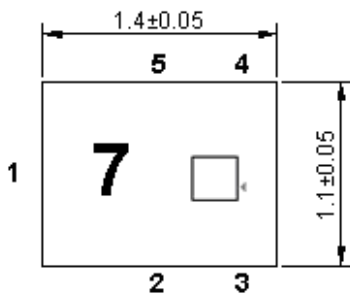
Terminating source impedance (single) : $Z_s = 50 \Omega$

Terminating load impedance(single) : $Z_L = 50 \Omega$

| Item | Unit | Min | Type. | Max |
|---|------|-----|-------|-----|
| Center Frequency Fc | MHz | - | 1583 | - |
| Insertion Loss (1559.1~1563.1 MHz) IL | dB | | 1.9 | 2.1 |
| Insertion Loss (1573.42~1577.42 MHz) IL | dB | | 1.3 | 1.5 |
| Insertion Loss (1597.55~1605.89 MHz) IL | dB | | 1.6 | 2.1 |
| VSWR (1559.1~1563.1 MHz) | | | 1.5 | 1.8 |
| VSWR (1573.42~1577.42 MHz) | | | 1.7 | 1.9 |
| VSWR (1597.55~1605.89 MHz) | | | 1.7 | 1.9 |
| Amplitude ripple (1559.1~1563.1 MHz) | dB | | 0.6 | 0.8 |
| (1573.42~1577.42 MHz) | dB | | 0.3 | 0.5 |
| (1597.55~1605.89 MHz) | dB | | 0.5 | 0.6 |
| Attenuation | | | | |
| 10 ~ 824 MHz | dB | 23 | 26 | |
| 824 ~ 925 MHz | dB | 23 | 26 | |
| 1427 ~ 1463 MHz | dB | 26 | 31 | |
| 1710 ~ 1785 MHz | dB | 25 | 30 | |
| 1850 ~ 1980 MHz | dB | 26 | 30 | |
| 2400 ~ 2570 MHz | dB | 30 | 33 | |
| 2570 ~ 3000 MHz | dB | 30 | 35 | |

| | | |
|--------------|----|-------------|
| Package size | mm | SMD 1.4x1.1 |
|--------------|----|-------------|

C.OUTLINE DRAWING:

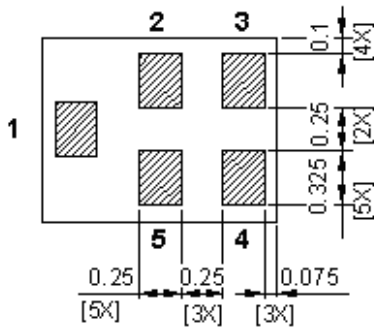


All tolerances are +/-0.05 mm unless otherwise specified.

Coplanarity : 0.1 mm max.

1 to 5 : Pin No.

Unit : mm

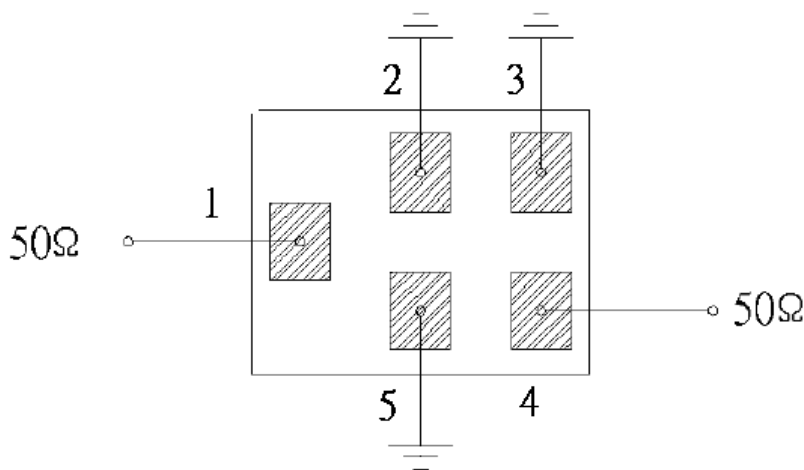


| Pin No.↕ | Symbol↕ | Function↕ |
|----------|---------|-----------|
| 1↕ | IN↕ | Input↕ |
| 2↕ | GND↕ | Ground↕ |
| 3↕ | GND↕ | Ground↕ |
| 4↕ | OUT↕ | Output↕ |
| 5↕ | GND↕ | Ground↕ |

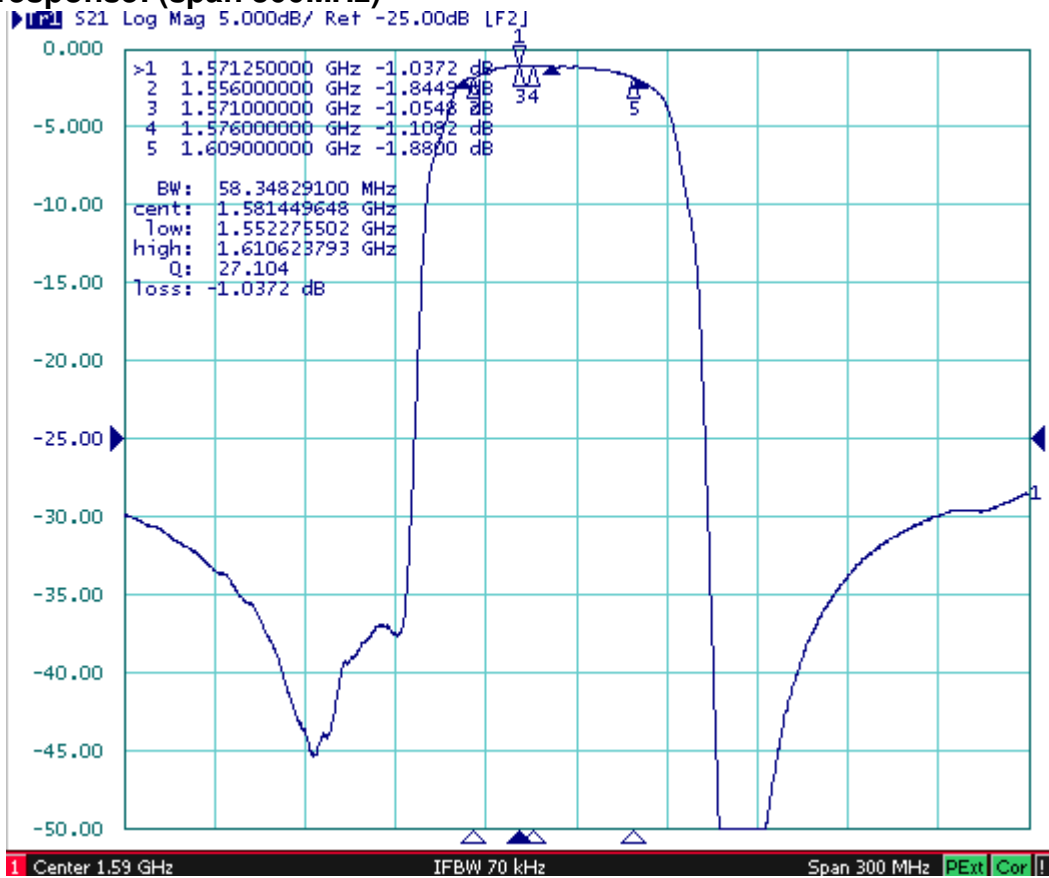
□ : Year/Month Code (Follow the table)

| 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>i</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> |

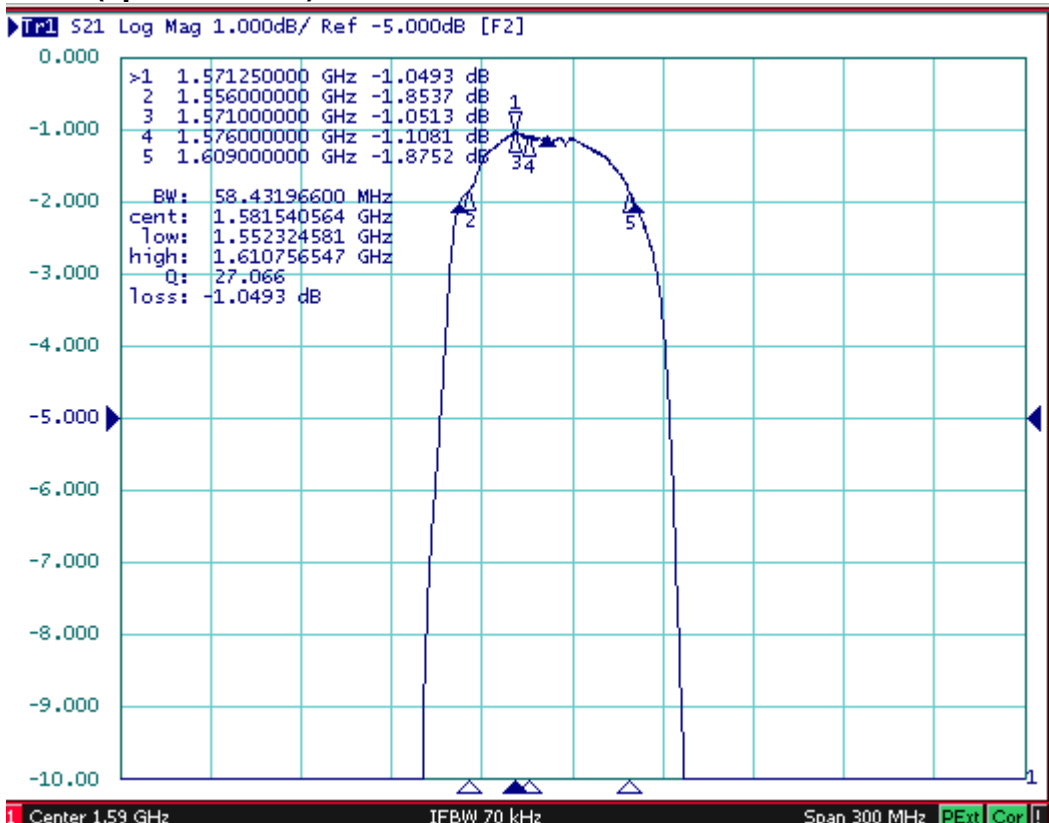
D. MEASUREMENT CIRCUIT:



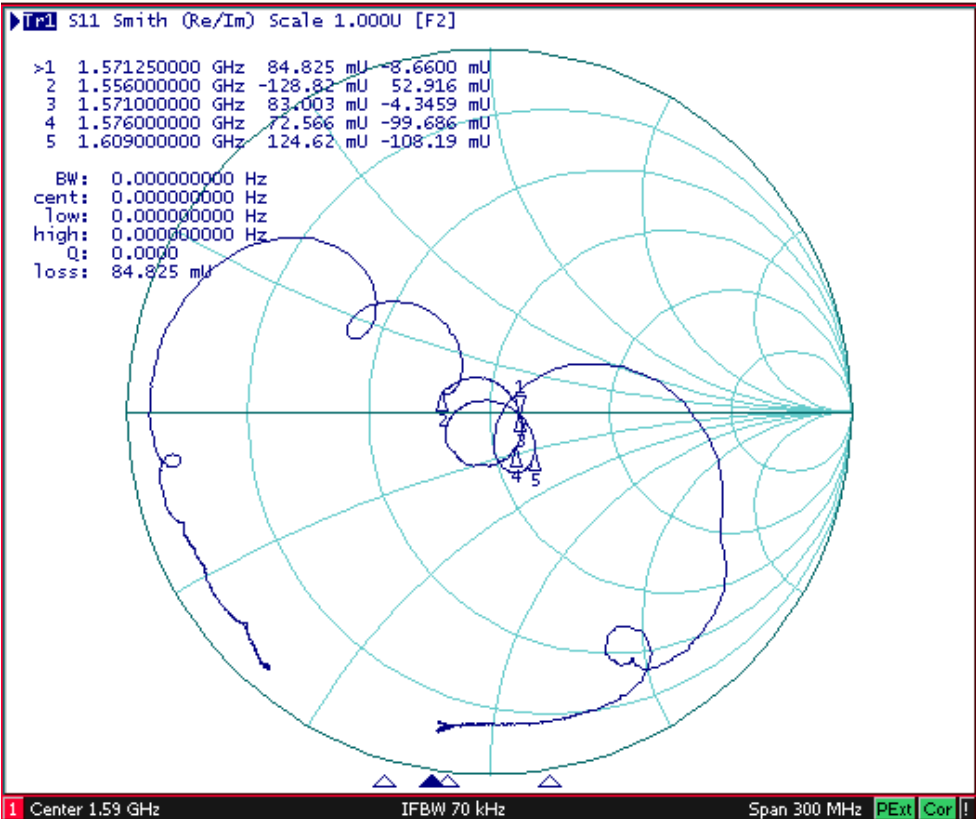
**E. Frequency Characteristics:
S21 response: (span 300MHz)**



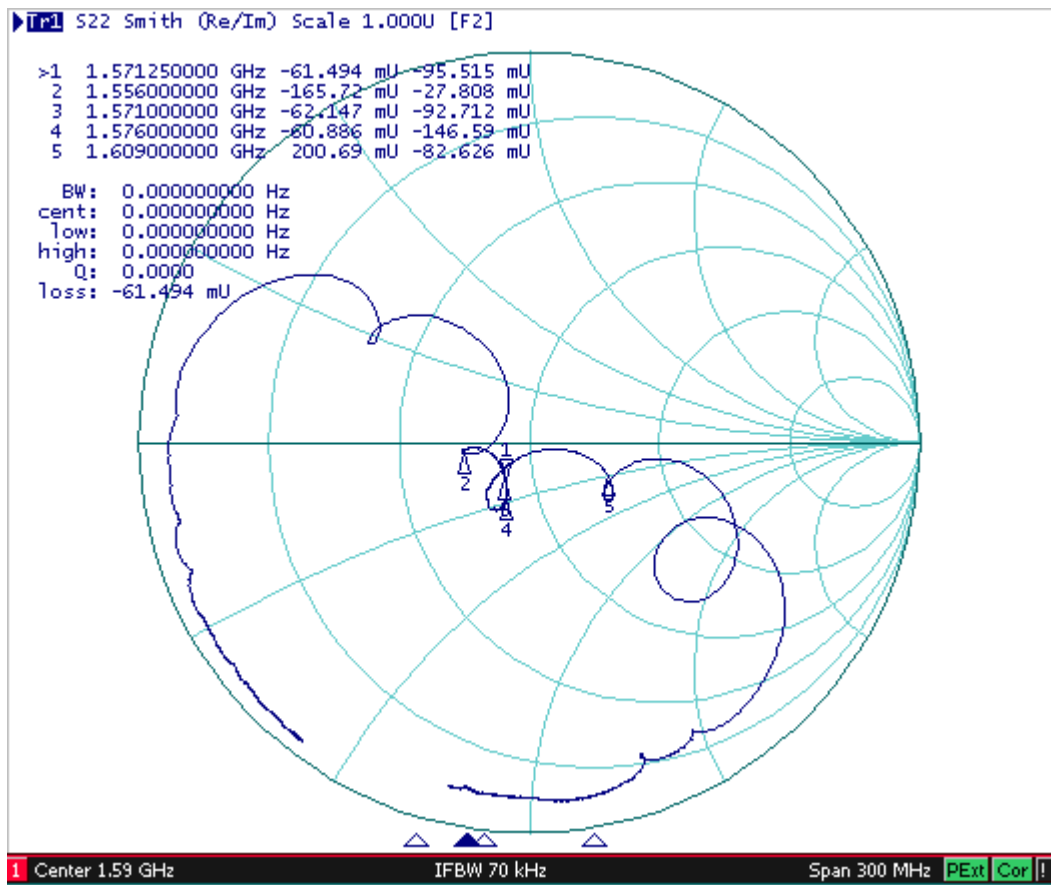
S21 response: (span 300MHz)



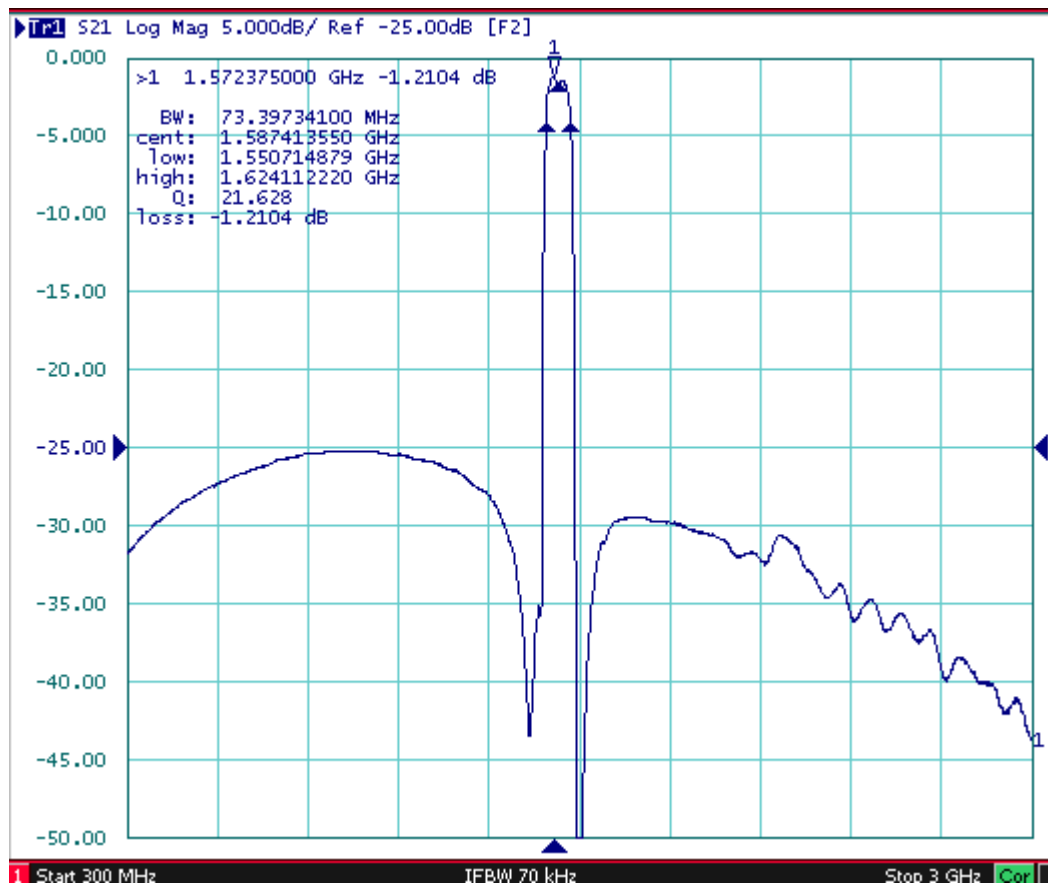
S11 response :



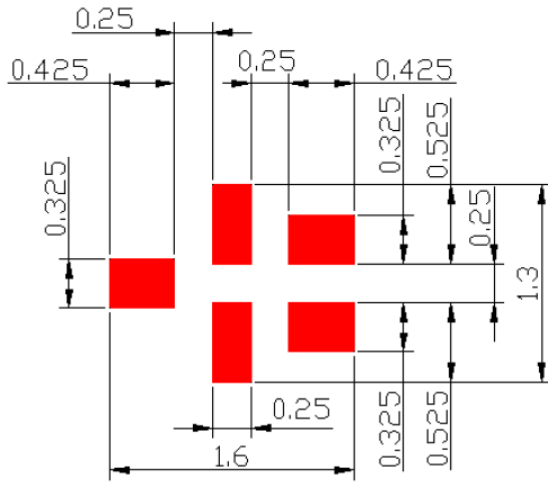
S22 response :



S21 response: (span 3GHz)



F. PCB Footprint:

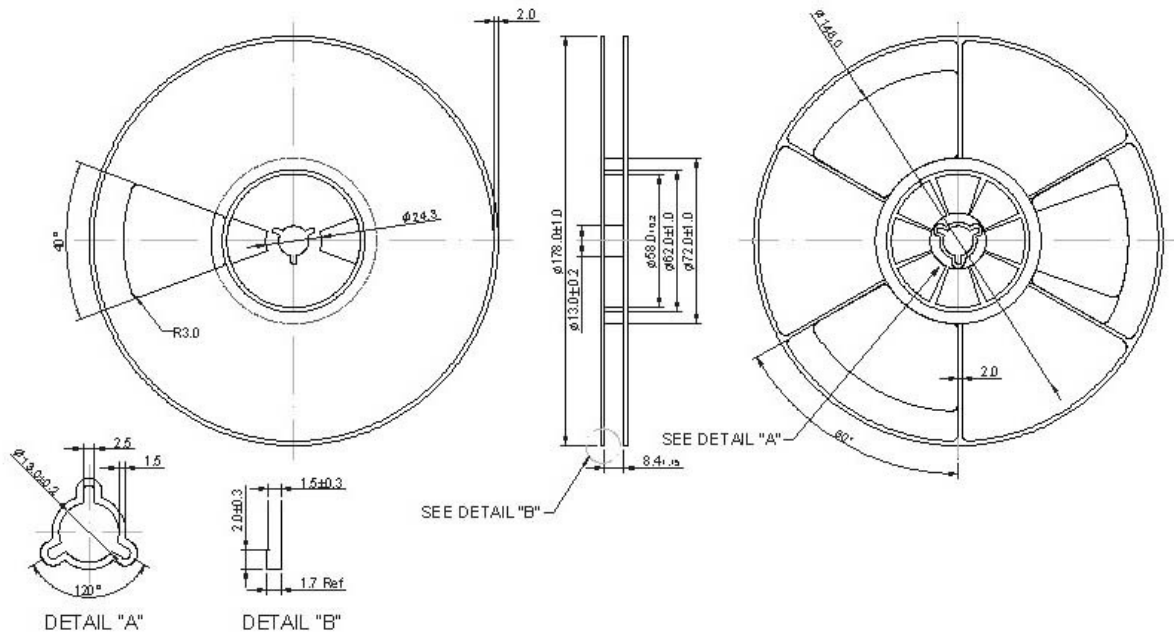


: Land Pattern

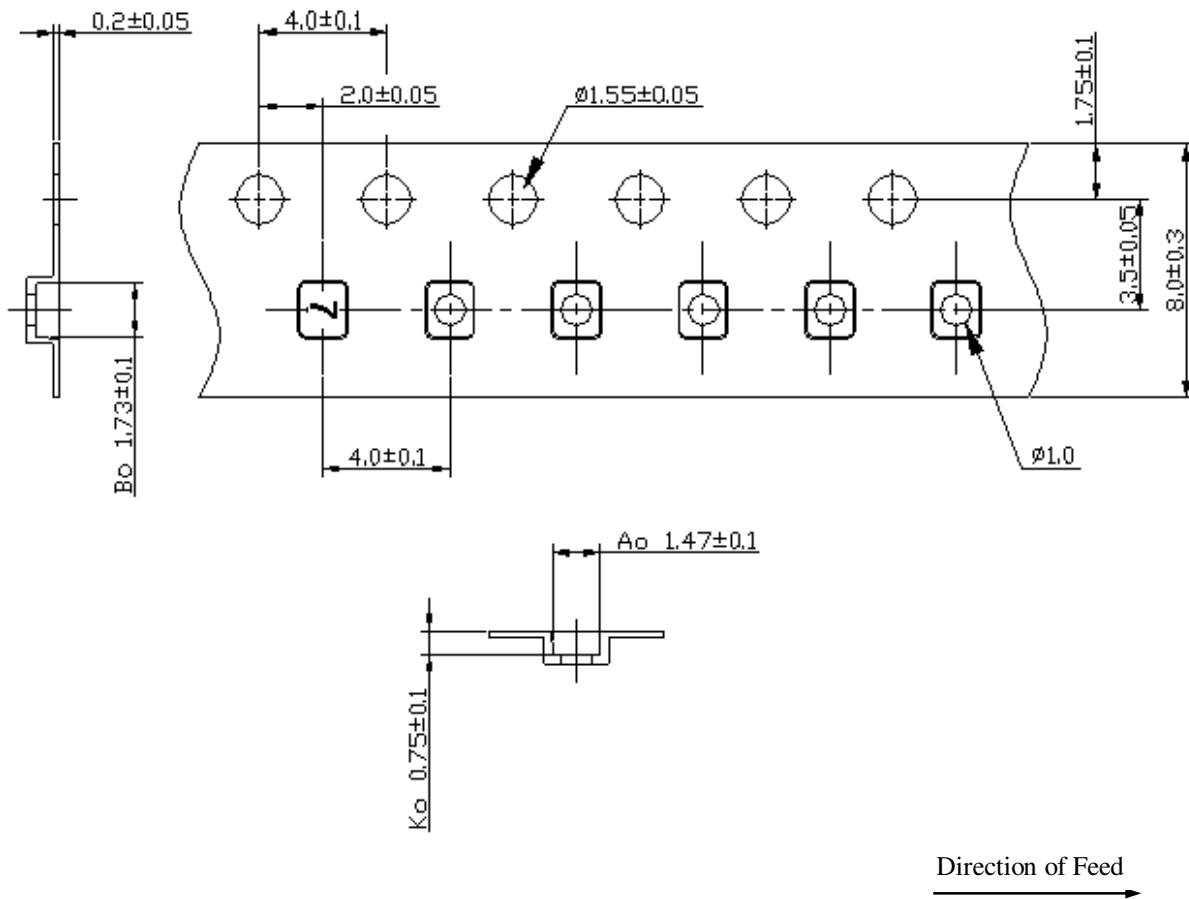
G. PACKING:

1. REEL DIMENSION

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



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at $150 \sim 180^\circ\text{C}$ for $60 \sim 90$ seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for $50 \sim 80$ seconds and at $260^\circ\text{C} +0/-5^\circ\text{C}$ peak ($20 \sim 40$ sec).
4. Time: 2 times.

