



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

Approval Sheet For Product Specification

Issued Date: Dec, 31, 2003

Product Name: SAW Filter 1842.5 MHz for Mobile Communication

TST Parts No.: TA0318A

Customer Parts No.: _____

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Bob Chau

Approval by: _____ Francis Chen

Date: _____ 12,31,2003



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 1842.5 MHz for Mobile Communication

MODEL NO.: TA0318A

REV. NO.:1

A. MAXIMUM RATING:

1. Operating Temperature: -20°C ~ +75°C
2. Storage Temperature: -40°C ~ +85°C

RoHS Compliant
Lead free
Lead-free soldering

B. ELECTRICAL CHARACTERISTICS :

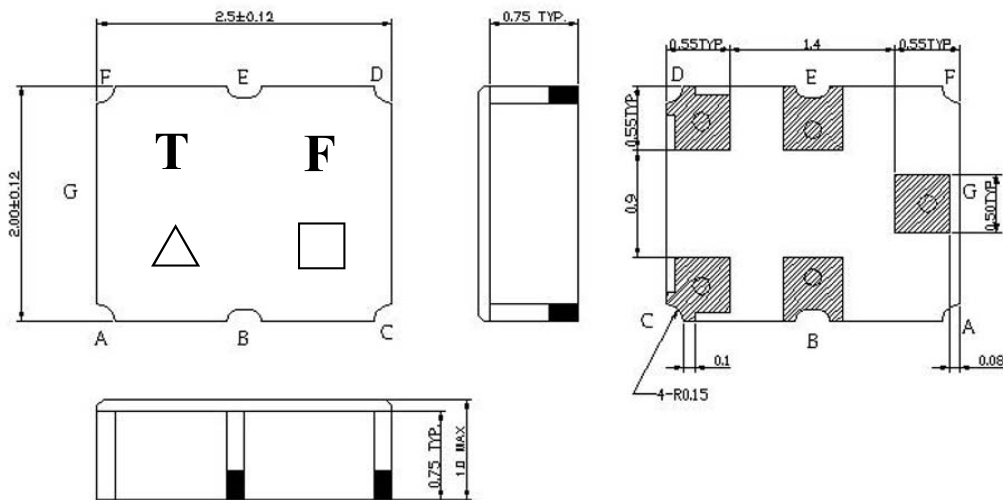
Singled to Balanced operation

Terminating source impedance : $Z_s = 50 \Omega$

Terminating load impedance : $Z_L = 150 \Omega // 22 \text{ nH}$

| Item | | | Value | | | Note |
|---|------------------|--------|-------|--------|------|------|
| | | | Min. | Typ. | Max. | |
| Center frequency | F_c | MHz | - | 1842.5 | - | - |
| Insertion loss (1805~1880 MHz) | I.L. | (dB) | - | 3.0 | 4.0 | - |
| Ripple | (1805~1880 MHz) | (dB) | - | 0.8 | 2.1 | - |
| Input VSWR | (1805~1880 MHz) | | - | 1.9 | 2.7 | - |
| Output VSWR | (1805~1880 MHz) | | - | 2.2 | 2.7 | - |
| Attenuation: (Reference level from 0 dB) | | | | | | |
| 0 ~ 1200 | MHz | (dB) | 40 | 49 | - | - |
| 1200 ~ 1705 | MHz | (dB) | 30 | 34 | - | - |
| 1705 ~ 1785 | MHz | (dB) | 9 | 14 | - | - |
| 1920 ~ 1980 | MHz | (dB) | 10 | 22 | - | - |
| 1980 ~ 2200 | MHz | (dB) | 20 | 23.5 | - | - |
| 2200 ~ 3000 | MHz | (dB) | 30 | 36 | - | - |
| 3000 ~ 5000 | MHz | (dB) | 40 | 50 | - | - |
| 5000 ~ 6000 | MHz | (dB) | 35 | 43 | - | - |
| Symmetry in band (referenced to the matched operating condition) | | | | | | |
| Output amplitude balance ($ S_{31}/S_{21} $) | (1805~1880 MHz) | (dB) | -2 | 0 | 2 | - |
| Output phase balance ($\Phi(S_{31})-\Phi(S_{21})+180^\circ$) | (1805~1880 MHz) | degree | -12 | 0 | 12 | - |

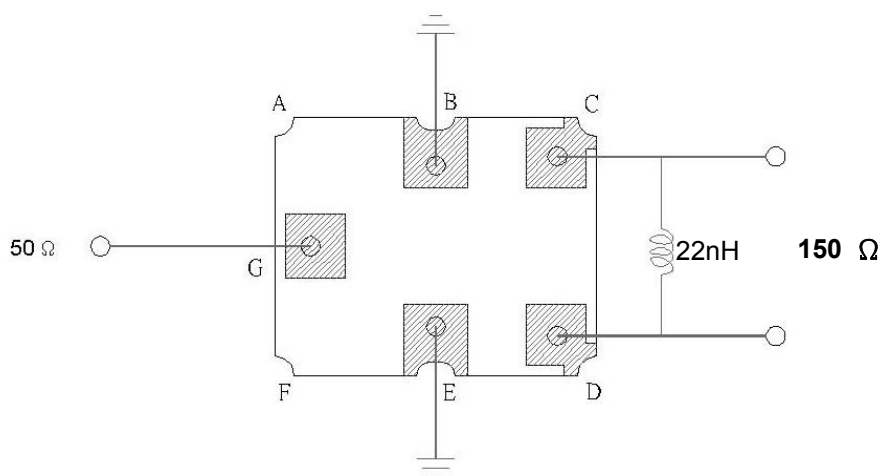
C. OUTLINE DRAWING:



Pin configuration

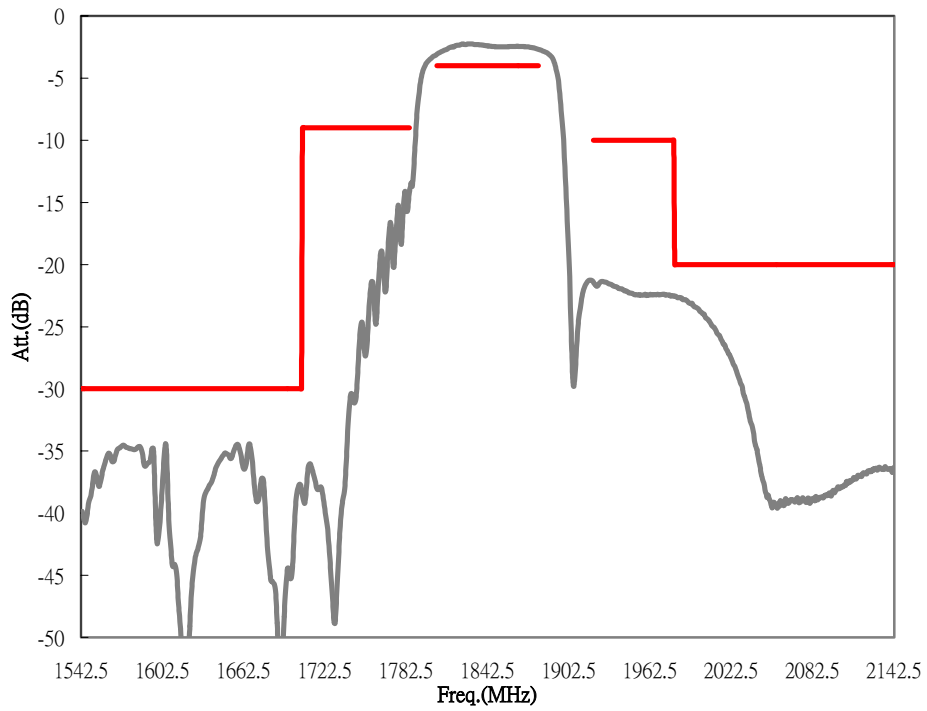
- G : Unbalance input
- C,D : Balance output
- B,E : Ground
- △ : Year code
- : Date code
- Unit : mm

D. MEASUREMENT CIRCUIT:

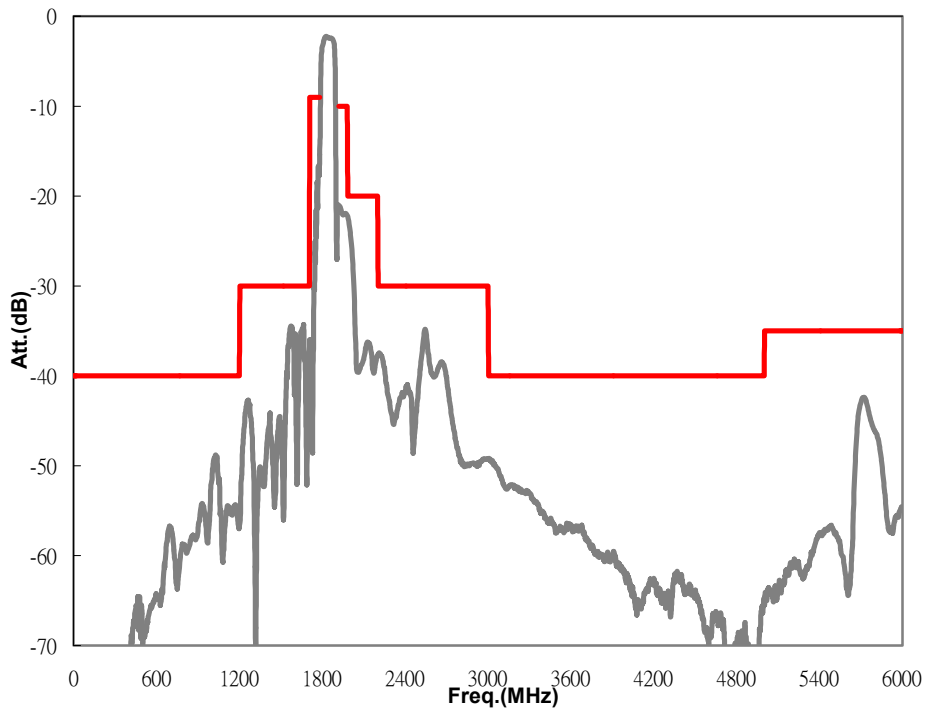


E. FREQUENCY CHARACTERISTICS:

1. Transfer function (25 °C)

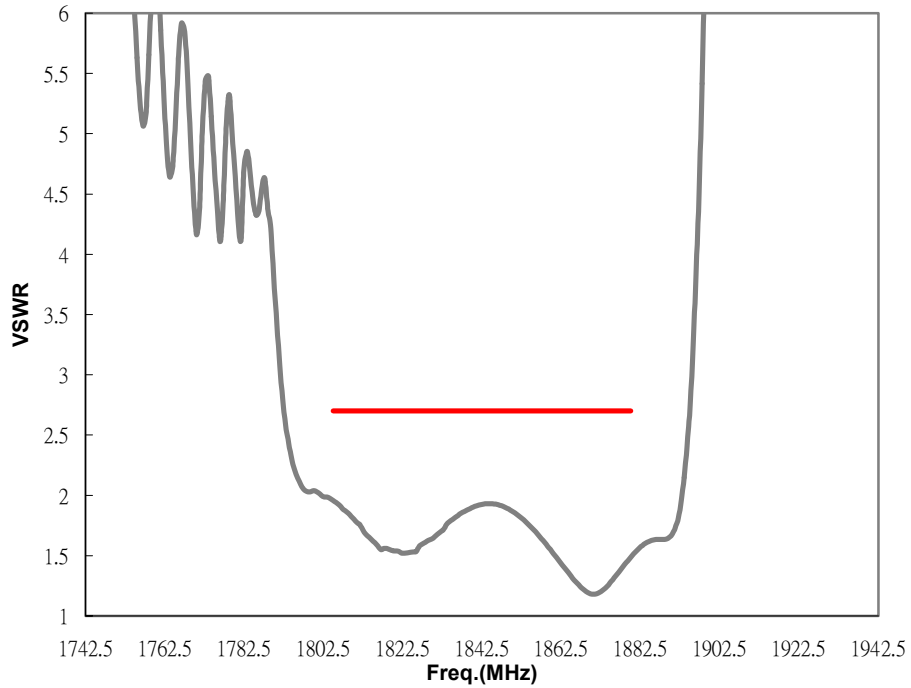


(wideband)

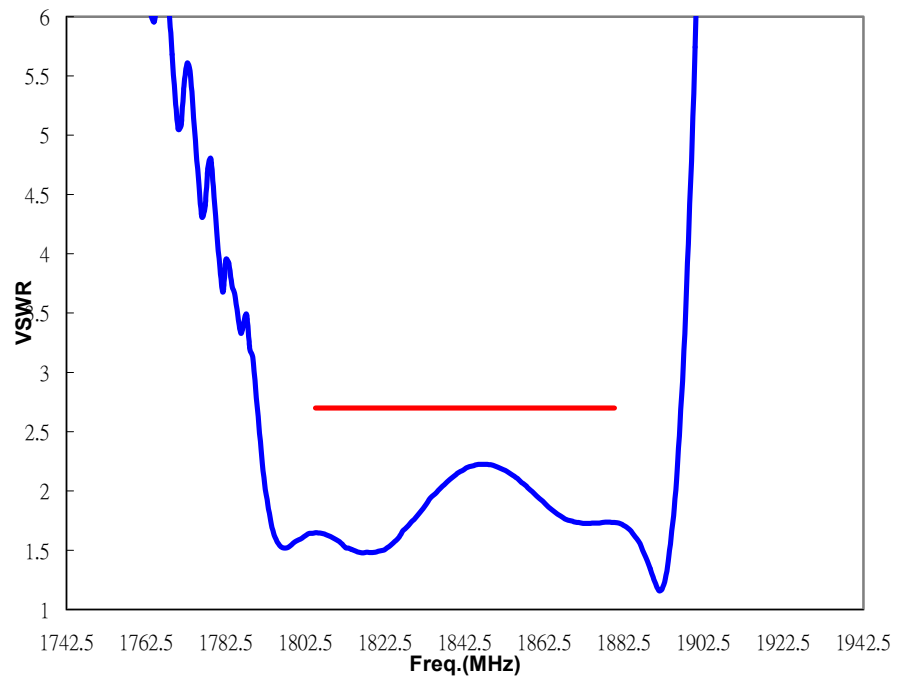


2. VSWR (25 °C)

Unbalance Input

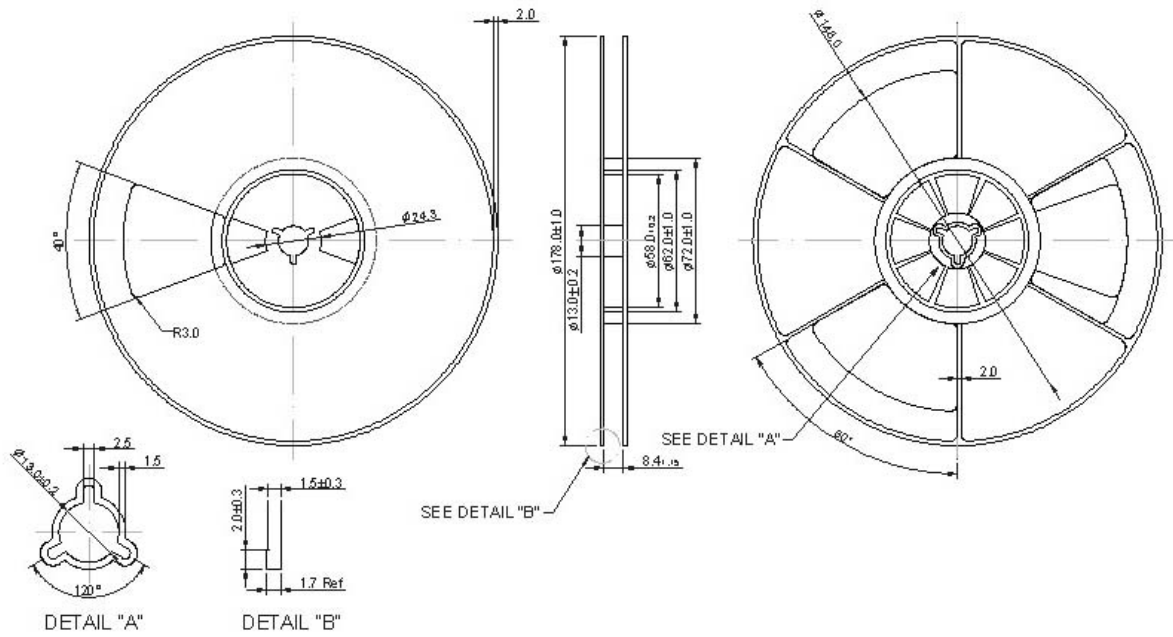


Balance Output

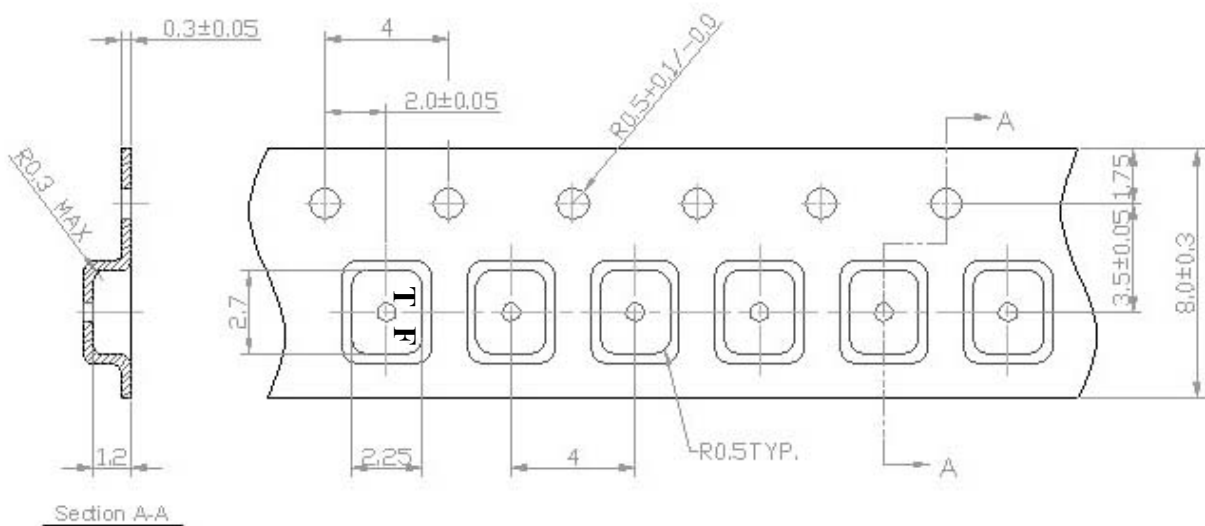


F. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



G. Reflow Profile:

1. Preheating shall be fixed at 140 ~ 160 °C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150 °C shall be 30 seconds min.
3. Heating shall be fixed at 200 °C for 50 ~ 60 seconds and at 230±10 °C peak.

