



# TAI-SAW TECHNOLOGY CO., LTD.

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## Approval Sheet For Product Specification

Issued Date: Oct, 22, 2003

Product Name: SAW Filter 1842.5 MHz for Mobile Communication

TST Parts No.: TA0219A

Customer Parts No.: \_\_\_\_\_

Company: \_\_\_\_\_

Division: \_\_\_\_\_

Approved by : \_\_\_\_\_

Date: \_\_\_\_\_

Checked by: \_\_\_\_\_ Bob Chau

Approval by: \_\_\_\_\_ Francis Chen

Date: \_\_\_\_\_ 10,22,2003



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## SAW Filter 1842.5 MHz for Mobile Communication

MODEL NO.: TA0219A

REV. NO.:4

### 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 :

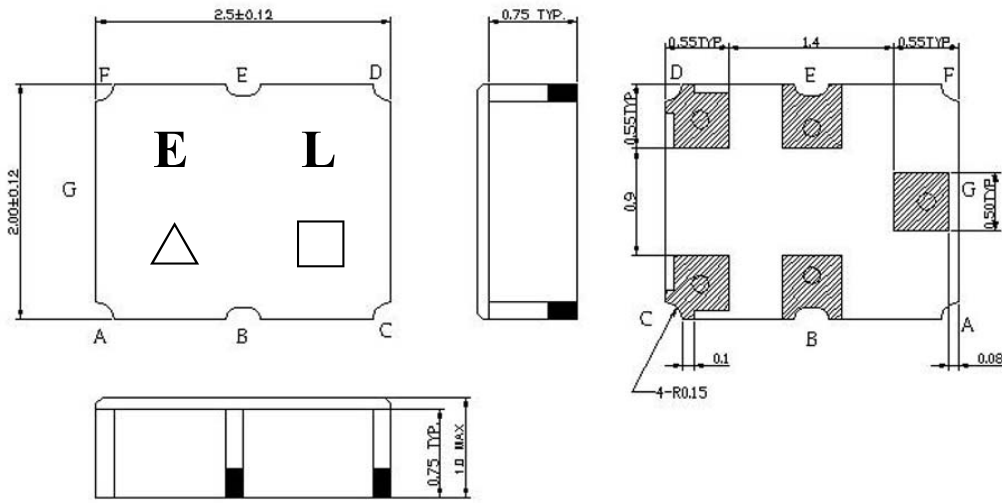
Singled to Balanced operation

Terminating source impedance :  $Z_s = 50 \Omega$

Terminating load impedance :  $Z_L = 200 \Omega // 18 \text{ nH}$

Item	Value			Note
	Min.	Typ.	Max.	
<b>Center frequency</b> $F_c$ MHz	-	1842.5	-	-
<b>Insertion loss</b> ( 1805~1880 MHz) <b>I.L.</b> (dB)	-	2.9	4.0	-
<b>Ripple</b> ( 1805~1880 MHz) (dB)	-	1.0	2.1	-
<b>Input VSWR</b> ( 1805~1880 MHz)	-	2.1	2.7	-
<b>Output VSWR</b> ( 1805~1880 MHz)	-	2.0	2.7	-
<b>Attenuation:</b> ( 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 ~ 6000 MHz (dB)	40	44	-	-
<b>Symmetry in band</b> (referenced to the matched operating condition)				
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ ) ( 1805~1880 MHz) (dB)	-2	0	2	-
<b>Output phase balance</b> ( $\Phi(S_{31})-\Phi(S_{21})+180^\circ$ ) ( 1805~1880 MHz) degree	-12	0	12	-

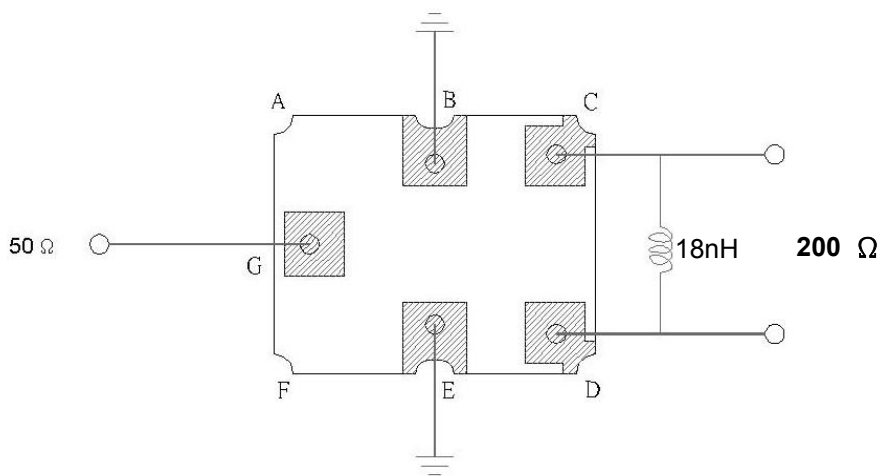
**C. OUTLINE DRAWING:**



**Pin configuration**

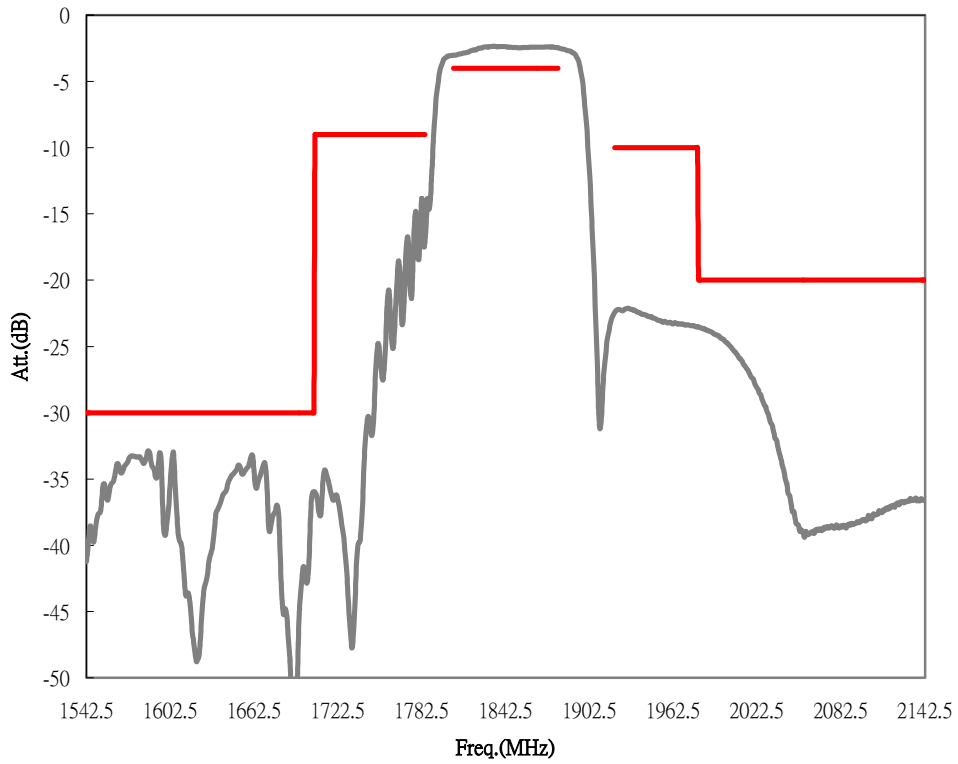
- G : Unbalance input
- C,D : Balance output
- B,E : Ground
- △ : Year code
- : Date code
- Unit : mm

**D. MEASUREMENT CIRCUIT:**

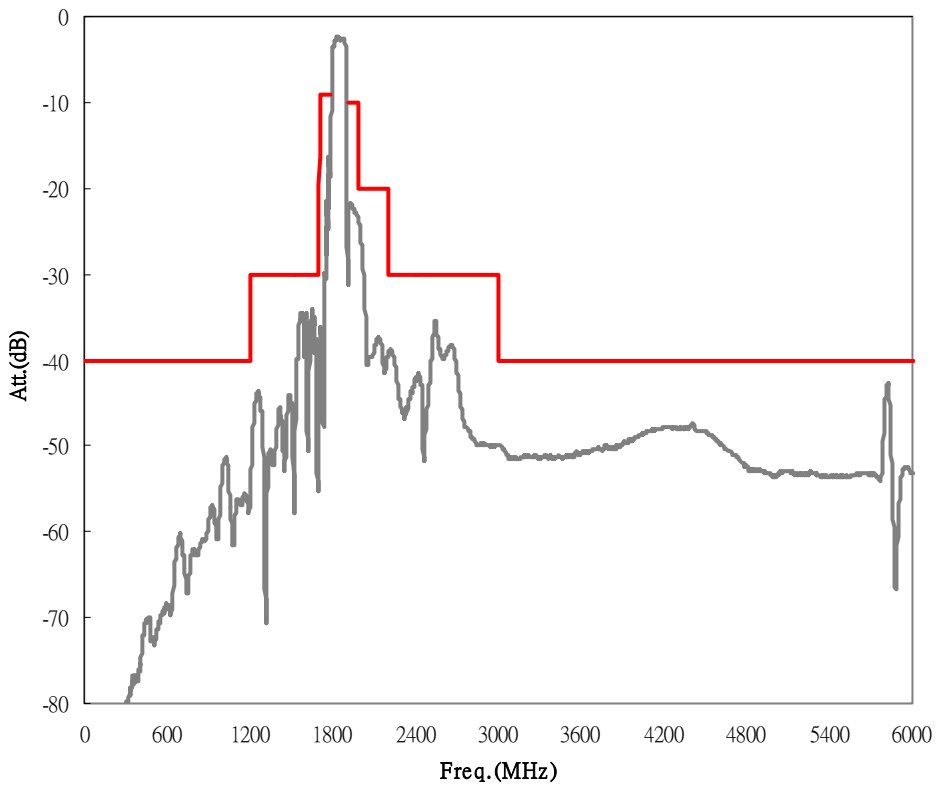


## E. FREQUENCY CHARACTERISTICS:

### 1. Transfer function (25 °C)

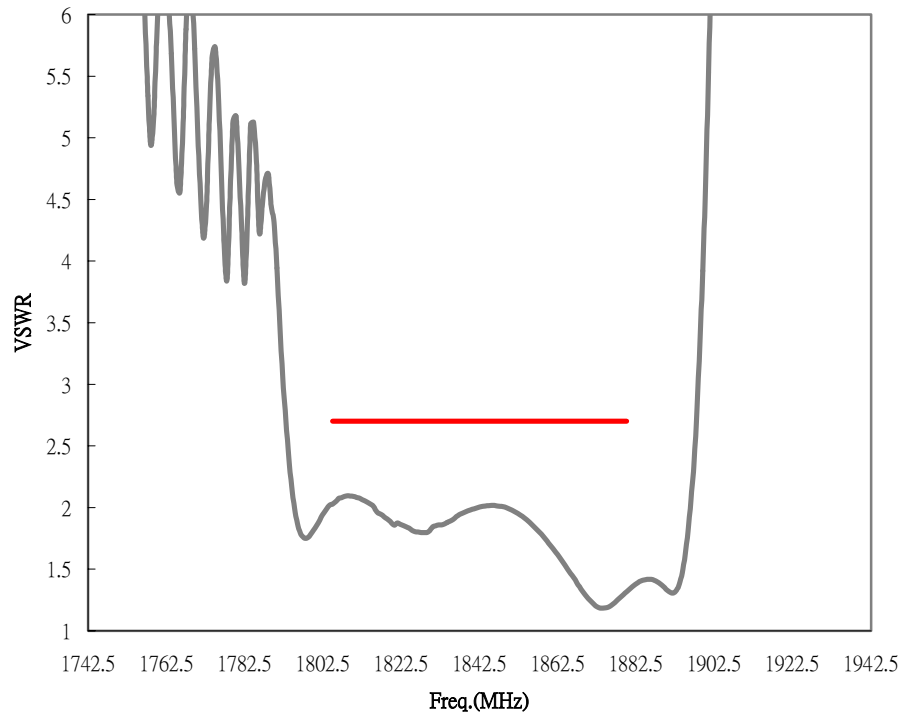


(wideband)

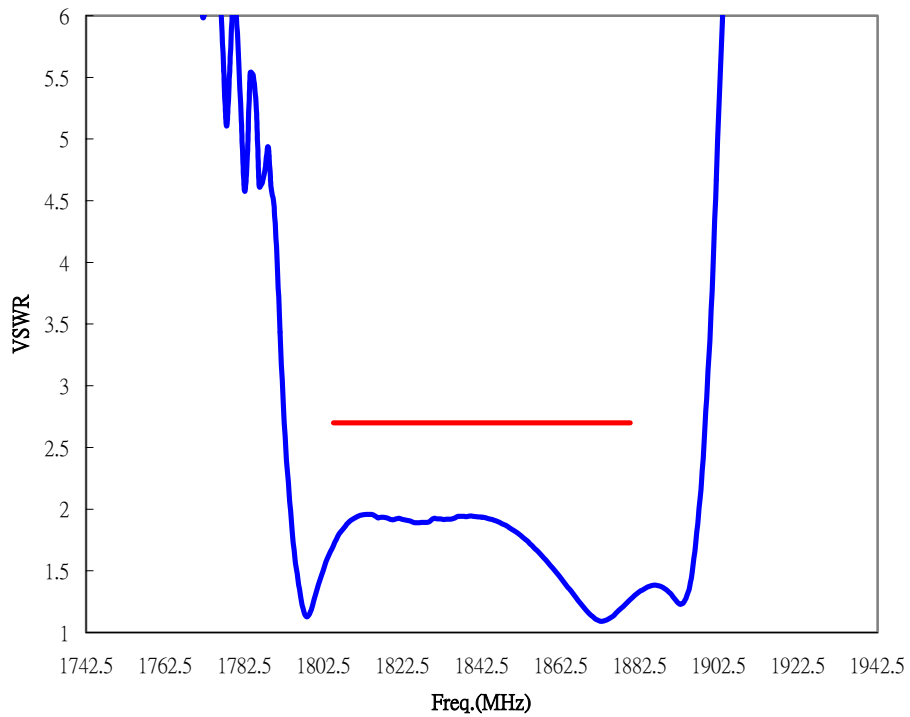


## 2. VSWR (25 °C)

### Unbalance Input

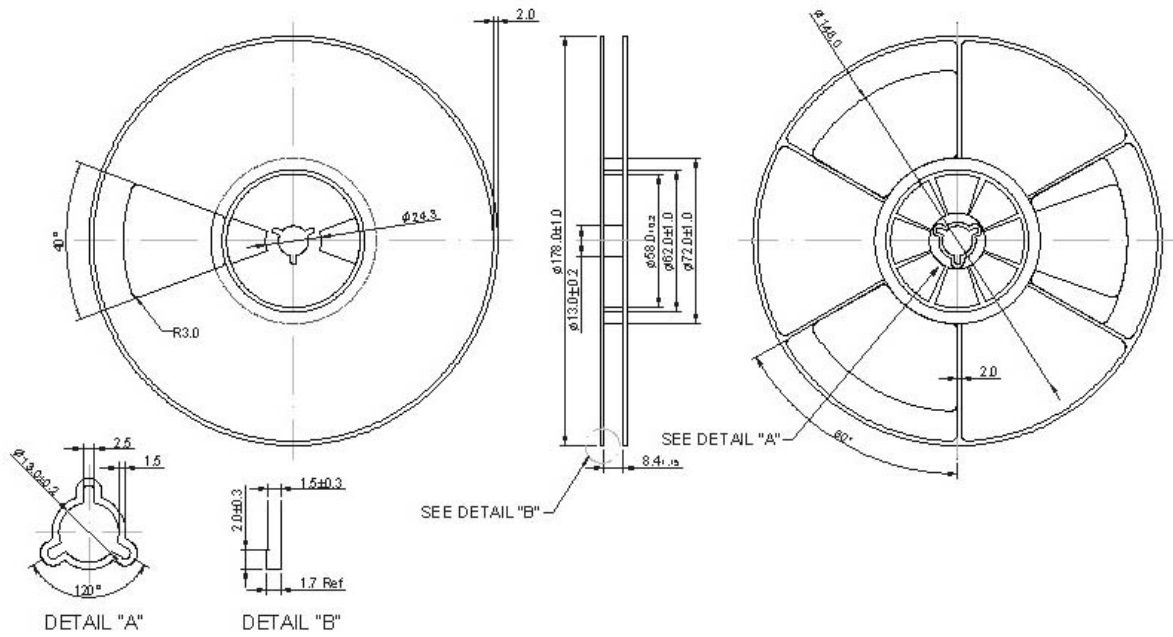


### Balance Output

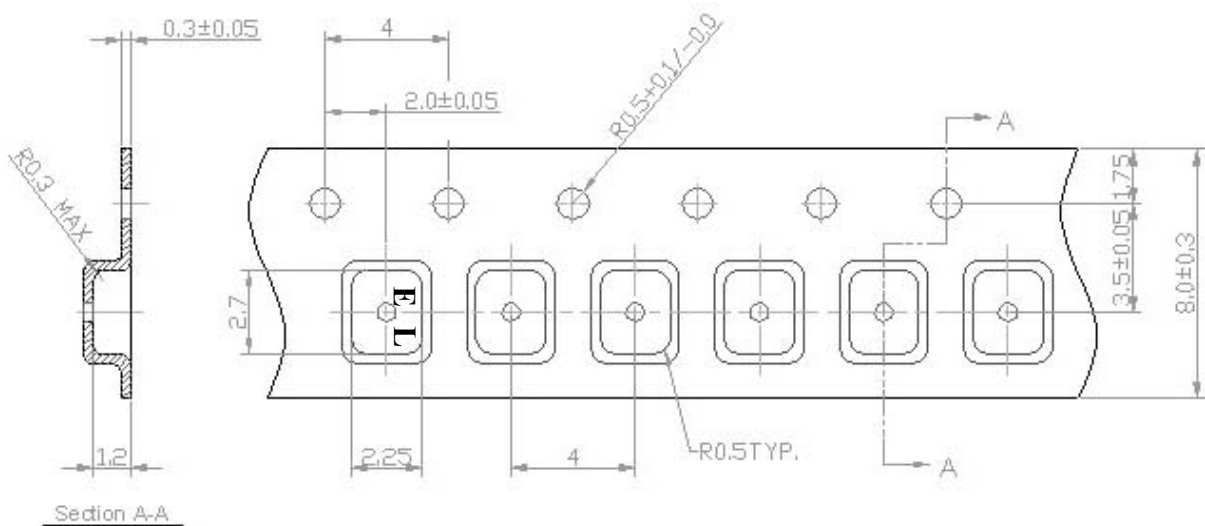


**F. PACKING:**

**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.

