



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Approval Sheet For Product Specification

Issued Date:

Product Name: SAW Filter 836.5MHz SMD 3.0x3.0

TST Parts No.:TA0169A

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

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Elvis Chiu

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

Date: \_\_\_\_\_ 2004/03/23



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## SAW Filter 836.5 MHz

MODEL NO.: TA0169A

REV. NO.:4

### A. MAXIMUM RATING:

1. Input Power Level: 10 dB<sub>m</sub>
2. DC voltage: 0 V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

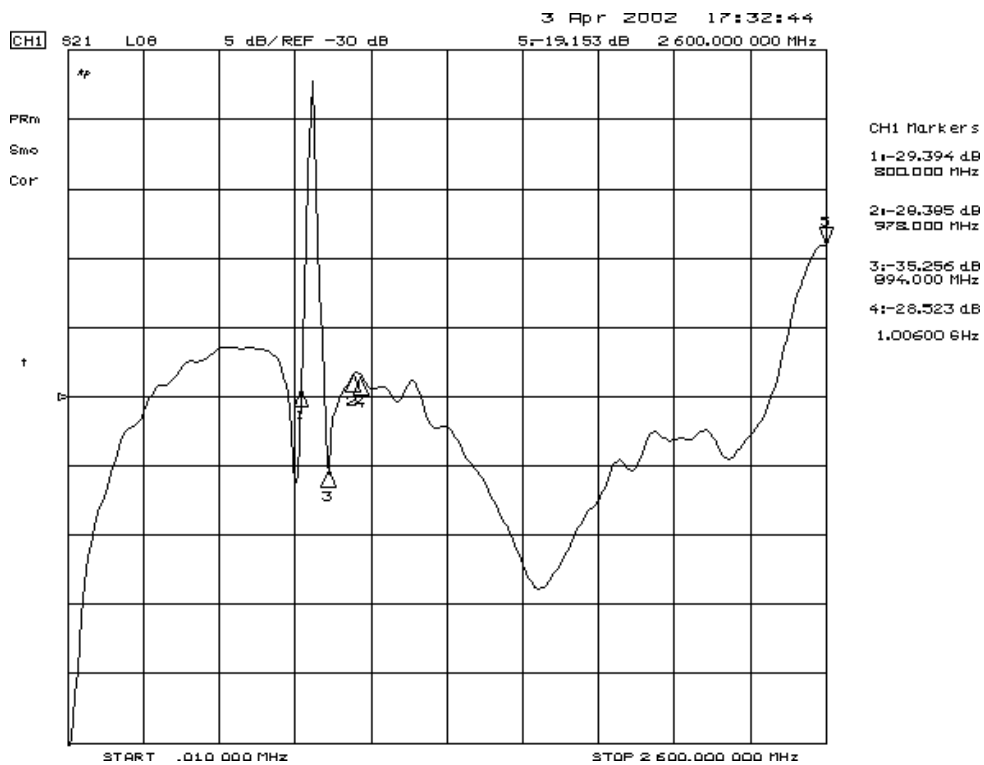
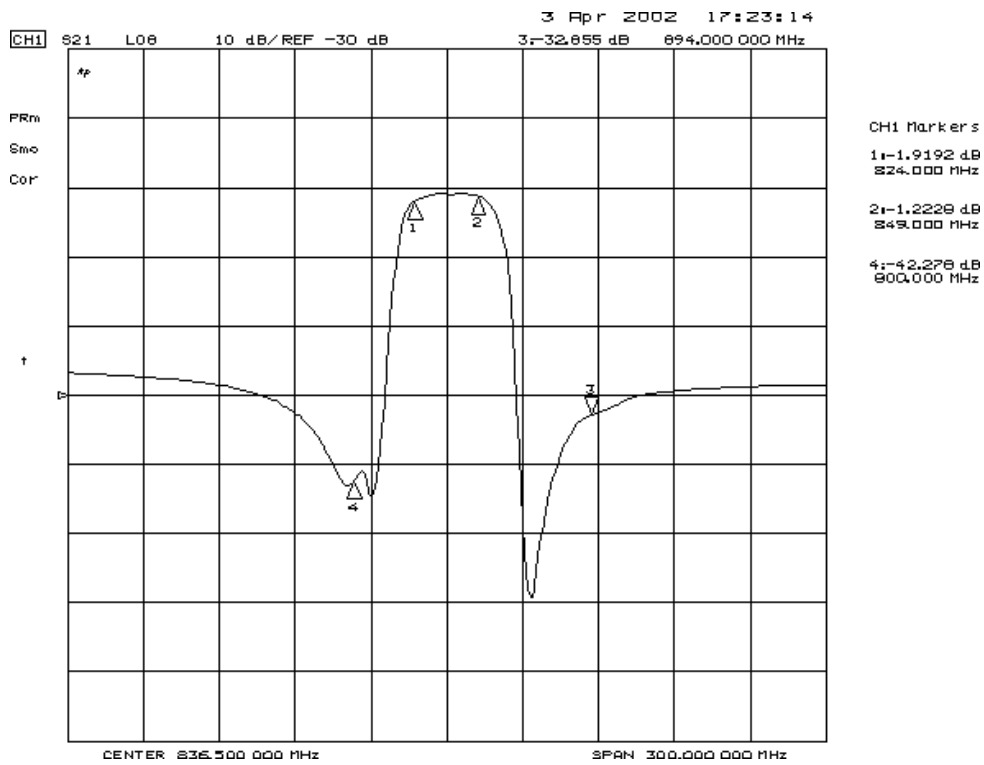
RoHS Compliant  
Lead free  
Lead-free soldering

### B. ELECTRICAL CHARACTERISTICS:

Item	Min.	Typical	Max.
<b>Center frequency</b> $F_c$ (dB)	-	836.5	-
<b>Insertion loss</b> within 824 ~849 MHz $IL$ (dB)	-	2.1	3.0
<b>Amplitude ripple</b> (p-p) within 824 ~ 849 MHz (dB)	-	1.2	2.0
<b>Attenuation</b> (Reference level from 0 dB)			
D.C. ~ 800 MHz (dB)	23.0	26.0	-
869 ~ 894 MHz (dB)	29.0	32.0	-
978 ~ 1006 MHz (dB)	25.0	28.0	-
1050 ~ 2500 MHz (dB)	15.0	18.0	-
<b>VSWR</b> within 824 ~849 MHz	-	1.8	2.3
<b>Source impedance</b> $Z_s$ ( $\Omega$ )	-	50	-
<b>Load impedance</b> $Z_L$ ( $\Omega$ )	-	50	-

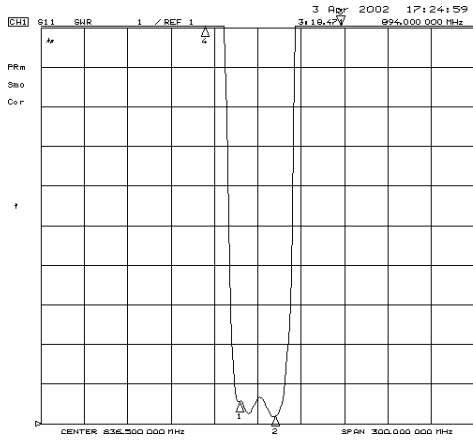
Note1. No matching network required for operation at 50  $\Omega$

### C. Frequency Characteristics :

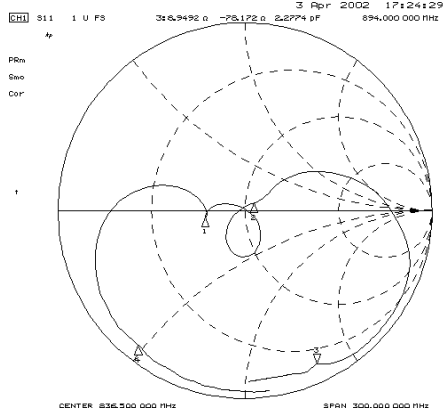


# D.Reflections Functions :

S11:

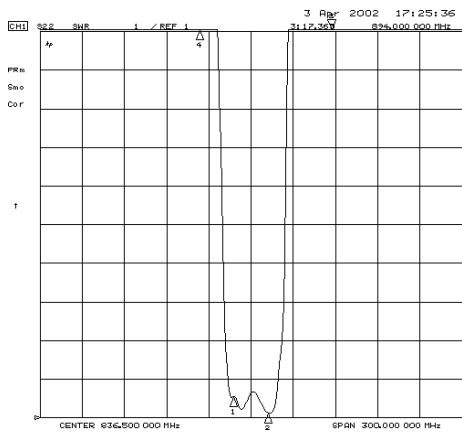


CHI Markers  
 1: 1.2703  
 824.000 MHz  
 2: 1.2011  
 849.000 MHz  
 4: 21.1623  
 800.000 MHz

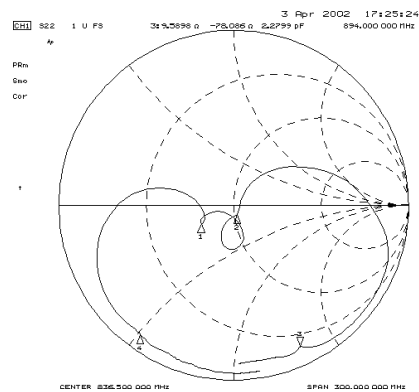


CHI Markers  
 1: 32.492 a  
 -2.2500 a  
 824.000 MHz  
 2: 54.938 a  
 -4.2410 a  
 849.000 MHz  
 4: 2.6425 a  
 -24.086 a  
 800.000 MHz

S22:

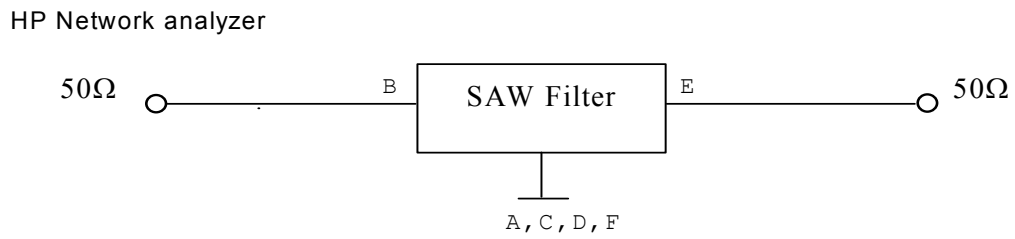


CHI Markers  
 1: 1.2805  
 824.000 MHz  
 2: 1.1250  
 849.000 MHz  
 4: 20.116  
 800.000 MHz

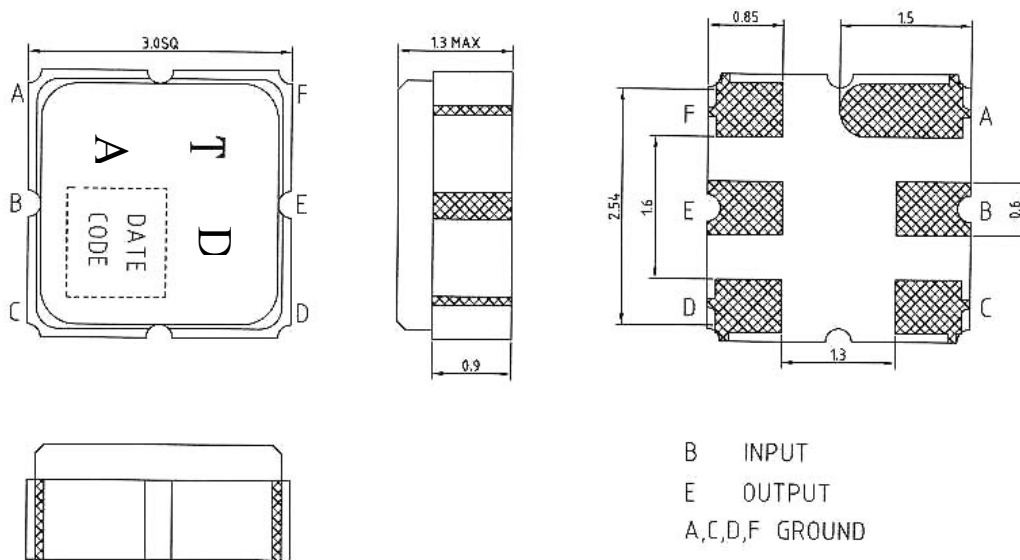


CHI Markers  
 1: 33.686 a  
 -2.2622 a  
 824.000 MHz  
 2: 51.652 a  
 -4.2318 a  
 849.000 MHz  
 4: 2.8221 a  
 -25.213 a  
 800.000 MHz

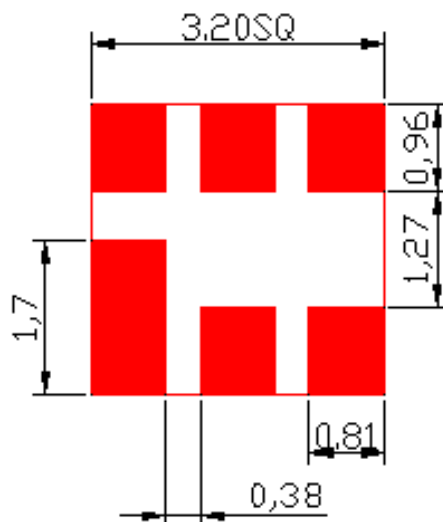
**E. MEASUREMENT CIRCUIT:**



**F. OUTLINE DRAWING:**

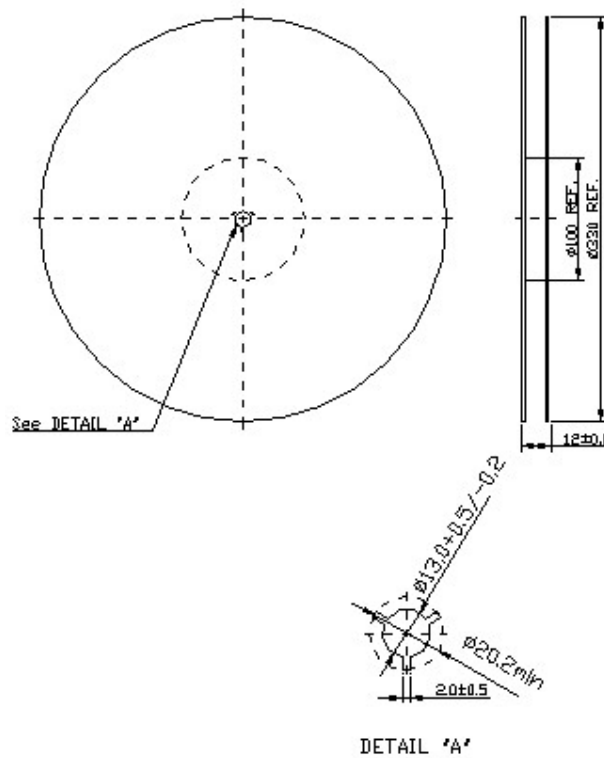


**G. PCB Footprint:**

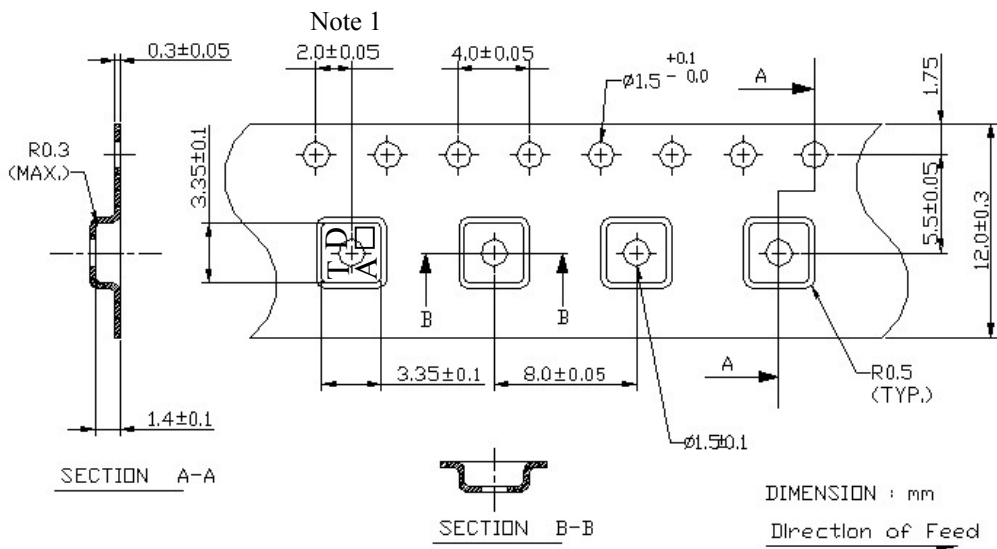


## H. PACKING:

### 1. REEL DIMENSION



### 2. TAPE DIMENSION



Note :

1. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.