



# TAI-SAW TECHNOLOGY CO., LTD.

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## Approval Sheet For Product Specification

Issued Date: 2, 27, 2004

Product Name: SAW Filter 210.38 MHz SMD 13.3x6.5 mm

TST Parts No.:TB0241A

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

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

Checked by: \_\_\_\_\_ Asin Lin \_\_\_\_\_

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

Date: \_\_\_\_\_ 2,27, 2004 \_\_\_\_\_



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## SAW Filter 210.38MHz

MODEL NO.: TB0241A

REV. NO.:1

### A. MAXIMUM RATING:

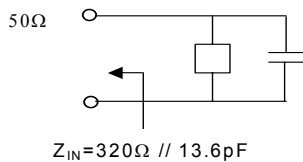
1. Input Power Level : 10 dBm
2. D.C voltage: 3 V
3. Operating Temperature: -30°C to 80°C
4. Storage Temperature: -55°C to 125°C

RoHS Compliant  
 Lead free  
 Lead-free soldering

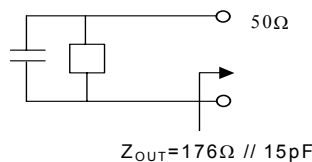
### B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Type.	Max.	Note
Center frequency, <b>F<sub>c</sub></b>	MHz	-	210.38	-	
Minimum Insertion Loss, <b>IL</b>	dB	-	8	9	
Amplitude Ripple in $F_c \pm 0.3\text{MHz}$ , <b>AR</b>	MHz	-	1.2	1.5	
Phase Linearity in $F_c \pm 0.63\text{MHz}$ , <b>RMS</b>	deg	-	3	4	
<b>Attenuation:(Reference level from min IL)</b>					
$F_c \pm 0.63\text{MHz}$	dB	-	-	5	
$F_c -40$ to $-20\text{MHz}$	dB	50	54	-	
$F_c -20$ to $-2.5\text{MHz}$	dB	33	36	-	
$F_c -2.5$ to $-1.25\text{MHz}$	dB	27	30	-	
$F_c +1.25$ to $+2.5\text{MHz}$	dB	27	31	-	
$F_c +2.5$ to $+20\text{MHz}$	dB	33	36	-	
$F_c +20$ to $+40\text{MHz}$	dB	50	55	-	
Impedance at $F_c$ : Input $Z_{in} = R_{in} // C_{in}$	320Ω//13.6pF				
Output $Z_{out} = R_{out} // C_{out}$	176Ω//15pF				

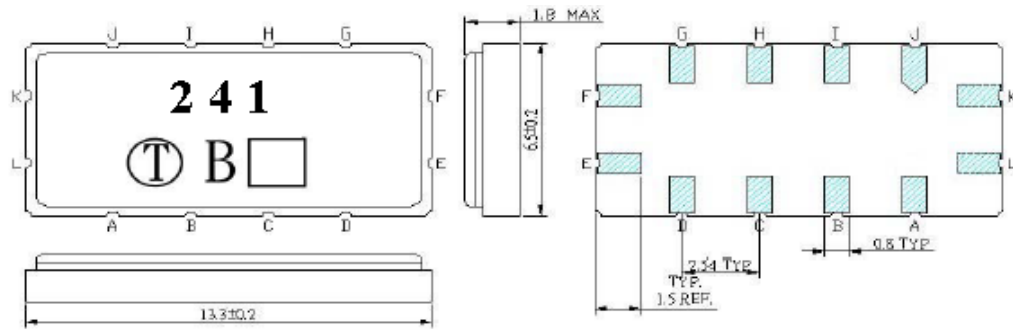
Source impedance



Load impedance



### C. OUTLINE DRAWING:

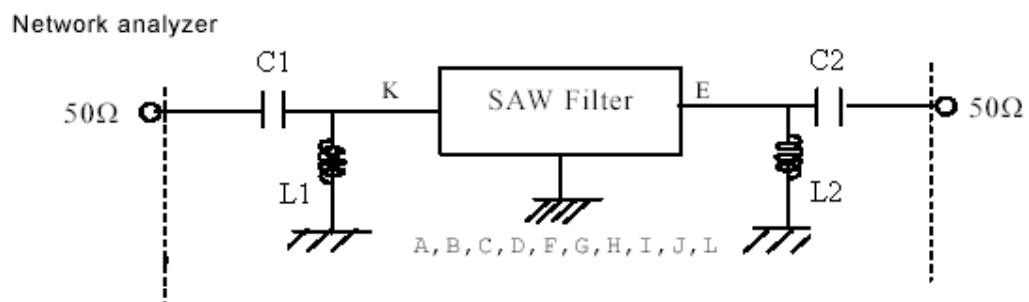


Unit: mm

- 
- Pin K: RF Input
  - Pin E: RF Output
  - Pin L: Input Ground
  - Pin F: Output Ground
  - Pin A, B, C, D, G, H, I, J: To be Ground
  - : Date code

### D. MEASUREMENT CIRCUIT:

#### 50 Ohm Test circuit



Input L1=60 nH, C1=3.9 pF  
 Output L2=60nH, C2=3.9 pF

## E. Frequency Characteristics :



Fig-1 S21 Response Horizontal: 500KHz/Div  
Vertical: 8dB/Div



Fig-2 1 S21 Response Horizontal: 180KHz/Div  
Vertical: 1 dB/Div