



# TAI-SAW TECHNOLOGY CO., LTD.

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## Approval Sheet For Product Specification

Issued Date:

Product Name: 70MHz SAW IF Filter (BW=20MHz)

TST Parts No.: TB0186A

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

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

Checked by: \_\_\_\_\_ Vincent Chiu

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

Date: \_\_\_\_\_ 23 Sep. 2003



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70 MHz SAW Filter (SMD 13.3x6.5 mm)

Model No.: TB0186A

Rev. No.:3

## A. Maximum Rating:

RoHS Compliant  
Lead free  
Lead-free soldering

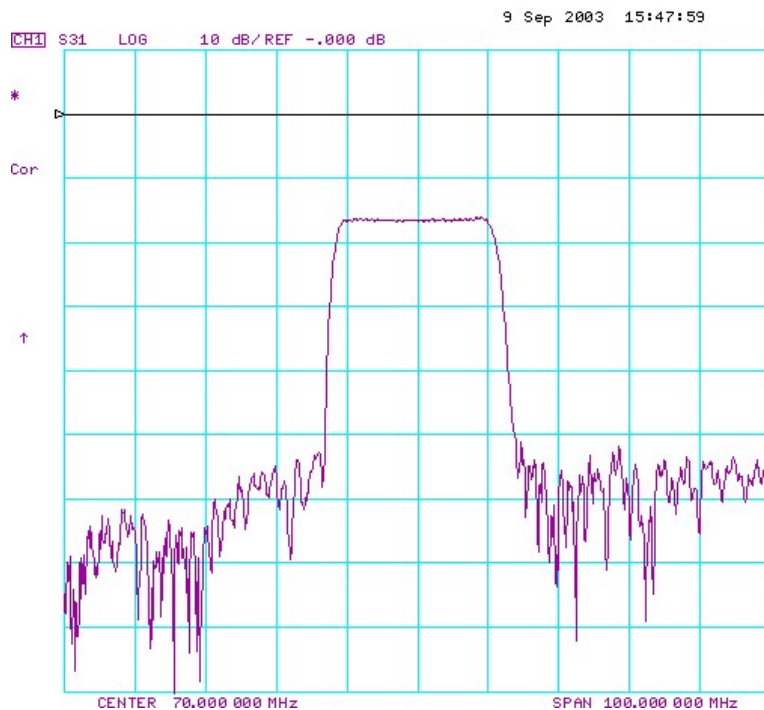
1. Input Power Level: +20 dB<sub>m</sub>
2. Operating Temperature: 0°C to +70°C
3. Storage Temperature: -40°C to +85°C

## B. Electrical Characteristics:

Parameter	Unit	Min.	Typ.	Max.
Center frequency, <b>F<sub>c</sub></b>	MHz	69.8	70	70.2
Insertion Loss, <b>IL</b>	dB	-	16	17.5
1 dB Bandwidth	MHz	20	20.9	-
3 dB Bandwidth	dB	21.5	22.2	-
40 dB Bandwidth	MHz	-	27.3	28.2
Amplitude ripple (61.76MHz~78.24MHz)	dB	-	0.6	1
Phase Linearity (61.2MHz~78.8MHz) (rms)	deg	-	1.5	5
Group Delay ripple (61.2MHz~78.8MHz)	nsec	-	60	100
Absolute Delay	µsec	-	0.72	-
Attenuation (Reference level from 0 dB)				
0 ~ 56MHz	dB	45	52	-
84~140MHz	dB	45	52	-
Substrate Material	-	-	LN-YZ	-
Temperature Coefficient	ppm/ °C	-	-94	-
Ambient Temperature	°C	-	25	-

### C. Frequency Characteristics:

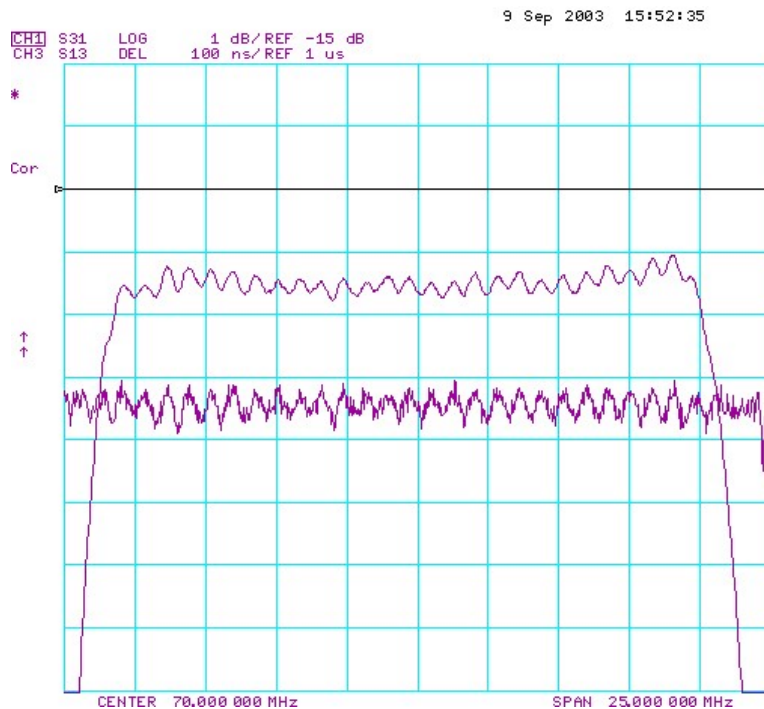
(1) S21 Response:



Horizontal: 10 MHz/Div

Vertical: 10 dB/Div

(2) Group Delay and Ripple



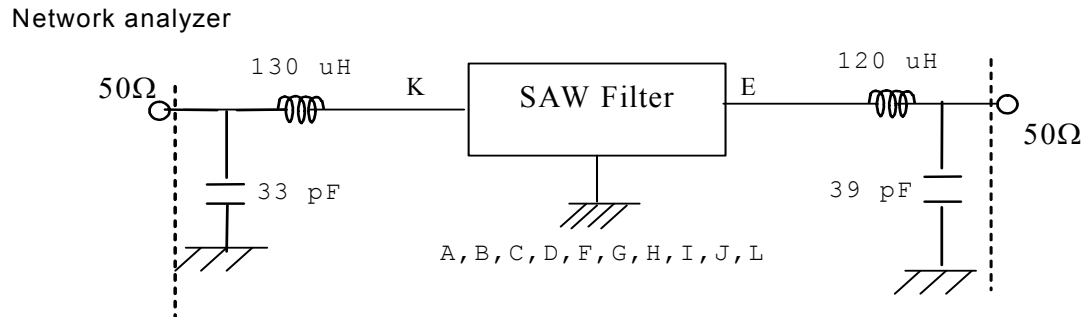
Horizontal: 2.5 MHz/Div

CH1 Vertical 1: 1 dB/Div

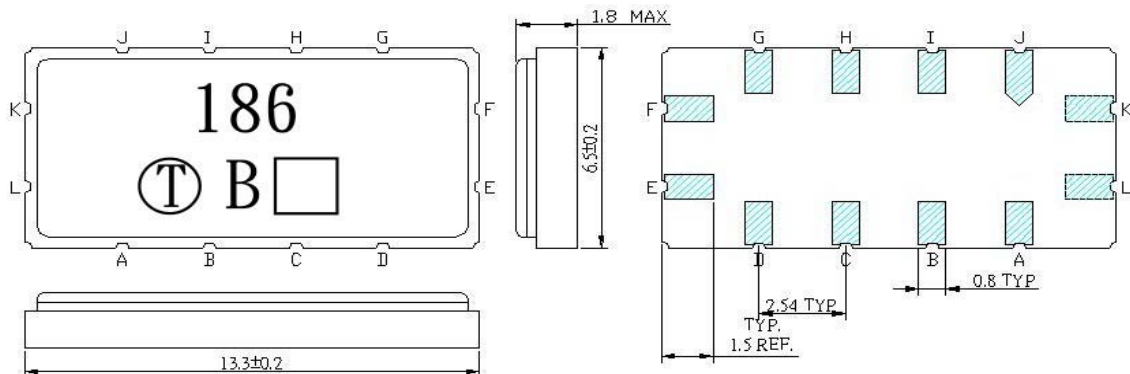
CH2 Vertical 2: 100 nsec/Div

### D. Measurement Circuit:

For 50 ohm Unbalanced Input and Output



### E. 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