



# TAI-SAW TECHNOLOGY CO., LTD.

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## Approval Sheet For Product Specification

Issued Date:

Product Name: SAW IF Filter 50MHz

TST Parts No.: TB0281A ( package 13.3mm x 6.5 mm )

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

|                     |
|---------------------|
| Company: _____      |
| Division: _____     |
| Approved by : _____ |
| Date: _____         |

Checked by: \_\_\_\_\_ Andy Lee

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

Date: \_\_\_\_\_ 4/25 /2005



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SAW Filter 50MHz (SMD 13.3×6.5 mm)

MODEL NO.: TB0281A

REV. NO.1

## A. MAXIMUM RATING:

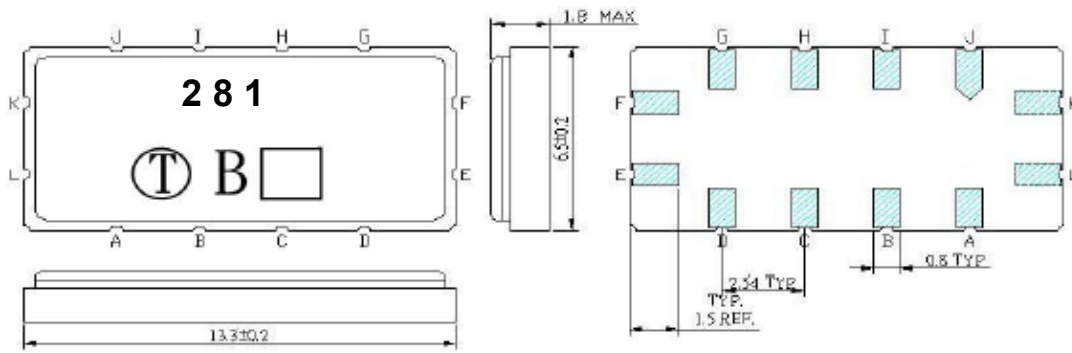
1. Input Power Level: 10 dBm
2. Operating Temperature: -40°C to 65°C
3. Storage Temperature: -40°C to 85°C

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  | 49.7 | 50    | 50.3  | -    |
| Minimum Insertion Loss, <b>IL</b>                      | dB   | -    | 10    | 11    | -    |
| Amplitude ripple at any 200KHz bandwidth within 5.6MHz | MHz  | -    | 0.7   | 1     | -    |
| 1dB Bandwidth  | MHz  | 5.62 | 5.77  | -     | -    |
| 3dB Bandwidth  | MHz  | -    | 6.12  | 6.165 | -    |
| 40dB Bandwidth   | MHz  | -    | 8.22  | 9.00  | -    |
| Group Delay Variation within 5.6MHz BW                 | nS   |      | 150   | 200   | -    |
| Phase Linearity within 5.6MHz BW                       | rms  |      | 2     | 3     | -    |
| Triple transit supression                              | dB   | 35   | 40    | -     | -    |
| Attenuation:(Reference level from Min IL)              |      |      |       |       |      |
| (1) DC~20MHz   | dB   | 40   | 48    |       |      |
| (2) 20MHz~45MHz  | dB   | 30   | 37    |       |      |
| (3) 55MHz~65MHz  | dB   | 30   | 34    |       |      |
| (4) 65MHz~75MHz  | dB   | 38   | 42    |       |      |
| (5) 75MHz~135MHz                                       | dB   | 40   | 47    |       |      |

**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. FREQUENCY CHARACTERISTICS:**

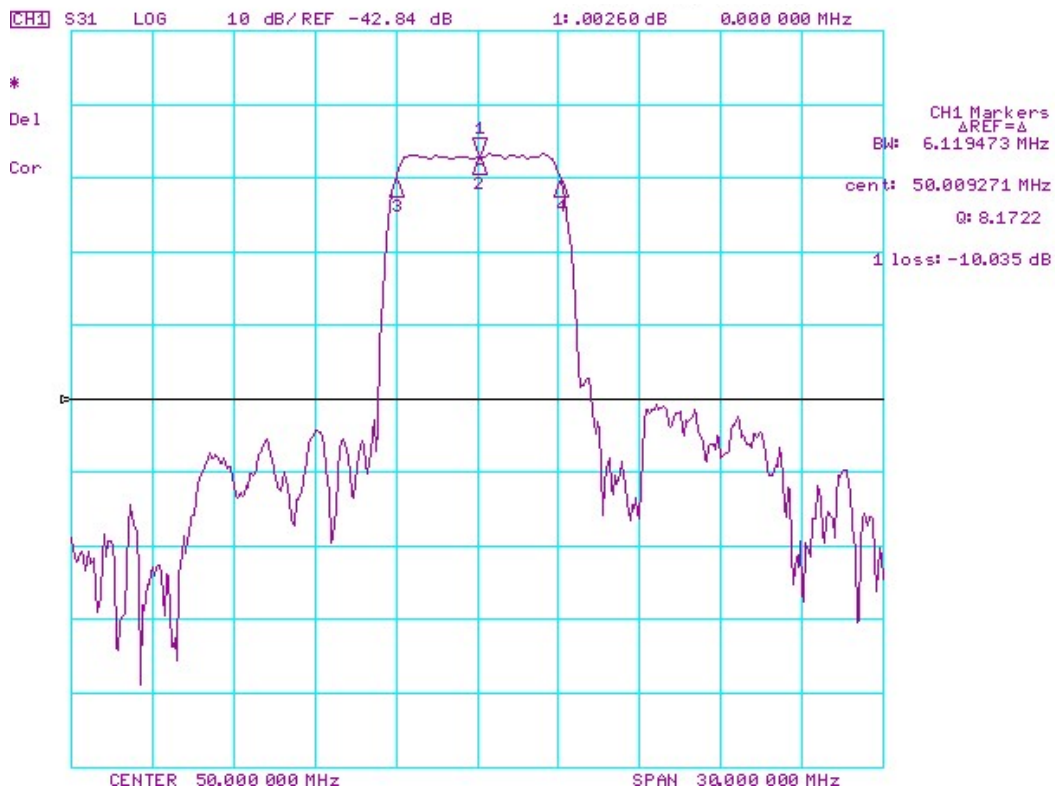


Fig. 1 S21 Response Horizontal: 3MHz; Vertical: 10dB/Div

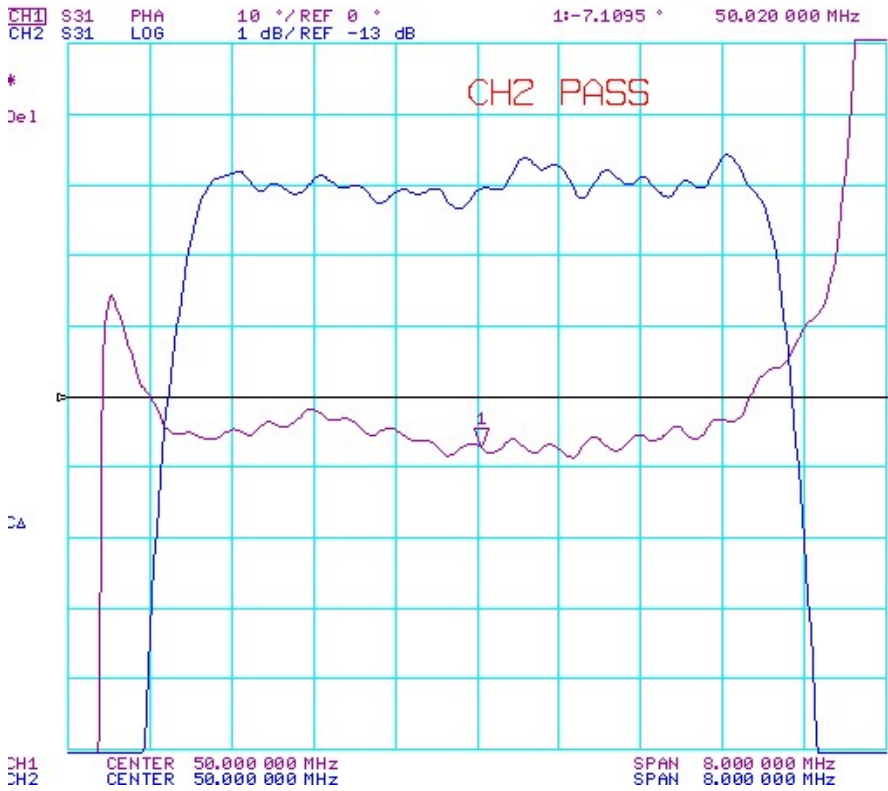


Fig. 2 Inband ripple and phase Horizontal: 0.8MHz; Vertical: 1dB/Div, 10deg/Div

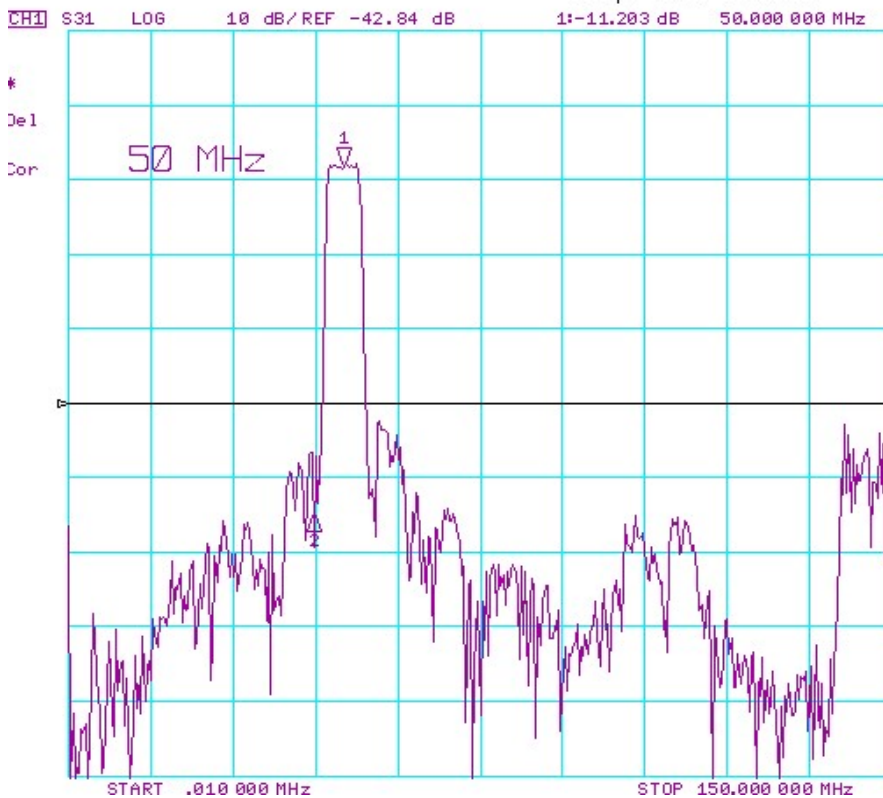


Fig. 3 Wideband response Horizontal: 0.01MHz~150MHz; Vertical: 10dB/Div

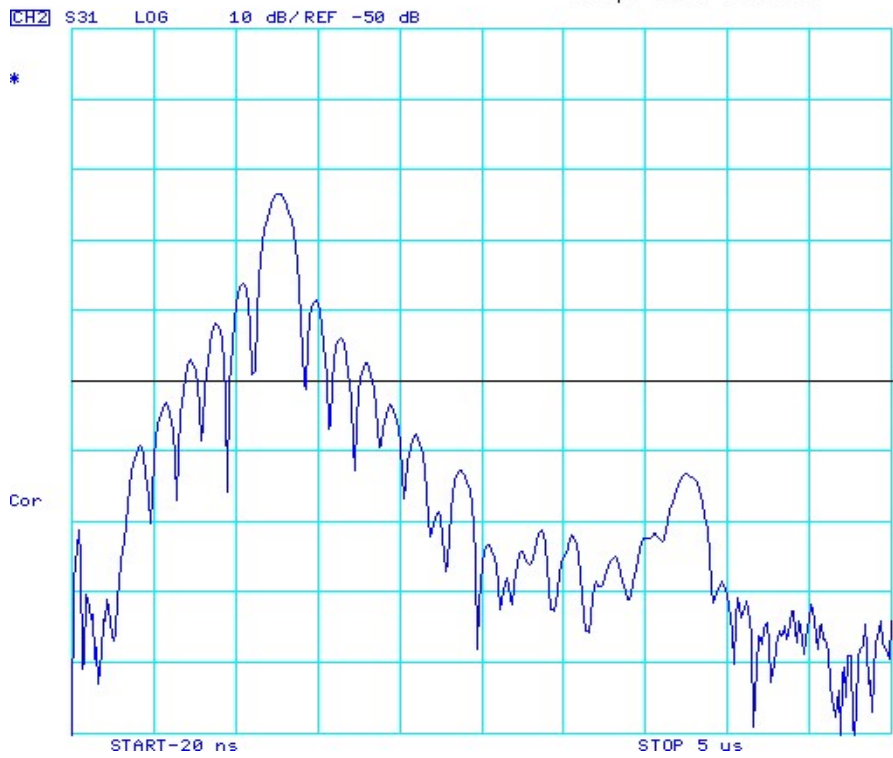


Fig. 4 Time domain response Horizontal: -20nS~5uS; Vertical: 10dB/Div

E.MATCHING CIRCUIT:

