



# 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

Product Name: SAW IF Filter 193.7MHz

TST Parts No.: TB0416A ( package 9.1mm x7.1 mm )

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

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

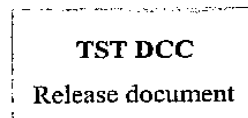
Checked by: \_\_\_\_\_ Andy Yu *Andy Yu*

Approval by: \_\_\_\_\_ Francis Chen *FC*

Date: \_\_\_\_\_ 06/04 /2009

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes

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FR-71S03-02



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## IF SAW Filter 193.7MHz(BW=10MHz) SMD 9.1X7.1mm

MODEL NO.: TB0416A

REV. NO.1

### A. MAXIMUM RATING:

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

RoHS Compliant  
Lead free  
Lead-free soldering

### B. Characteristics :

1. Ambient Temperature: 25 °C

Characteristics		Value			Note
		Min.	Typ.	Max.	
Center frequency	$F_c$ MHz	-	193.7	-	-
Minimum Insertion loss	I.L. dB	-	16.0	18.0	-
1 dB Bandwidth	MHz	10.0	11.7	-	-
3 dB Bandwidth	MHz	12.0	12.6	-	-
20 dB Bandwidth	MHz	-	14.7	15.7	-
Group Delay Ripple ( $F_c \pm 5.0\text{MHz}$ )	nsec	-	78	200	-
Passband Ripple ( $F_c \pm 5.0\text{MHz}$ )	dB	-	0.7	1.0	-
Relative Rejection (Reference to Minimum Insertion loss)					
1)	10MHz~180MHz	dB	35	41	-
2)	230MHz~550MHz	dB	38	43	-
3)	550MHz~600MHz	dB	30	39	-
4)	600MHz~900MHz	dB	40	48	-
Temp Coefficient	ppm/°C	-	23	-	-

## C. Frequency Characteristics :

### 1. S21 Response

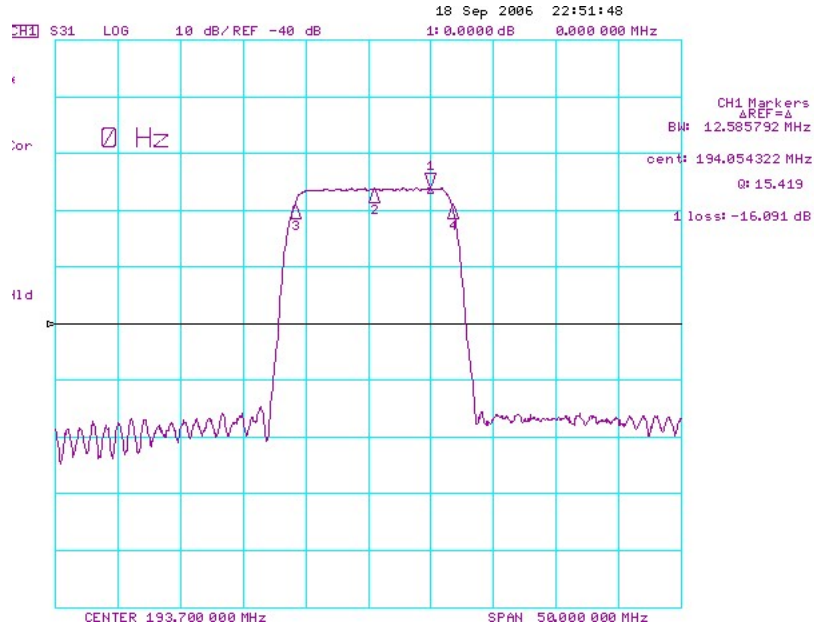


Fig1. Horizontal: 50MHz/Div Vertical: 10dB/Div

### 2. Passband Response

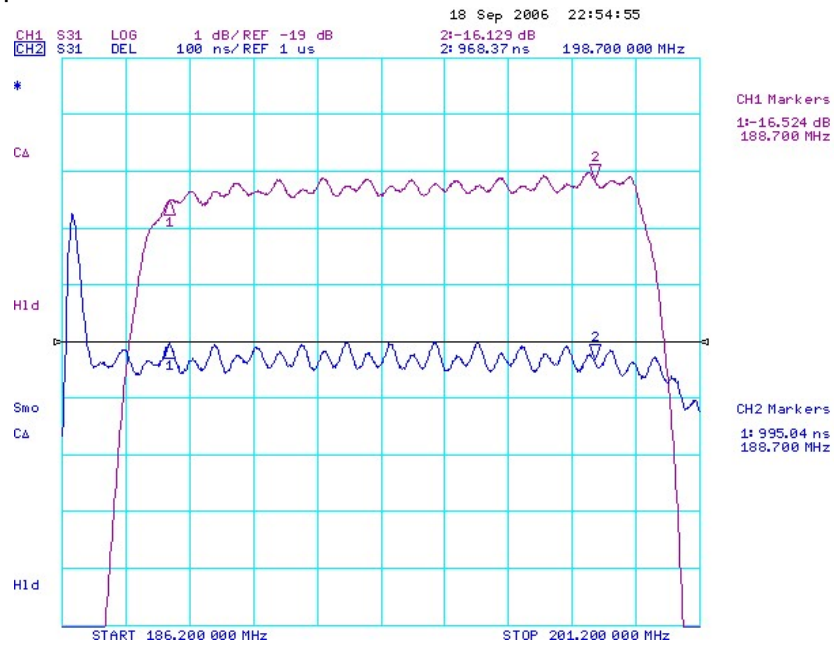
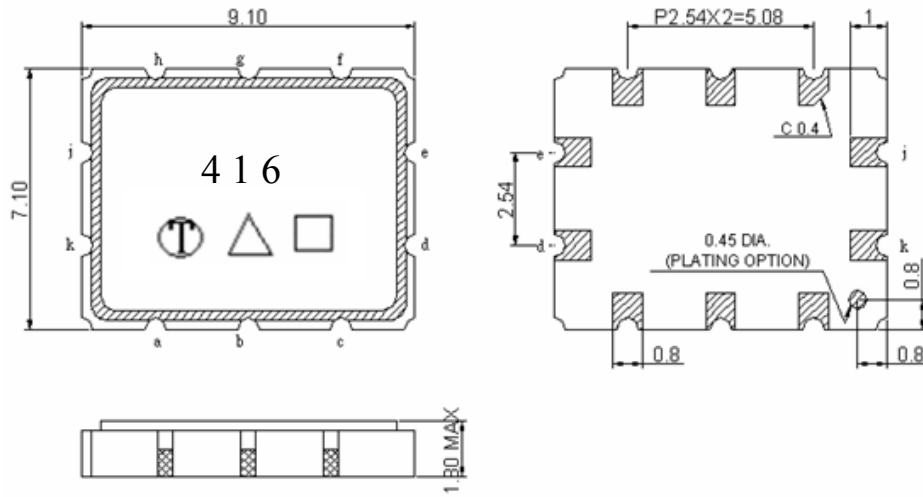


Fig2. Horizontal: 1.5MHz/Div Vertical 1: 1dB/Div  
 Vertical 2: 100nS/Div

### D. Outline Drawing:



Pin h: RF Input

Pin c: RF Output

Pin a, b, d, e, f, g, j, k: To be ground

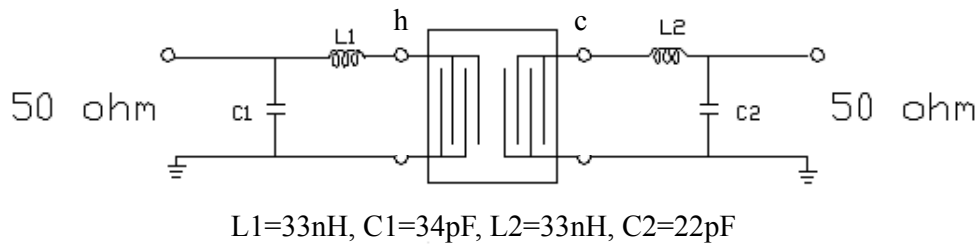
□ : Week Code (Follow the table from planner each year)

Unit : mm (week01, 02, 03...52 =>A, B, C...z)

△ : Product / Year Code

Year	2005 2009	2006 2010	2007 2011	2008 2012
Product Code	B	b	<u>B</u>	<u>b</u>

### D. Matching Circuit:





## H. Recommended Reflow Profile:

