



# TAI-SAW TECHNOLOGY CO., LTD.

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## Approval Sheet For Product Specification


Issued Date:

Product Name: IF SAW Filter 36.17 MHz

TST Parts No.: TB0500A

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

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

Checked by: \_\_\_\_\_ Kazuma Lee 

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

Date: \_\_\_\_\_ 2008/12/15



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## IF SAW Filter 36.17MHz(BW=7.9MHz) for digital TV

MODEL NO.: TB0500A

REV. NO.2

### A. MAXIMUM RATING:

DC voltage	$V_{DC}$	12	V	Between any terminals
AC voltage	$V_{PP}$	10	V	Between any terminals
Operating Temperature Range	$T_A$	-25~65	°C	
Storage Temperature Range	$T_{stg}$	-40~85	°C	

### B. Characteristics :

#### 1. Electronic Characteristics

Reference temperature:  $T_a=25^{\circ}C$   
Terminating source impedance  $Z_S=50\Omega$   
Terminating load impedance  $Z_L=2k\Omega//3pF$



#### 2 .Amplitude Characteristics

Attenuation ( ref. : 36.17 MHz) (Switching pin2 connected to ground)

	MIN.	TYP.	MAX.	
<b>Insertion attenuation</b>				
Reference level for the Following data 36.17 MHz	19.0	21.0	23.0	dB
3.0dB Pass Bandwidth	7.4	7.9	8.4	MHz
15 dB Pass Bandwidth	8.4	8.9	9.4	
30dB Pass Bandwidth	8.8	9.4	10.0	MHz
Lower side lobe 25.00 to 31.15 MHz	35.0	40.0	-	dB
Upper side lobe 41.15 to 42.00 MHz	31.0	36.0	-	dB
42.00 to 45.00 MHz	36.0	44.0	-	dB
Impedance at 36.17 MHz				
Input Impedance	-	1.7  17.3	-	$k\Omega  pF$
Output Impedance		2.4  4.3		$k\Omega  pF$
Temperature Coefficient of frequency	-	-72.0	-	ppm/K

(Switching pin2 connected to pin 1)

	MIN.	TYP.	MAX.	
<b>Insertion attenuation</b>				
Reference level for the Following data 36.17 MHz	19.0	21.0	23.0	dB
3.0dB Pass Bandwidth	6.5	7.0	7.5	MHz
15 dB Pass Bandwidth	7.5	8.0	8.5	
30dB Pass Bandwidth	7.9	8.5	9.1	MHz

Lower side lobe 25.00 to 31.55 MHz	35.0	40.0	-	dB
Upper side lobe 40.75 to 45.00 MHz	31.0	36.0	-	dB
Impedance at 36.17 MHz				
Input Impedance	-	1.5    20.9	-	K $\Omega$    pF
Output Impedance		2.4    4.3		K $\Omega$    pF
Temperature Coefficient of frequency	-	-72.0	-	ppm/K

### C. Frequency Characteristics :

#### 1. S21 Response: (span 20MHz)

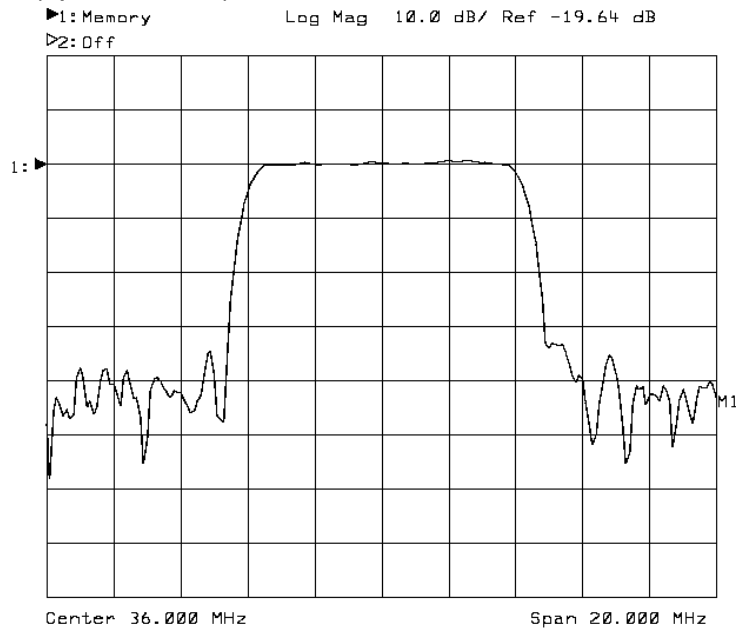


Fig.1 Horizontal : 2MHz/Div    Vertical: 10B/Div

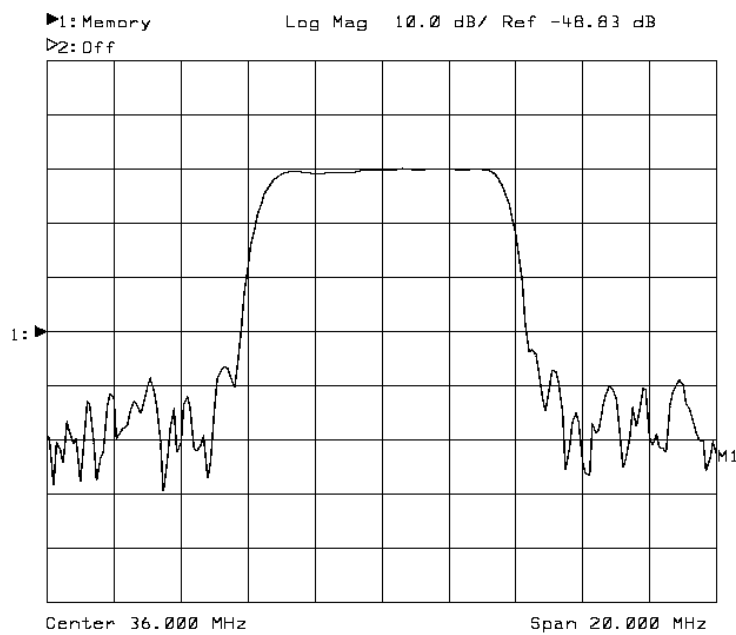
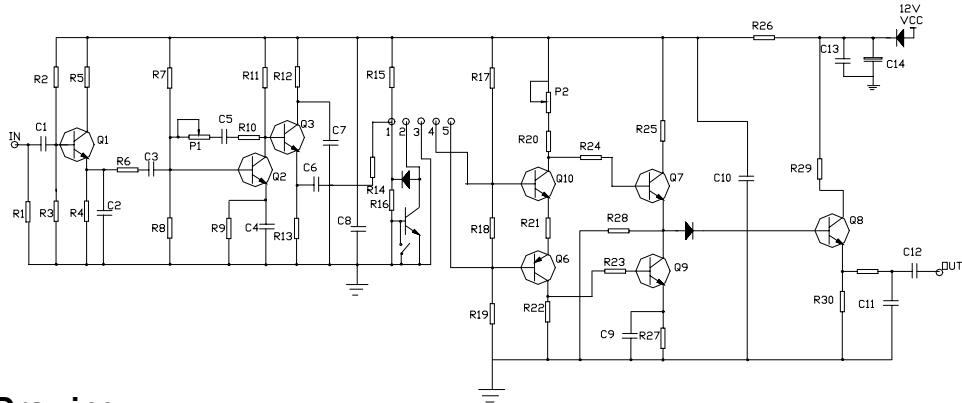


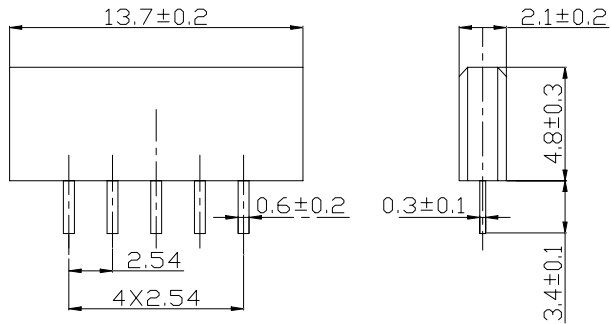
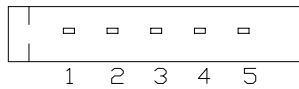
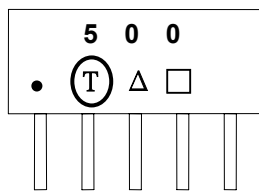
Fig.2 Horizontal : 2MHz/Div    Vertical: 10dB/Div

**D. TEST CIRCUIT:**



**E. Outline Drawing:**

Unit: mm



Pin No. Functions

1. Input
2. Switching- Input
3. Chip carrier-Ground
4. Output
5. Output

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

△ : Product / Year Code

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