



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: [tstsales@mail.taisaw.com](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Approval Sheet For Product Specification

Issued Date:

Product Name: IF SAW Filter 45.75 MHz

TST Parts No.: TB0487A

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

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

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

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

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



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: [tstsales@mail.taisaw.com](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## IF SAW Filter 45.75MHz(BW=3.6MHz)

MODEL NO.: TB0487A

REV. NO.2

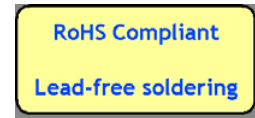
### A. MAXIMUM RATING:

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. : 44.06MHz )

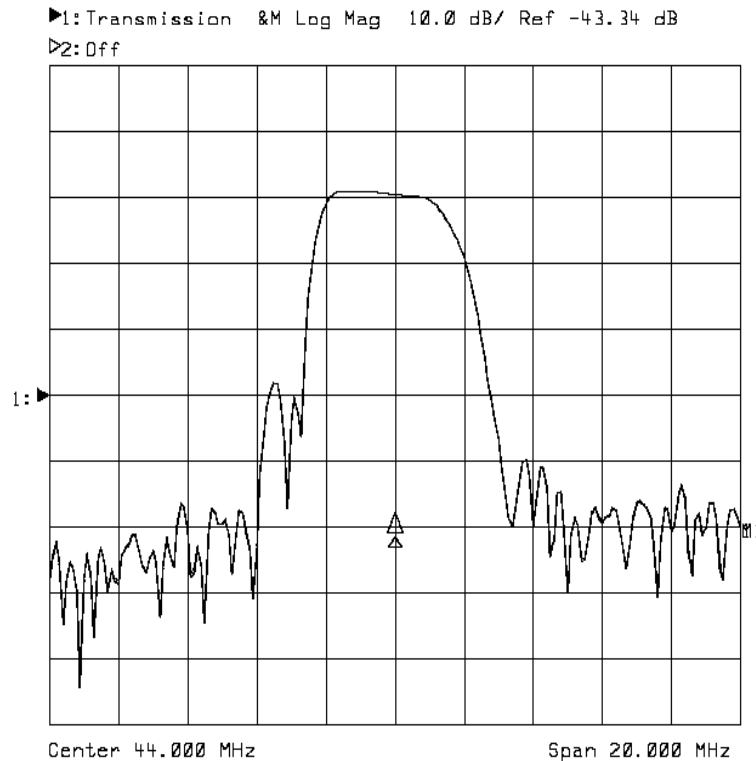
FREQUENCY(MHz)		VALUE			unit
		Min	Typ.	Max.	
Insertion attenuation	44.06 MHz	12.8	14.3	15.8	dB
Picture carrier	45.81 MHz	4.6	6.1	7.6	dB
Color carrier	42.23 MHz	-1.2	0.3	1.8	dB
Sound carrier	41.31 MHz	24.0	36.0	-	dB
Adjacent picture carrier	39.81 MHz	46.0	60.0	-	dB
Adjacent sound carrier	47.31 MHz	44.0	60.0	-	dB
Lower sidelobe:	35.06-39.81 MHz	40.0	46.0	-	dB
Upper sidelobe:	47.31-55.06 MHz	35.0	41.0	-	dB
Reflected wave signal suppression		42.0	52.0	-	dB
Feedthrough signal suppression		-	56.0	-	dB
Group delay predistortion (p-p)					
Ref frequency 45.81MHz	43.26 MHz	-	-40	-	ns
	42.23 MHz	-	0	-	ns
Impedance at 44.06 MHz					
Input: $Z_{in} = R_{in} // C_{in}$		-	1.0    20.3	-	$k\Omega // pF$
Output: $Z_{out} = R_{out} // C_{out}$		-	1.4    4.3	-	$k\Omega // pF$
Temperature coefficient	TC	-	-72	-	ppm/K

Attenuation: ( ref. : 41.31 MHz )

FREQUENCY(MHz)		VALUE			unit
		Min	Typ.	Max.	
Insertion attenuation	41.31 MHz	9.9	11.4	12.9	dB
Picture carrier	45.81 MHz	38.0	45.0	-	dB
Color carrier	42.23 MHz	23.0	32.0	-	dB
Adjacent picture carrier	39.81 MHz	35.0	41.0	-	dB
Adjacent sound carrier	47.31 MHz	40.0	43.0	-	dB
Lower sidelobe:	35.06-39.81 MHz	35.0	40.0	-	dB
Upper sidelobe:	47.31-55.06 MHz	34.0	39.0	-	dB
Impedance at 41.31MHz					
Input: $Z_{in} = R_{in} // C_{in}$		-	0.6    24.7	-	$k\Omega // pF$
Output: $Z_{out} = R_{out} // C_{out}$		-	1.3    4.2	-	$k\Omega // pF$
Temperature coefficient	TC	-	-72	-	ppm/K

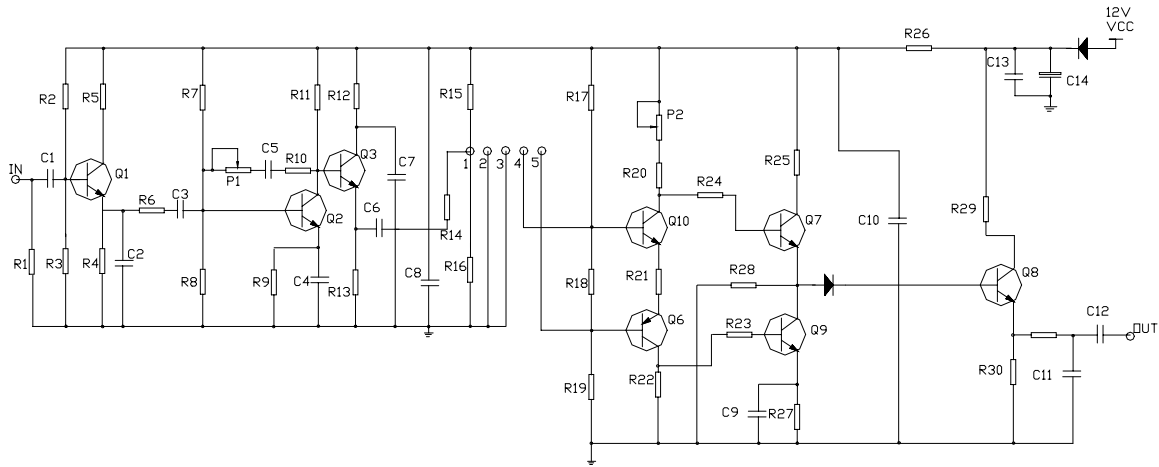
### C. Frequency Characteristics :

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

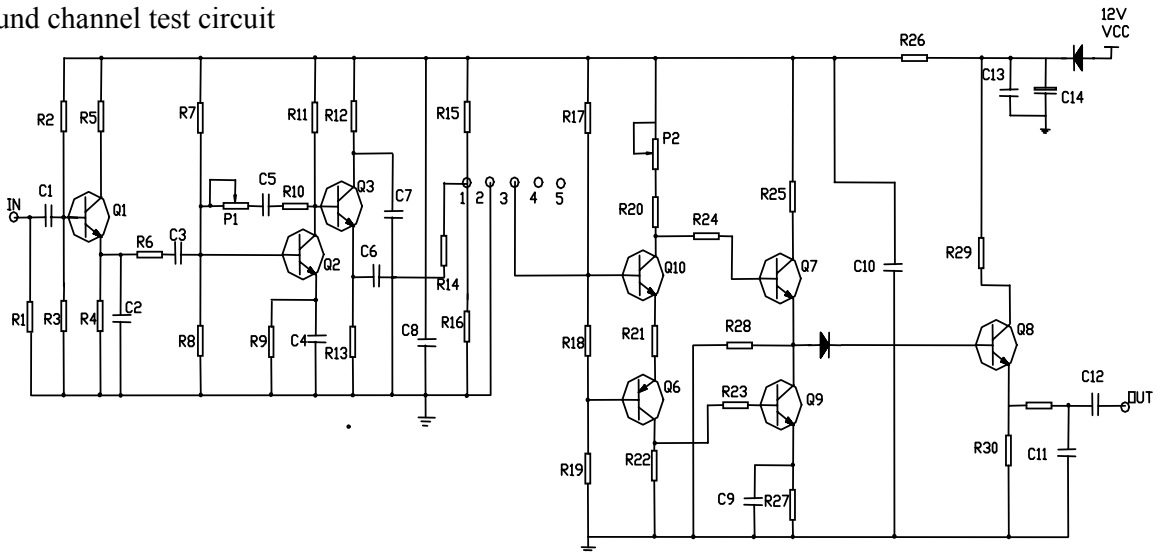


## D. TEST CIRCUIT:

### Video channel test circuit

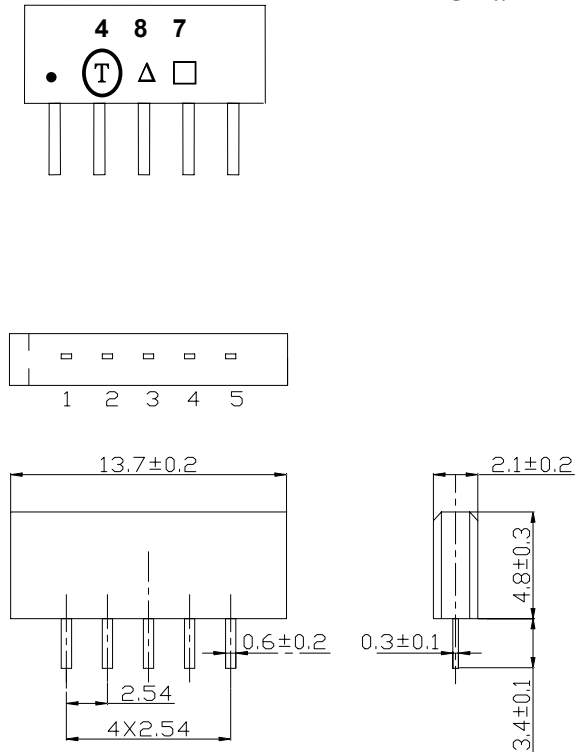


### Sound channel test circuit



## E. Outline Drawing:

Unit: mm



### Pin No. Functions

1. Input
2. Chip carrier - ground
3. Output - sound
4. Output - picture
5. Output - picture

□ : 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>