



# TAI-SAW TECHNOLOGY CO., LTD.

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

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## Product Specifications Approval Sheet

Issued Date:

Product Name: SAW IF Filter 190 MHz ( package 5.0mm x 7.0 mm )

TST Parts No.: TB0909A

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

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

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

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

Date: \_\_\_\_\_ 10 / 11 / 2010

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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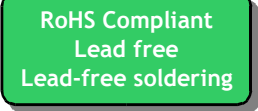
SAW Filter 190MHz 4MHz BW (SMD 5.0×7.0 mm)

MODEL NO.: TB0909A

REV. NO.1

## A. MAXIMUM RATING:

1. Operating temperature range: -30°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V



## B. Characteristics :

Item	Unit	Min.	Type.	Max.
Center frequency, Fc	MHz	-	190	-
Insertion Loss, IL	dB	-	7.7	10.0
1dB Lower Bandedge	MHz	-	187.2	188
1dB Upper Bandedge		192	192.6	
10dB Lower Bandedge		185	185.8	
10dB Upper Bandedge			194	195
30dB Lower Bandedge		183.5	185.0	
30dB Upper Bandedge			194.8	196.5
Passband Ripple Fc+/- 2MHz	dB	-	0.4	1.0
Group Delay Ripple Fc+/- 2MHz	ns	-	50	200
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

### C. Frequency Characteristics :

#### (1) Wide band Response:(span 100MHz)

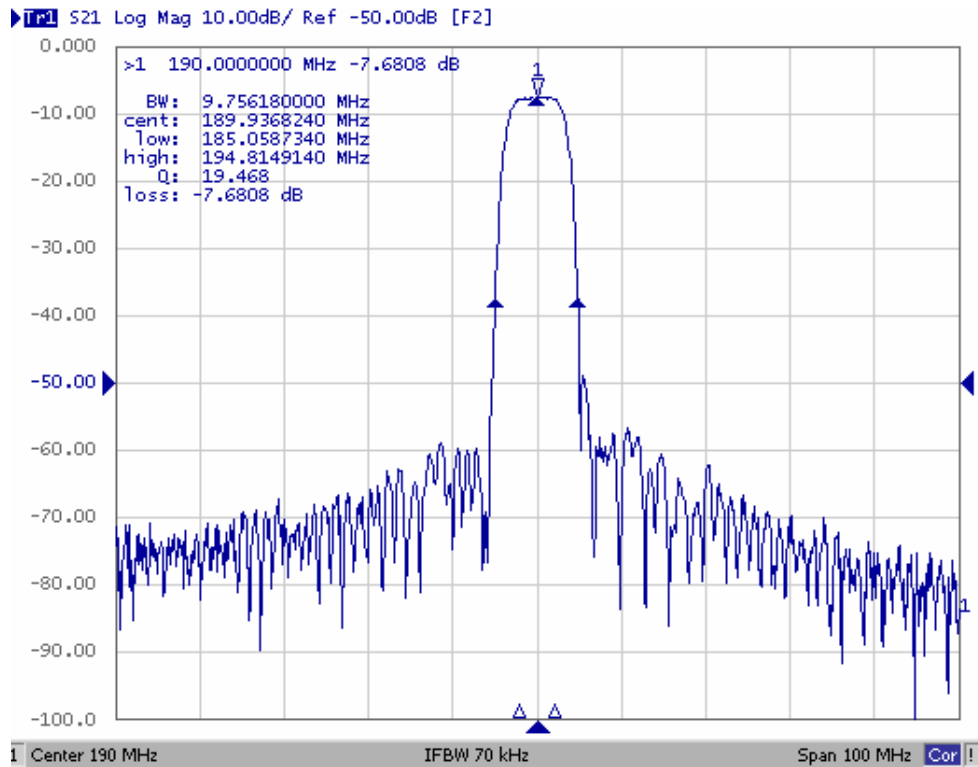


Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div

#### (2) Pass band Response and Group Time Delay response:

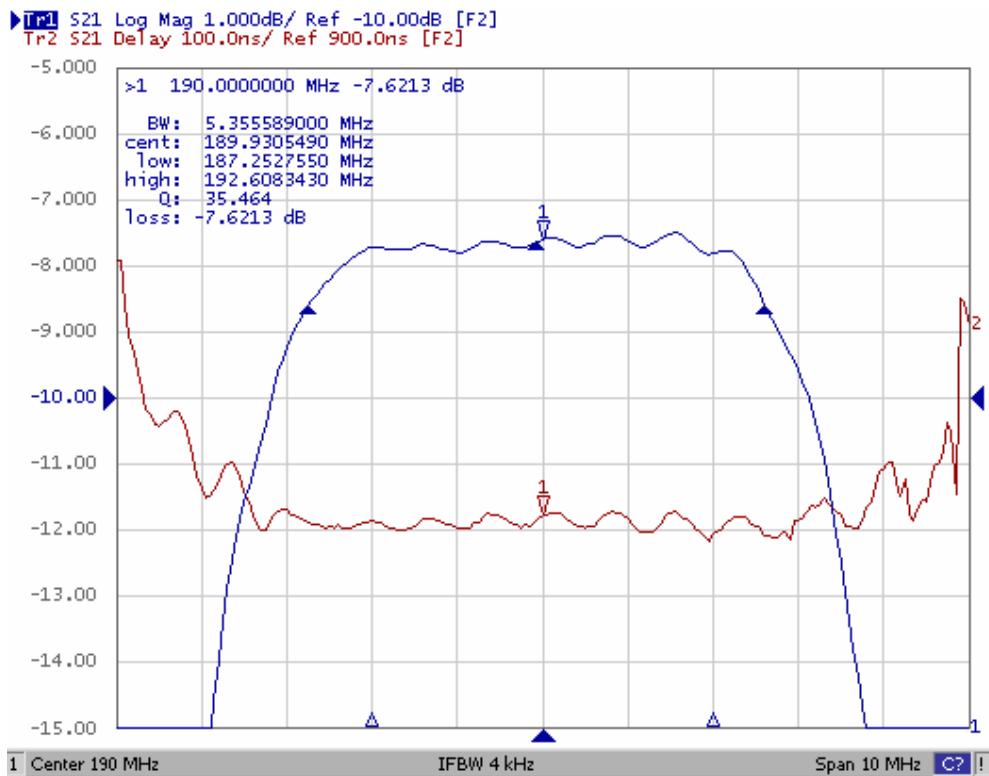
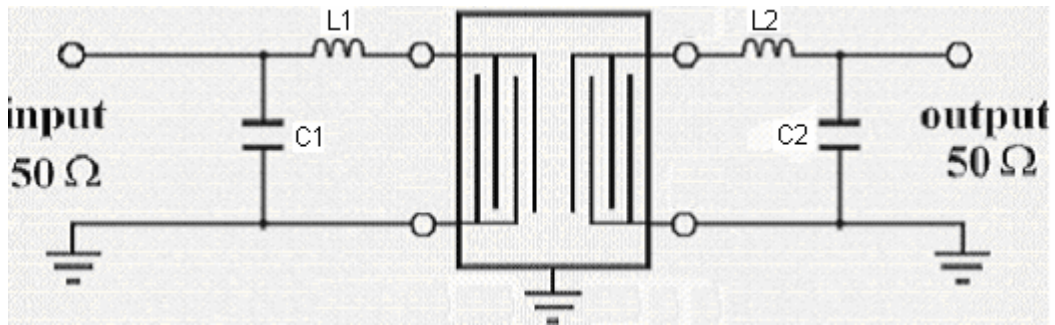


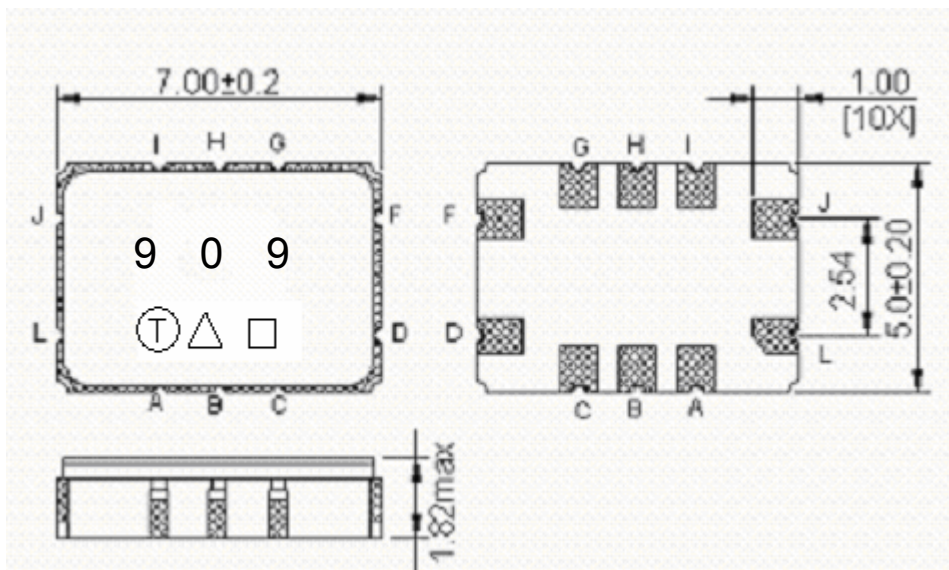
Fig2. Horizontal: 1MHz/Div Vertical: 1dB/Div  
Vertical: 100ns/Div

**D. Matching Circuit:**



L1=47nH L2=56nH C1=24pF C2=24pF

**E. Outline Drawing:**



Pin J –RF input

Pin D –RF output

Pin A,B,C,F,G,H,I,L - Ground

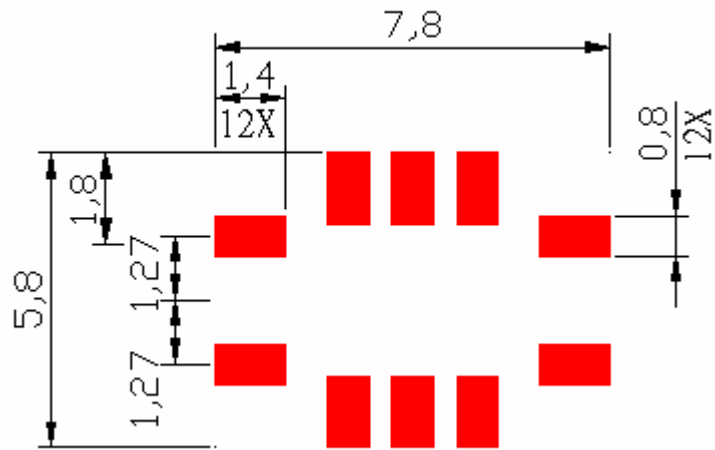
□ : Week Code (Follow the table from planner each year)

Unit : mm

△ : Product / Year Code

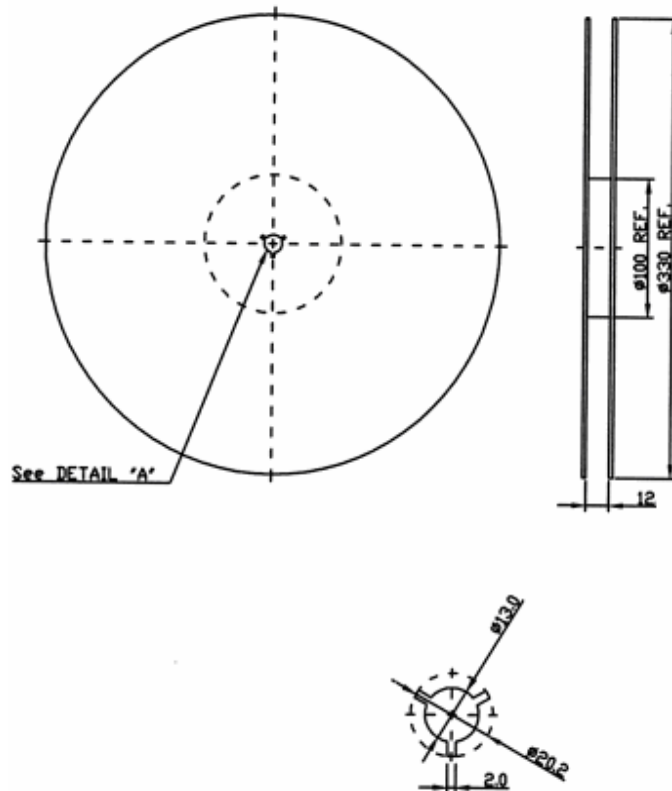
Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	B	b	<u>B</u>	<u>b</u>

F. PCB Footprint:

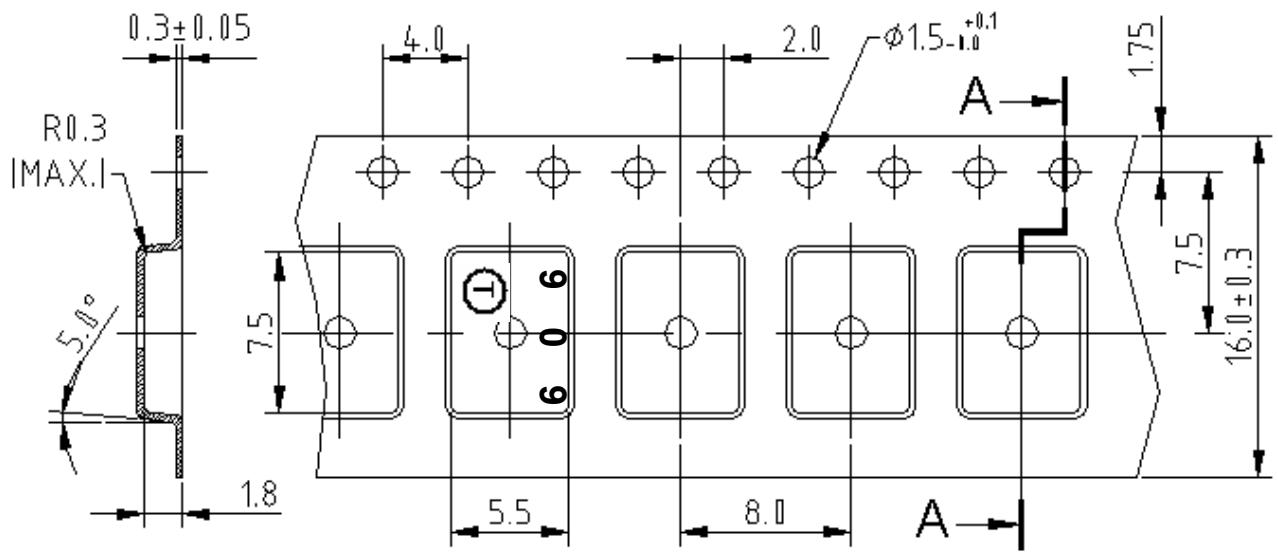


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



## H. RECOMMENDED REFLOW PROFILE :

