



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Name: SAW IF Filter 160 MHz 12MHz BW (SMD 13.3mm x 6.5 mm)

TST Parts No.: TB0960A

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee

Approval by: _____ Francis Chen

Date: _____ 03 / 02 / 2011

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 160MHz 12MHz BW (SMD 13.3×6.5 mm)

MODEL NO.: TB0960A

REV. NO.1

A. MAXIMUM RATING:

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

RoHS Compliant
Lead free
Lead-free soldering

B. Characteristics :

Item	Unit	Min.	Type.	Max.
Center frequency, F_c	MHz	-	160	-
Insertion Loss, IL	dB	-	10.5	12.0
-1dB bandwidth	MHz	12.0	12.4	-
-40dB bandwidth	MHz	-	17.8	18.5
Passband Ripple F_c± 4.8MHz	dB	-	0.6	1.0
Group Delay Ripple F_c± 4.8MHz	ns	-	100	120
Absolute Delay at F_c	us	-	0.9	1.5
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 135 MHz	dB	50	63	-
185 MHz ~ 450 MHz	dB	50	62	-
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. Frequency Characteristics :

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

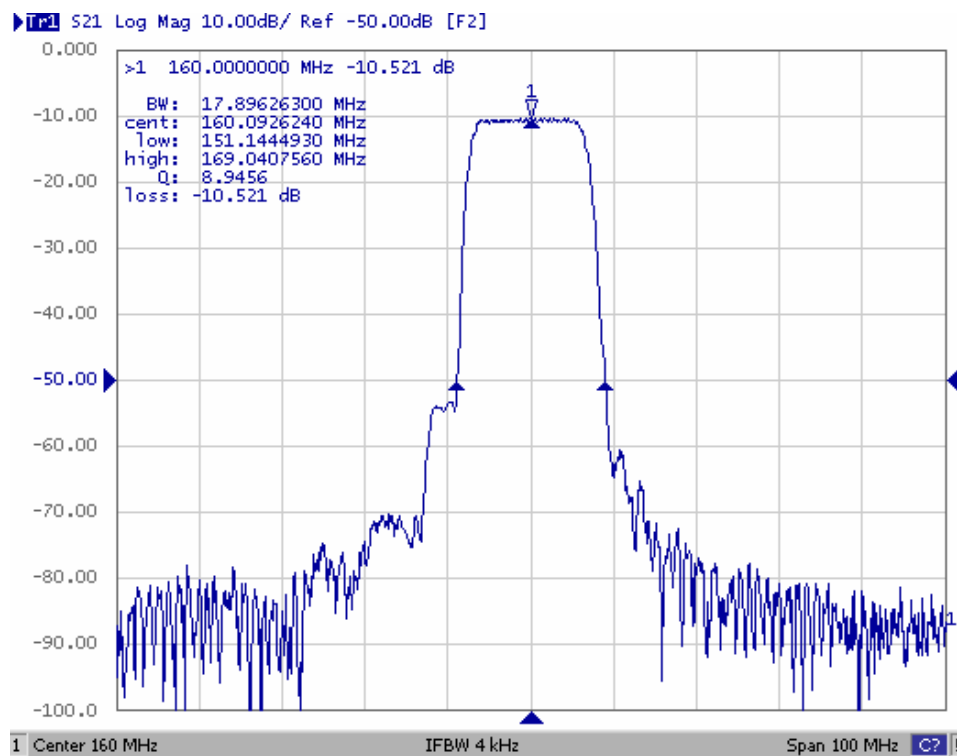


Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div

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

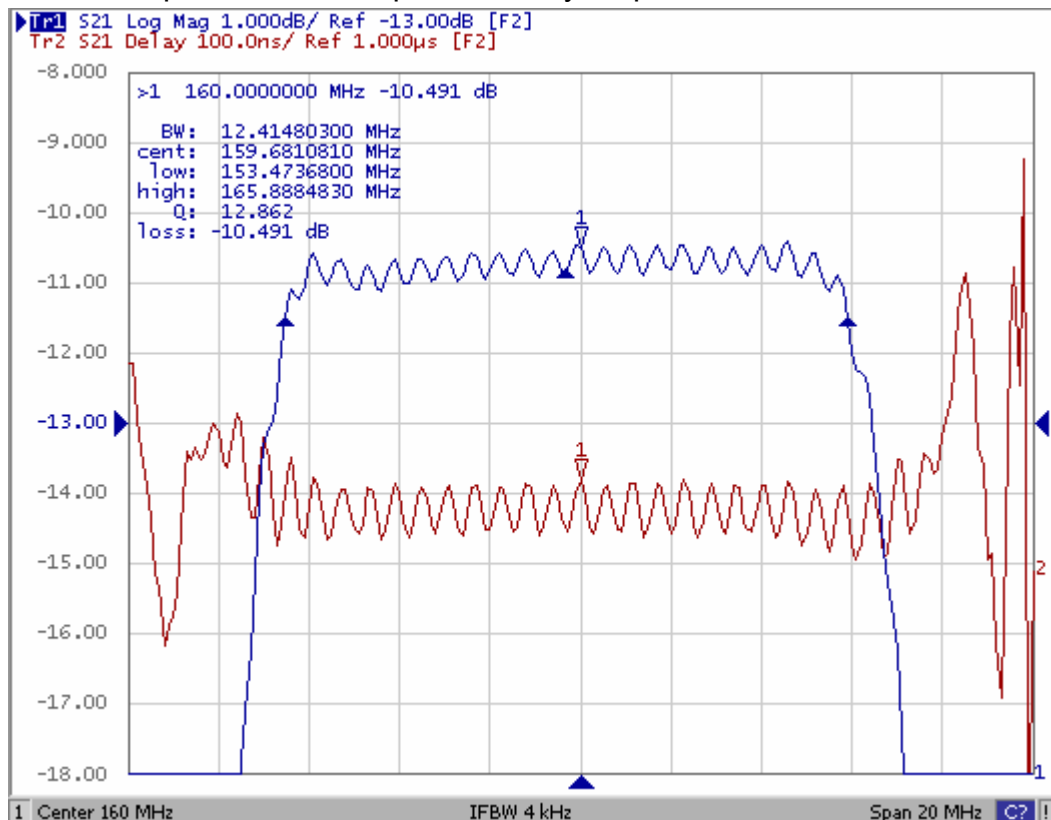


Fig2. Horizontal: 2MHz/Div Vertical: 1dB/Div

Vertical: 100ns/Div

(3) Wide band Response:

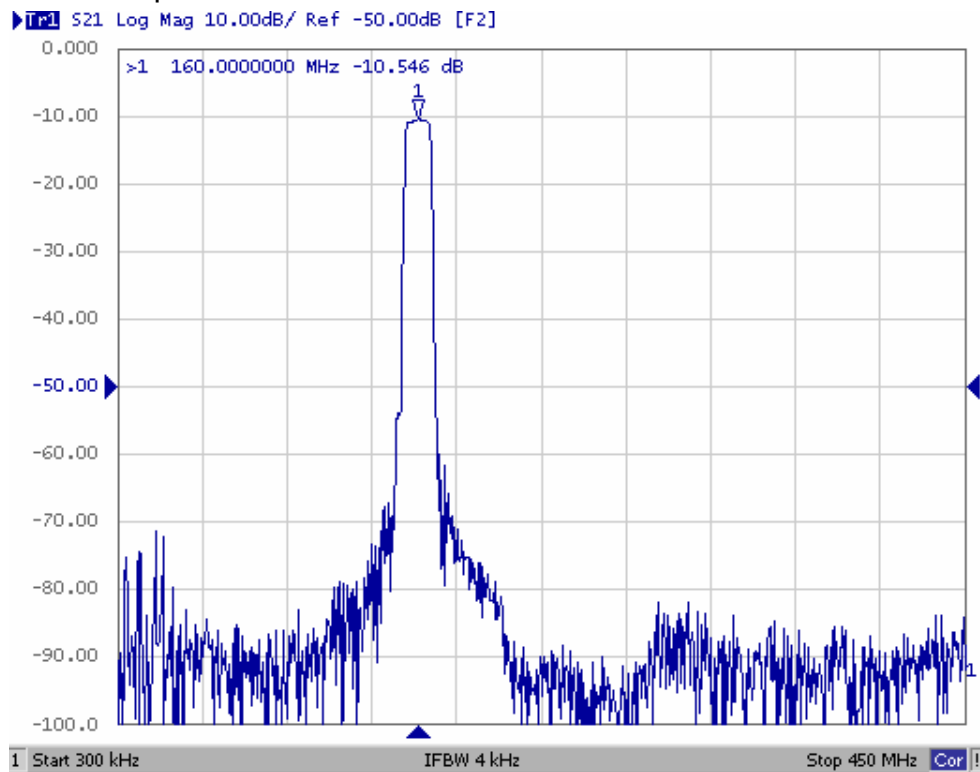
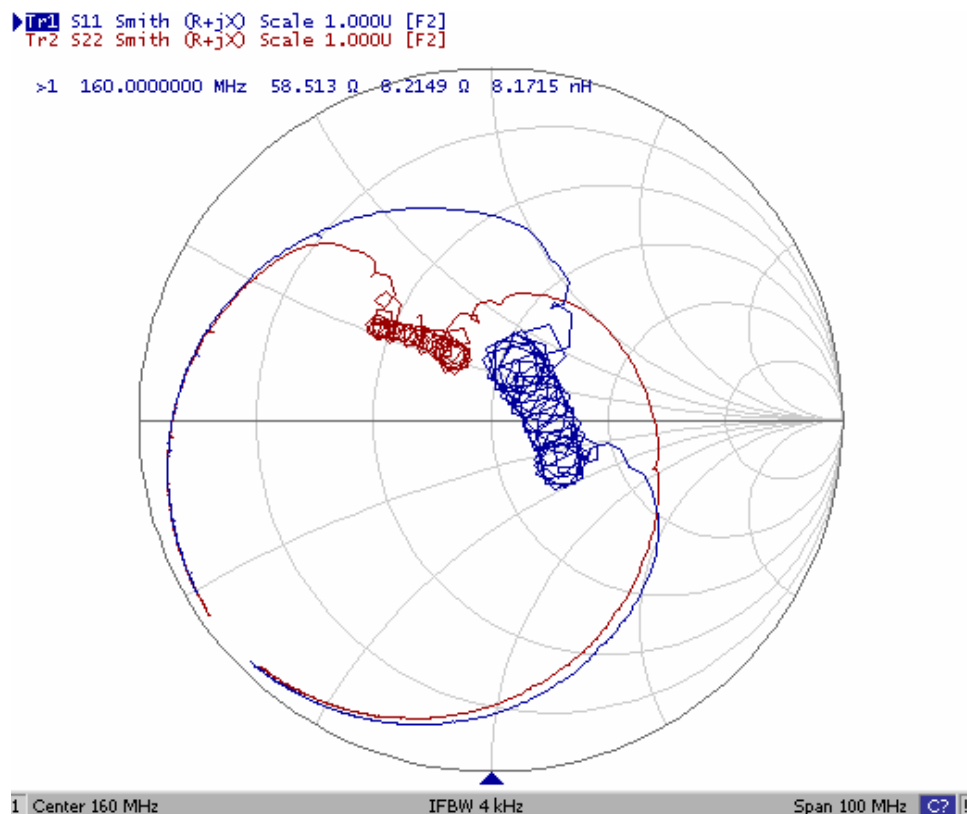
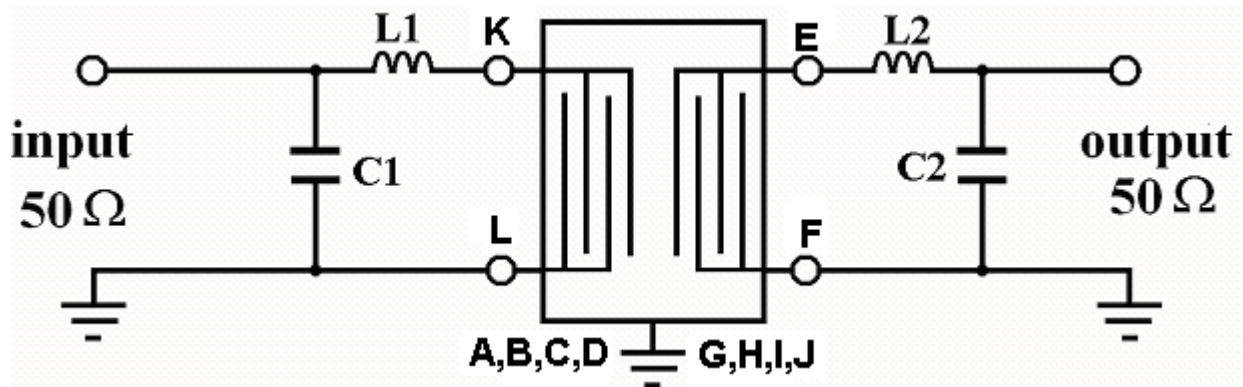


Fig3. Horizontal: 80MHz/Div Vertical: 10dB/Div

(4) Smith Chart:

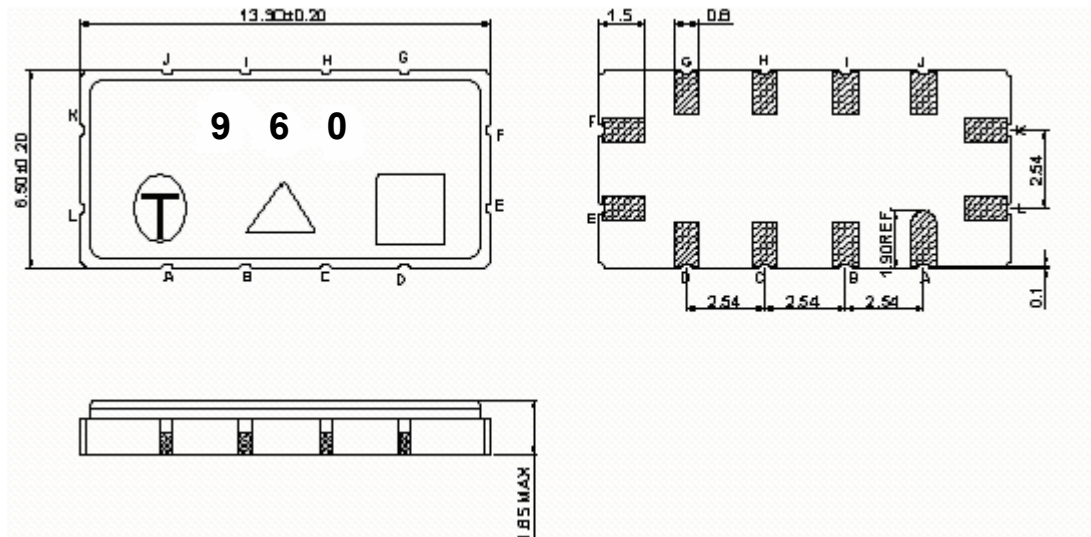


D. Matching Circuit:



$$L1=68\text{nH} \quad C1=47\text{pF} \quad L2=68\text{nH} \quad C2=47\text{pF}$$

E. Outline Drawing:



#K : Input

#L : Input Ground

#E : Output

#F : Output Ground

#A,B,C,D,G,H,I,J : Ground

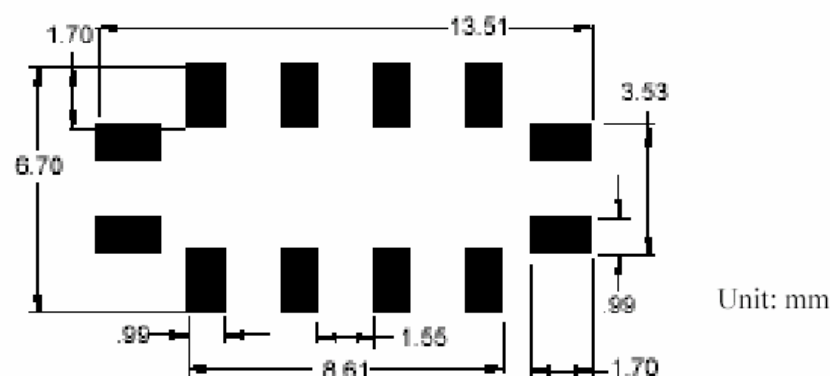
□: Week Code (Follow the table from planner each year)

Unit: mm

△ : Product / Year Code

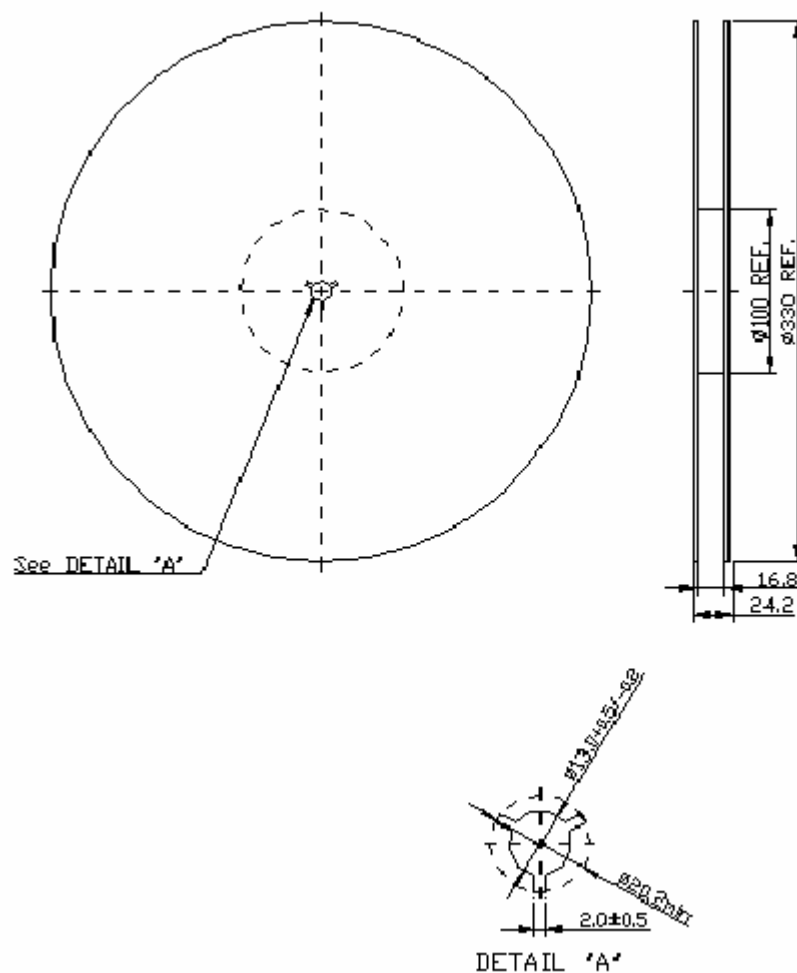
Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	B	b	<u>B</u>	<u>b</u>

F. PCB Footprint:

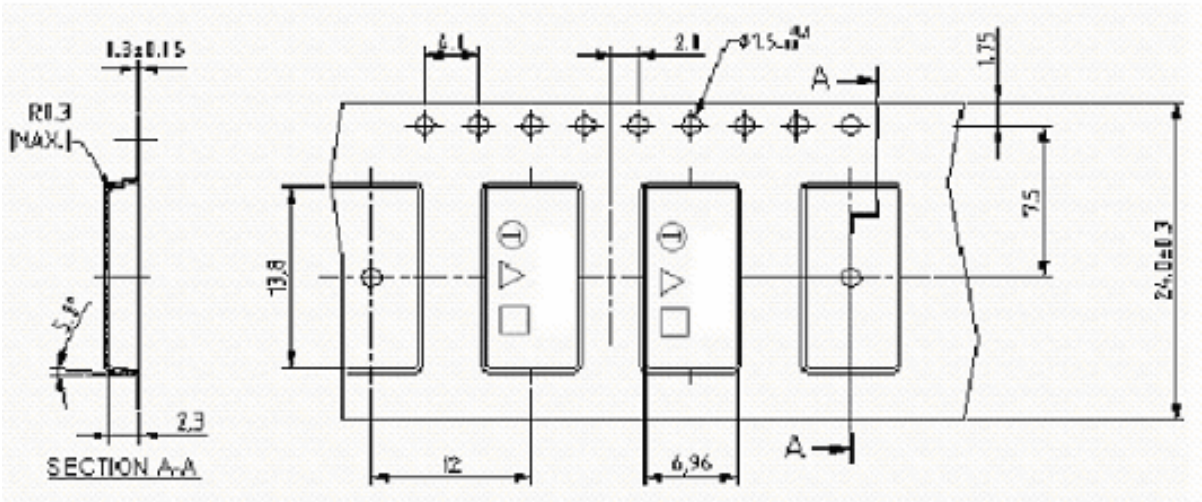


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE:

