



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Issued Date:

Product Name: SAW IF Filter 168 MHz

TST Parts No.: TB0727A (SMD 13.3x6.5 mm)

Customer Parts No.: _____

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

Checked by: _____ Kazuma Lee 

Approval by: _____ Andrew Lee 

Date: _____ 09 / 23 / 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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TST DCC
Release document

FR-71S03-02



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SAW Filter 168MHz 20MHz BW (SMD 13.3x6.5 mm)

MODEL NO.: TB0727A

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, Fc	MHz	-	168	-
Insertion Loss, IL	dB	-	12.2	13.5
-1dB BW	MHz	-	20.9	-
-3dB BW	MHz	20	22.4	-
Upper -35dB Band edge	MHz	-	181.7	183
Lower -35dB Band edge	MHz	153	155.1	-
Passband ripple at Fc +/- 8MHz	dB	-	0.4	1.0
Group delay ripple at Fc +/- 8MHz	ns	-	35	160
Absolute delay	us	-	0.85	1.0
Temperature Coefficient	ppm/°C	-	-72	-
Source / Load Impedance	Ohm	-	50	-

C. Frequency Characteristics :

(1) S21 Response:(span 180MHz)

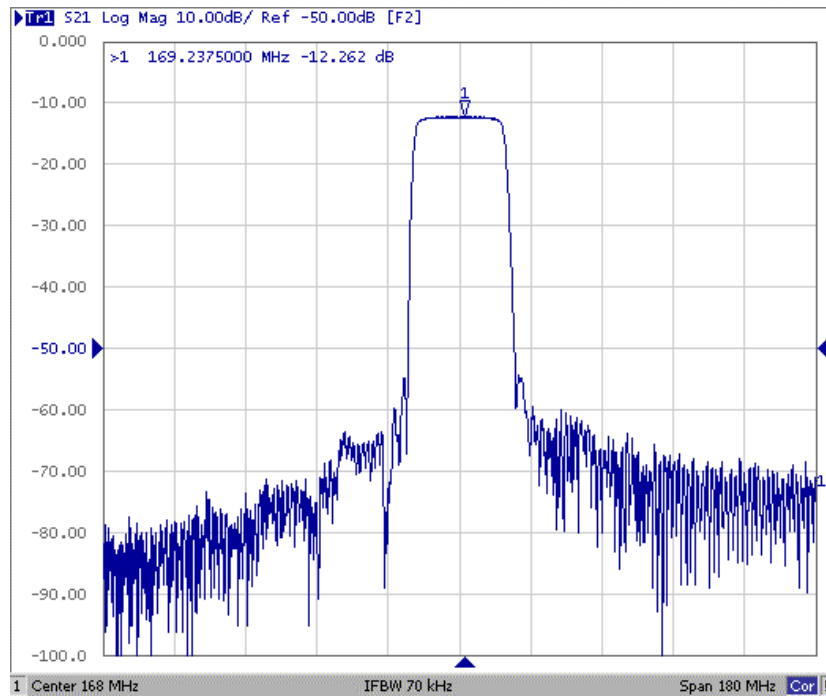


Fig1. Horizontal: 18MHz/Div Vertical: 10dB/Div

(2) Pass band Response:

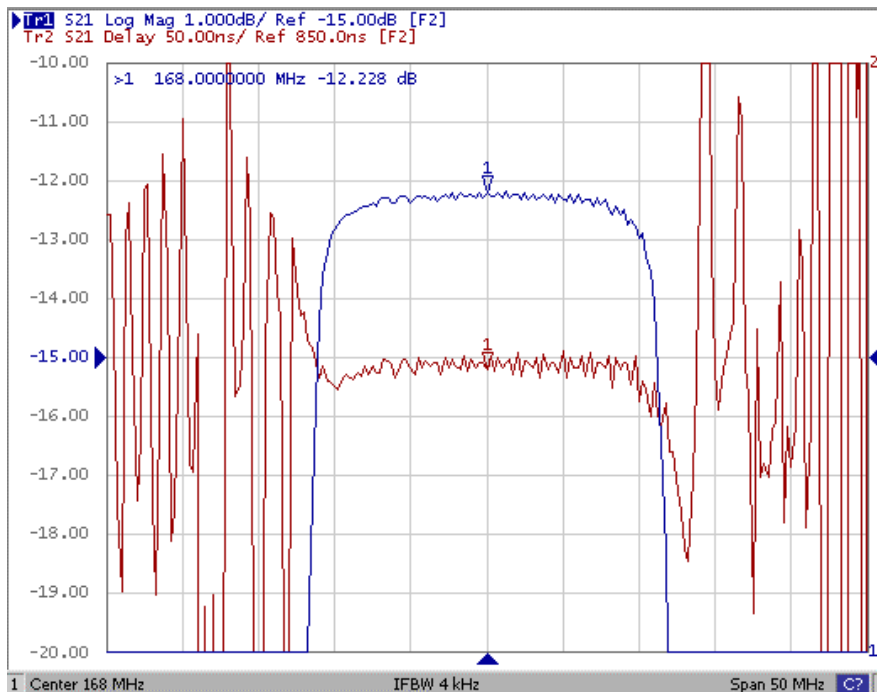
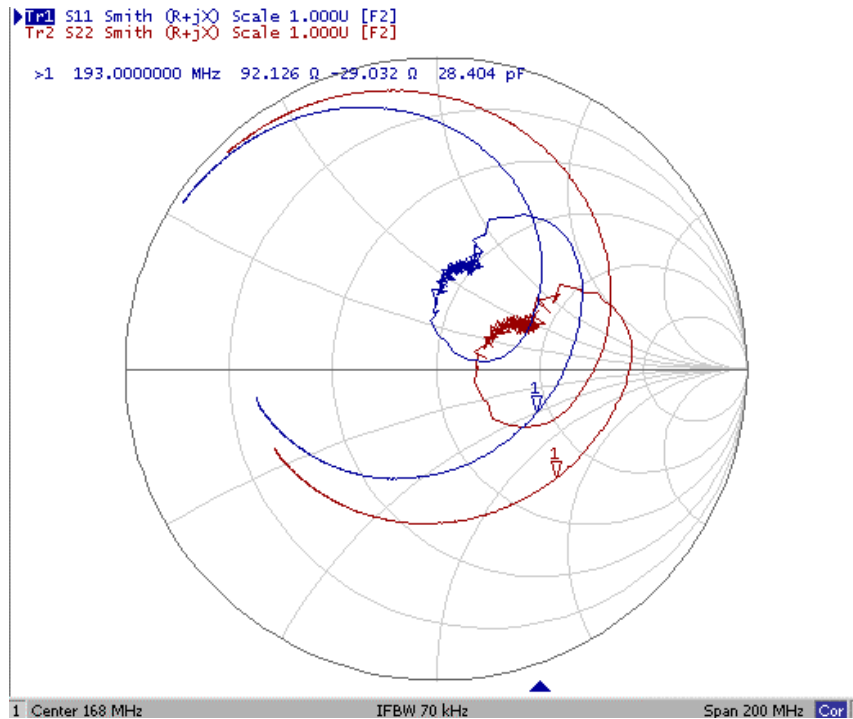
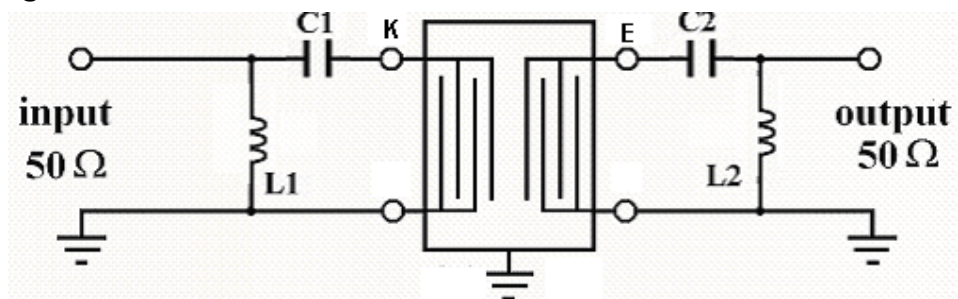


Fig2. Horizontal: 5MHz/Div Vertical: 1dB/Div
Vertical: 50ns/Div

(3) Smith chart

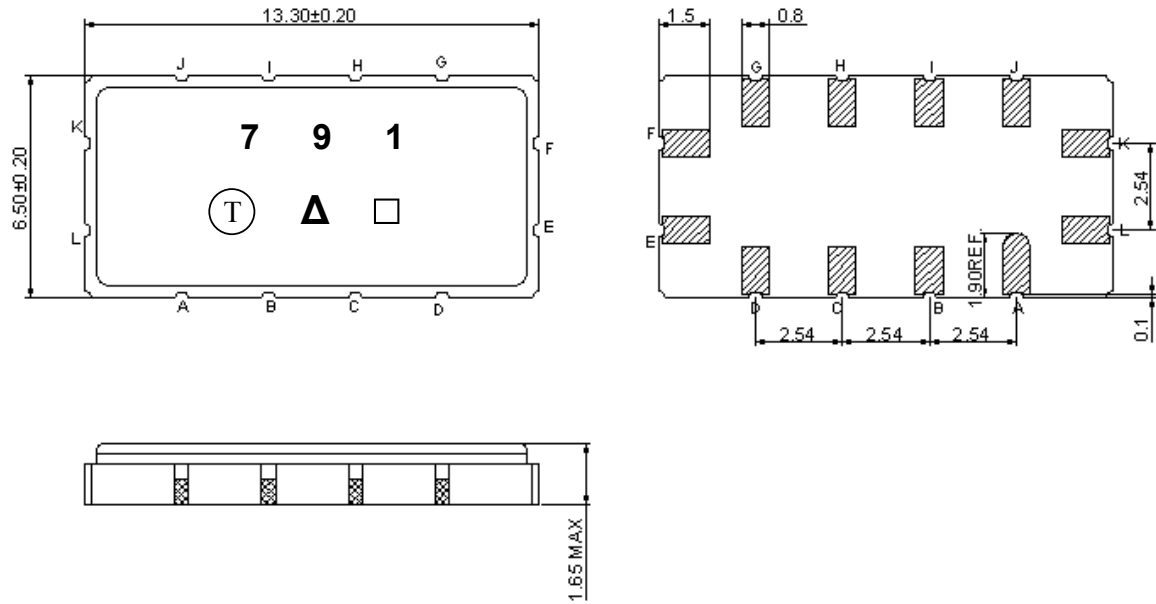


D. Matching Circuit:



$L1 = 27\text{nH}$ $L2 = 39\text{nH}$ $C1 = 82\text{pF}$ $C2 = 82\text{pF}$

E.OUTLINE DRAWING:



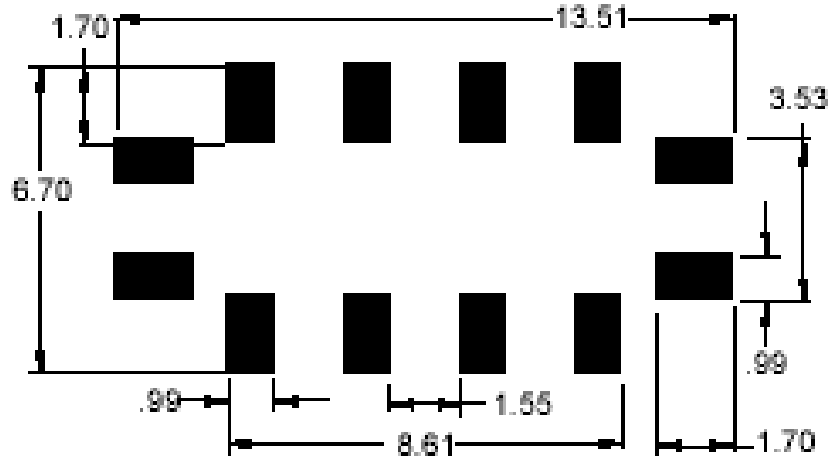
- Pin K : RF Input
- Pin E : RF Output
- Pin A, B,C,D,F,G,H,I,J,L :
- Ground

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

△ : Product / Year Code

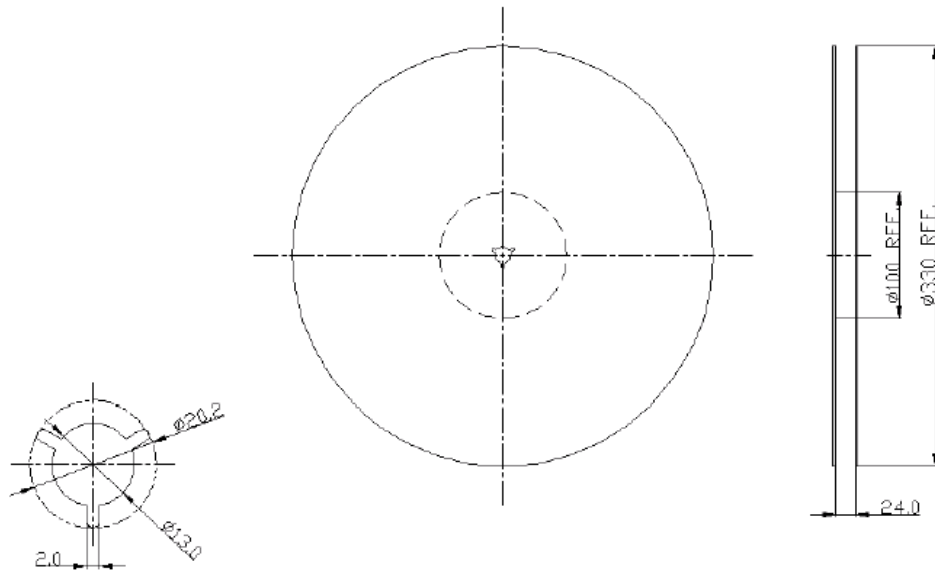
Year	2005 2009	2006 2010	2007 2011	2008 2012
Product Code	B	b	<u>B</u>	<u>b</u>

F. PCB Footprint



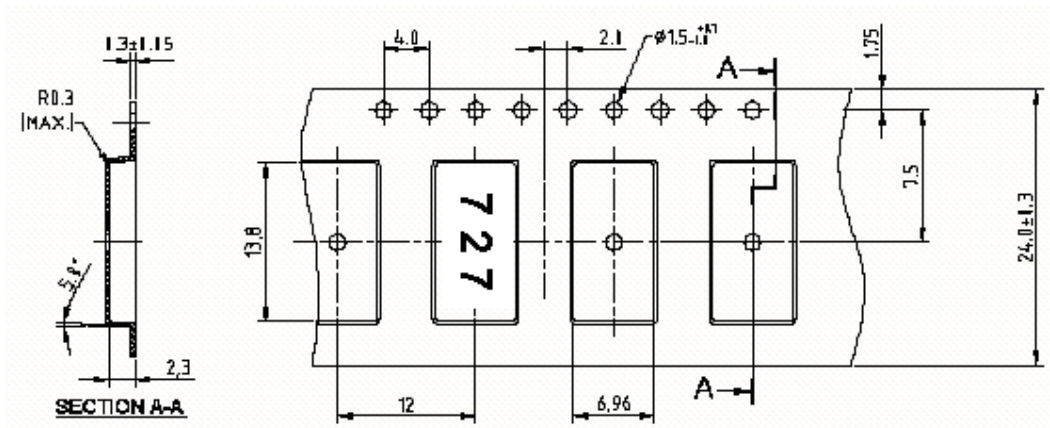
G. PACKING:

1. REEL DIMENSION



Unit: mm

2. TAPE DIMENSION



Unit: mm

H. RECOMMENDED REFLOW PROFILE :

