



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 Web: www.taisaw.com

Product Specifications Approval Sheet

Product Name: 294.2 MHz 20.5MHz BW SMD 7.0 x 5.0 mm SAW IF Filter

TST Parts No.: TB0991A

Customer Parts No.: _____

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

Checked by: _____ Kazuma Lee

Approval by: _____ Francis Chen

Date: _____ 08 / 11 / 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 294.2MHz 20.5MHz BW (SMD 5.0×7.0 mm)

MODEL NO.: TB0991A

REV. NO.1

A. MAXIMUM RATING:

1. Operating temperature range: -55°C to 125°C
2. Storage temperature range: -55°C to 125°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. Characteristics :

1. Ambient Temperature: 25 °

Item	Unit	Min.	Type.	Max.
Center frequency, F_c	MHz	293.9	294.2	294.5
Insertion Loss, IL	dB	-	18.6	20.0
1dB Band Width	MHz	20.5	22	
40dB Band Width	MHz		28.0	28.5
Amplitude Ripple F _c ±9.0MHz	dB	-	0.5	1.0
Group Delay Ripple F _c ±9.0MHz	ns	-	45	200
Absolute Group Delay at F _c	us	-	0.6	1.6
Attenuation (Reference level from minimum Insertion loss)				
F _c ± 15 MHz	dB	39	45	-
F _c ± 31 MHz	dB	45	50	-
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. Frequency Characteristics :

(1) Wide band Response:(span 150MHz)

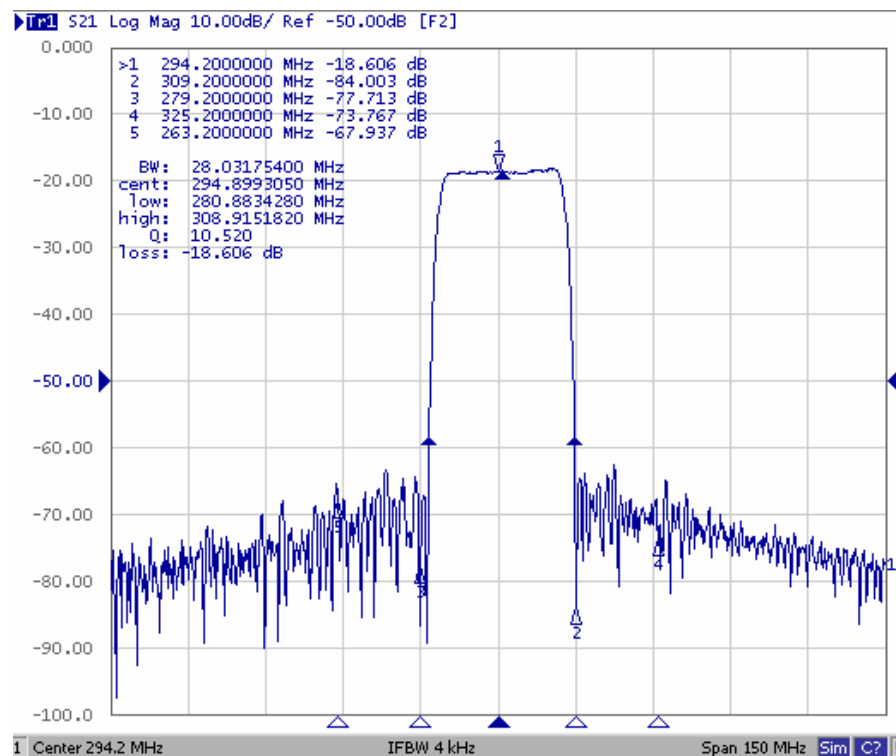


Fig1. Horizontal: 15MHz/Div Vertical: 10dB/Div

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

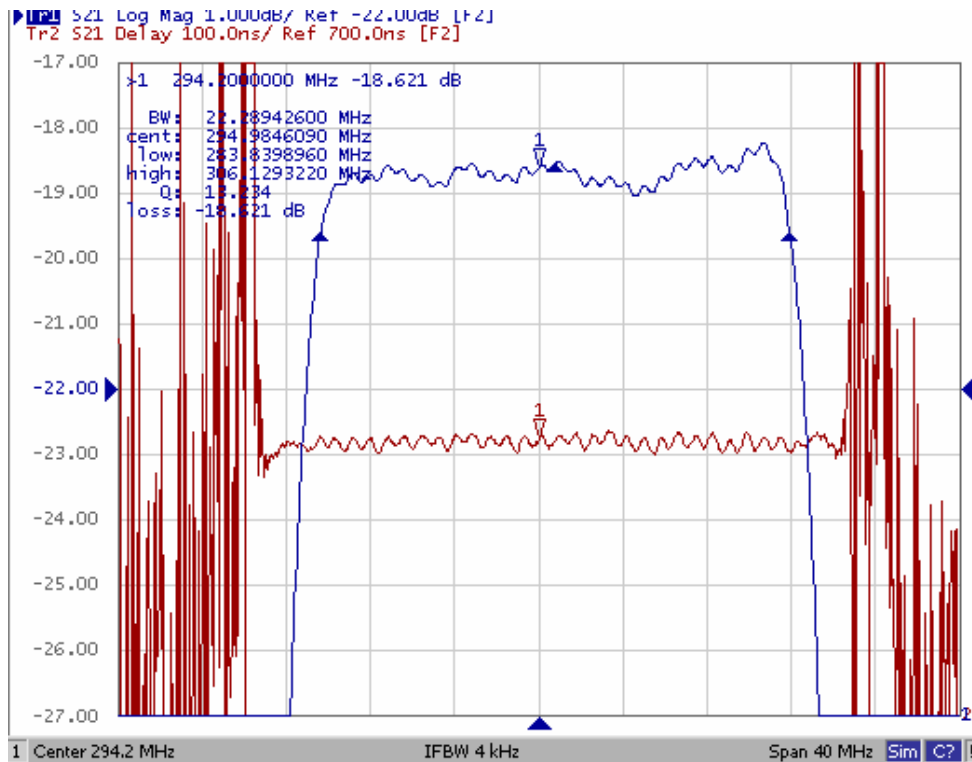
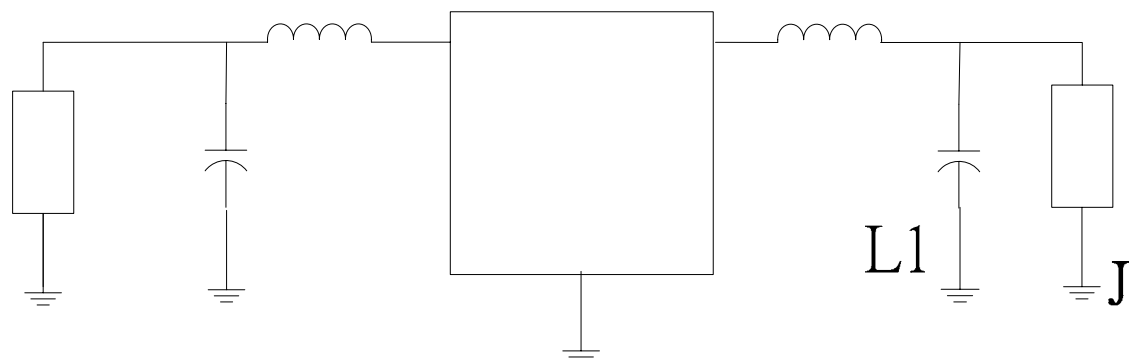


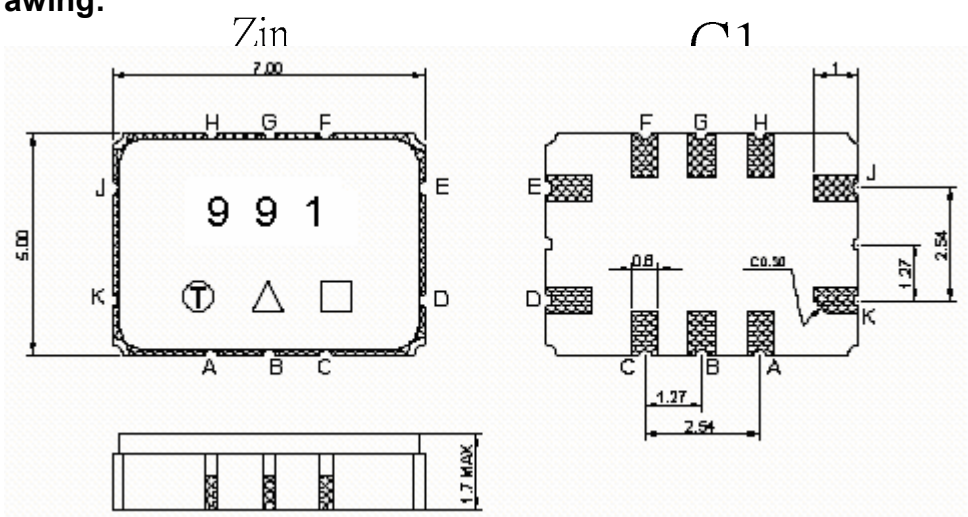
Fig2. Horizontal: 4MHz/Div Vertical: 1dB/Div
 Vertical: 100ns/Div

D. Matching Circuit:



$$L1=24\text{nH} \quad L2=27\text{nH} \quad C1=22\text{pF} \quad C2=15\text{pF}$$

E. Outline Drawing:



Pin J –RF input

Pin K –RF input ground

Pin D –RF output

Pin E –RF output ground

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

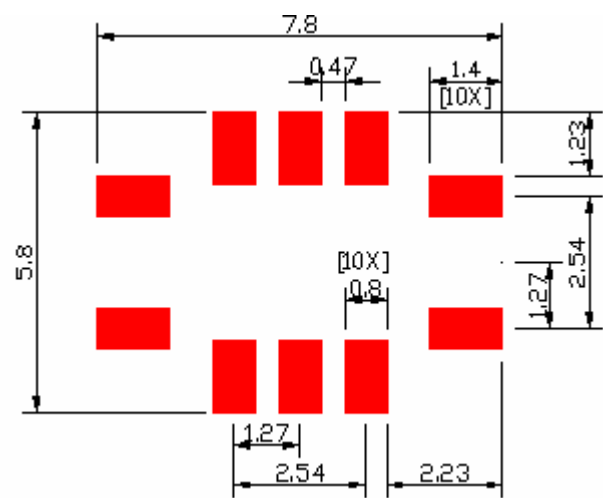
□ : Week Code (Follow the table from planner each year)

Unit : mm

△ : Product / Year Code

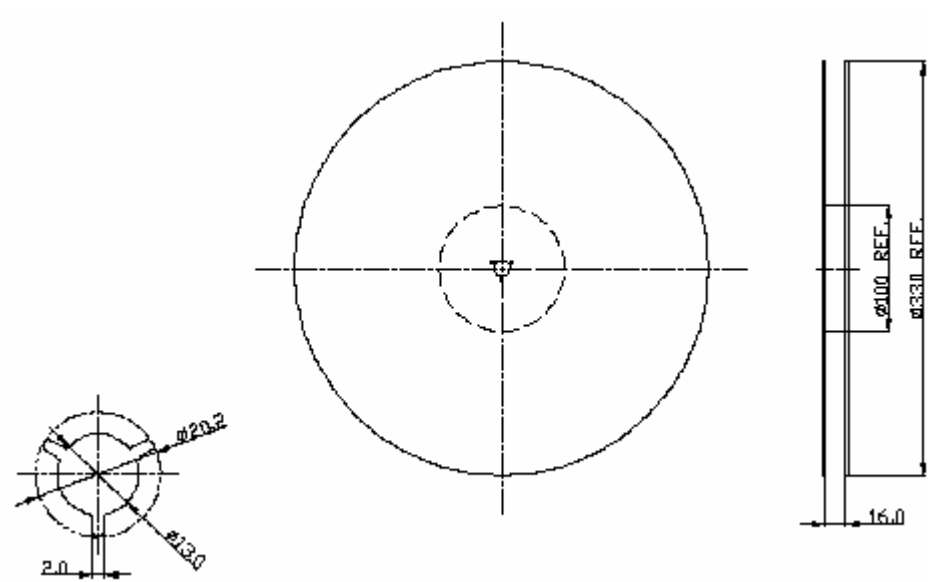
Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	B	b	<u>B</u>	<u>b</u>

F. PCB Footprint:

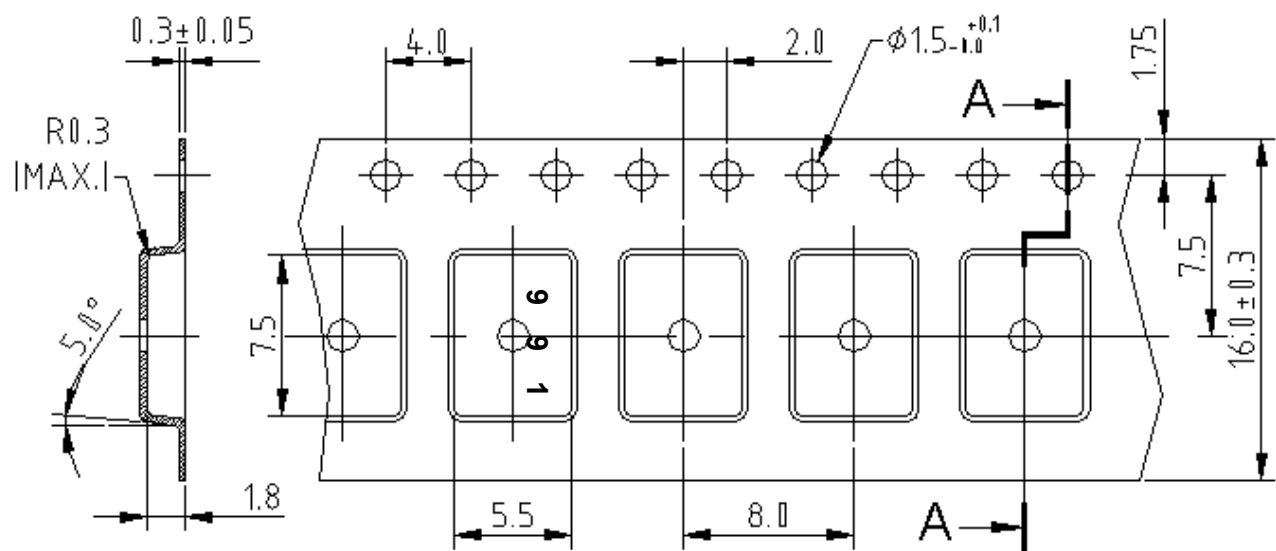


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE_:

