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 Description: SAW Filter 996.34 MHz SMD 3.0x3.0 mm (BW=30 MHz)

TST Part No.: TA0820B (AEC-Q200 compliant)

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by: Hayley Chou

Approved by: Egbert Huang

Date: 2017/10/11

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 996.34 MHz

MODEL NO.: TA0820B REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 5 V
3. Operating Temperature: -40 ℃ to +85 ℃
4. Storage Temperature: -40 ℃ to +125 ℃
5. Moisture Sensitive Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic **S**ensitive **D**evice (**ESD**)

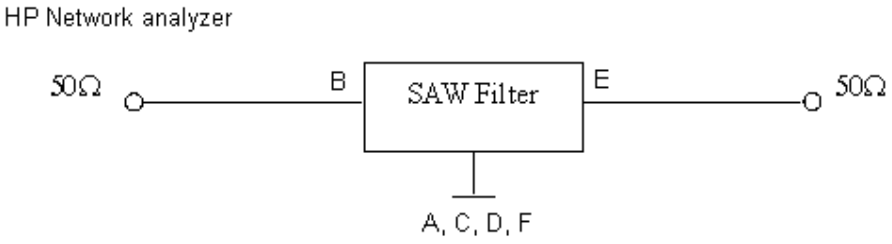
B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: Zs=50 Ω

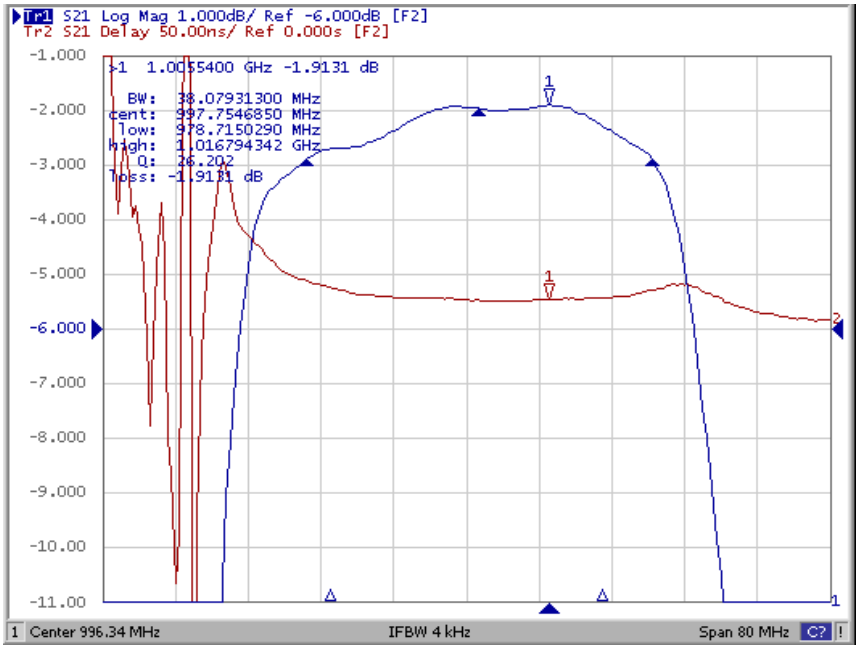
Terminating load impedance: Z_L=50 Ω

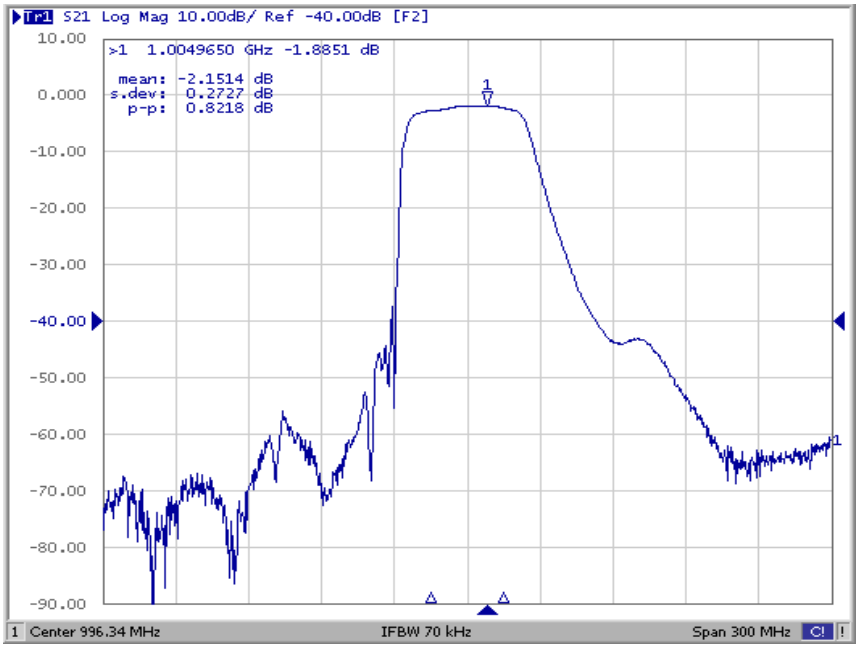
Parameters Description		Unit	Min.	Type.	Max.
Center Frequency	**Fc**	MHz	-	996.34	-
Insertion Loss at Fc	**IL**	dB	-	1.9	-
1 dB bandwidth		MHz	30	38	-
3 dB bandwidth		MHz	-	48	-
Insertion loss (981.34~1011.34 MHz)		dB	-	2.6	4.8
Ripple (981.34~1011.34 MHz)		dB	-	0.85	1.6
VSWR (981.34~1011.34 MHz)		-	-	1.6	2.5
Group Delay ripple (981.34~1011.34 MHz)		nsec	-	15	80
Attenuation (Reference level from Fc IL)					
10 ~ 956 MHz		dB	40	50	-
1046 ~ 1097 MHz		dB	28	35	-
1097 ~ 1146 MHz		dB	40	60	-

C. MEASUREMENT CIRCUIT:



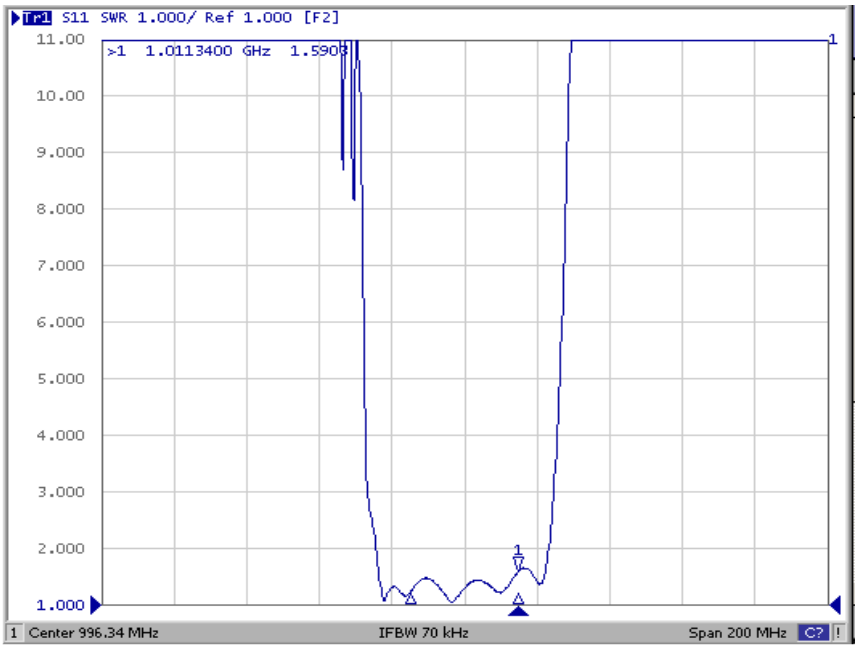
D. FREQUENCY CHARATERISTIC:

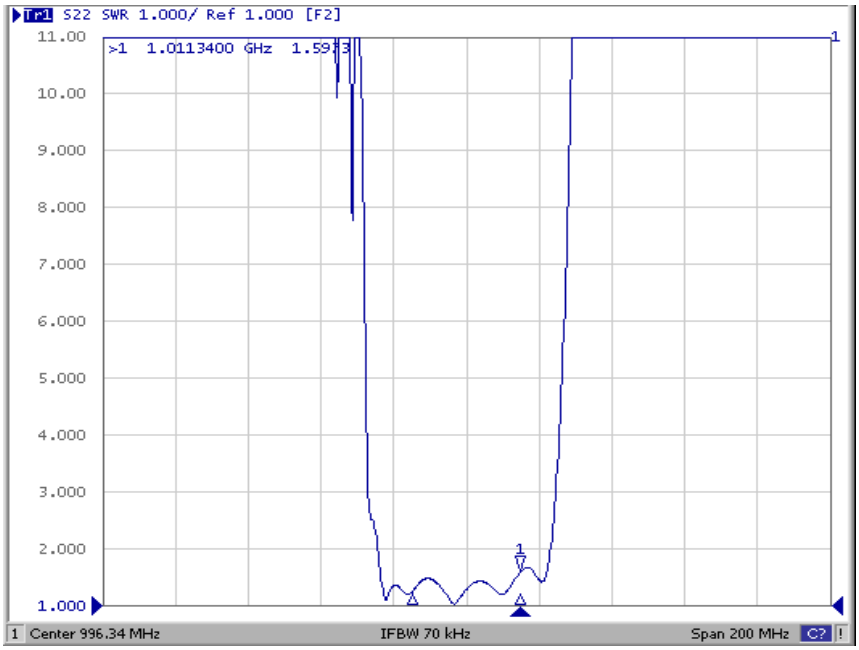




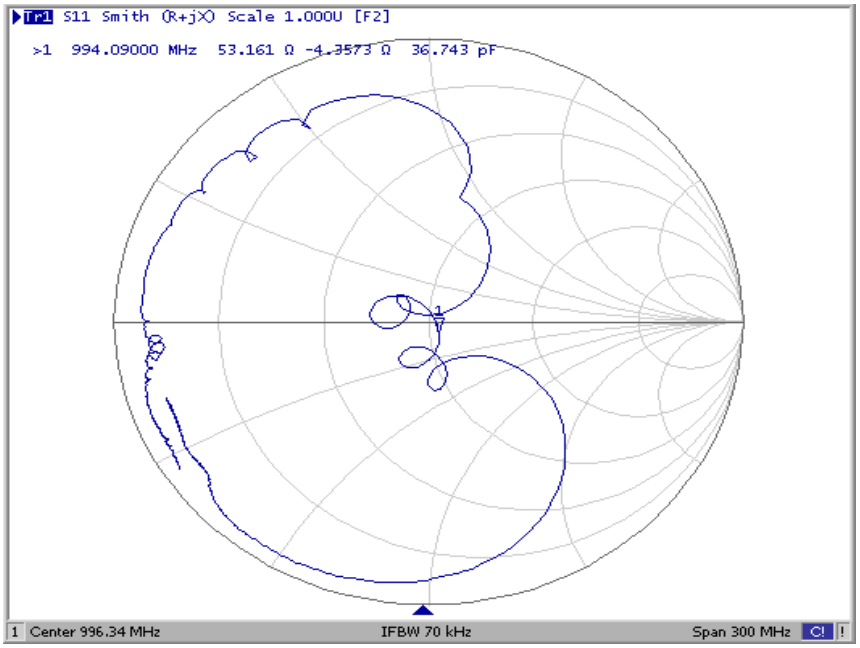
Reflection Functions:

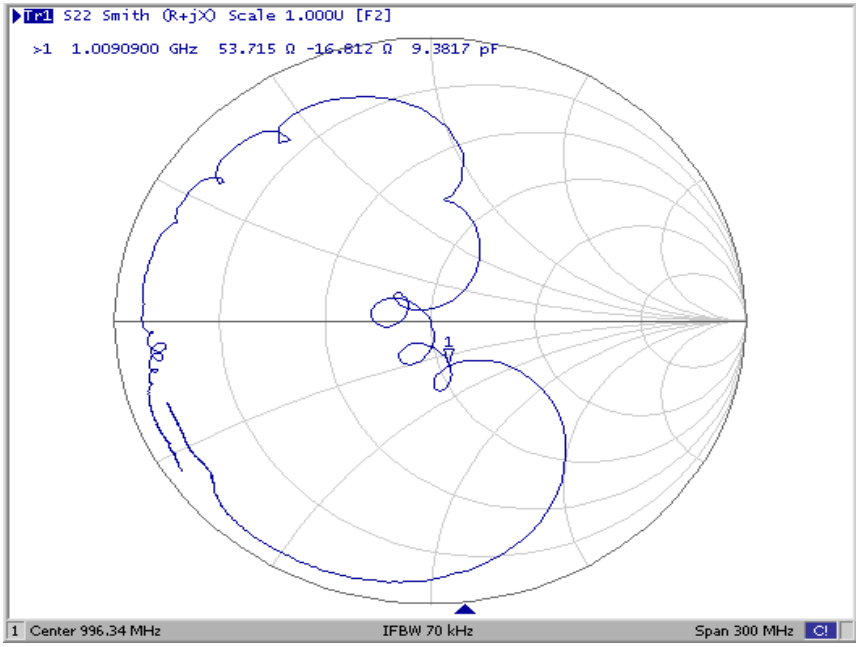
VSWR



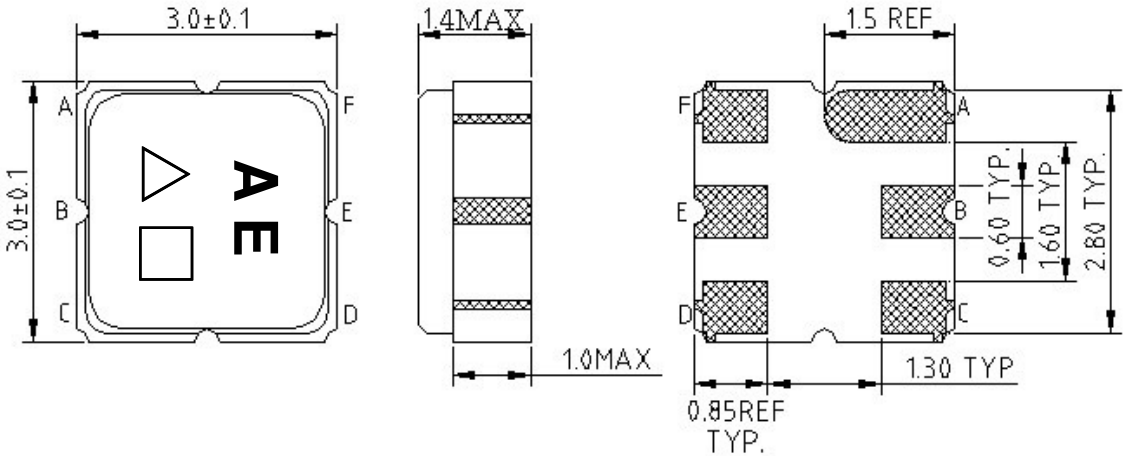


Smith Chart


Tr1 S11 Smith (R+jX) Scale 1.000U [F2]
>1 994.09000 MHz 53.161 Ω -4.3573 Ω 36.743 pF
1 Center 996.34 MHz
IFBW 70 kHz
Span 300 MHz


Tr1 S22 Smith (R+jX) Scale 1.000U [F2]
>1 1.0090900 GHz 53.715 Ω -16.812 Ω 9.3817 pF
1 Center 996.34 MHz
IFBW 70 kHz
Span 300 MHz

E.OUTLINE DRAWING:



#B: Input

#E: Output

#A, C, D, F: Ground

△:Year code (ex: 2016→6, 2017→7,……2020→0,.....)

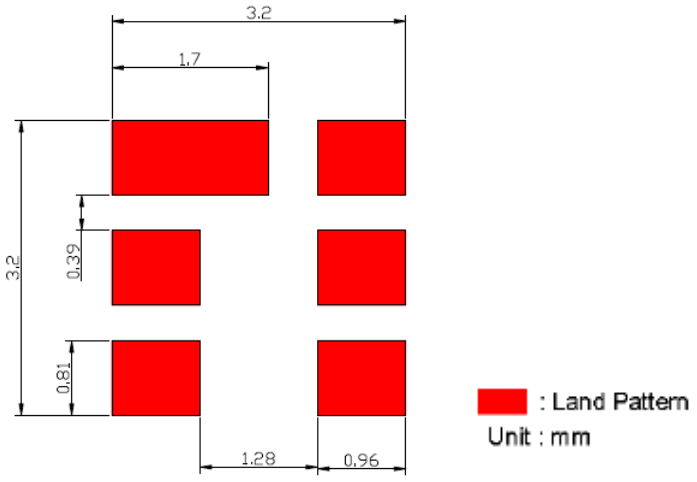
□: Date code

Unit: mm

Date Code Table:

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

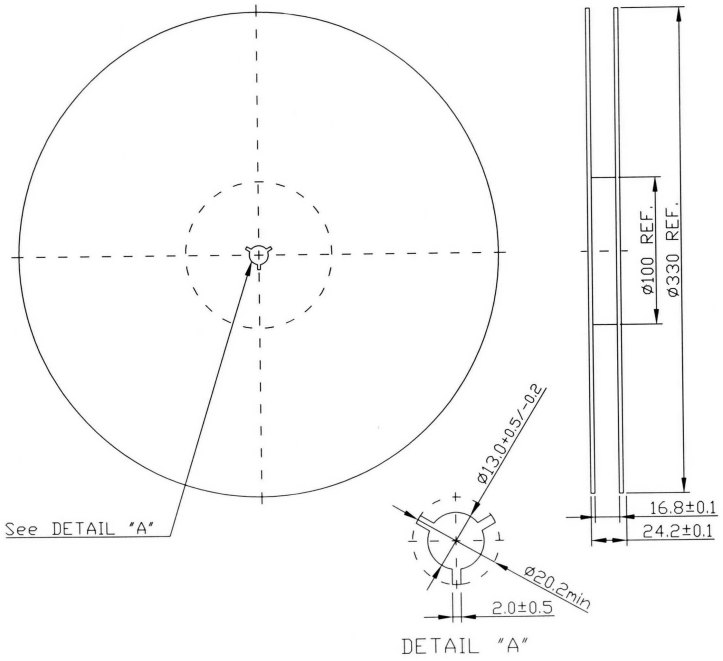
F. PCB Footprint:



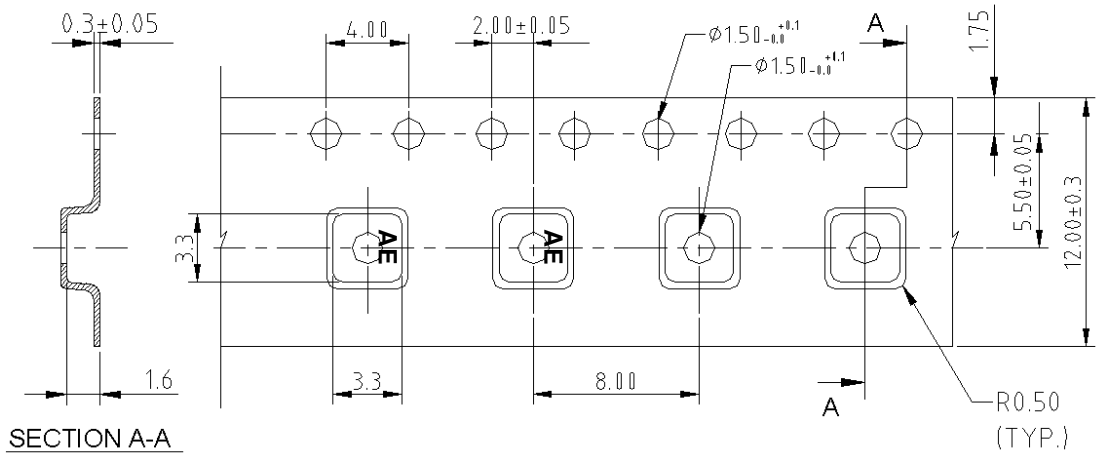
G. <u>PACKING</u>: (Ref: WI-75M03)

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



H. <u>Recommended Reflow Profile:</u>

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 260℃+0/-5℃ peak (20~40sec).
4. Time: 2 times.