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: 49.17MHz 1MHz BW SMD 13.1×7.15mm SAW Filter

TST Part No.: TB1020A

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by: Michael Yang Michael 9/12/12

Approved by: Francis Chen

Date: 2012/9/12

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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IF SAW Filter 49.17 MHz
MODEL NO.: TB1020A REV. NO.:2

A. FEATURES:

1.IF Filter for Digital Cable TV

RoHS Compliant
Lead free
Lead-free soldering

B. MAXIMUM RATING:

1. DC voltage: 12 V.
2. AC voltage: 10 V.
3. Storage Temperature: -40℃ to +85 ℃.
4. Operable Temperature: -20℃ to +65 ℃.

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

C. ELECTRICAL CHARACTERISTICS: Reference Temperature: 25(45) ℃

Characteristic	Units	Minimum	Typical	Maximum
Center frequency, **Fo**	MHz	-	49.17	-
Insertion Loss, **IL**	dB	6.3	7.8	10
Bandwidth -6dB	MHz		1.6	
Bandwidth -20dB	MHz		2.4	
Bandwidth -30dB	MHz		3.0	
Relative attenuation 47.67 (47.60) MHz	dB	31	35	
50.67(50.60)MHz	dB	26	28	
51.17(51.10)MHz	dB	28	33	
Group Delay Ripple (p-p)48.82 ~ 49.52 (48.75 ~ 49.45)MHz	nS		60	
Lower Sidelobe 40.07 ~ 45.07(40.00 ~ 45.00)MHz	dB	40	47	
Lower Sidelobe 45.07 ~ 47.67 (45.00 ~ 47.60)MHz	dB	30	35	
Upper Sidelobe 50.67 ~ 53.07 (50.60 ~ 53.00)MHz	dB	23	27	
Upper Sidelobe 53.07 ~ 60.07 (53.00 ~ 60.00)MHz	dB	36	42	
Temp.coeff.	ppm/K		-72	
Input/Output Impedance	kΩ||pF	Zin:0.3||14.7 ; Zout = 1.9||2.6pF		

D.FREQUENCY CHARACTERISTICS:

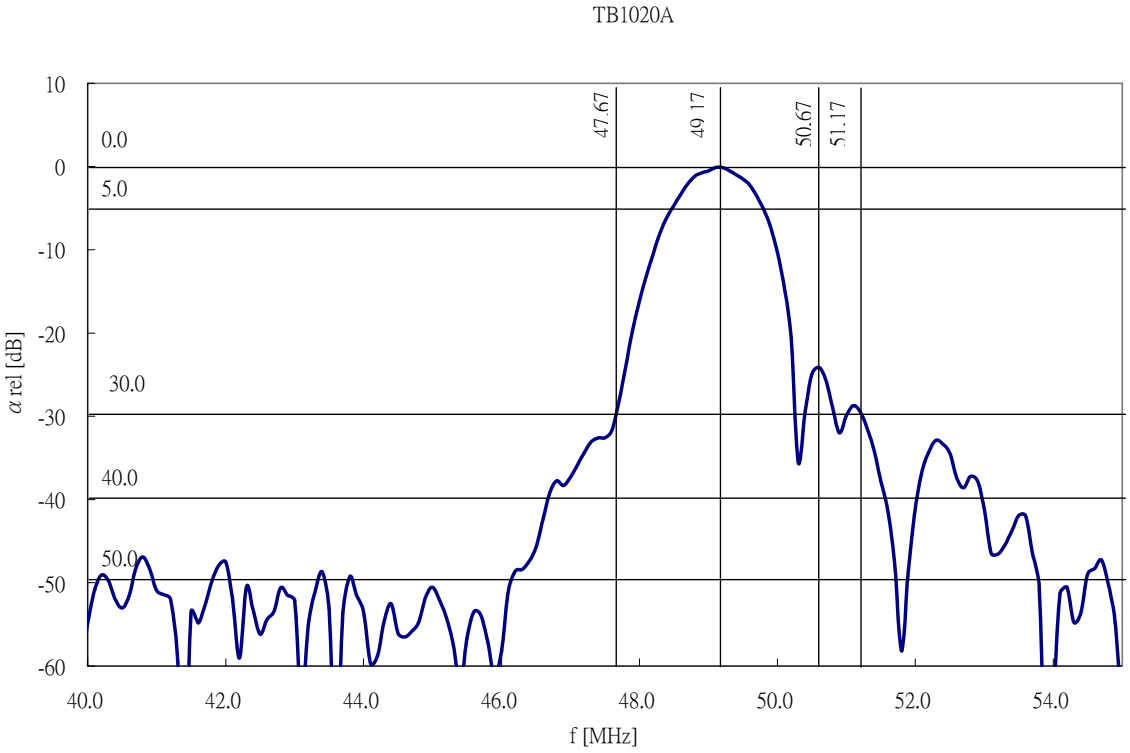


Fig.1 S21 Response(Fo=49.17MHz/Span=30MHz)

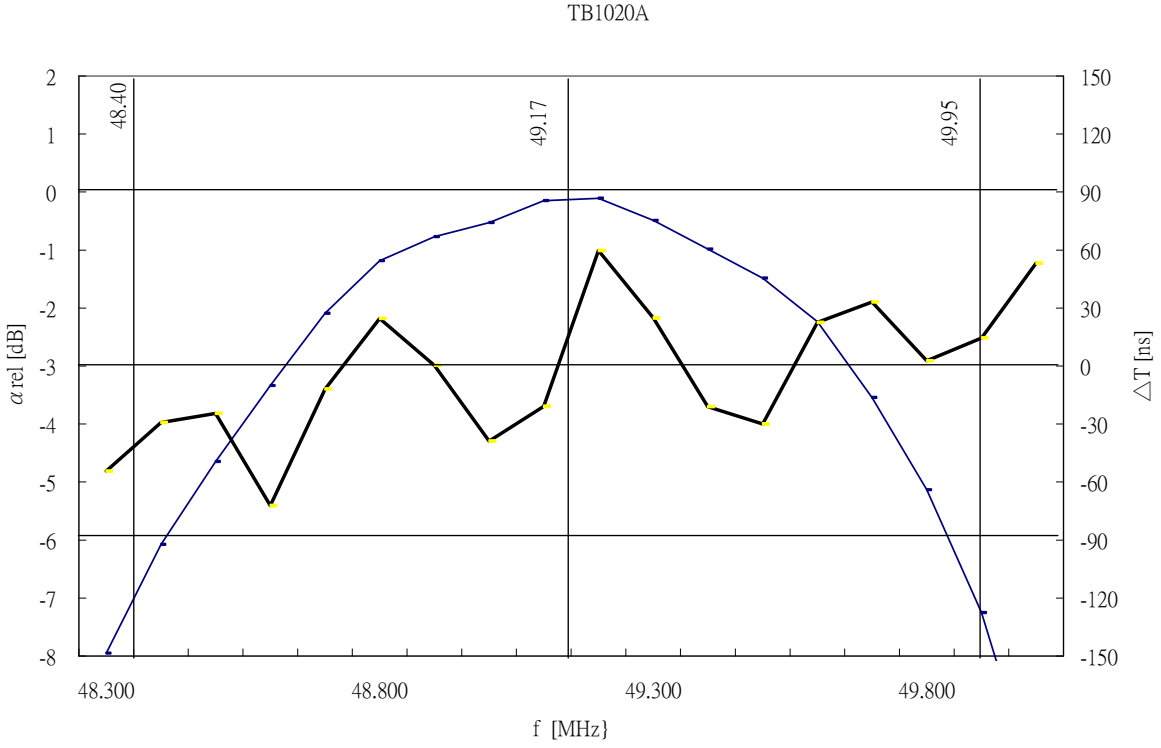


Fig.2 Group Delay

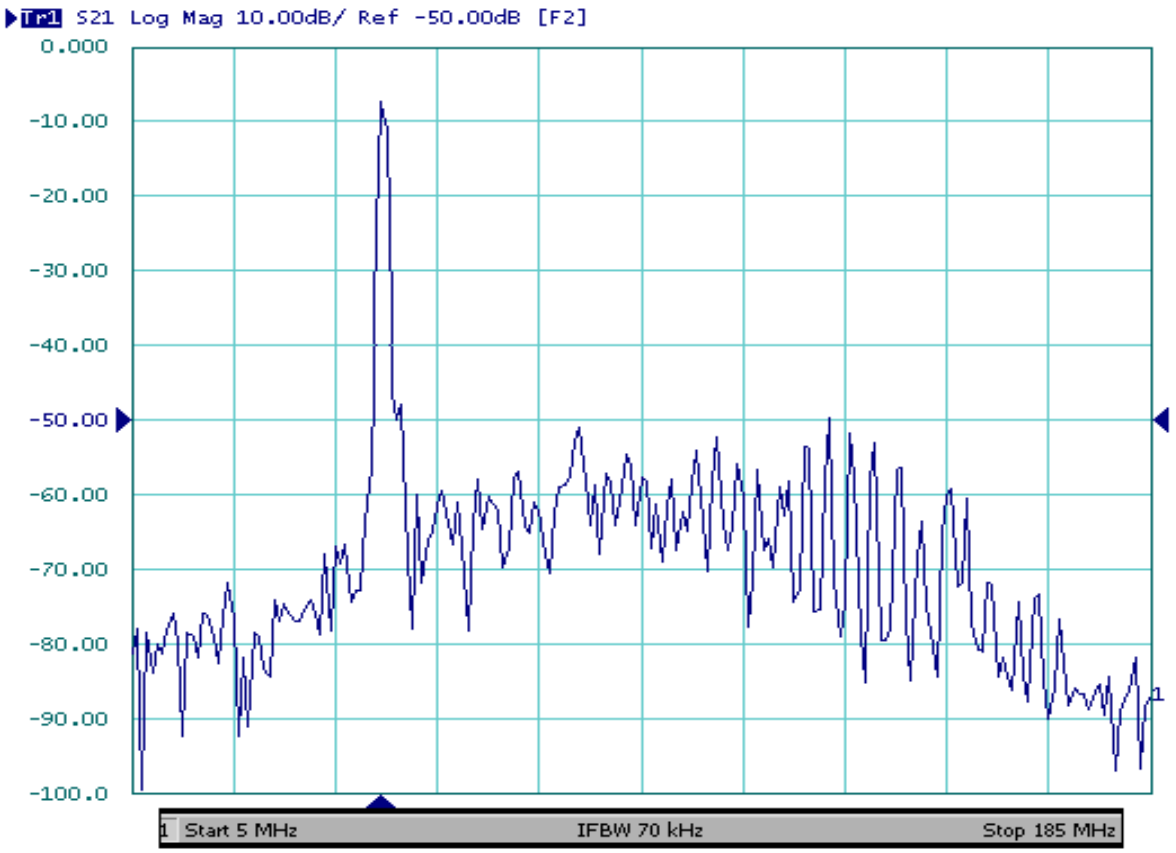
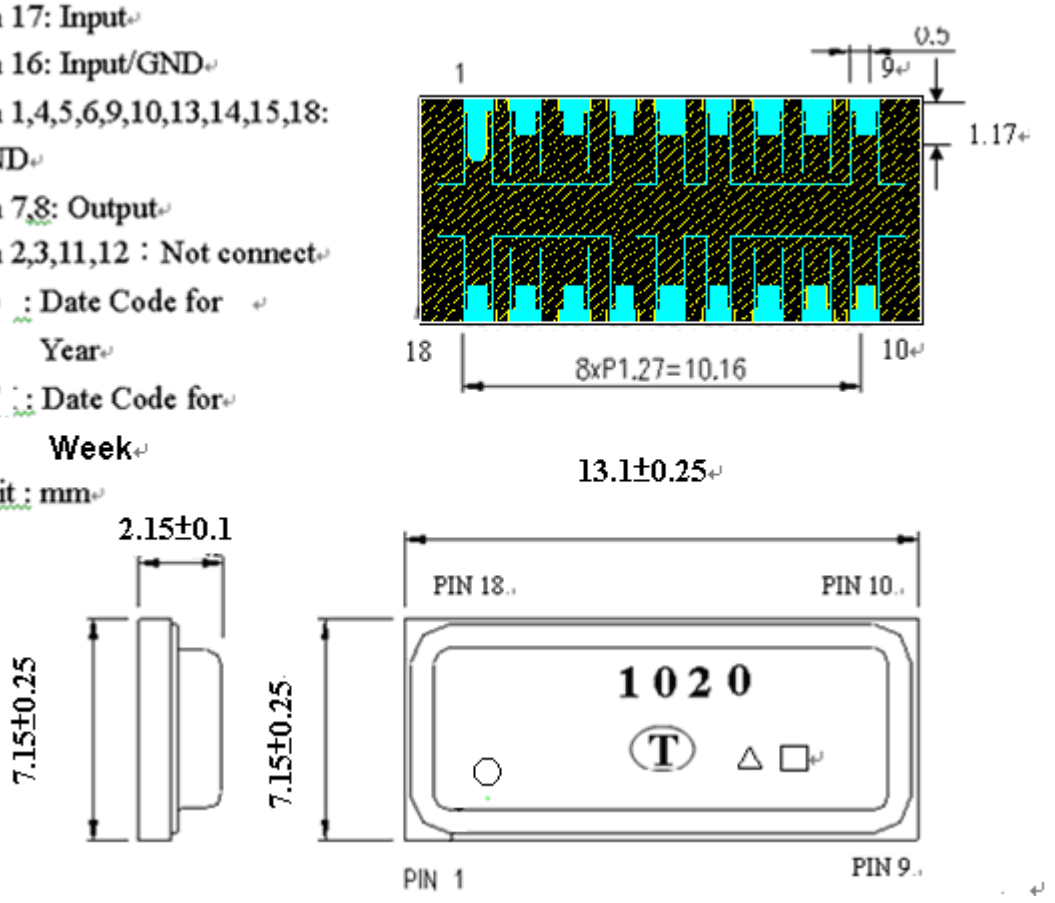


Fig.3 S21 Response (Fo=49.17MHz/Span=180MHz)

E.OUTLINE DRAWING:

Pin 17: Input
Pin 16: Input/GND
Pin 1,4,5,6,9,10,13,14,15,18: GND
Pin 7,8: Output
Pin 2,3,11,12：Not connect
△ : Date Code for Year
□ : Date Code for Week
Unit : mm



□ Data code：See the table

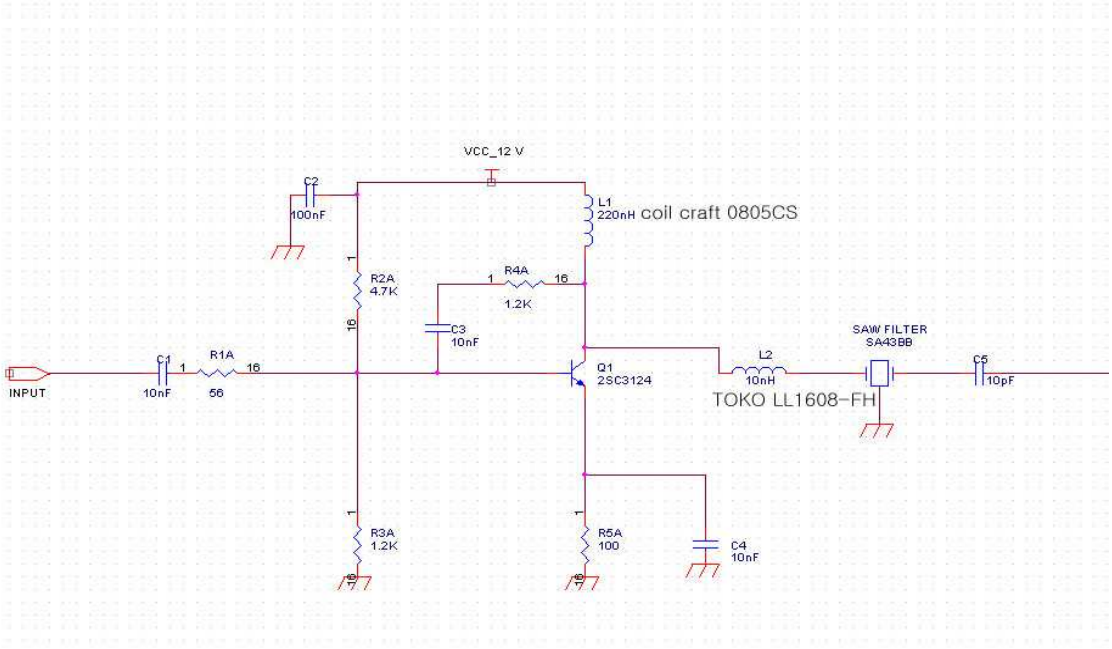
Date Code Table

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

△ : Product / Year Code

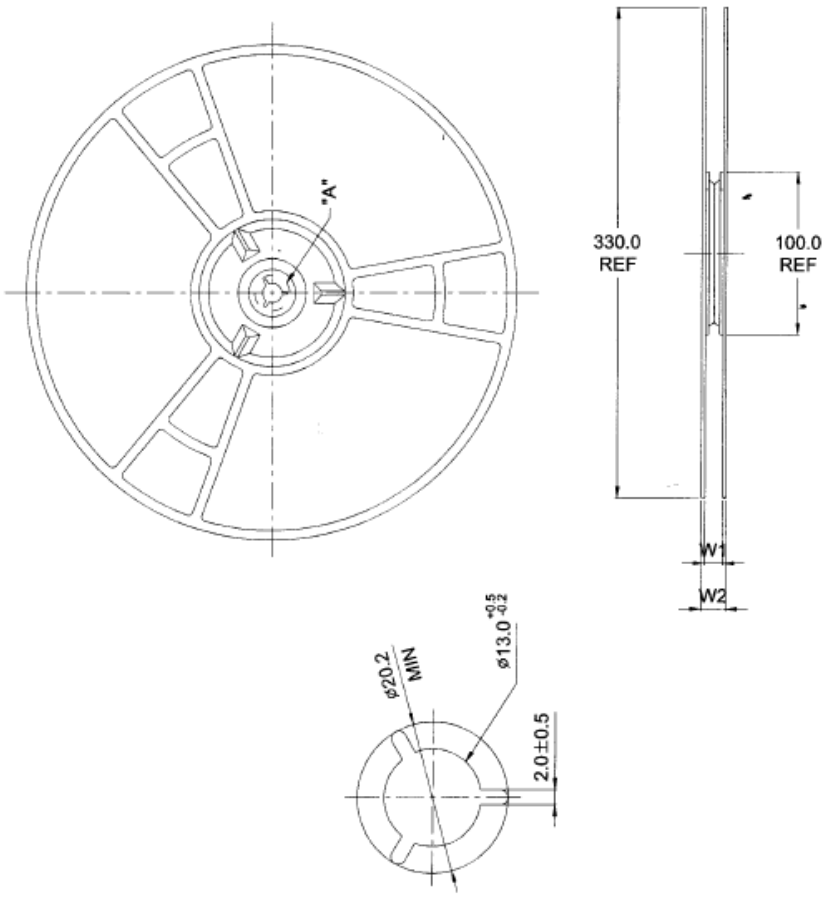
Year	2013 2009	2014 2010	2015 2011	2016 2012
Product Code	B	b	B	b

F.TEST CIRCUIT

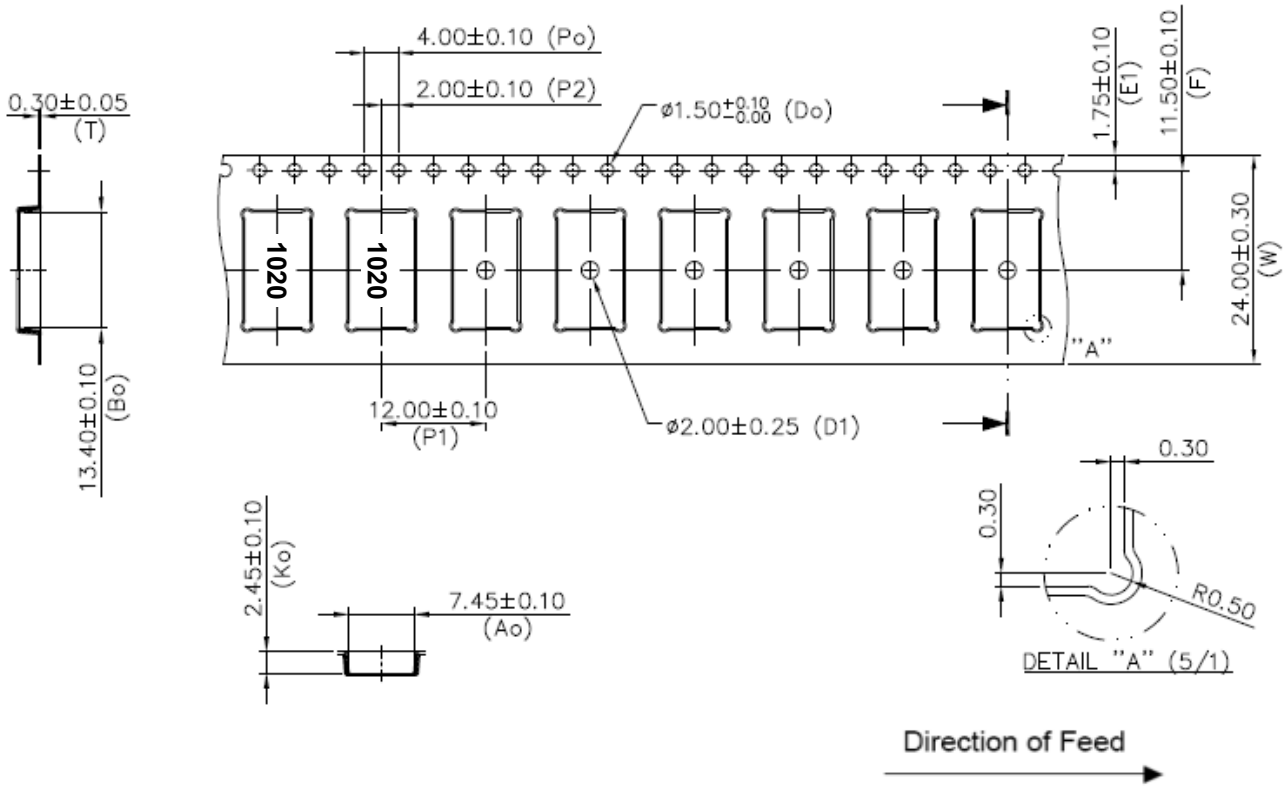


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H. <u>RECOMMENDED REFLOW PROFILE</u> :