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: 70MHz 11.77MHzBW SMD 13.3mm x 6.5 mm SAW IF Filter

TST Parts No.:TB0460B

Customer Parts No.:_____

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by: Kazuma Lee

Approval by: Andy Yu

Date: 2019/08/20

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 70MHz SMD 13.3X6.5mm

MODEL NO.: TB0460B REV.No.1

A. MAXIMUM RATING:

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

1.Operating Temperature: -40 °C ~ 80 °C
2. Storage Temperature: -55 °C ~ 85 °C
3. Input Power Level: 10dBm
4. Moisture Sensitivity Level: Level 1(**MSL1**)

B. CHARACTERISTICS:

1. Ambient Temperature: 25 °C

Characteristics		Value			Note
		Min.	Typ.	Max.	
Center frequency F_C	MHz	69.8	70	70.2	-
Minimum Insertion loss I.L.	dB	-	11.5	13.0	-
1 dB Bandwidth	MHz	-	11.77	-	-
3 dB Bandwidth	MHz	-	12.77	-	-
40 dB Bandwidth	MHz	-	16.00	18.25	-
Passband Ripple (Fc±5MHz)	dB	-	0.46	1.00	-
Group Delay Ripple (Fc±5MHz)	nsec	-	30	90	-
Triple transit suppression	dB	40	49		
Phase linearity (Fc±5MHz)	(p-p) deg	-	5	11	-
Attenuation:(Reference level from minimum insertion loss)					dB
2) Fc±15 MHz … Fc±30 MHz	dB	36	53	-	-
Temp Coefficient	ppm/° C		-94	-	-

C. FREQUENCY CHARACTERISTICS:

1. S21 Response

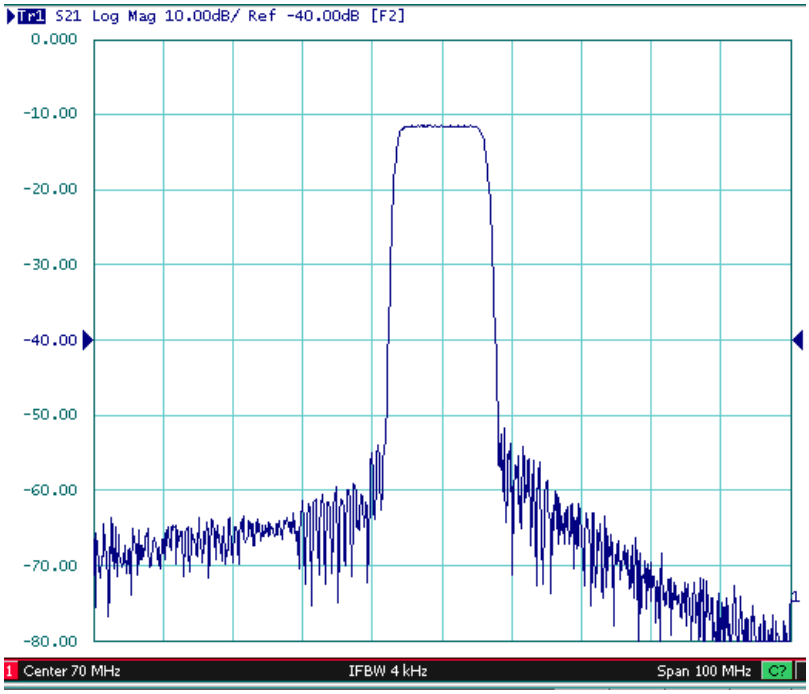


Fig.1 Horizontal : 10MHz/Div Vertical: 10dB/Div

2. Passband Ripple

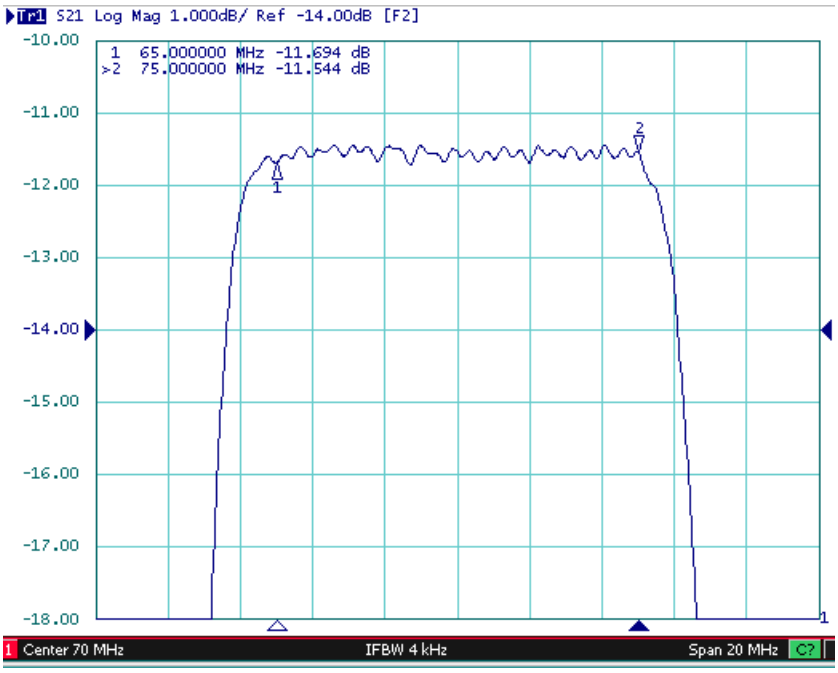


Fig.2 Horizontal : 2 MHz/Div Vertical: 1dB/Div

3. Group Delay Ripple

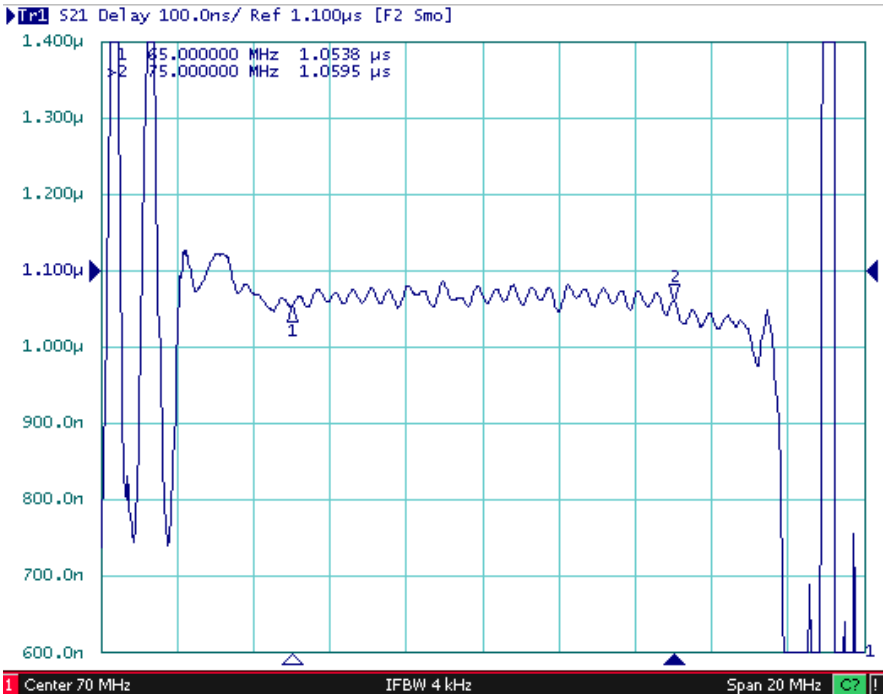


Fig.3 Horizontal : 2 MHz/Div Vertical: 100 ns/Div

4. Time domain

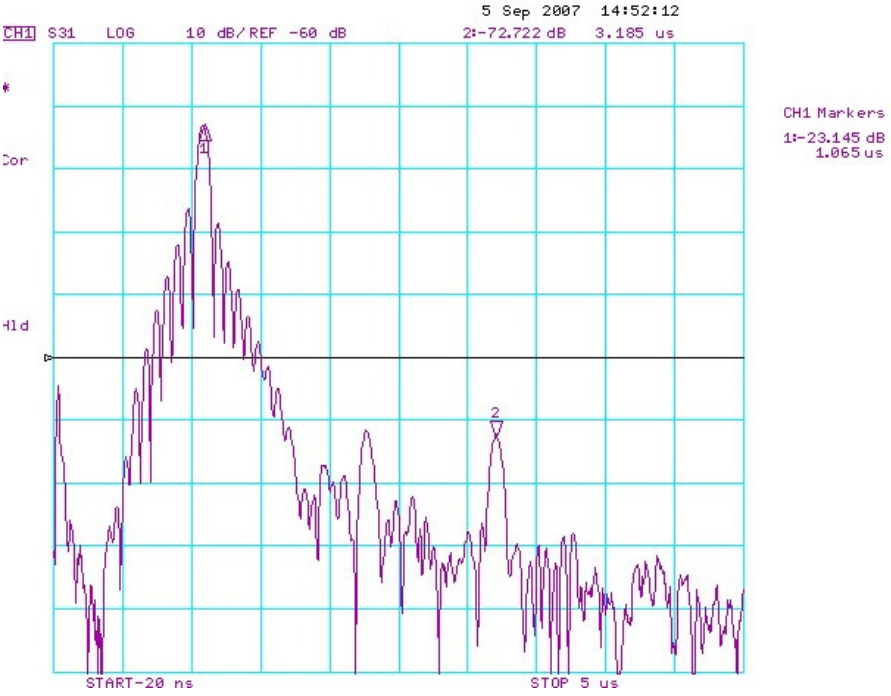
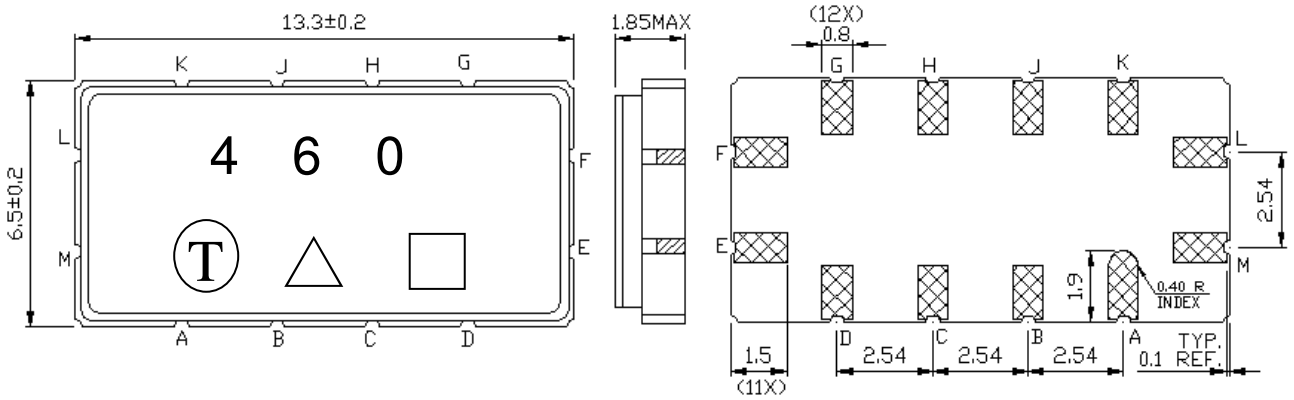


Fig.4 Horizontal : -20nS~5uS Vertical: 10 dB/Div

D. OUTLINE DRAWING:



#L: Input

#E: Output

Others: Ground

□: Week Code

Unit: mm

△: Product / Year Code: Two-year cycle

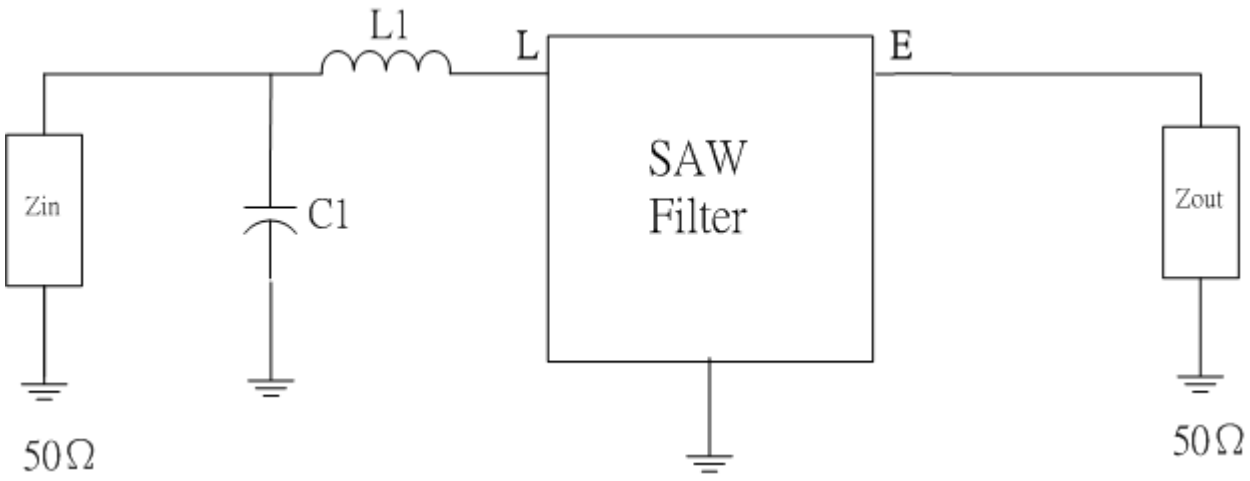
Product / Year Code - 4year cycle

Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	B	b	B	b

Week Code Table

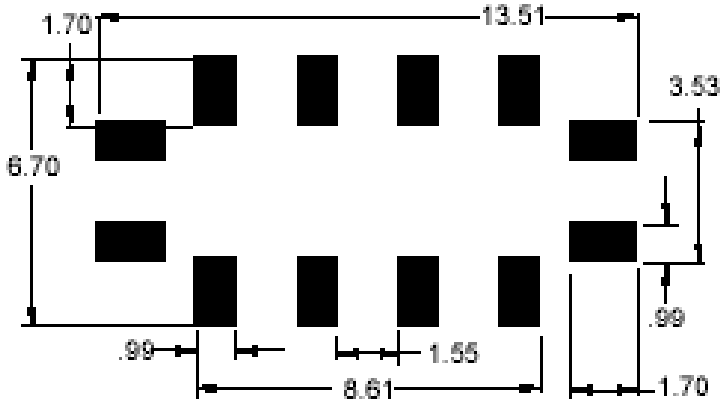
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

E. MATCHING CIRCUIT:



L1=120nH C1=68pF

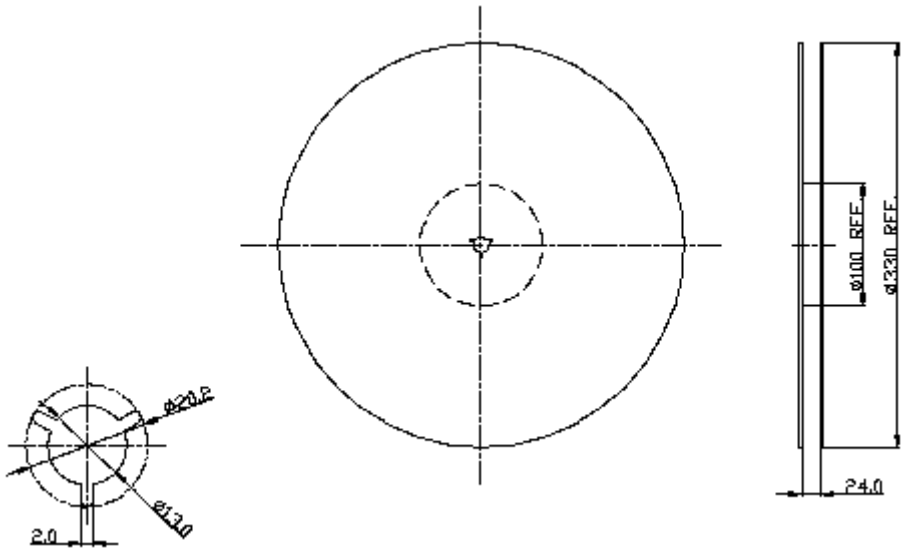
F. PCB FOOTPRINT



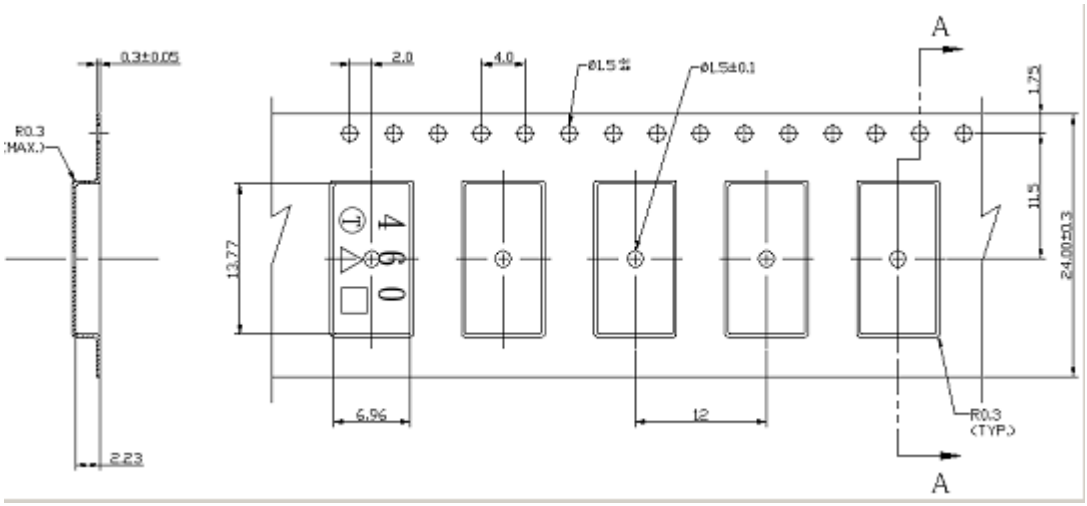
G. PACKING:

1. REEL DIMENSION

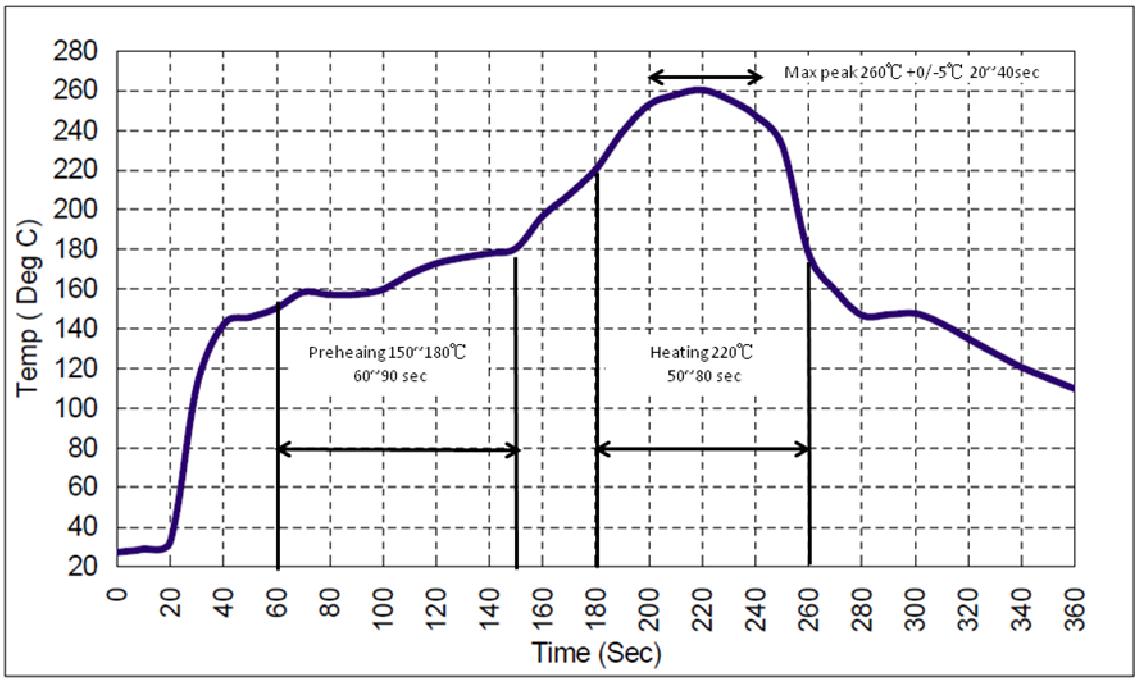
(Please refer to FR-75D10 for packing quantity and FR-75M03 for MSL)



2. TAPE DIMENSION



Direction of Feed

H. RECOMMENDED REFLOW PROFILE:

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.