

Product Specifications Approval Sheet

Product Description: 140MHz 9.3MHz BW SMD 13.3x6.5mm SAW IF Filter

TST Parts No.: TB1351A

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee *Kazuma Lee*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 09 / 16 / 2019

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 140MHz 9.3MHz BW (SMD 13.3×6.5 mm)

MODEL NO.: TB1351A

REV. NO.1

A. MAXIMUM RATING:

1. Operating temperature range: -40℃ to 85℃
2. Storage temperature range: -40℃ to 85℃
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V
5. Moisture Sensitivity Level: Level1 (MSL1)

RoHS Compliant

Lead-free soldering

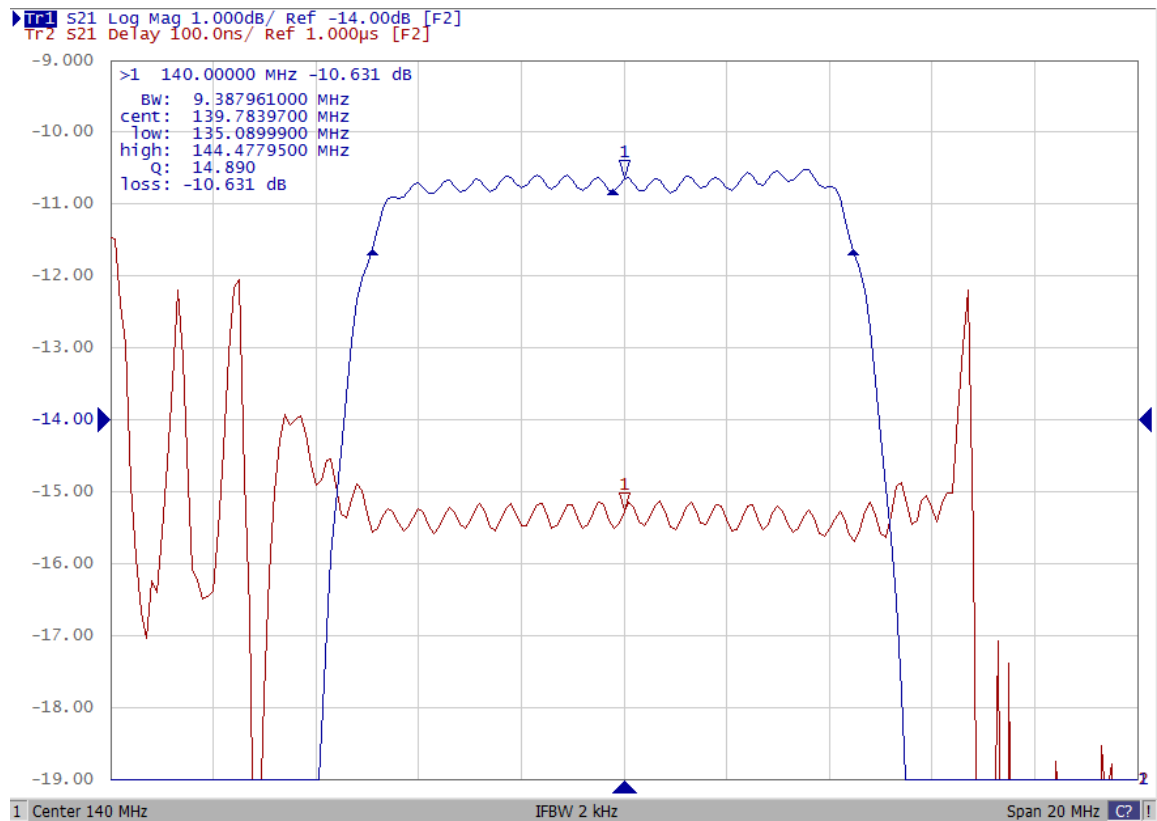
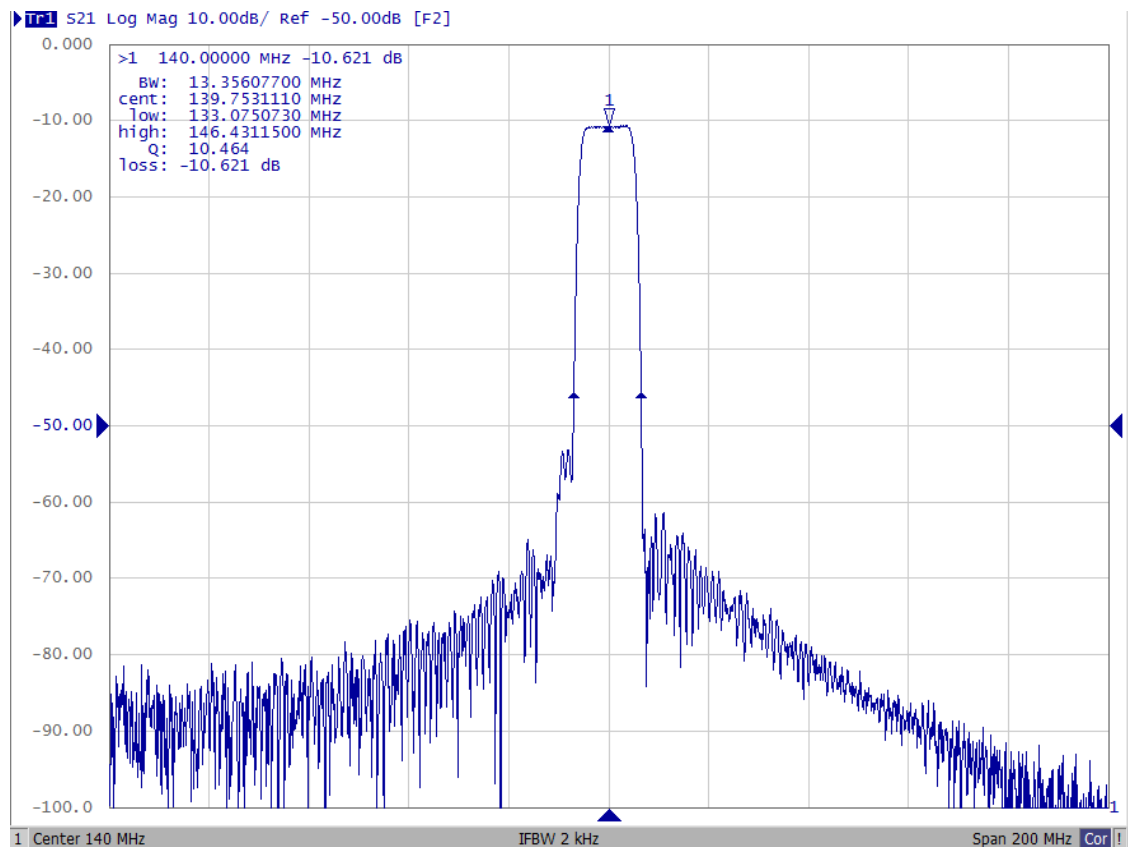
Electrostatic Sensitive Device

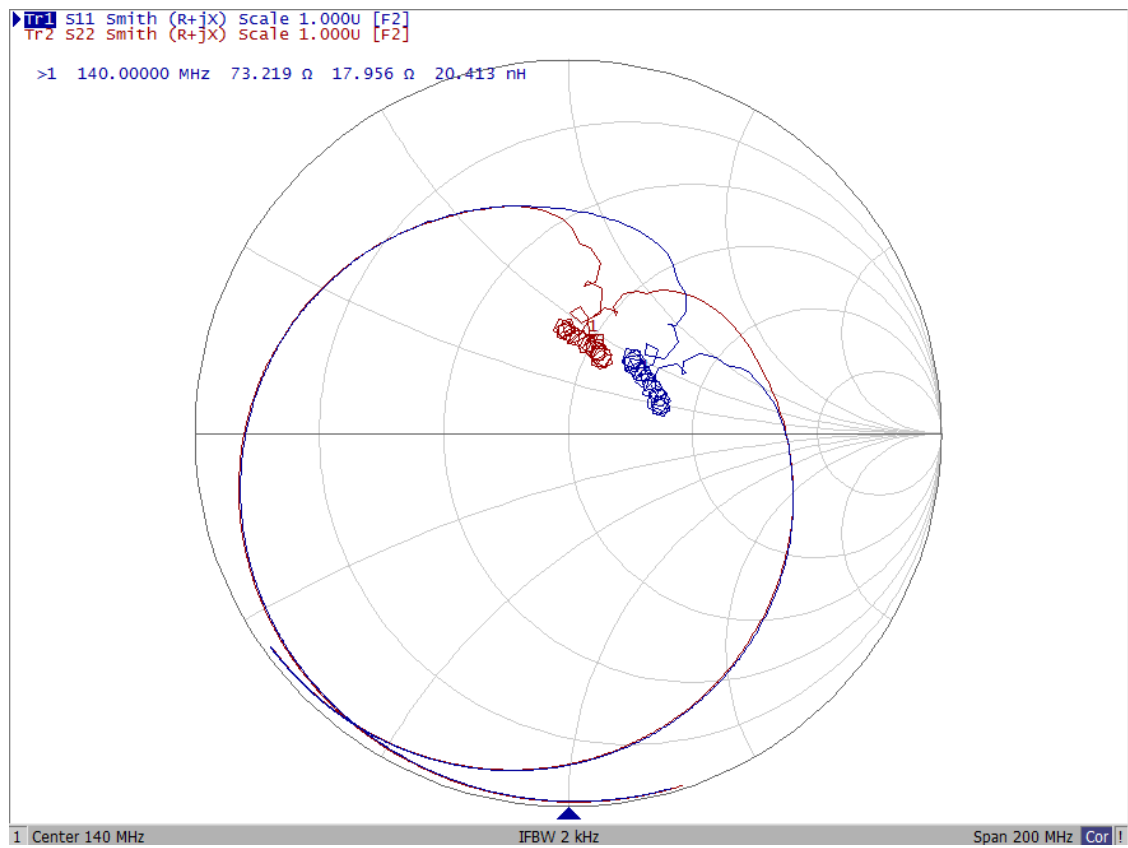
B. ELECTRICAL CHARACTERISTICS:

1. Ambient Temperature: 25 °C

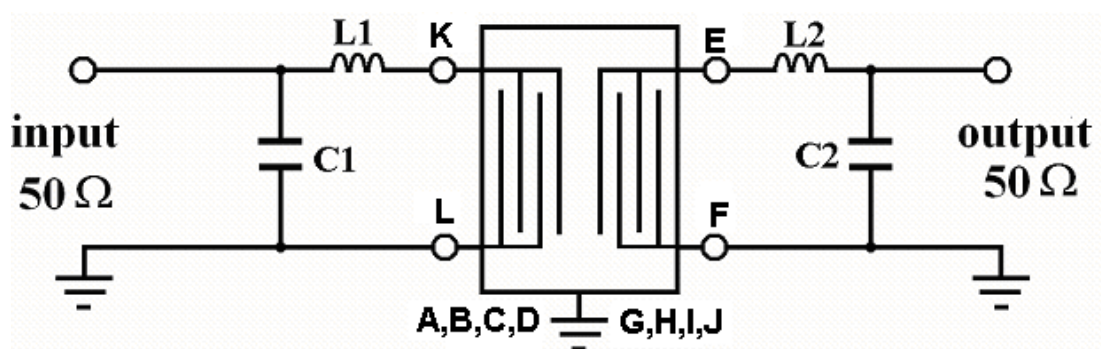
Item	Unit	Min.	Type.	Max.
Center frequency, F_c	MHz	-	140	-
Insertion Loss, IL	dB	-	10.6	12.5
1.0dB Band Width	MHz	9.1	9.4	-
1.5dB Band Width	MHz	9.3	9.8	-
3dB Band Width	MHz	10.0	10.3	-
35dB Band Width	MHz	-	13.3	14.5
Passband Ripple F _c +/- 3.6MHz	dB	-	0.4	1.0
Absolute group Delay	us	-	0.88	-
Group Delay variation F _c +/- 3.6MHz	ns	-	45	90
Temperature Coefficient	ppm/°C	-	-23	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. FREQUENCY CHARACTERISTICS:



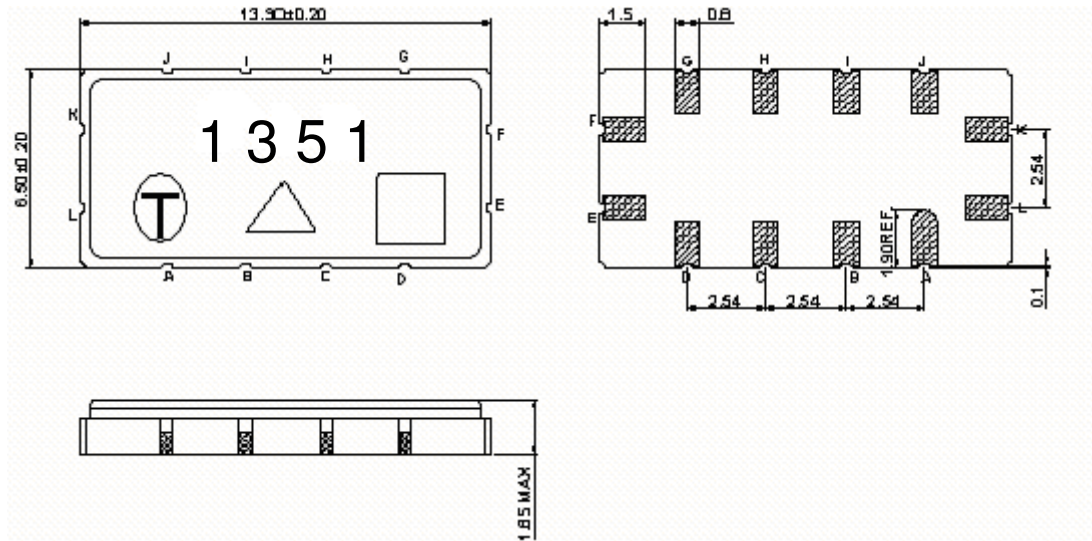


D. MATCHING CIRCUIT:



$$L1=82\text{nH} \quad L2=82\text{nH} \quad C1=33\text{pF} \quad C2=33\text{pF}$$

E. OUTLINE DRAWING:



#K: Input

#E: Output

Others: Ground

□: Week Code

△ : Product / Year Code

Unit: mm

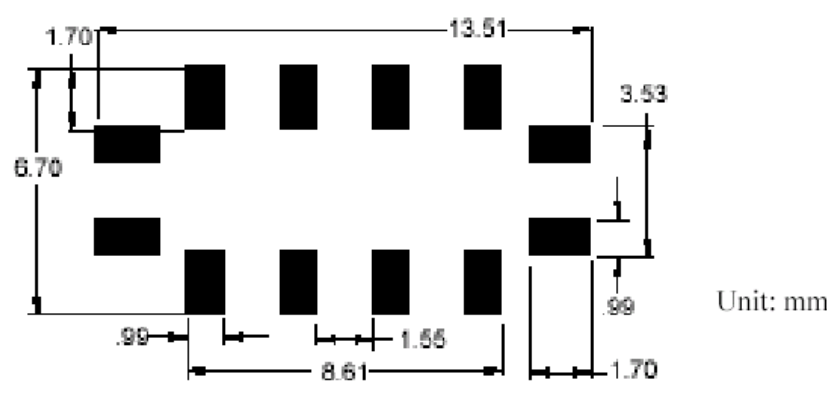
Product / Year Code

Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	B	b	<u>B</u>	<u>b</u>

Week Code Table

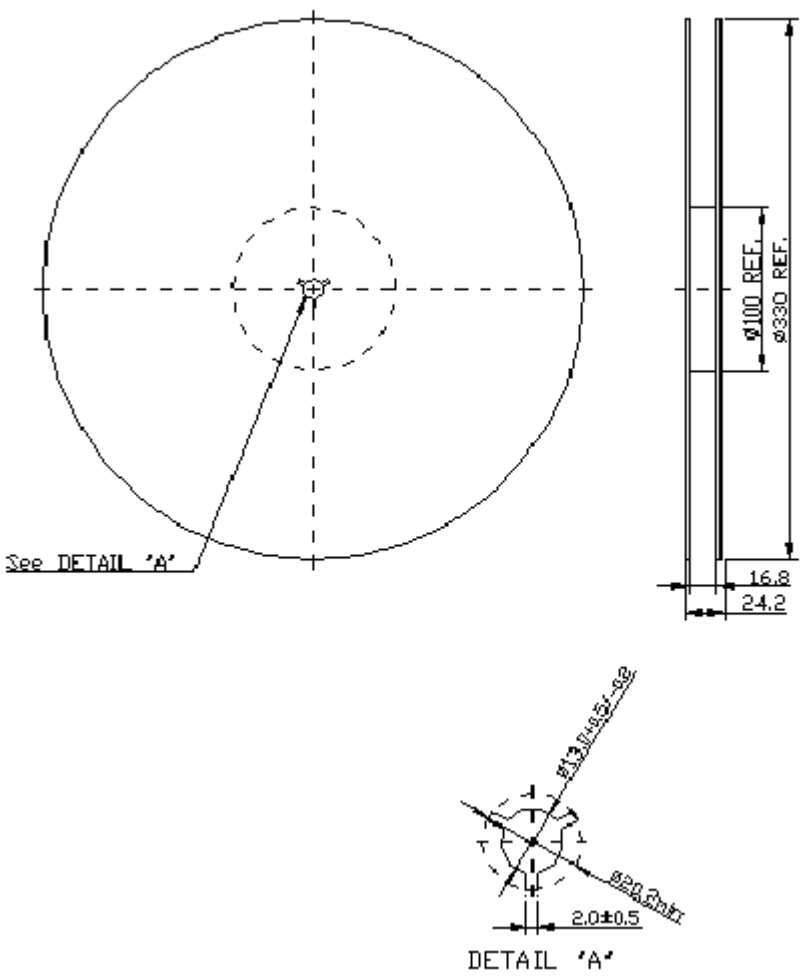
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

F. PCB FOOTPRINT:

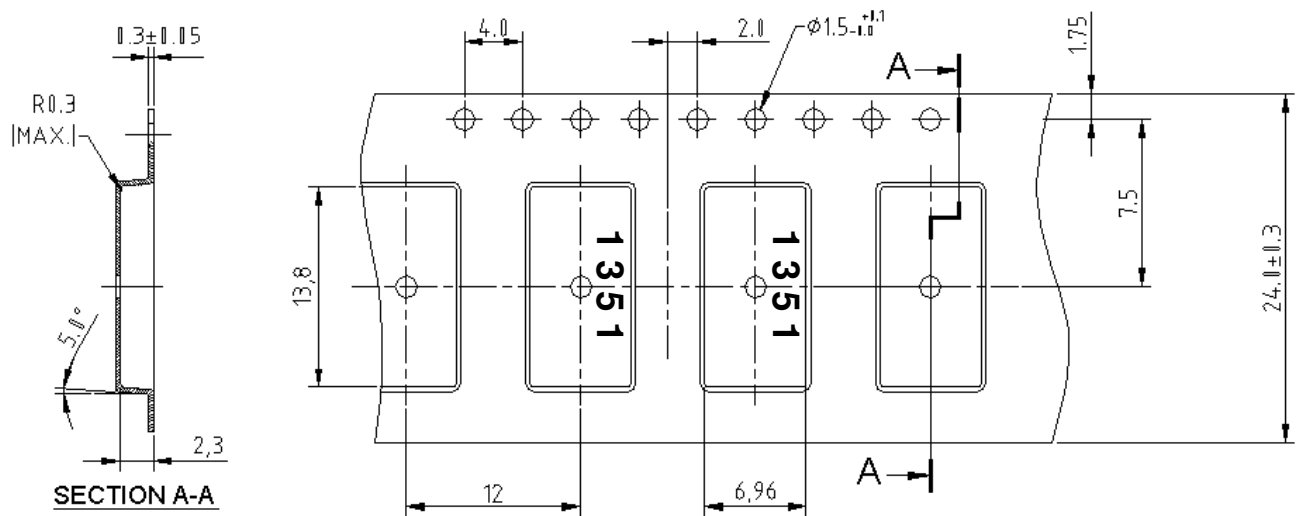


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE:

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

