



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,

Taoyuan, 324, Taiwan, R.O.C.

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Product Specifications Approval Sheet

Product Description: SAW Filter 978 MHz SMD 3.8X3.8 mm

TST Part No.: TA1381A

Customer Part No.: _____

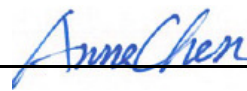
Customer signature required

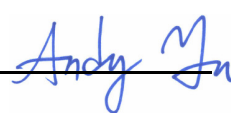
Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Anne Chen 

Approved by: _____ Andy Yu 

Date: _____ 2019/08/05

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 978 MHz

MODEL NO.:TA1381A

REV. NO.:2

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3V
3. Operating Temperature: 0°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1 (**MSL 1**)
6. ESD 100V(MM) 200V(HBM)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

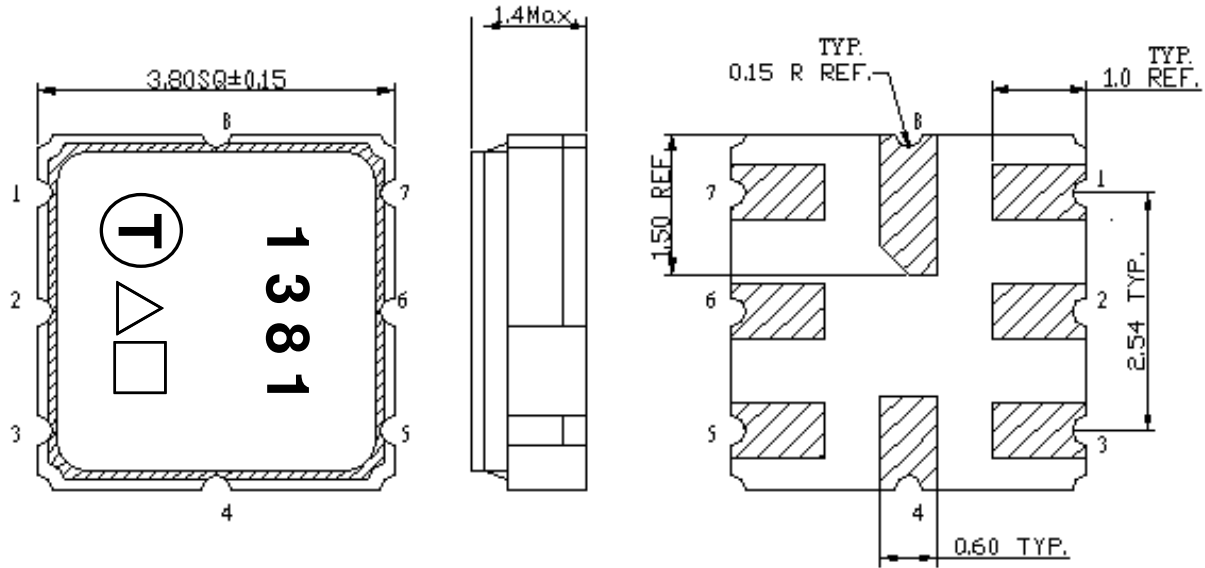
B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance (differential) : $Z_s = 50 \Omega$

Terminating load impedance (differential) : $Z_L = 50 \Omega$

Item	Unit	Min.	Typ.	Max.	Note
Center Frequency F_c	MHz	-	978	-	-
Insertion Loss (965.5 ~ 990.5 MHz)	dB	-	2.6	3.5	-
Amplitude ripple (965.5 ~ 990.5 MHz)	dB	-	0.7	1.5	-
VSWR (965.5 ~ 990.5 MHz)		-	1.8	2.3	-
Attenuation (reference level from 0 dB)					
200 ~ 600 MHz	dB	45	48	-	-
600 ~ 850 MHz	dB	40	43	-	-
850 ~ 920 MHz	dB	30	41	-	-
1040 ~ 1100 MHz	dB	30	35	-	-
1100 ~ 1250 MHz	dB	38	42	-	-
1250 ~ 1800 MHz	dB	30	34	-	-
Temperature Coefficient of Frequency	ppm/°C	-	-36	-	-

C.OUTLINE DRAWING:



△ : year code(Follow below table.)

Product Year Code

Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	A	a	A	a

1, 2 : Balanced Input

5, 6 : Balanced Output

3,4,7,8: Ground

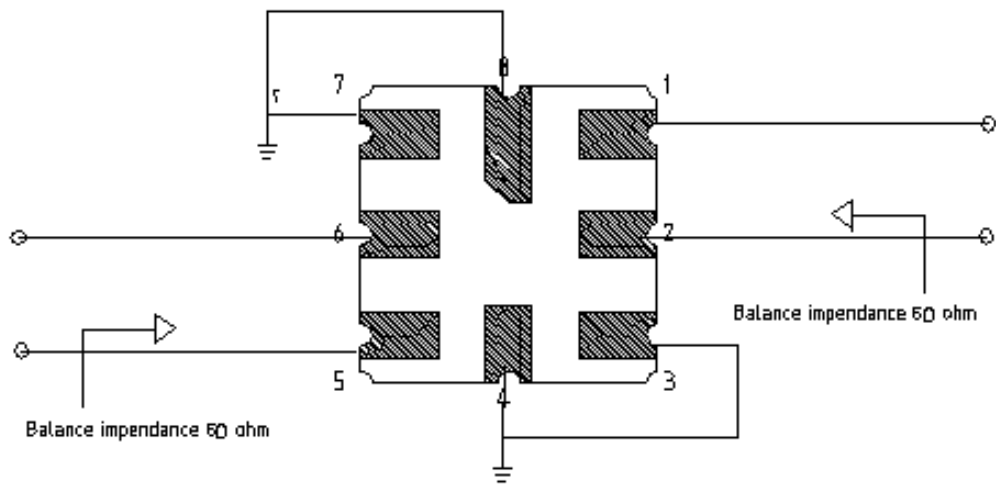
Unit: mm

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

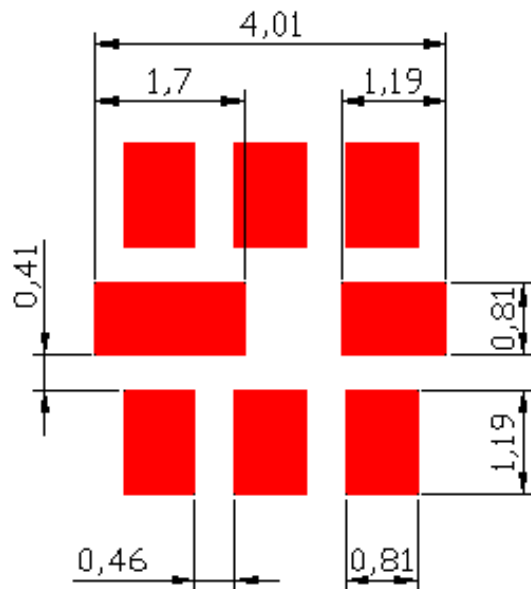
Date Code Table

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

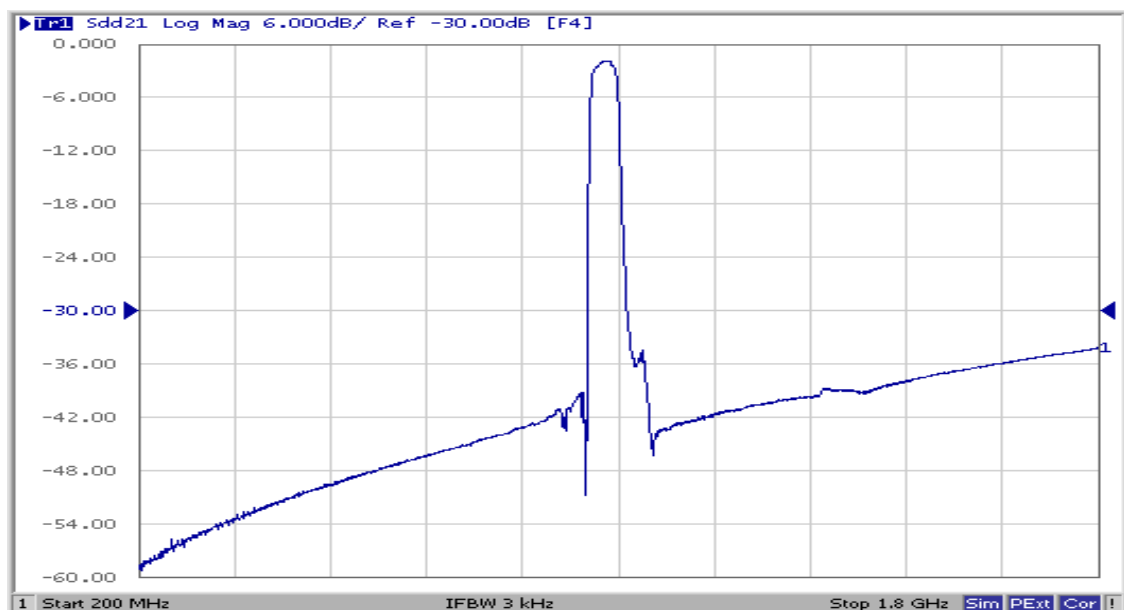
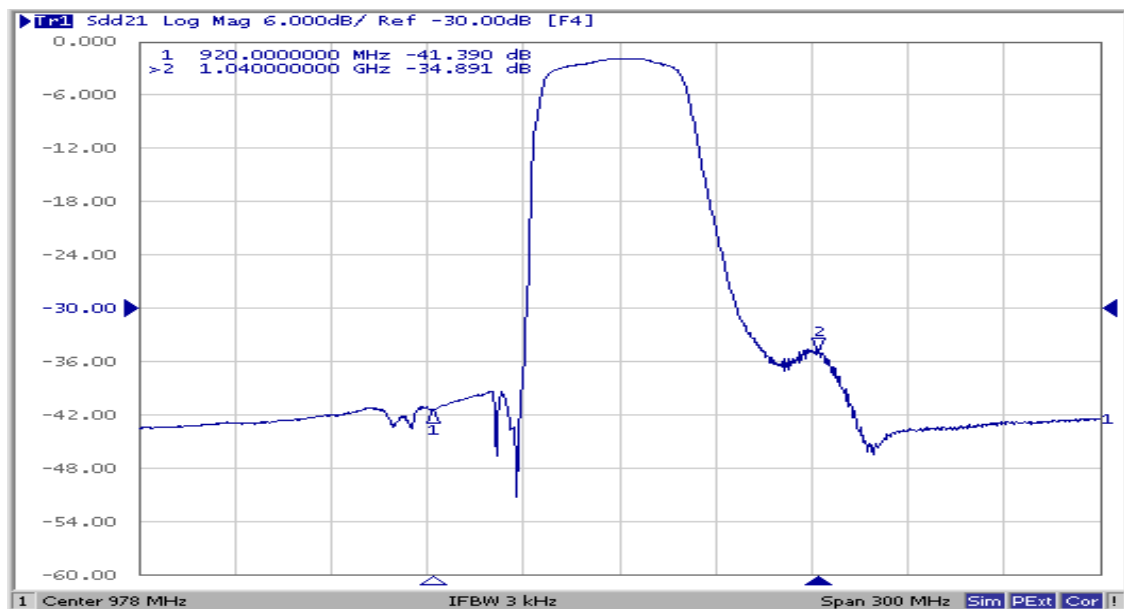
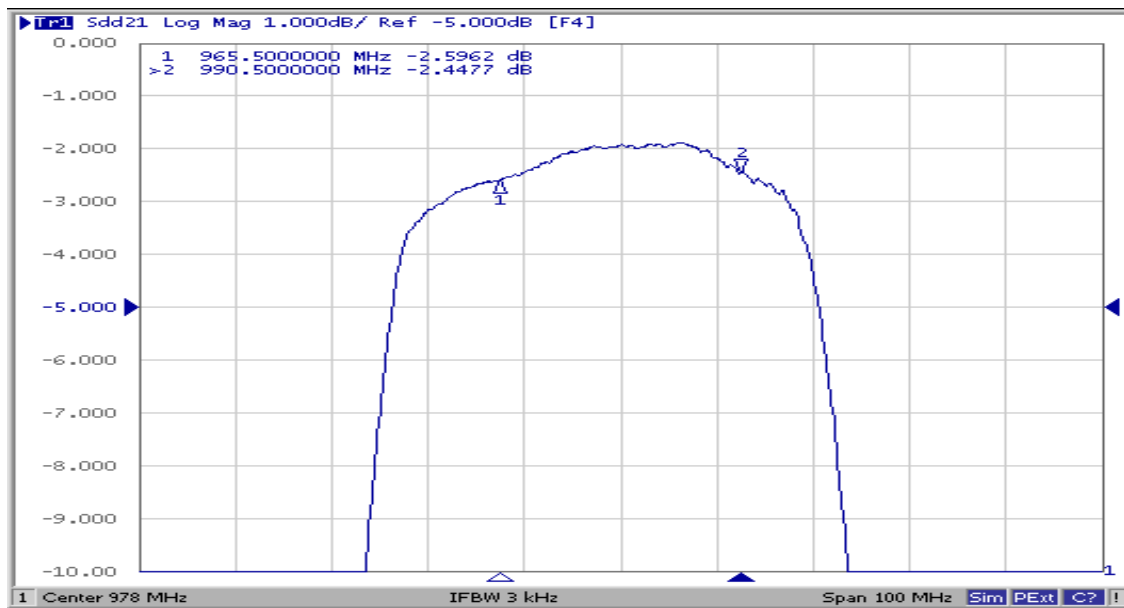
D. MEASUREMENT CIRCUIT:



E. PCB Footprint:

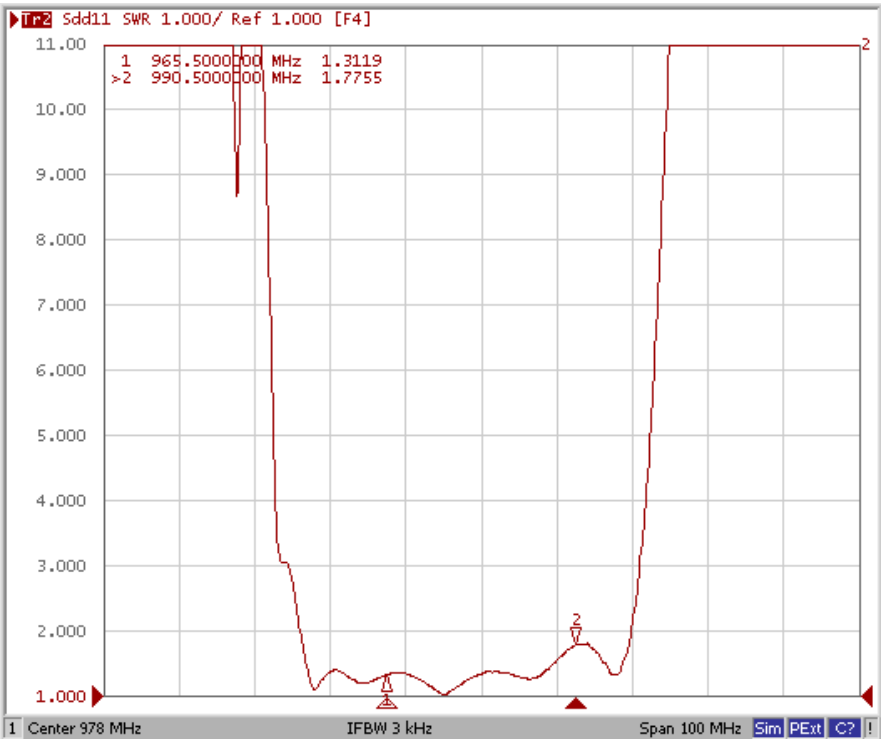


F. Frequency Characteristics :

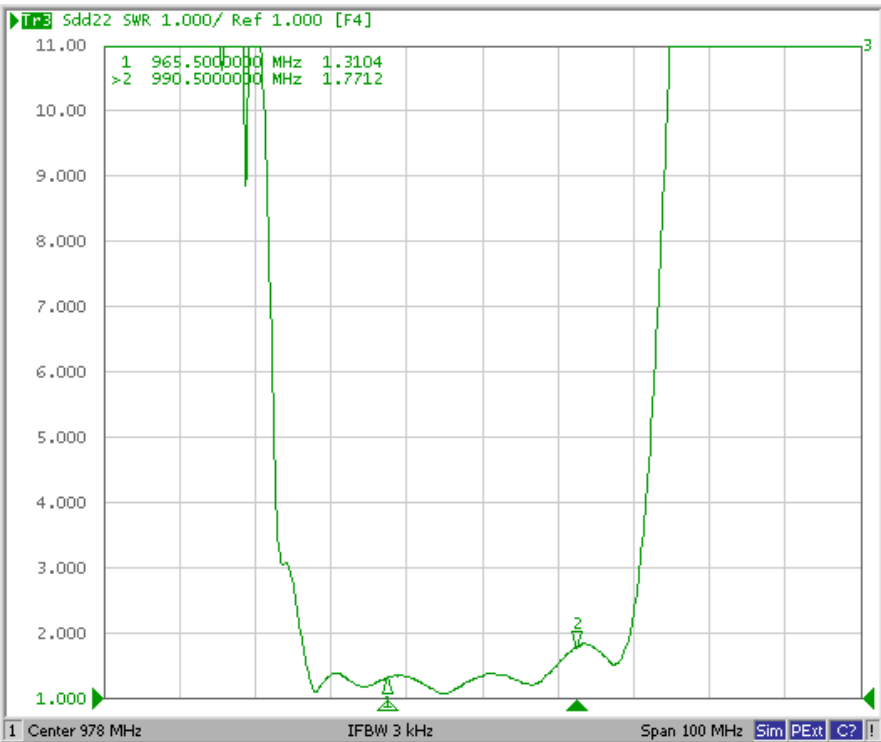


Reflection Functions :

S11



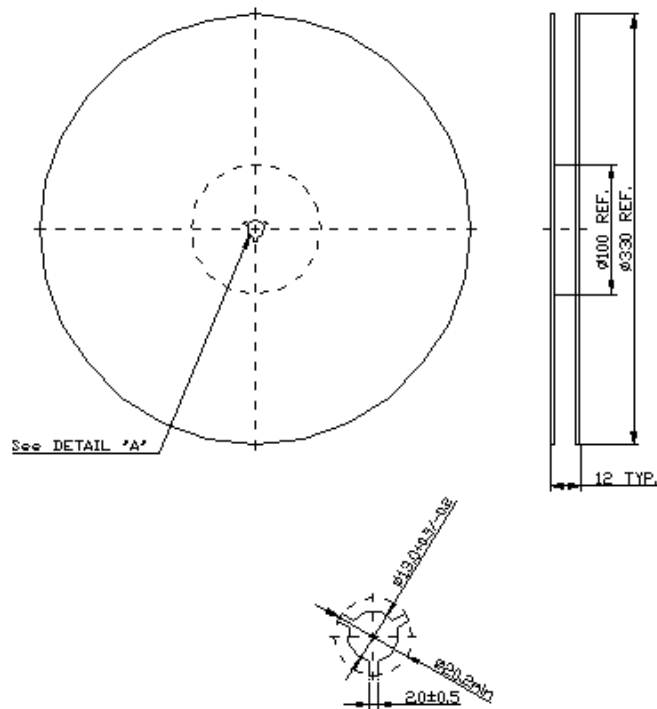
S22



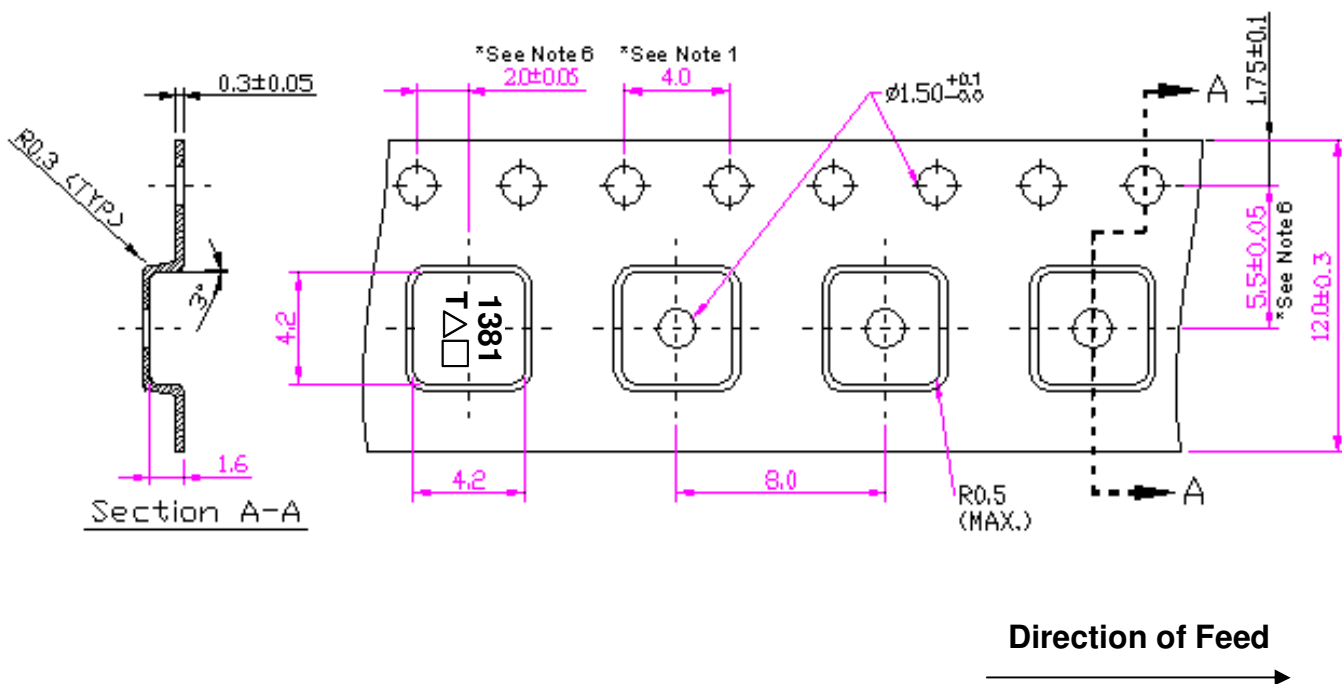
G. PACKING:

1. REEL DIMENSION

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



3. TAPE DIMENSION



H . RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180°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 245~260°C peak (min. 10sec).
4. Time : 2 times.

