



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

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Product Specifications Approval Sheet

Product Description: SAW Filter 916.45 MHz SMD 3.0×3.0 mm (BW=4 MHz)

TST Part No.: TA1727A

Customer Part No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ David Chang *David*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/12/08

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 916.45 MHz

MODEL NO.: TA1727A

REV. NO.:2

A. MAXIMUM RATING:

1. Input Power Level: 20 dB_m
2. DC voltage: 5 V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant

Lead-free soldering

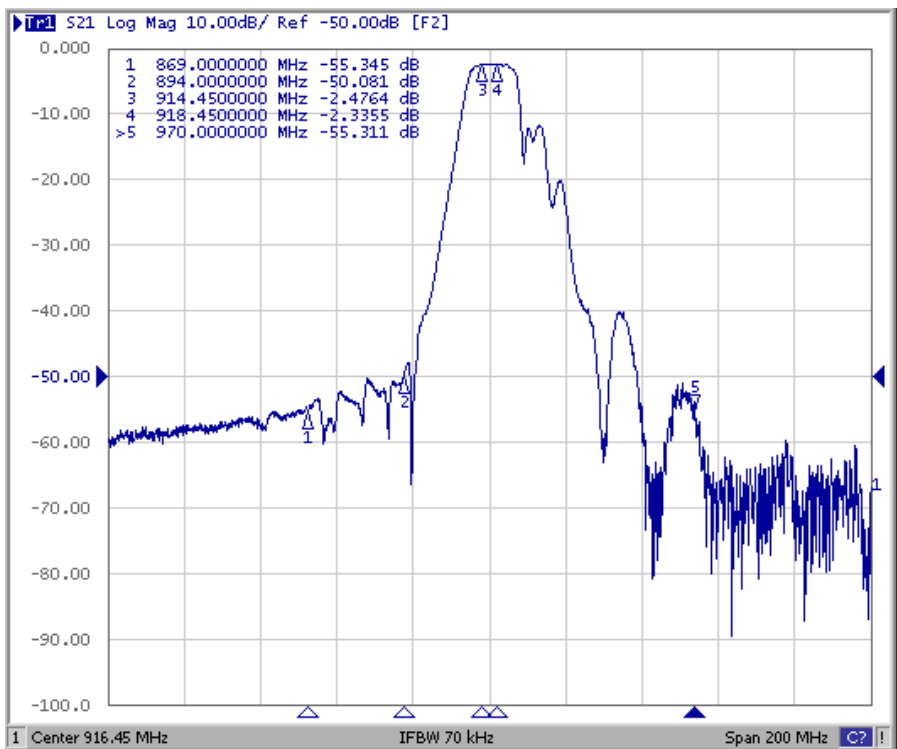
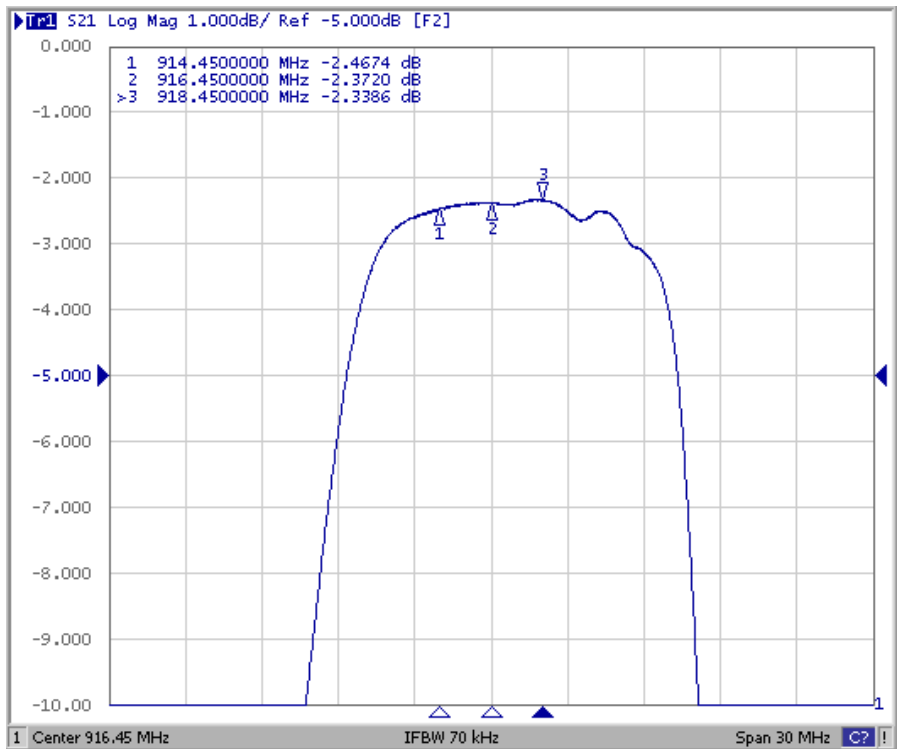
Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	916.45	-
Insertion loss 914.45 ~ 918.45 MHz IL	dB	-	2.7	3.5
Amplitude ripple 914.45 ~ 918.45 MHz	dB	-	0.3	1.0
VSWR 914.45 ~ 918.45 MHz	-	-	1.5	2.0
Absolute Attenuation				
D.C. ~ 600 MHz	dB	50	57	-
600 ~ 840 MHz	dB	40	51	-
869 ~ 894 MHz	dB	35	46	-
930 ~ 937 MHz	dB	8	13	-
970 ~ 1500 MHz	dB	40	47	-
1500 ~ 3000 MHz	dB	25	32	-
Source impedance Zs	Ω	-	50	-
Load impedance ZL	Ω	-	50	-

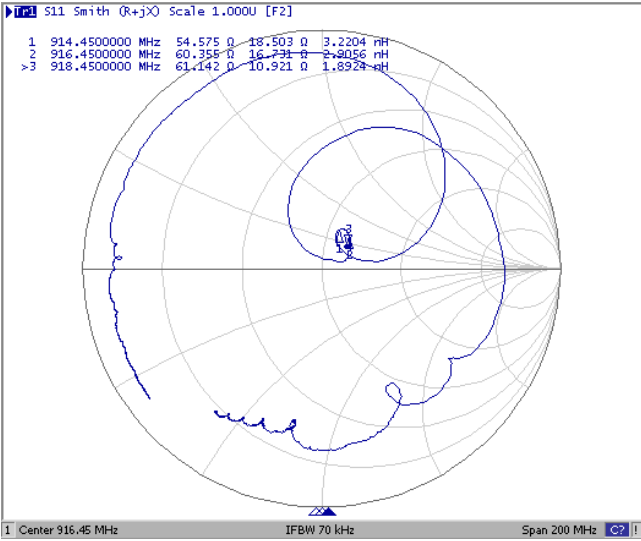
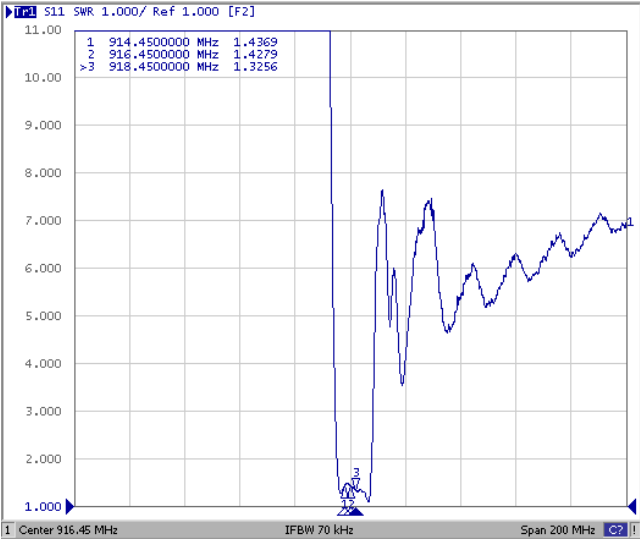
Note1. No matching network required for operation at 50 Ω

C. Frequency Characteristics:

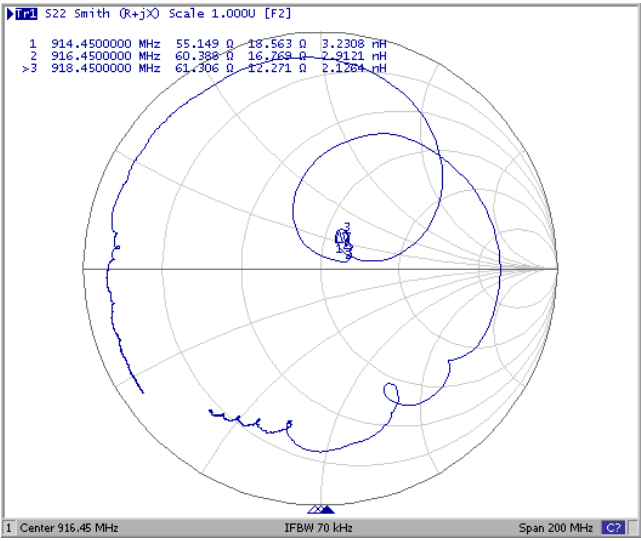
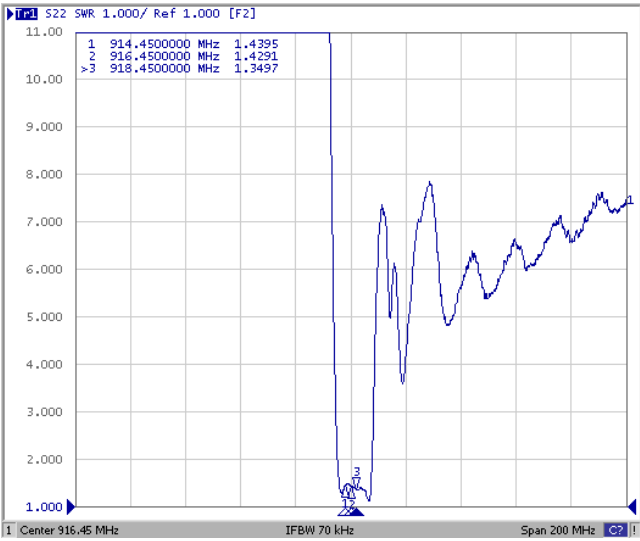


Reflections Functions:

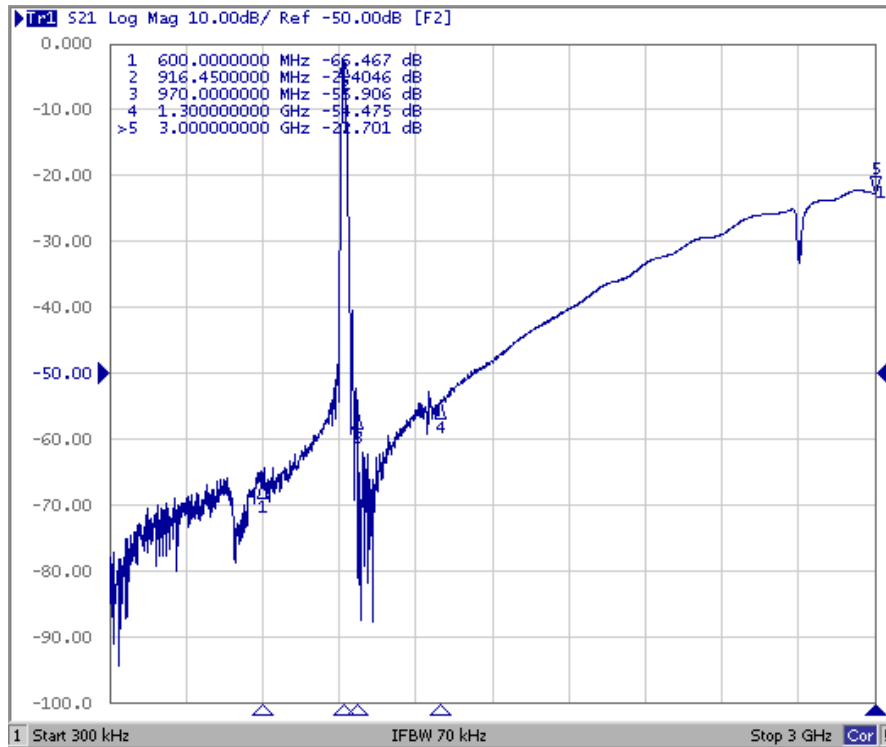
S11:



S22:

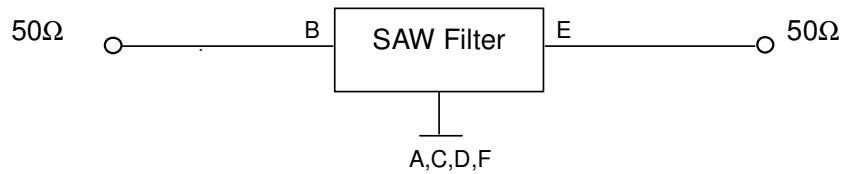


Wideband

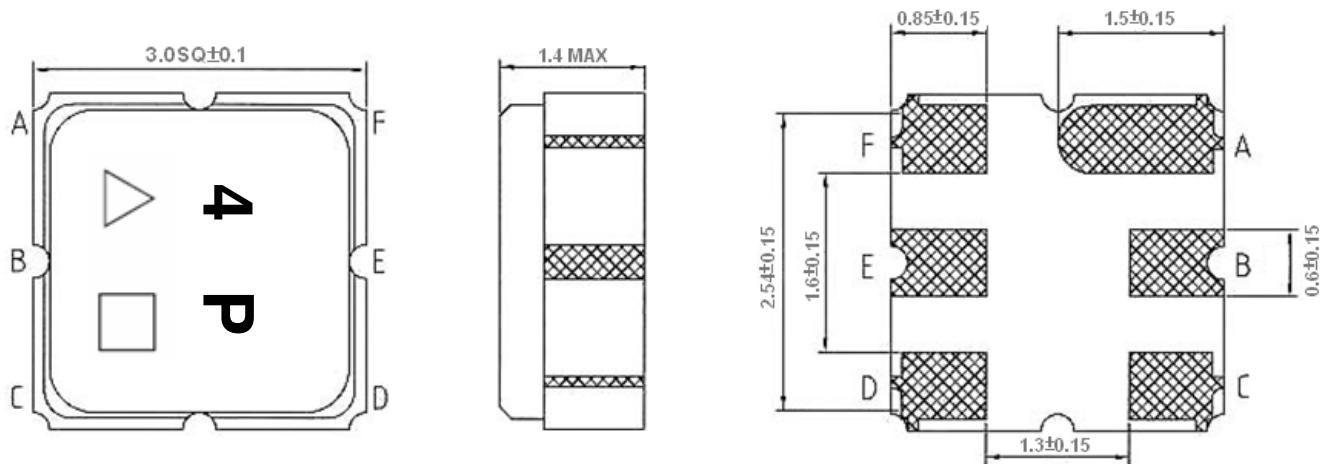


D. MEASUREMENT CIRCUIT:

HP Network analyzer



E. OUTLINE DRAWING:



B: Input

E: Output

A, C, D, F: Ground

Unit: mm

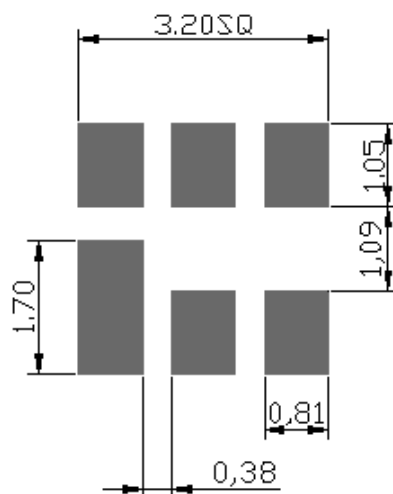
△ : Year Code (2020->0, 2021->1, ..., 2029->9, 2030->0)

□ : Date Code

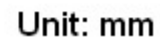
Date Code Table:

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:



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



Technical drawing of a 4P die, showing dimensions in mm.

Top View:

- Overall width: 12.0 ± 0.3
- Overall length: 1.4 ± 0.1
- Distance from left edge to first hole center: 0.3 ± 0.05
- Distance between hole centers: 2.0 ± 0.05 and 4.0 ± 0.05
- Hole diameter: $\phi 1.5 \begin{smallmatrix} +0.1 \\ -0.0 \end{smallmatrix}$
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
- Distance from bottom edge to hole center line: 5.5 ± 0.05
- Distance from left edge to first hole center: 3.35 ± 0.1
- Distance between hole centers: 8.0 ± 0.05
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
- Distance from bottom edge to hole center line: 5.5 ± 0.05
- Distance from left edge to first hole center: 3.35 ± 0.1
- Distance between hole centers: 8.0 ± 0.05
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
- Distance from bottom edge to hole center line: 5.5 ± 0.05

Side View (SECTION A-A):

- Overall width: 12.0 ± 0.3
- Overall length: 1.4 ± 0.1
- Distance from left edge to first hole center: 0.3 ± 0.05
- Distance between hole centers: 2.0 ± 0.05 and 4.0 ± 0.05
- Hole diameter: $\phi 1.5 \begin{smallmatrix} +0.1 \\ -0.0 \end{smallmatrix}$
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
- Distance from bottom edge to hole center line: 5.5 ± 0.05
- Distance from left edge to first hole center: 3.35 ± 0.1
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- Distance between hole centers: 8.0 ± 0.05
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
- Distance from bottom edge to hole center line: 5.5 ± 0.05

Cross-sectional View (SECTION B-B):

- Overall width: 12.0 ± 0.3
- Overall length: 1.4 ± 0.1
- Distance from left edge to first hole center: 0.3 ± 0.05
- Distance between hole centers: 2.0 ± 0.05 and 4.0 ± 0.05
- Hole diameter: $\phi 1.5 \begin{smallmatrix} +0.1 \\ -0.0 \end{smallmatrix}$
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
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- Distance from right edge to last hole center: 1.75
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- Distance from bottom edge to hole center line: 5.5 ± 0.05

Dimensions:

- Overall width: 12.0 ± 0.3
- Overall length: 1.4 ± 0.1
- Distance from left edge to first hole center: 0.3 ± 0.05
- Distance between hole centers: 2.0 ± 0.05 and 4.0 ± 0.05
- Hole diameter: $\phi 1.5 \begin{smallmatrix} +0.1 \\ -0.0 \end{smallmatrix}$
- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
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- Distance from right edge to last hole center: 1.75
- Distance from top edge to hole center line: 3.35 ± 0.1
- Distance from bottom edge to hole center line: 5.5 ± 0.05

Direction of Feed:

Direction of Feed

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 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

