



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Description: 868.6MHz 1.2MHzBW SMD 3.0x3.0 mm SAW RF Filter

TST Parts No.:TA2315A (This part is compliance with AEC-Q200)

Customer Parts No.: _____

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Kazuma Lee *Kazuma Lee*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 04 / 12 / 2018

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 868.6 MHz

MODEL NO.:TA2315A

REV. NO : 1.0

A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC Voltage : 6V
3. Operating Temperature: -45°C to +125°C
4. Storage Temperature: -45°C to +125°C
5. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. ELECTRICAL CHARACTERISTICS:

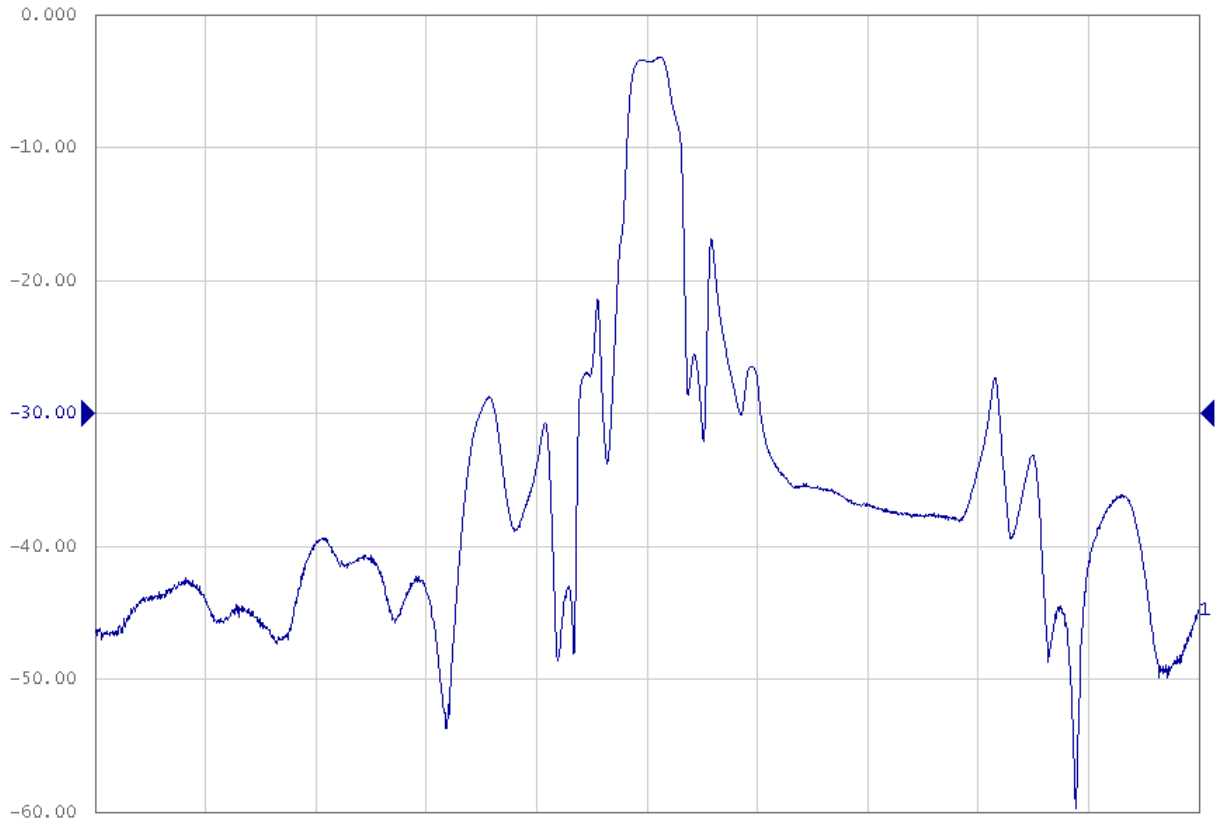
Temperature Range for Specification: -40°C to +95°C

Ambient Temperature: 25°C

Item	Unit	Min.	Typ.	Max.	
Center frequency Fc	MHz	-	868.6	-	
3dB BW	MHz	-	1.85	-	
Minimum insertion loss IL(min)					
Exclude loss in matching elements	dB	-	2.9	3.4	
Incl. loss of matching elements	dB	-	3.2	3.7	
Passband (relative to IL _{min}) 868 ~ 869.2 MHz	dB	-	1.0	3.0	
Attenuation (relative to IL _{min})					
10.000 ~ 820.00	MHz	dB	44	46	-
820.00 ~ 859.00	MHz	dB	32	36	-
859.00 ~ 866.60	MHz	dB	15	19	-
866.60 ~ 867.20	MHz	dB	8	19	-
870.40 ~ 871.40	MHz	dB	10	14	-
871.40 ~ 875.00	MHz	dB	12	14	-
875.00 ~ 890.00	MHz	dB	20	24	-
890.00 ~ 950.00	MHz	dB	30	33	-
950.00 ~ 1500.0	MHz	dB	45	48	-
1500.0 ~ 2500.0	MHz	dB	48	60	-
Impedance at Fc, Input Zin = Rin//Cin	Zs	Ω	210Ω//2.9pF		
Impedance at Fc, Output Zout = Rout//Cout	ZL	Ω	330Ω//2.3pF		

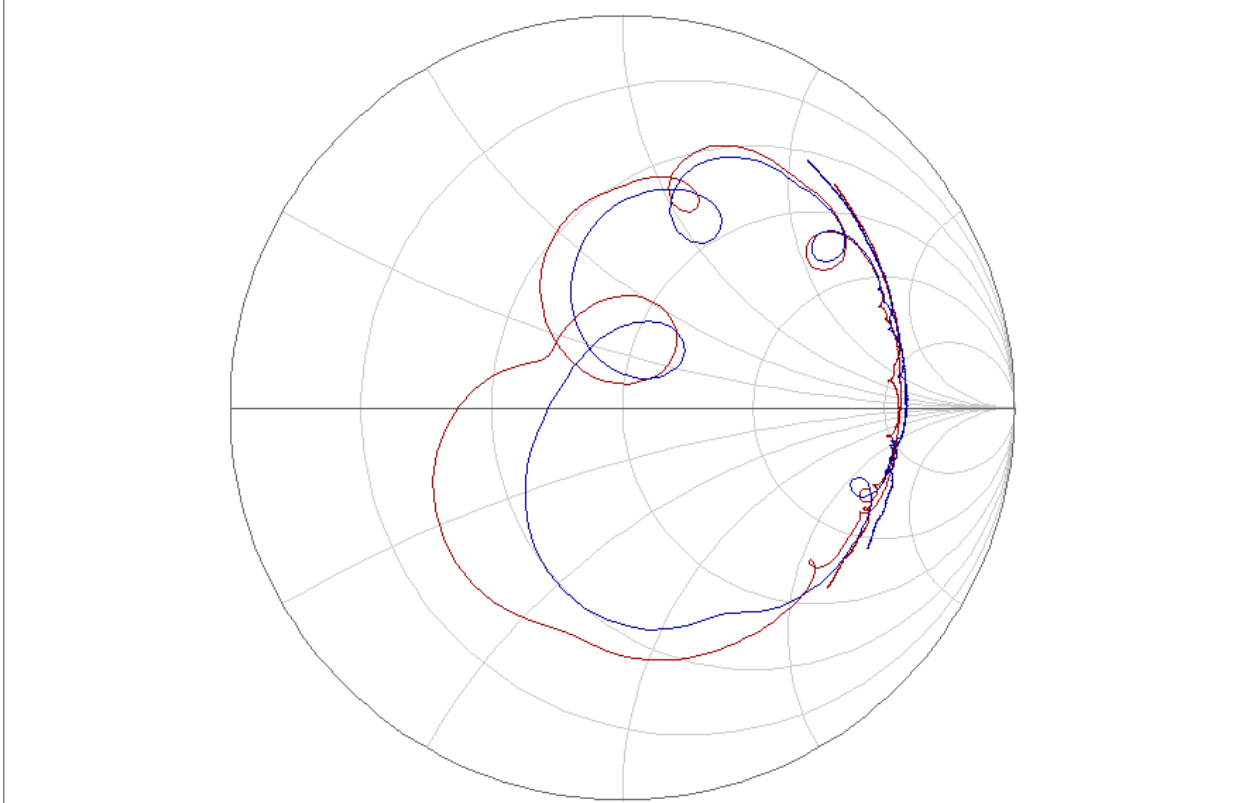
C. FREQUENCY CHARACTERISTICS:

▶ **TP1** S21 Log Mag 10.00dB/ Ref -30.00dB [F2]

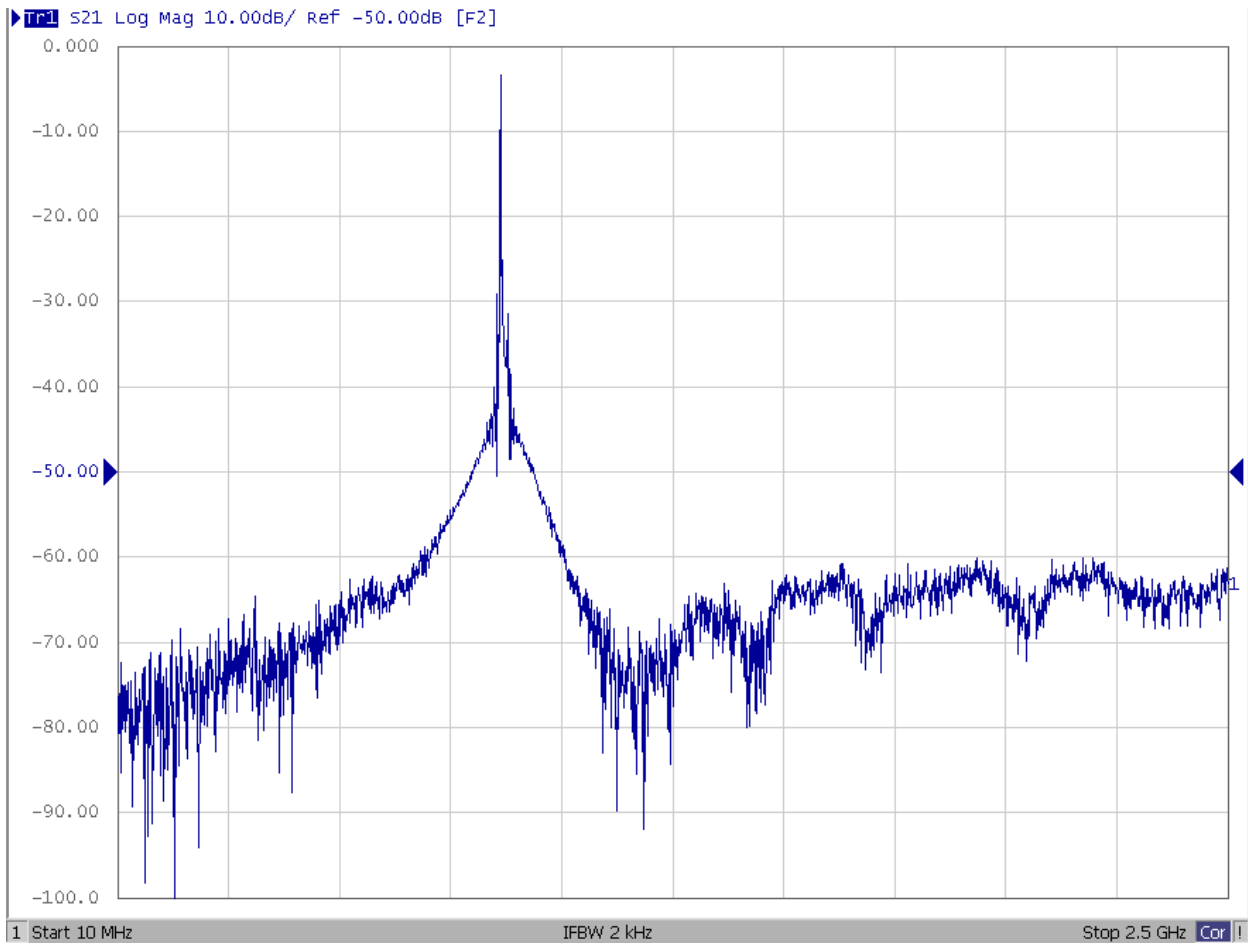


1 Center 868.6 MHz IFBW 2 kHz Span 50 MHz

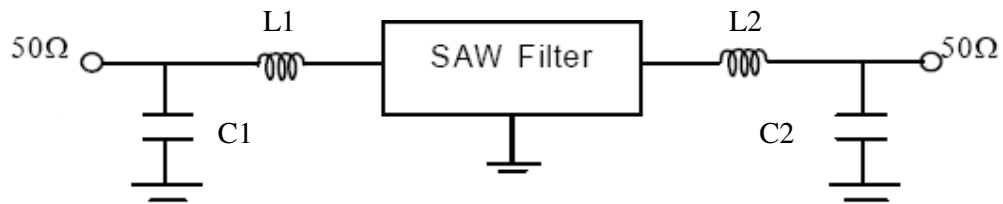
▶ **TP1** S11 Smith (R+jX) scale 1.000U [F2]
▶ **TP2** S22 Smith (R+jX) scale 1.000U [F2]



1 Center 868.6 MHz IFBW 2 kHz Span 50 MHz

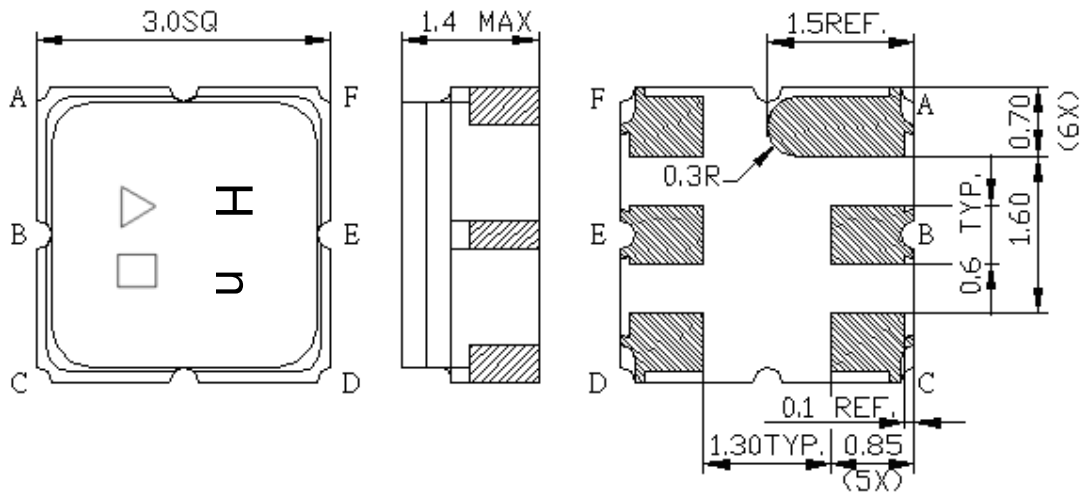


D. MEASUREMENT CIRCUIT:



L1=15H L2=18H C1=5.0pF C2=5.0pF

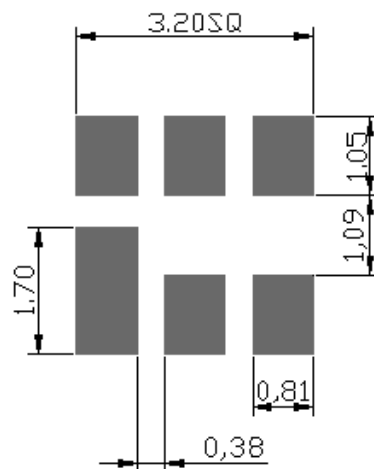
E.OUTLINE DRAWING:



A: Input Ground or Input
 B: Input or Input Ground
 D: Output or Output ground
 E: Output ground or Output
 C, F: Ground
 \triangle : Year code: 1 for 2011, 2 for 2012...0 for 2020...
 \square : Date code:
 Unit: mm

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

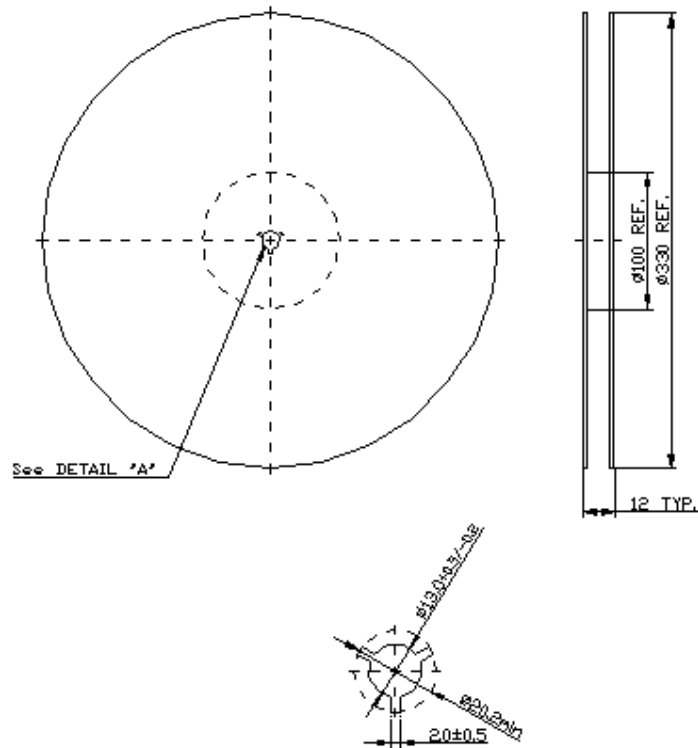
F. PCB FOOTPRINT:



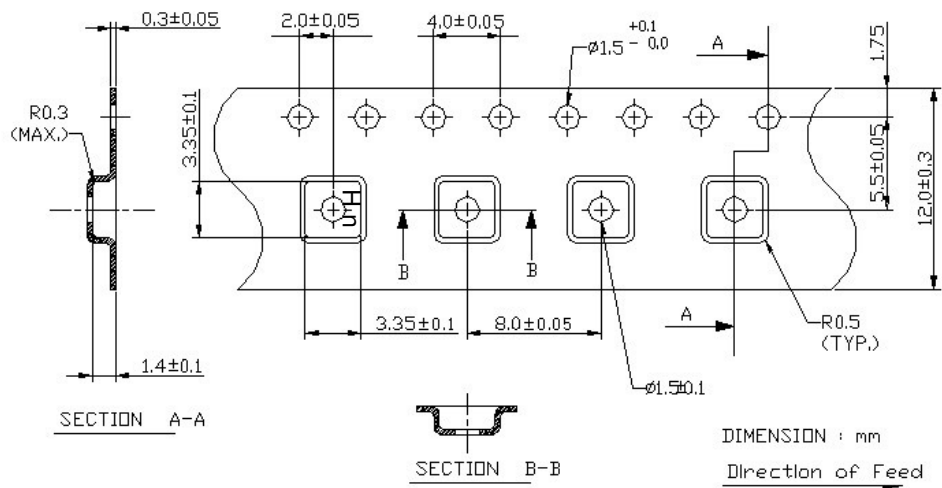
G. PACKING:

1. REEL DIMENSION

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



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

