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 Name: SAW Filter 434.42 MHz (BW 1.07MHz) SMD 3X3 mm

TST Parts No.: TA1789A (This part is is compliant with AEC-Q200)

Customer Parts No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Michael Yang _____

Approval by:_____ Andy Yu _____

Date:_____ 2018/01/08 _____

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 434.42MHz

MODEL NO.:TA1789A REV. NO.:2.0

A. MAXIMUM RATING:

1. Input Power Level: 13 dBm
2. DC Voltage : 0V
3. Operating Temperature: -40°C to +105°C
4. Storage Temperature: -40°C to +105°C
5. Moisture Sensitive Level (MSL): Level 1

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance (single) : Zs = 50 Ω

Terminating load impedance(single) : Z_L = 50 Ω

Item	Unit	Min	Type.	Max
Center Frequency Fc	MHz	-	434.42	-
Minimum Insertion Loss α_{min}				
Incl. Loss in matching elements (433.885 ~ 434.955 MHz)	dB		2.2	2.9
Excl. Loss in matching elements (433.585 ~ 434.955 MHz)	dB		1.4	2.1
Pass Band (Relative to α_{min})				
433.885 ~ 434.955 MHz [1]			1.1	2.5
433.87 ~ 434.97 MHz [2]			1.3	3.0
Relative Attenuation (Relative to α_{min}) α_{rel}				
10 ~ 350 MHz	dB	50	55	
350 ~ 414 MHz	dB	30	35	
414 ~ 425 MHz	dB	30	35	
425 ~ 432.72 MHz	dB	13	17	
436.42 ~ 437.3 MHz	dB	13	17	
437.3 ~ 438 MHz	dB	22	27	
438 ~ 446 MHz	dB	25	30	
446 ~ 455 MHz	dB	25	30	
455 ~ 480 MHz	dB	28	33	
480 ~ 800 MHz	dB	40	45	
800 ~ 1700 MHz	dB	52	57	
1700 ~ 2500 MHz	dB	42	47	
Package size	mm	SMD 3x3		

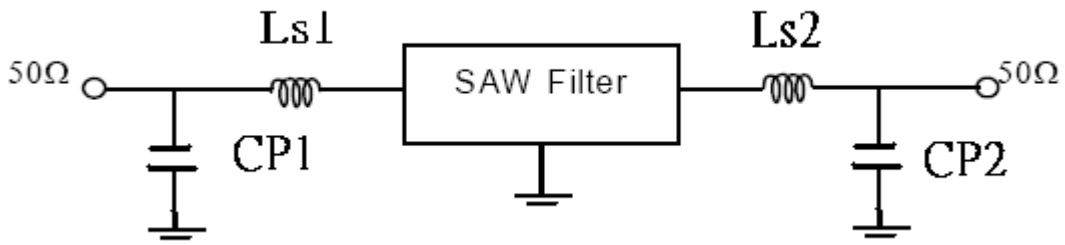
TST DCC
Release document

Impedance for pass band matching**)**				
Input: ZIN = Ls1/Cp1	nH		82/8.2	
Output: ZOUT = Ls2/Cp2	nH		68/1	

1) 433.885 ... 434.90 MHz for extended temperature range –40 °C to +125 °C.
2) 433.870 ... 434.915 MHz for extended temperature range –40 °C to +125 °C.

C.. TEST CIRCUIT:

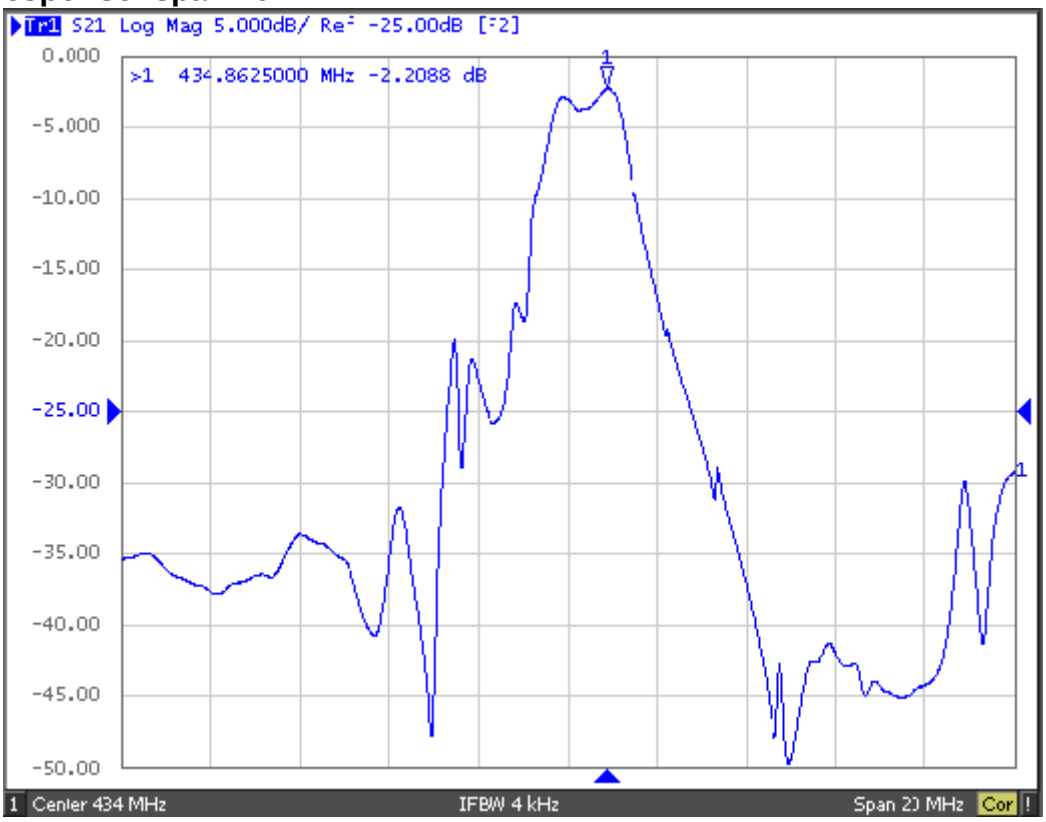
The matching circuit is



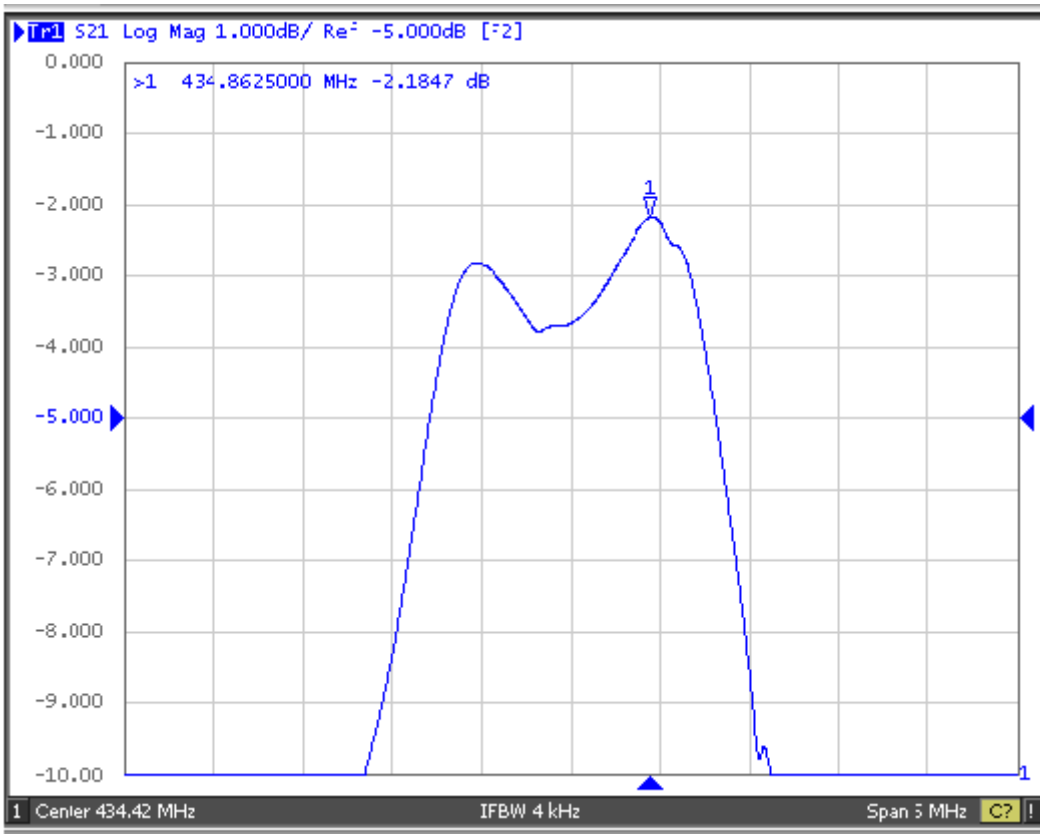
Ls1=82nH；Ls2=68nH;Cp1=8.2 pF；Cp2=1pF

D. Frequency Characteristics:

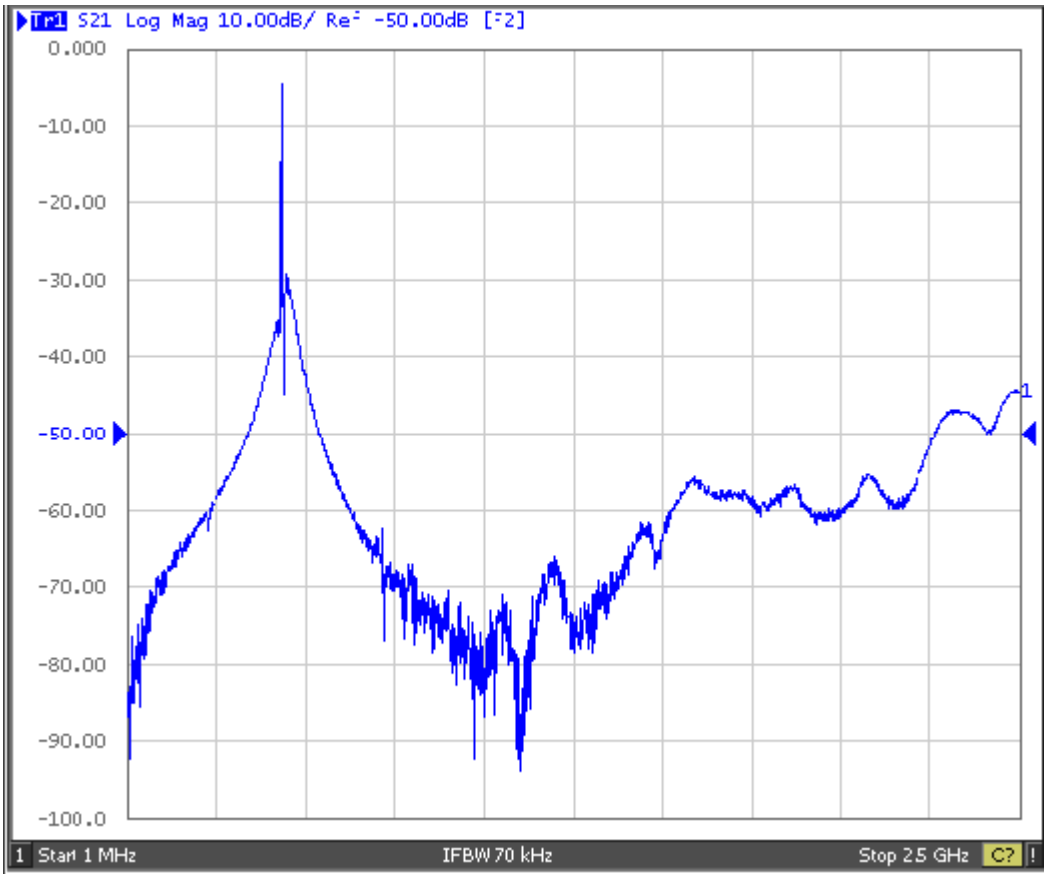
S21 response: span 20MHz



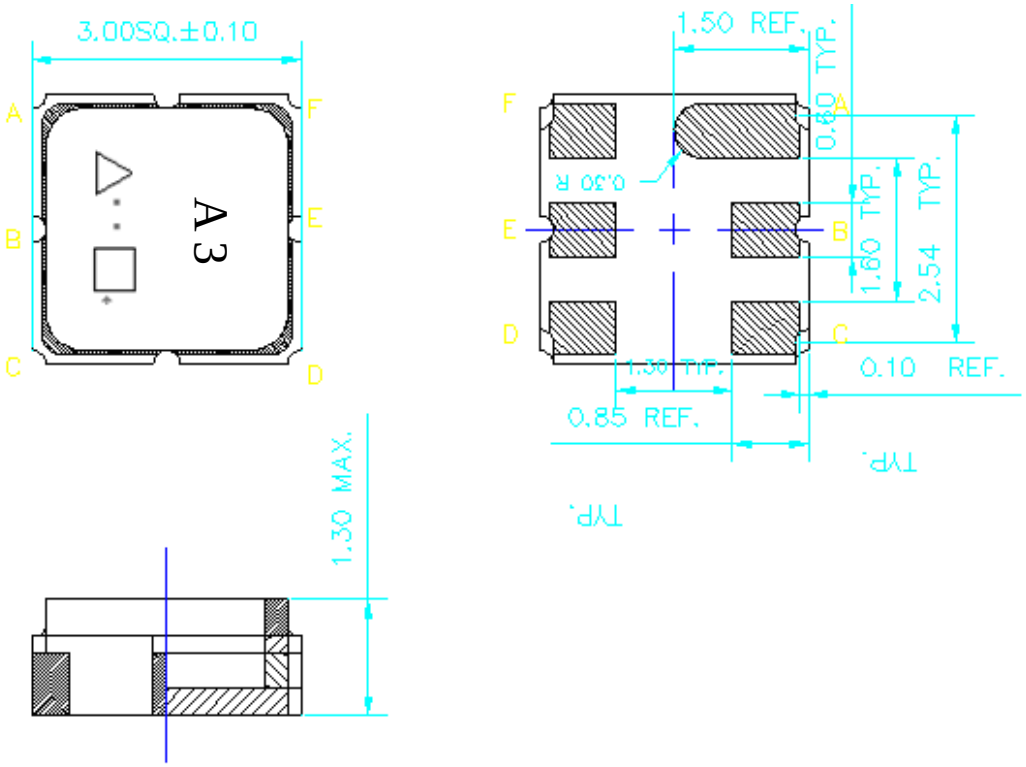
S21 response: span 5MHz



S21 response: 1MHz ~ 2.5GHz



E.OUTLINE DRAWING:



#A: Input or input ground
#B: Input or input ground
#D: Output or output ground
#E: Output or output ground
#C.F Ground
△: Year code(ex 2008-> 8
□: Date code
Unit:mm

Data code：See the table

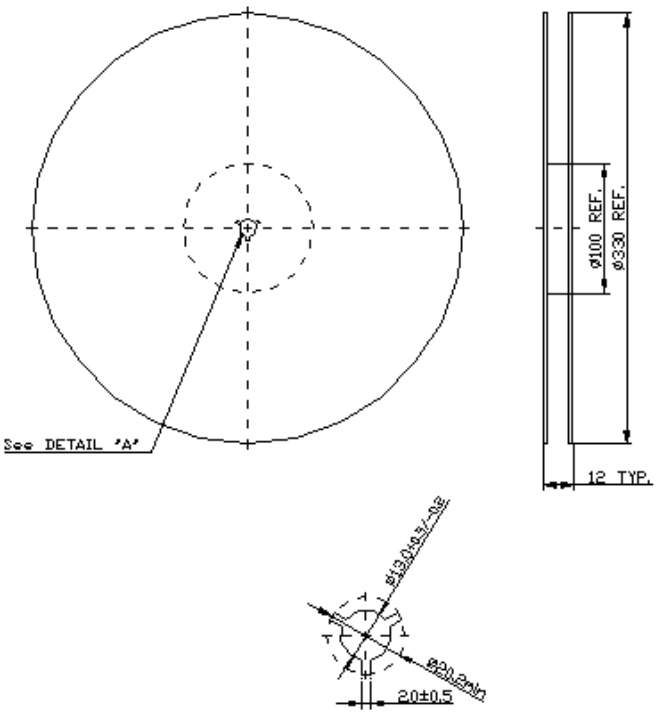
WK	01	02	…	26	27	28	…	52
Code	A	B	…	Z	a	b	…	z

Δ Year code：See the table

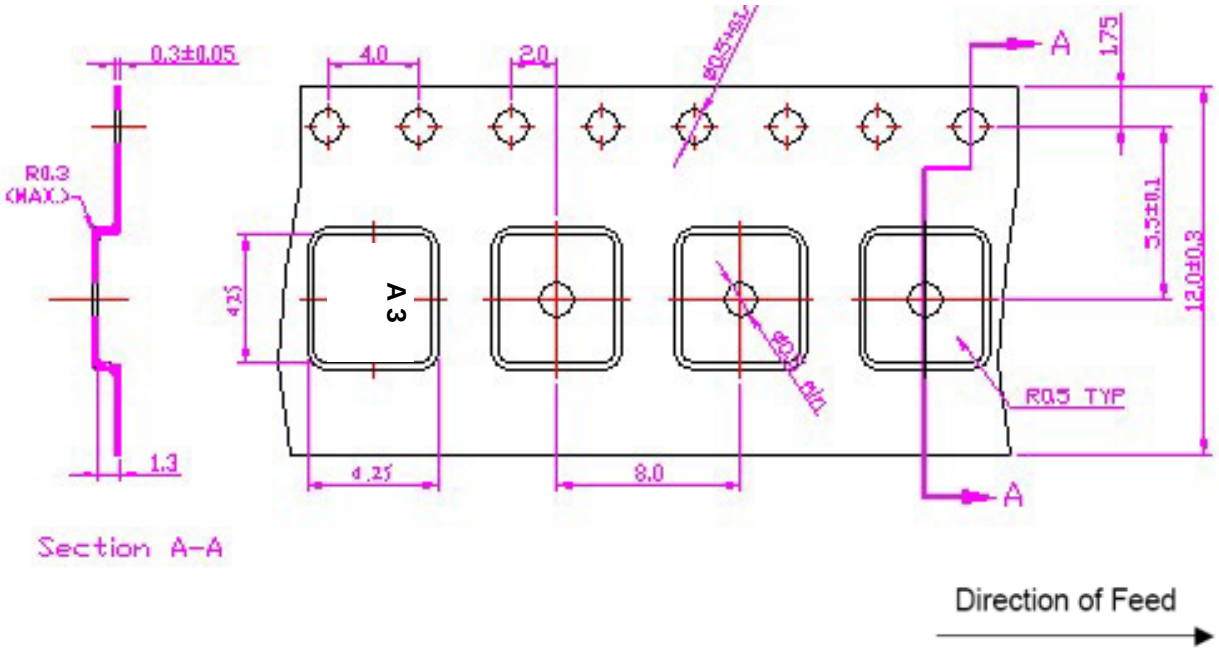
Year	2008	2009	2010	2011	…	2019	2020
Code	8	9	0	1	…	9	0

F. <u>PACKING:</u>

1. REEL DIMENSION



2. TAPE DIMENSION



G. 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.

