



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 Description: 433.92 MHz 0.3MHzBW SMD 3.0x3.0 mm SAW RF Filter

TST Parts No.:TA1565B (This part is compliant with AEC-Q200)

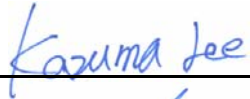
Customer Parts No.:_____

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____Kazuma 

Approval by:_____Bob Chan 

Date:_____04 / 15 / 2016

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.



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

SAW Filter 433.92 MHz

MODEL NO.:TA1565B

REV. NO.: 1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 6V
3. Operating Temperature: -40°C to +125°C
4. Storage Temperature: -40°C to +125°C

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

B. ELECTRICAL CHARACTERISTICS:

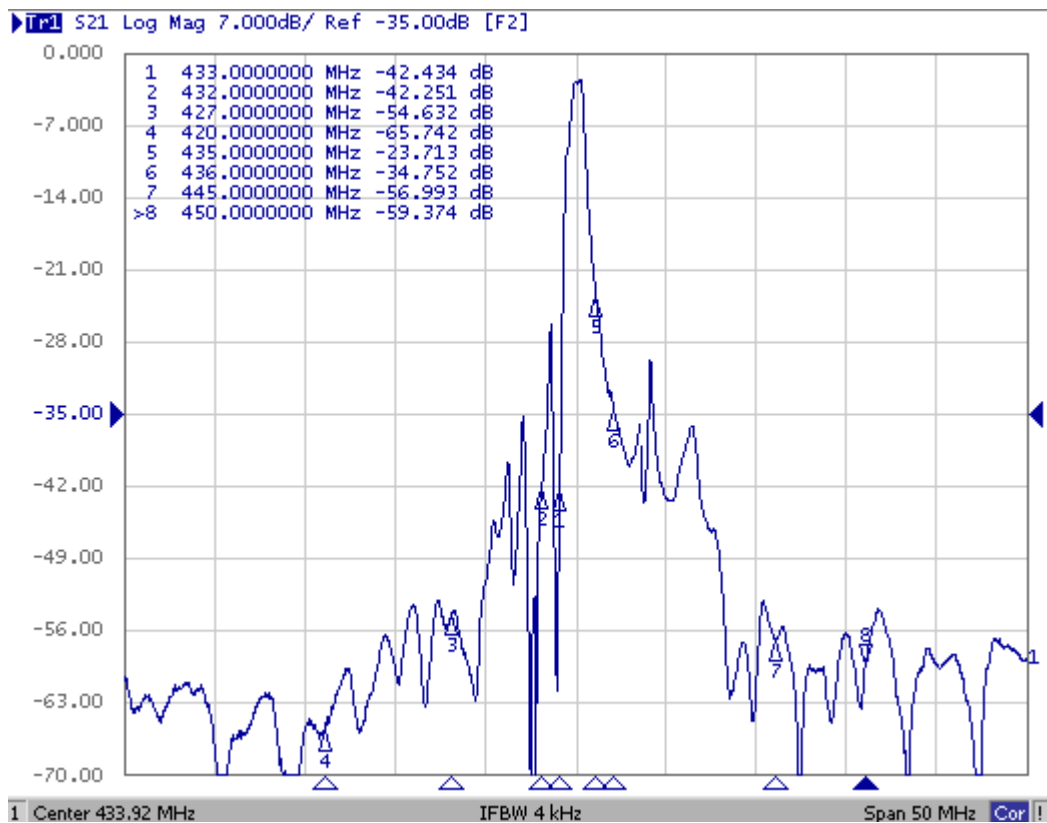
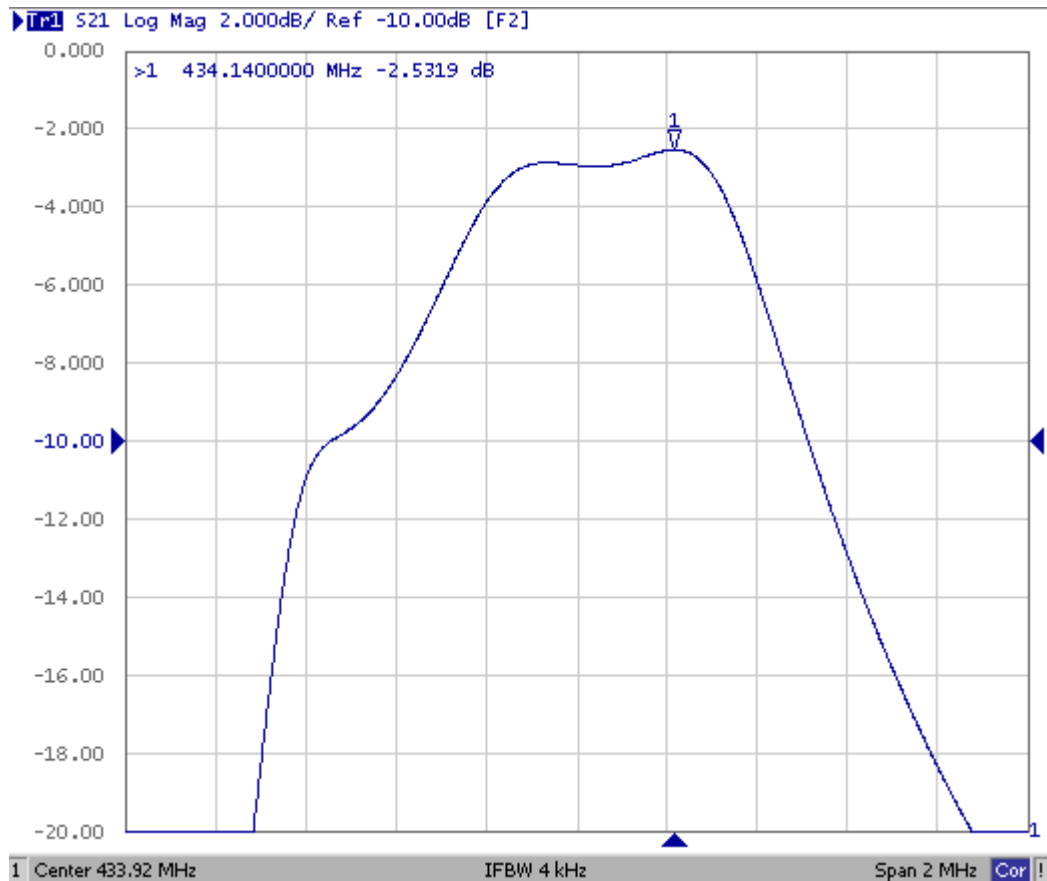
Spec. Temperature: -40°C to +95°C

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	433.92	-
1.5dB BW	KHz	300	550	-
3dB BW	KHz	-	670	900
Minimum insertion loss IL(min)				
Incl. loss of matching elements(Q=) *1)	dB	-	2.6	3.4
Exclude loss in matching elements *2)	dB	-	2.4	3.2
Passband (relative to IL _{min}) *1)				
433.770 ~ 434.070 MHz	dB	-	0.5	3.0
Attenuation (relative to IL _{min}) *1)				
10.000 ~ 420.00 MHz	dB	47	55	-
420.00 ~ 427.00 MHz	dB	43	50	-
427.00 ~ 432.00 MHz	dB	27	33	-
432.00 ~ 433.00 MHz	dB	17	24	-
435.00 ~ 436.00 MHz	dB	15	21	-
436.00 ~ 445.00 MHz	dB	21	27	-
445.00 ~ 450.00 MHz	dB	44	51	-
450.00 ~ 2000.0 MHz	dB	42	49	-
Impedance at Fc, Input *1) Z _{in} = R _{in} //C _{in} Z _S	Ω	130Ω//1.3 pF		
Impedance at Fc, Output *1) Z _{out} = R _{out} //C _{out} Z _L	Ω	157Ω//1.1 pF		

*1) : The matching circuit is real by actual passive components.
0805 Coilcraft CS series chip conductor is used for inductor.
0402 muRata GRM series is used for capacitor.

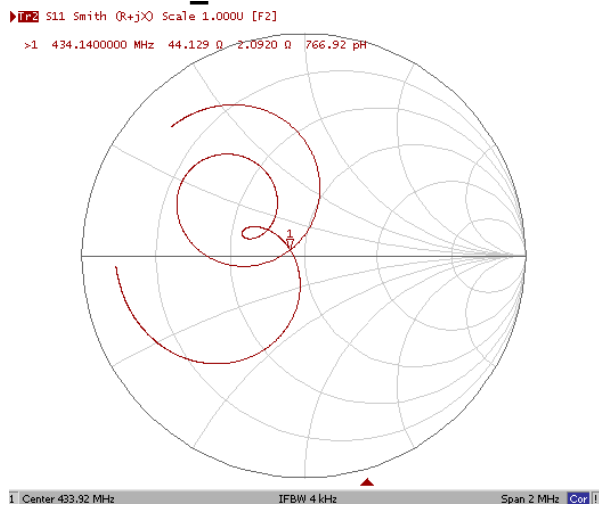
*2) : The matching circuit is ideal by simulation.

C. FREQUENCY CHARACTERISTICS:

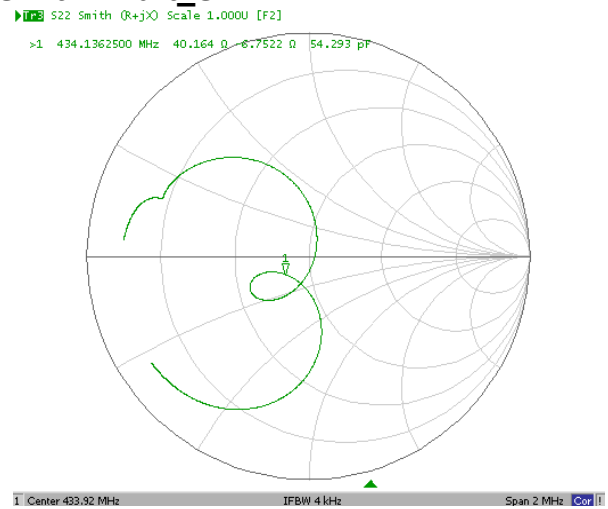




Smith Chart_S11 :

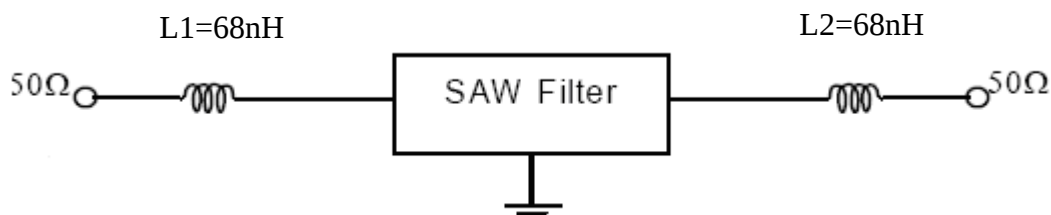


Smith Chart_S22 :

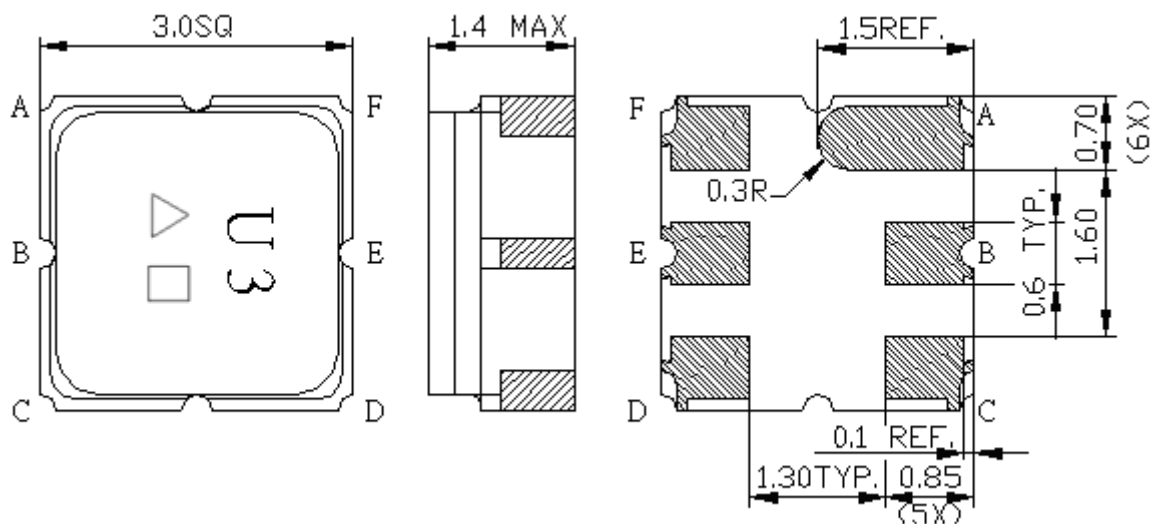


D. MEASUREMENT CIRCUIT:

The matching circuit is realized by actual passive components.



E. OUTLINE DRAWING:



#A : Input (recommended) or Input ground

#B : Input ground (recommended) or Input

#D : Output (recommended) or Output ground

#E : Output ground (recommended) or Output

#C、F : Ground

Δ : Year Code(2013->3, ..., 2019->9, 2020->0, ...)

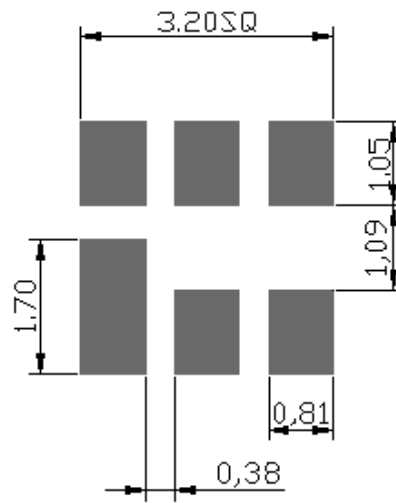
□ : Data Code

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

*3) The recommended pin configuration offers better suppression of electrical crosstalk.

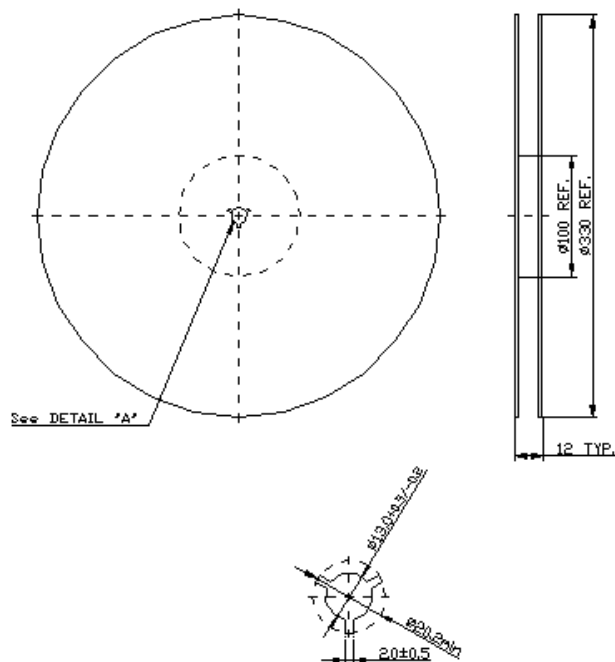
F. PCB FOOTPRINT:



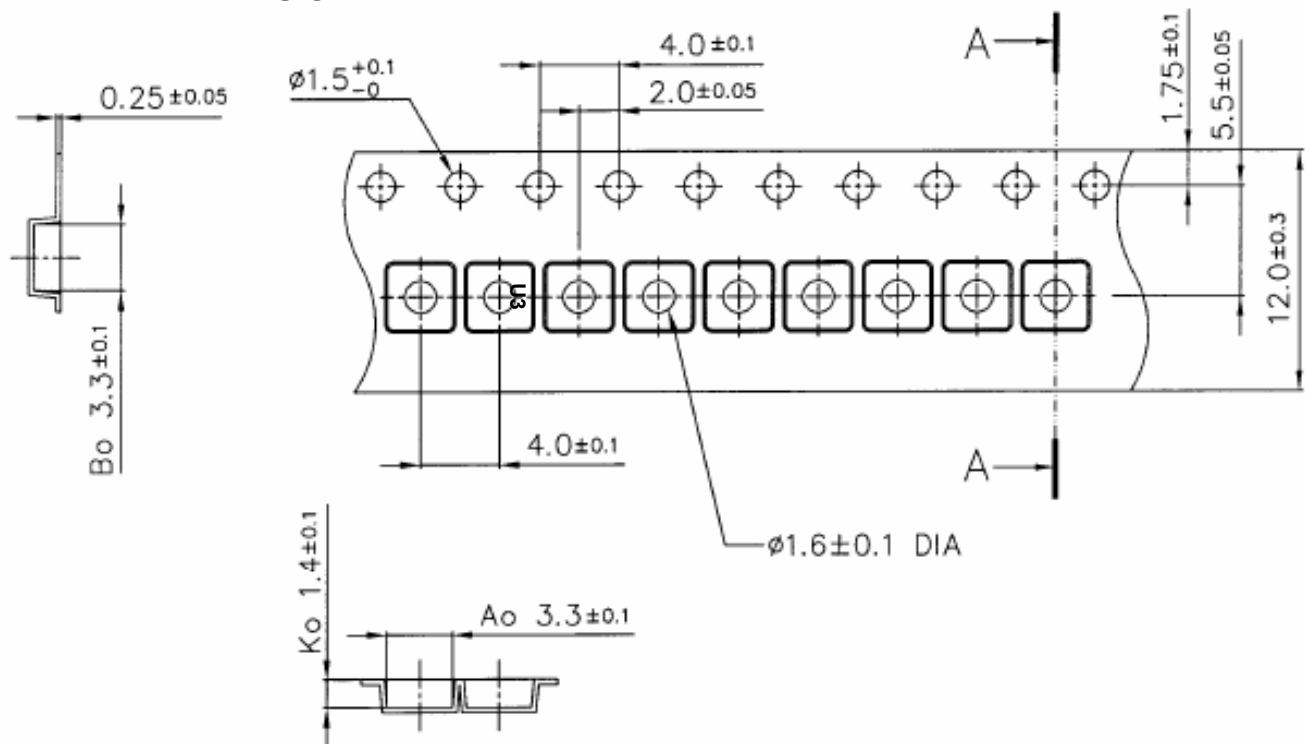
G. PACKING:

1. REEL DIMENSION

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



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.

