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 Tx Filter 782 MHz LTE Band 13 SMD1.1X0.9mm (BW=10 MHz)

TST Parts No.: TA2441B (This part is compliant by AEC-Q200)

Customer Parts No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Hayley Chou

Approval by:_____ Andy Yu

Date:_____ 2018/08/01

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 782 MHz

MODEL NO.:TA2441B REV.1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage: +/-5 V
3. Operating Temperature: -40 ℃ to +85 ℃
4. Storage Temperature: -40 ℃ to +85 ℃
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 100 V(MM), 200 V(HBM)

RoHS Compliant

Lead-free soldering

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

B. ELECTRICAL CHARACTERISTICS:

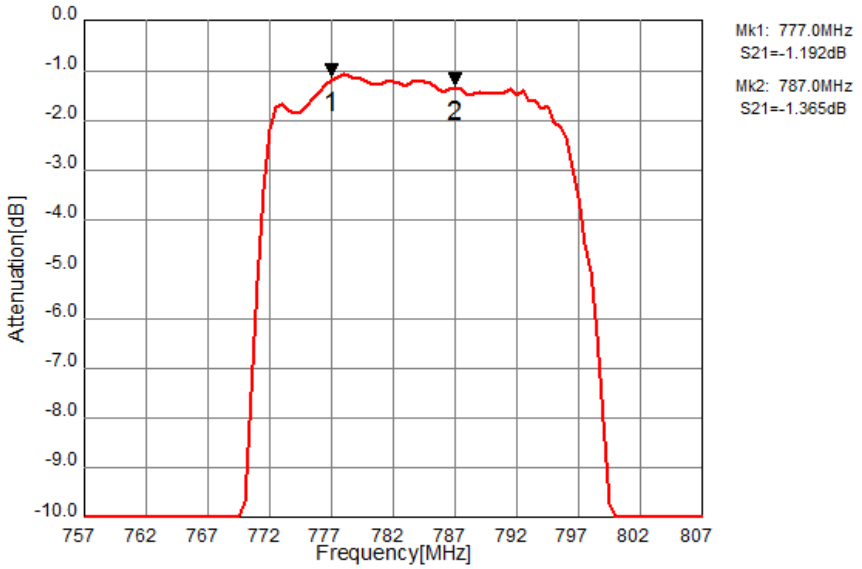
Terminating source impedance: Zs=50 Ω

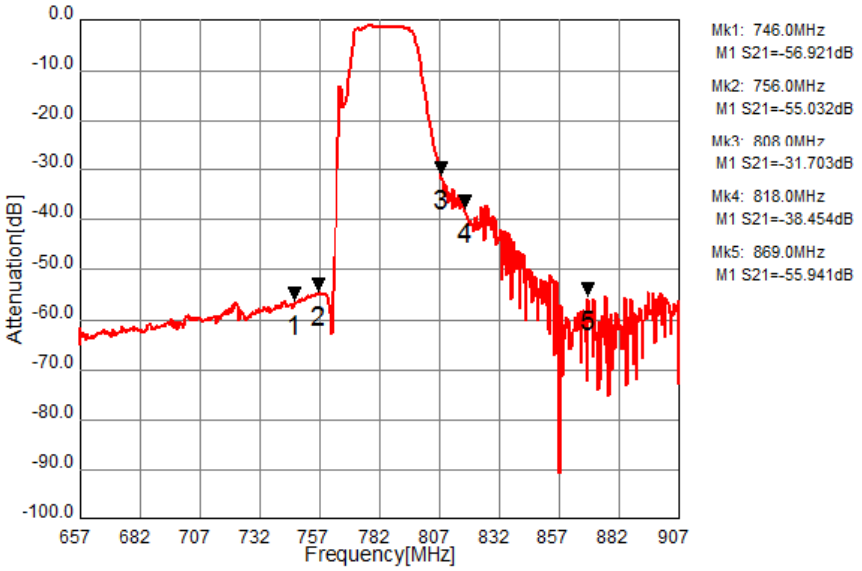
Terminating load impedance: Z_L=50 Ω

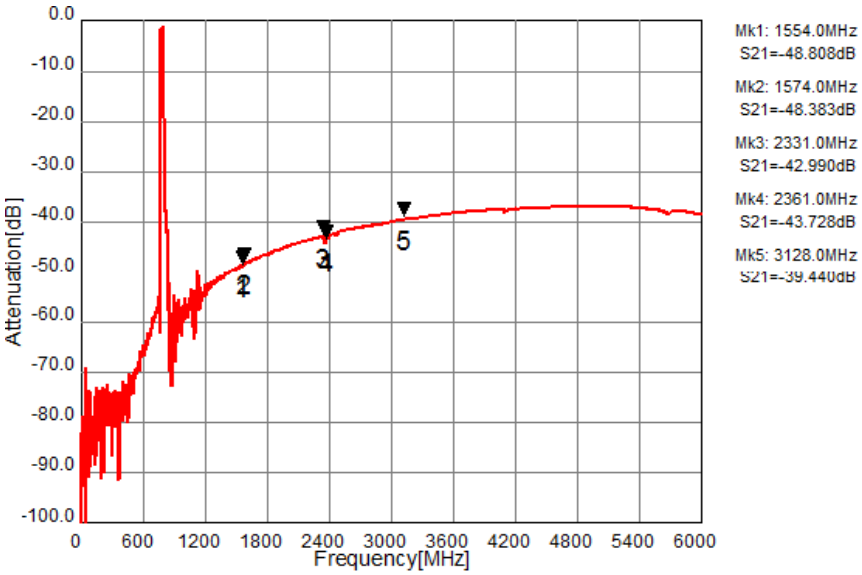
Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency	**Fc**	MHz	-	782	-
Insertion Loss (777~787 MHz)	**IL**	dB	-	1.5.	2.3
Amplitude Ripple (777~787 MHz)		dB	-	0.5	1.1
VSWR (777~787 MHz)		-	-	1.7	2.2
Attenuation (Reference level from 0 dB)					
DC ~ 716 MHz		dB	45	59	-
716 ~ 728 MHz		dB	45	57	-
728 ~ 746 MHz		dB	45	57	
746 ~ 756 MHz		dB	45	56	-
808 ~ 818 MHz		dB	23	31	-
869 ~ 894 MHz		dB	40	55	-
1554 ~ 1565 MHz		dB	35	48	-
1565 ~ 1585 MHz		dB	35	48	-
1597 ~ 1607 MHz		dB	35	47	-
1805 ~ 1880 MHz		dB	30	45	-
1930 ~ 1990 MHz		dB	30	44	
2110 ~ 2170 MHz		dB	30	43	-
2331 ~ 2361 MHz		dB	29	42	-
2400 ~ 2484 MHz		dB	27	42	-
2484 ~ 3000 MHz		dB	25	39	-
3000 ~ 4000 MHz		dB	21	39	-
4000 ~ 5000 MHz		dB	15	36	-
5000 ~ 6000 MHz		dB	15	36	-

(*1) Specification of insertion loss includes loss that comes from the test board. (0.05 dB)

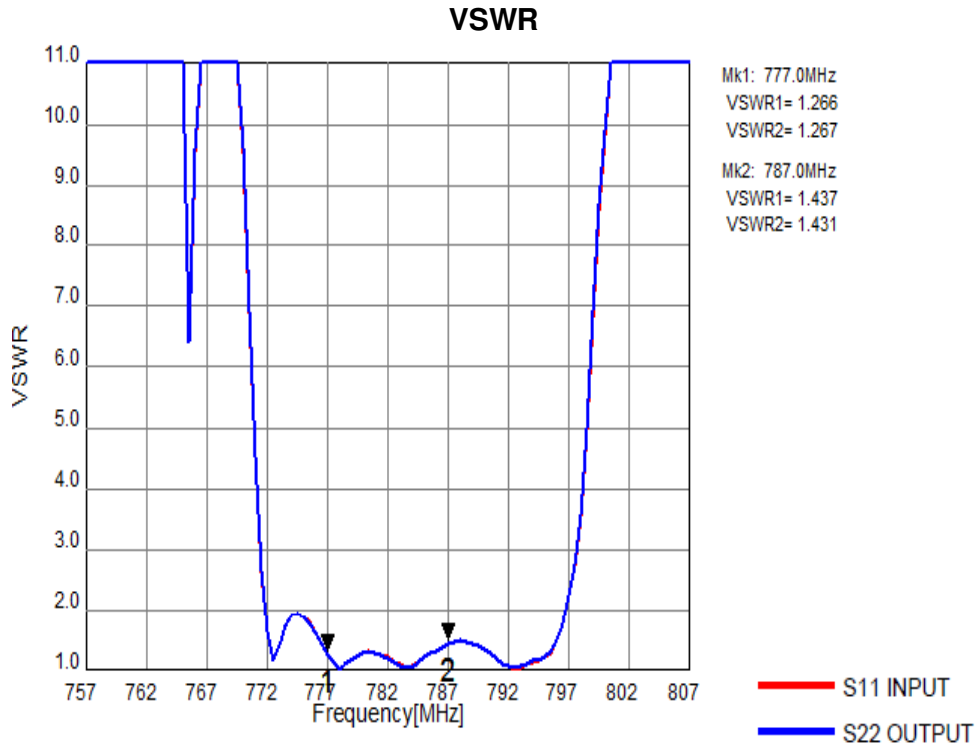
C. FREQUENCY CHARATERISTIC:



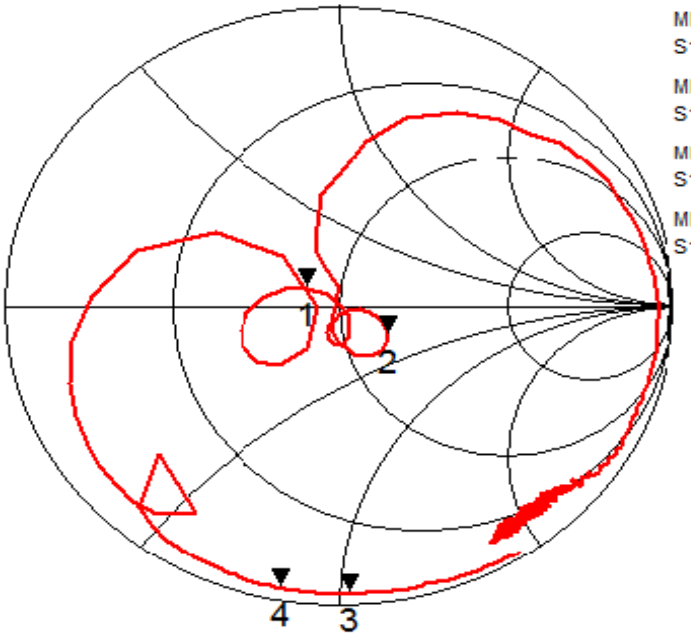




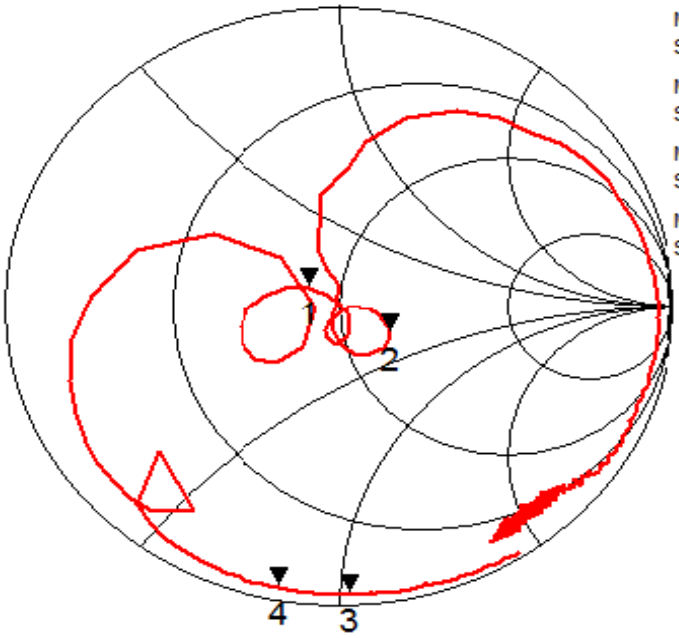
Reflection Functions:



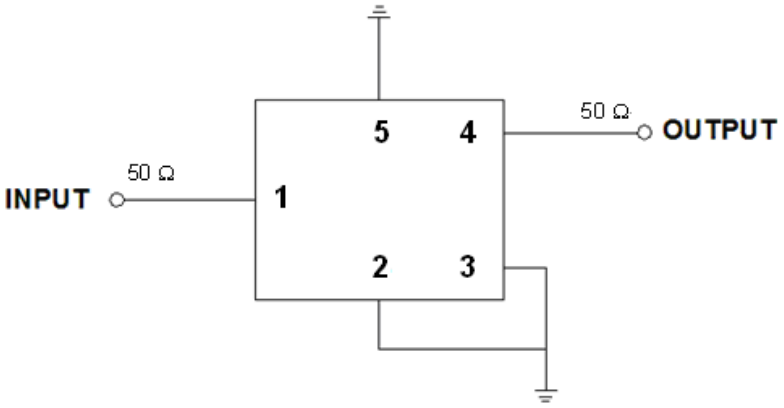
Smith Chart S11



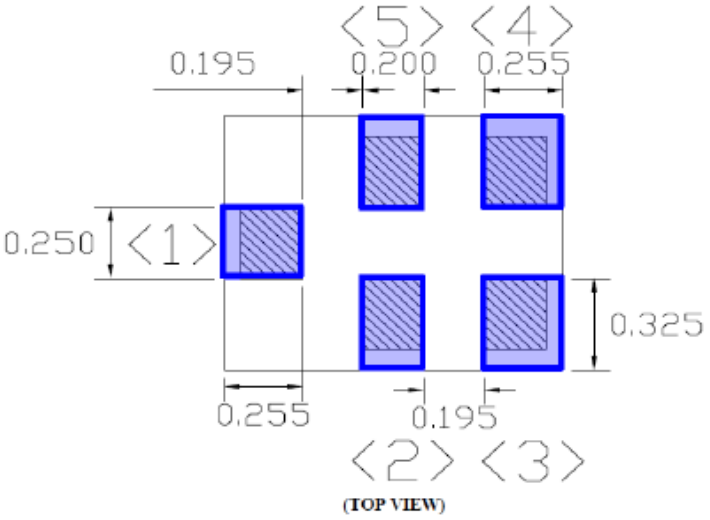
Smith Chart S22



D. MEASUREMENT CIRCUIT:



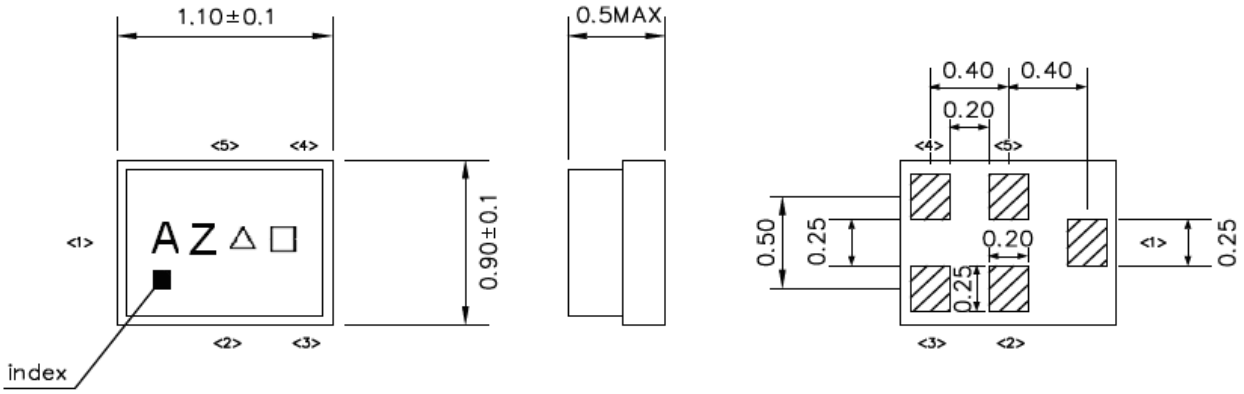
E. PCB Footprint:



(TOP VIEW)

F OUTLINE DRAWING (Mass Production):

Device size: 1.1typ. x 0.9typ. x 0.5max.



Unit : mm

Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

△ : Date Code

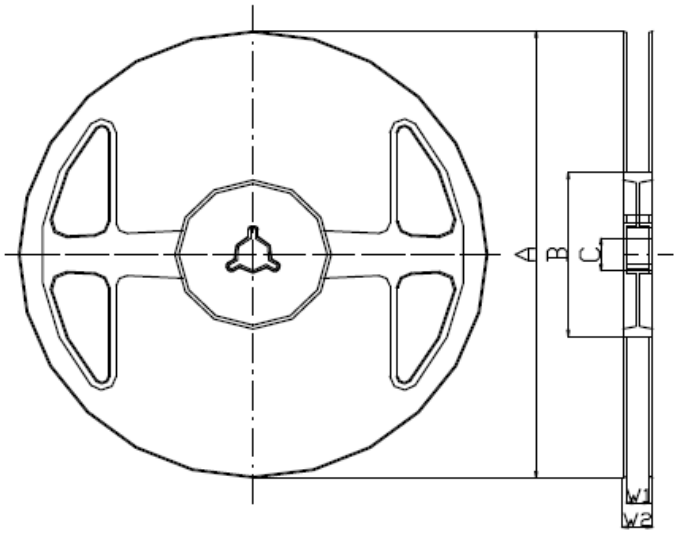
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019	a	b	c	d	e	f	g	h	j	k	l	m
2020	n	p	q	r	s	t	u	v	w	x	y	z

G. PACKING: (Ref: WI-75M03)

1. REEL DIMENSION



Materials of Reel

Material : Polystyrene + Carbon

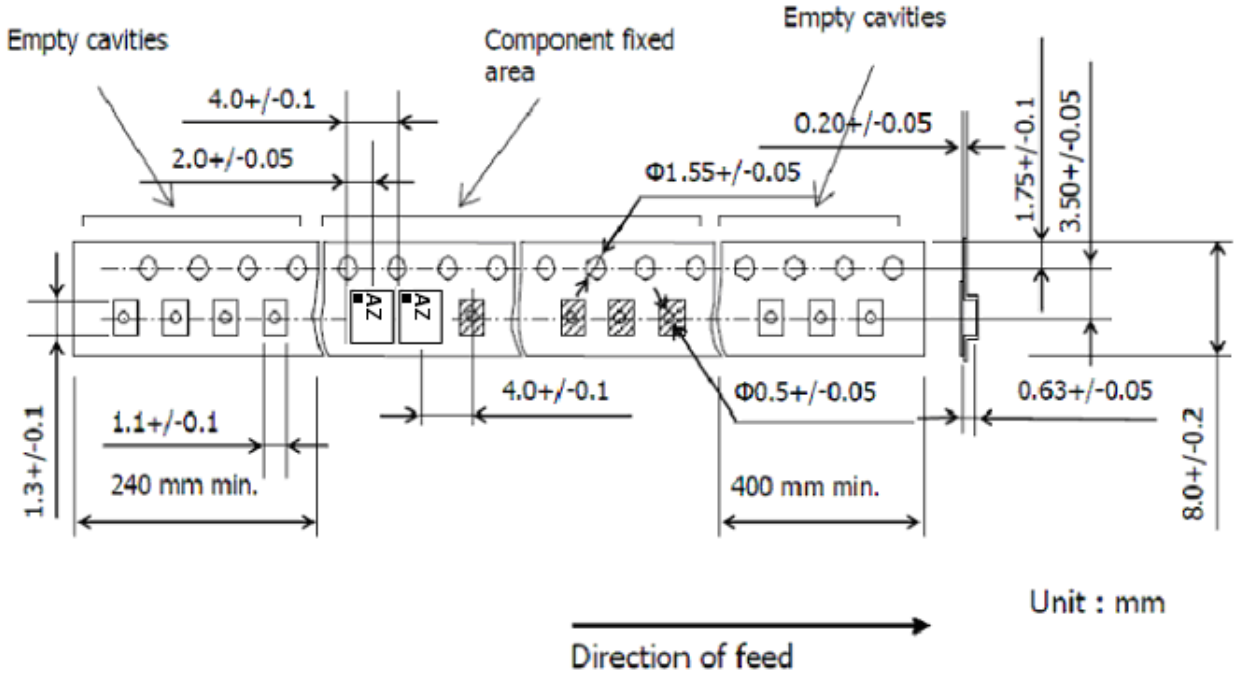
Color : Black

Surface resistance (reference value) : $10^9\Omega$/sq Max.

Unit : mm

Code	Quantity	A	B	C	W1	W2
J	5,000 pcs	ϕ 180.0 +0.0/-1.5	ϕ 66.0 +/-0.5	ϕ 13.0 +/-0.2	9.0 +1.0/-0.0	11.4 +/-1.0

2. TAPE DIMENSION



H. <u>Recommended Reflow Profile</u>:

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.