



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: SAW Rx Filter 2140 MHz LTE Band 1 SMD 1.1x0.9 mm (BW=60 MHz)

TST Part No.: TA1845B (This part is compliant by AEC-Q200)

Customer Part No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Hayley Chou *Hayley Chou*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2018/07/09

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 2140 MHz

MODEL NO.: TA1845B

REV. NO.:1.0

A. MAXIMUM RATING:

1. Maximum Input Power: +10 dBm
2. Maximum DC Voltage: +/-5 V
3. Operating temperature range: -40 °C to +85 °C
4. Storage temperature range: -40 °C to +100 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD 50V(MM) 100V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

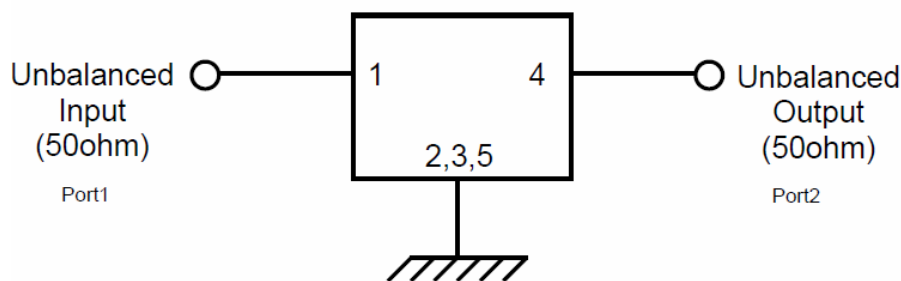
Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

Terminating load impedance: $Z_L = 50 \Omega$ (Single-ended)

Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency Fc		MHz	-	2140	-
Insertion Loss	2110~2170 MHz	dB(*1)	-	1.9	2.7
	2110~2155 MHz	dB(*1)	-	1.9	2.7
Amplitude Ripple	2110~2170 MHz	dB	-	0.7	1.5
	2110~2155 MHz	dB	-	0.7	1.5
VSWR	2110~2170 MHz	-	-	1.8	2.3
	2110~2155 MHz	-	-	1.8	2.3
Attenuation (Reference level from 0 dB)					
50 ~ 1710 MHz		dB	35	43	-
1710 ~ 1755 MHz		dB	40	44	-
1920 ~ 1980 MHz		dB	42	46	-
4220 ~ 4340 MHz		dB	30	40	-

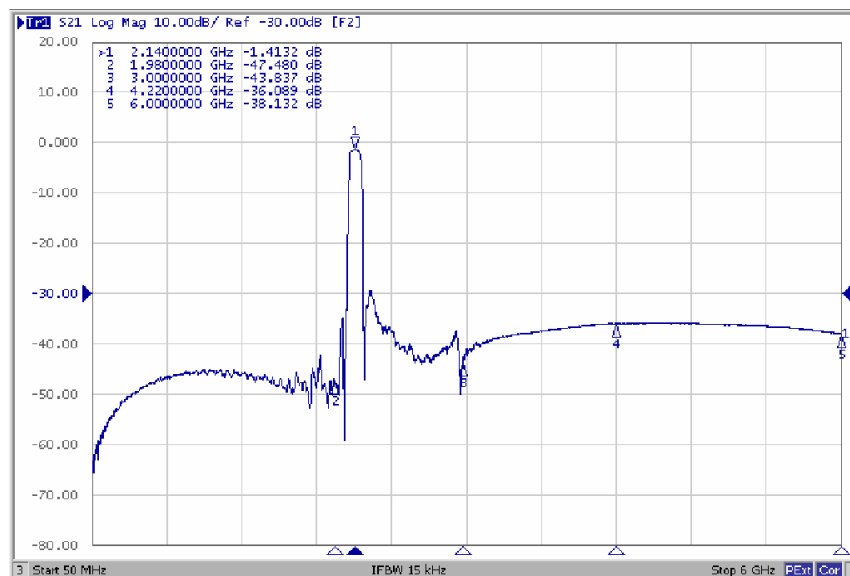
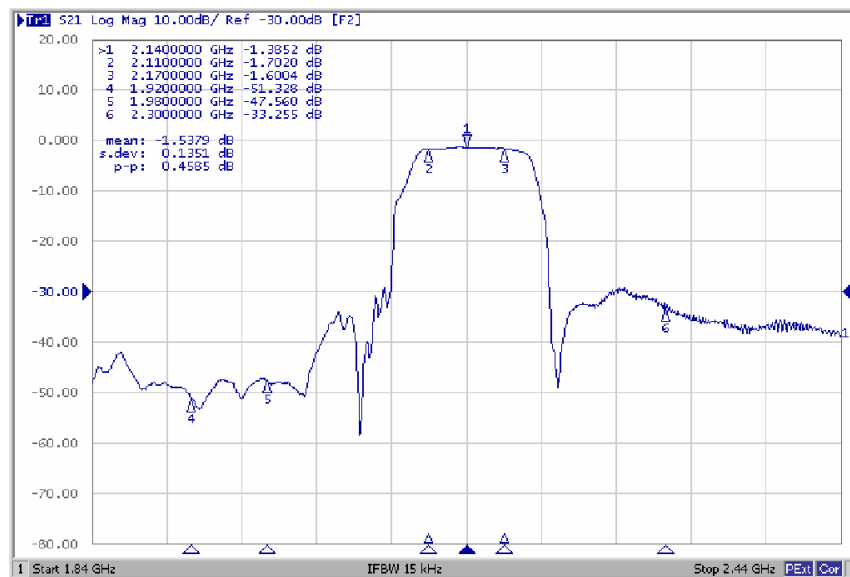
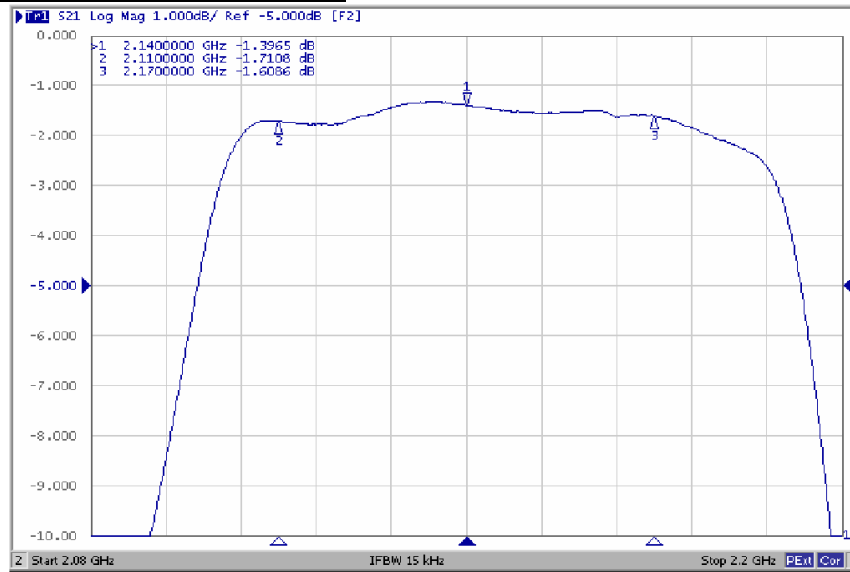
(*1) Specification of insertion loss excludes loss that comes from the test board.

C. MEASUREMENT CIRCUIT:



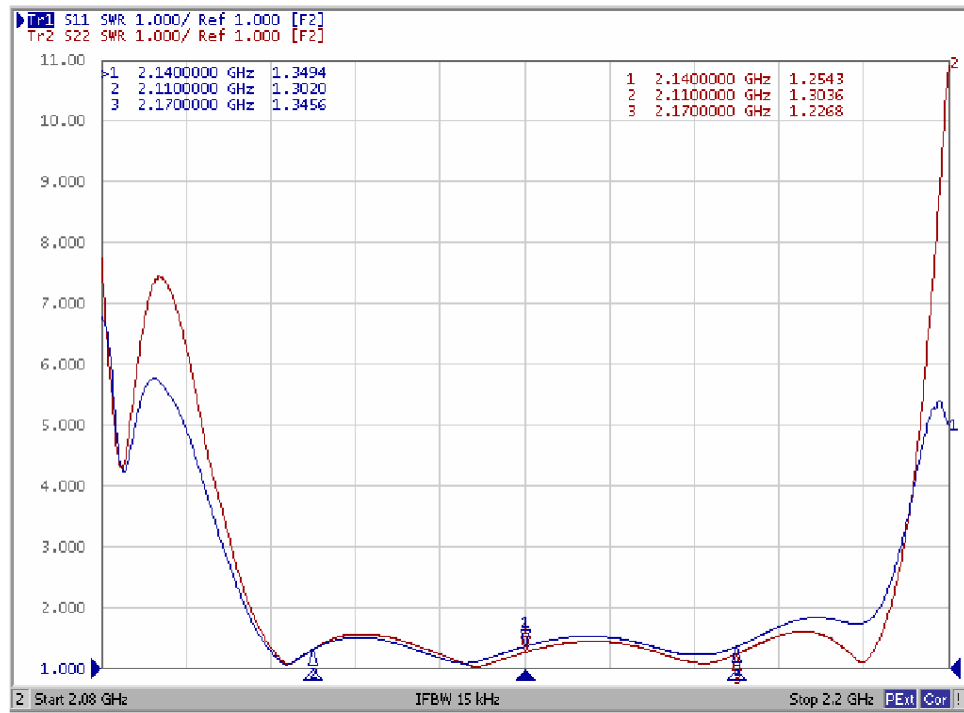
1 to 5: Pin No.

D. FREQUENCY CHARACTERISTICS:

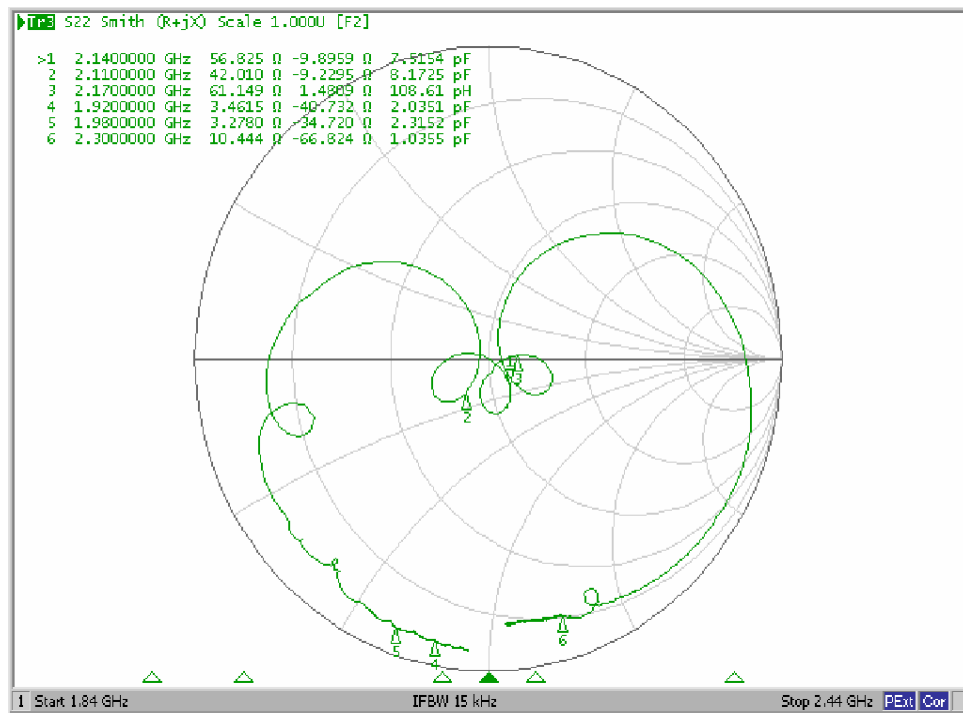
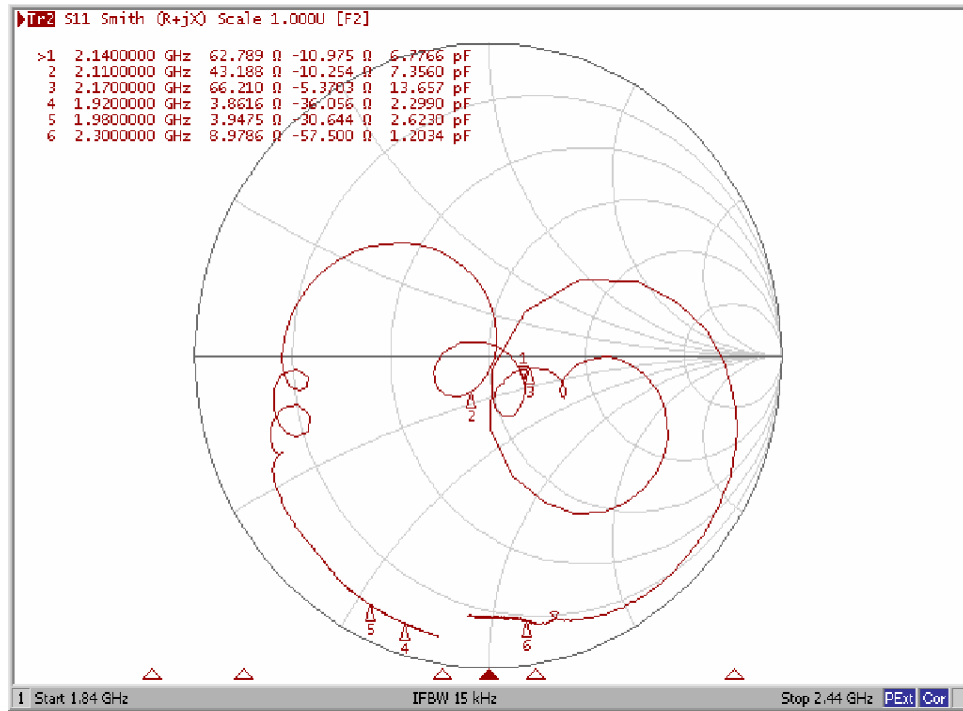


Reflection Functions:

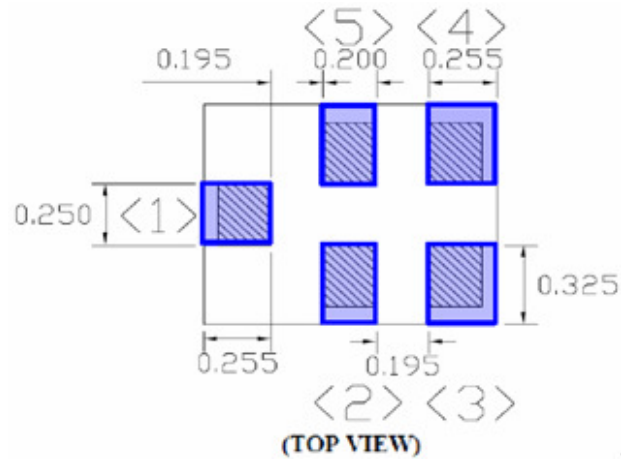
VSWR



Smith Chart

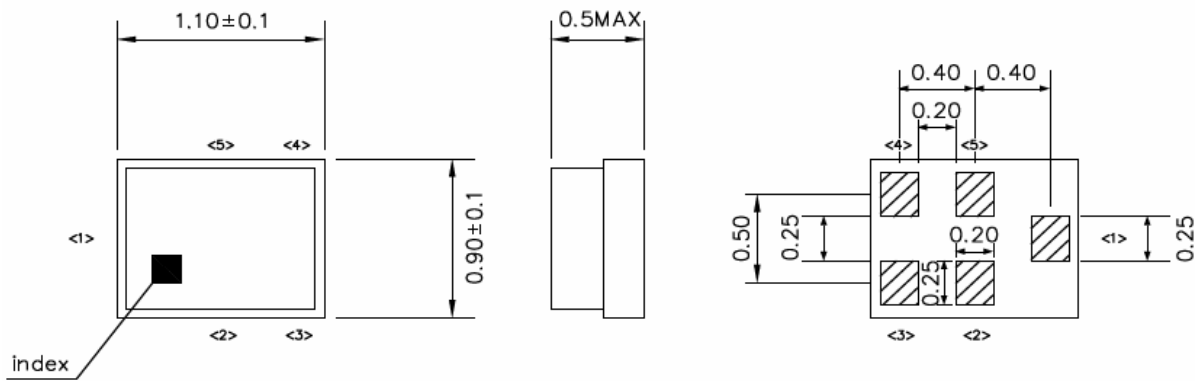


E. PCB Footprint:



F OUTLINE DRAWING:

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

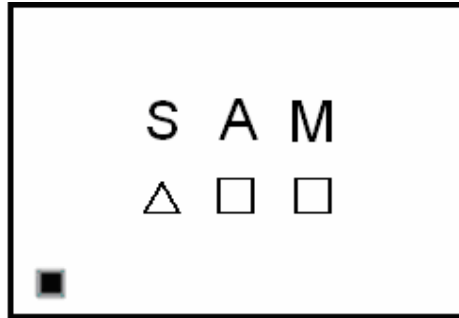


Unit : mm

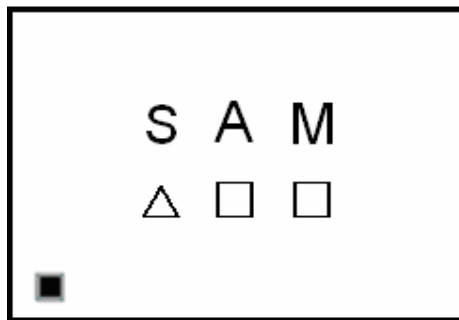
Pin Configuration

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

Top View (Sample Production):



Top View (Mass Production):



△ : Date Code

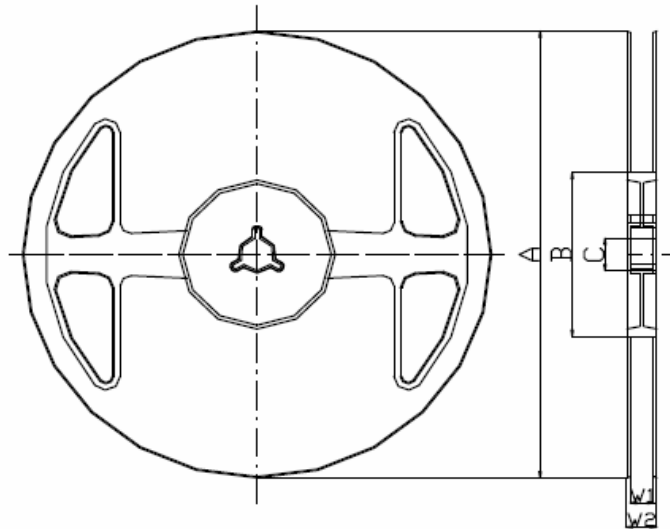
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

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

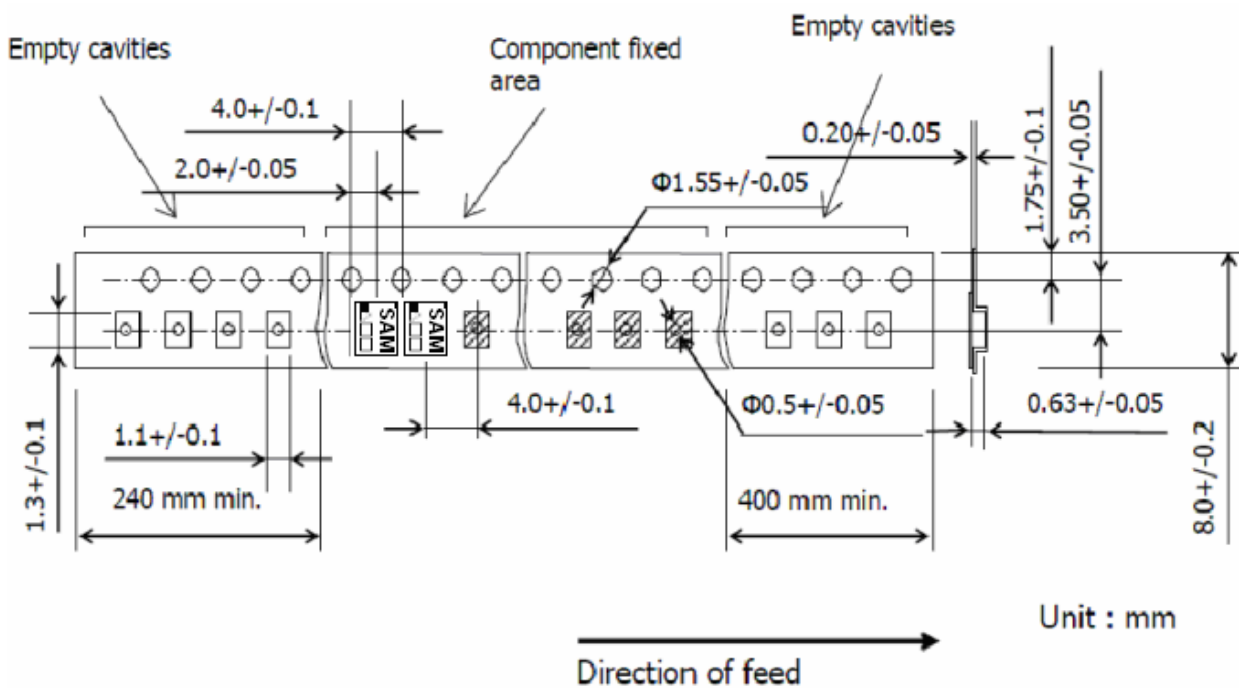
Color : Black

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

Unit : mm

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

2. TAPE DIMENSION



Unit : mm

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.

