



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 2140MHz LTE Band 1 SMD 1109

TST Part No.: TA1845DA

Customer Part No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Michael Yang *Michael*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2021/08/02

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 change



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SAW Rx Filter 2140MHz LTE Band 1 SMD 1109

MODEL NO.: TA1845DA

REV. NO.:2.0

A. MAXIMUM RATING:

1. Operating temperature range: -30 °C to +85 °C
2. Storage temperature range: -40 °C to +85 °C
3. Maximum Input Power: +10 dBm
4. Maximum DC Voltage: +/-0 V
5. Moisture Sensitivity Level: Level 3
6. ESD 50V(MM) 100V(HBM)

RoHS Compliant
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

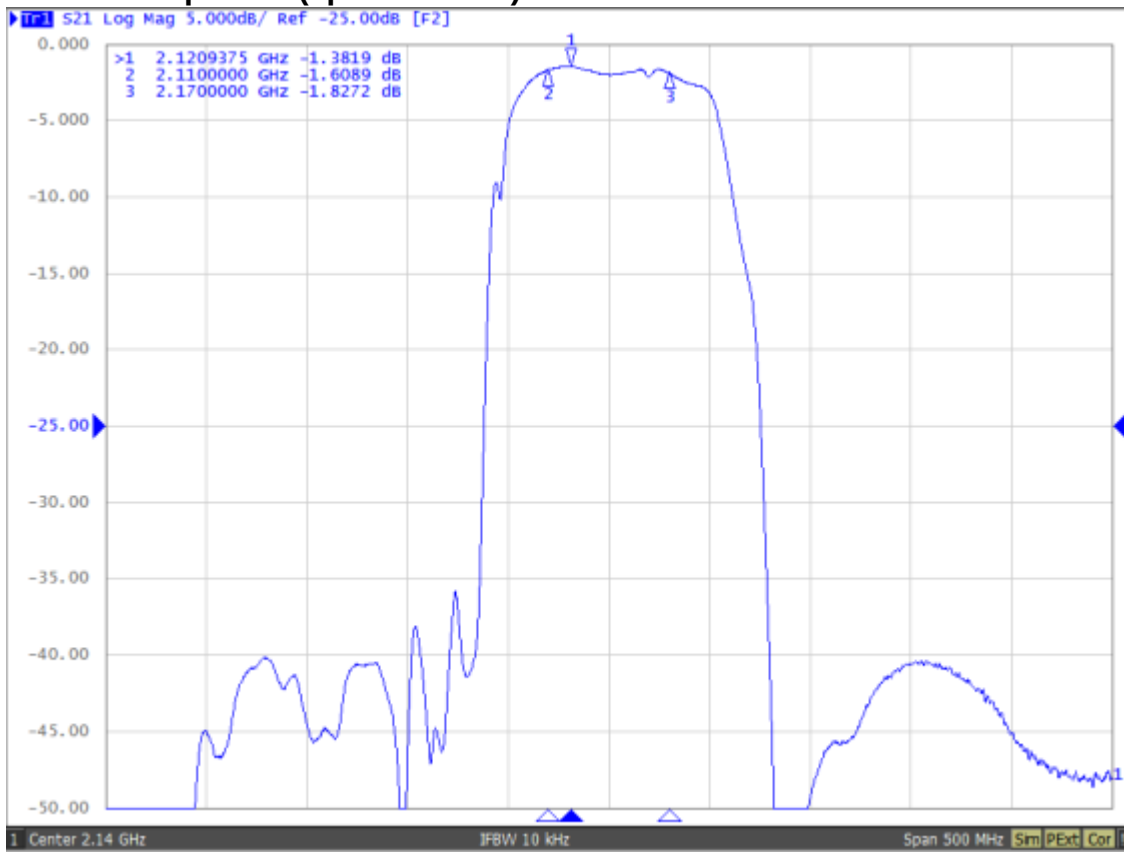
Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

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

Parameters Description			Unit	Minimum	Typical	Maximum
Center Frequency			MHz	-	2140	-
Insertion Loss		2110~2170 MHz	dB	-	1.9	3.0
		2110~2155 MHz	dB	-	1.9	2.5
Amplitude Ripple		2110~2170 MHz	dBp-p	-	0.6	2.0
		2110~2155 MHz	dBp-p	-	0.6	1.5
VSWR	Input	2110~2170 MHz	-	-	1.8	2.2
	Output	2110~2155 MHz	-	-	1.8	2.2
Attenuation:						
50-1710 MHz			dB	35	43	-
1710-1755 MHz			dB	40	47	-
1920-1980 MHz			dB	35	40	-
4220-4340 MHz			dB	25	33	-

C. FREQUENCY CHARACTERISTICS:

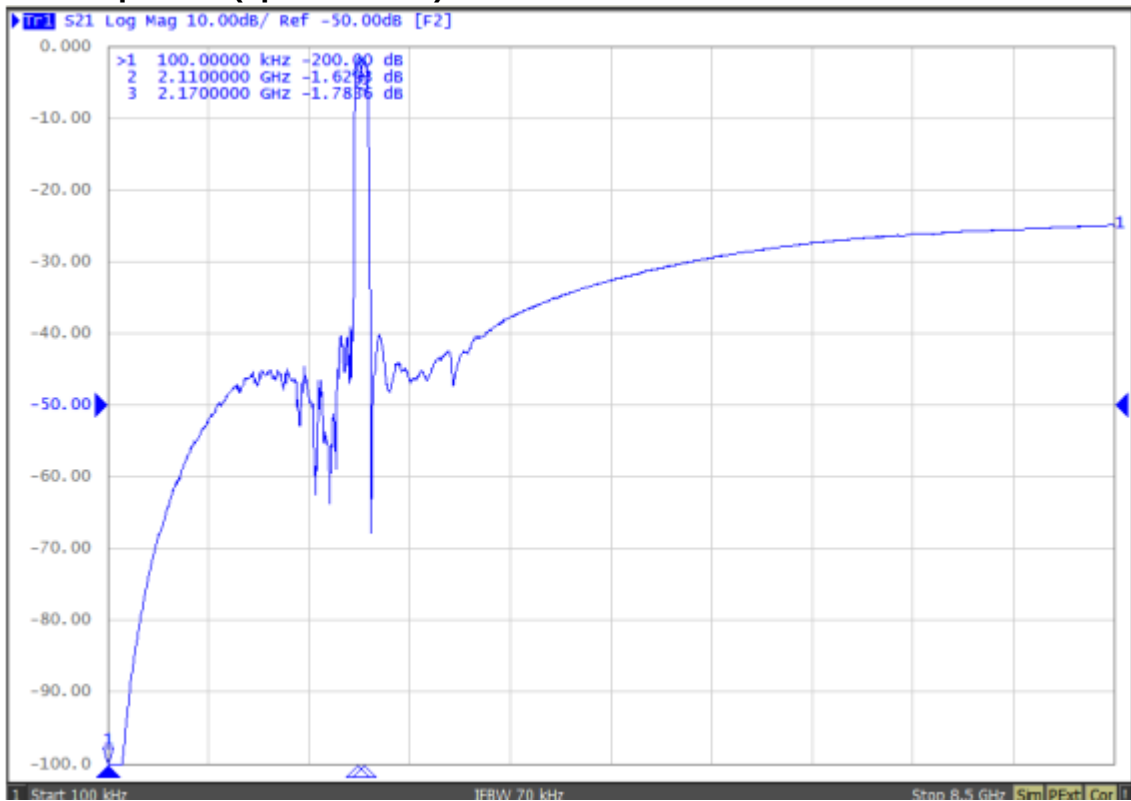
S21 response: (span 500MHz)



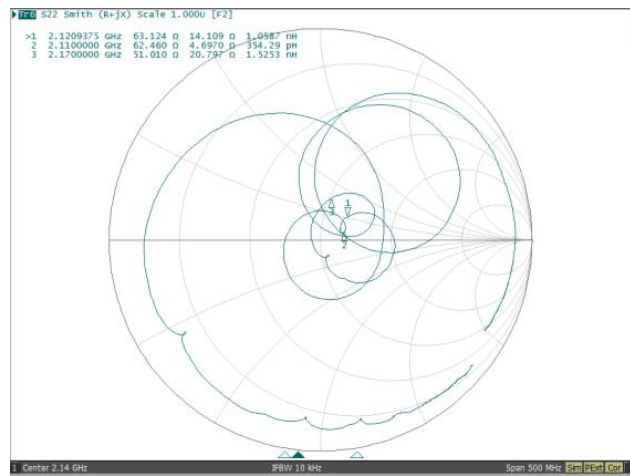
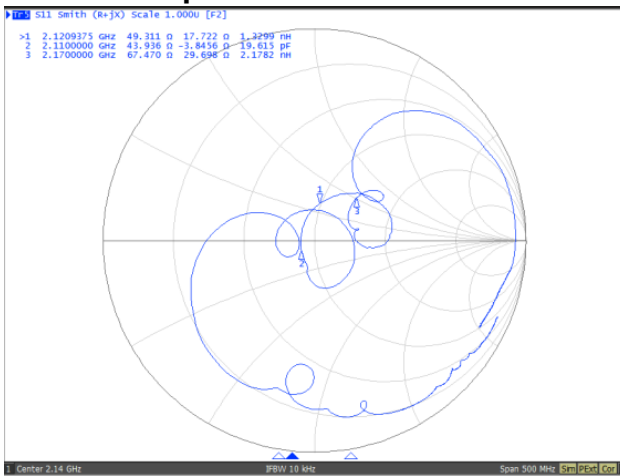
S21 response: (span 200MHz)



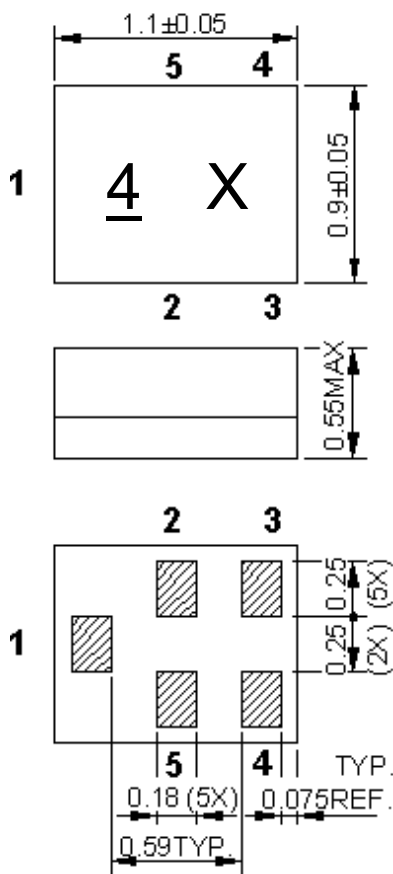
S21 response: (span 4.5GHz)



S11/S22 response :



D. OUTLINE DRAWING:



All tolerances are ± 0.05 mm unless otherwise specified
Coplanarity : 0.1 mm max.

1 to 5 : Pin No.

Unit : mm

Pin No.	Symbol	Function
1	IN	Input
2	GND	Ground
3	GND	Ground
4	OUT	Output
5	GND	Ground

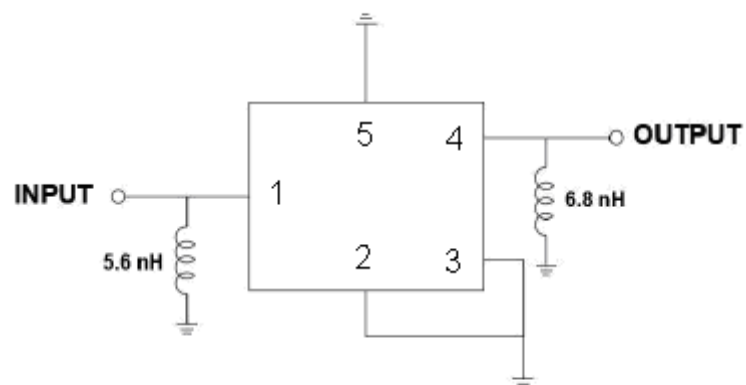
Marking Descriptions:

4 : Series Number

X : Year/Month Code (Follow the table)

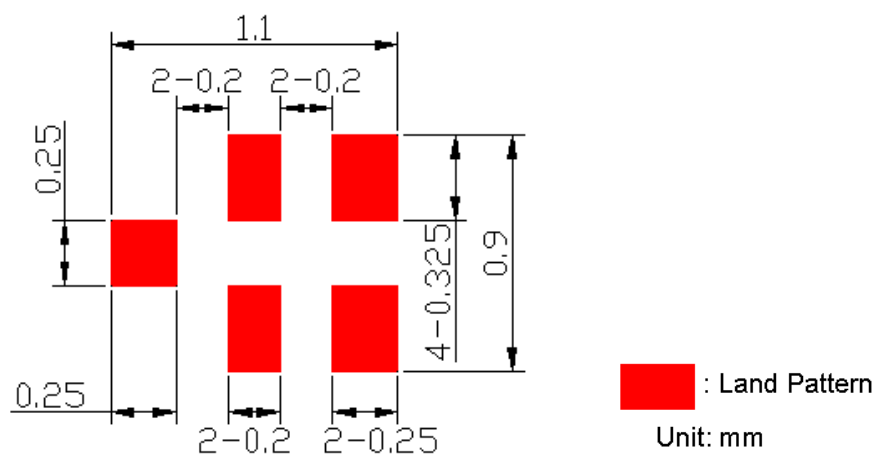
Year/Month	1	2	3	4	5	6	7	8	9	10	11	12
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m
2024	n	p	q	r	s	t	u	v	w	x	y	z
2025	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2026	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2027	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>j</u>	<u>k</u>	<u>l</u>	<u>m</u>
2028	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

E. MEASUREMENT CIRCUIT:



Source & Load Impedance: 50 Ω

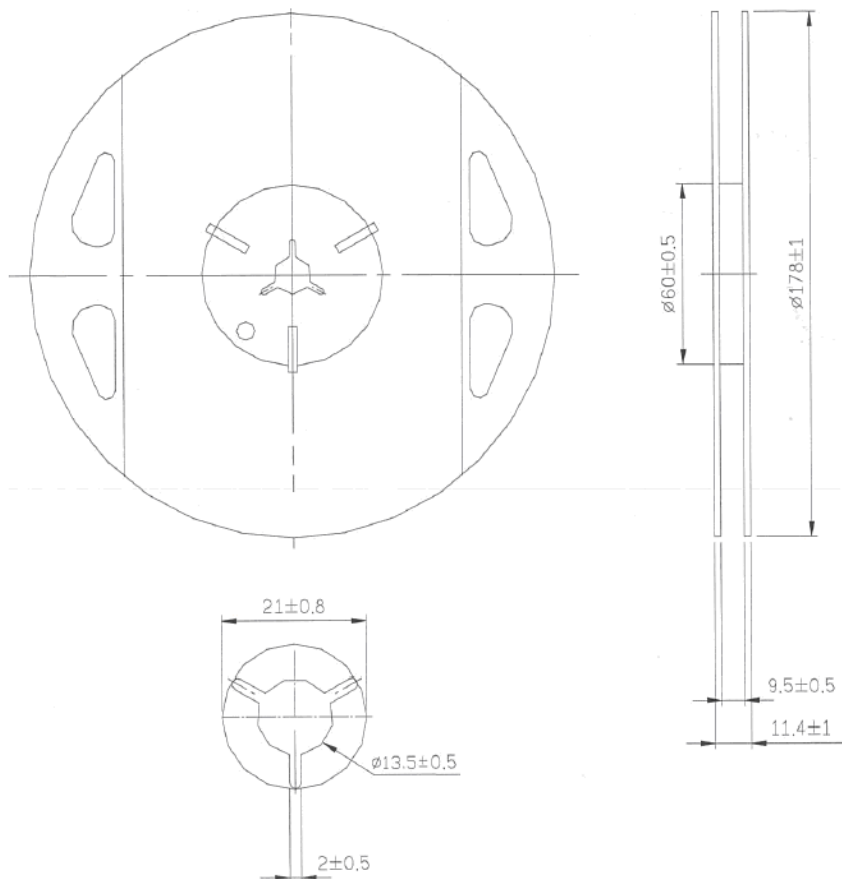
F. PCB Footprint :



G. PACKING:

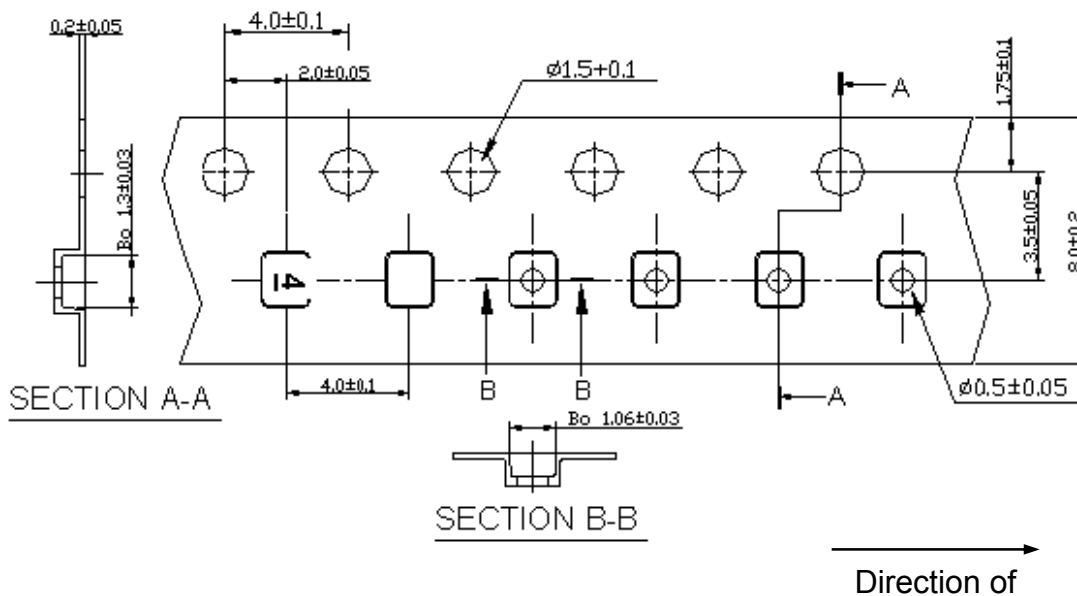
1. REEL DIMENSION

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



Unit: mm

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.

