



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

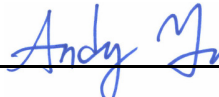
Product Description: SAW Filter 847 MHz Band 20 SMD 1.1X0.9 mm (BW=30 MHz)

TST Part No.: TA2042A

Customer Part No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Anne Chen 

Approved by: _____ Andy Yu 

Date: _____ 2019/12/13

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 Filter 847 MHz SMD 1.1X0.9 mm (BW=30 MHz)

MODEL NO.:TA2042A

REV.2.0

A. MAXIMUM RATING:

1. Operating temperature range: -30 °C to +85 °C
2. Storage temperature range: -40 °C to +100 °C
3. Input power : 10dBm
4. Maximum DC Voltage: +/-5 V
5. Moisture Sensivity Level: Level 1 (MSL 1)
6. ESD 100V(MM) 200V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance : $Z_s = 50 \Omega$

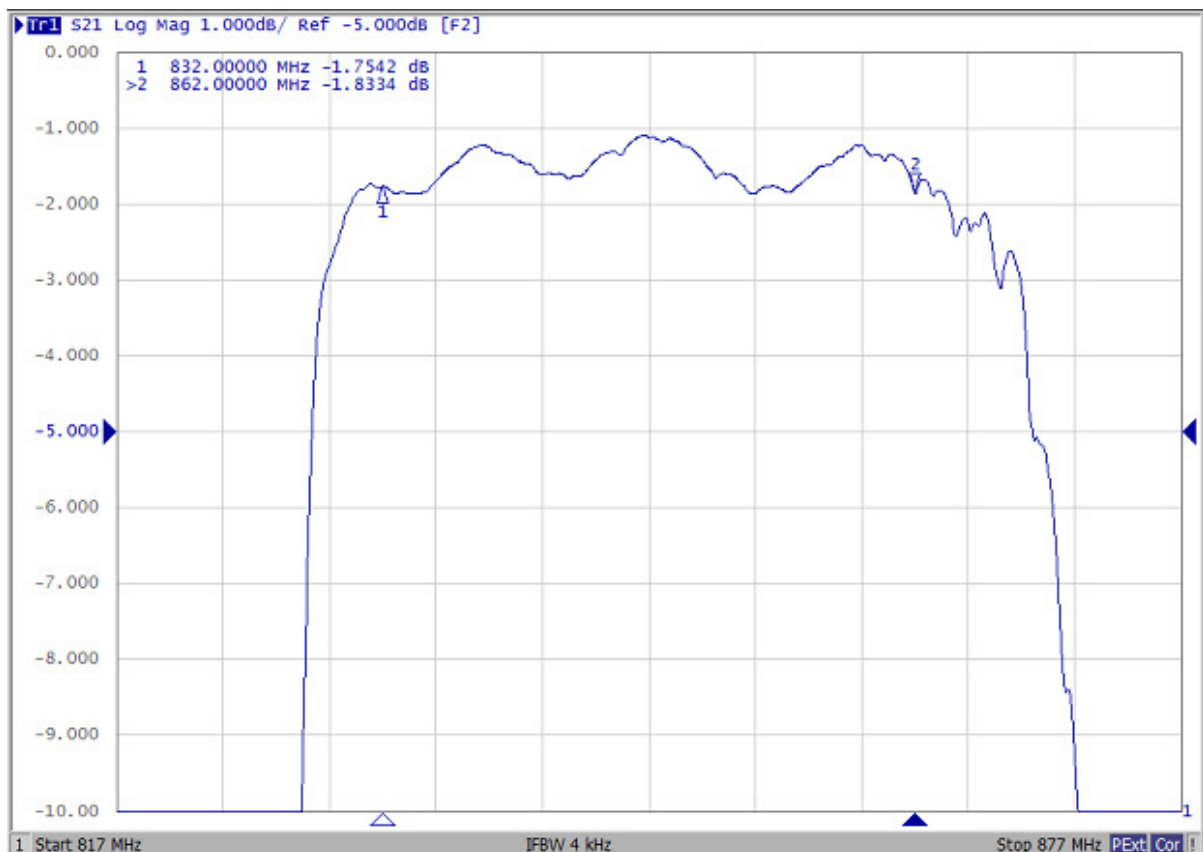
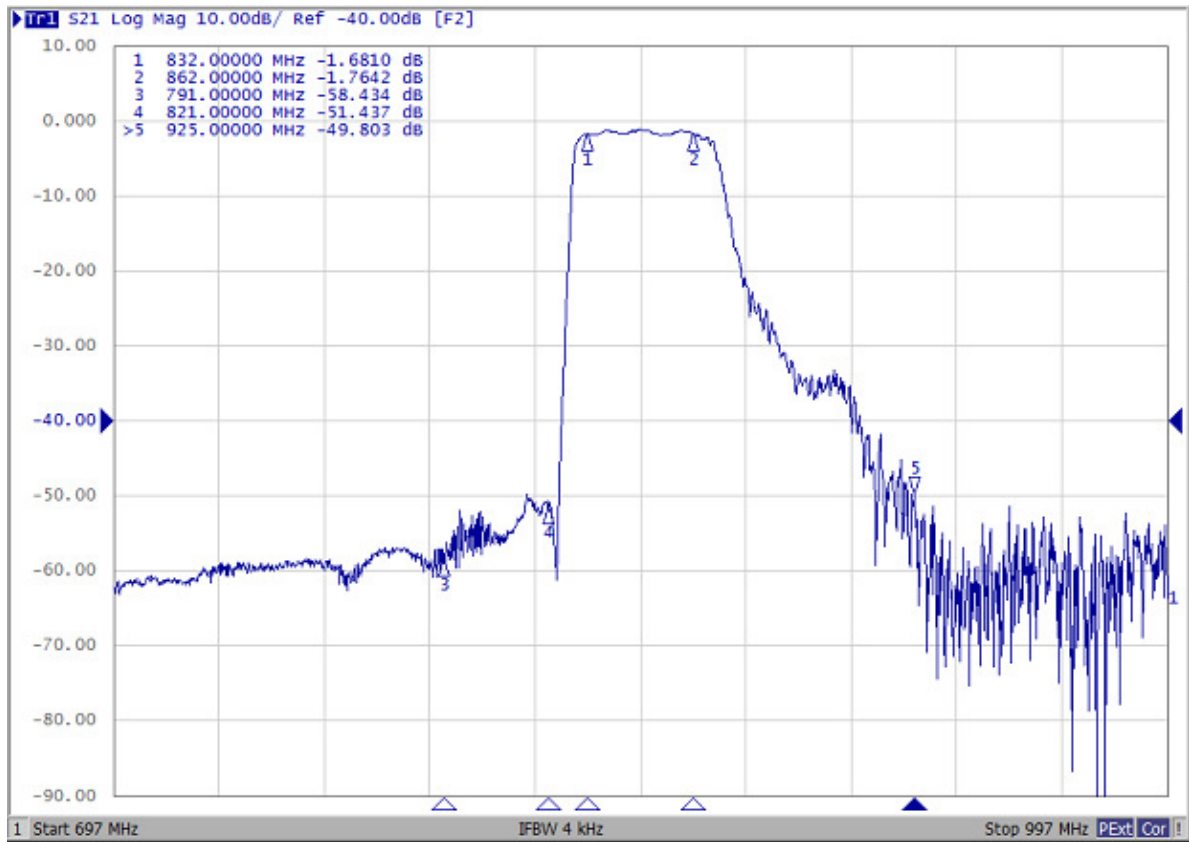
Terminating load impedance : $Z_L = 50 \Omega$

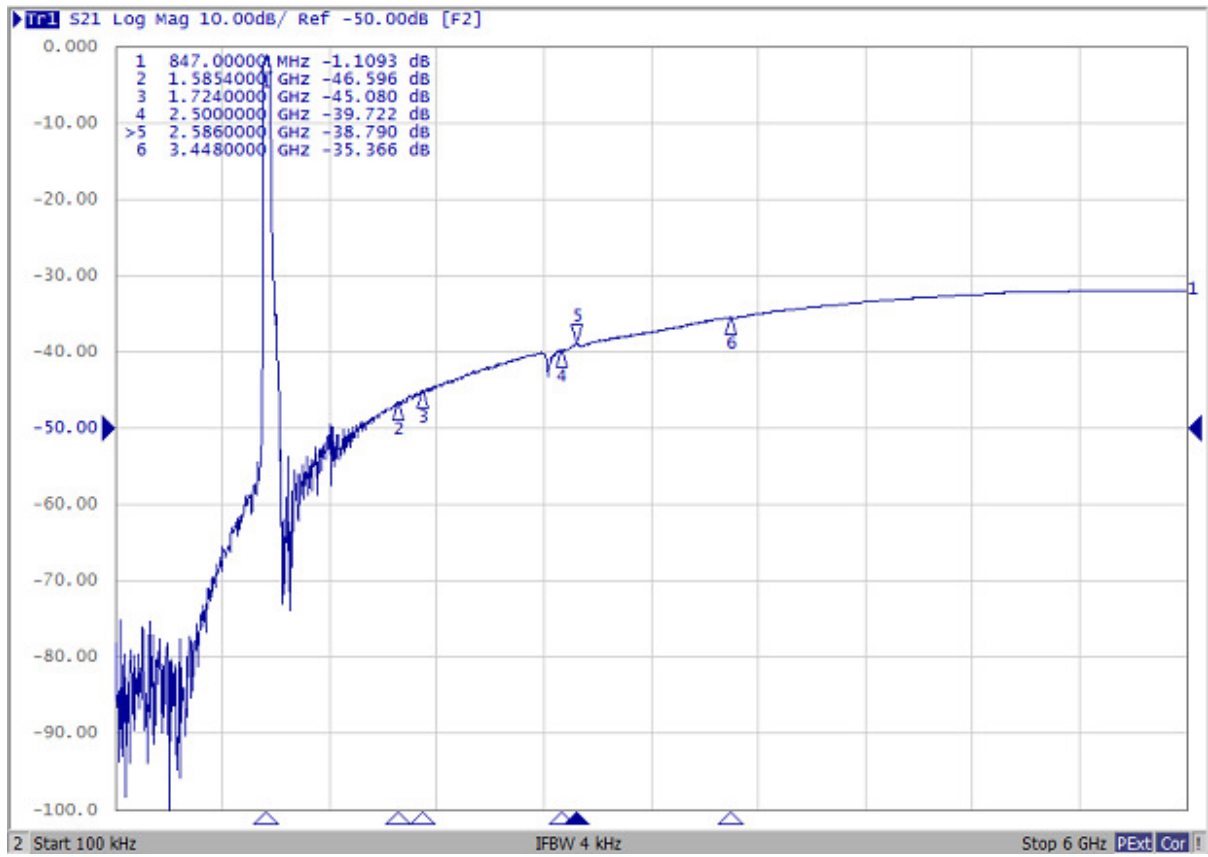
Parameters Description		Unit	Min	Typ	Max	Remarks
Insertion Loss	832~ 862MHz	dB(*1)	-	2.0	2.5	
Amplitude ripple	832~ 862MHz	dB	-	0.9	1.6	
VSWR	Input	832~ 862MHz	-	-	2.3	2.5
	Output	832~ 862MHz	-	-	2.3	2.5
Attenuation:						
DC ~ 791 MHz		dB	30	55	-	
791 ~ 821 MHz		dB	40	48	-	
925 ~ 960 MHz		dB	20	50	-	
1565.42 ~ 1573.374 MHz		dB	35	47	-	
1573.374 ~ 1577.466 MHz		dB	35	47	-	
1577.466 ~ 1585.42 MHz		dB	35	46	-	
1597.5515 ~ 1605.886 MHz		dB	35	46	-	
1664 ~ 1724 MHz		dB	25	45	-	
1805 ~ 1880 MHz		dB	25	44	-	
2110 ~ 2170 MHz		dB	25	42	-	
2400 ~ 2500 MHz		dB	30	41	-	
2496 ~ 2586 MHz		dB	30	40	-	
2570 ~ 2620 MHz		dB	30	40	-	
2620 ~ 2690 MHz		dB	25	39	-	
3328 ~ 3448 MHz		dB	20	37	-	
Input impedance		Ω	50			single-ended
Output impedance		Ω	50			single-ended

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

C. FREQUENCY CHARACTERISTICS:

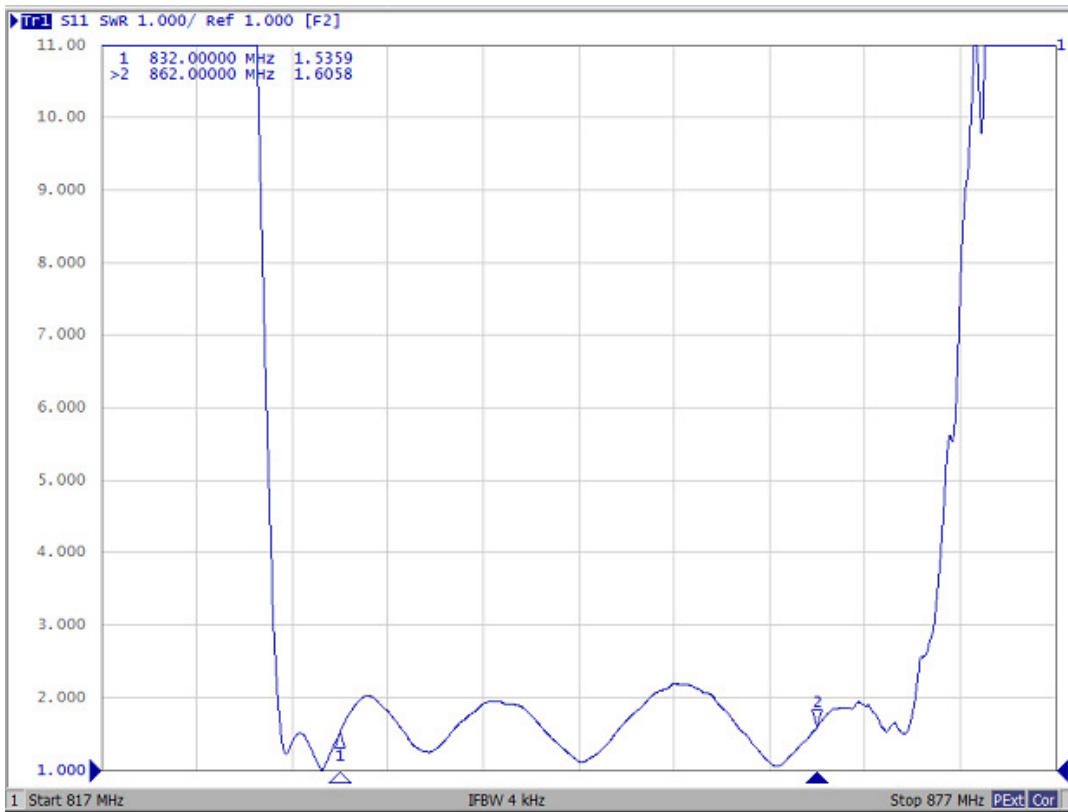
Passband



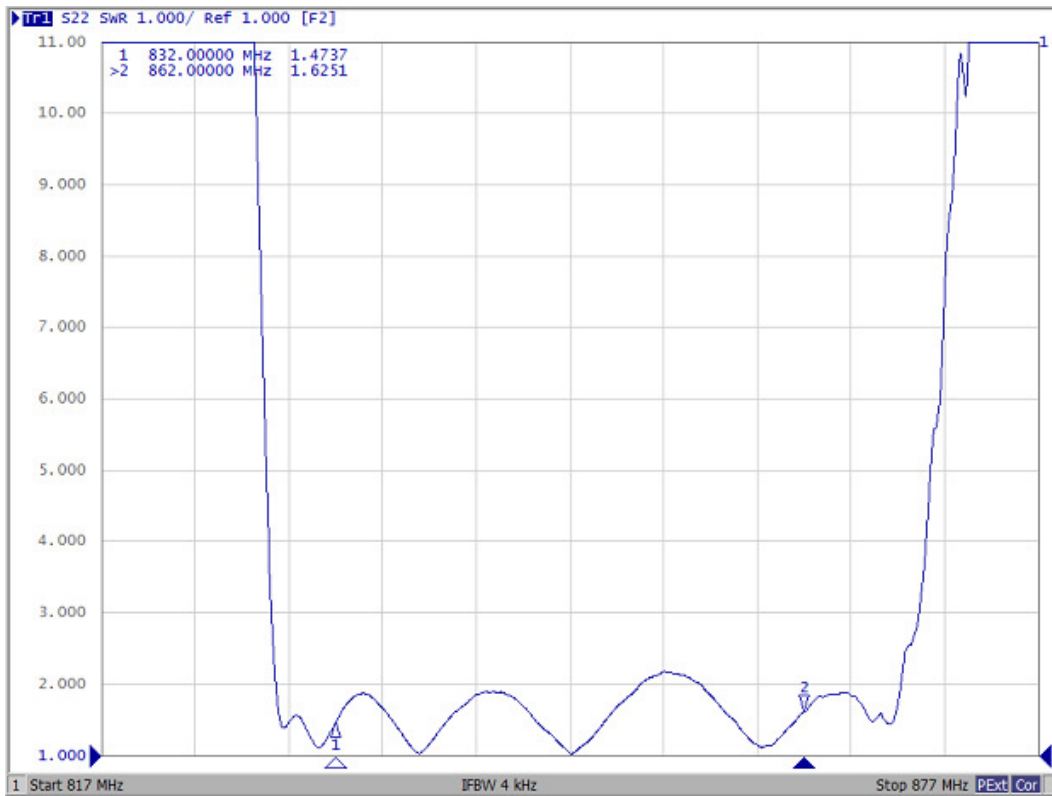


Reflection Functions :

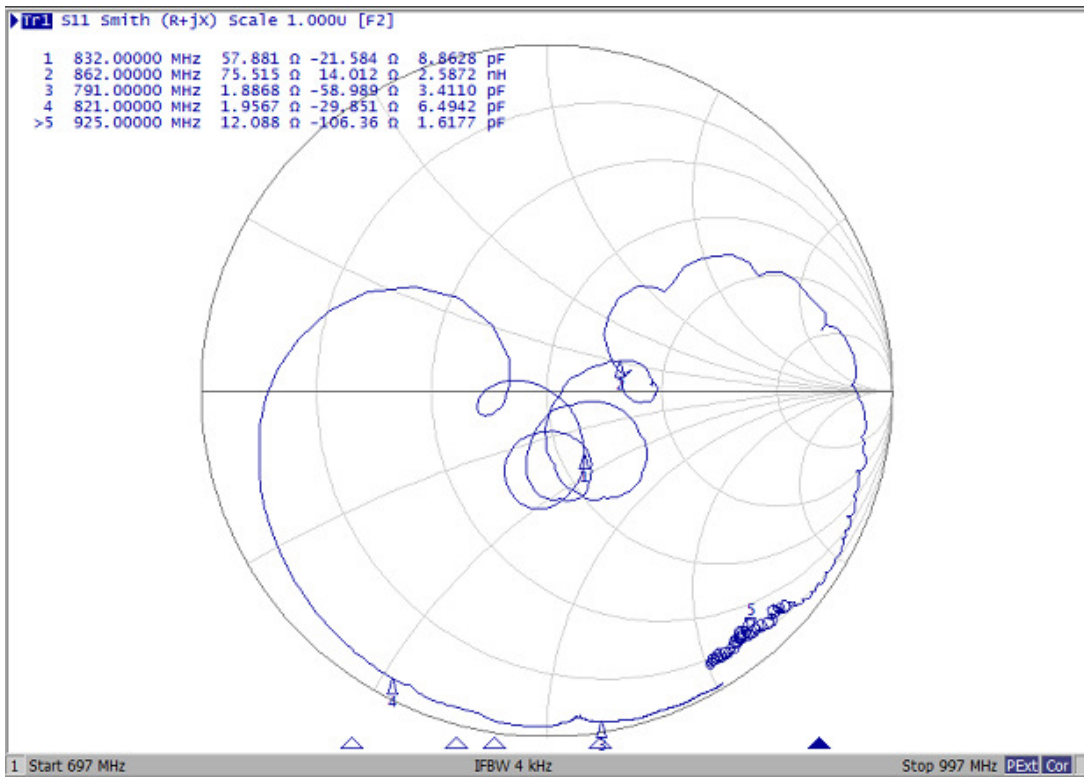
S11 VSWR



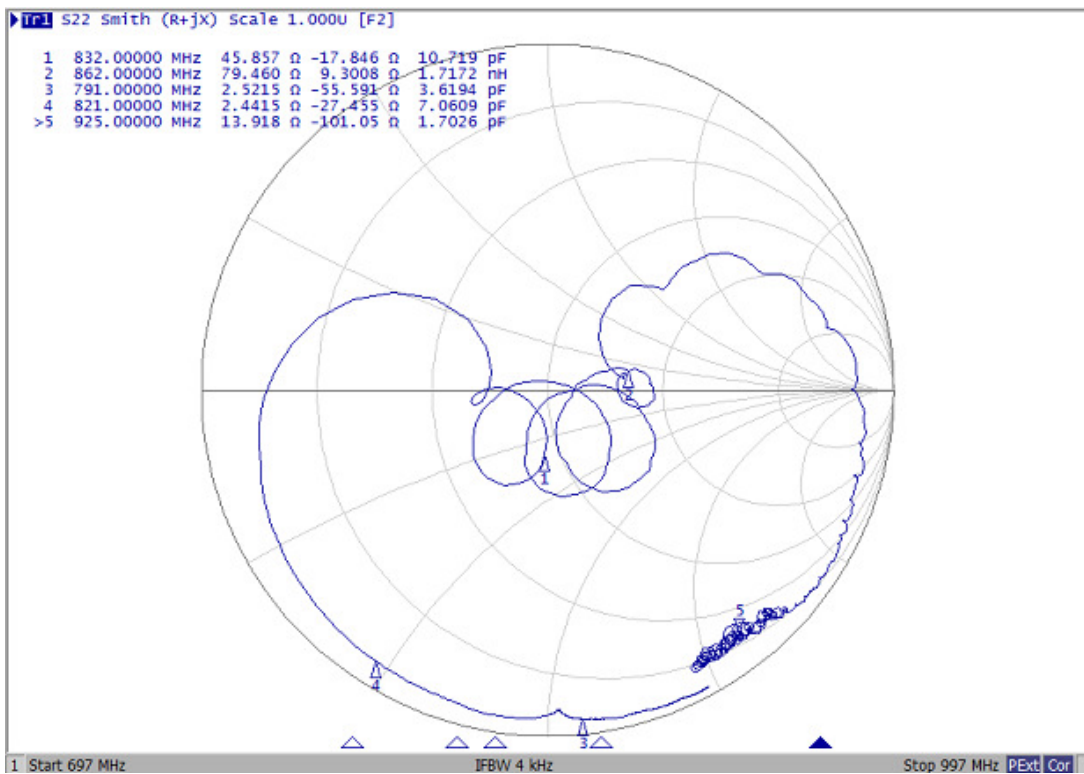
S22 VSWR



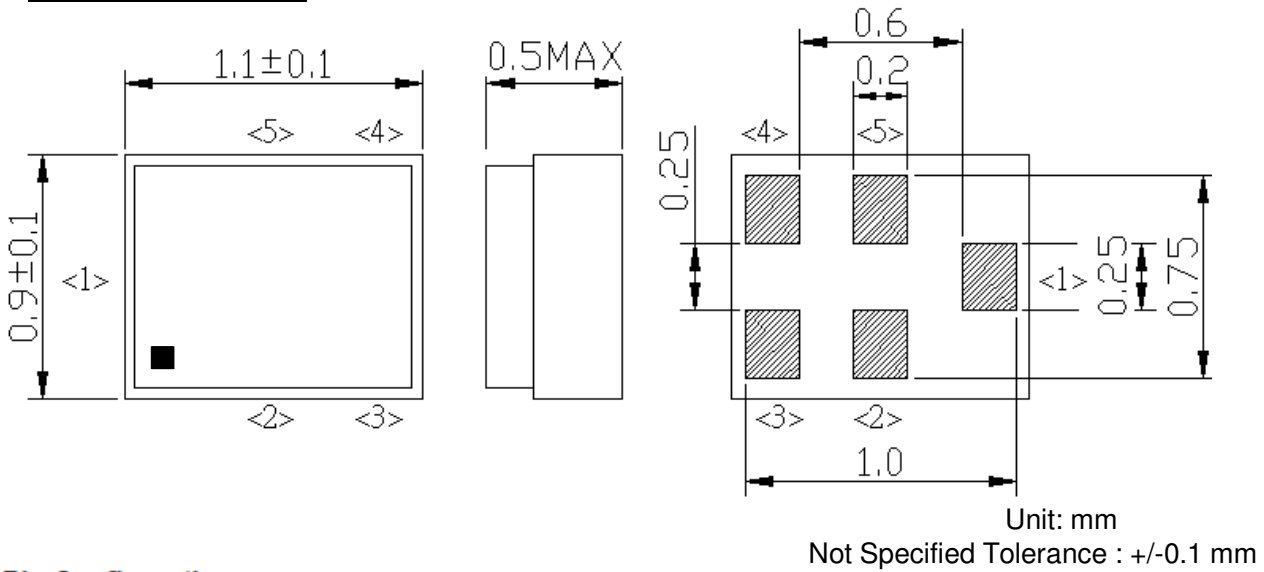
S11 Smith Chart



S22 Smith Chart



D. OUTLINE DRAWIN:



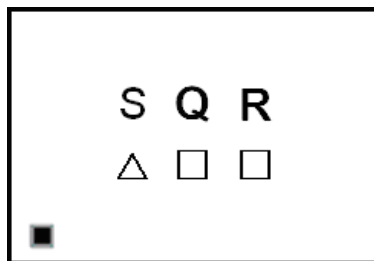
Pin Configuration

Pin No.	Symbol	Function
1	IN	Single-ended pin
2	GND	Ground
3	GND	Ground
4	OUT	Single-ended pin
5	GND	Ground

Top View (Sample Production):



Top View (Mass Production):



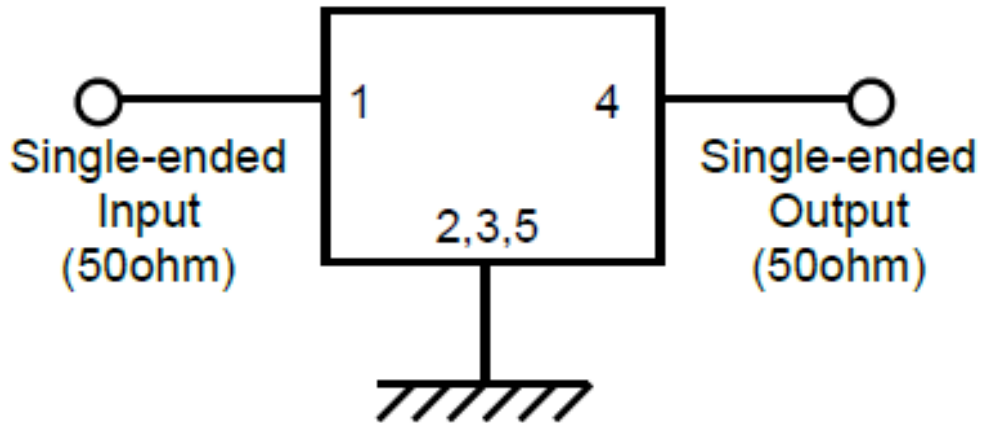
△ : Date Code

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

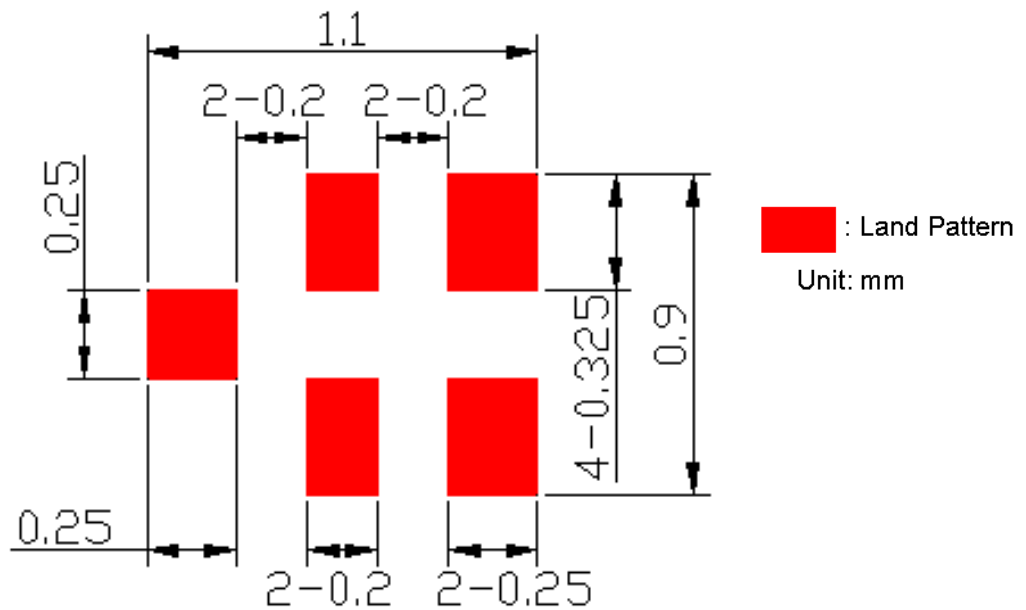
Date Code: Follow below table. (4-year cycle)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
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
2021	A	B	C	D	E	F	G	H	J	K	L	M

E.Evaluation Circuit



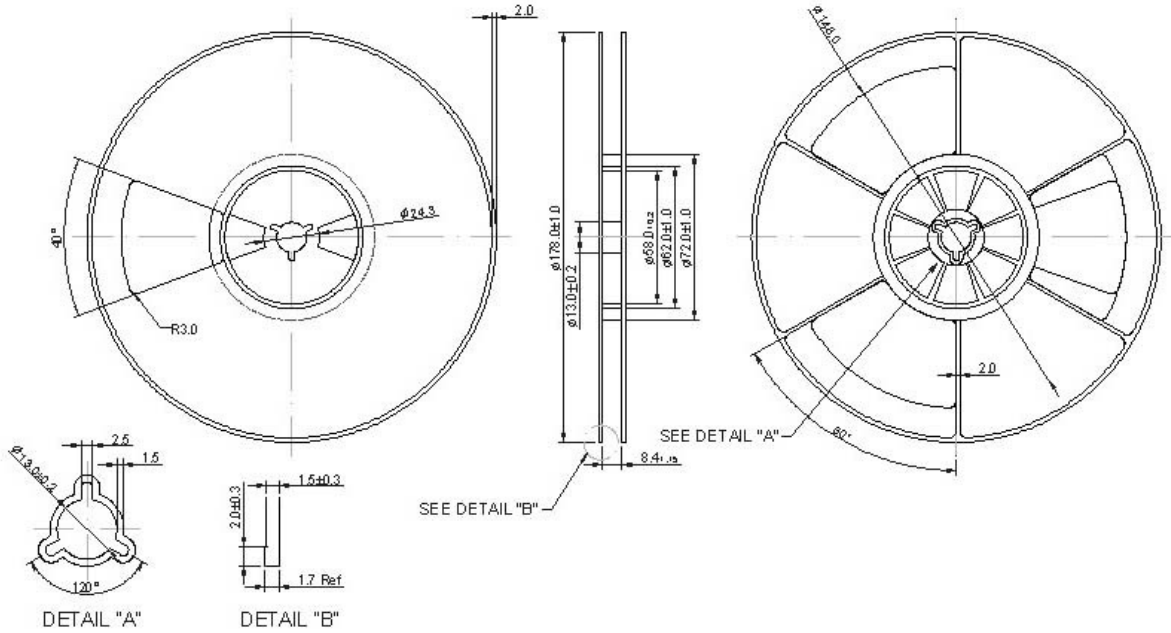
F. PCB Footprint :



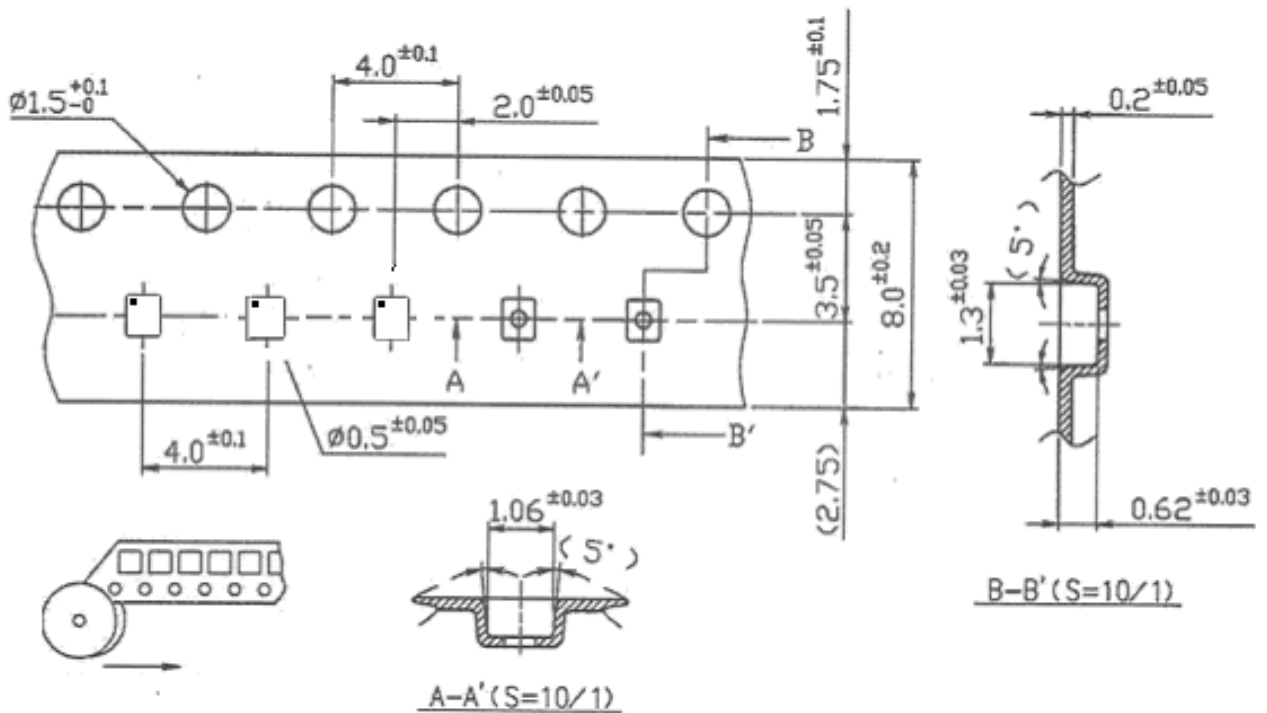
G. PACKING:

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 245~260°C peak (min. 10sec).
4. Time : 2 times.

