



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Description: BAW Filter 2442 MHz SMD 1.1X0.9 mm (BW=79 MHz)

TST Part No.: TA2105E

Customer Part No.: \_\_\_\_\_

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

Checked by: \_\_\_\_\_ Anne Chen *Anne Chen*

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2018 . 12 .25

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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BAW Filter 2442 MHz SMD 1.1X0.9 mm (BW=79 MHz)

MODEL NO.:TA2105E

REV.1.0

## A. MAXIMUM RATING:

1. Input power : 30dBm (Ta=+50 °C,10kh,CW )
2. Maximum DC Voltage: +/-3 V
3. Operating temperature range: -30 °C to +85 °C
4. Storage temperature range: -30 °C to +85 °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:  $Z_s = 50//6.8nH(Q=\infty) \Omega$  (Single)

Terminating load impedance:  $Z_L = 50//6.8nH(Q=\infty) \Omega$  (Single)

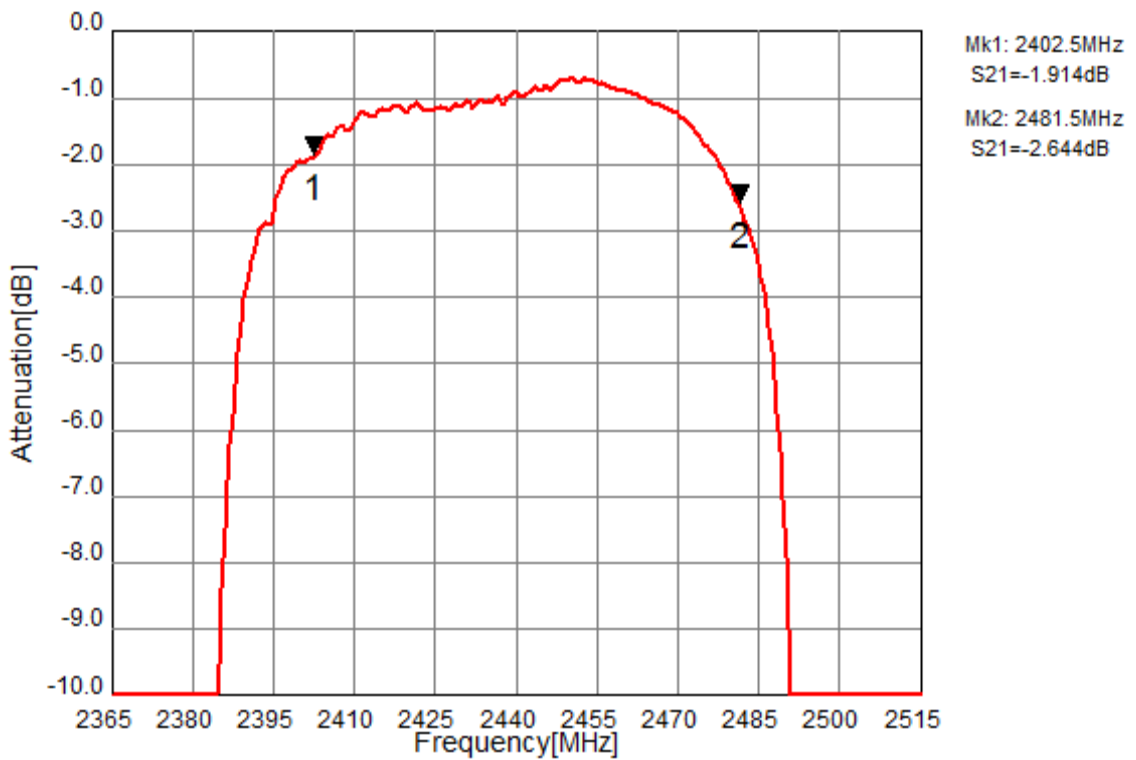
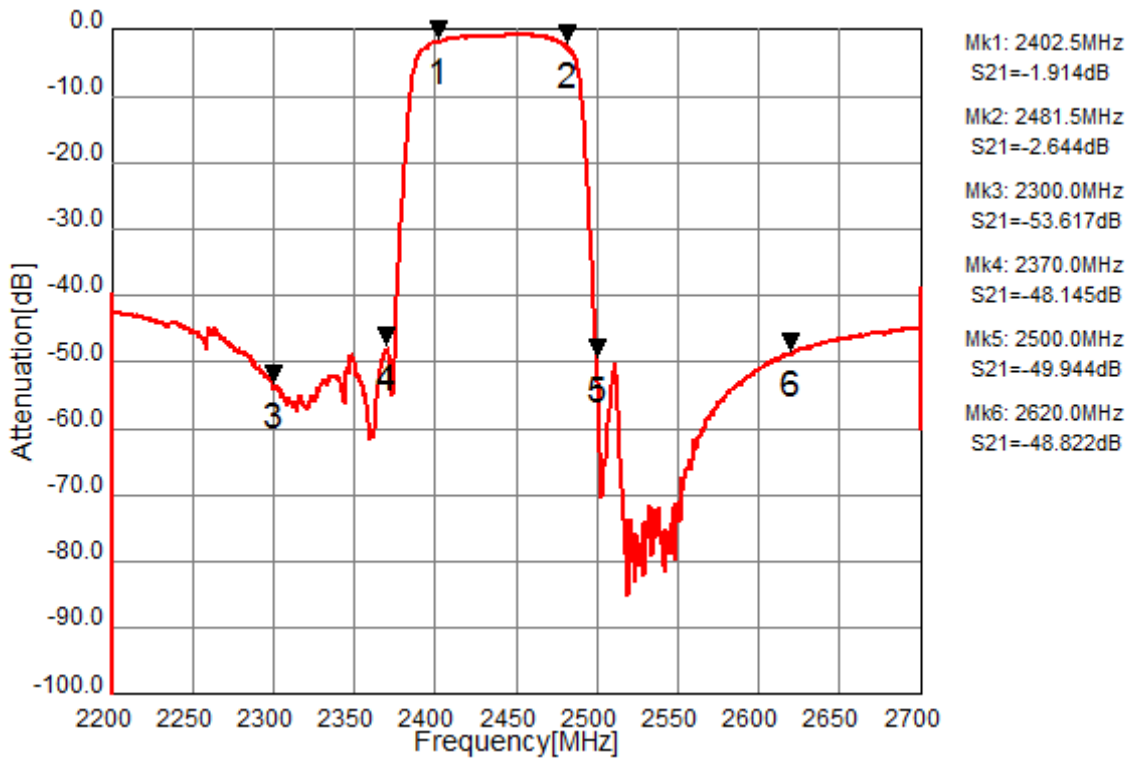
Parameters		Description	Unit	Min	Typ	Max	Remarks
Insertion Loss integrated(*1)(*2)		2402.5 ~ 2421.5 MHz	dB	-	1.4	2.0	
		2407.5 ~ 2426.5 MHz	dB		1.3	1.9	
		2412.5 ~ 2471.5 MHz	dB		1.3	1.8	
		2457.5 ~ 2476.5 MHz	dB		1.3	2.0	
		2462.5 ~ 2481.5 MHz	dB	--	1.5	2.4	
Amplitude ripple(*2)		2402.5 ~ 2421.5 MHz	dB	-	0.6	1.5	
		2407.5 ~ 2426.5 MHz	dB		0.5	1.4	
		2412.5 ~ 2471.5 MHz	dB		0.5	1.3	
		2457.5 ~ 2476.5 MHz	dB		0.5	1.5	
		2462.5 ~ 2481.5 MHz	dB		0.7	1.9	
VSWR	Input	2402.5 ~ 2481.5 MHz	-	-	1.5	2.0	
	Output	2402.5 ~ 2481.5 MHz	-	-	1.5	2.0	
<b>Attenuation:</b>							
800 ~ 2300 MHz			dB	35	39	-	
2300 ~ 2370 MHz			dB	48	51	-	(*3)
2500 ~ 2505 MHz			dB	23	61	-	-30 °Cto -10 °C(*3)
			dB	30		-	-10 °Cto+25 °C(*3)
			dB	42		-	+25 °Cto+85 °C(*3)
2505 ~ 2570 MHz			dB	47	52	-	(*3)
2570 ~ 2620 MHz			dB	42	48	-	(*3)
2620 ~ 2690 MHz			dB	42	45	-	(*3)
2690 ~ 7500 MHz			dB	30	39	-	

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

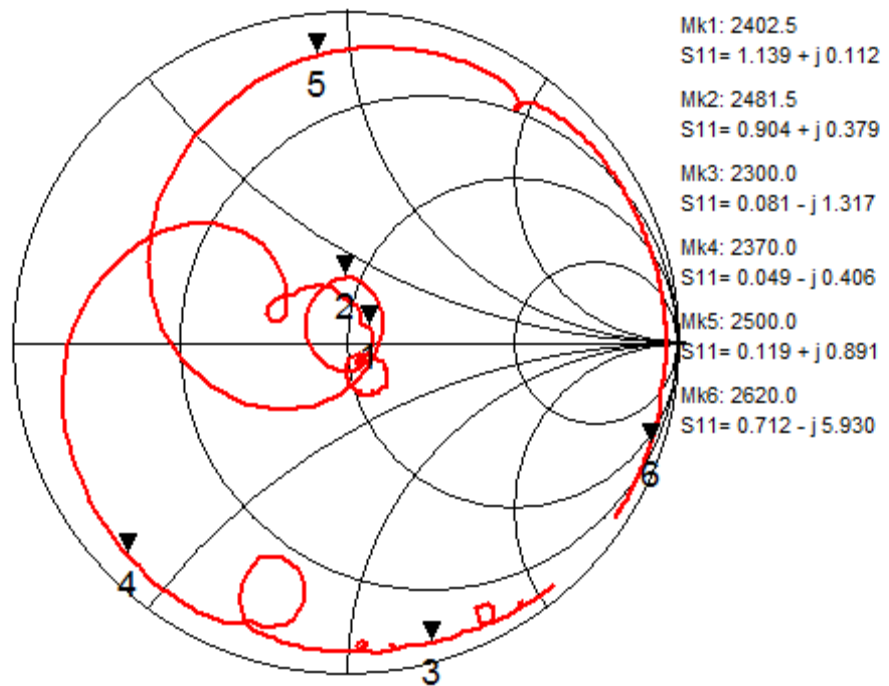
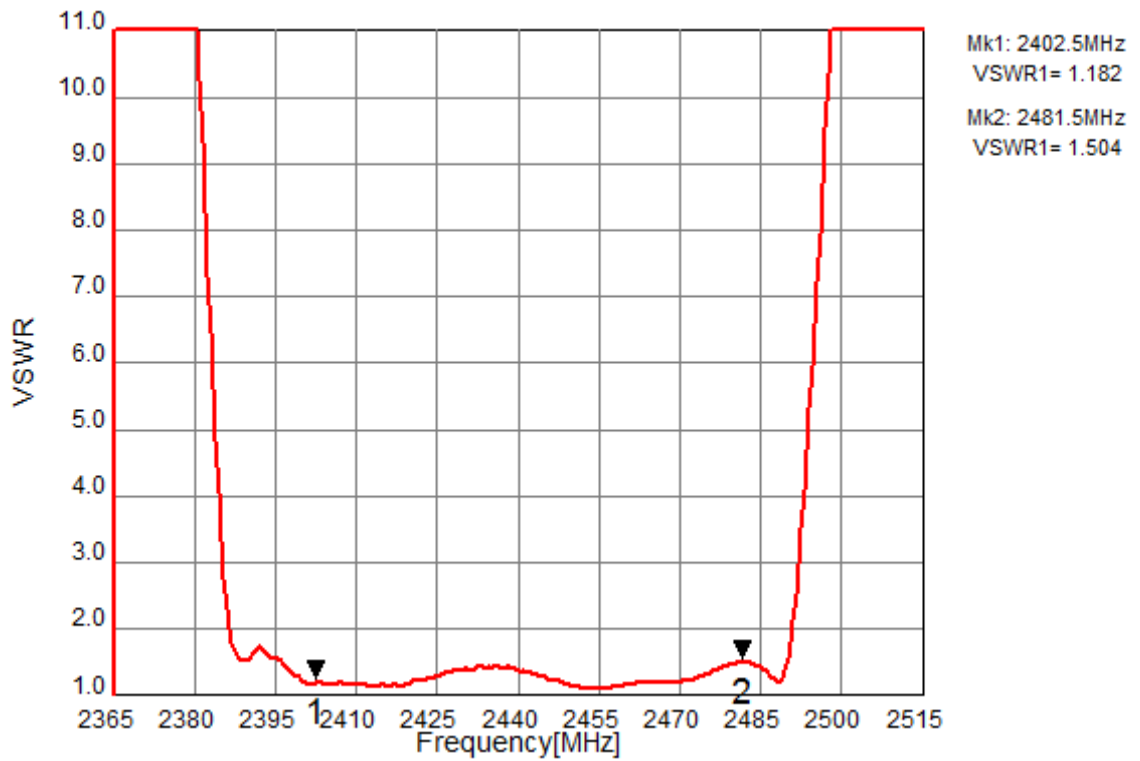
(\*2) The integrated loss over any 19MHz channel within the band.

(\*3) The integrated loss over any 5MHz channel within the band.

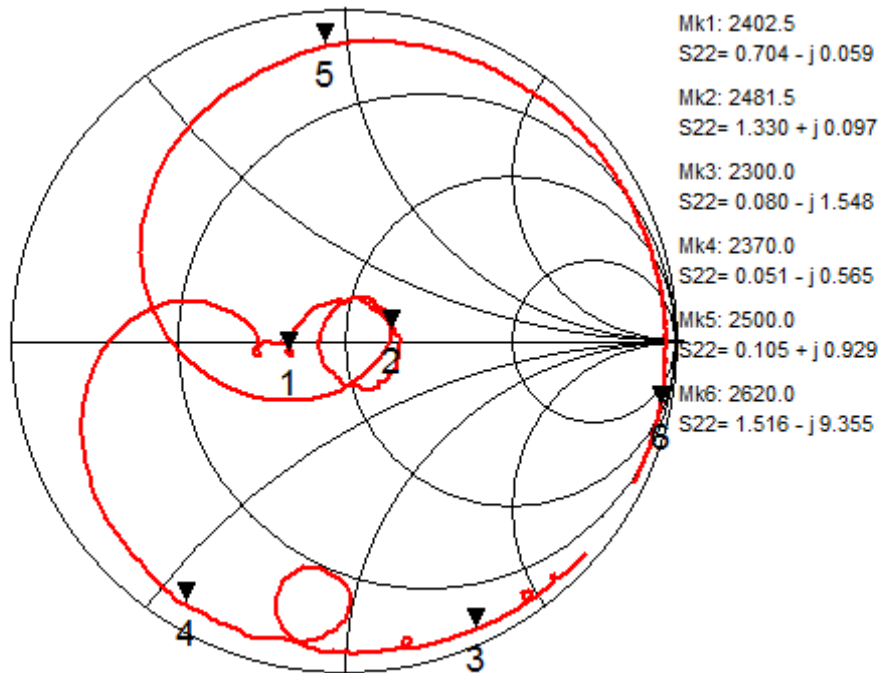
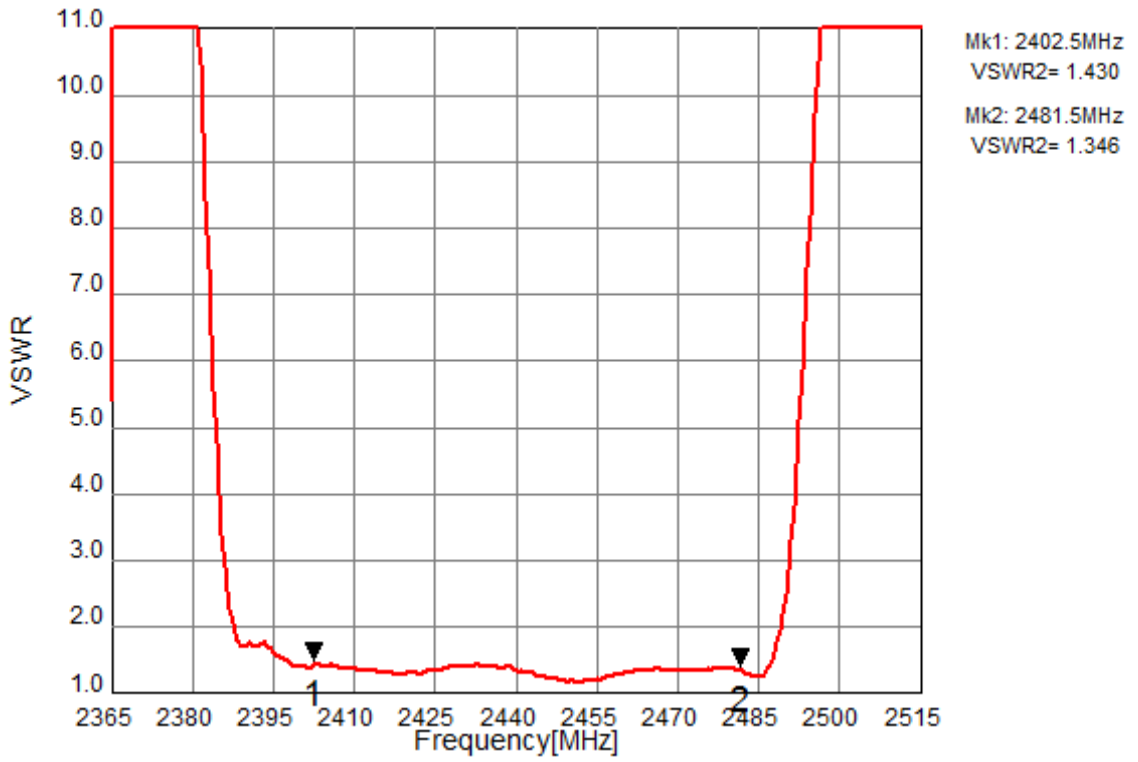
**C. FREQUENCY CHARACTERISTICS:**



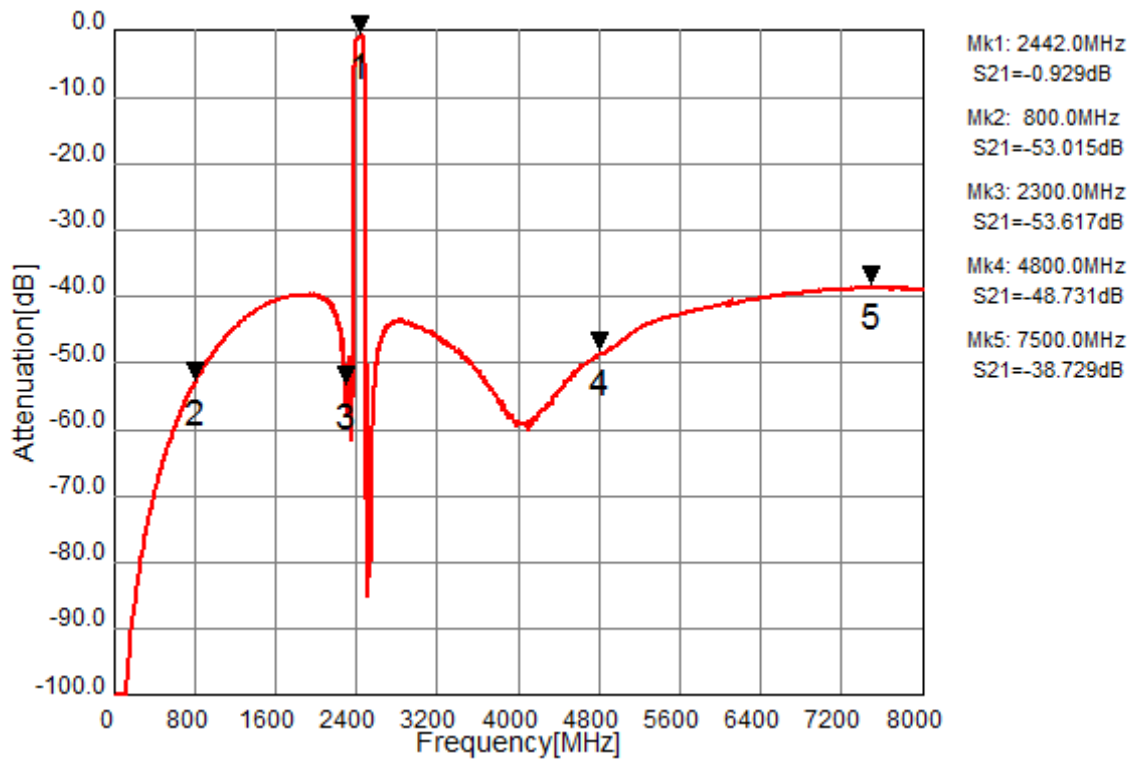
# Input Port



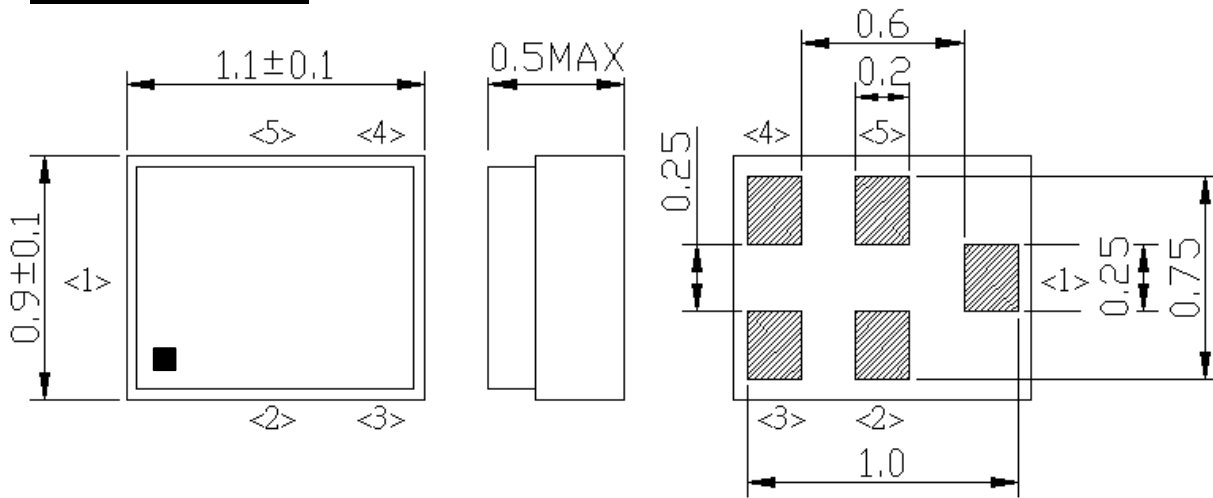
# Output Port



# Wideband



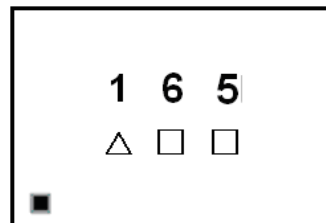
**D.OUTLINE DRAWIN:**



**Pin Configuration**

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

**Top View**



**Marking name : 165**

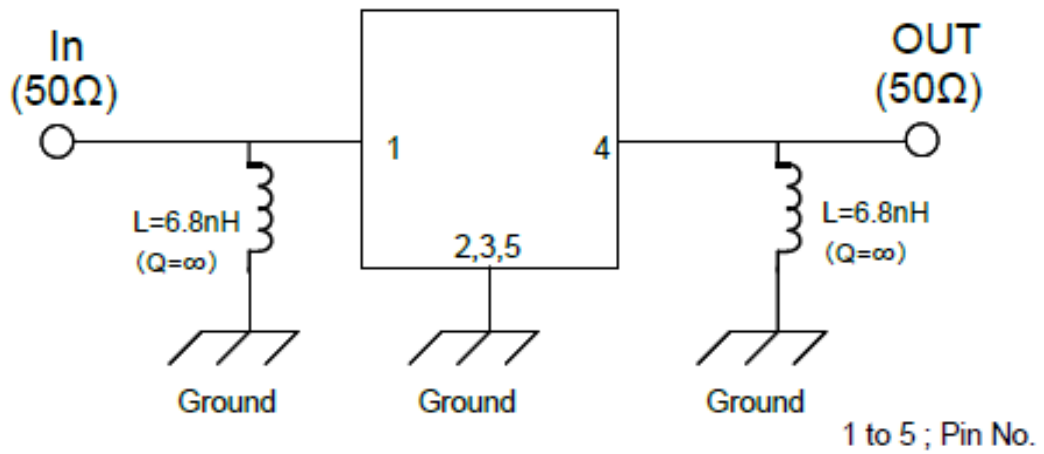
**△ : Date Code**

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

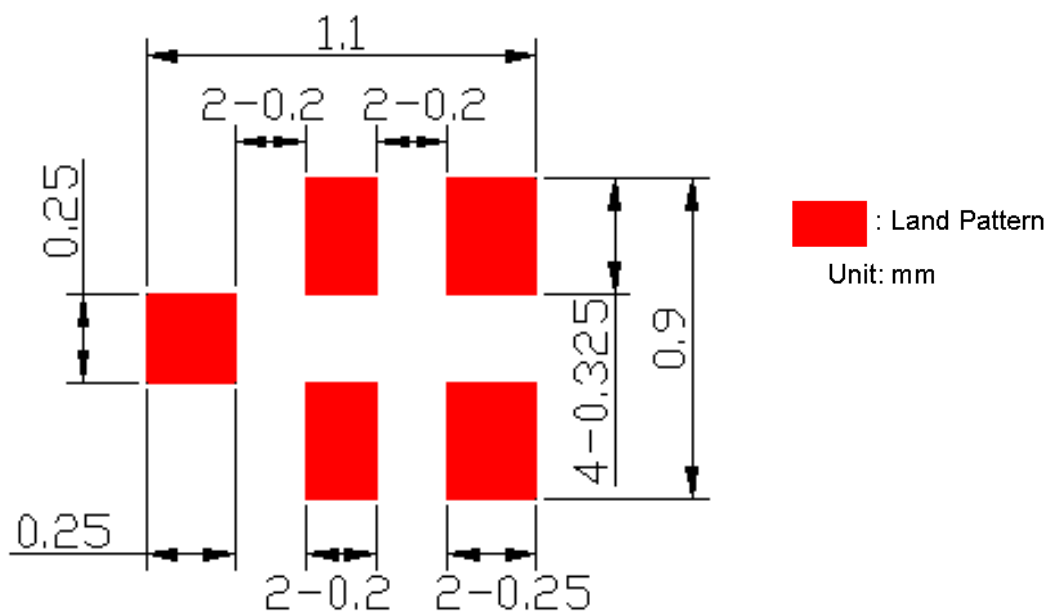
**Date Code:**

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017 / 2021	A	B	C	D	E	F	G	H	J	K	L	M
2018 / 2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019 / 2023	a	b	c	d	e	f	g	h	j	k	l	m
2020 / 2024	n	p	q	r	s	t	u	v	w	x	y	z

### E.Evaluation Circuit



### F. PCB Footprint :

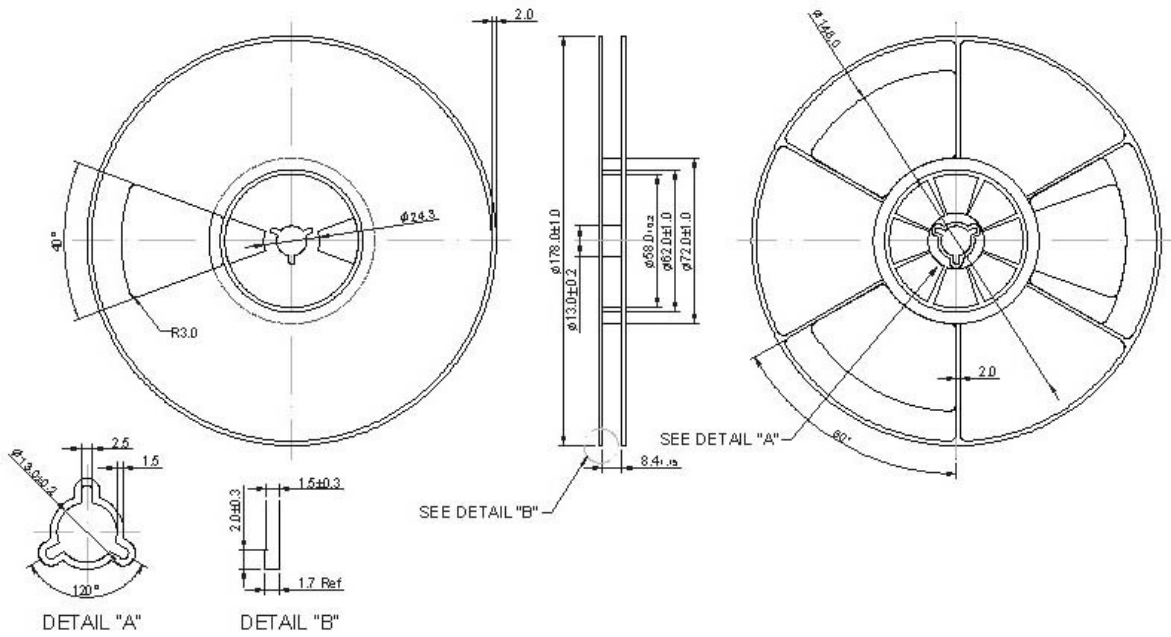




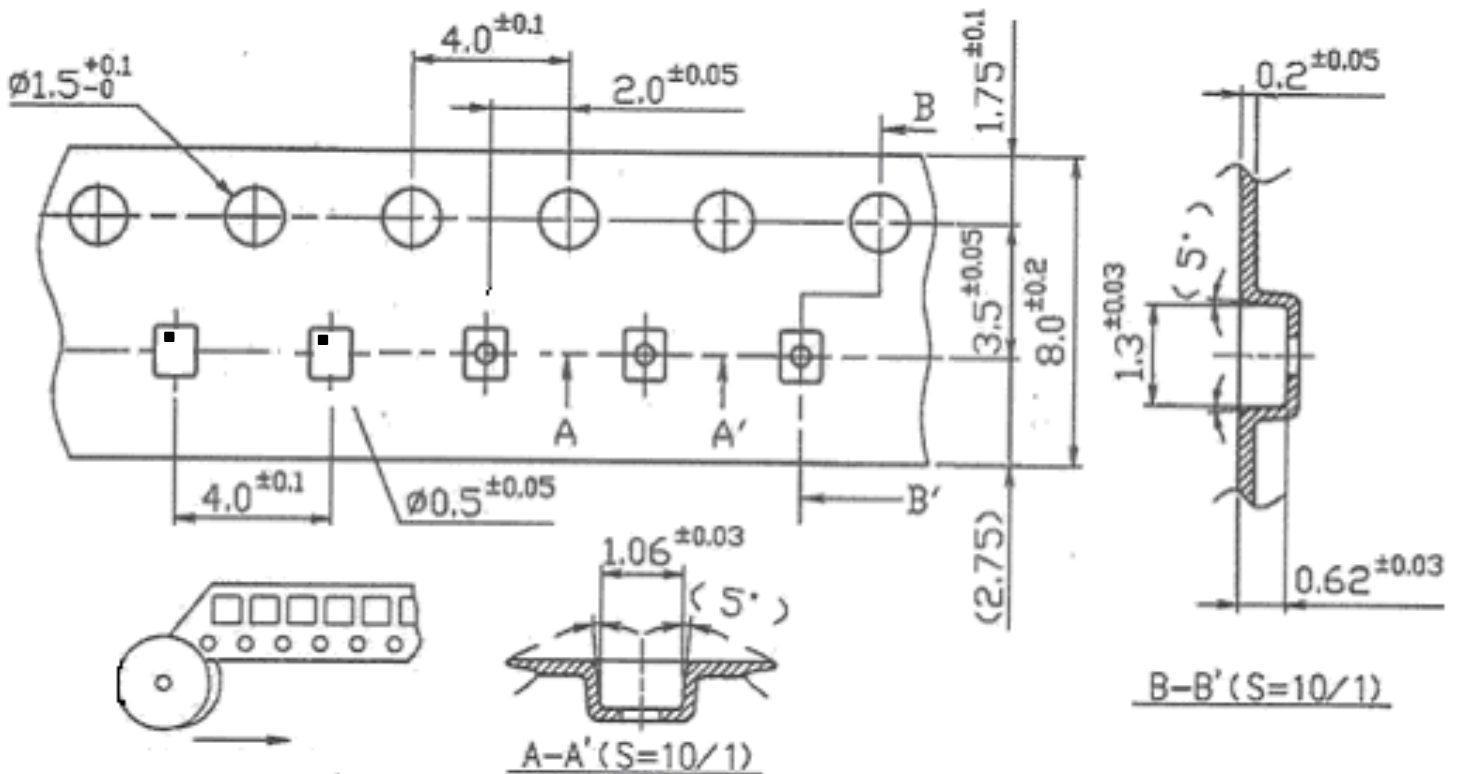
**G. PACKING:**

**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.

