

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

MODEL NO.:TA2042B

REV.2.0

**A. MAXIMUM RATING:**

1. Operating temperature range: -40 °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 Sensitivity Level: Level 1 (MSL 1)
6. ESD 100V(MM) 200V(HBM)



Electrostatic Sensitive Device (ESD)

**B. ELECTRICAL CHARACTERISTICS:**

Terminating source impedance :  $Z_s = 50 \Omega$

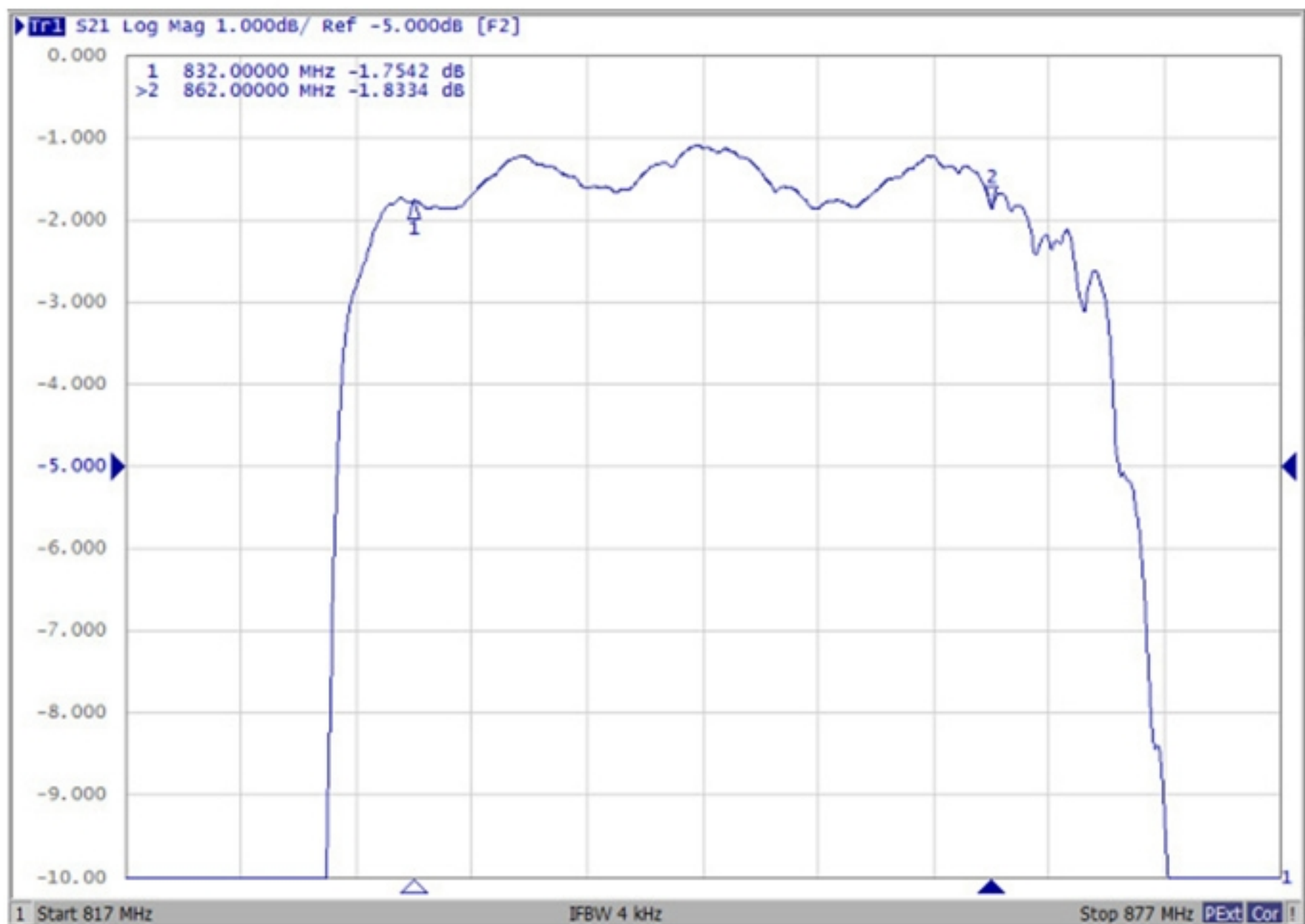
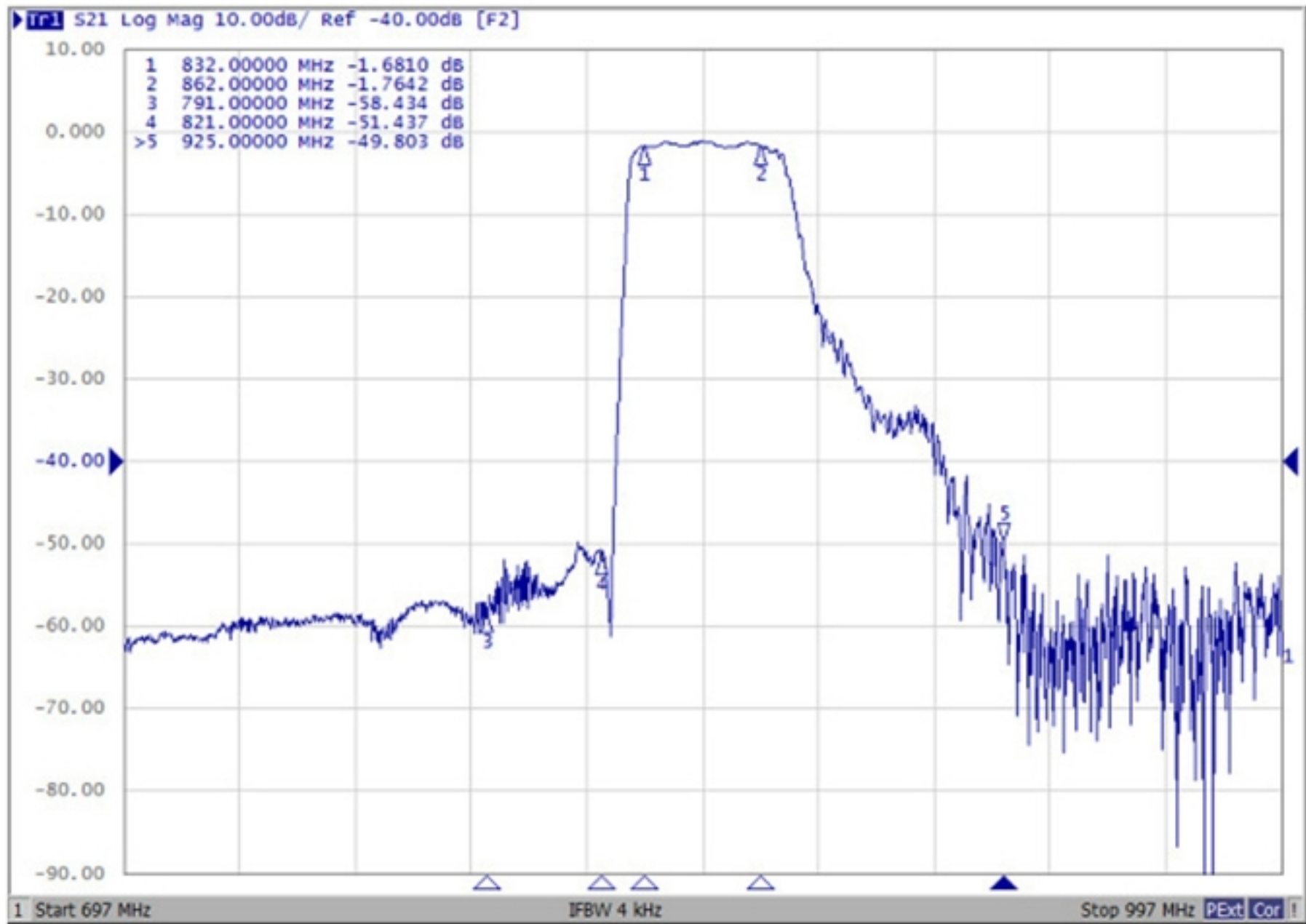
Terminating load impedance :  $Z_L = 50 \Omega$

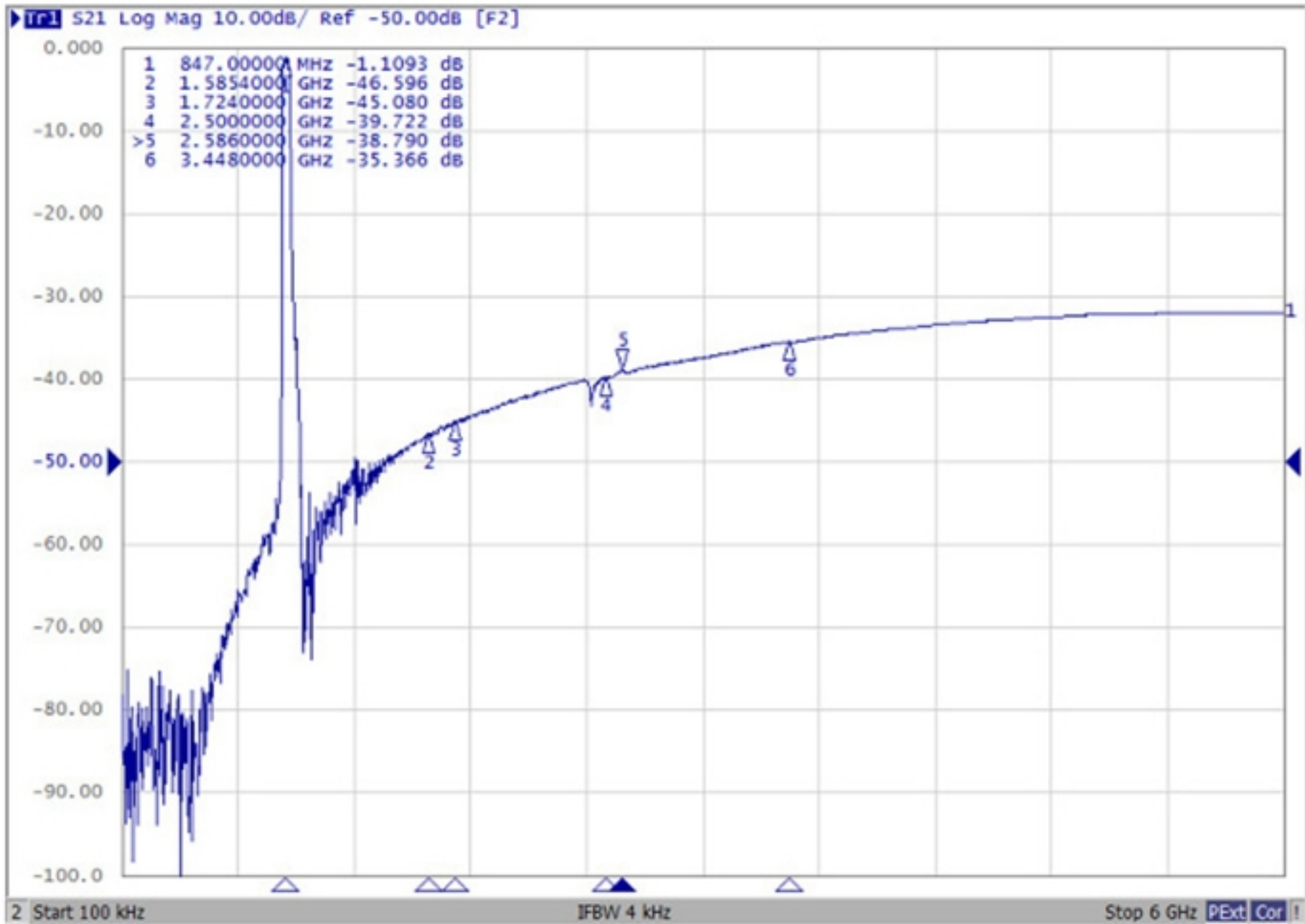
Parameters Description		Unit	Min	Typ	Max	Remarks
Insertion Loss	832~ 862MHz	Db(*1)	-	2.0	2.5	
Amplitude ripple	832~ 862MHz	dB	-	0.9	1.6	
VSWR	Input	832~ 862MHz	-	2.3	2.5	
	Output	832~ 862MHz	-	2.3	2.5	
<b>Attenuation:</b>						
<b>DC ~ 791 MHz</b>		dB	30	55	-	
<b>791 ~ 821 MHz</b>		dB	40	48	-	
<b>925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

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

### C. FREQUENCY CHARACTERISTICS:

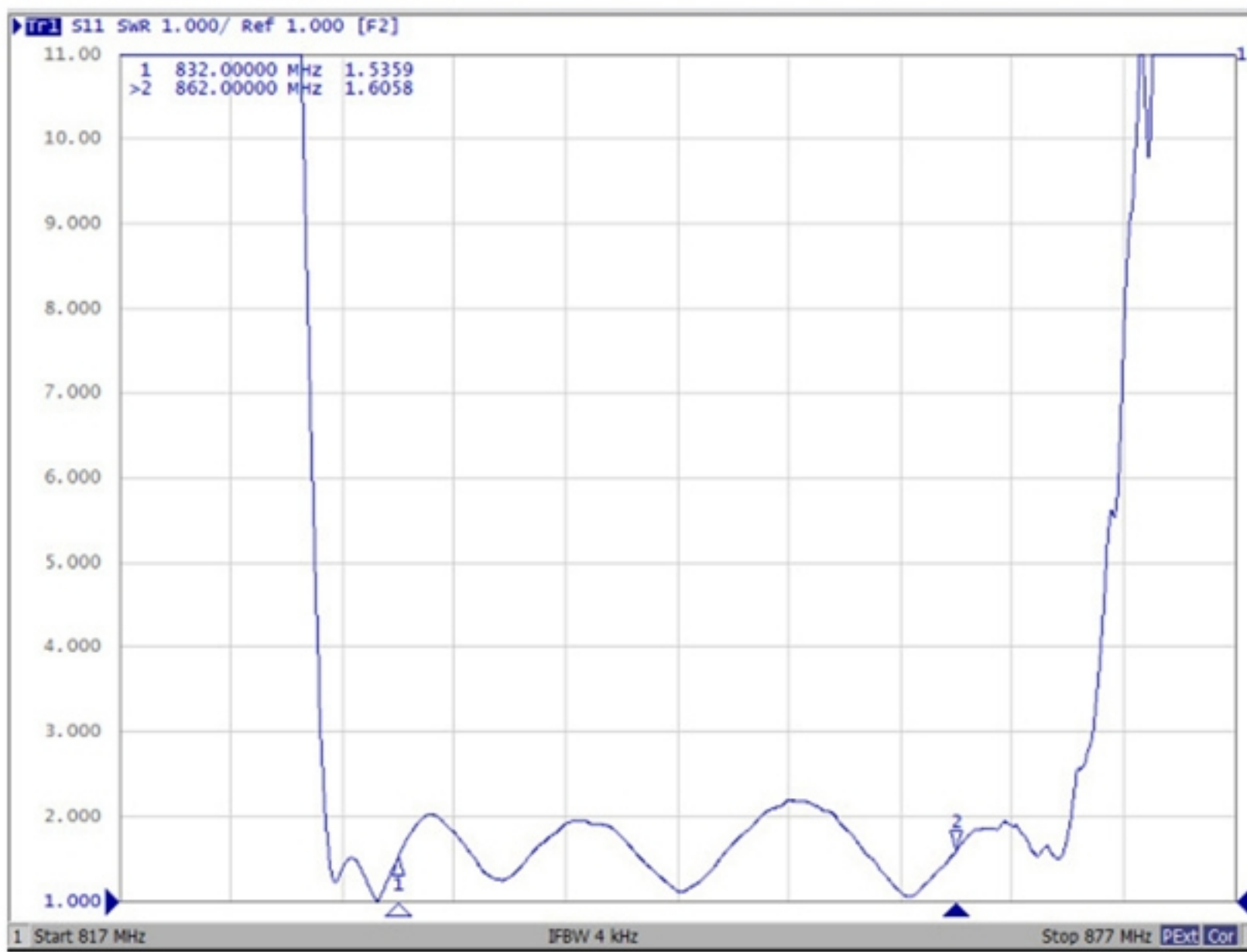
#### Passband



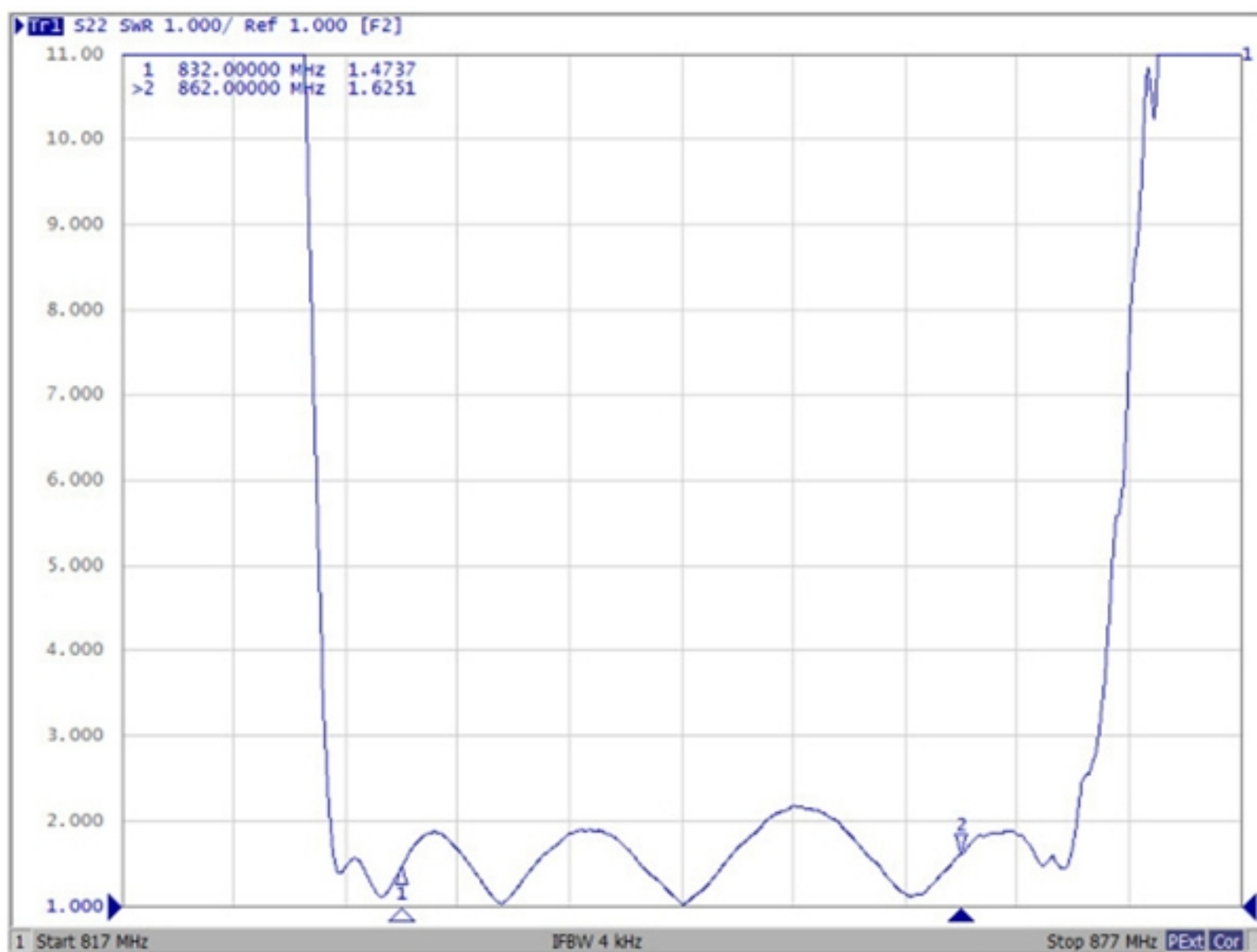


## Reflection Functions :

### S11 VSWR

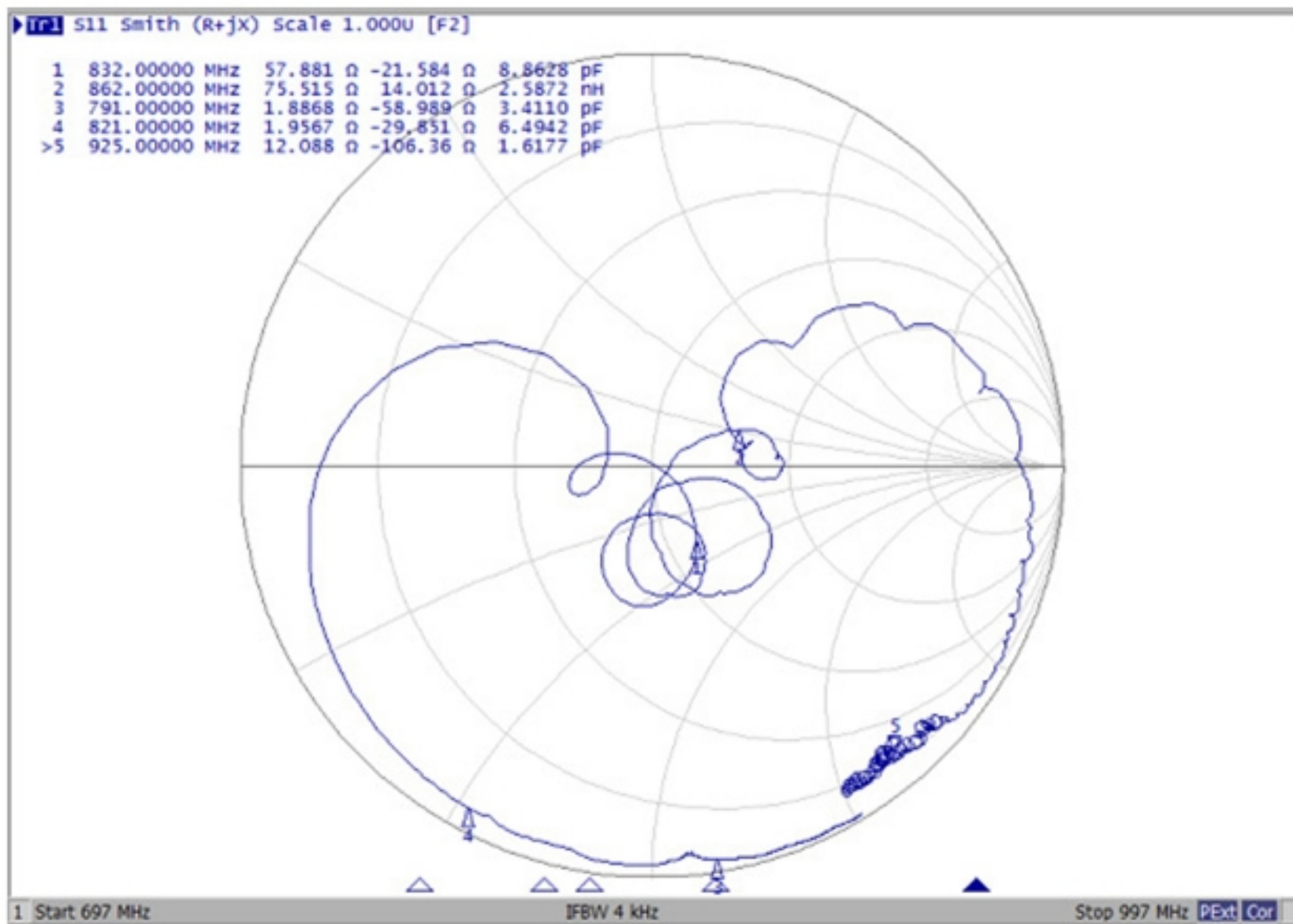


### S22 VSWR

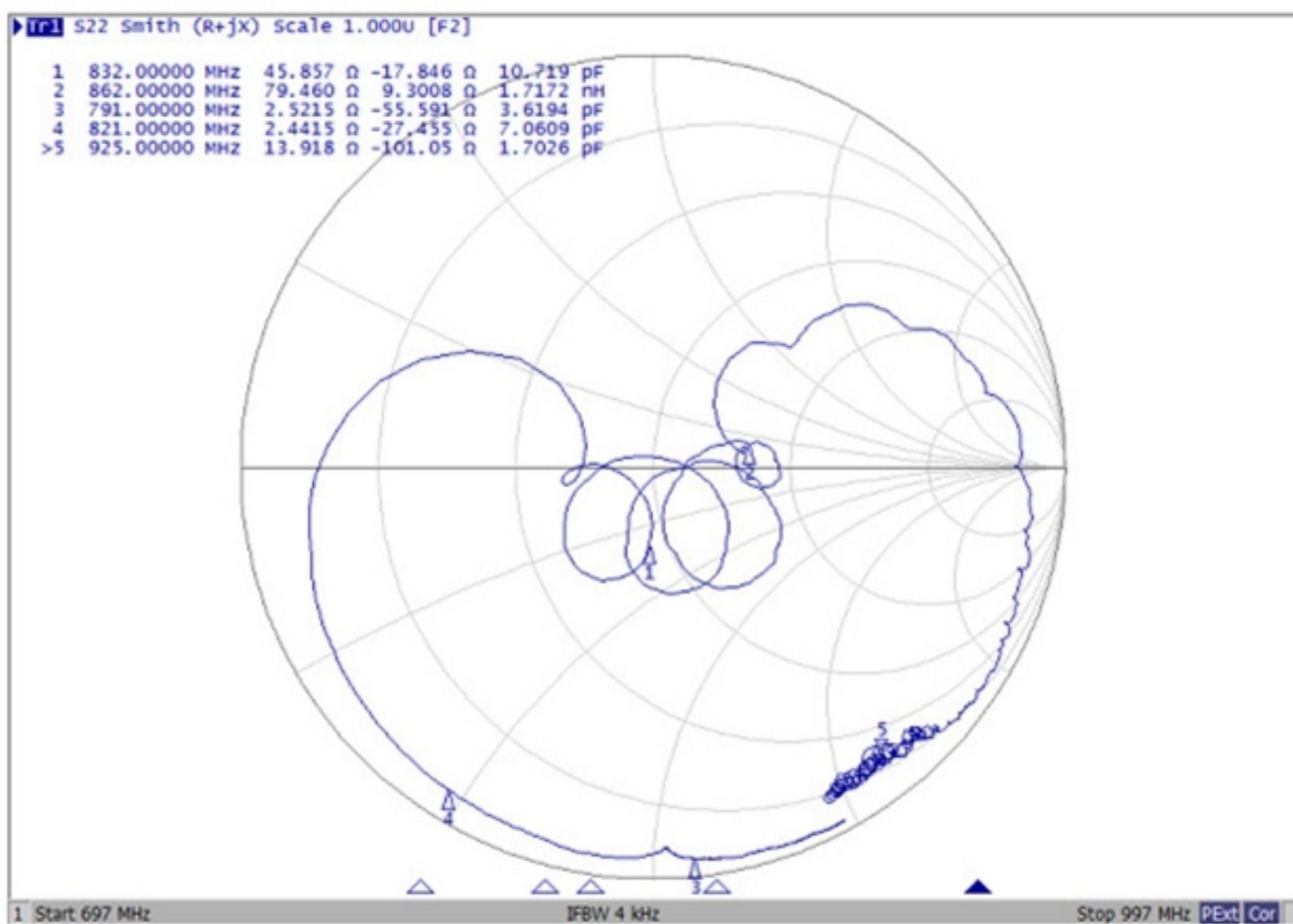




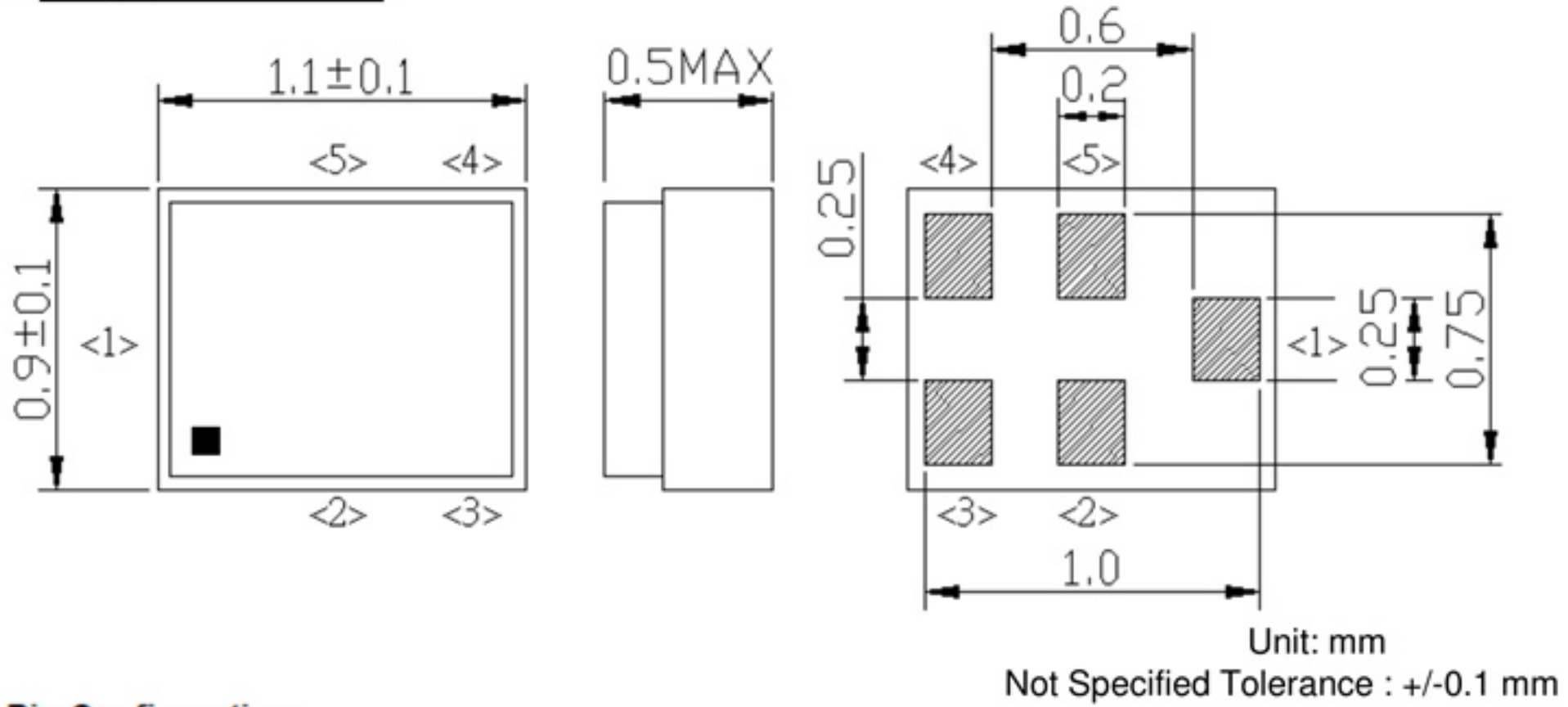
## S11 Smith Chart



## 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):**



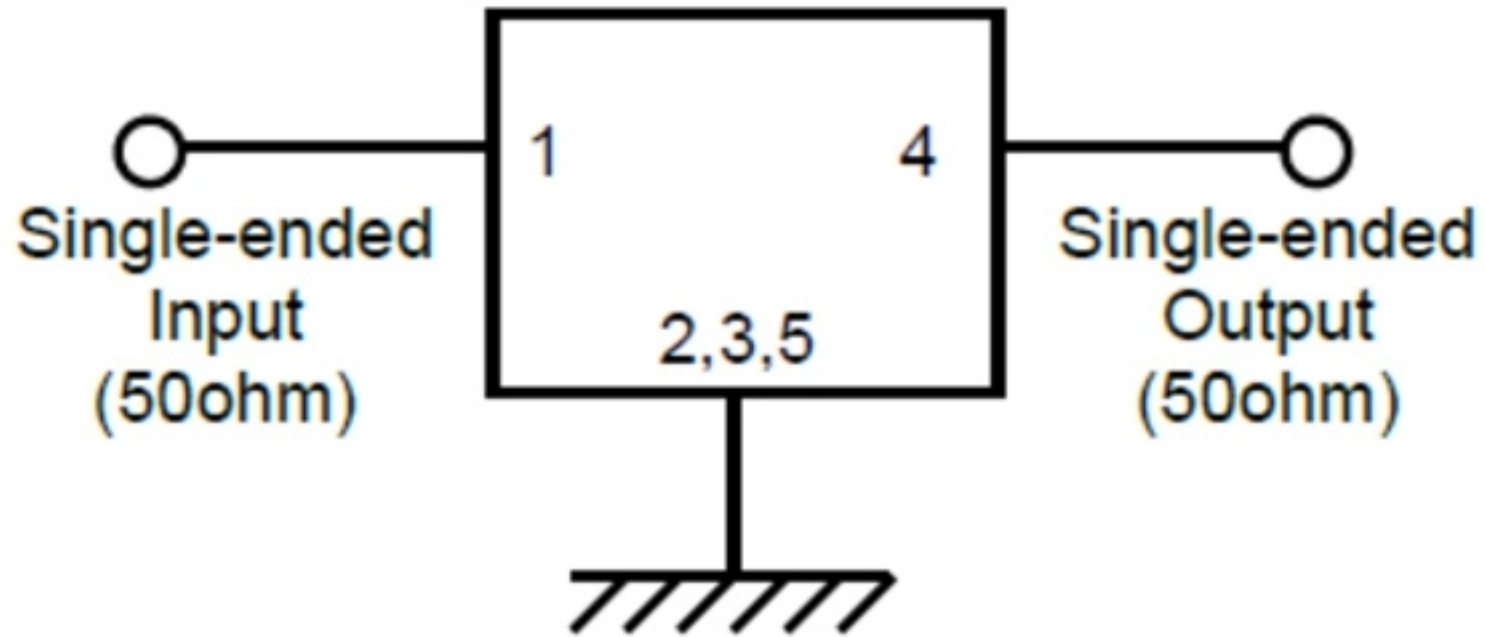
△ : **Date Code**

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

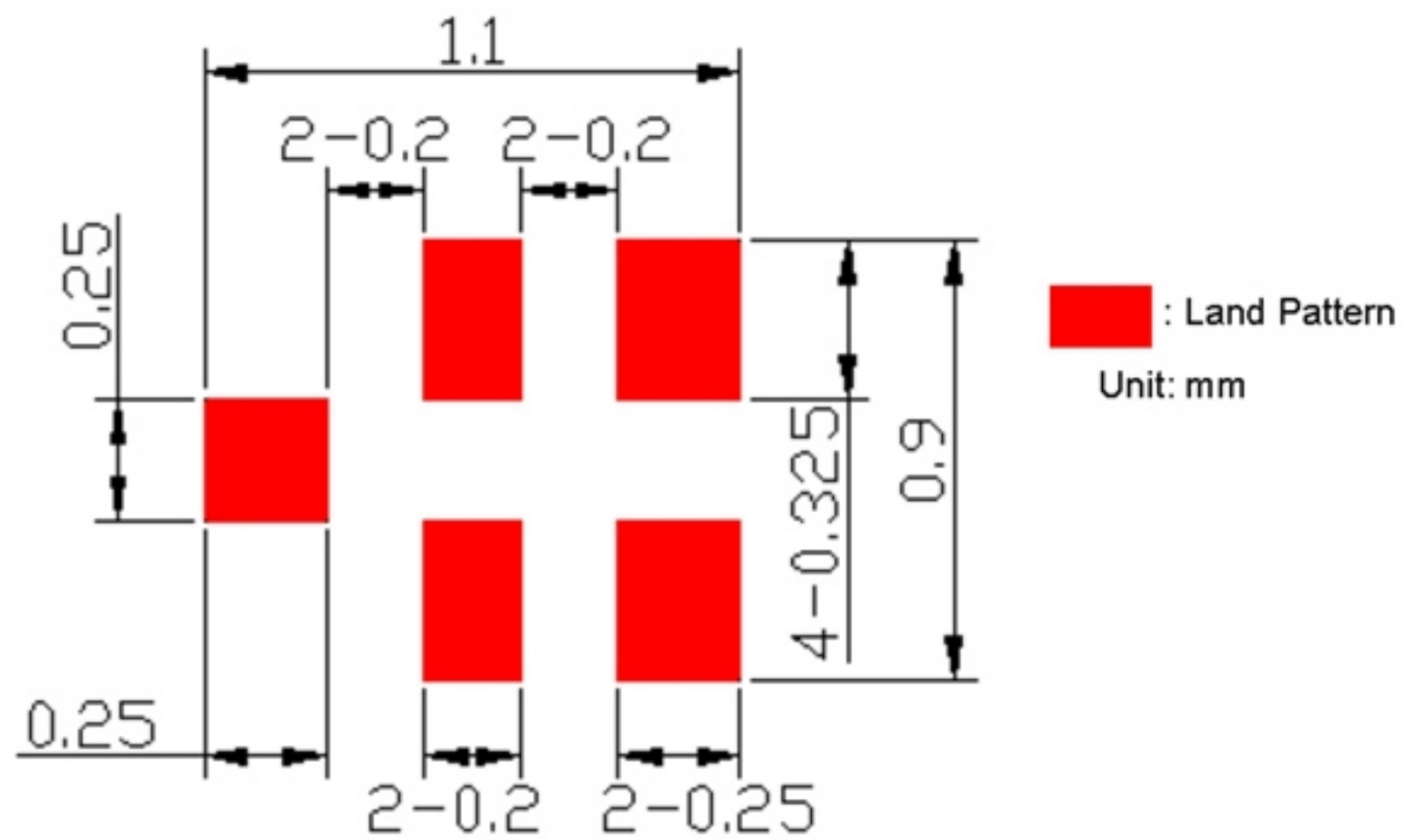
**Date Code:** Follow below table. (4-year cycle)

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	∅	E	F	G	H	J	K	L	M

### E.Evaluation Circuit



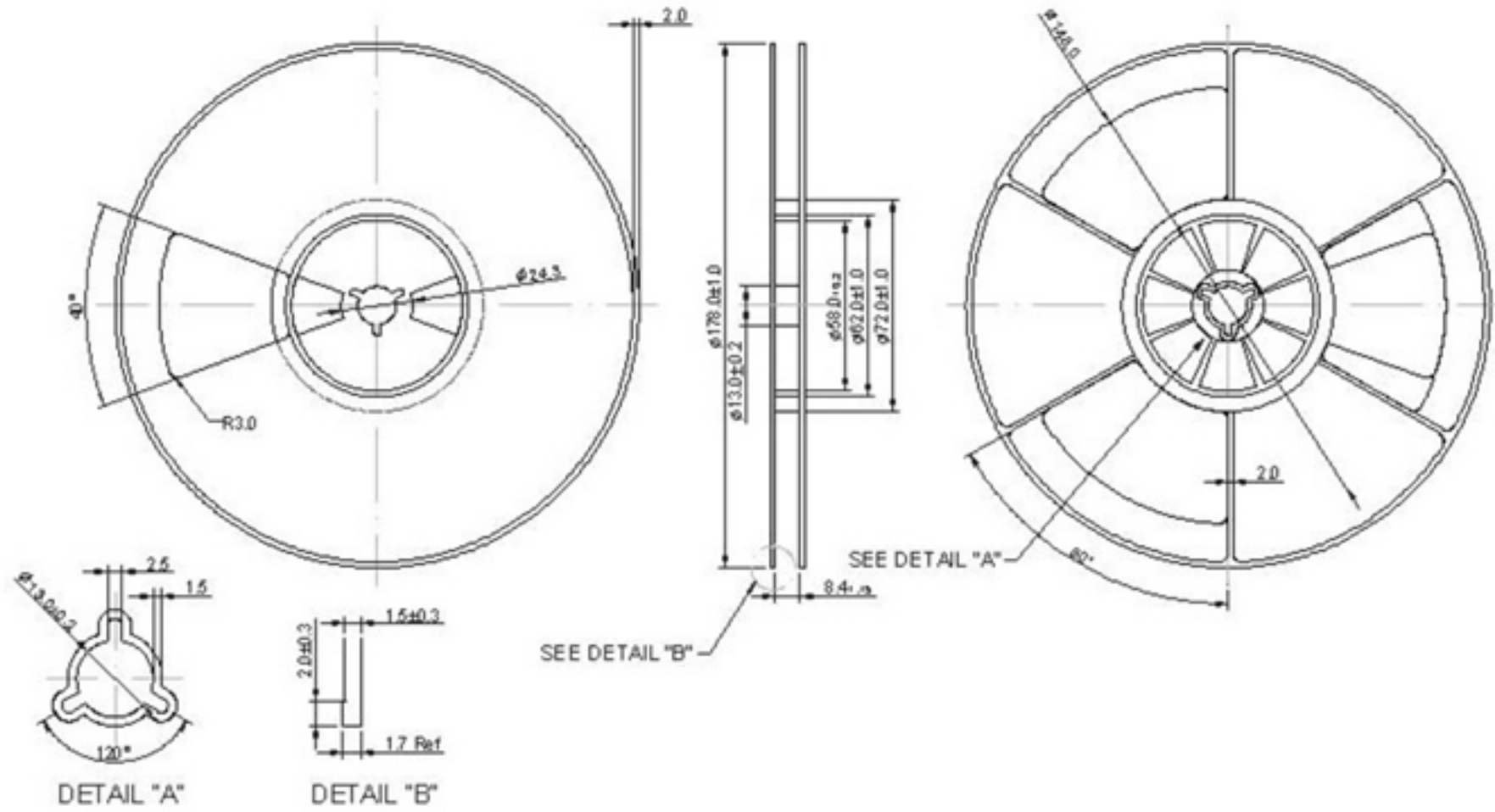
### F. PCB Footprint :



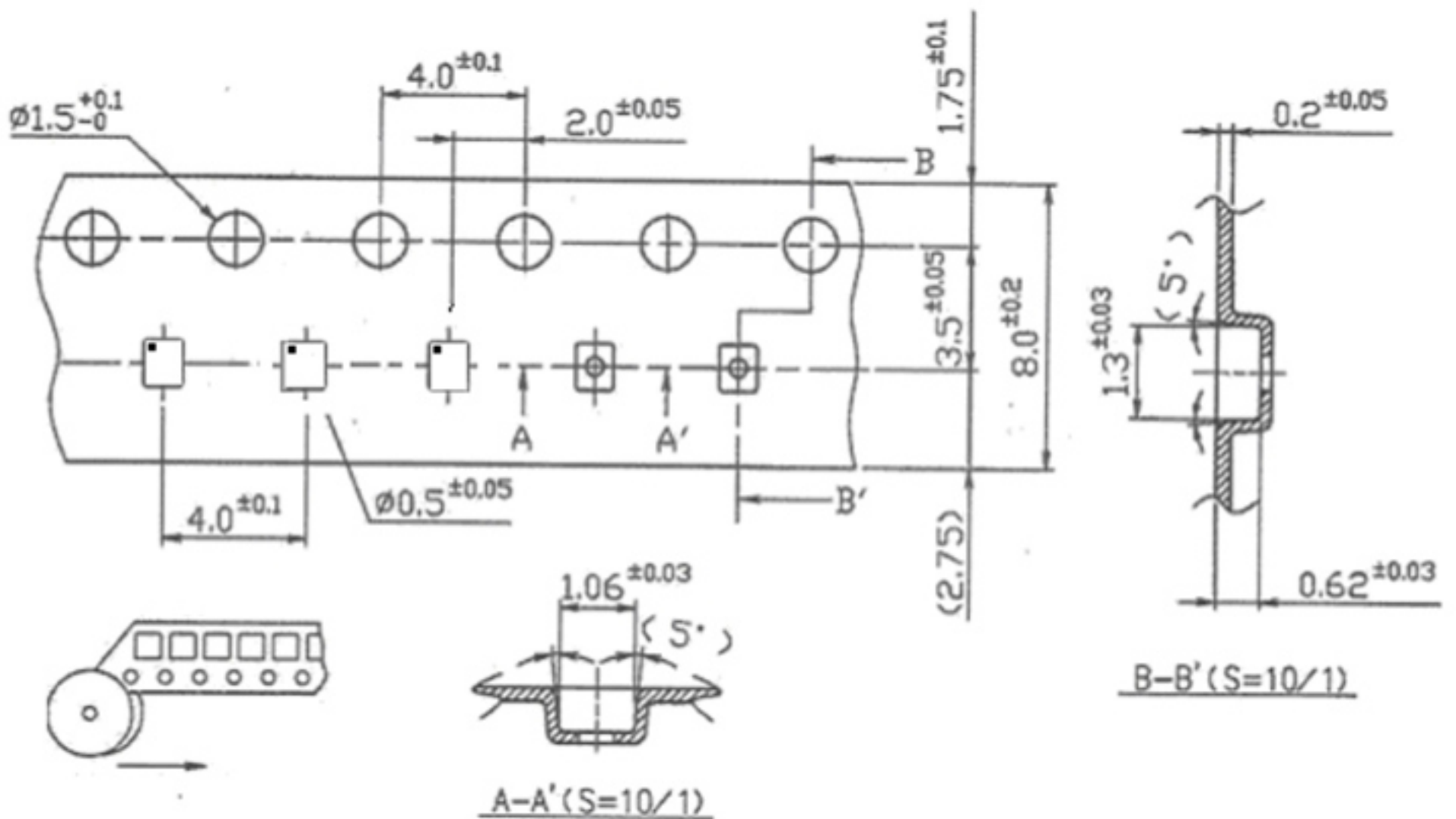
**G. PACKING:**

**1. REEL DIMENSION**

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



**2. TAPE DIMENSION**





## H . RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at  $150\sim 180^{\circ}\text{C}$  for 60~90 seconds.
2. Ascending time to preheating temperature  $150^{\circ}\text{C}$  shall be 30 seconds min.
3. Heating shall be fixed at  $220^{\circ}\text{C}$  for 50~80 seconds and at  $245\sim 260^{\circ}\text{C}$  peak (min. 10sec).
4. Time : 2 times.

