



# 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 Name: SAW Rx Filter 881.5MHz LTE Band 5 SMD 1109

TST Parts No.: TA1690D

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

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

Checked by: \_\_\_\_\_ Michael Yang *Michael*

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

Date: \_\_\_\_\_ 2021/07/02

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 881.5MHz LTE Band 5 SMD 1109 (BW=25 MHz)

MODEL NO.: TA1690D

REV. No.: 4.0

### A. MAXIMUM RATING:

1. Maximum Input Power: 15 dBm
2. DC voltage: 0 V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensivity Level: Level 3
6. ESD 50V(MM) 100V(HBM)



Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance:  $Z_s = 50 \Omega$  (unbalance)

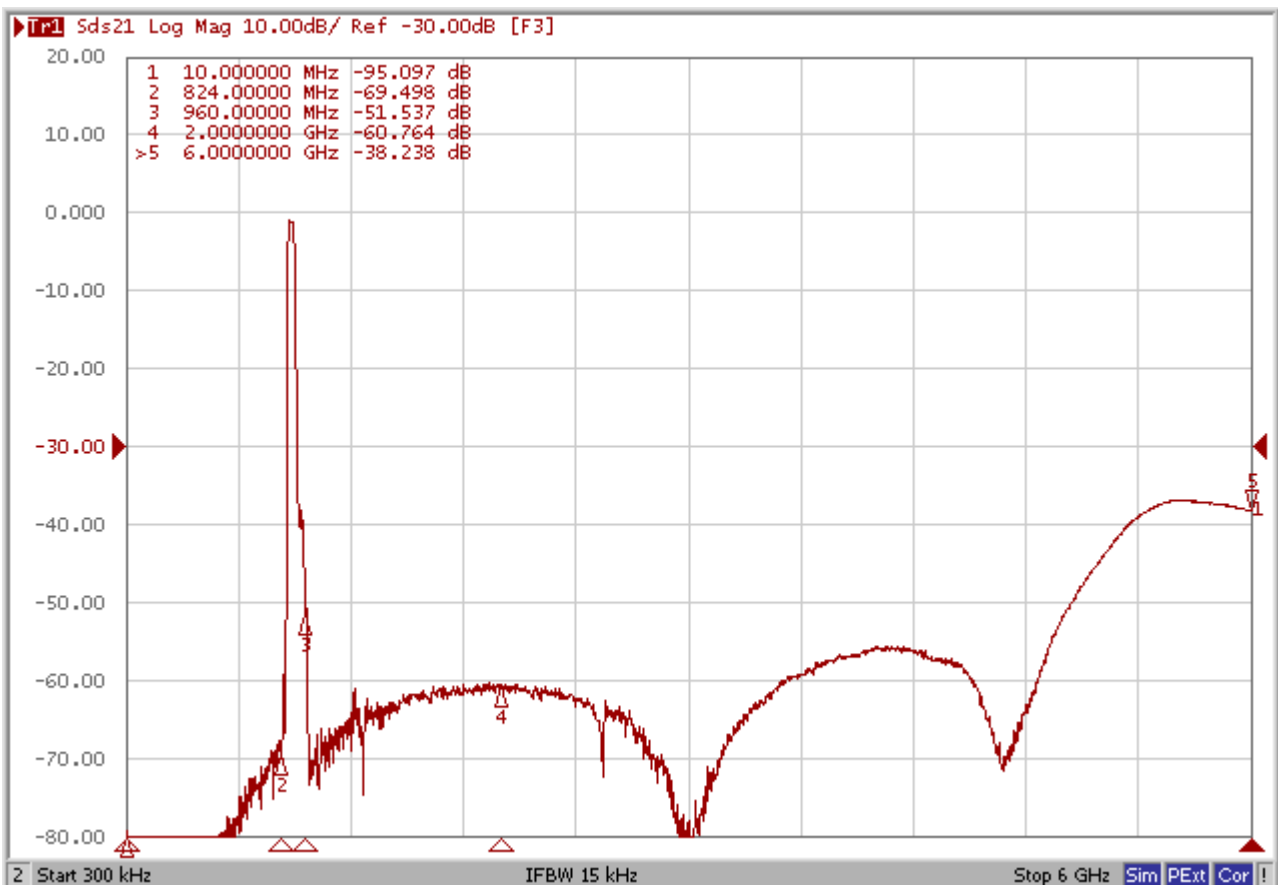
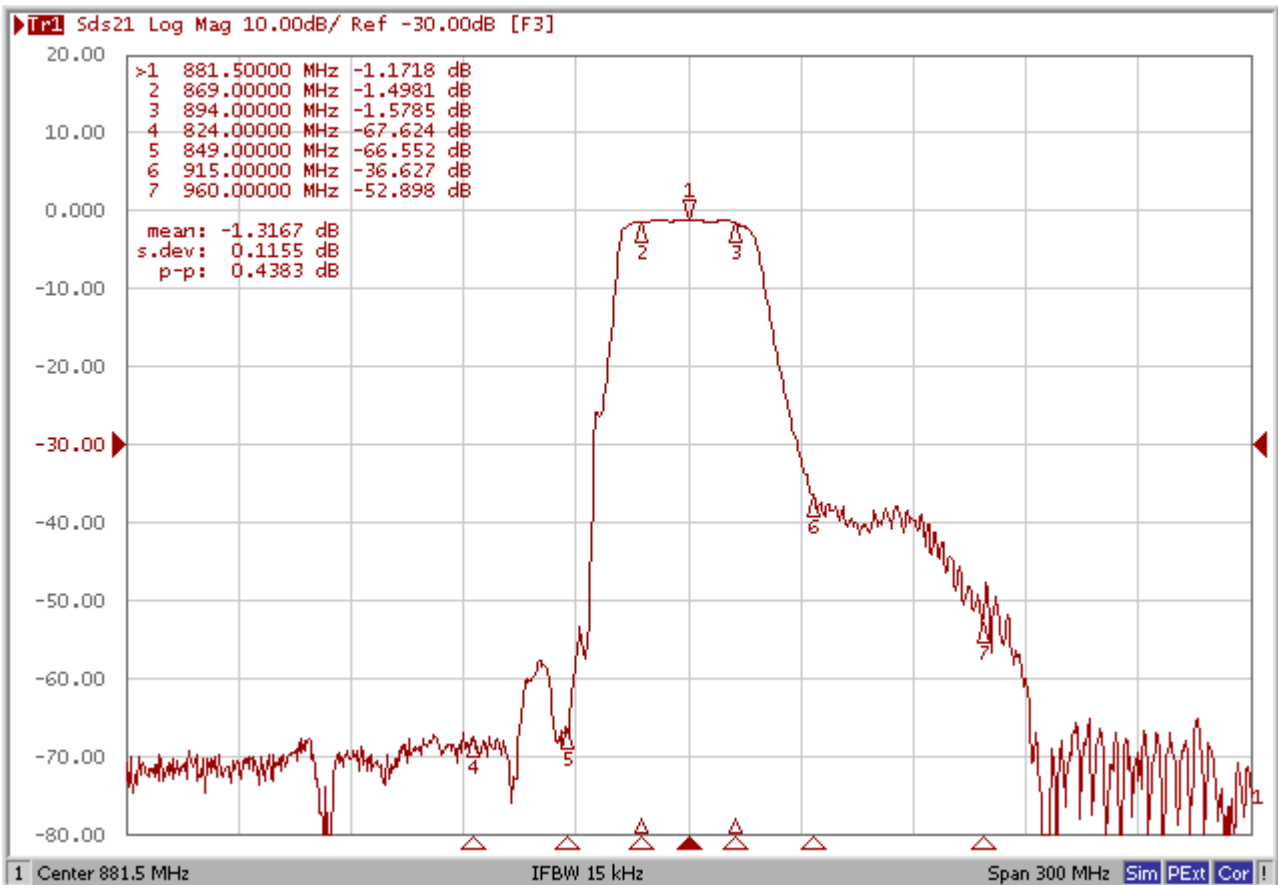
Terminating load impedance:  $Z_L = 100 \Omega$  (balance)

Parameters Description		Unit	Mini	Typical	Max
Center Frequency (Fo)		MHz	-	881.5	
Insertion Loss	869.0 ~ 894.0 MHz	dB	-	1.5	2.0
Amplitude Ripple		dB <sub>p-p</sub>	-	0.5	1.0
VSWR		-	-	1.7	2.0
Amplitude balance		dB	-1.0	-0.4 ~ +0.2	+1.0
Phase balance		deg	-10	-0.3 ~ +3.7	+10
<b>Attenuation:</b>					
DC ~ 824.0 MHz		dB	50	65	-
824.0 ~ 849.0 MHz		dB	50	57	-
914.0 ~ 960.0 MHz		dB	25	36	-
960.0 ~ 2000.0 MHz		dB	40	51	-
2000.0 ~ 6000.0 MHz		dB	30	37	-

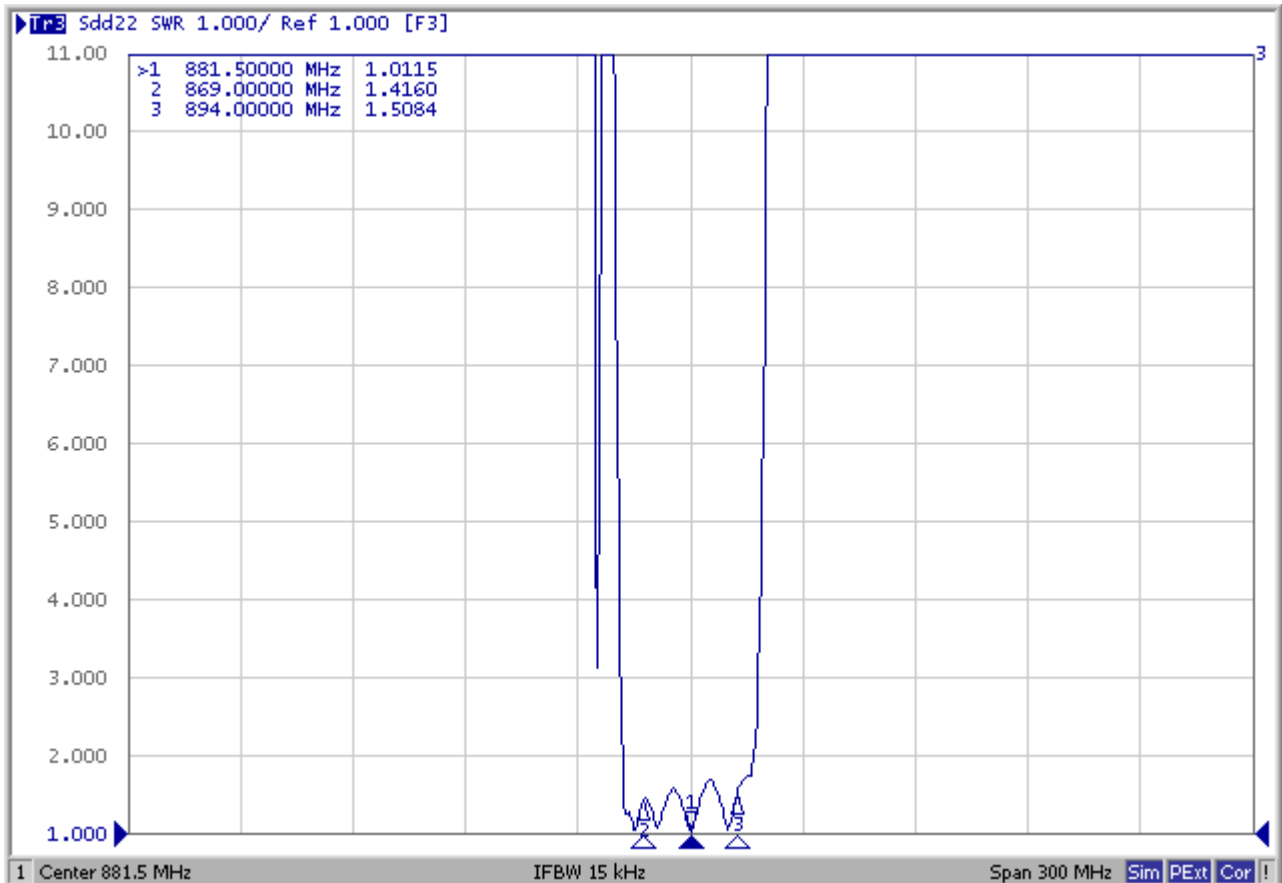
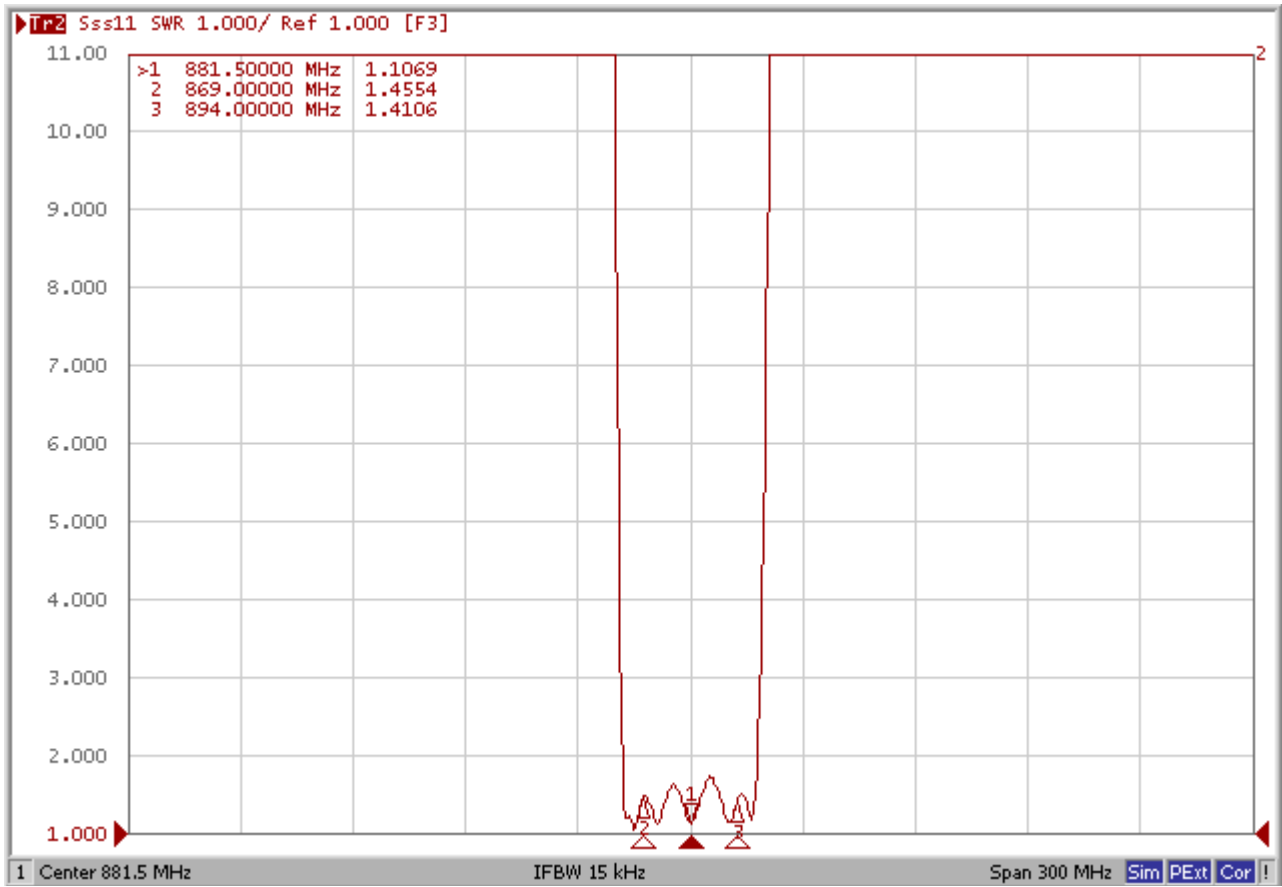
**Notes :** (1) No Matching Network .

### C. Frequency Characteristics :

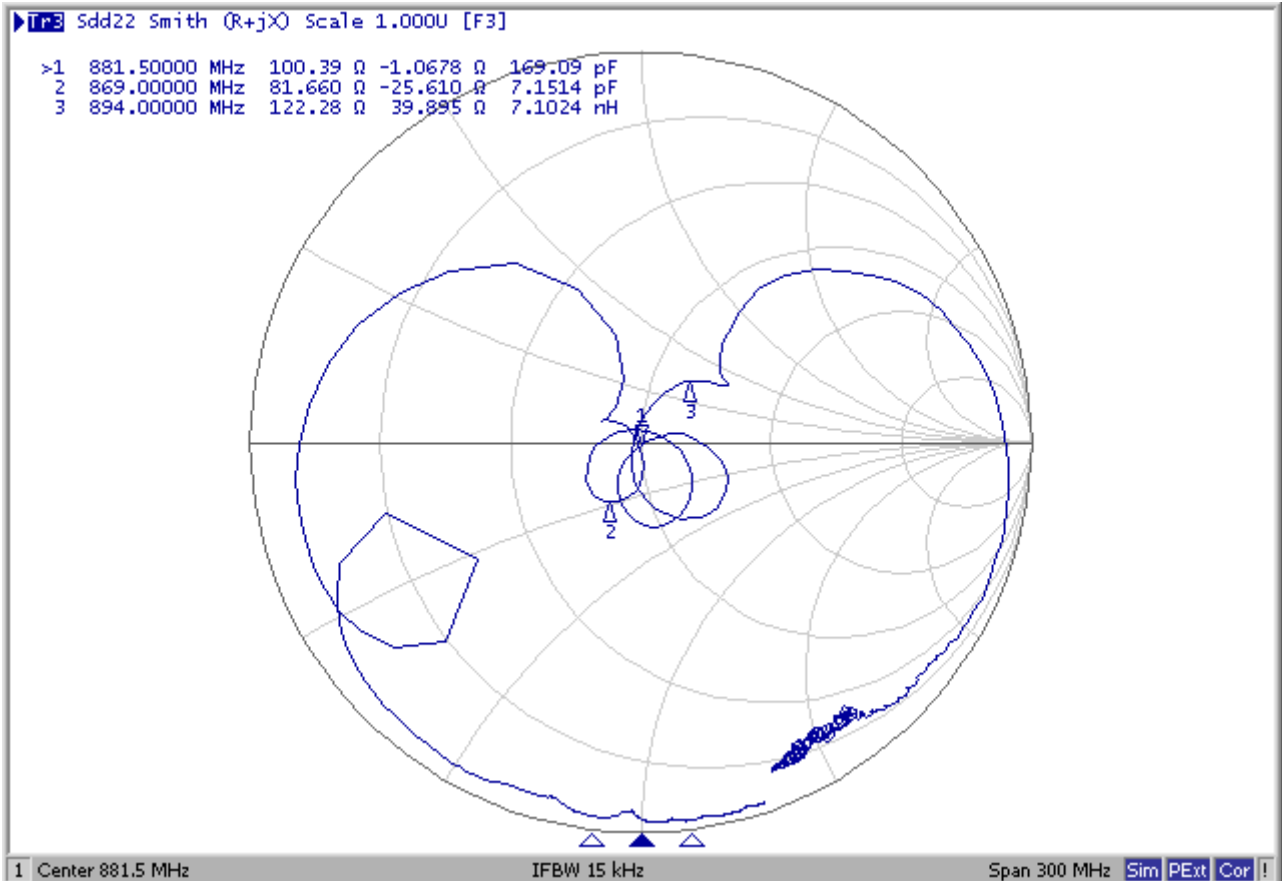
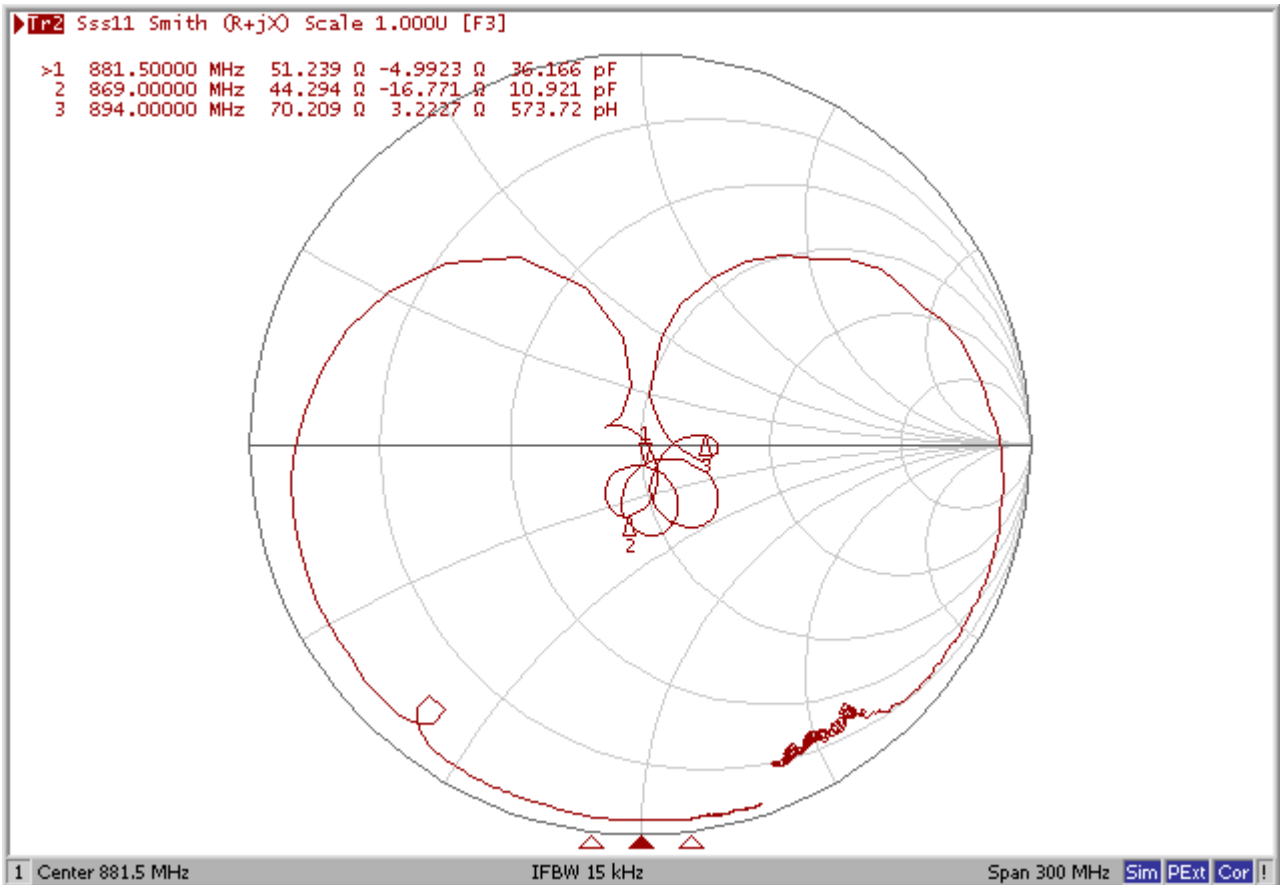
#### Frequency Response



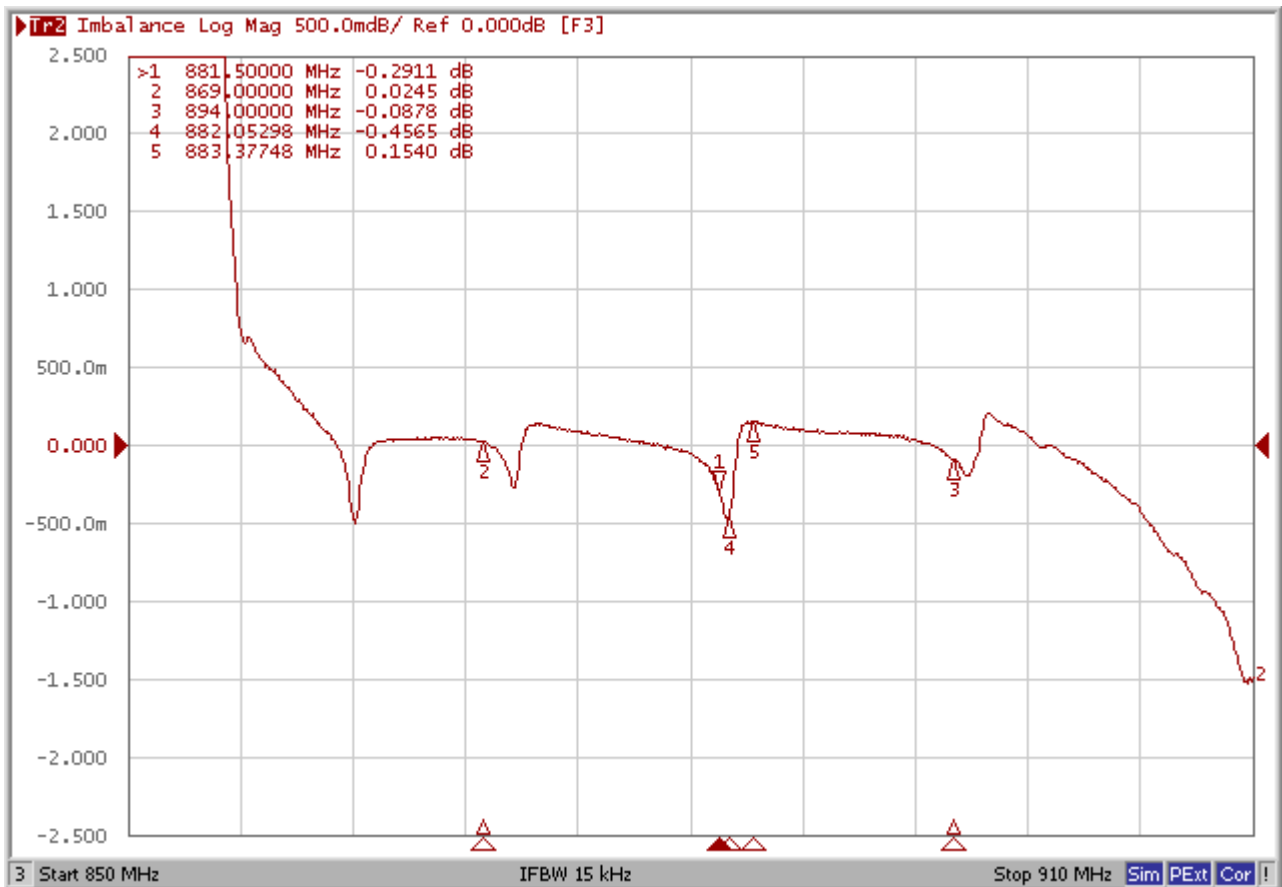
# VSWR



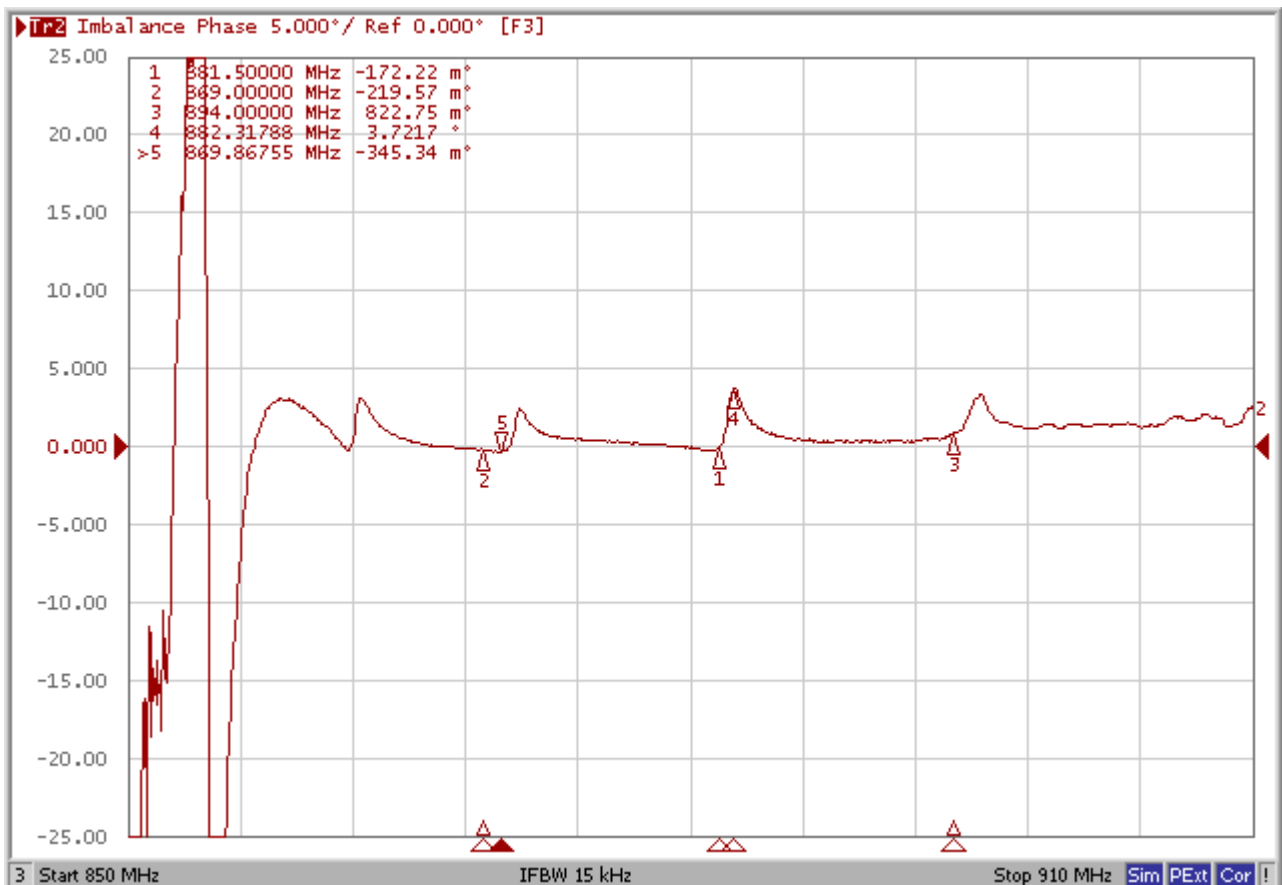
## Smith Chart



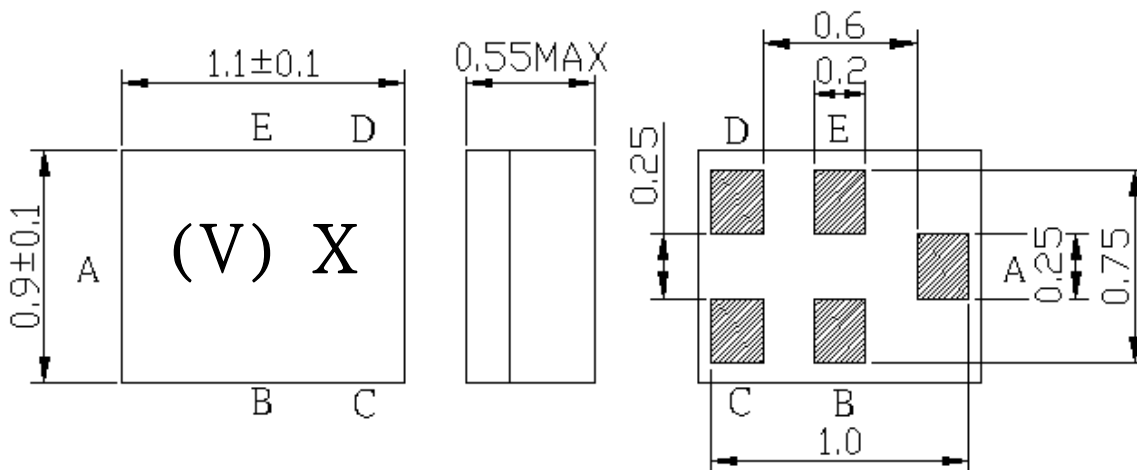
## Amplitude balance



## Phase balance



**D.OUTLINE DRAWING:**



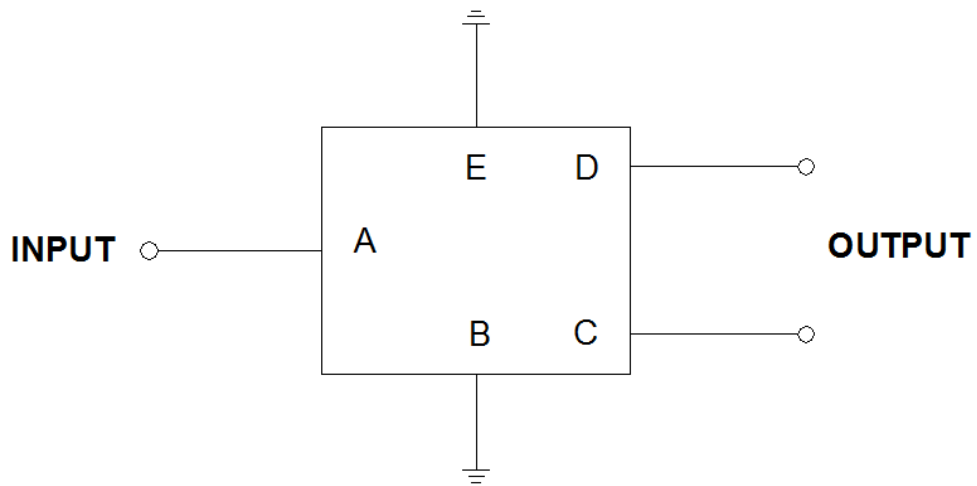
Marking Descriptions	
(∇)	Series Number
X	Date Code(Year+Month)

Pin Description	
B, E	Ground
A	Input
C,D	Balanced Output

**Product date Code:**

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013/2021	A	B	C	D	E	F	G	H	J	K	L	M
2014/2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015/2023	a	b	c	d	e	f	g	h	j	k	l	m
2016/2024	n	p	q	r	s	t	u	v	w	x	y	z
2017/2025	<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>
2018/2026	<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>
2019/2027	<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>
2020/2028	<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>

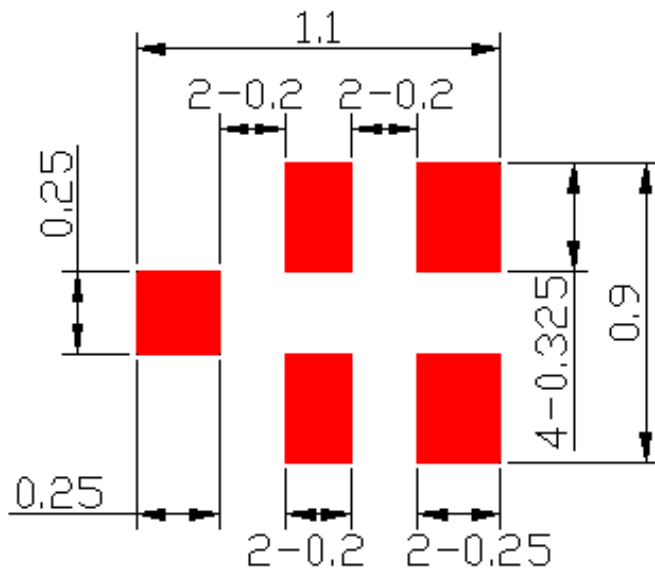
### E. MEASUREMENT CIRCUIT:




Source Impedance:  $50 \Omega$

Load Impedance:  $100 \Omega$

### F. PCB Footprint :



 : Land Pattern

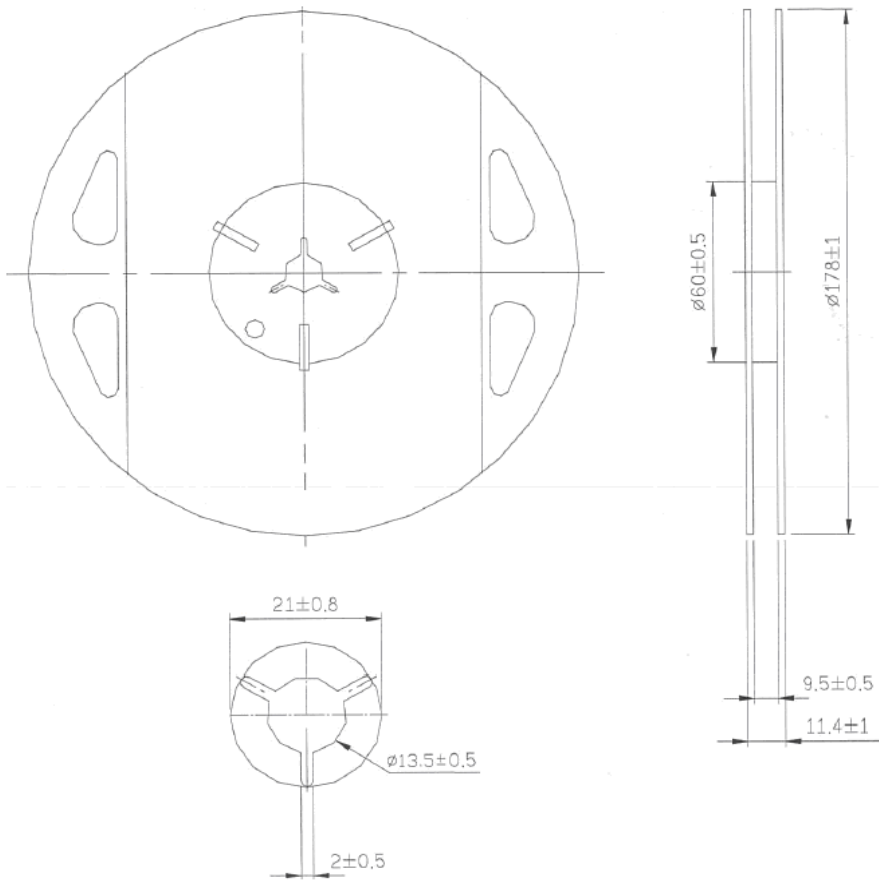
Unit: mm



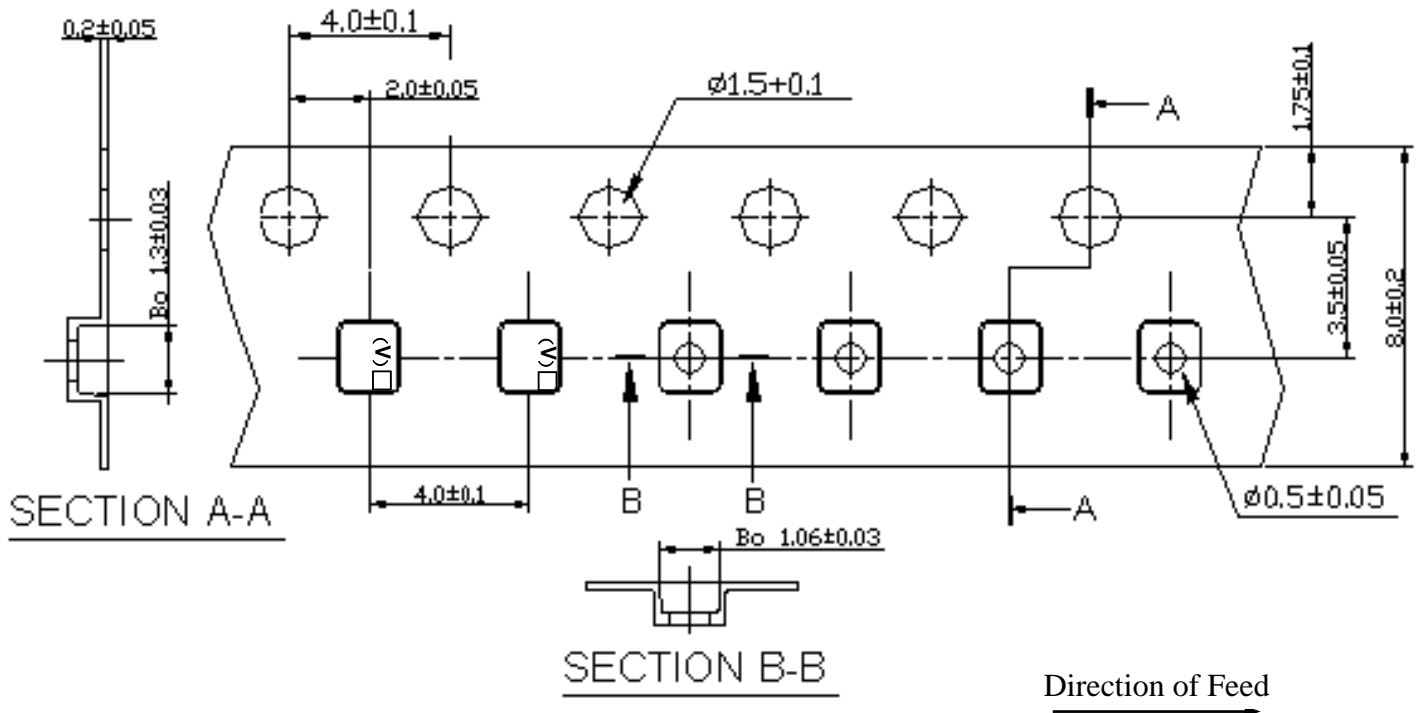
**G. PACKING:**

**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.

