



# 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

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## Product Specifications Approval Sheet

Product Description: Band7 Rx Balanced SAW Filter 2655 MHz SMD1.1X0.9 mm

TST Parts No.: TA2130D

Customer Parts No.: \_\_\_\_\_

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

Checked by: \_\_\_\_\_ V.J Fanchian *VJ Fanchian*

Approval by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 03, 31, 2017

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 changes



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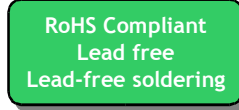
## Band7 Rx Balanced SAW Filter 2655 MHz SMD1.1X0.9 mm (BW=70MHz)

MODEL NO.: TA2130D

REV. NO.:1.0

### 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 Sensitivity Level: Level 3 (MSL 3)
6. ESD 50V(MM) 100V(HBM)



Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

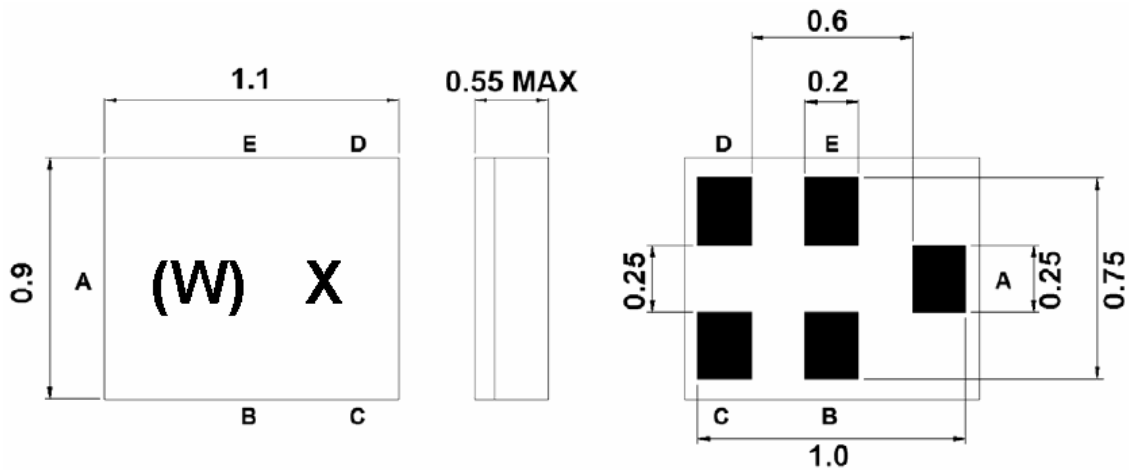
Terminating source impedance:  $Z_s = 50\Omega$  (Single)

Terminating load impedance:  $Z_L = 100\Omega//22nH$  (Balanced)

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	2655.0	-
Insertion Loss within 2620.0 ~ 2690.0 MHz	dB	-	2.5	3.3
Amplitude Ripple within 2620.0 ~ 2690.0 MHz	dB <sub>p</sub> -p	-	0.9	1.7
Input VSWR within 2620.0 ~ 2690.0 MHz	-	-	1.8	2.2
Output VSWR within 2620.0 ~ 2690.0 MHz	-	-	1.8	2.2
Amplitude Balance within 2620.0 ~ 2690.0 MHz	dB	-1.6	-0.6/+1.1	+1.6
Phase Balance within 2620.0 ~ 2690.0 MHz	deg	-12	-1.5/+7	+12
<b>Attenuation:</b>				
10.0 ~ 2500.0 MHz	dB	40	46	-
2500.0 ~ 2570.0 MHz	dB	45	49	-
2750.0 ~ 3000.0 MHz	dB	18	24	-
3000.0 ~ 4000.0 MHz	dB	30	43	-
4000.0 ~ 5240.0 MHz	dB	30	43	-
5240.0 ~ 5380.0 MHz	dB	30	44	-
5380.0 ~ 6000.0 MHz	dB	25	43	-

**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).

### C.OUTLINE DRAWING:



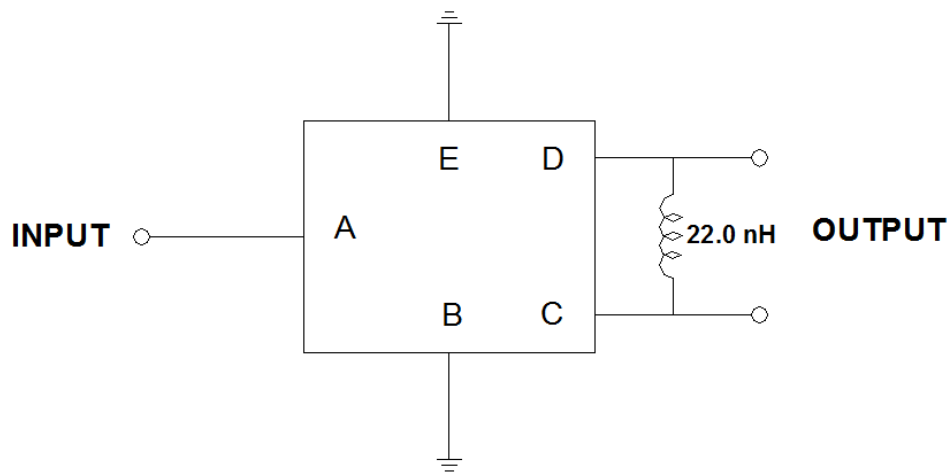
Marking Descriptions	
(W)	Series Number
X	Date Code(Year+Month)

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

### Date Code (Year+Month)

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

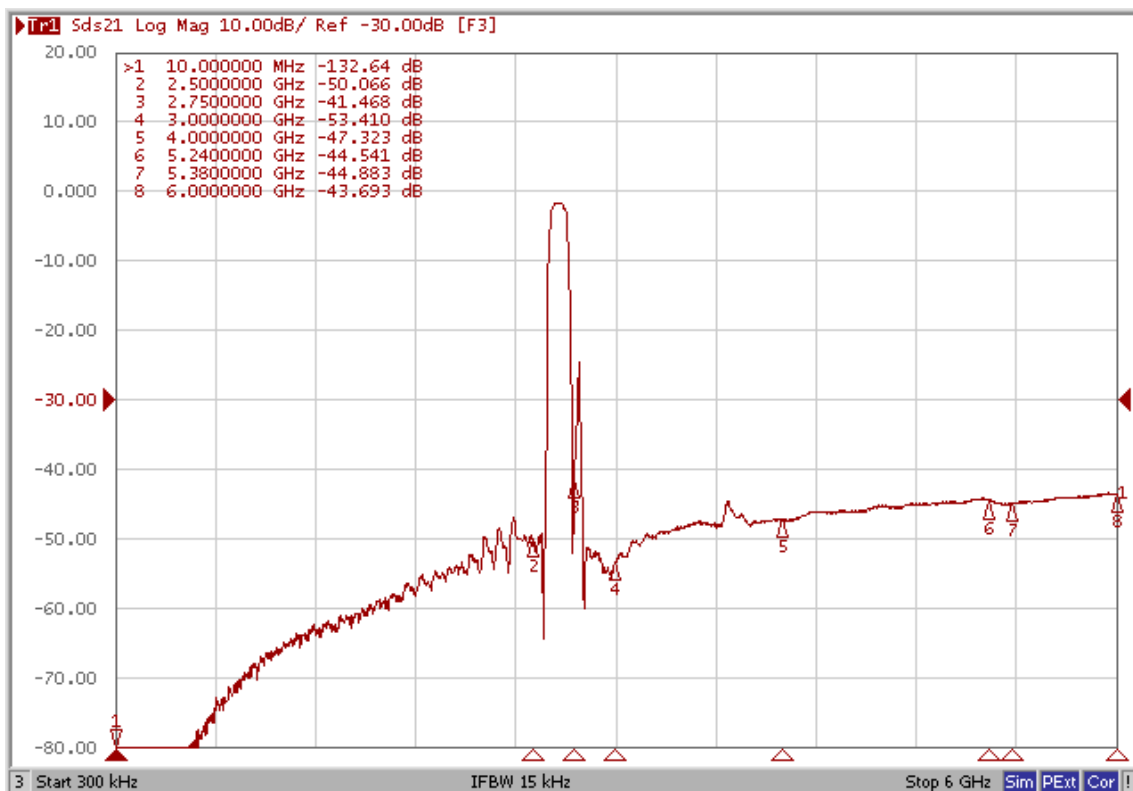
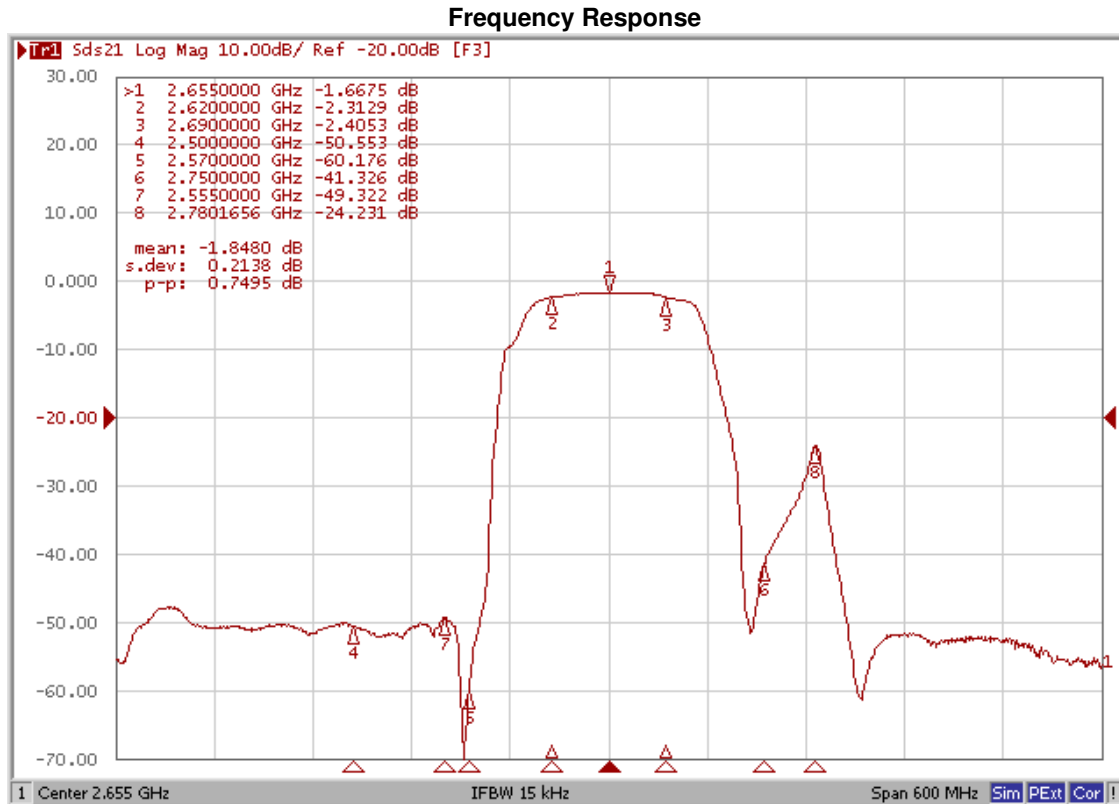
### D. MEASUREMENT CIRCUIT:



Source Impedance : 50  $\Omega$

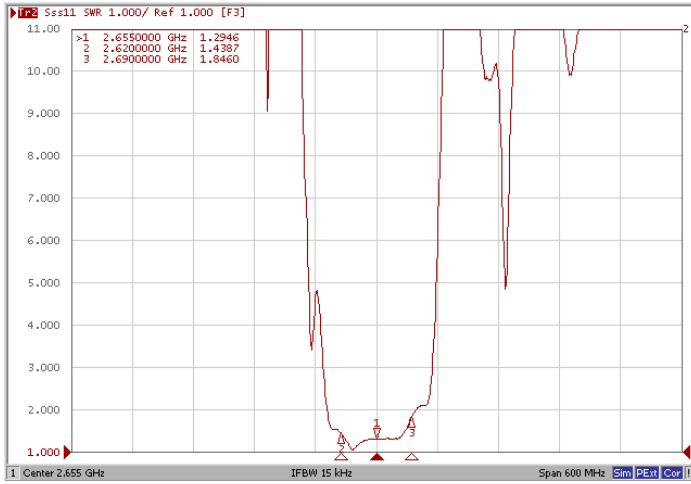
Load Impedance : 100  $\Omega$

## E. FREQUENCY CHARACTERISTICS:

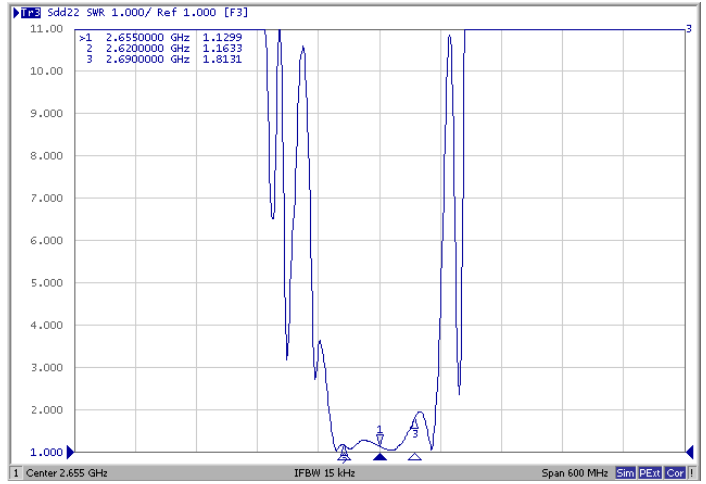


## VSWR

S11

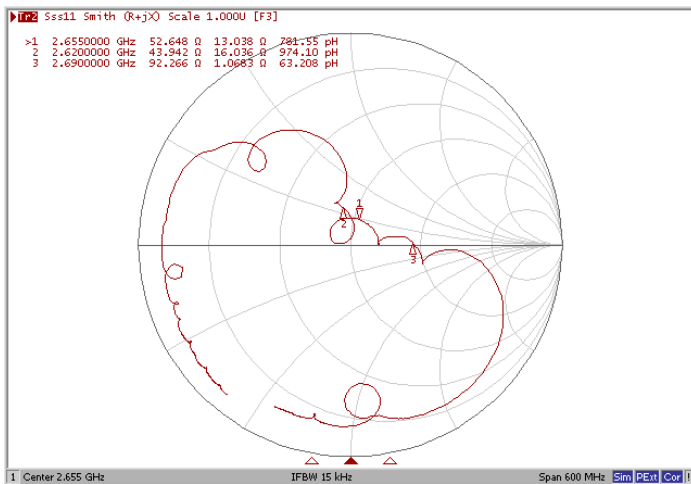


S22

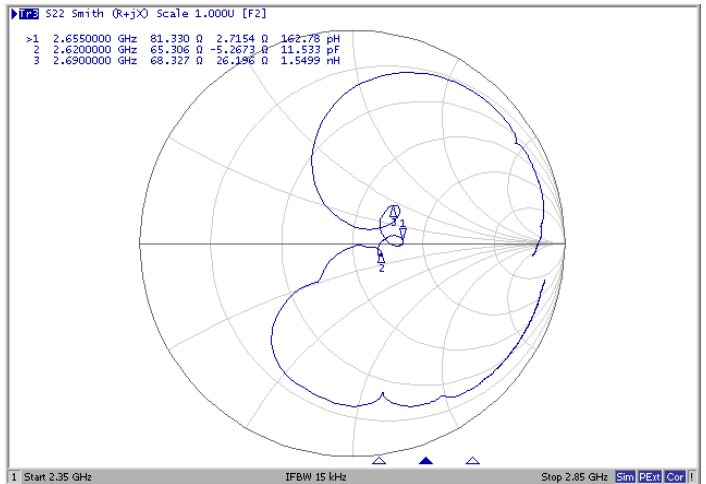


## Smith Chart

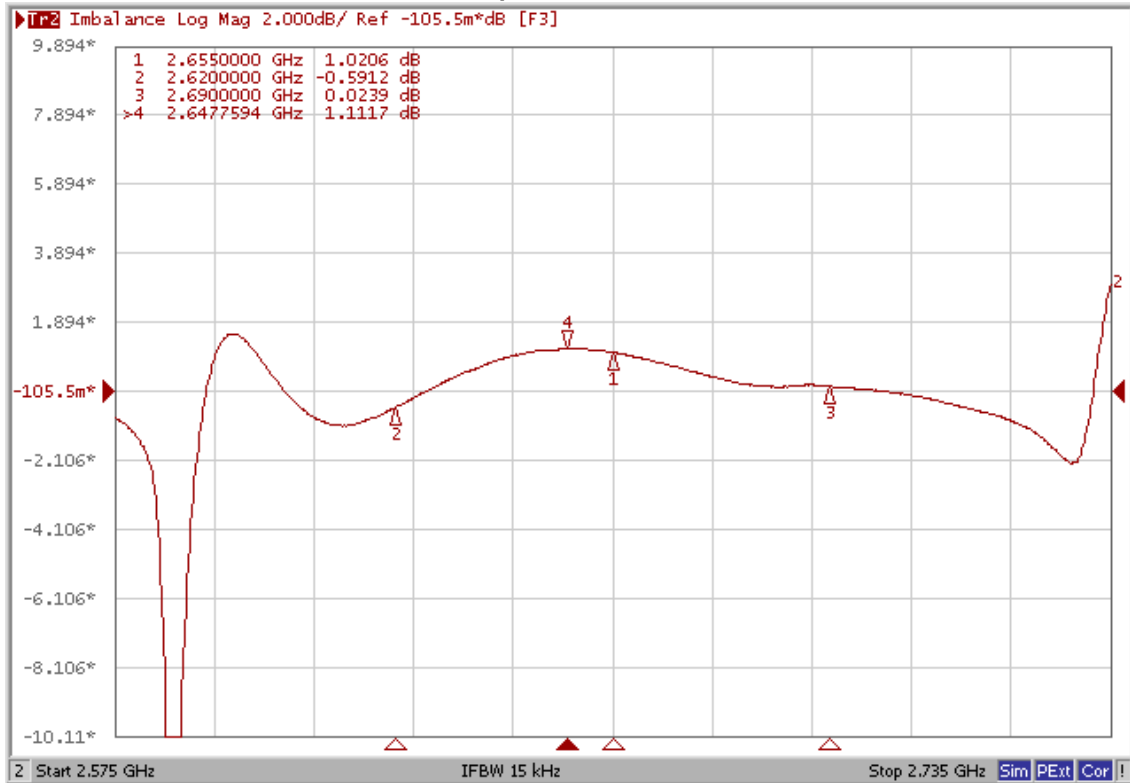
S11



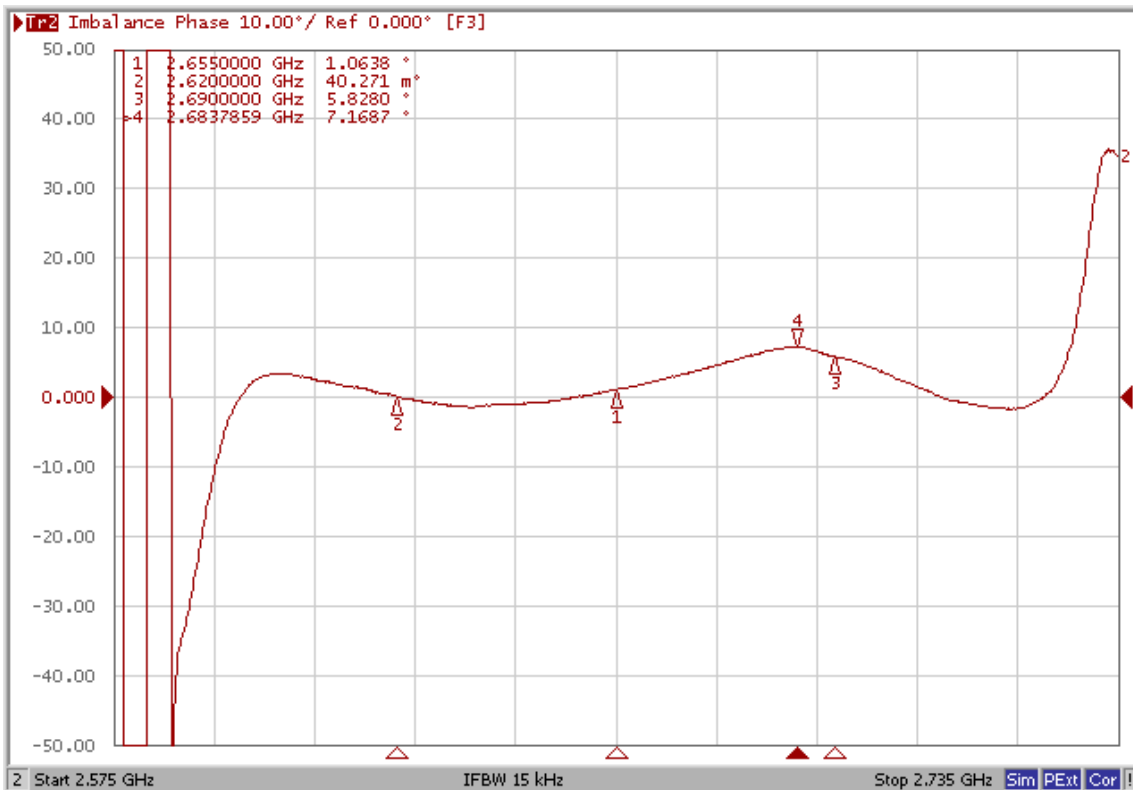
S22



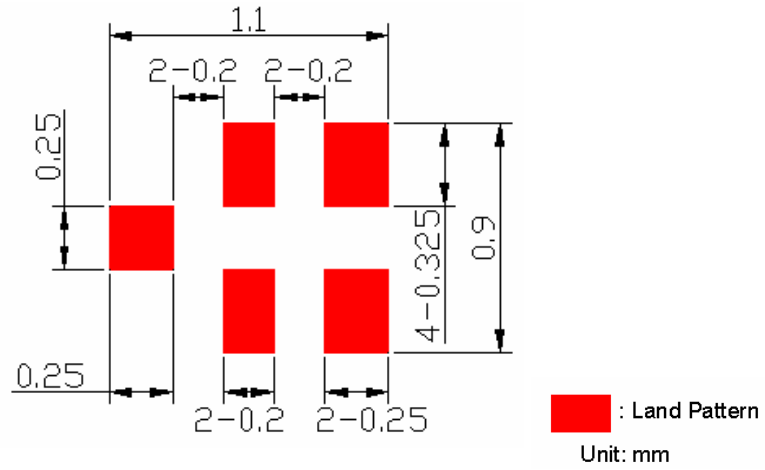
### Amplitude balance



### Phase balance

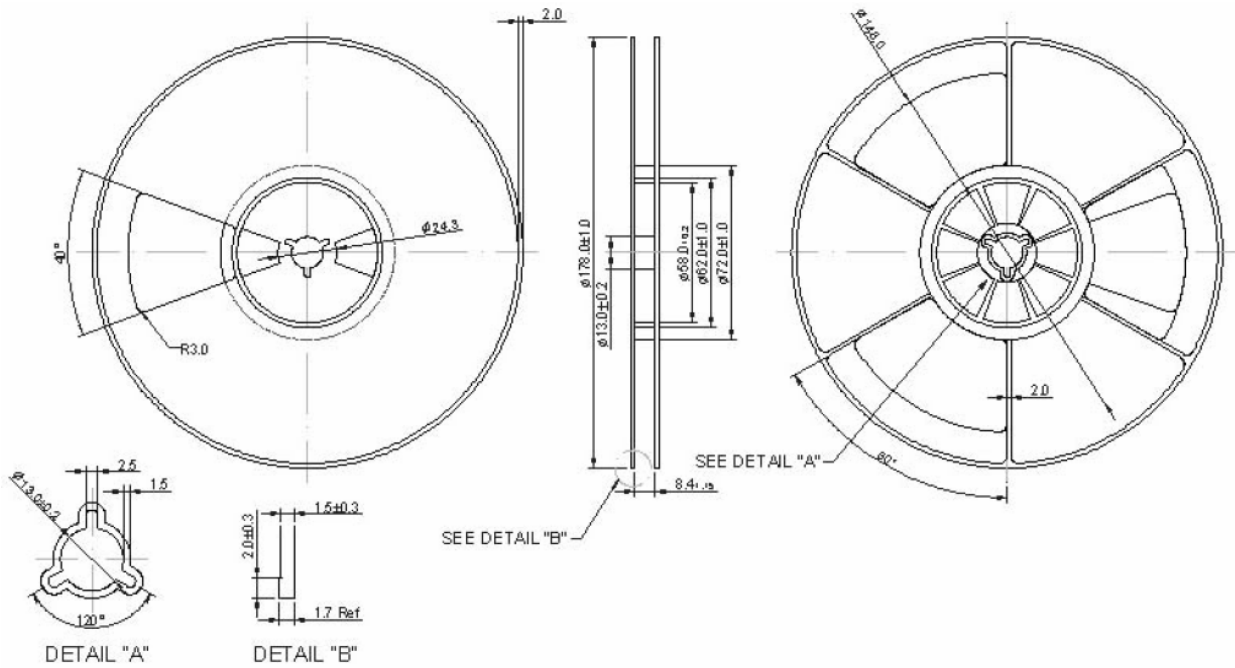


**F. PCB Footprint:**

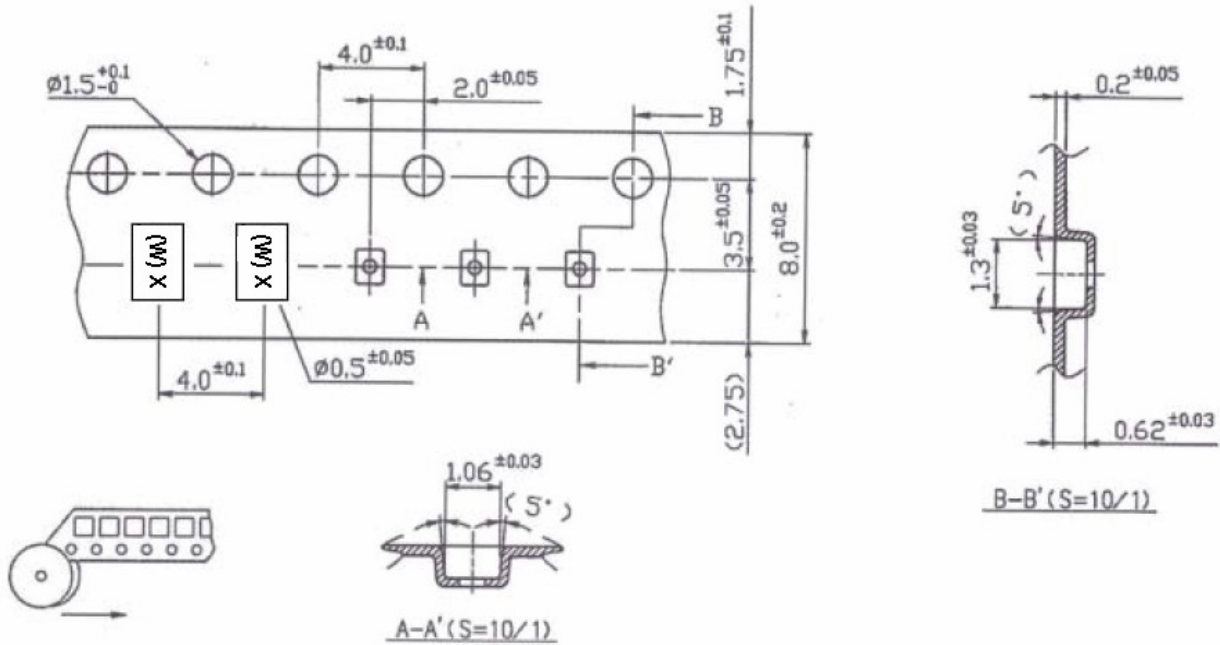


**G. PACKING:**

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  $260^{\circ}\text{C} \pm 0/-5^{\circ}\text{C}$  peak (20~40sec).
4. Time: 2 times.

