



# 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: SAW Filter 1582.4 MHz (BW 46.61MHz) SMD 1.4X1.1 mm

TST Part No.: TA2281A

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

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

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

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

Date: \_\_\_\_\_ 2021/06/11

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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## SAW Filter 1582.4MHz

MODEL NO.:TA2281A

REV. NO.:3.0

### A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC Voltage : 0V
3. Operating Temperature: -40°C to +125°C
4. Storage Temperature: -40°C to +125°C
5. Moisture Sensitivity Level: Level 3(MSL3)



Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

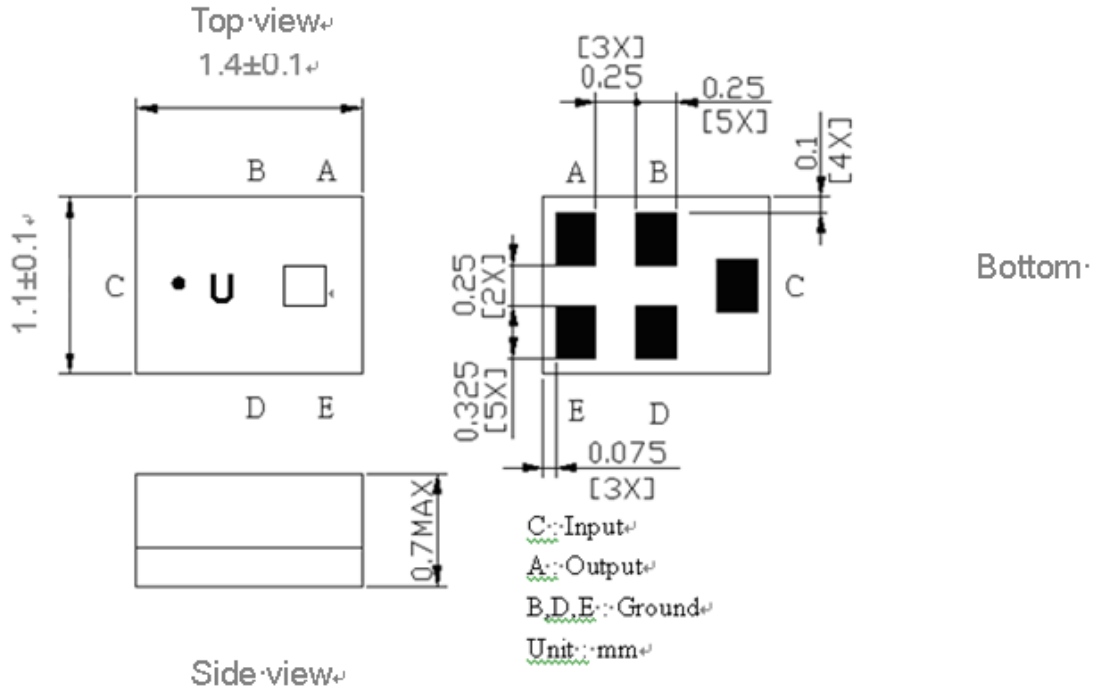
Terminating source impedance (single) :  $Z_s = 50 \Omega$

Terminating load impedance (single) :  $Z_L = 50 \Omega$

Item	Unit	min	Type.	max
<b>Center Frequency</b> <b>Fc</b>	MHz	-	1582.4	-
<b>Insertion Loss</b> (1559.05~1563.15 MHz) <b>IL</b>	dB		1.8	2.0
<b>Insertion Loss</b> (1573.37~1577.47 MHz) <b>IL</b>	dB		1.2	1.5
<b>Insertion Loss</b> (1597.78~1605.66 MHz) <b>IL</b>	dB		1.6	2.2
<b>VSWR</b> (1559.05~1563.15 MHz)			1.6	2.1
<b>VSWR</b> (1573.37~1577.47 MHz)			1.3	2.1
<b>VSWR</b> (1597.78~1605.66 MHz)			1.6	2.1
<b>Variation of group delay</b> (1597.78~1605.66 MHz)	ns		4	14 <sup>1)</sup>
<b>Attenuation</b>				
50 ~ 824 MHz	dB	40	43	
824 ~ 925 MHz	dB	39	43	
1427 ~ 1453 MHz	dB	43	48	
1710 ~ 1785 MHz	dB	32	42	
1850 ~ 1910 MHz	dB	35	40	
1920 ~ 1980 MHz	dB	36	41	
2400 ~ 2500 MHz	dB	43	47	
2500 ~ 2570 MHz	dB	38	46	
2600 ~ 3000 MHz	dB	34	41	
Package size	mm	1411		

1) Averaged over 2 MHz

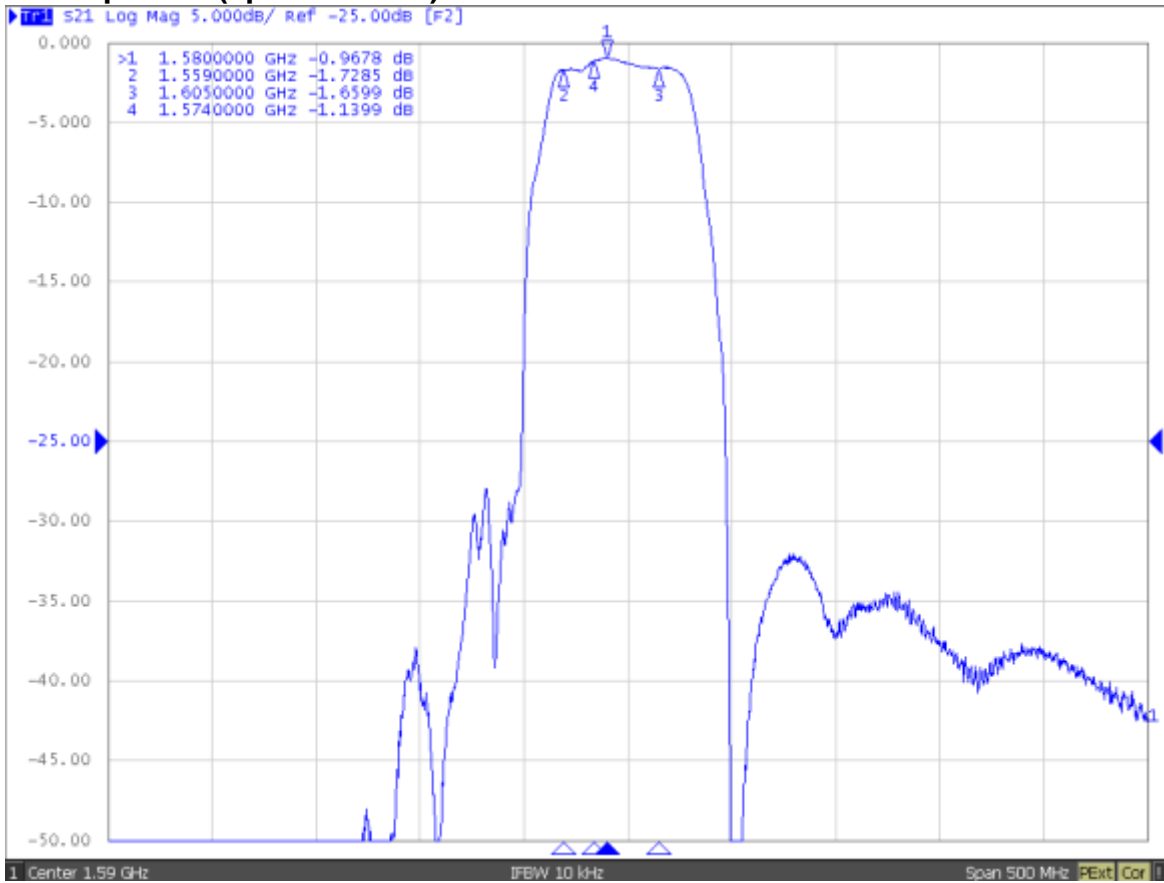
**C.OUTLINE DRAWING:**



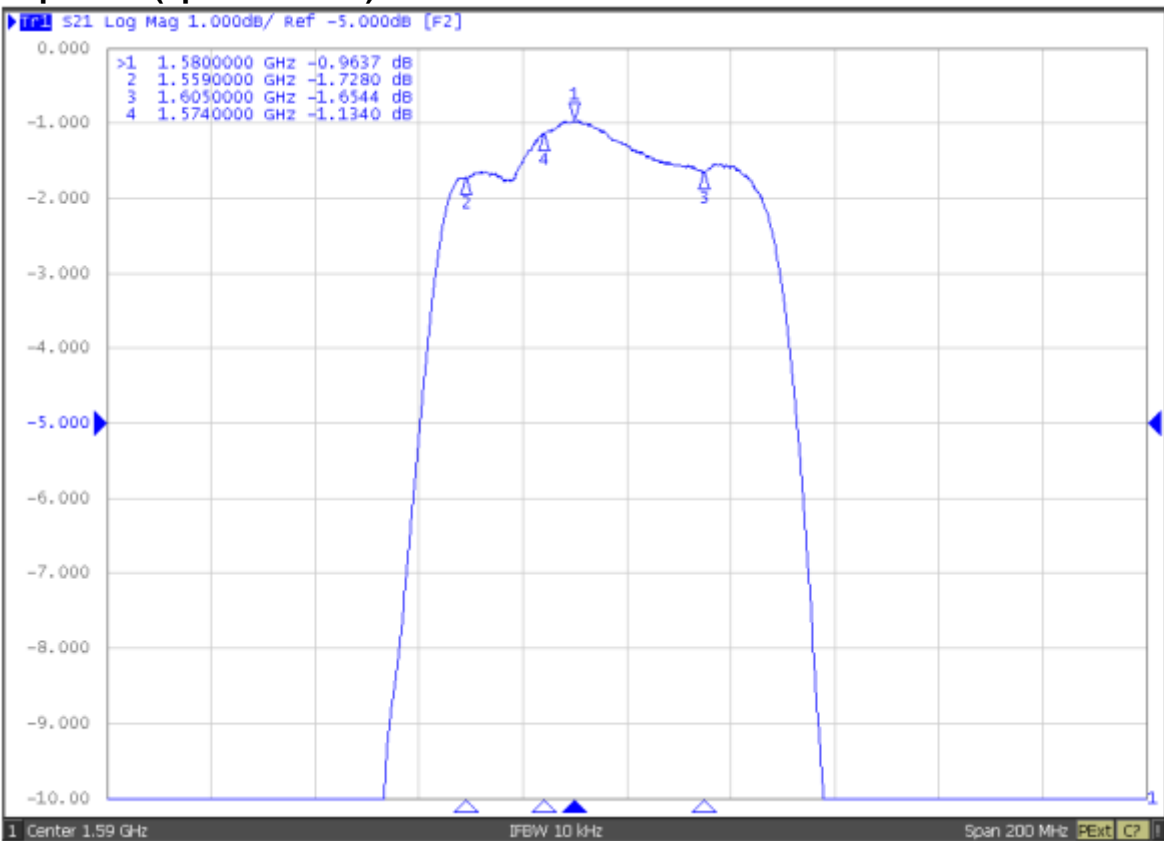
: Year/Month Code (Follow the table)

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>i</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>

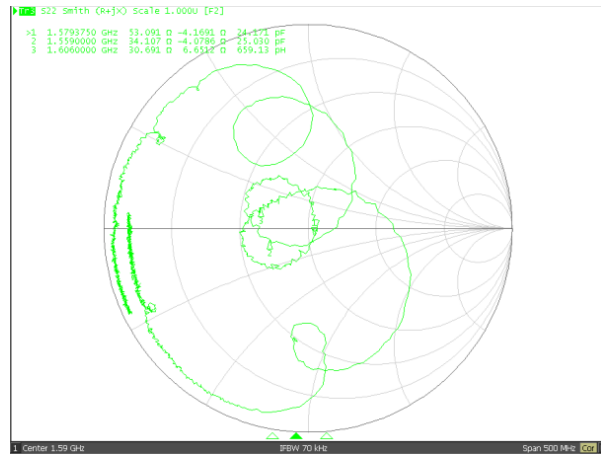
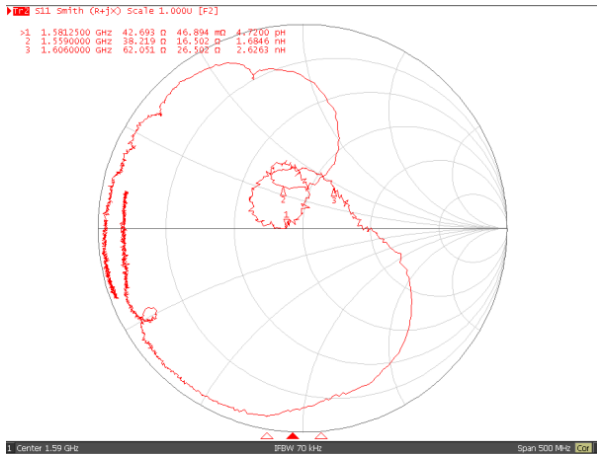
**D. Frequency Characteristics:**  
**S21 response: (span 500MHz)**



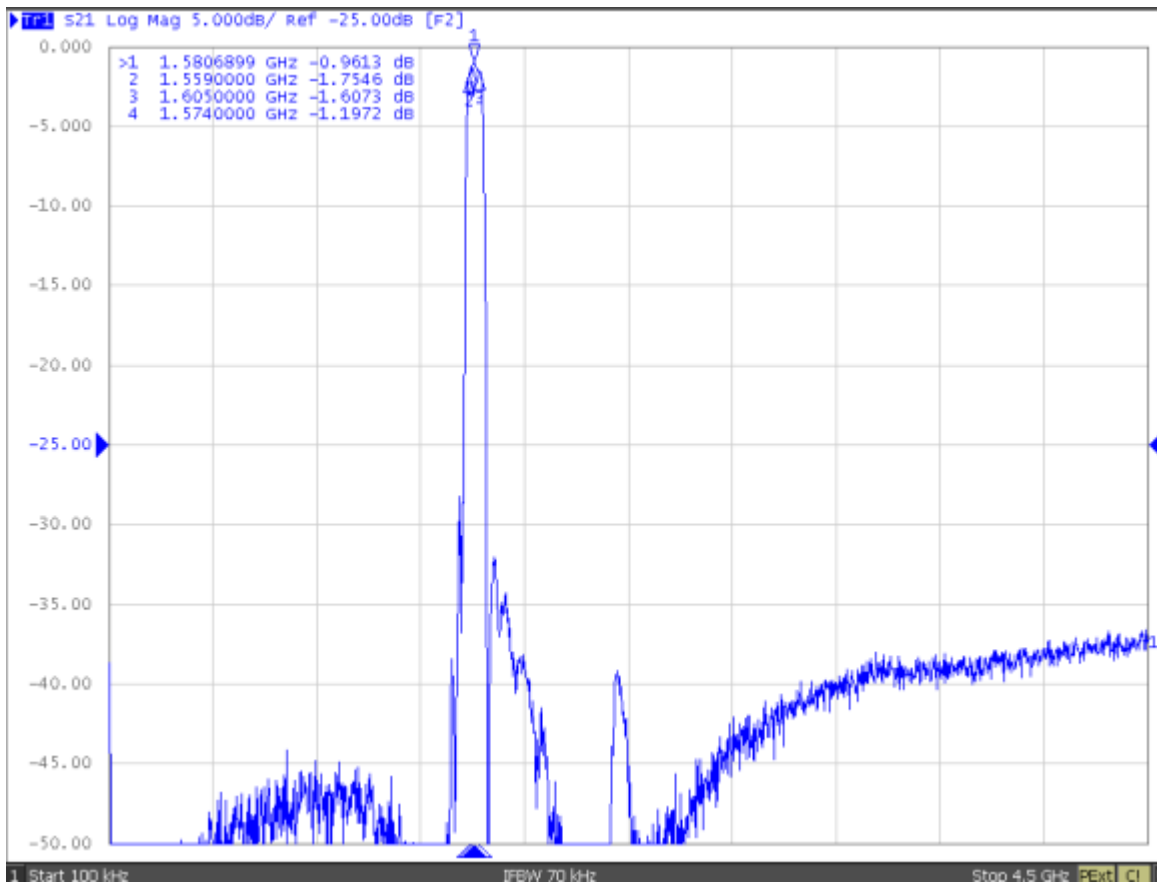
**S21 response: (span 120MHz)**



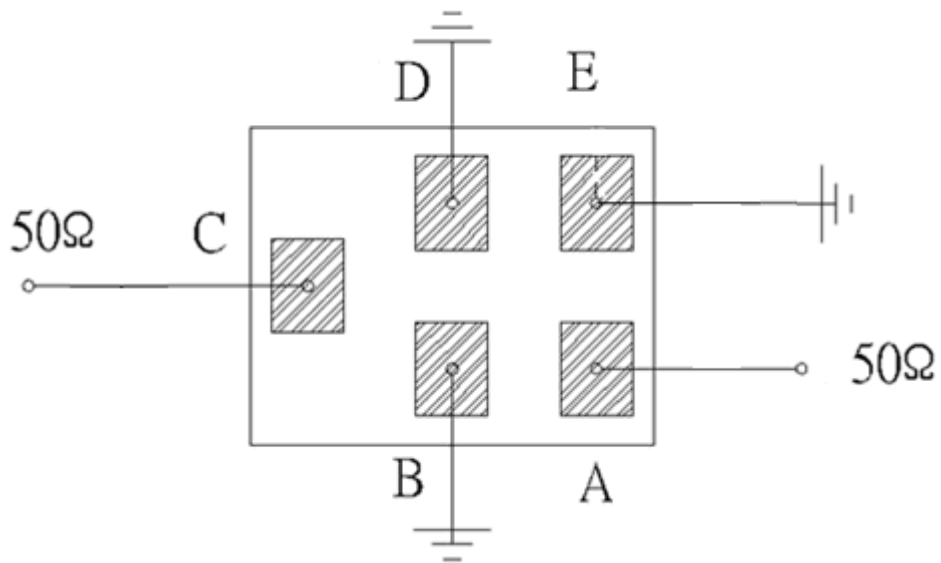
## S11/S22 response :



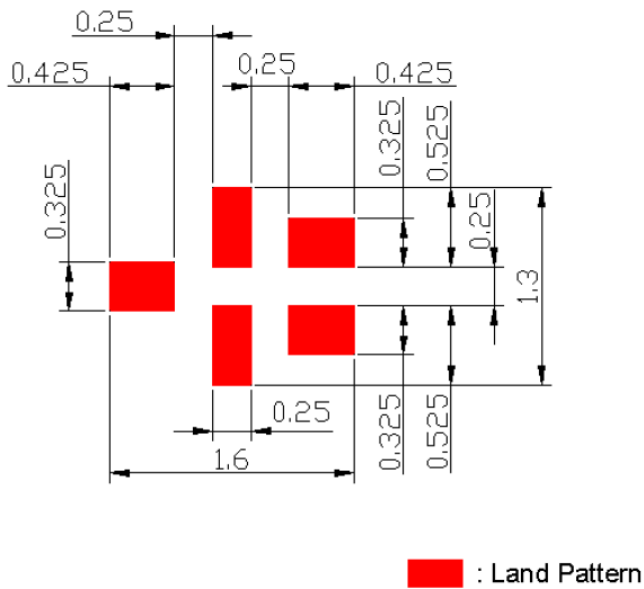
## S21 response: (span 3GHz)



**E. MEASUREMENT CIRCUIT:**



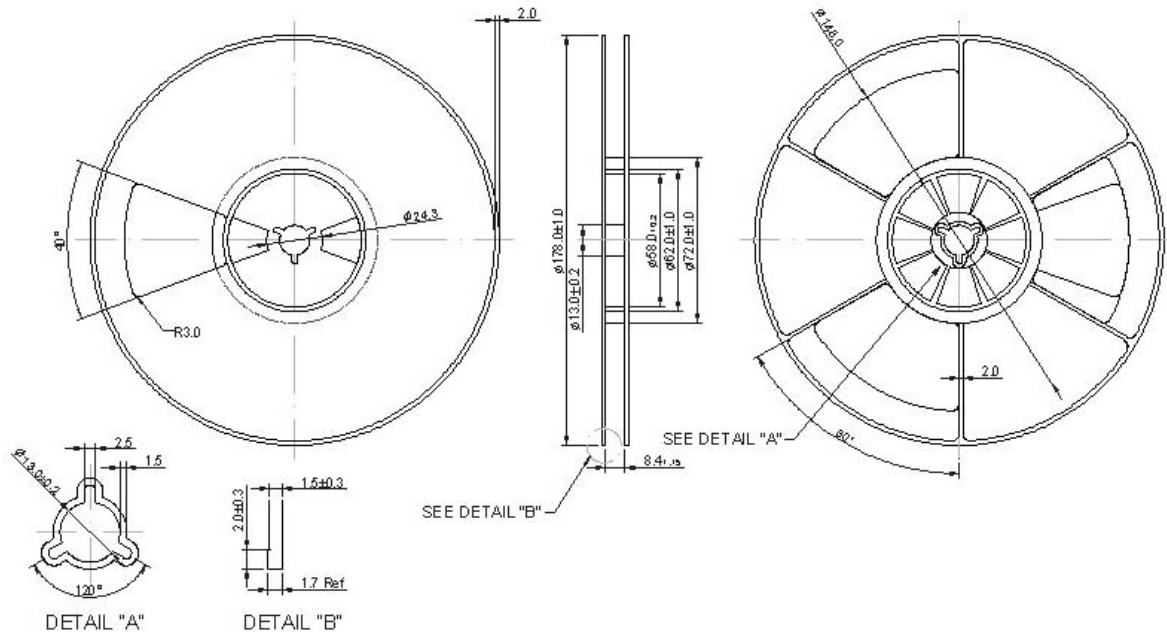
**F. PCB Footprint:**



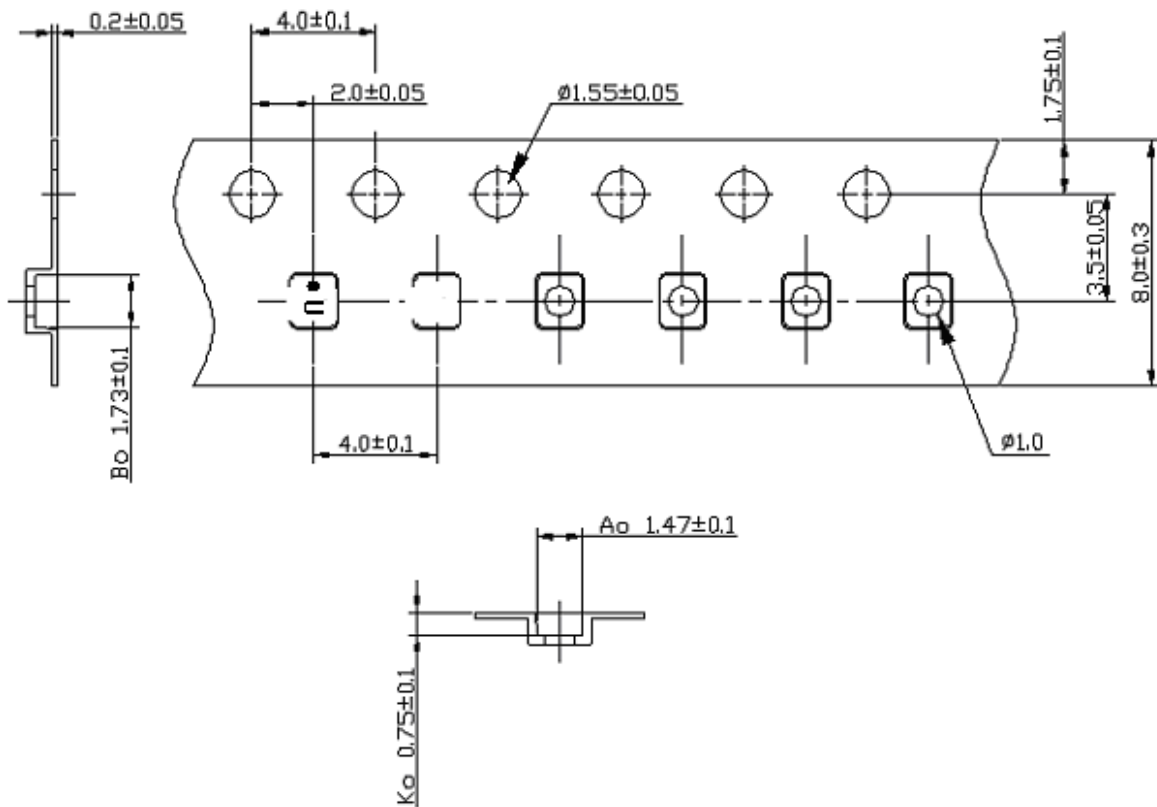
**G. PACKING:**

**1. REEL DIMENSION**

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



**2. TAPE DIMENSION**



Direction of Feed

## 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 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

