



# 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 788 MHz LTE Band 28 SMD 1.1x0.9 mm (BW=30 MHz)

TST Parts No.: TA1898D

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

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

Checked by: \_\_\_\_\_ Hayley Chou *Hayley Chou*

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

Date: \_\_\_\_\_ 2019/06/19

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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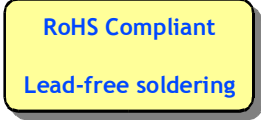
## SAW Filter 788 MHz

MODEL NO.:TA1898D

REV. NO.:1.0

### A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC Voltage : 0 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 100 V(MM), 200 V(HBM)



Electrostatic Sensitive Device (ESD)

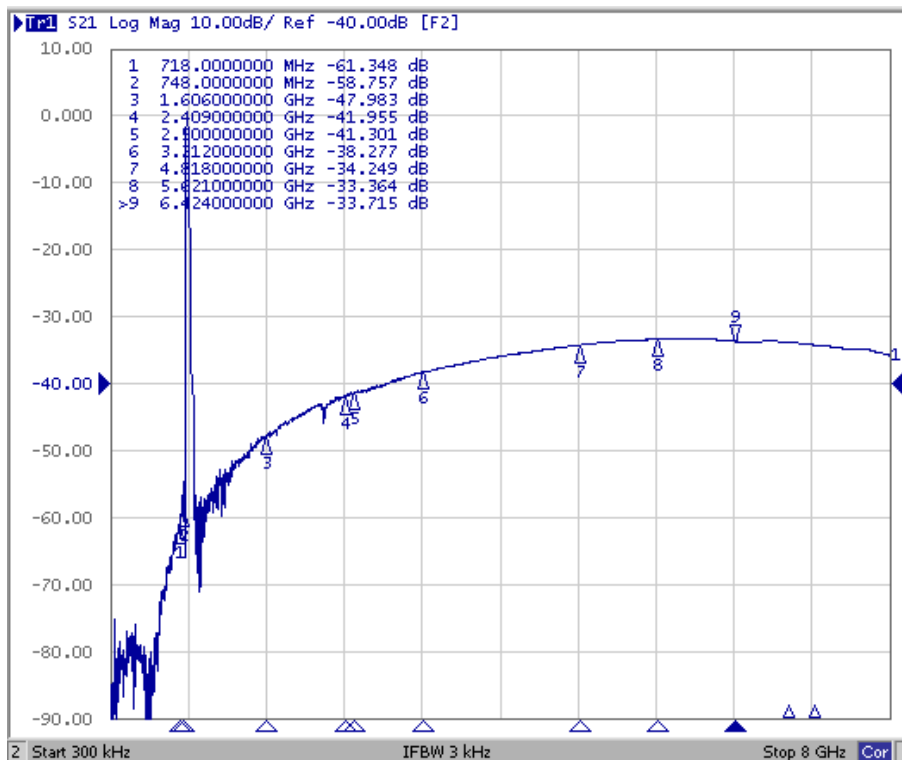
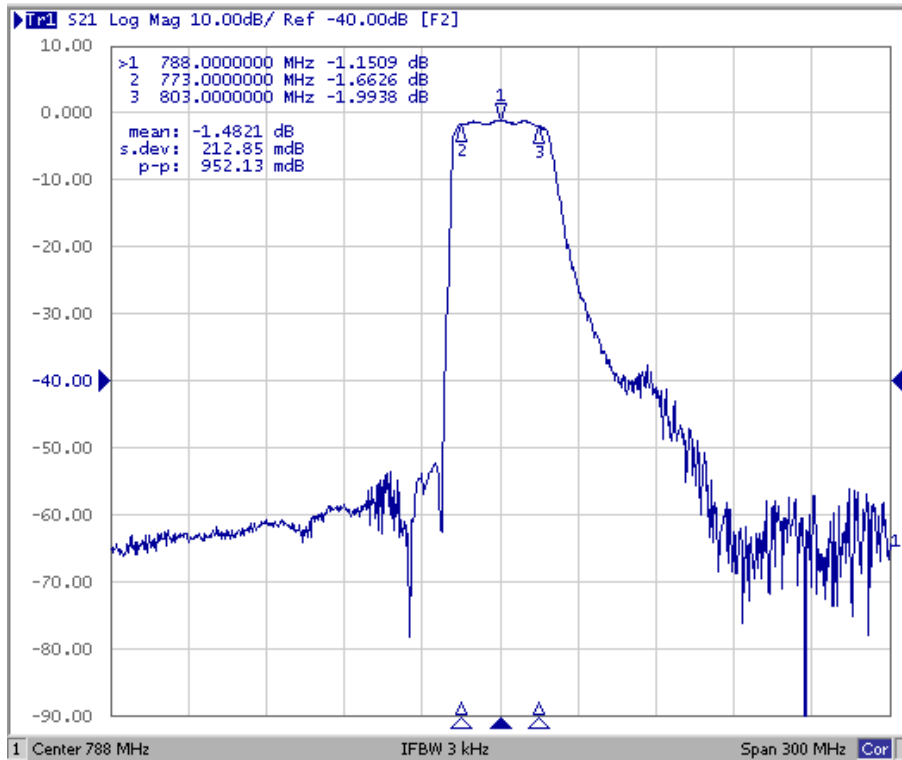
### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance:  $Z_s = 50 \Omega$

Terminating load impedance:  $Z_L = 50 \Omega$

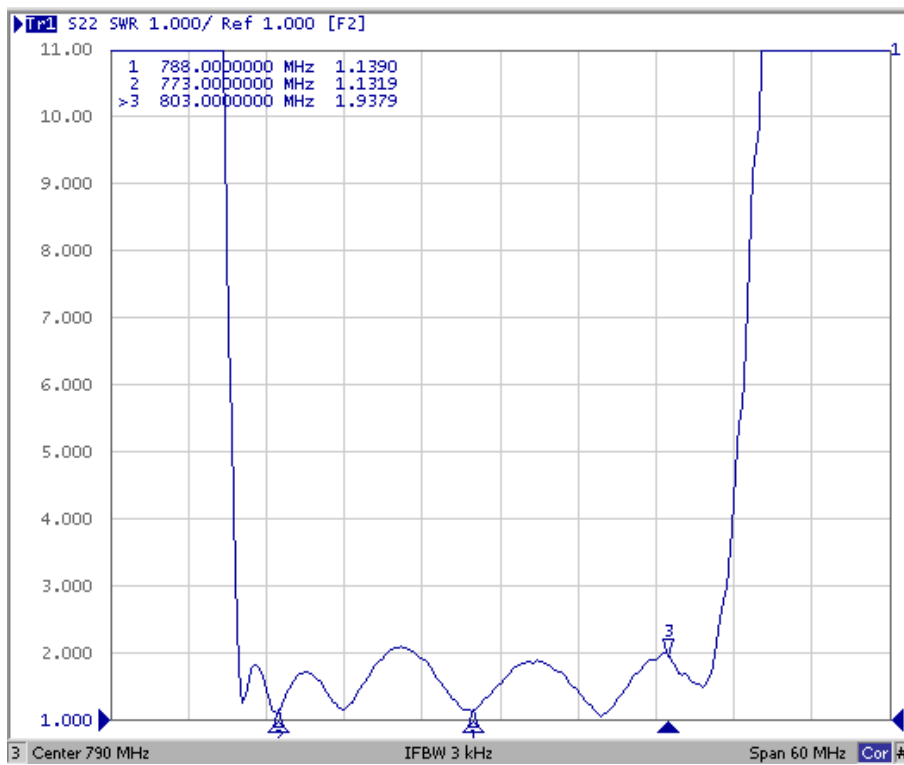
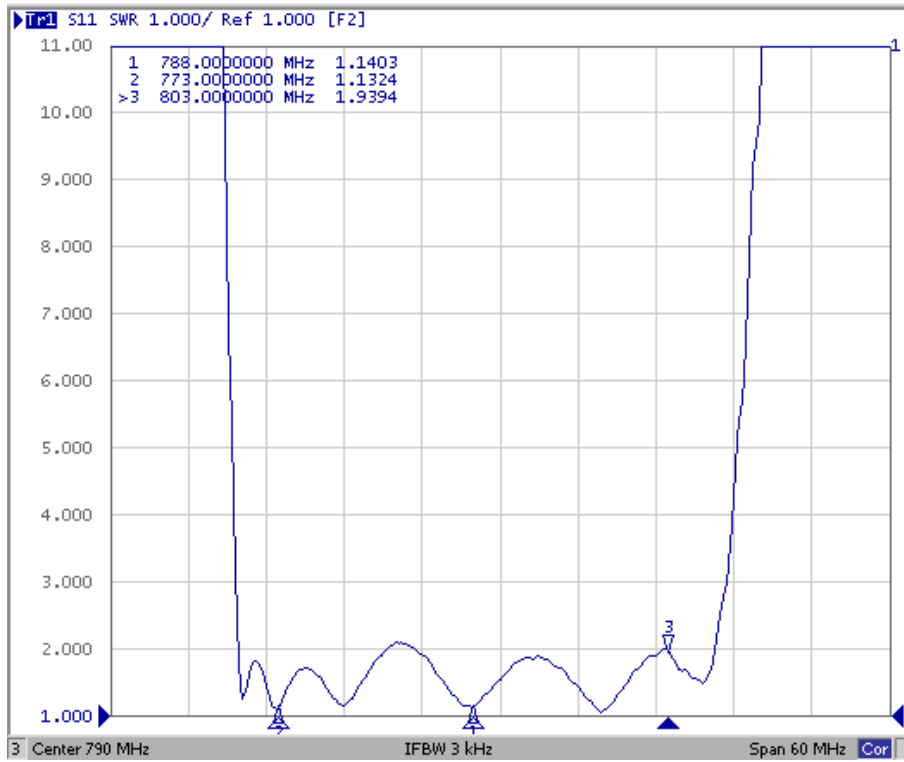
Item	Unit	Min.	Typ.	Max.
<b>Center Frequency</b> <b>Fc</b>	MHz	-	788	-
<b>Insertion Loss</b> (773~803 MHz) <b>IL</b>	dB	-	2.0	3.0
<b>Amplitude Ripple</b> (773~803 MHz)	dB <sub>p-p</sub>	-	1.0	2.3
<b>VSWR</b> (773~803 MHz)	-	-	2.2	2.5
<b>Attenuation</b> (Reference level from 0 dB)				
703 ~ 718 MHz	dB	46	60	-
718 ~ 748 MHz	dB	46	52	-
1546 ~ 1606 MHz	dB	40	49	-
1559 ~ 1606 MHz	dB	40	49	-
2319 ~ 2409 MHz	dB	35	43	-
2400 ~ 2500 MHz	dB	35	43	-
3092 ~ 3212 MHz	dB	30	41	-
3865 ~ 4015 MHz	dB	30	39	-
4638 ~ 4818 MHz	dB	30	38	-
4900 ~ 5950 MHz	dB	30	38	-
5411 ~ 5621 MHz	dB	30	38	-
6184 ~ 6424 MHz	dB	30	39	-
6957 ~ 7227 MHz	dB	30	38	-

### C. FREQUENCY CHARACTERISTICS:

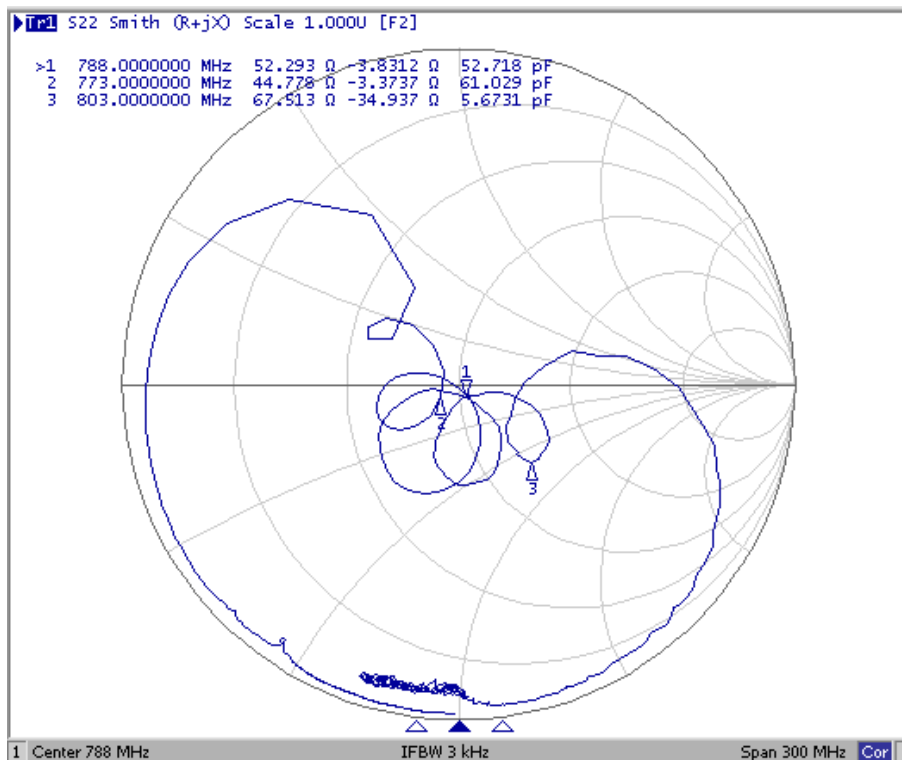
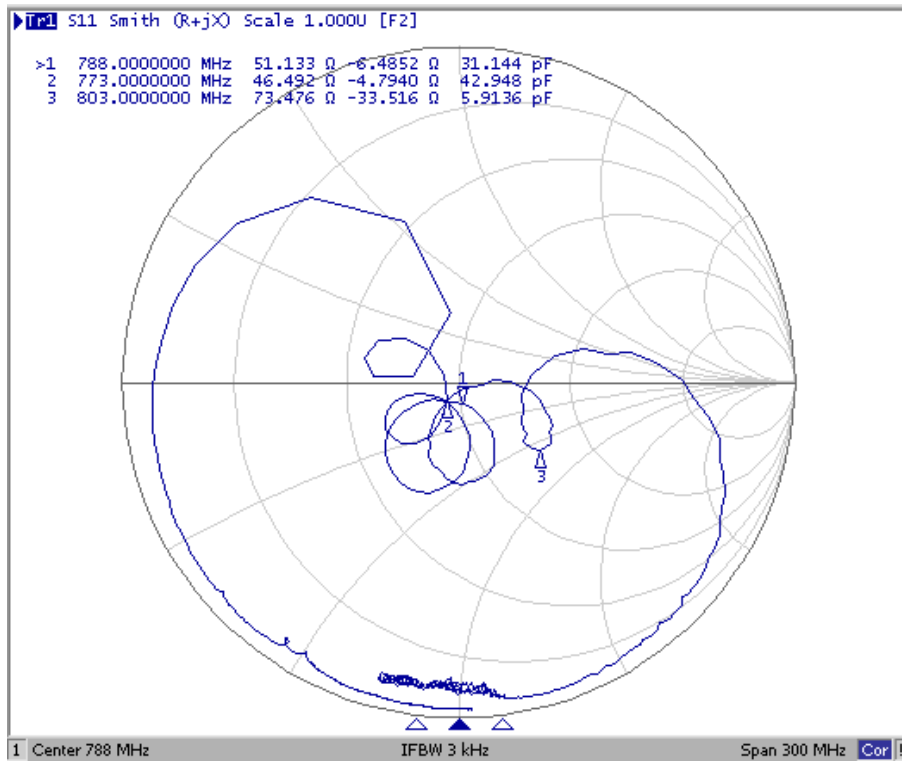


# Reflection Functions:

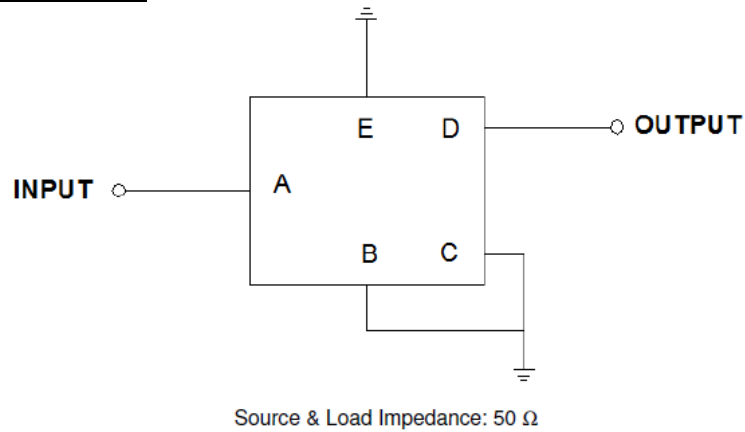
## VSWR



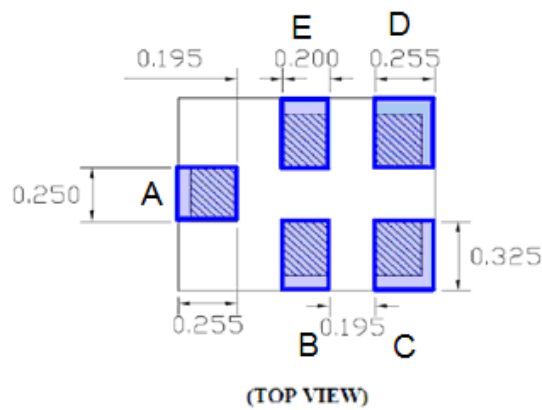
# Smith Chart



**D. MEASUREMENT CIRCUIT:**

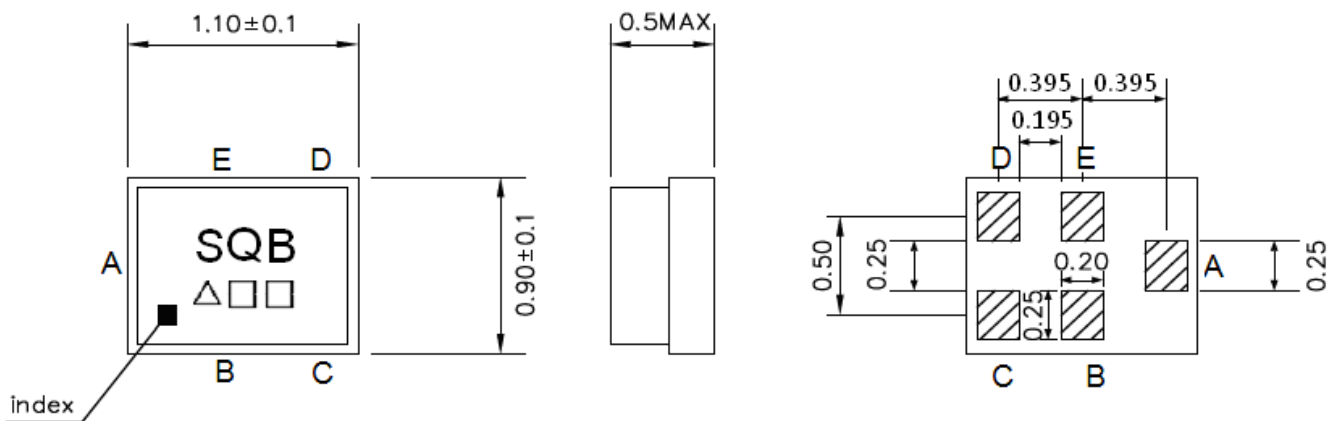


**E. PCB Footprint:**



**F. OUTLINE DRAWING:**

Device size: 1.1typ. x 0.9typ. x 0.5max.



Unit : mm

**Pin Configuration**

Pin No.	Symbol	Function
A	IN	Unbalanced pin
B	GND	Ground
C	GND	Ground
D	OUT	Unbalanced pin
E	GND	Ground

△ : Date Code

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

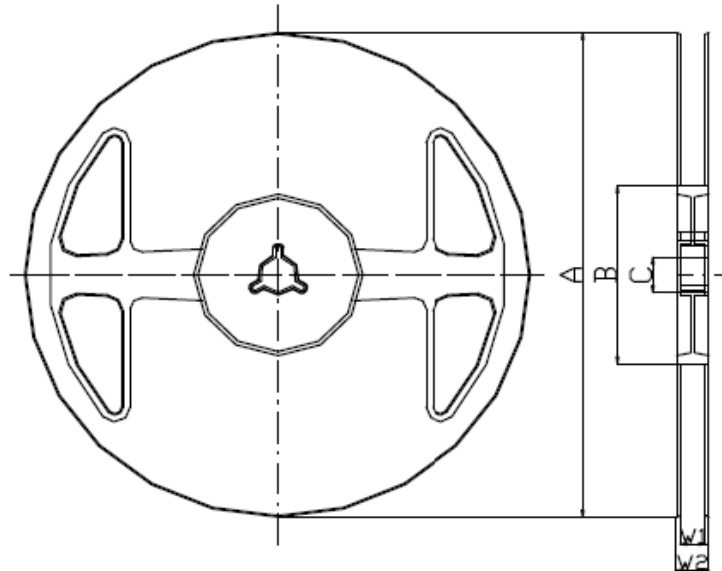
**Date Code:**

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	Đ	E	F	G	H	J	K	L	M
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

**G. PACKING:** (Ref: WI-75M03)

1. REEL DIMENSION

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



**Materials of Reel**

Material : Polystyrene + Carbon

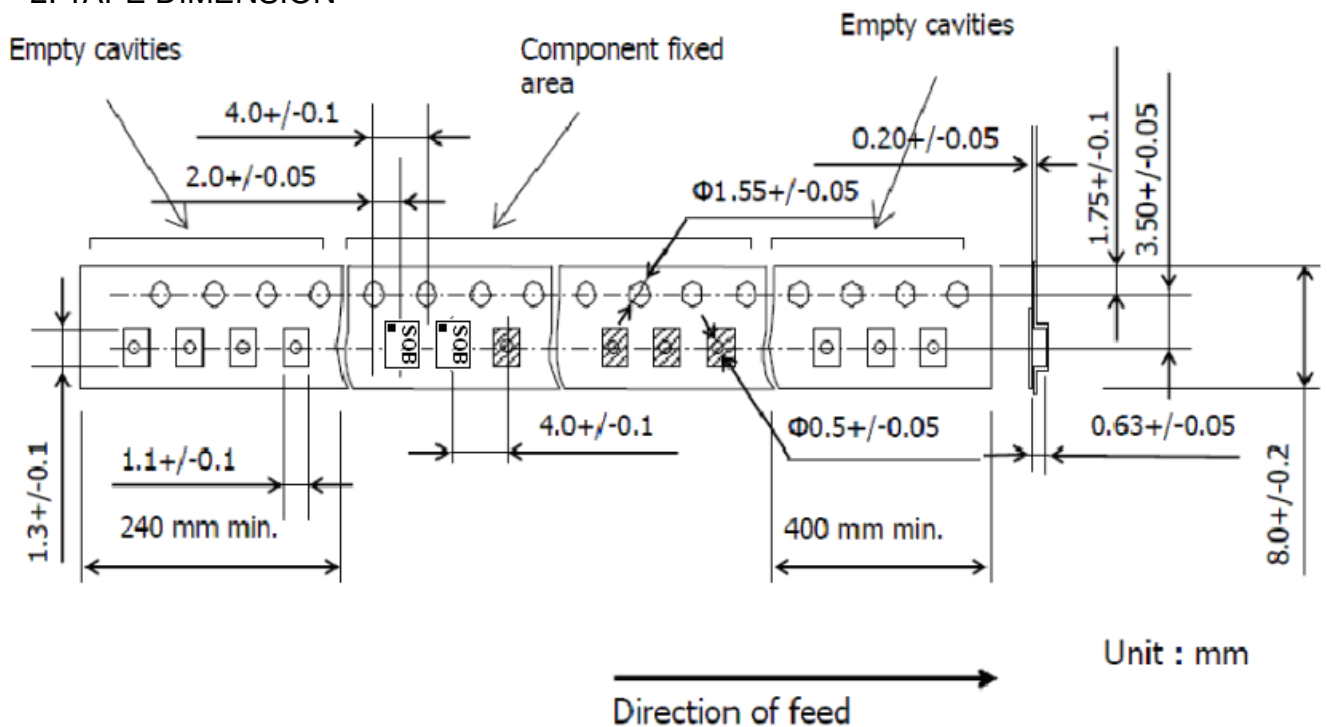
Color : Black

Surface resistance (reference value) :  $10^9 \Omega/\text{sq}$  Max.

Unit : mm

A	B	C	W1	W2
$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

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

