



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Name: SAW Tx Filter 1880 MHz LTE Band 2 SMD 1.1x0.9 mm (BW=60 MHz)

TST Parts No.: TA1871A

Customer Part No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Hayley Chou *Hayley Chou*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/09/18

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 1880 MHz

MODEL NO.:TA1871A

REV. NO.:3.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm (in passband)
2. DC Voltage : +/-5 V
3. Operating Temperature: -30 °C to +85 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 50 V(MM), 100 V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

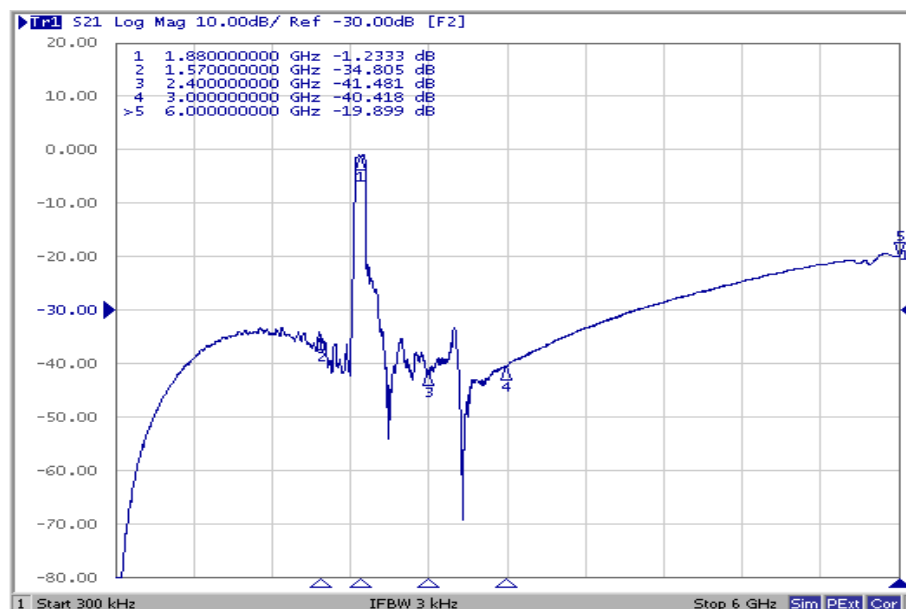
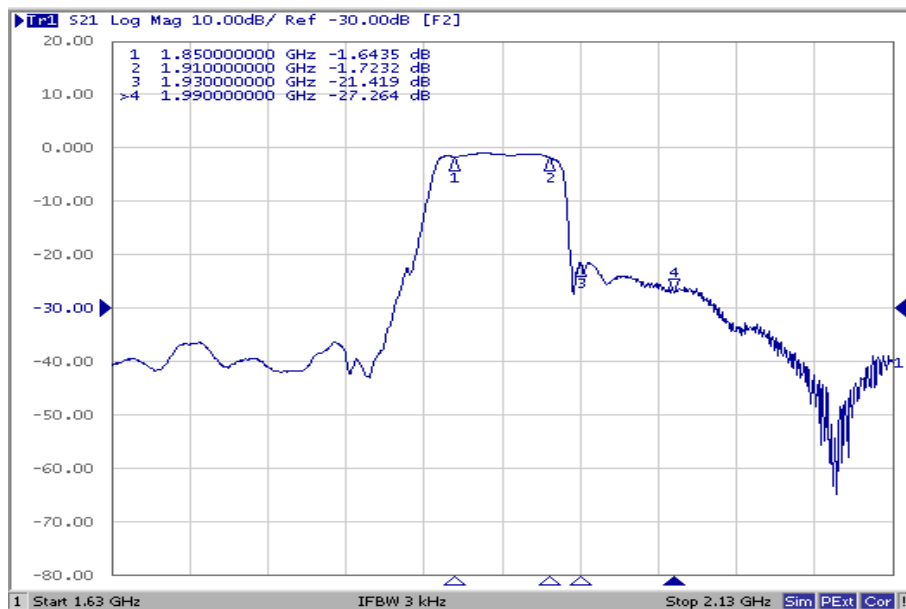
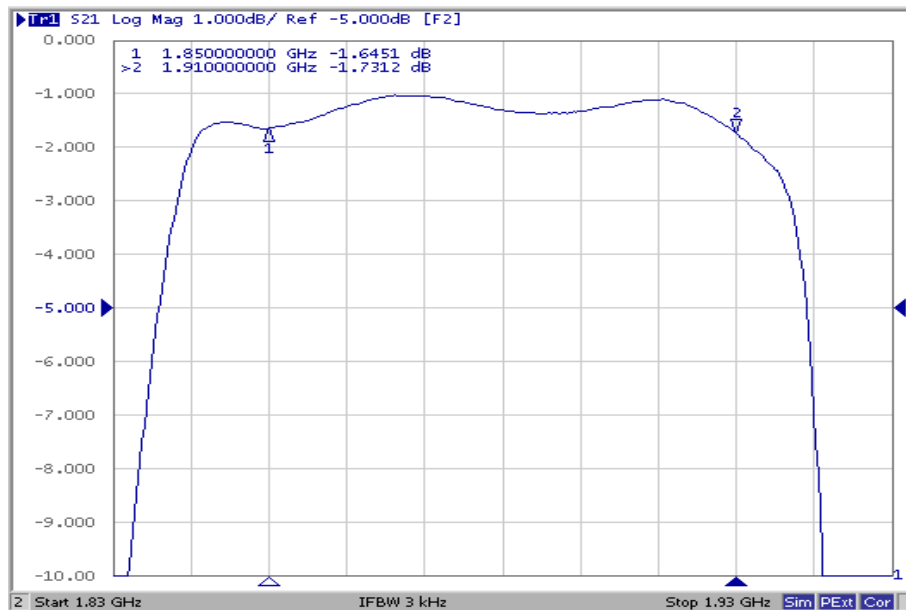
Terminating source impedance: $Z_s = 50 \Omega$

Terminating load impedance: $Z_L = 50//10nH \Omega$

Item	Unit	Min.	Typ.	Max.	Remark
Center Frequency F_c	MHz	-	1880	-	-
Insertion Loss (1850~1910 MHz) IL	dB(*1)	-	1.7	2.0	at 25 °C
	dB(*1)	-	-	2.8	-
Amplitude Ripple (1850~1910 MHz)	dB	-	0.7	1.1	at 25 °C
	dB	-	-	1.9	-
VSWR (1850~1910 MHz)	-	-	1.8	2.2	-
Attenuation (Reference level from 0 dB)					
DC ~ 1570 MHz	dB	20	32	-	-
1570 ~ 1580 MHz	dB	20	34	-	-
1930 ~ 1990 MHz	dB	17	20	-	-
1990 ~ 2400 MHz	dB	20	26	-	-
2400 ~ 3000 MHz	dB	20	31	-	-
3000 ~ 4000 MHz	dB	15	30	-	-
4000 ~ 5550 MHz	dB	10	24	-	-
5550 ~ 5730 MHz	dB	10	24	-	-
5730 ~ 6000 MHz	dB	10	23	-	-

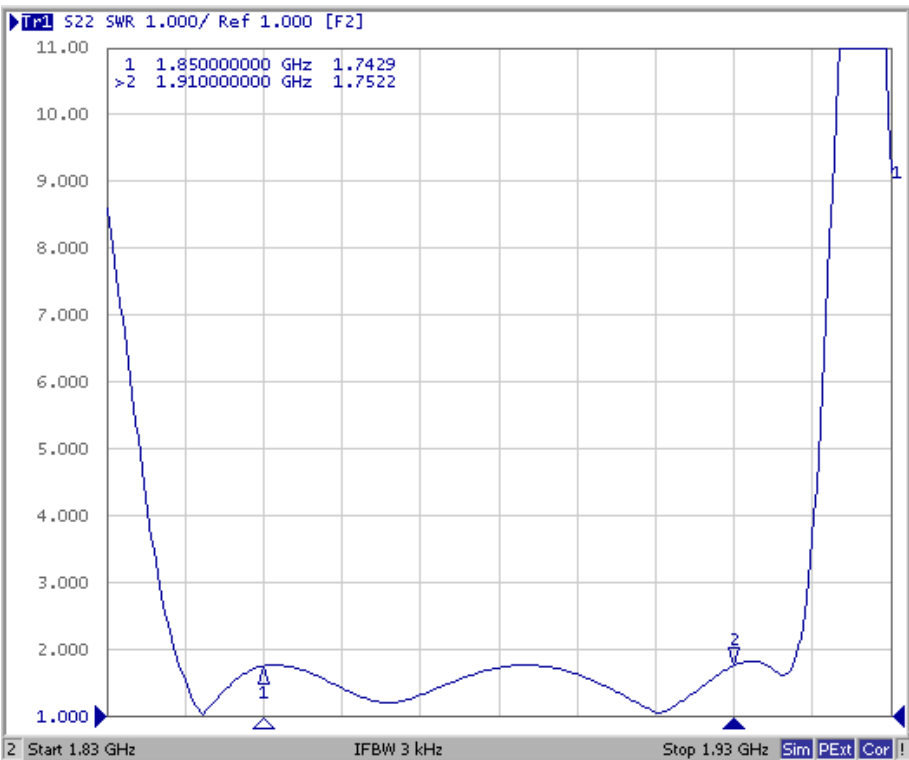
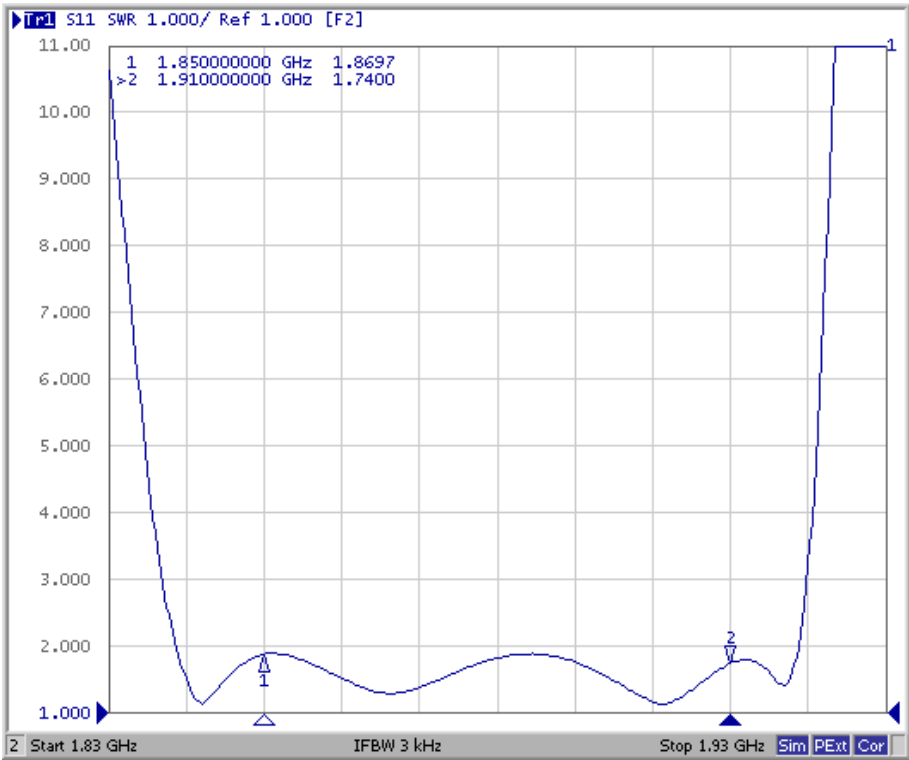
(*1) Specification of insertion loss includes loss that comes from test board. (Approximately 0.15 dB)

C. FREQUENCY CHARACTERISTICS:

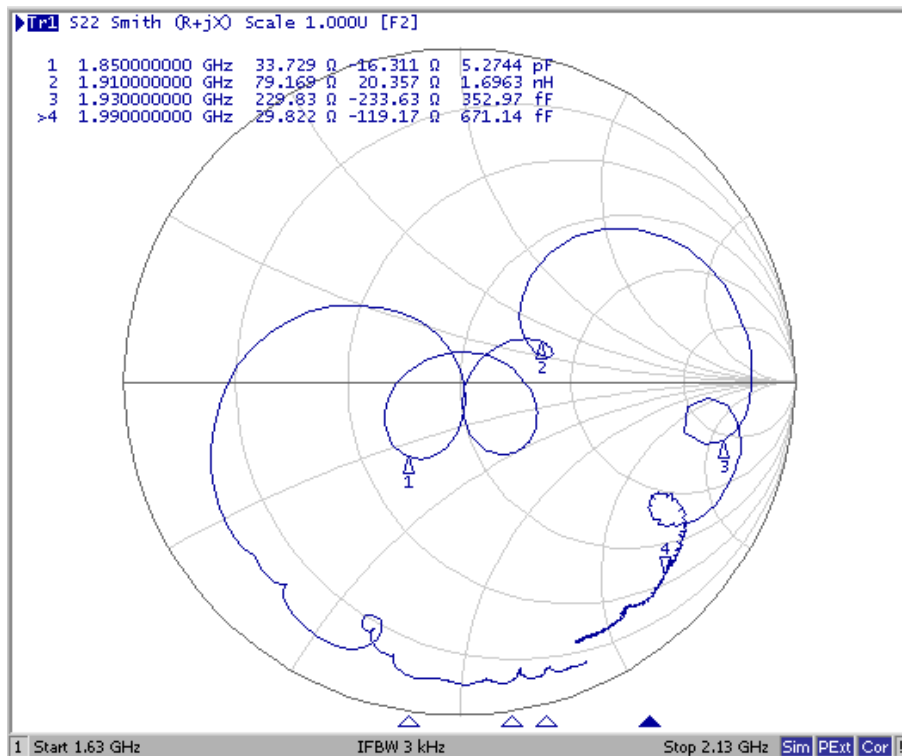
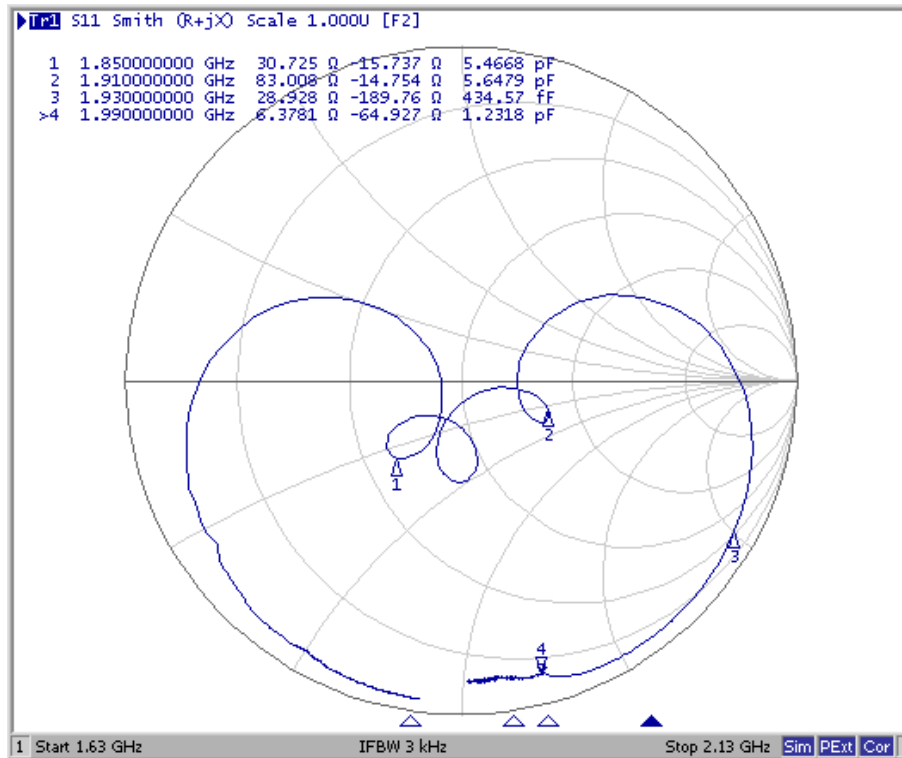


Reflection Functions:

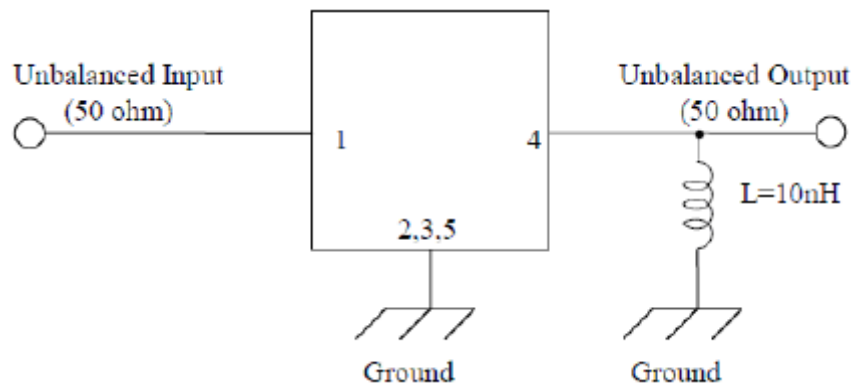
VSWR



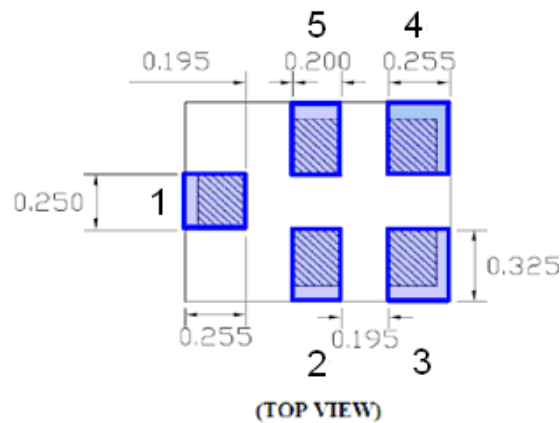
Smith Chart



D. MEASUREMENT CIRCUIT:

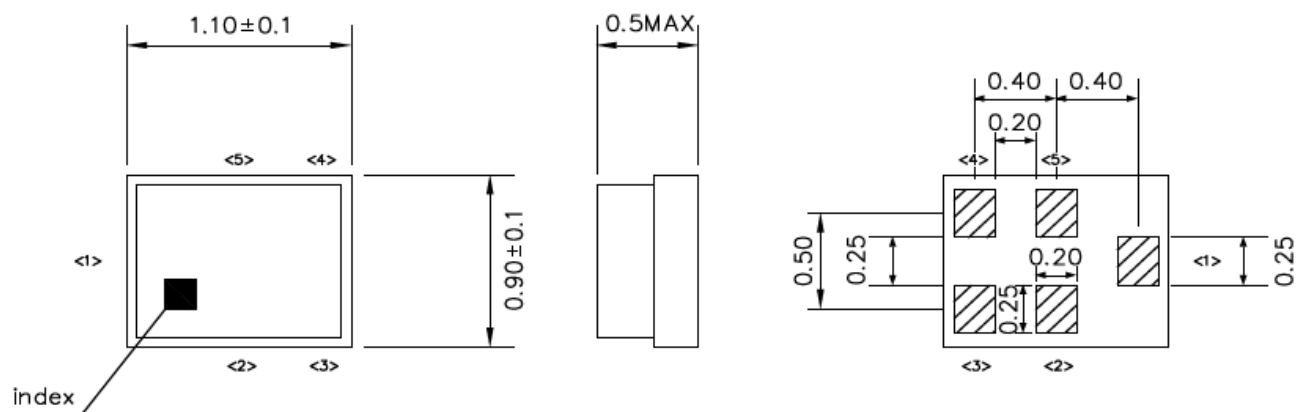


E. PCB Footprint:



F. OUTLINE DRAWING:

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

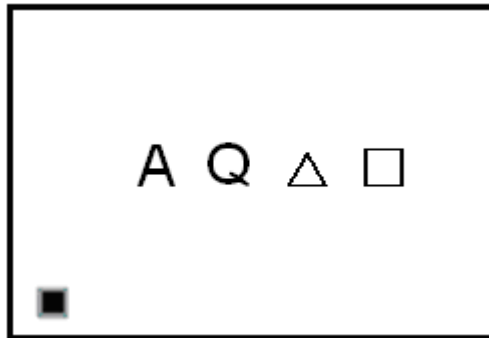


Unit : mm

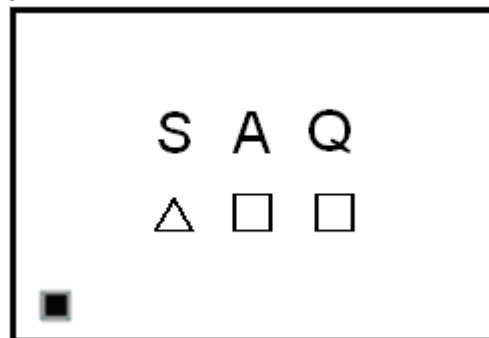
Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced 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 l)

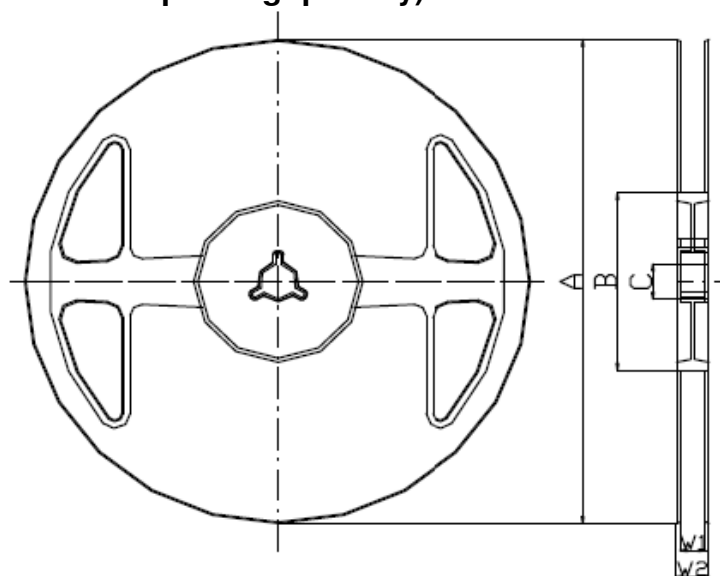
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	D	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

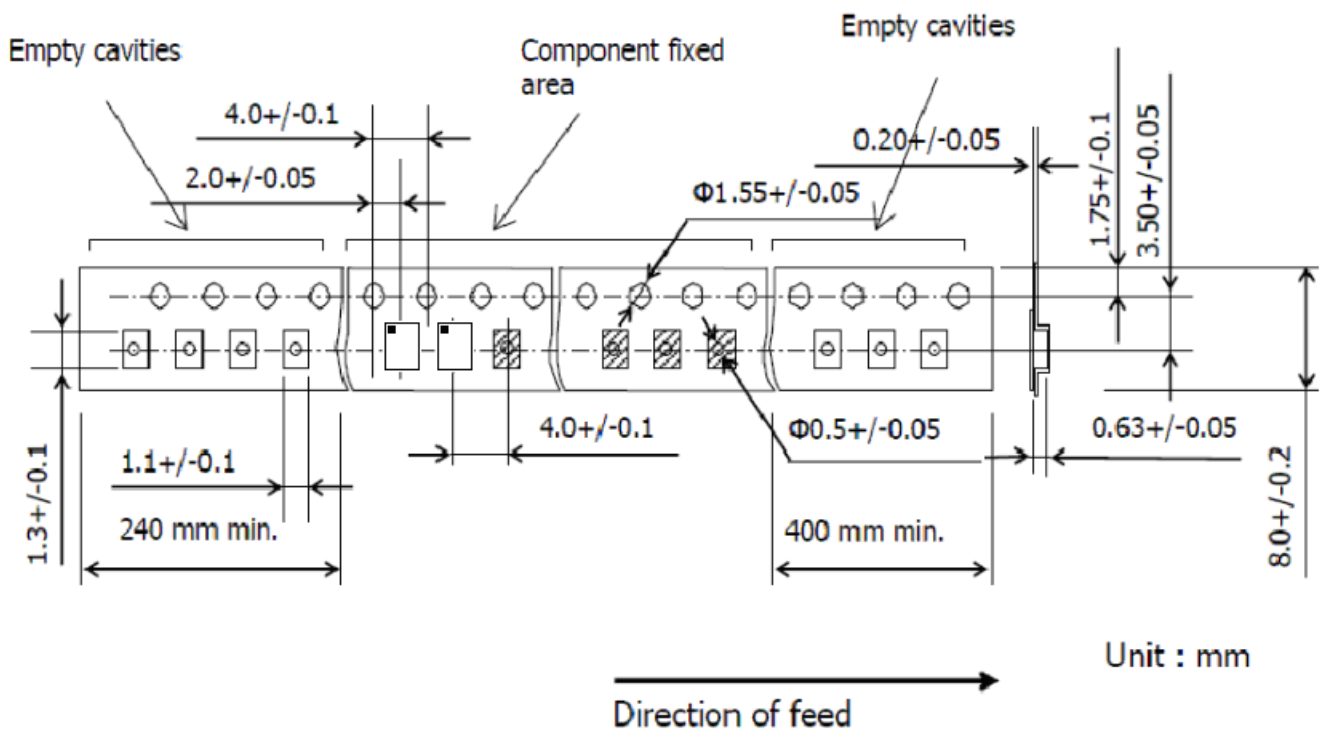
Color : Black

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

