



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

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Name: SAW Rx Filter 2140 MHz LTE Band 1 SMD 1.1x0.9 mm (BW=60 MHz)

TST Parts No.: TA1845A

Customer Part No.: _____

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

Checked by: _____ Hayley Chou *Hayley Chou*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/08/28

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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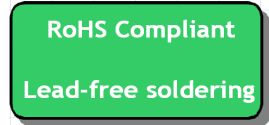
SAW Filter 2140 MHz

MODEL NO.:TA1845A

REV. NO.:3.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
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)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

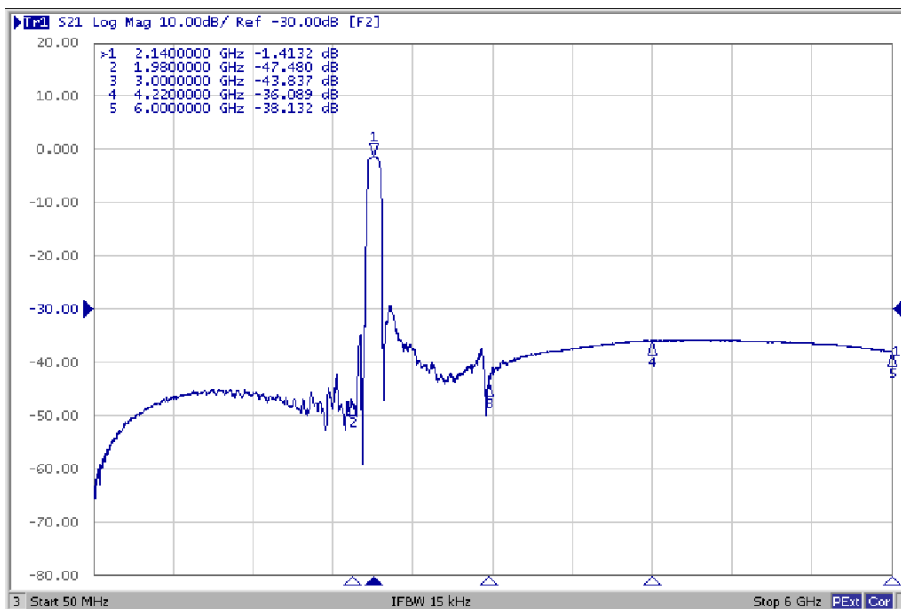
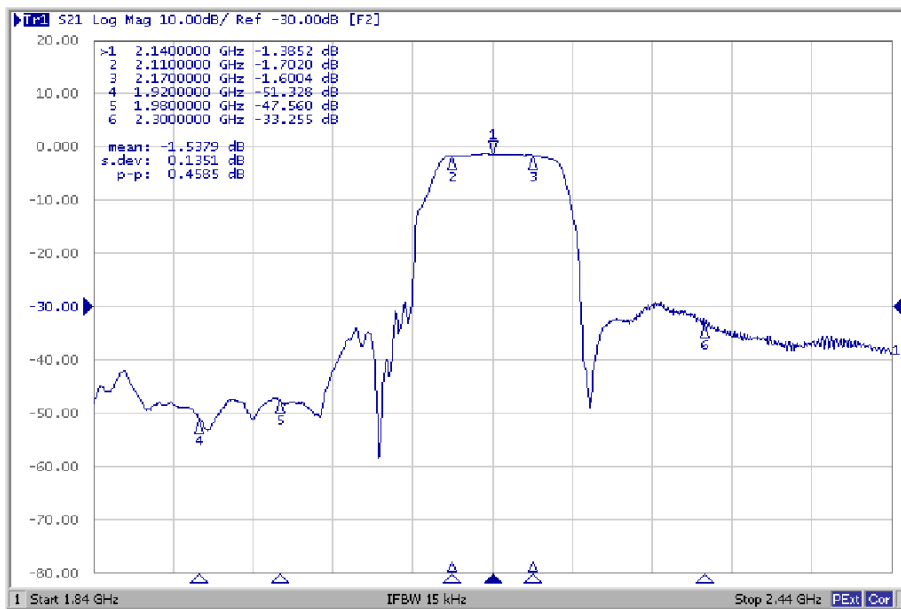
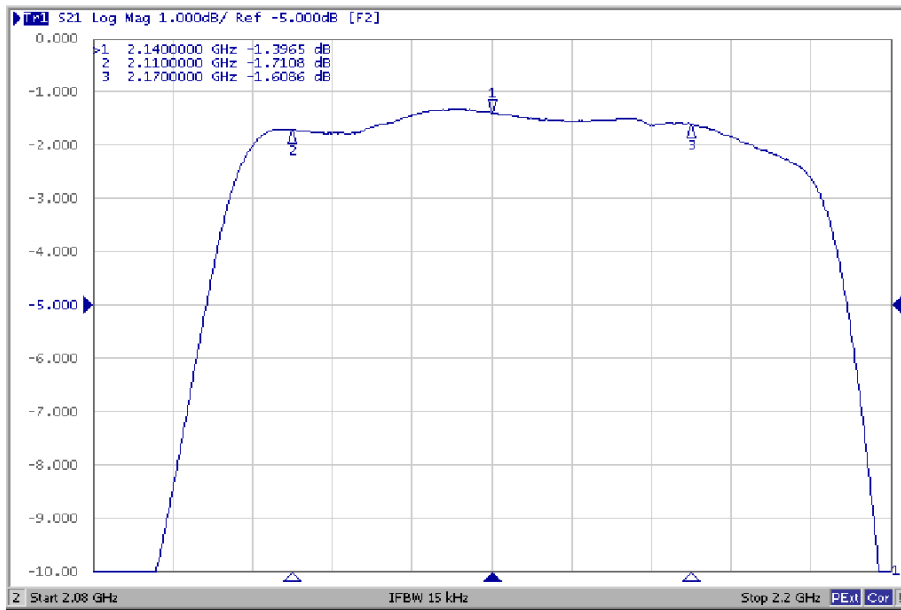
Terminating source impedance: $Z_s = 50 \Omega$

Terminating load impedance: $Z_L = 50 \Omega$

Parameters Description		Unit	Min.	Typ.	Max.	
Center Frequency		Fc	MHz	-	2140	-
Insertion Loss	2110 ~ 2170 MHz	dB(*1)	-	1.9	2.5	
	2110 ~ 2155 MHz	dB(*1)	-	1.9	2.5	
Amplitude Ripple	2110 ~ 2170 MHz	dB	-	0.7	1.5	
	2110 ~ 2155 MHz	dB	-	0.7	1.5	
VSWR	2110 ~ 2170 MHz	-	-	1.8	2.3	
	2110 ~ 2155 MHz	-	-	1.8	2.3	
Attenuation (Reference level from 0 dB)						
50 ~ 1710 MHz		dB	35	43	-	
1710 ~ 1755 MHz		dB	40	44	-	
1920 ~ 1980 MHz		dB	42	46	-	
4220 ~ 4340 MHz		dB	30	40	-	

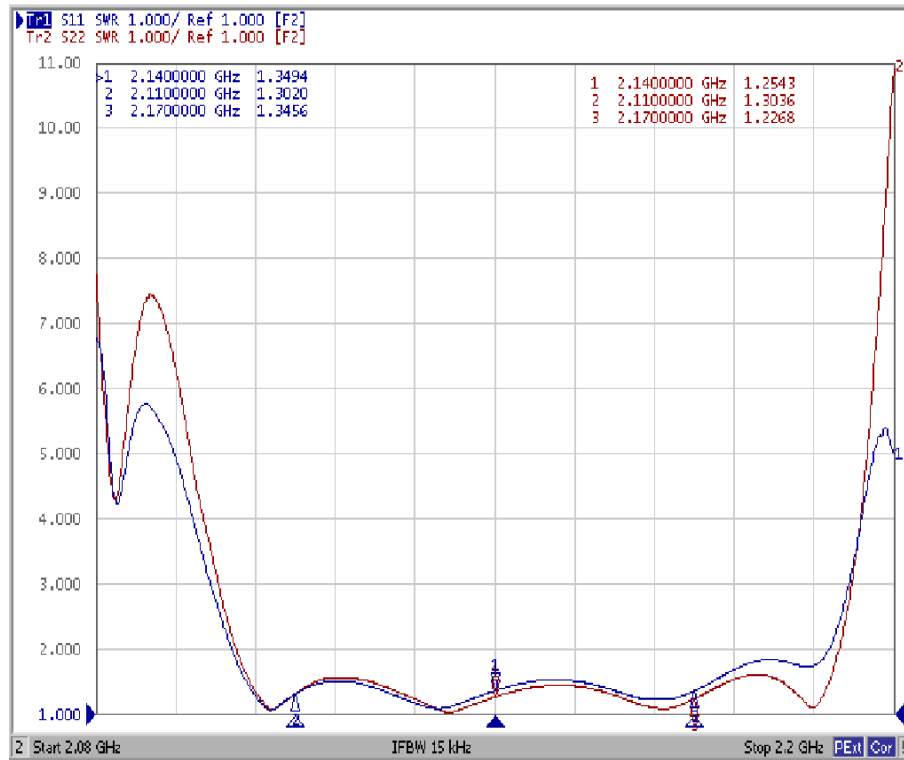
(*1) Specification of insertion loss excludes loss that comes from test board.

C. FREQUENCY CHARACTERISTICS:

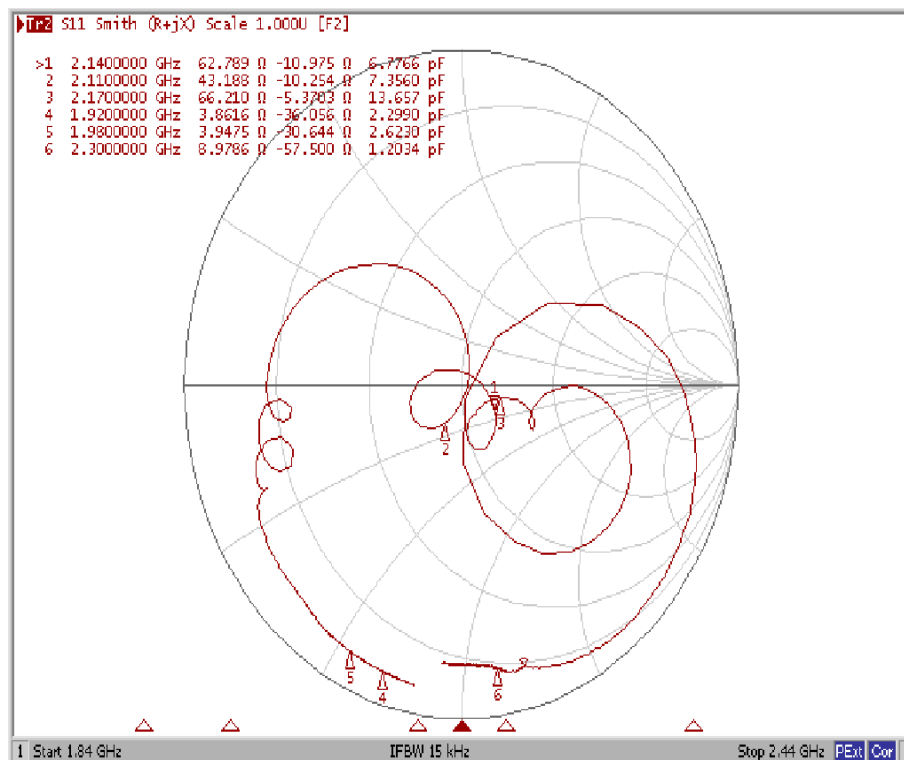


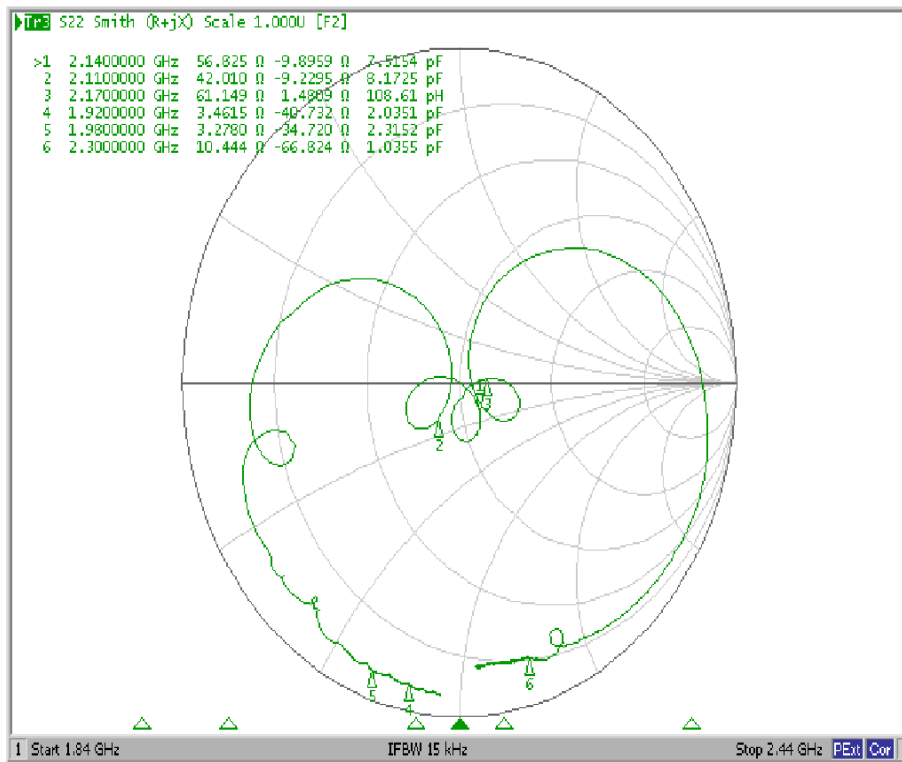
Reflection Functions:

VSWR

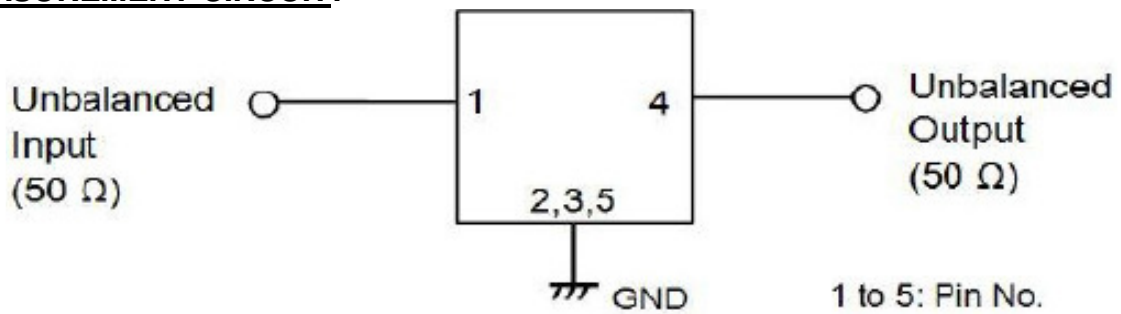


Smith Chart

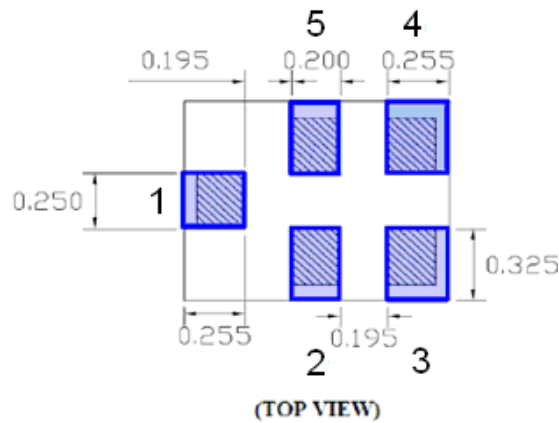




D. MEASUREMENT CIRCUIT:

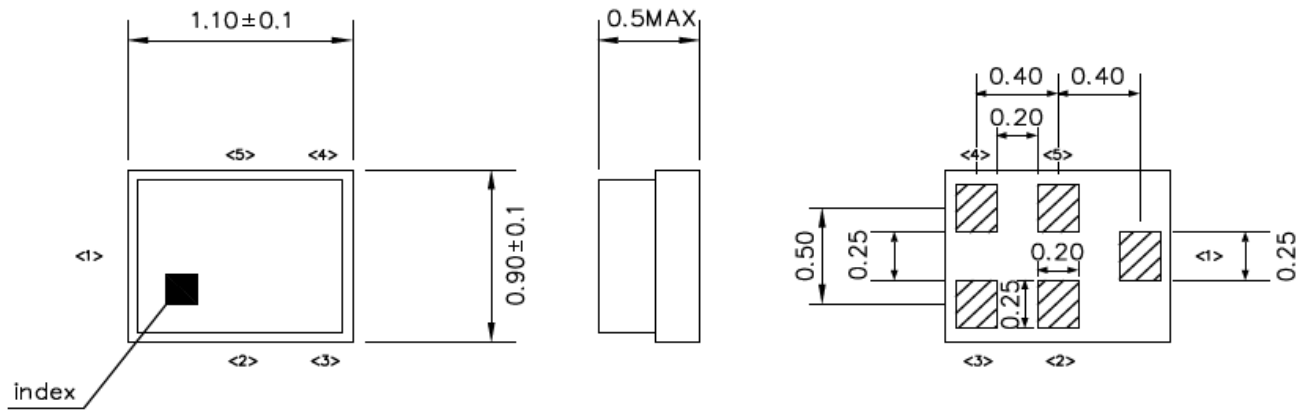


E. PCB Footprint:



F. OUTLINE DRAWING:

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

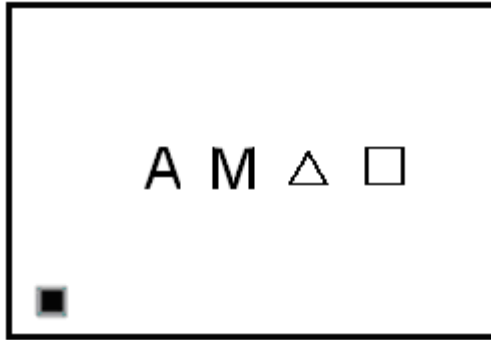


Unit : mm

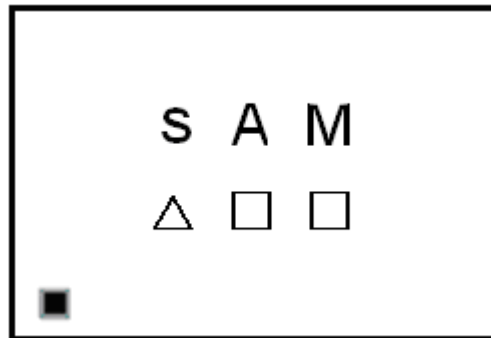
Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced input
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced output
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)**

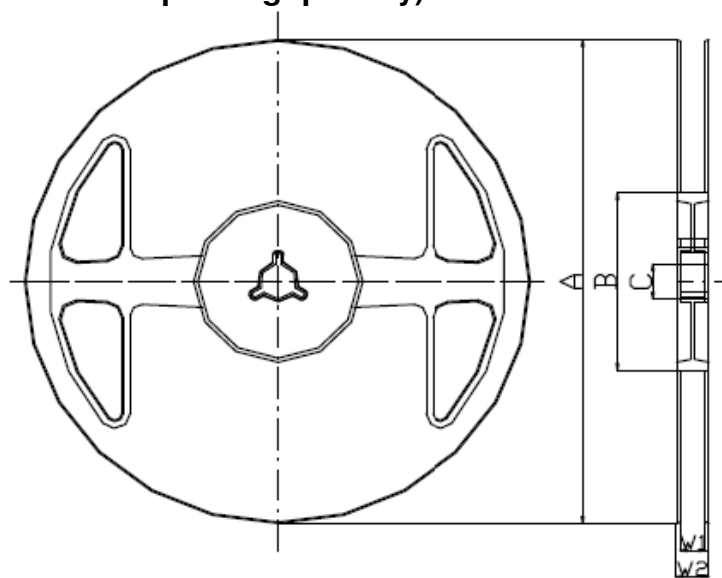
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
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	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	▽	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

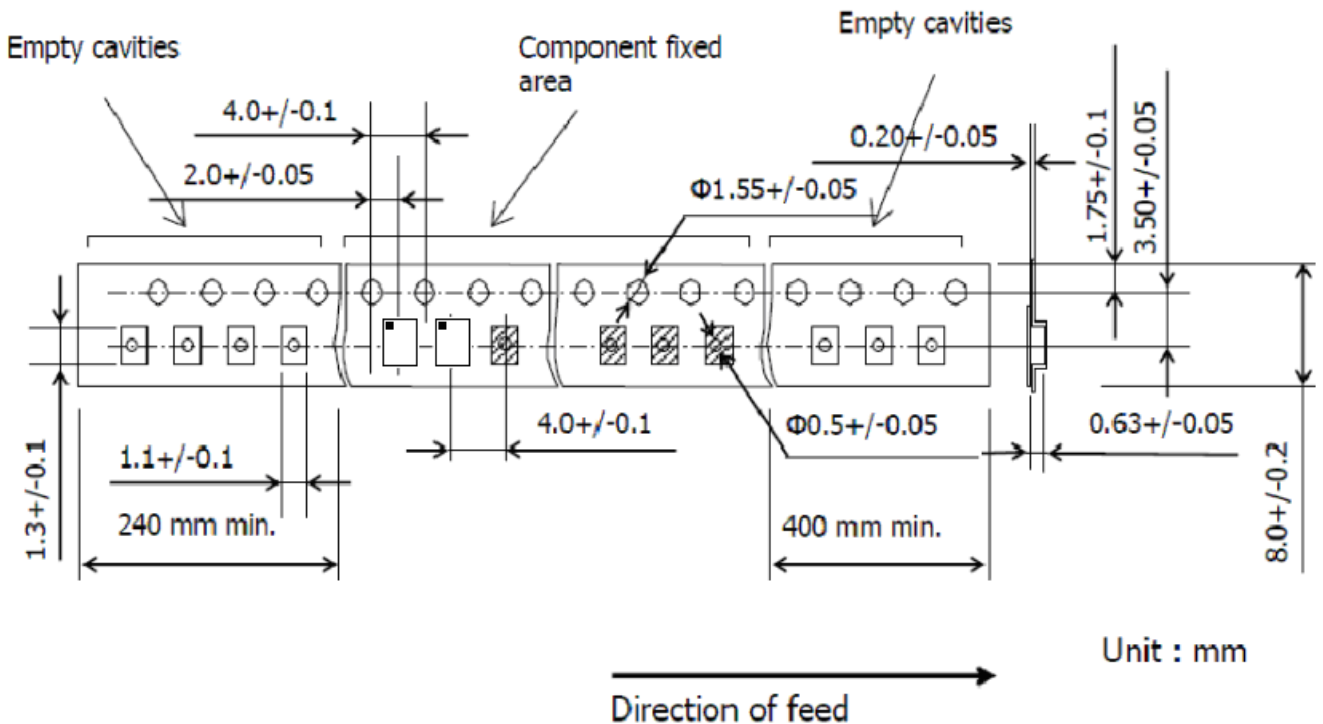
Color : Black

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



Unit : mm

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.

