



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: SAW Filter 1582.469 MHz Rx SMD 1.1x0.9 mm (BW=46.834 MHz)

TST Part No.: TA1804A

Customer Part No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Hayley Chou *Hayley Chou*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2017/01/23

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 1582.469 MHz Rx SMD 1.1x0.9 mm (BW=46.834 MHz)

MODEL NO.: TA1804A

REV. NO.:4.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -30 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1
6. Maximum ESD: +/-50 V (Human body model)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

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

Terminating load impedance: $Z_L = 50 \Omega$ (Single-ended)

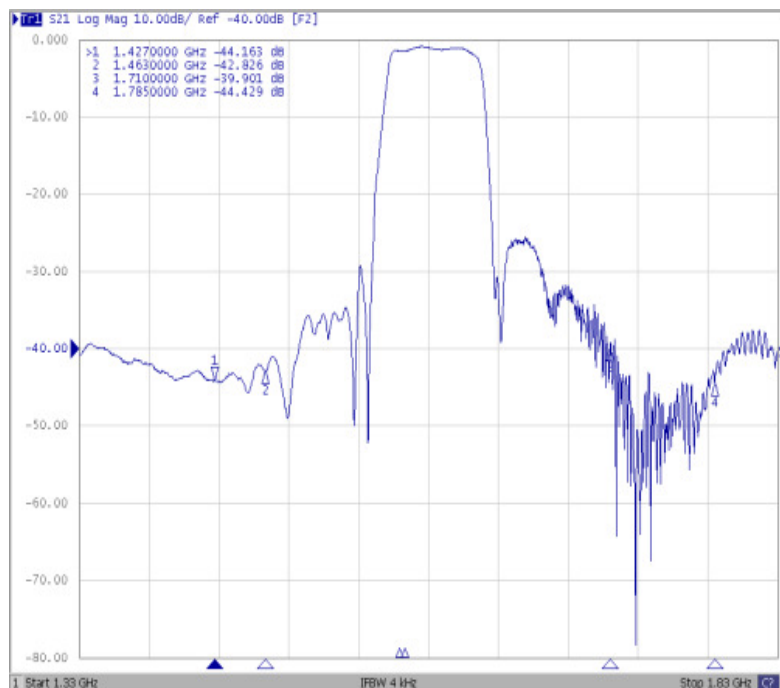
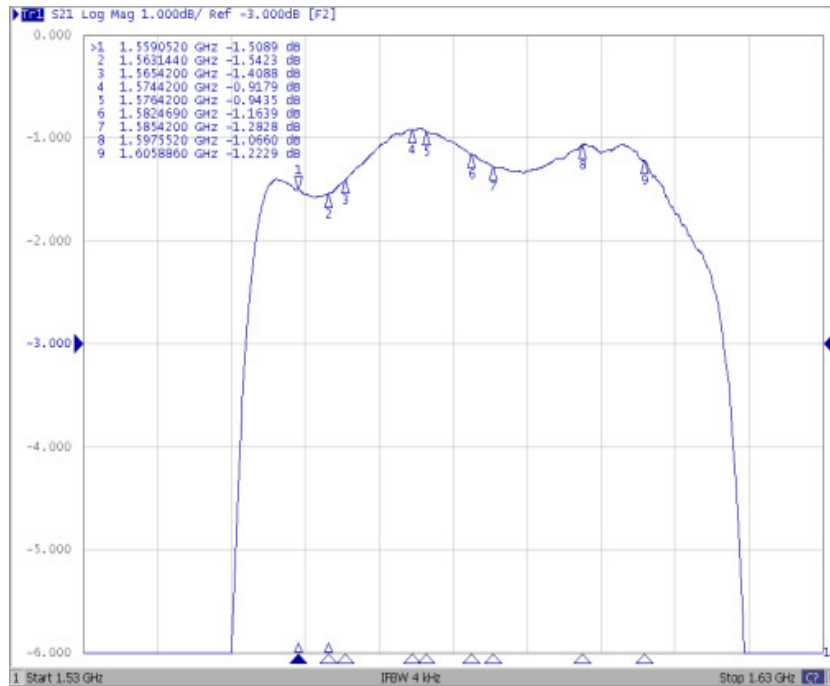
Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency		MHz	-	1582.469	-
Insertion Loss	1574.42~1576.42 MHz	dB (*1)	-	0.95	1.5
	1565.42~1585.42 MHz	dB (*1)	-	1.5	2.0
	1597.552~1605.886 MHz	dB (*1)	-	1.4	2.0
	1559.052~1563.144 MHz	dB (*1)	-	1.7	2.0
VSWR(Input/Output)	1574.42~1576.42 MHz	-	-	1.3	2.0
	1565.42~1585.42 MHz	-	-	1.9	2.3
	1597.552~1605.886 MHz	-	-	1.5	2.3
	1559.052~1563.144 MHz	-	-	1.8	2.3
Attenuation (Reference level from 0 dB)					
50~925 MHz		dB	32	36	-
925~980 MHz		dB	32	36	-
1427~1463 MHz		dB	32	39	-
1710~1785 MHz		dB	32	39	-
1850~1910 MHz		dB	32	38	-
1920~1980 MHz		dB	32	37	-

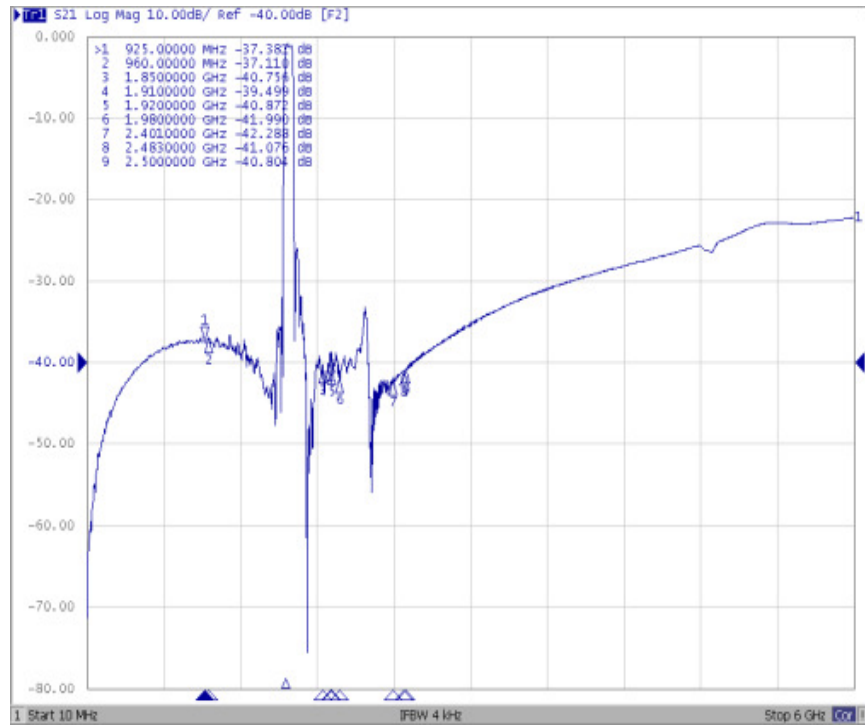
2401~2483 MHz	dB	32	39	
2500~2570 MHz	dB	31	38	
Temperature Coefficient of Frequency	ppm / °C	-36		

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

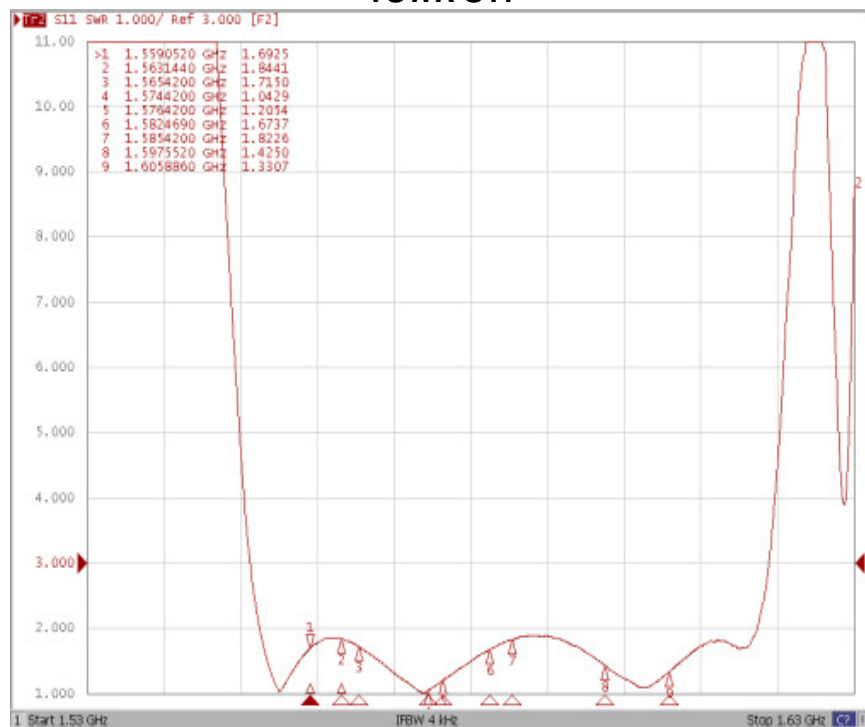
C. FREQUENCY CHARACTERISTIC:

Frequency Response

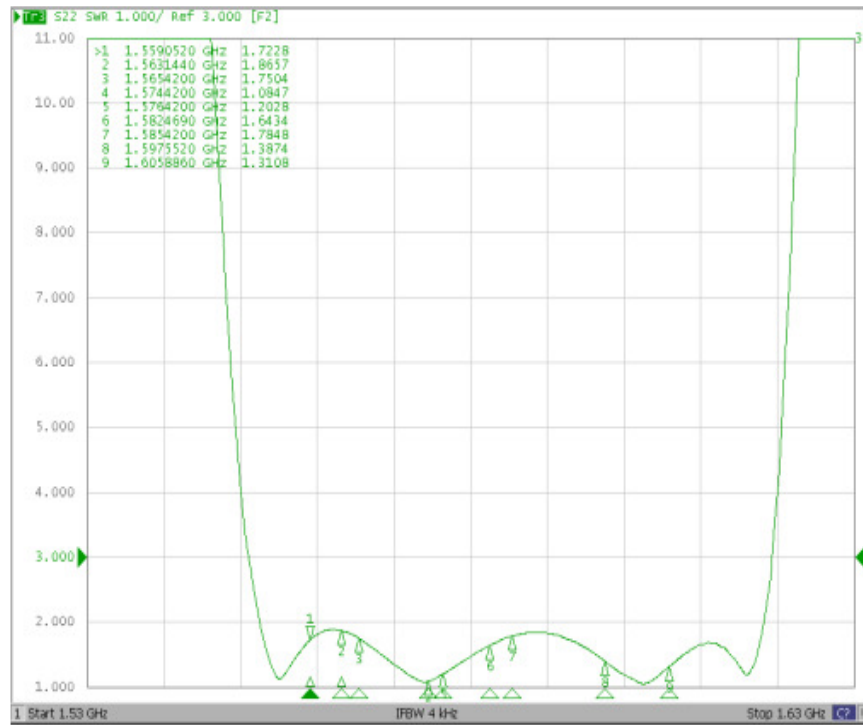




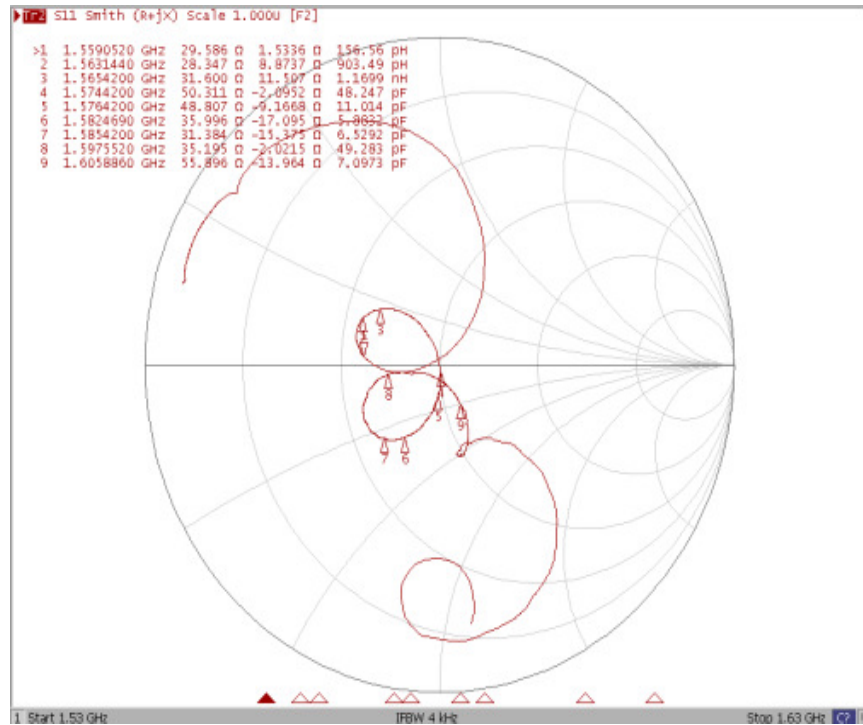
VSWR S11



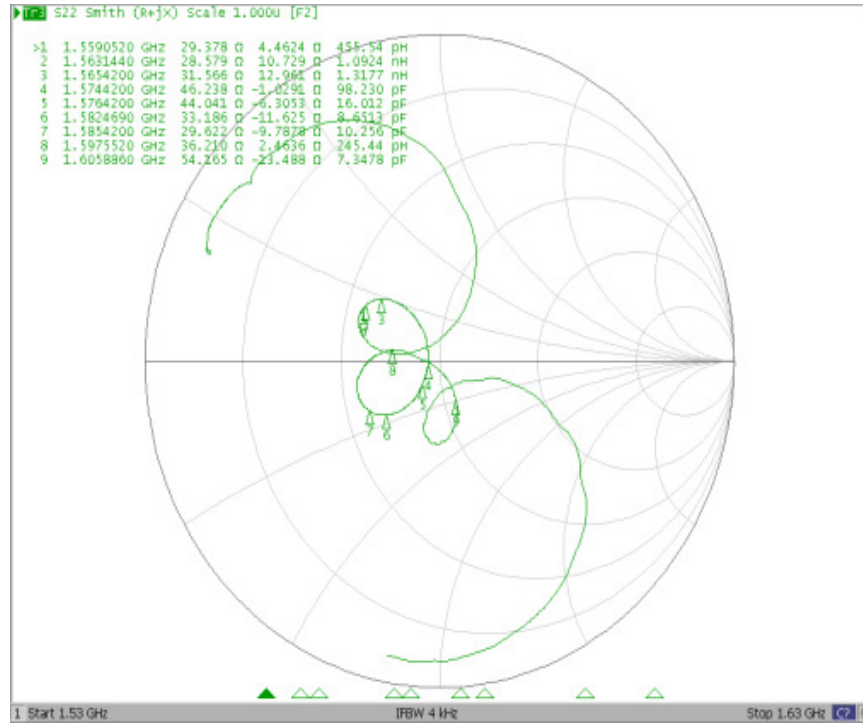
VSWR S22



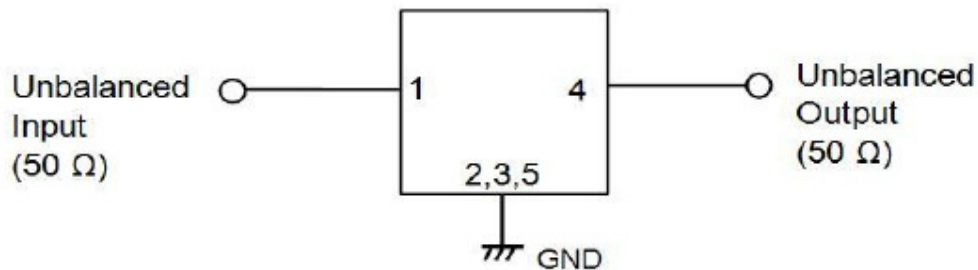
Smith Chart S11



Smith Chart S22

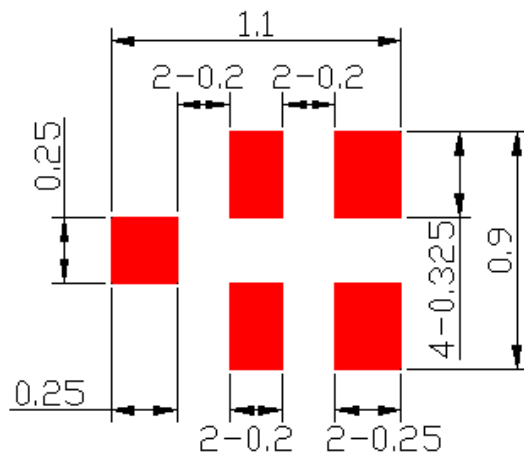


D. MEASUREMENT CIRCUIT:



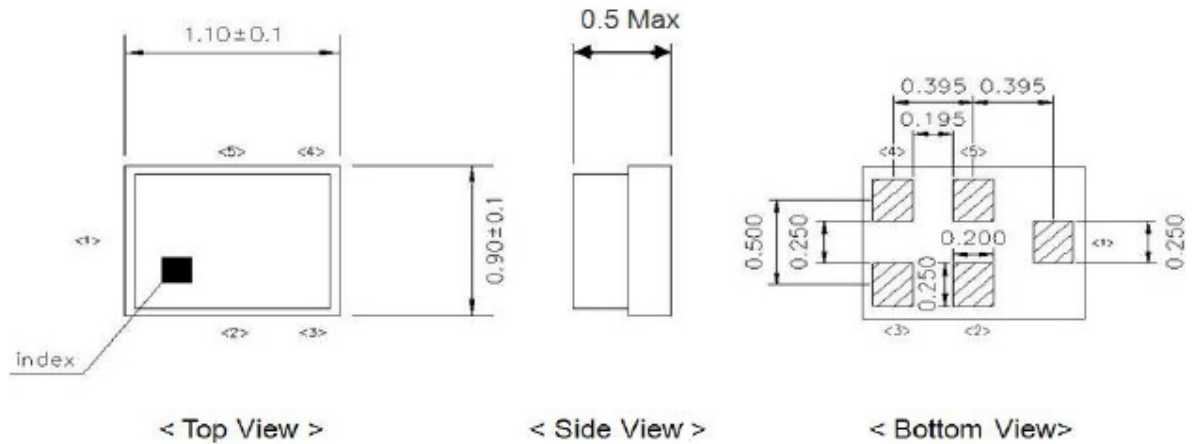
1 to 5: Pin No.

E. PCB Footprint:



: Land Pattern
Unit: mm

F. OUTLINE DRAWING:



Not Specified Tolerance: ± 0.05 mm

Coplanarity: 0.1 mm max.

1 to 5 : Pin No.

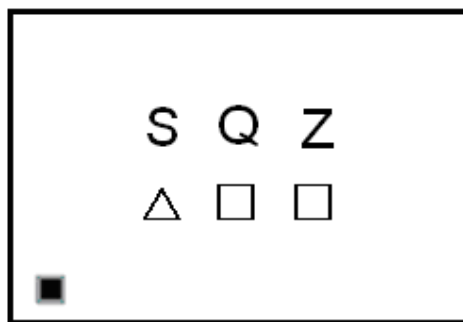
Unit: mm

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

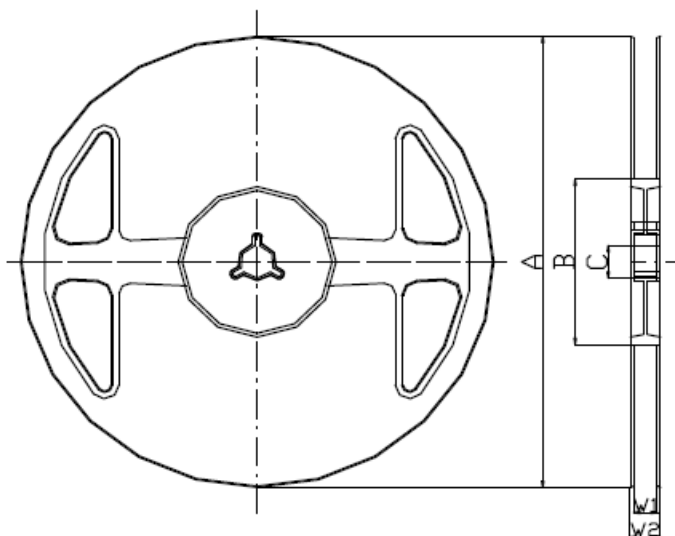
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

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:

1. REEL DIMENSION



Materials of Reel

Material : Polystyrene + Carbon

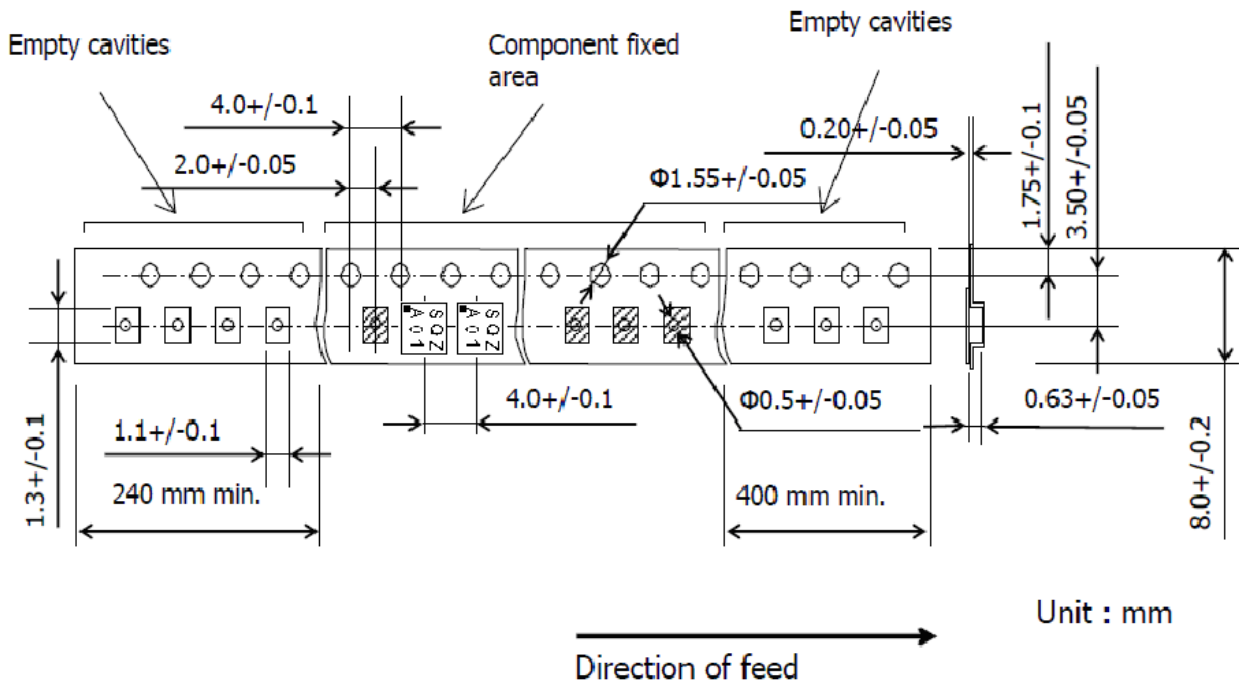
Color : Black

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

Unit : mm

Code	Quantity	A	B	C	W1	W2
J	5,000 pcs	$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at $150 \sim 180^\circ\text{C}$ 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 $260^\circ\text{C} \pm 0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 2 times.

