



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 Rx Filter 806 MHz LTE Band 20 SMD 1.4x1.1 mm (BW=30 MHz)

TST Parts No.: TA1756B (This part is compliant by AEC-Q200)

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Hayley Chou *Hayley Chou*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2018/07/09

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 806 MHz

MODEL NO.:TA1756B

REV.1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL 1)
6. ESD 100V(MM) 200V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

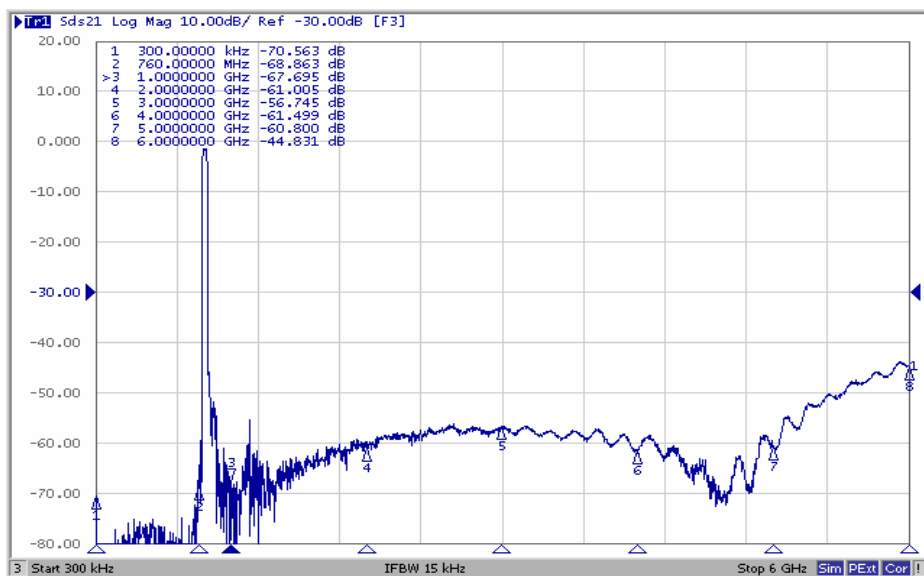
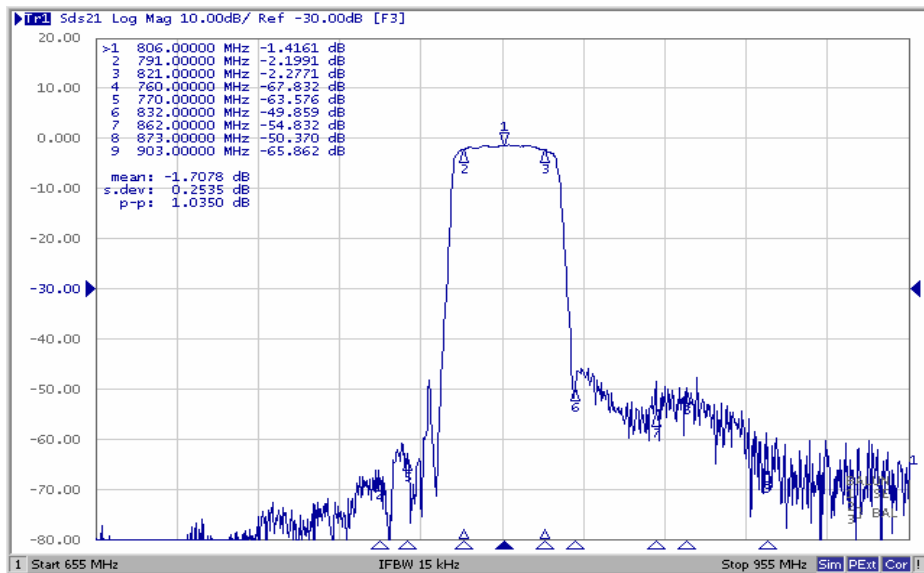
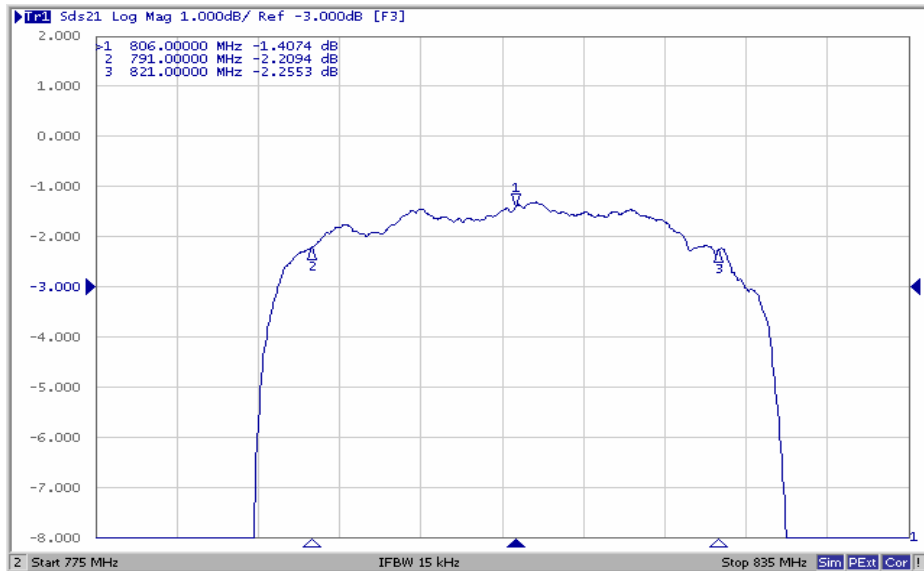
Terminating source impedance: $Z_s = 50 \Omega$

Terminating load impedance: $Z_L = 100 \Omega$ (Balance)

Parameters Description	Unit	Min.	Typ.	Max.	Note
Center Frequency F_c	MHz	-	806.0	-	-
Insertion Loss (791~821MHz) IL	dB	-	2.5	3.5	-20~85 °C
				3.8	-40~85 °C
Amplitude Ripple (791~821MHz)	dB _{p-p}	-	1.1	2.2	-20~85 °C
				2.4	-40~85 °C
VSWR (791~821MHz)	-	-	1.8	2.3	-20~85 °C
				2.5	-40~85 °C
Amplitude Balance (791~821MHz)	dB	-1.0	-0.3 ~ +0.2	+1.0	-
Phase Balance (791~821MHz)	deg	-10	-4.0 ~ +1.0	+10	-
Attenuation (Reference level from 0 dB)					
0.3 ~ 760 MHz	dB	45	68	-	-
760 ~ 770 MHz	dB	20	57	-	-
832 ~ 862 MHz	dB	40	45	-	-20~85 °C
		10			-40~85 °C
873 ~ 903 MHz	dB	40	48	-	-
1000 ~2000 MHz	dB	35	58	-	-
2000 ~ 3000 MHz	dB	40	63	-	-
3000 ~ 4000 MHz	dB	35	57	-	-
4000 ~ 5000 MHz	dB	30	53	-	-
5000 ~ 6000 MHz	dB	25	48	-	-

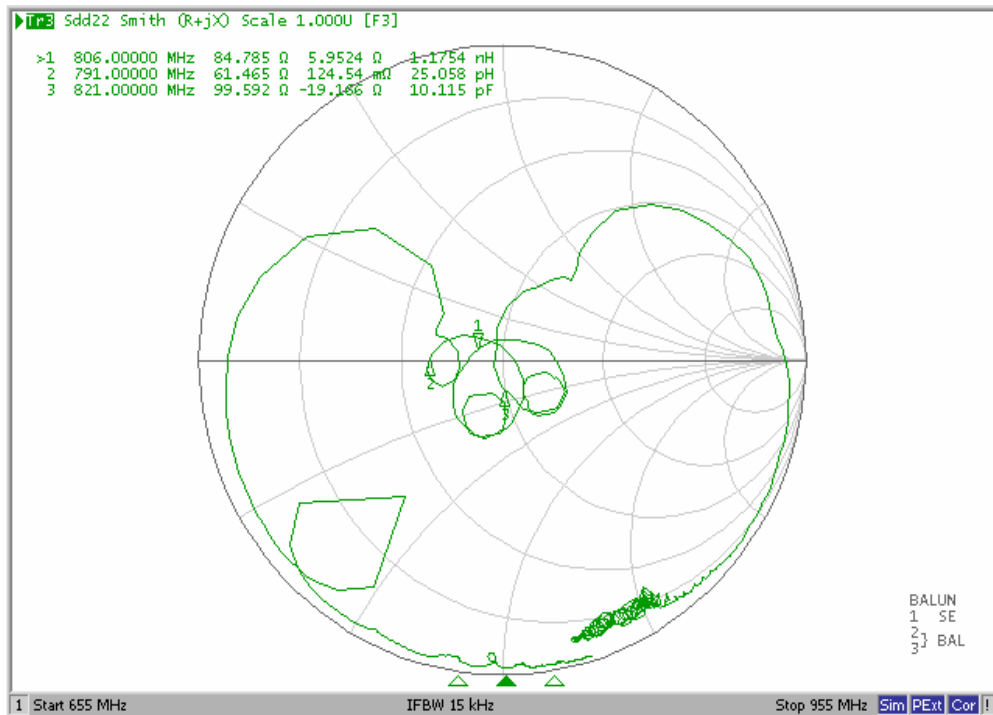
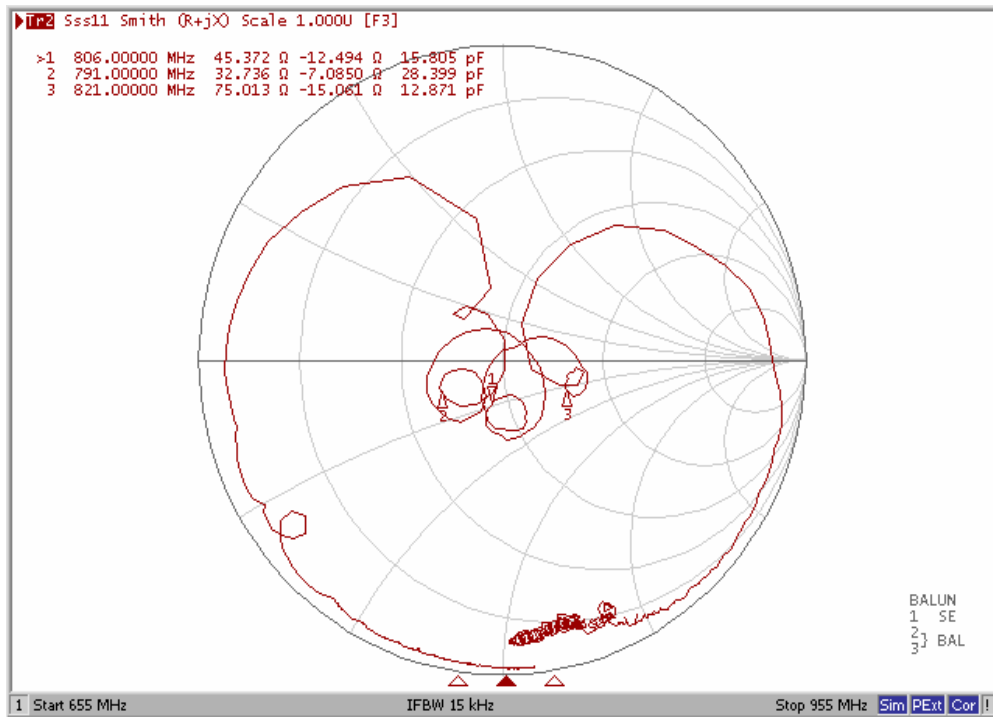
※ Specification excludes loss that comes from the test board.

C. FREQUENCY CHARACTERISTIC:

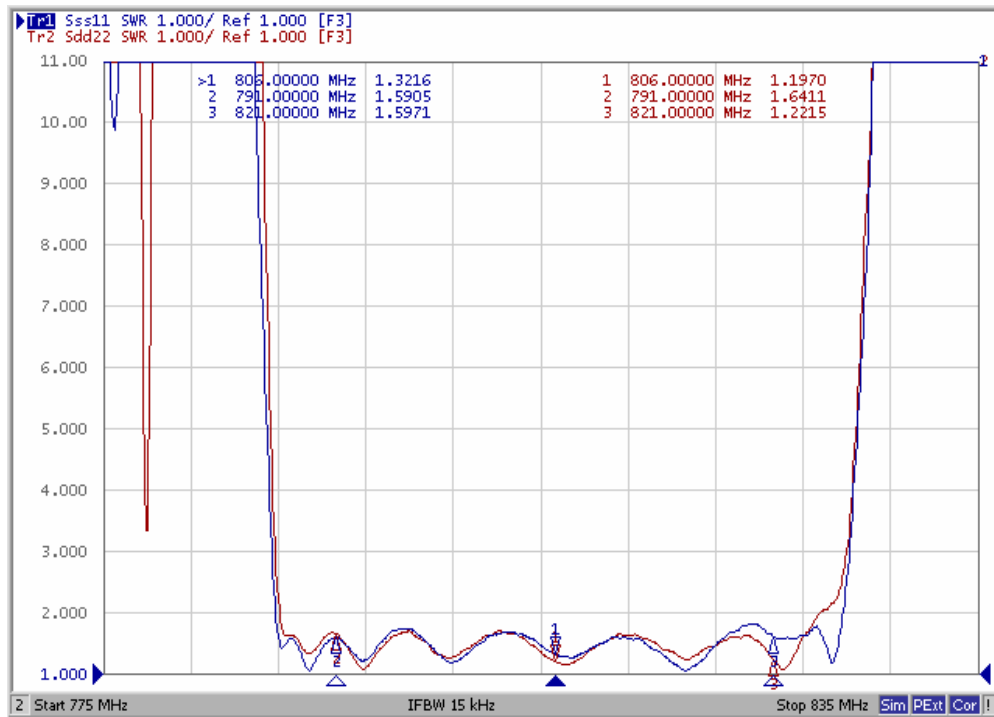


Reflection Functions:

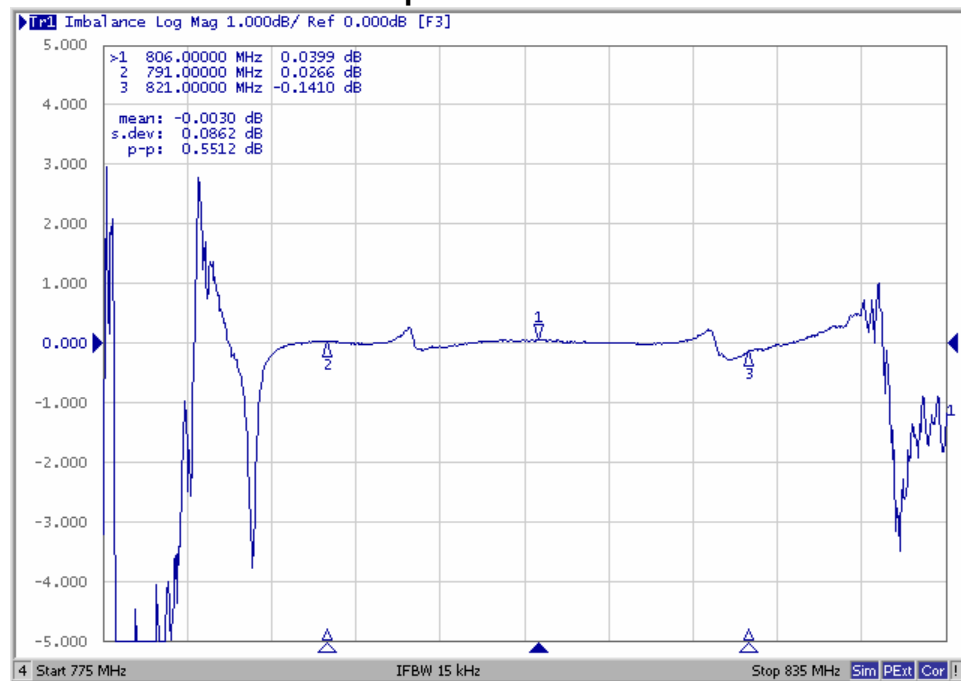
Smith Chart



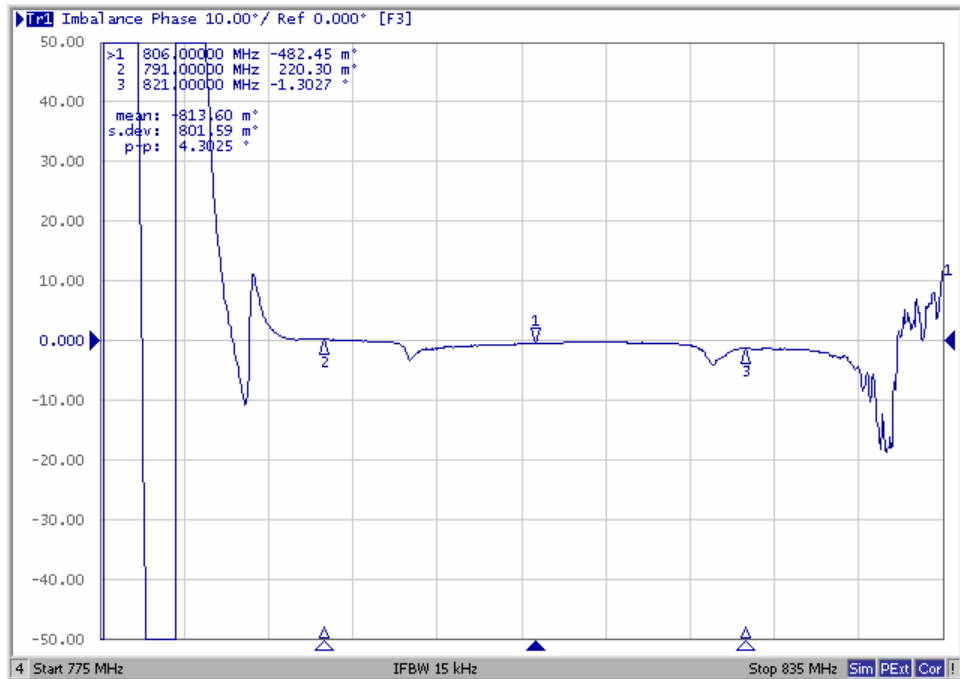
VSWR



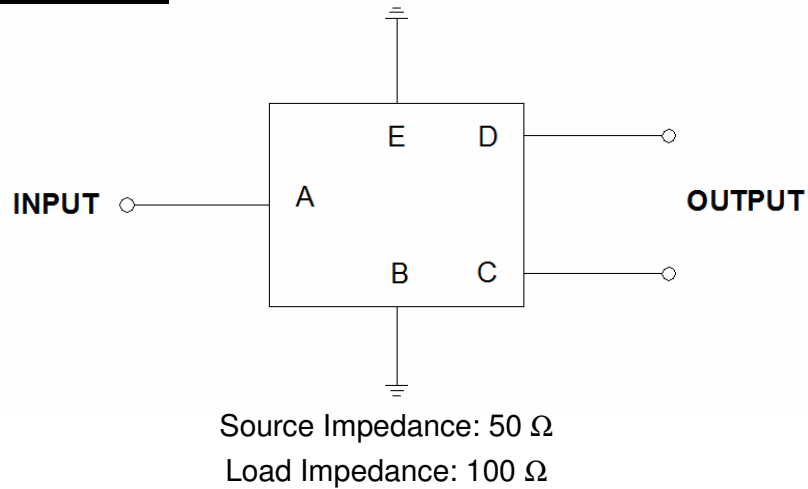
Amplitude balance



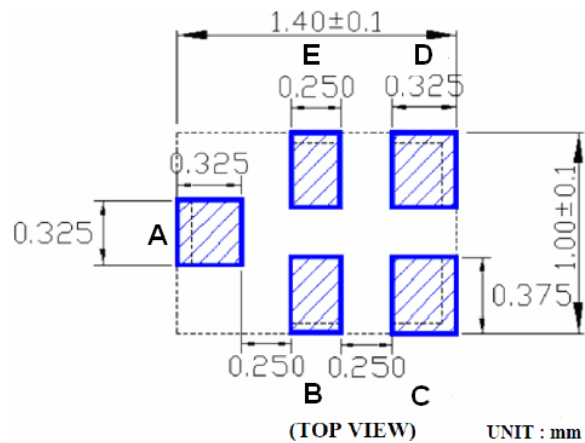
Phase balance



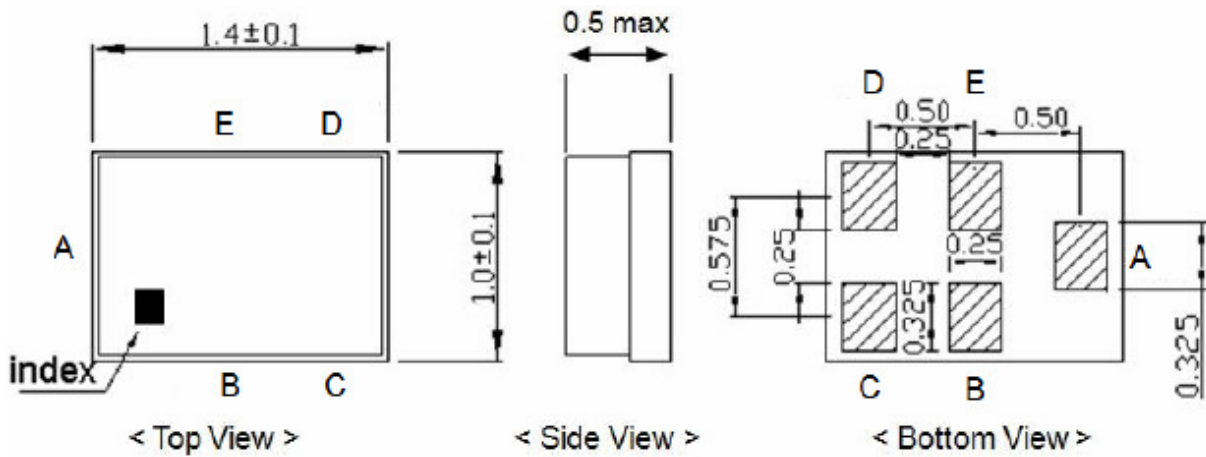
D. MEASUREMENT CIRCUIT:



E. PCB Footprint:



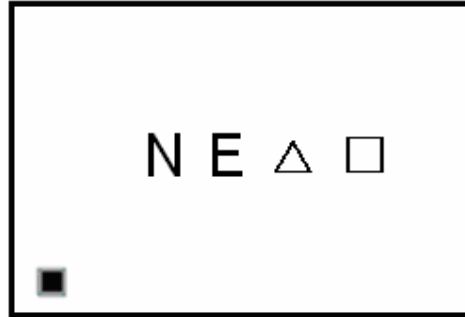
F. OUTLINE DRAWING:



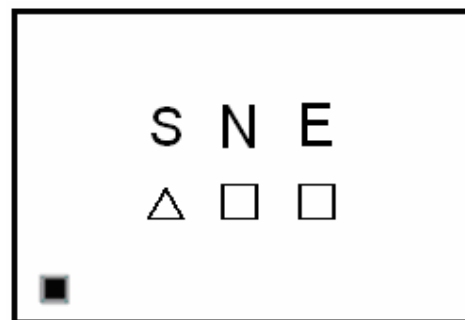
Pin Configuration

Pin No.	Symbol	Function
A	IN	Unbalanced input
B	GND	Ground
C	OUT	Balanced Output
D	OUT	Balanced Output
E	GND	Ground

Top View (Sample Production):



Top View (Mass Production):



△ : Date Code

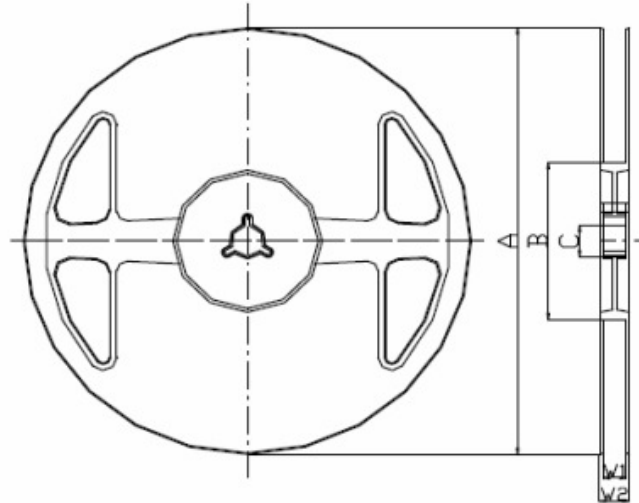
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

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



Materials of Reel

Material : Polystyrene + Carbon

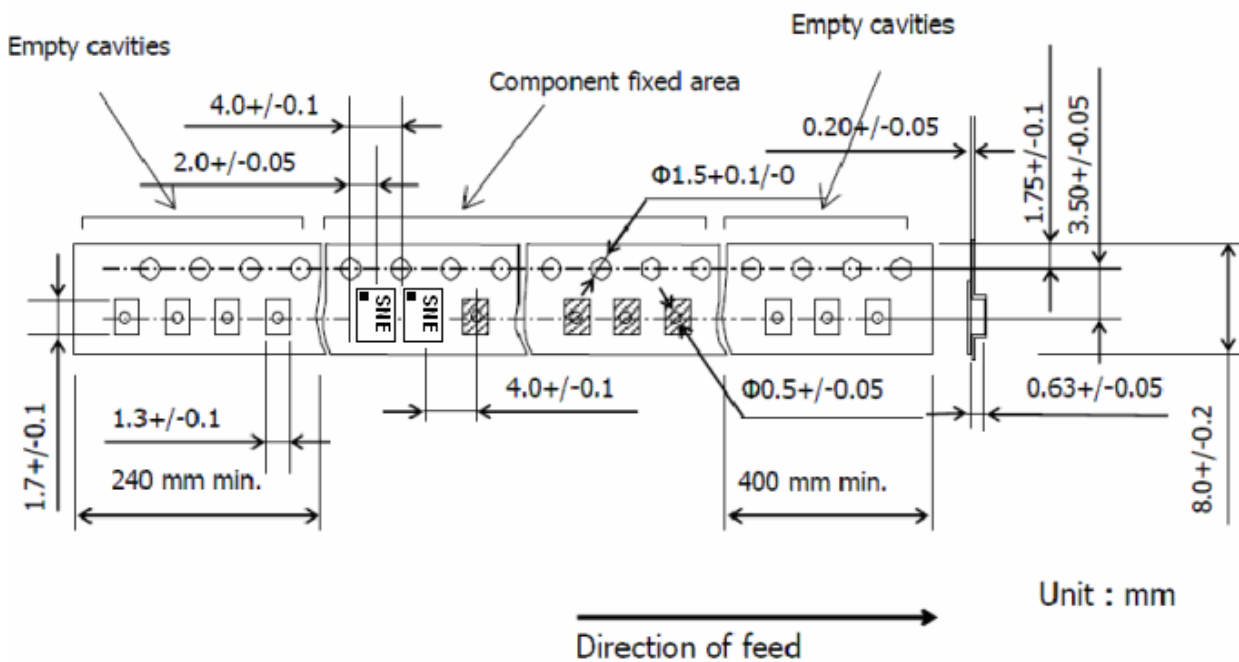
Color : Black

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

Unit : mm

Code	Quantity	A	B	C	W1	W2
Z	3,000 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



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.

