



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 707.5 MHz LTE Band 12 SMD1.1X0.9 mm (BW=17 MHz)

TST Parts No.: TA2438B (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: _____ 2020/10/26

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 707.5 MHz

MODEL NO.: TA2438B

REV.2.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm (In passband)
2. DC Voltage: +/-5 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 100 V(MM), 200 V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

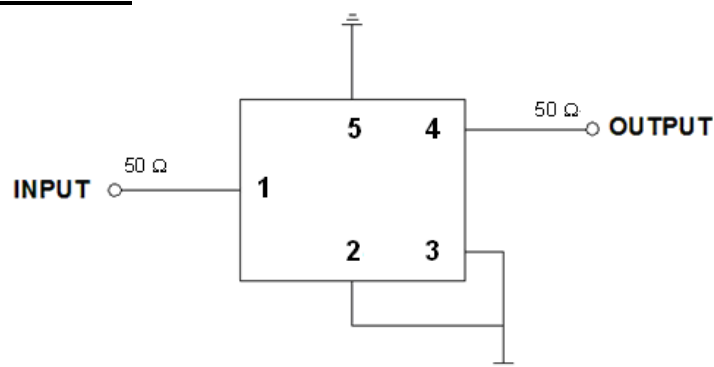
Terminating source impedance: $Z_s=50\ \Omega$

Terminating load impedance: $Z_L=50\ \Omega$

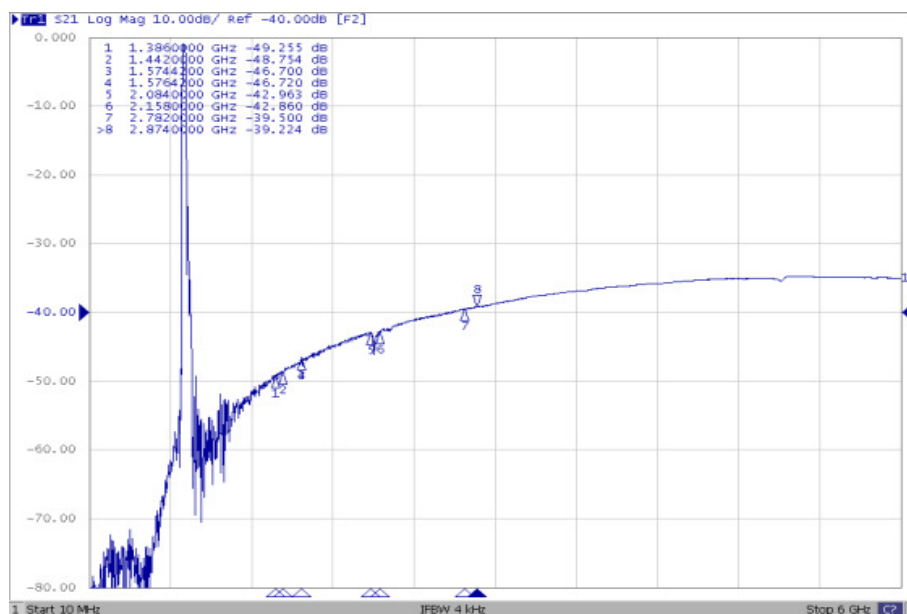
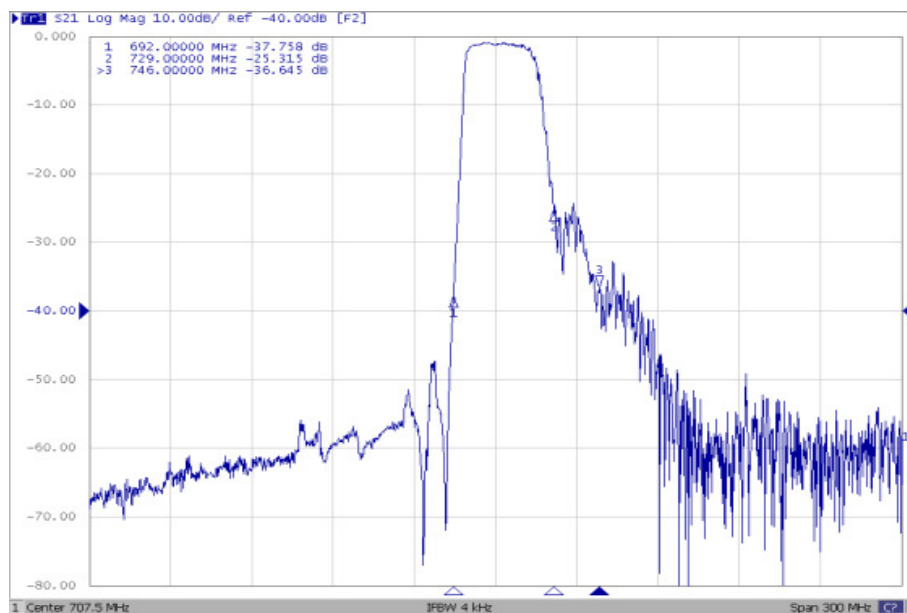
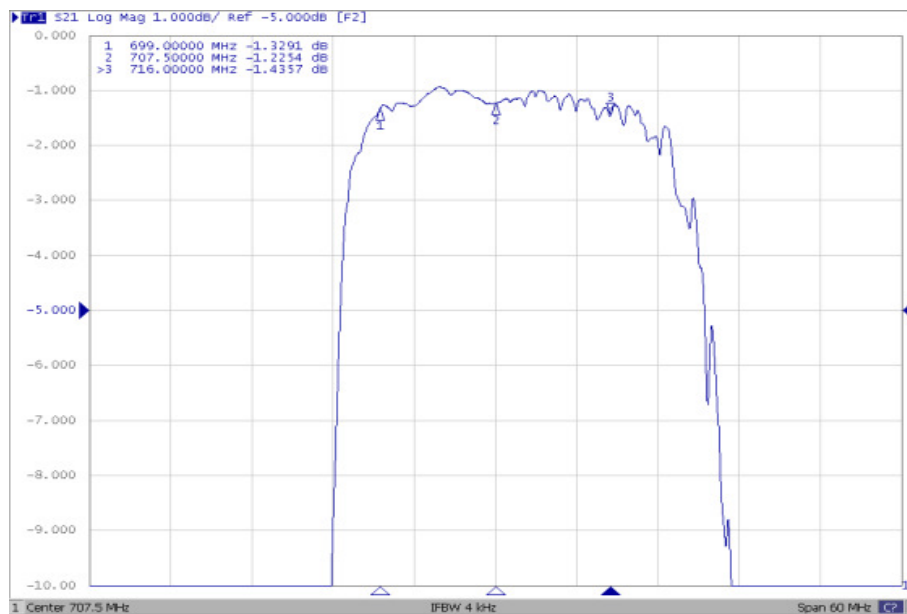
Item	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	707.5	-
Insertion Loss (699~716 MHz) IL	dB(*1)	-	1.6	2.5
Amplitude Ripple (699~716 MHz)	dB	-	0.6	1.7
VSWR (699~716 MHz)	-	-	1.7	2.1
Attenuation (Reference level from 0 dB)				
1 ~ 692 MHz	dB	18	37	-
729 ~ 746 MHz	dB	13	23	-
1386 ~ 1442 MHz	dB	40	47	-
1574.42 ~ 1576.42 MHz	dB	38	46	-
2084 ~ 2158 MHz	dB	30	42	-
2782 ~ 2874 MHz	dB	25	39	-

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

C. MEASUREMENT CIRCUIT:

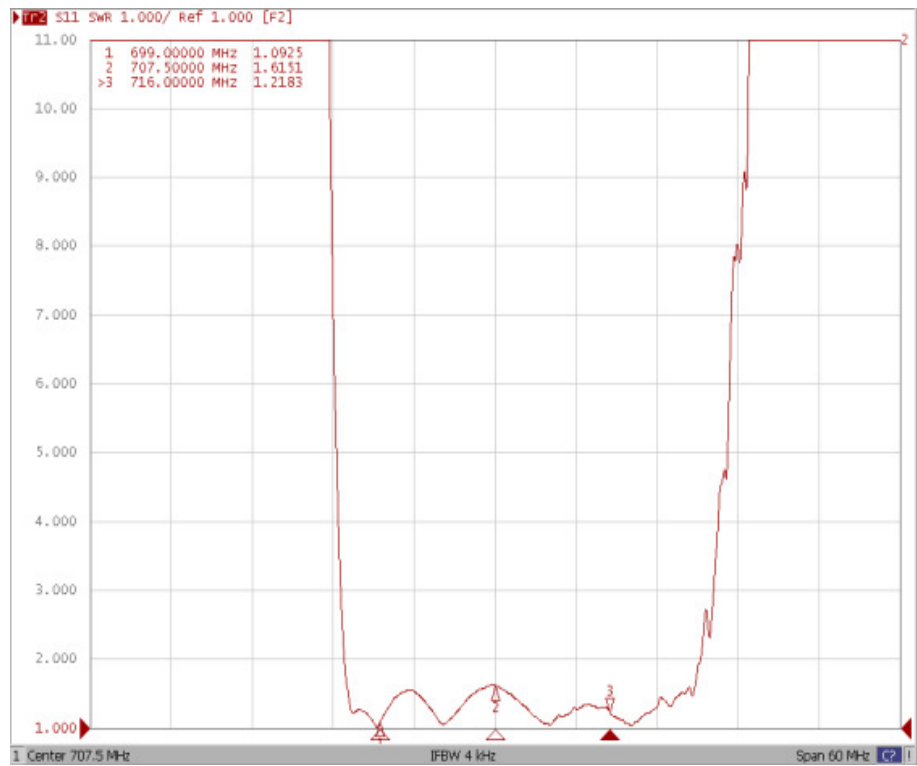


D. FREQUENCY CHARACTERISTIC:

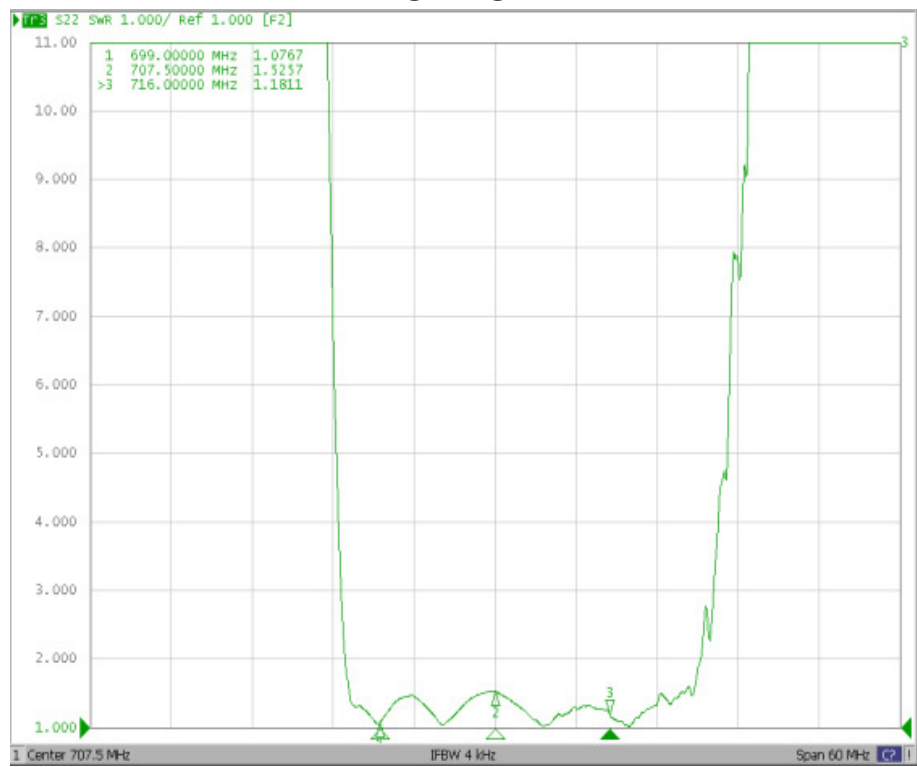


Reflection Functions:

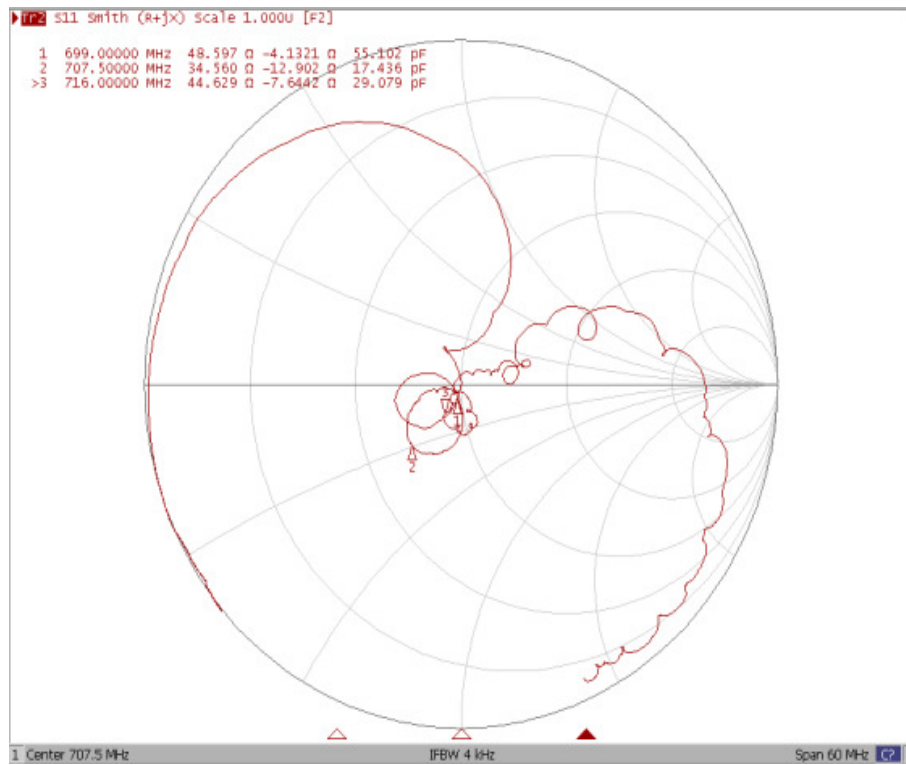
VSWR S11



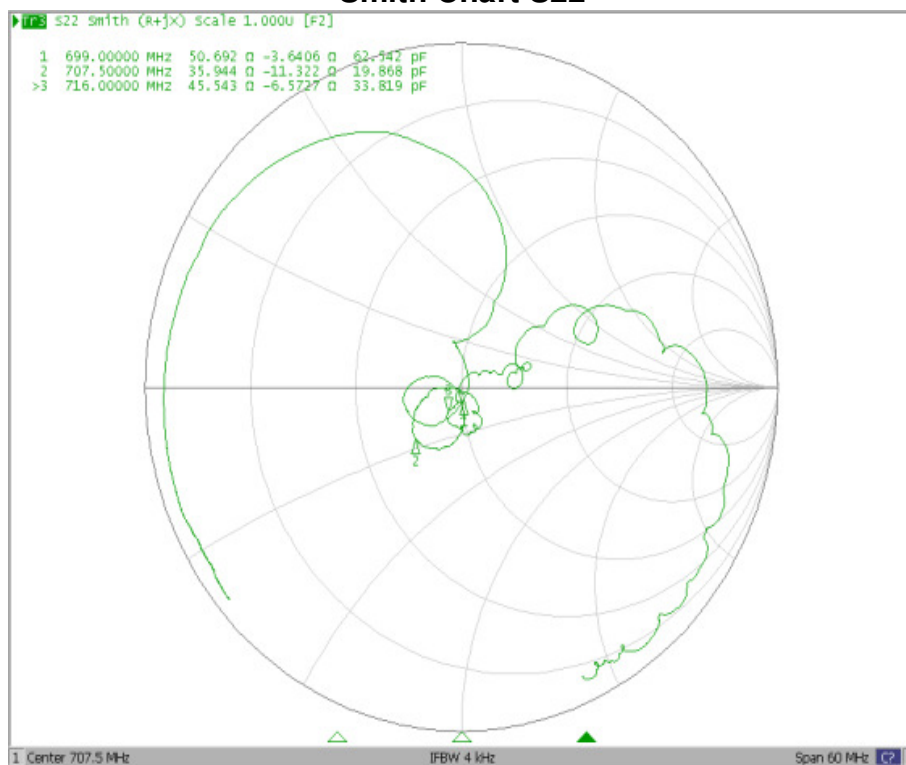
VSWR S22



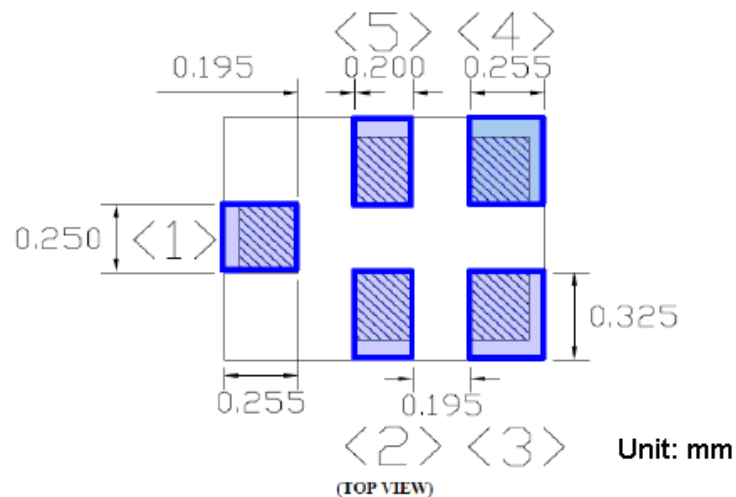
Smith Chart S11



Smith Chart S22

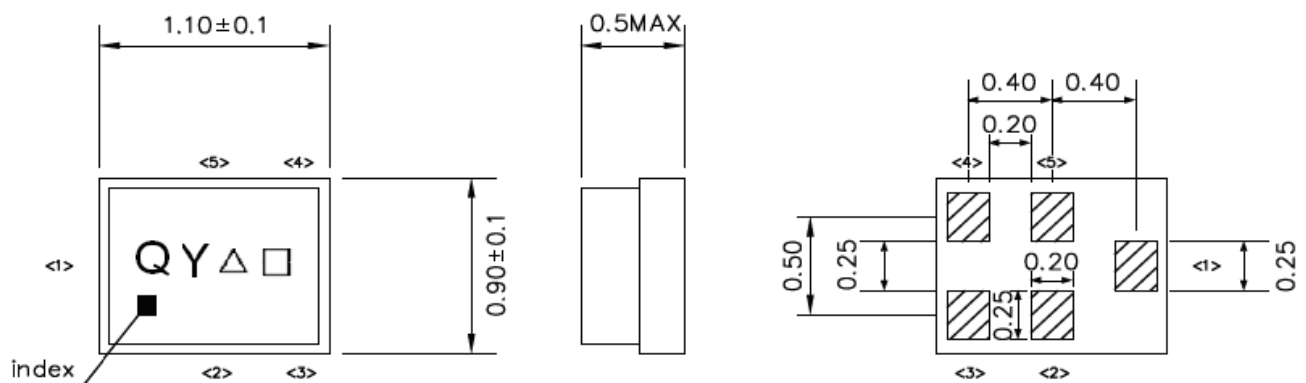


E. PCB FOOTPRINT:



F. OUTLINE DRAWING:

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



All tolerances are +/-0.1 mm unless otherwise specified.

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

△ : Date Code

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

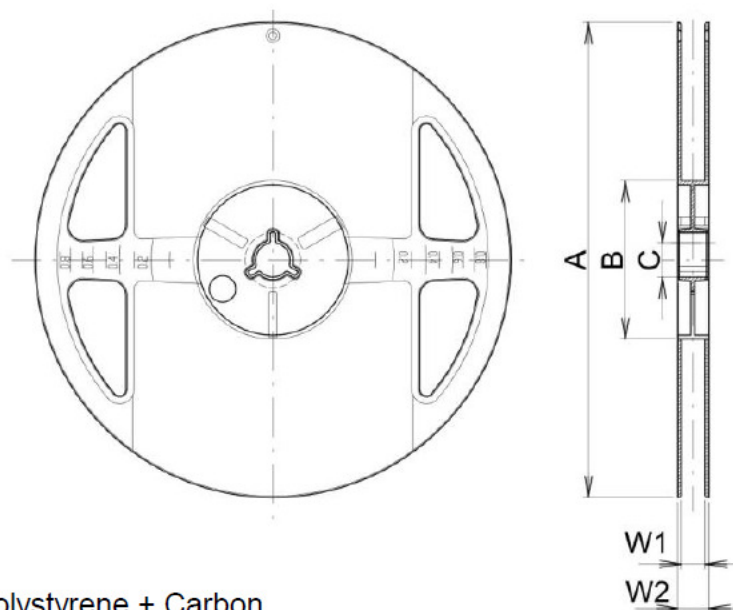
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m

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

1. REEL DIMENSION

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



Material : Polystyrene + Carbon

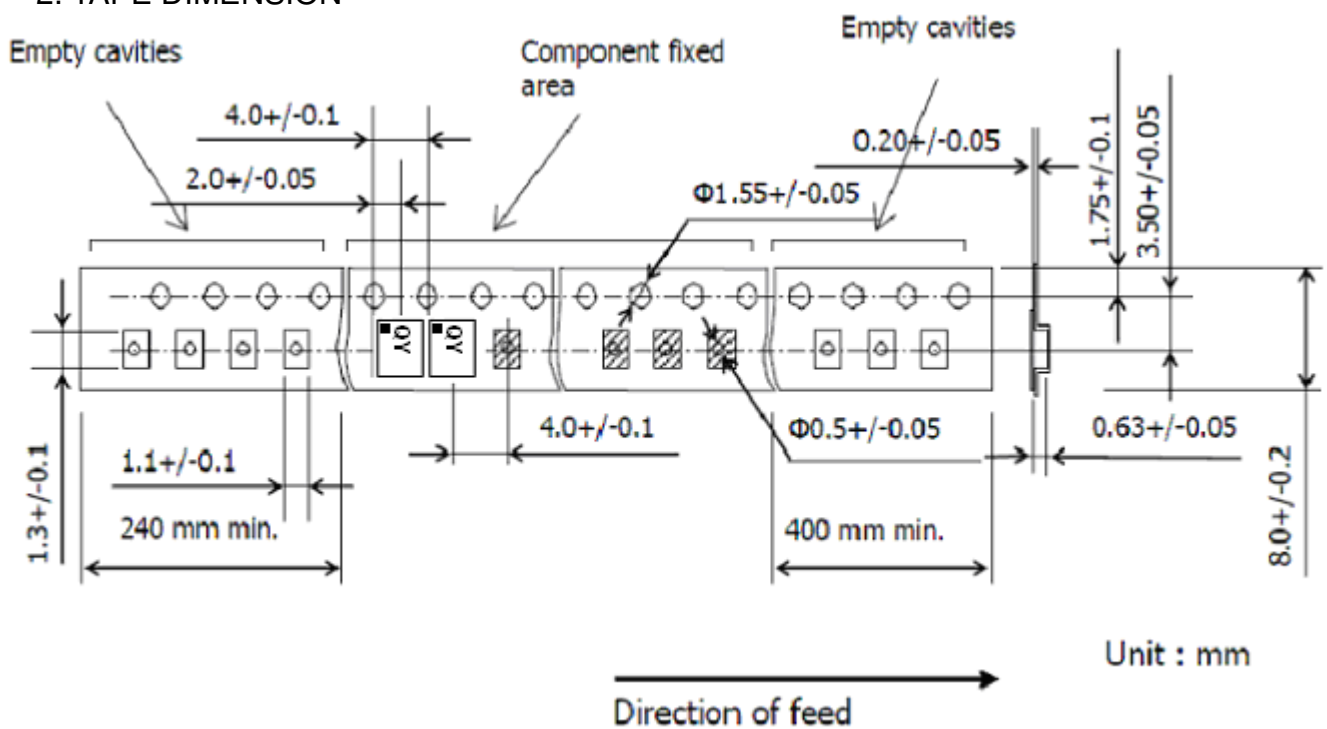
Color : Black

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

Unit : mm

A	B	C	W1	W2
180.0 $\pm 0.0/-1.5$	60.0 $\pm 1.0/-0.0$	13.0 ± 0.2	9.0 $\pm 1.0/-0.0$	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.

