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 1960 MHz LTE Band 2 SMD 1.1x0.9 mm (BW=60 MHz)

TST Parts No.: TA1870A

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Hayley Chou

Approved by:_____ Andy Yu

Date:_____ 2019/07/09

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 1960 MHz

MODEL NO.:TA1870A REV. NO.:2.0

A. MAXIMUM RATING:

RoHS Compliant

Lead-free soldering

1. Input Power Level: 10 dBm
2. DC Voltage : +/-5 V
3. Operating Temperature: -30 ℃ to +90 ℃
4. Storage Temperature: -40 ℃ to +100 ℃
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 50 V(MM), 100 V(HBM)

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

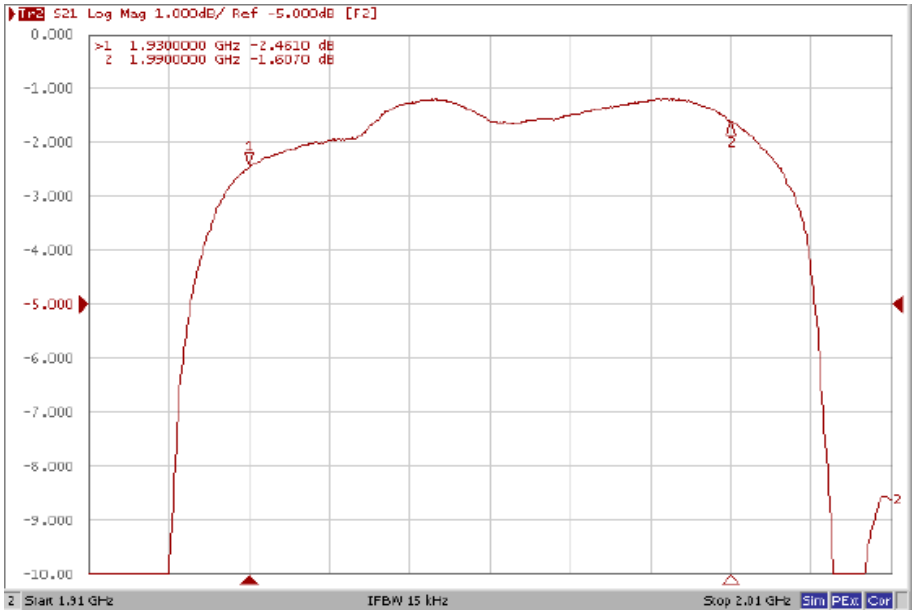
Terminating source impedance: Zs = 50 Ω (Single-ended)

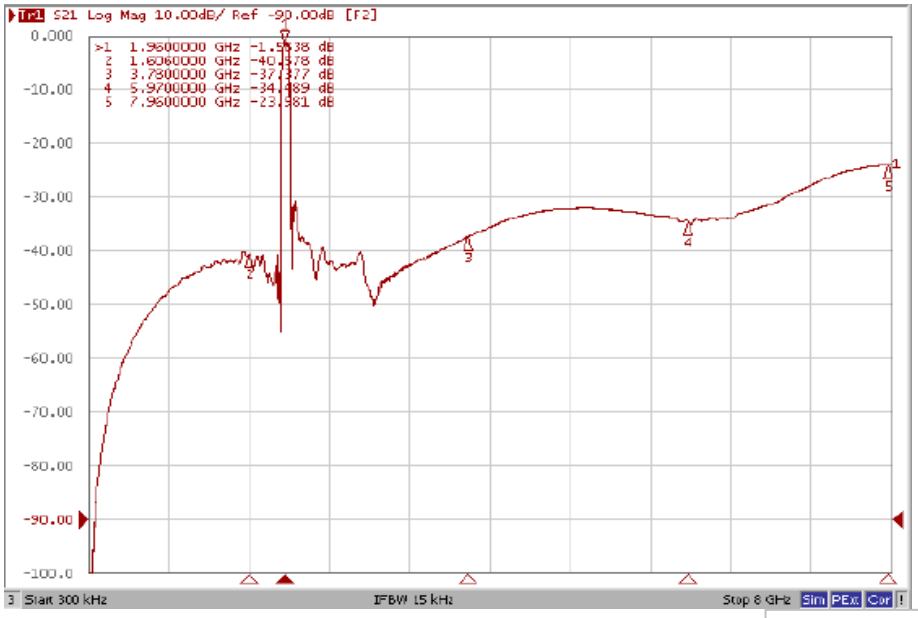
Terminating load impedance: Z_L = 50//4.7nH Ω (Single-ended)

Item		Unit	Min.	Typ.	Max.
Center Frequency	**Fc**	MHz	-	1960	-
Insertion Loss (1930~1990 MHz)	**IL**	dB(*1)	-	2.8	4.0
Amplitude Ripple (1930~1990 MHz)		dB	-	1.3	2.7
VSWR Input (1930~1990 MHz)		-	-	1.9	2.2
VSWR Output (1930~1990 MHz)		-	-	2.0	2.3
Attenuation (Reference level from 0 dB)					
DC ~ 960 MHz		dB	40	45	-
1558 ~ 1608 MHz		dB	35	40	-
1710 ~ 1850 MHz		dB	35	40	-
1850 ~ 1910 MHz		dB	35	39	-
2020 ~ 2070 MHz		dB	7	27	-
2070 ~ 2400 MHz		dB	25	33	-
2400 ~ 2500 MHz		dB	33	43	-
2500 ~ 3780 MHz		dB	28	40	-
3780 ~ 3980 MHz		dB	30	39	-
3980 ~ 5790 MHz		dB	21	31	-
5790 ~ 5970 MHz		dB	21	31	-
5970 ~ 7720 MHz		dB	21	31	-
7720 ~ 7960 MHz		dB	17	27	-
7960 ~ 8000 MHz		dB	17	27	-

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

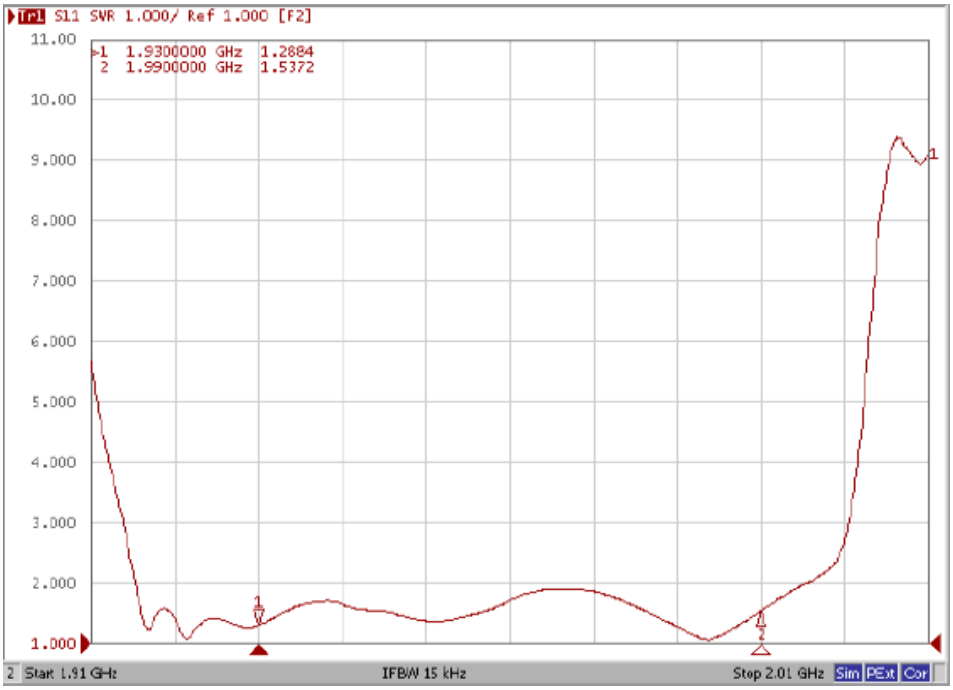
C. FREQUENCY CHARACTERISTICS:

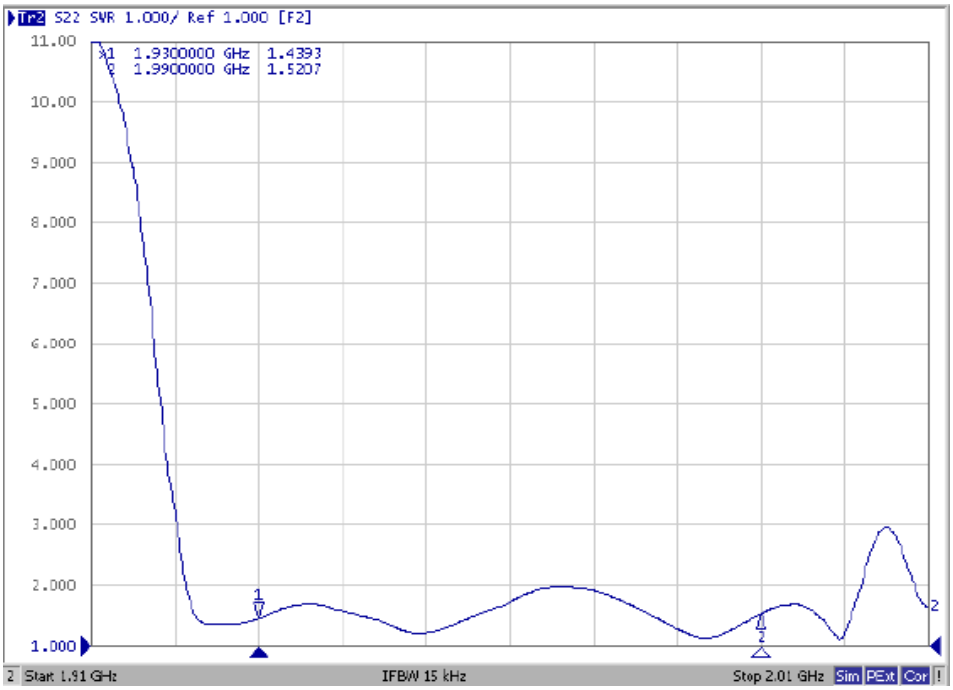




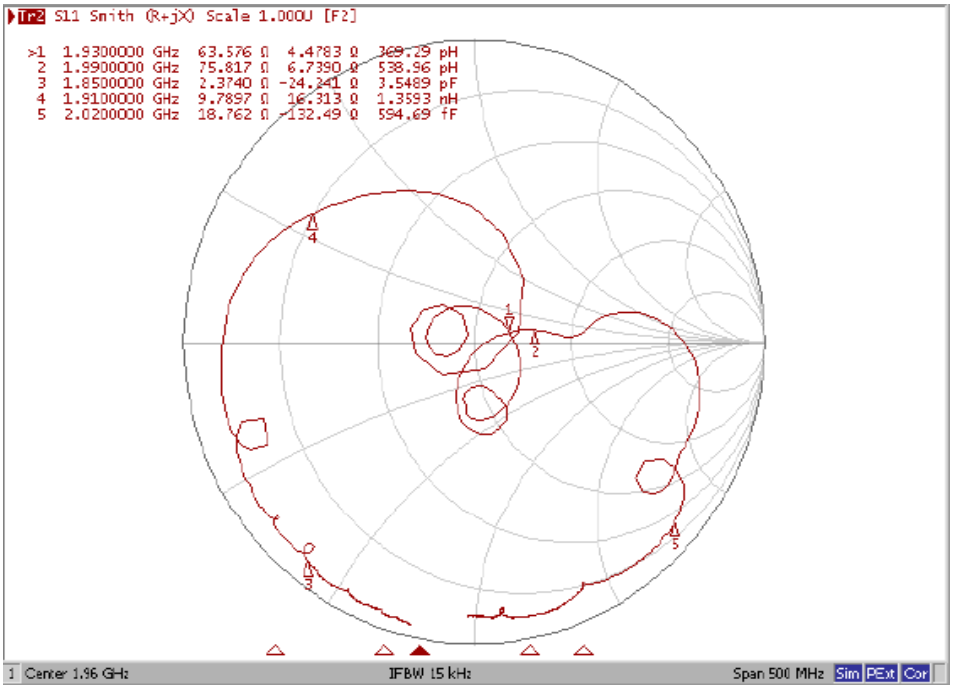
Reflection Functions:

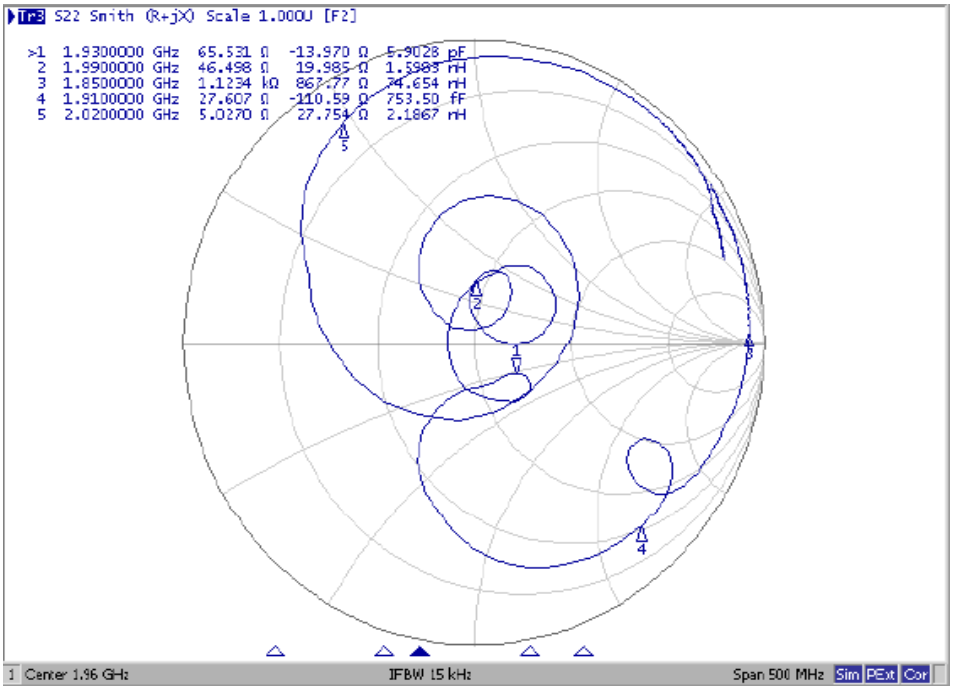
VSWR



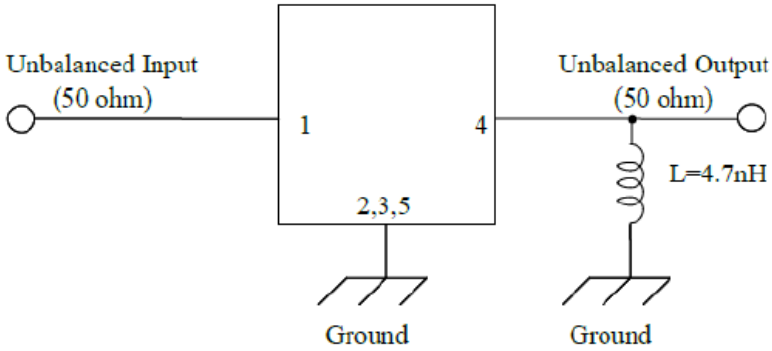


Smith Chart



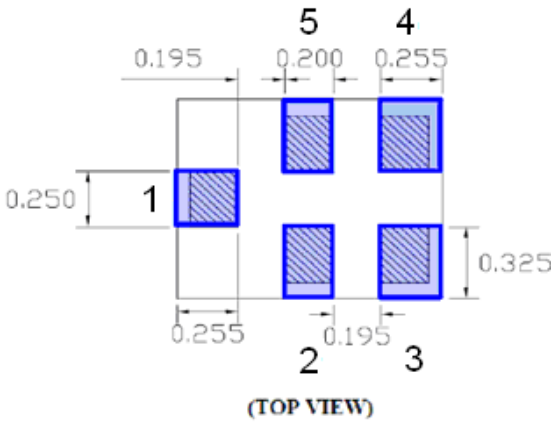


D. MEASUREMENT CIRCUIT:



1 to 5 : Pin No.

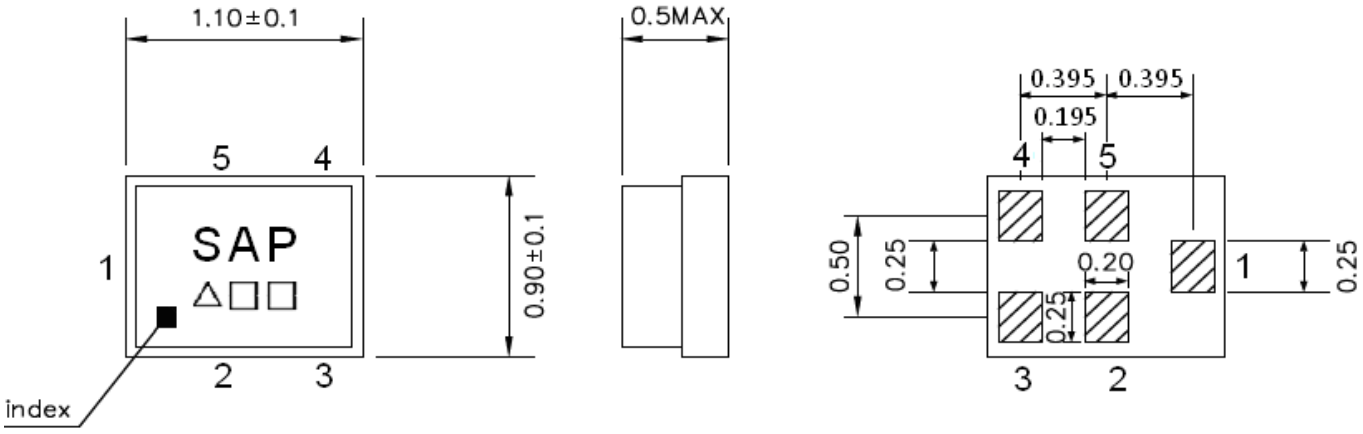
E. PCB Footprint:



(TOP VIEW)

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

△ : Date Code

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

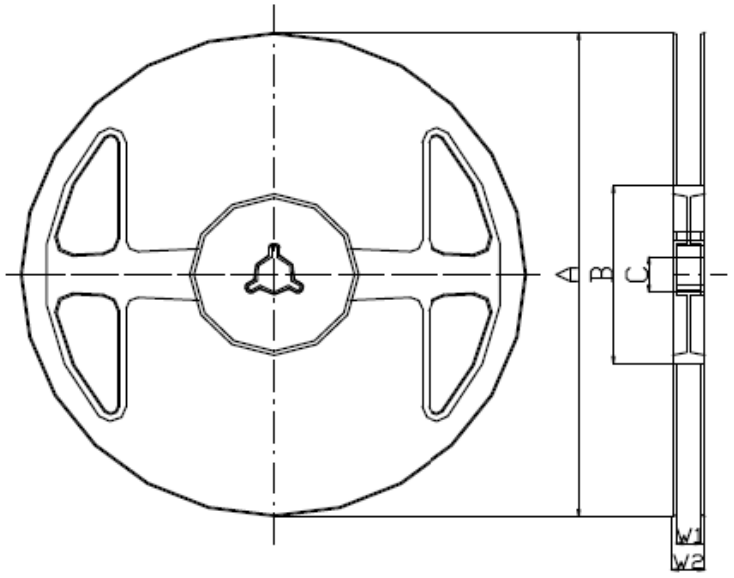
Date Code:

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. <u>PACKING</u>: (Ref: WI-75M03)

1. REEL DIMENSION

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



Materials of Reel

Material : Polvstvrene + Carbon

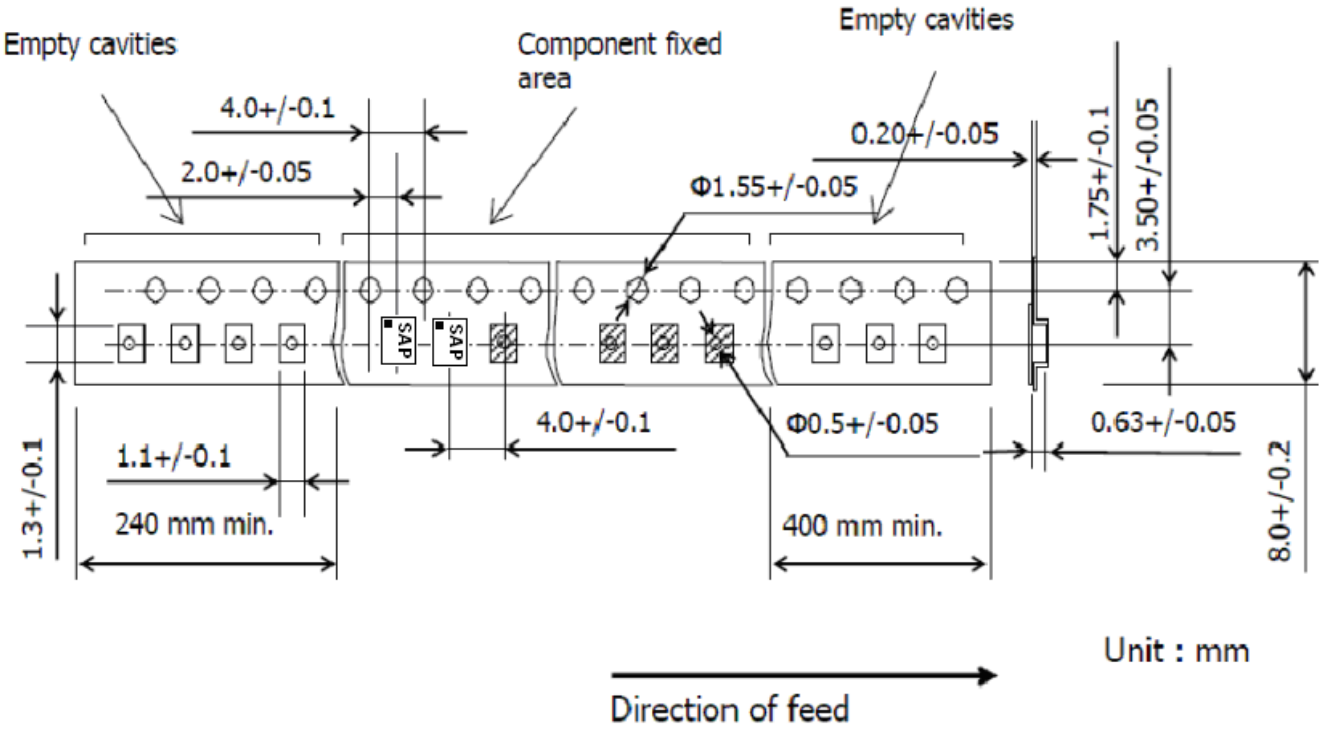
Color : Black

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

Unit : mm

A	B	C	W1	W2
ϕ 180.0 +0.0/-1.5	ϕ 66.0 +/-0.5	ϕ 13.0 +/-0.2	9.0 +1.0/-0.0	11.4 +/-1.0

2. TAPE DIMENSION



H. <u>Recommended Reflow Profile:</u>

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 260℃+0/-5℃ peak (20~40sec).
4. Time: 2 times.