



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 Tx Filter 847 MHz LTE Band 20 SMD 1.4x1.1 mm (BW=30 MHz)

TST Parts No.: TA1757B (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 847 MHz

MODEL NO.:TA1757B

REV. NO.: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 (MSL1)
6. ESD 100V(MM) 200V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

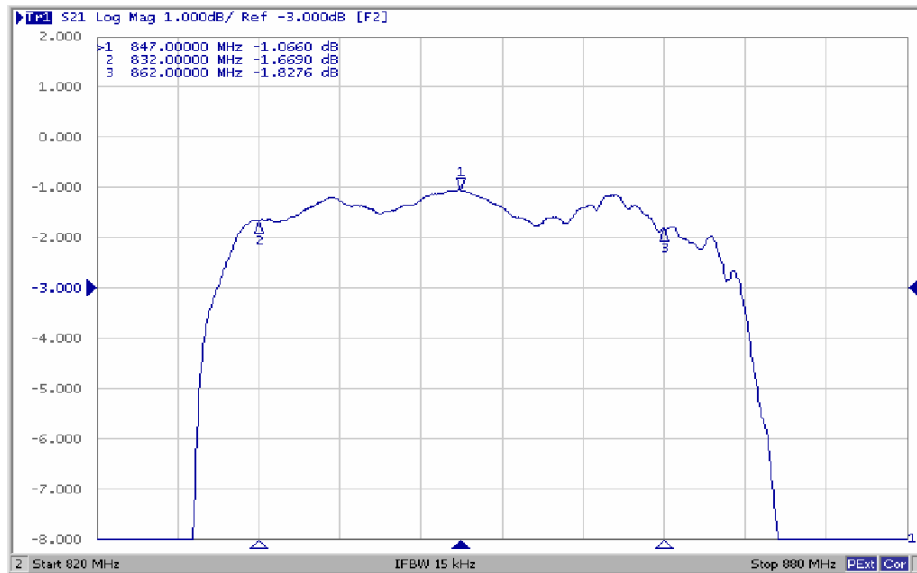
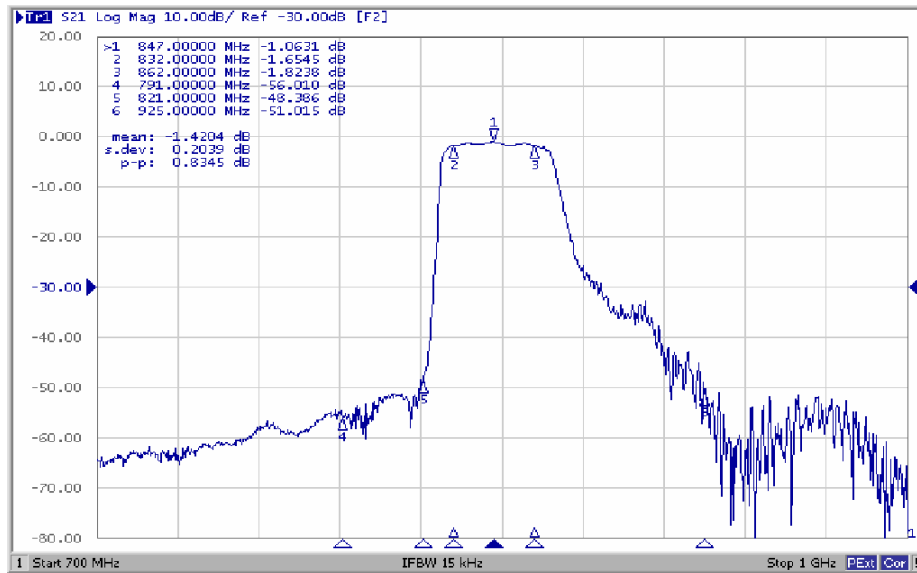
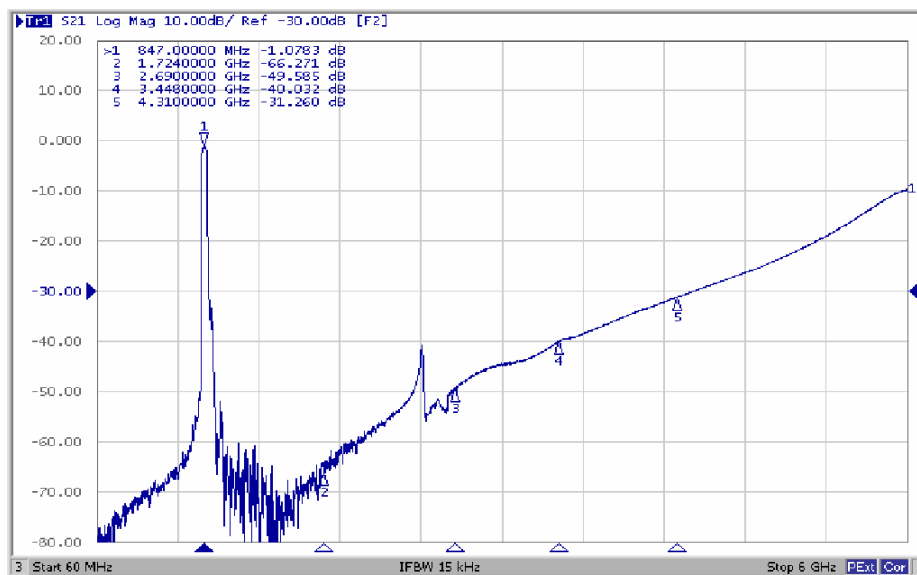
Terminating source impedance: $Z_s = 50 \Omega$

Terminating load impedance: $Z_L = 50 \Omega$

Parameters Description	Unit	Min.	Typ.	Max.	Note
Center Frequency Fc	MHz	-	847	-	
Insertion Loss (832~862 MHz) IL	dB	-	1.7	2.3	-30~85 ℃
				3.2	-40~85 ℃
Amplitude Ripple (832~862 MHz)	dB _{p-p}	-	0.7	1.3	-30~85 ℃
				1.8	-40~85 ℃
VSWR (832~862 MHz)	-	-	2.0	2.3	-30~85 ℃
				2.5	-40~85 ℃
Attenuation (Reference level from 0 dB)					
0 ~ 791 MHz	dB	40	61	-	-
791 ~ 821 MHz	dB	40	52	-	-
925 ~ 960 MHz	dB	38	48	-	-
1570 ~ 1580 MHz	dB	35	57	-	-
1664 ~ 1724 MHz	dB	30	57	-	-
1805 ~ 1880 MHz	dB	30	55	-	-
2110 ~ 2170 MHz	dB	25	55	-	-
2400 ~ 2690 MHz	dB	25	45	-	-
3328 ~ 3448 MHz	dB	20	57	-	-
4160 ~ 4310 MHz	dB	20	41	-	-
5000 ~ 6000 MHz	dB	10	19	-	-

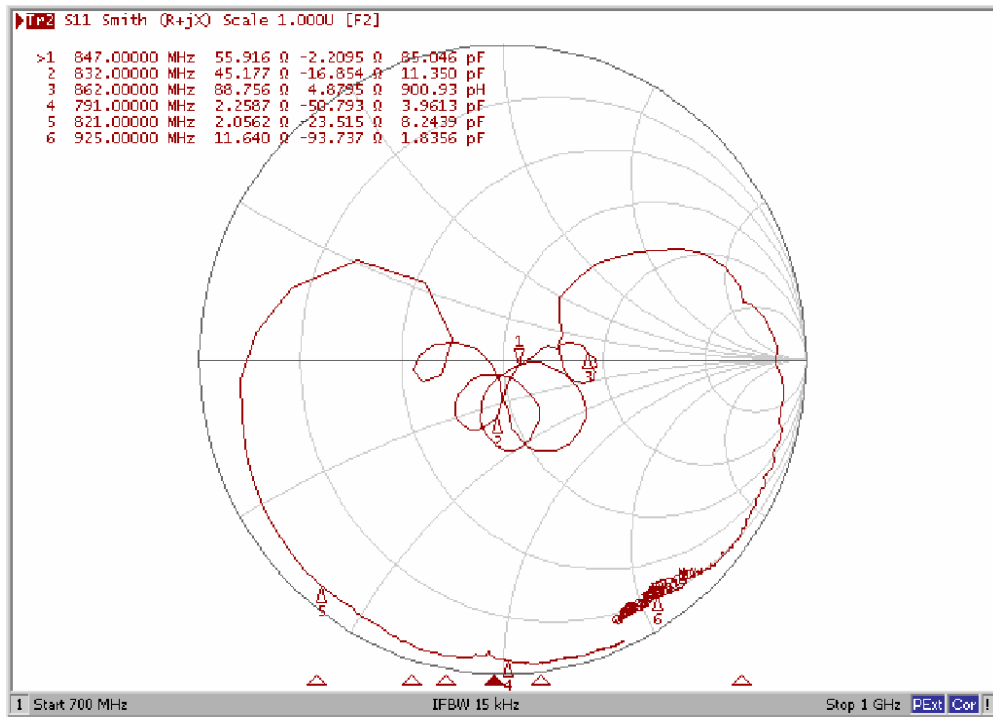
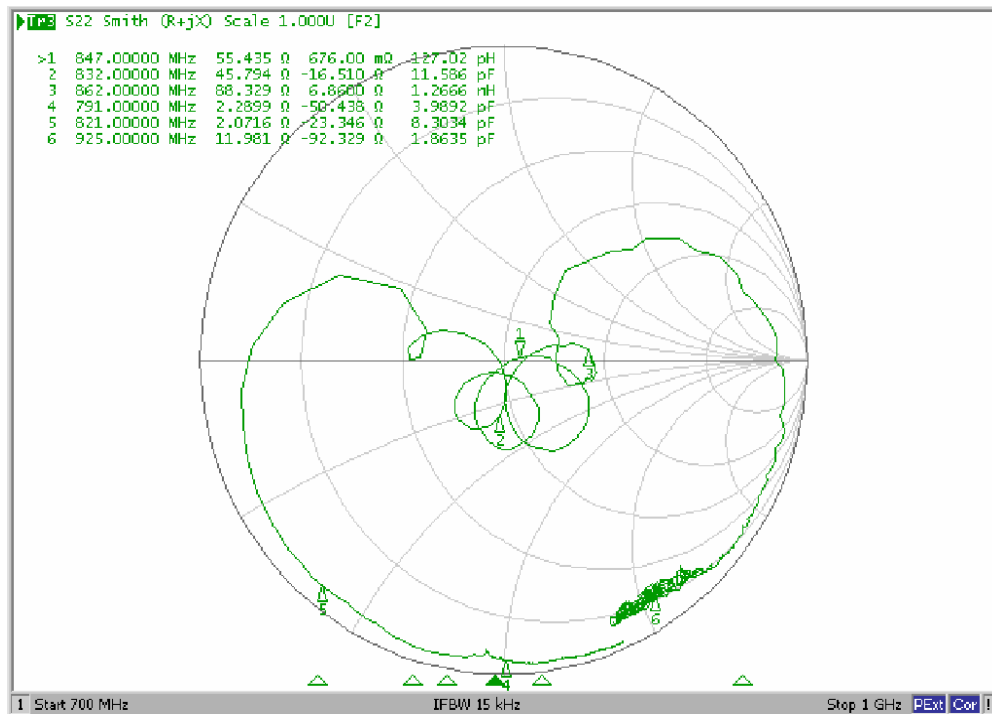
※ Specification excludes loss that comes from the test board.

C. FREQUENCY CHARACTERISTICS:

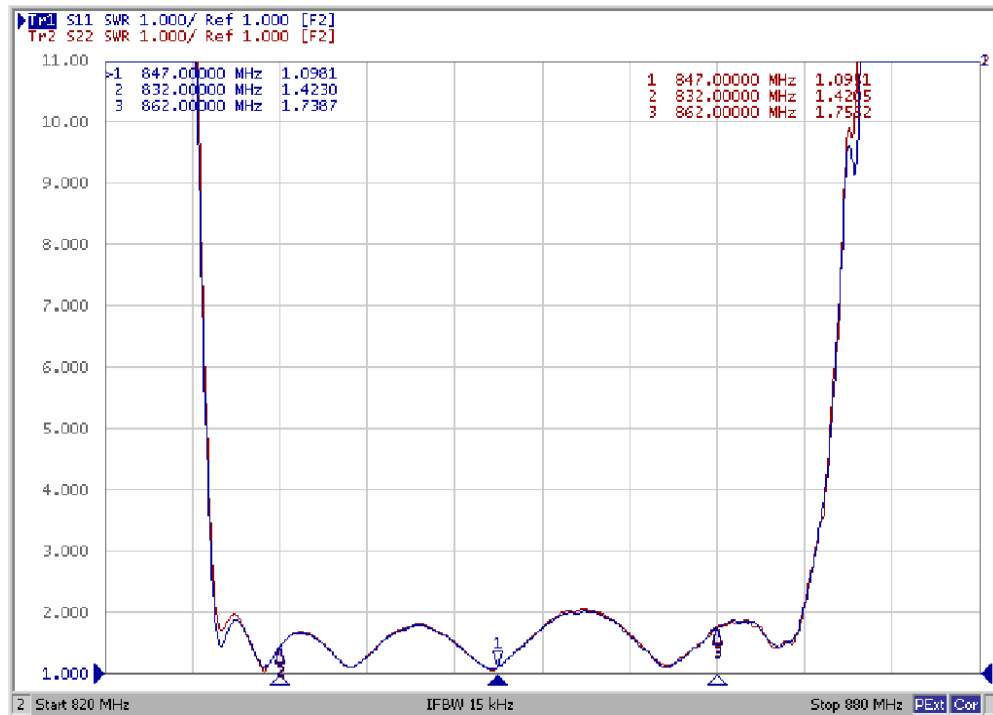


Reflection Functions:

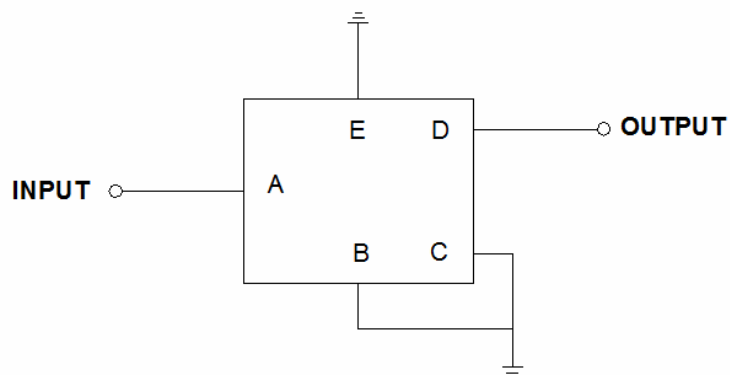
Smith Chart



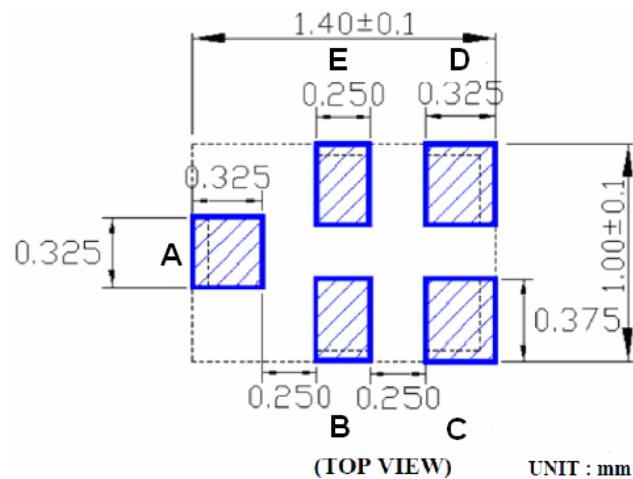
VSWR



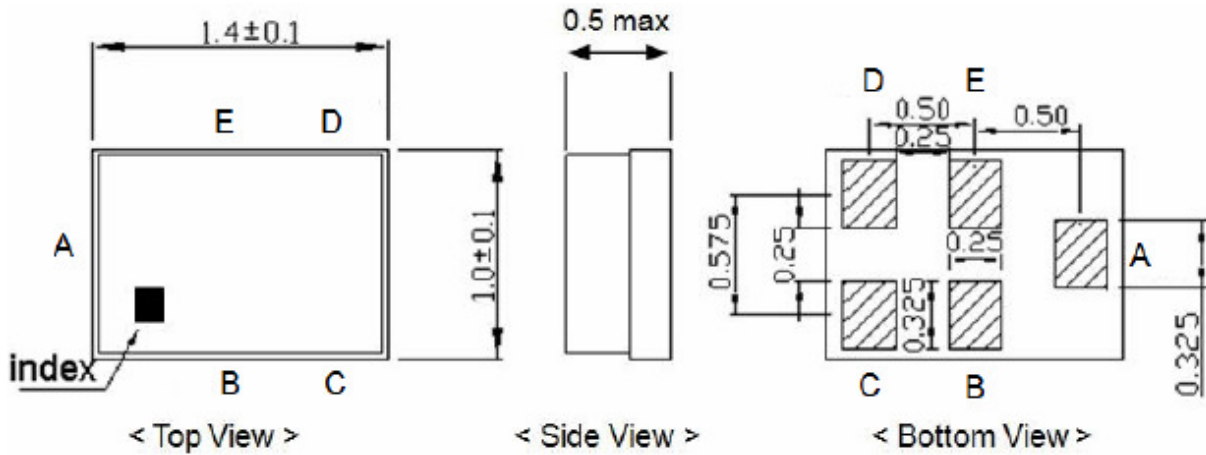
D. MEASUREMENT CIRCUIT:



E. PCB Footprint:



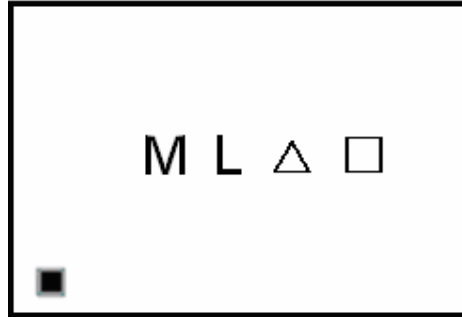
F. OUTLINE DRAWING:



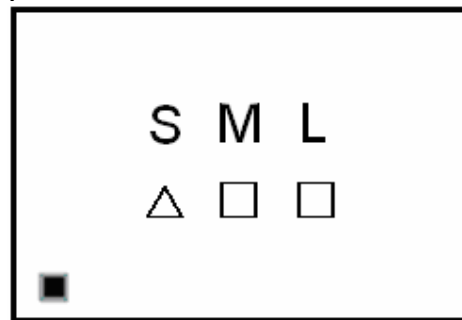
Pin Configuration

Pin No.	Symbol	Function
A	IN	Unbalanced pin
B	GND	Ground
C	GND	Ground
D	OUT	Unbalanced pin
E	GND	Ground

Top View (Sample Production):



Top View (Mass Production):



△ : Date Code

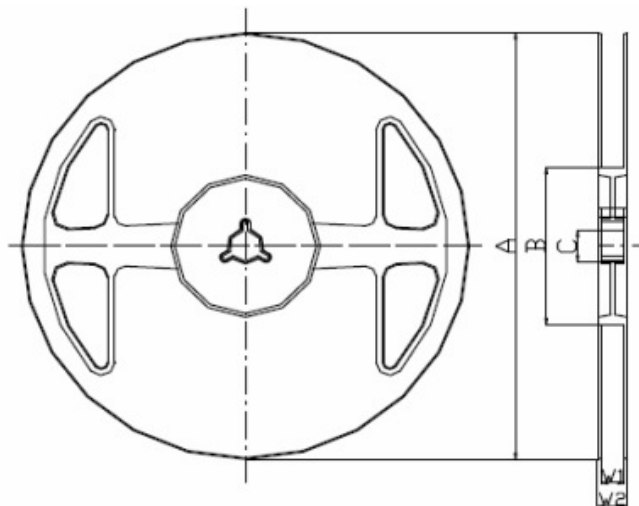
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

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

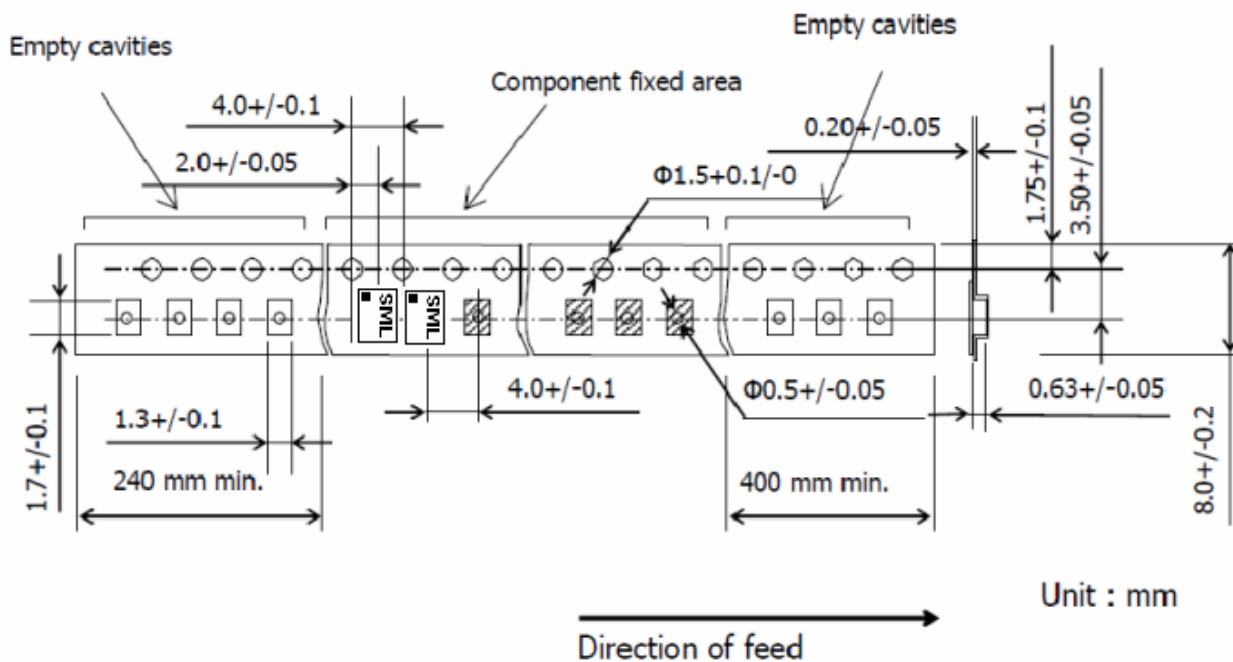
Color : Black

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



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.

