



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Product Specifications Approval Sheet

Product Name: SAW Tx Filter 2535 MHz LTE Band 7 SMD 1.1x0.9 mm (BW=70 MHz)

TST Parts No.: TA1886B (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.



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## SAW Filter 2535 MHz

MODEL NO.:TA1886B

REV.1.0

### A. MAXIMUM RATING:

1. Maximum Input Power: 10 dBm (CW tone)
2. DC Voltage: +/- 5 V
3. Operating temperature: -40 °C to +85 °C
4. Storage Temperature Range: -40 °C to +100 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD: 50 V(MM), 100 V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

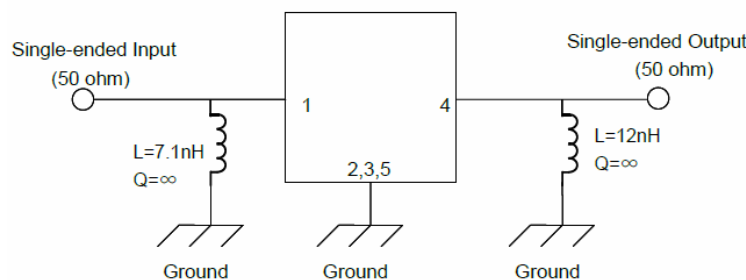
Terminating source impedance:  $Z_s = 50//7.1\text{nH } \Omega$  (Single-ended)

Terminating load impedance:  $Z_L = 50//12\text{nH } \Omega$  (Single-ended)

Parameters Description	Unit	Min.	Typ.	Max.
<b>Center Frequency</b> <b>Fc</b>	MHz	-	2535	-
<b>Insertion Loss</b> (2500~2570 MHz) <b>IL</b>	dB(*1)	-	1.7	2.6
<b>Amplitude Ripple</b> (2500~2570 MHz)	dB	-	0.5	1.5
<b>VSWR</b> (2500~2570 MHz)	-	-	1.3	2.0
<b>Attenuation</b> (Reference level from 0 dB)				
0.3 ~ 960 MHz	dB	20	27	-
1560 ~ 1610 MHz	dB	17	20	-
1710 ~ 1995 MHz	dB	17	21	-
1995 ~ 2170 MHz	dB	17	21	-
2400 ~ 2472 MHz	dB	15	18	-
2620 ~ 2690 MHz	dB	25	29	-
5000 ~ 5140 MHz	dB	15	29	-
7500 ~ 7710 MHz	dB	5	17	-

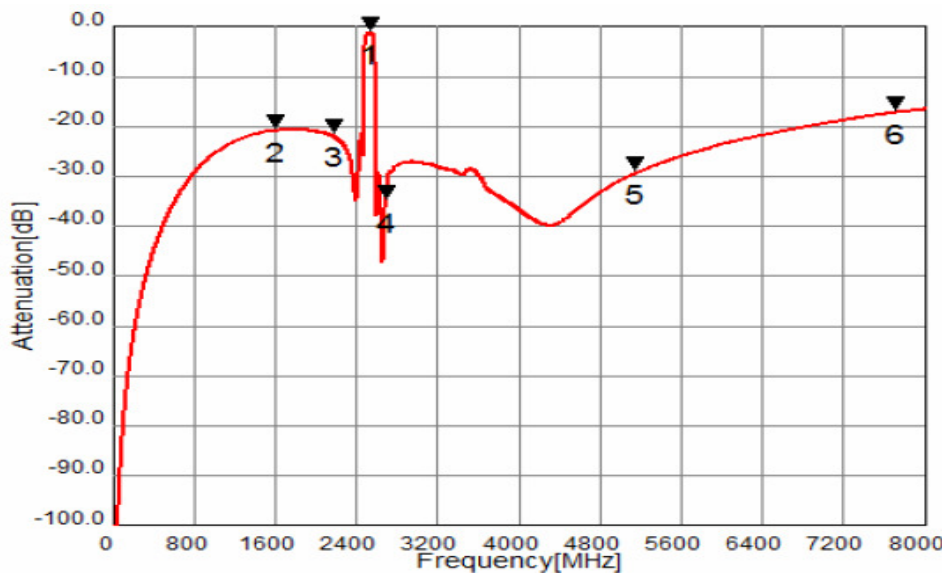
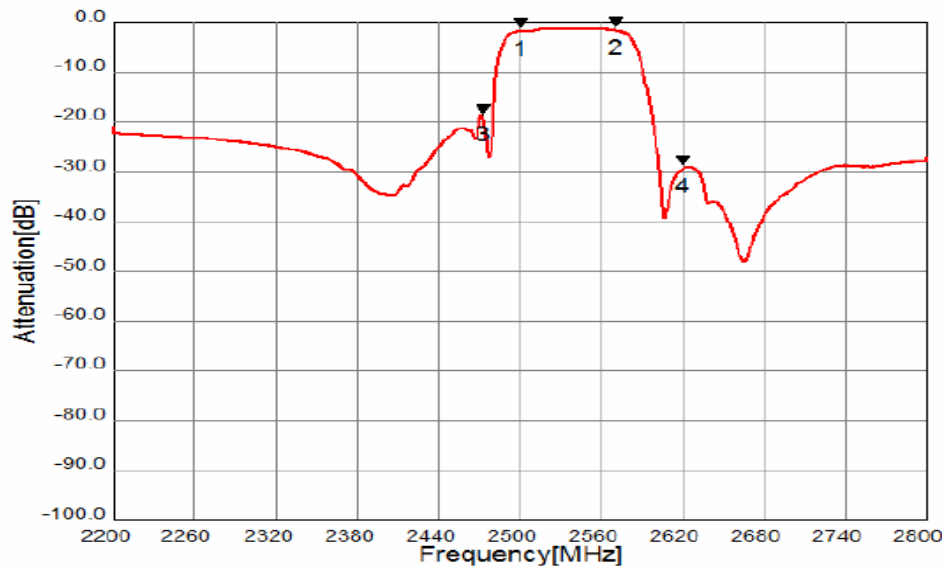
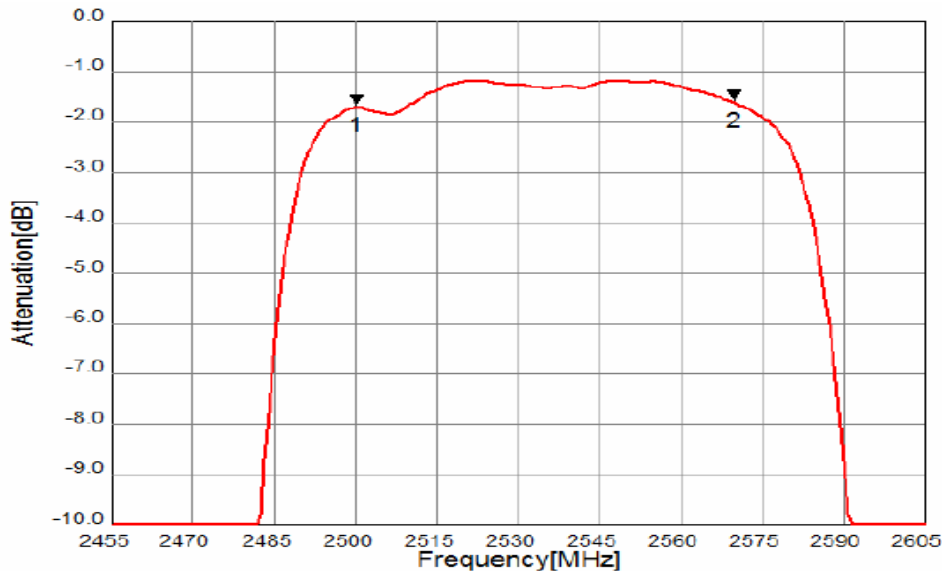
(\*1) Specification of insertion loss includes loss that comes from the test board. (Value: 0.15 dB)

### C. MEASUREMENT CIRCUIT:



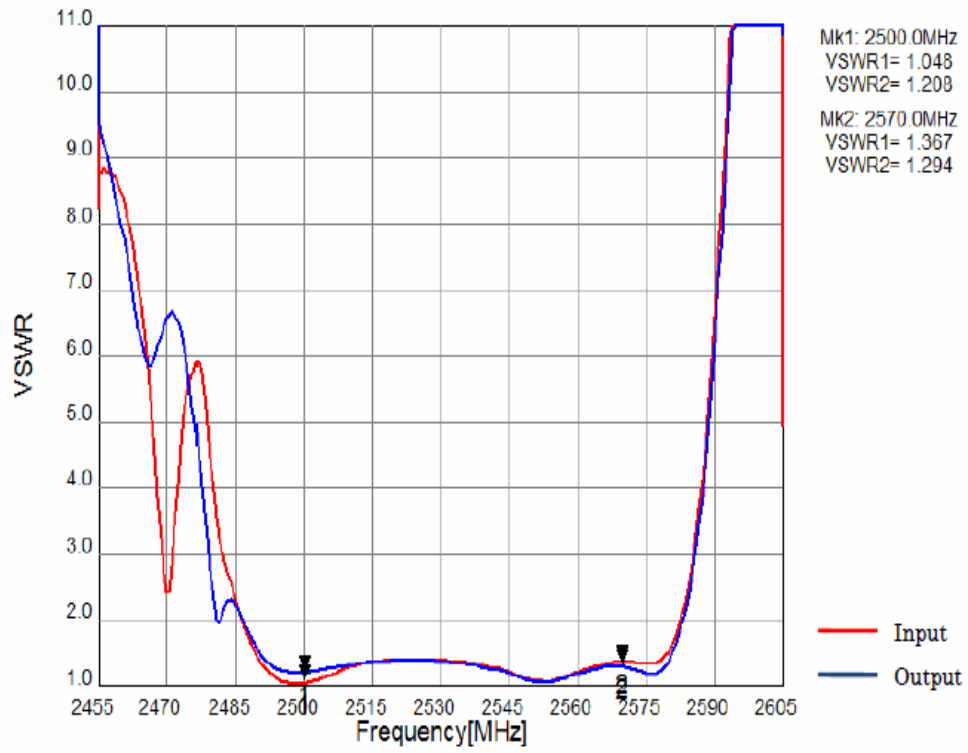
1 to 5 ; Pin No.

### D. FREQUENCY CHARACTERISTIC:

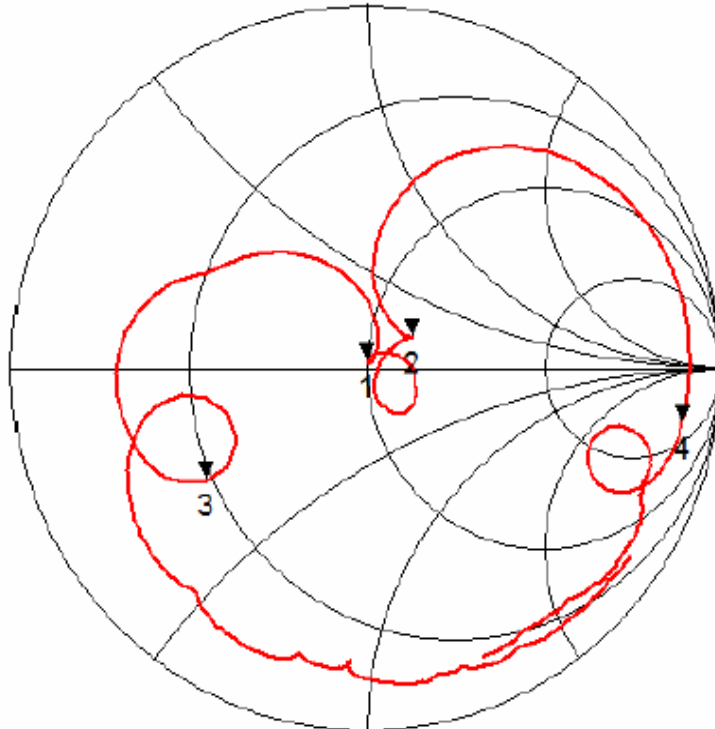


# Reflection Functions:

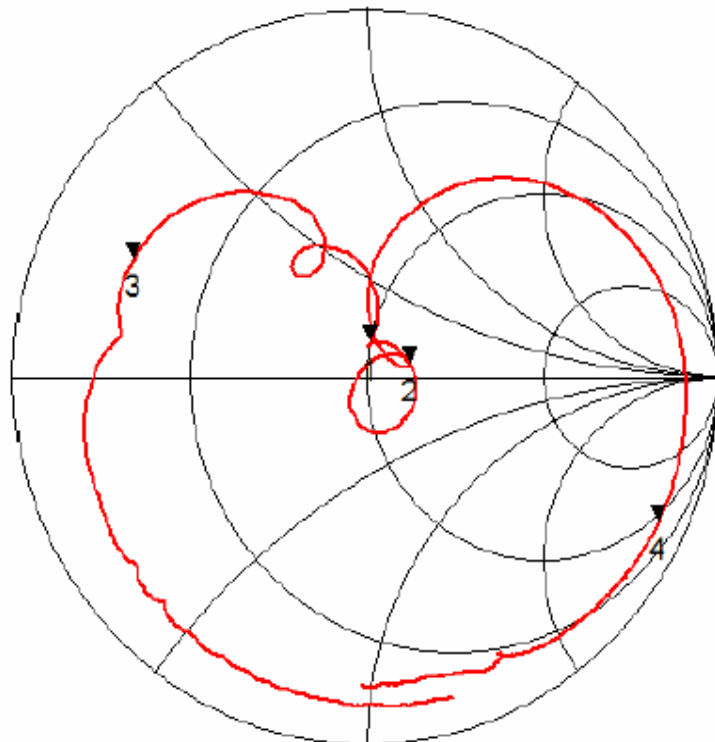
## VSWR



# Smith Chart

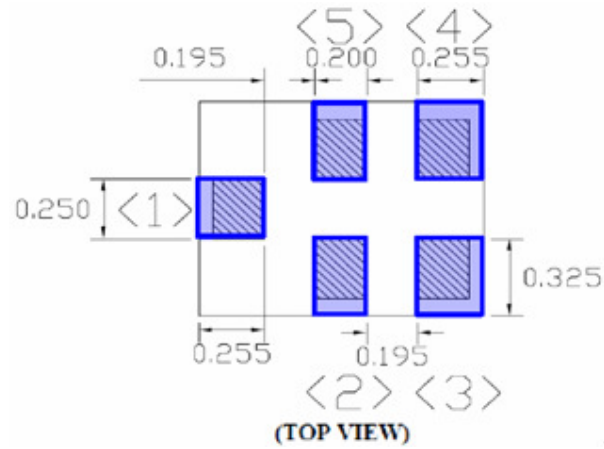


Mk1: 2500.0  
S11= 1.008 + j 0.045  
Mk2: 2570.0  
S11= 1.269 + j 0.229  
Mk3: 2472.0  
S11= 0.317 - j 0.279  
Mk4: 2620.0  
S11= 5.096 - j 8.529



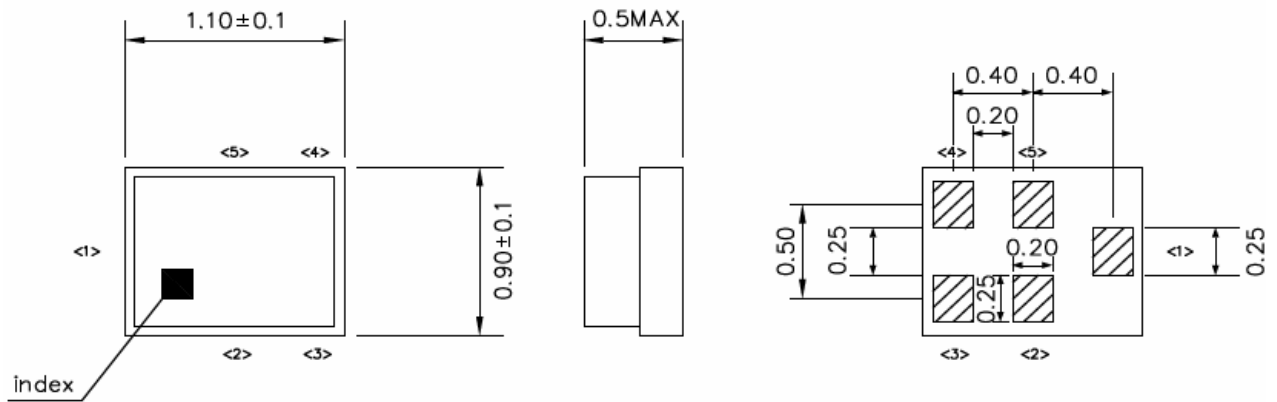
Mk1: 2500.0  
S22= 1.006 + j 0.189  
Mk2: 2570.0  
S22= 1.277 + j 0.097  
Mk3: 2472.0  
S22= 0.159 + j 0.223  
Mk4: 2620.0  
S22= 0.853 - j 4.220

**E. PCB Footprint:**



**F. OUTLINE DRAWING:**

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

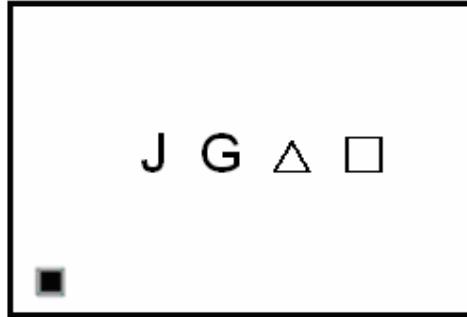


Unit : mm

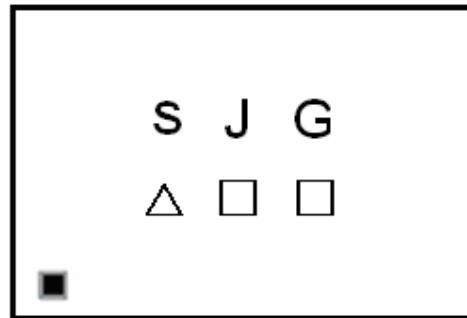
**Pin Configuration**

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

**Top View (Sample Production):**



**Top View (Mass Production):**



△ : Date Code

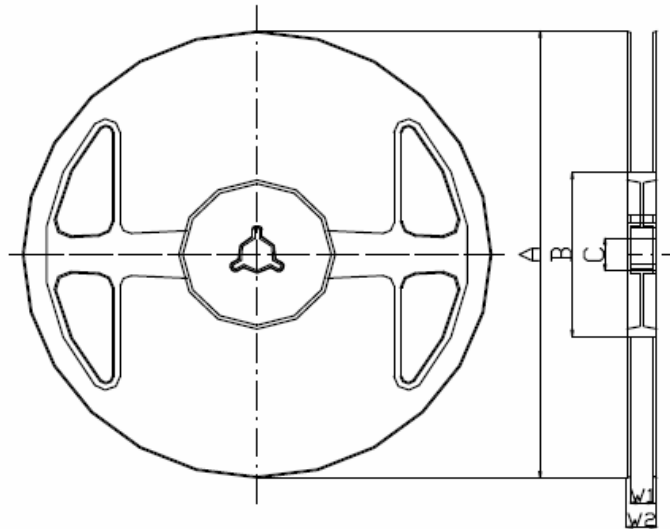
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

**Date Code:**

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	Đ	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

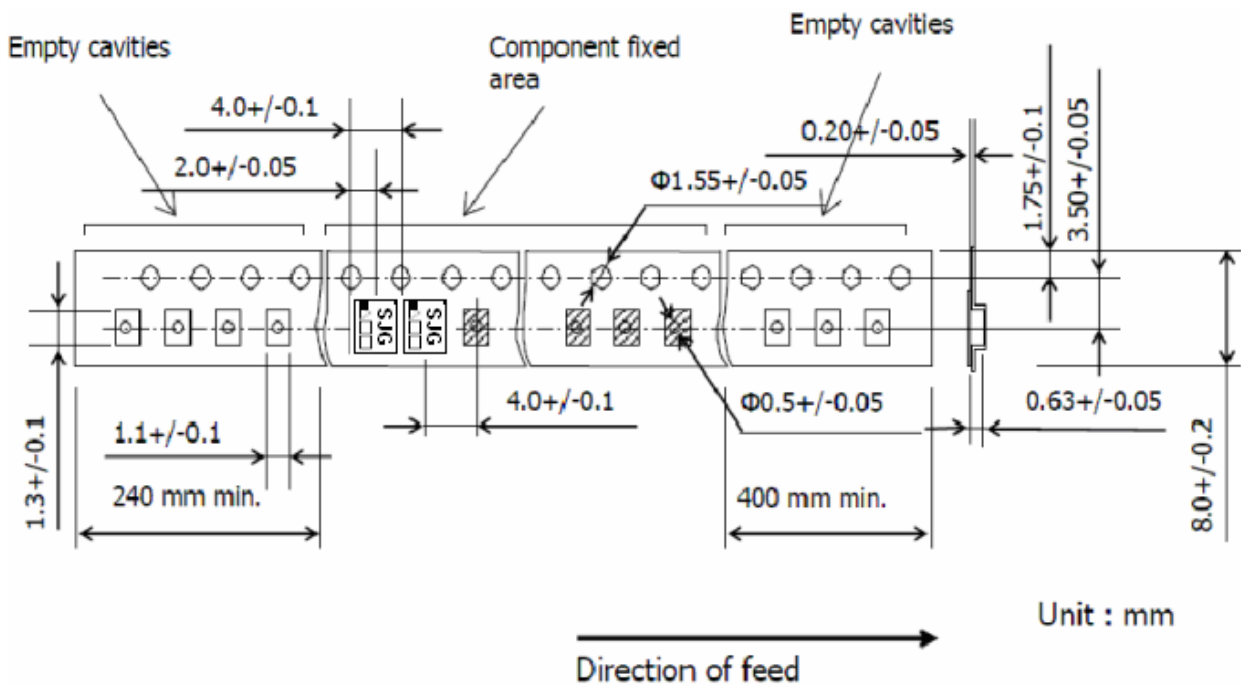
Color : Black

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

Unit : mm

Code	Quantity	A	B	C	W1	W2
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 150~180°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.

