

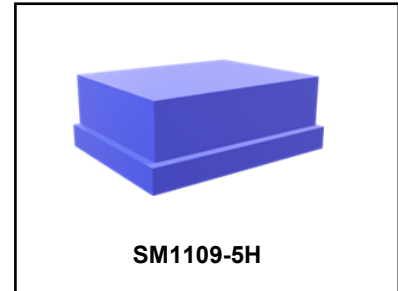
- Complies with Directive 2002/95/EC (RoHS)
- Use for LTE Band 5
- Moisture Sensitivity Level: 1
- AEC-Q200 Qualified

**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Input Power	10	dBm
DC Voltage	0	V
Operating Temperature Range	-40 to + 85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
ESD: 100 V(MM), 200 V(HBM)		

**SF2531LA**

**881.5 MHz  
SAW Filter**



**Electrical Characteristics**

Terminating source impedance:  $Z_s = 50 \Omega$  (Single-ended)

Terminating load impedance:  $Z_L = 50 \Omega$  (Single-ended)

Parameters Description	Unit	Min.	Typ.	Max.
<b>Center Frequency</b> <b>Fc</b>	MHz	-	881.5	-
<b>Insertion Loss</b> (869~894 MHz) <b>IL</b>	dB	-	1.6	2.5
<b>Amplitude Ripple</b> (869~894 MHz)	dB <sub>p-p</sub>	-	0.4	1.5
<b>VSWR</b> (869~894 MHz)	-	-	1.6	2.2
<b>Attenuation</b> (Reference level from 0 dB)				
DC ~ 824 MHz	dB	40	51	-
824 ~ 849 MHz	dB	38	46	-
914 ~ 970 MHz	dB	23	35	-
970 ~ 1049 MHz	dB	38	52	-
1049 ~ 2000 MHz	dB	33	43	-
2000 ~ 3000 MHz	dB	25	39	-
3000 ~ 6000 MHz	dB	20	36	-



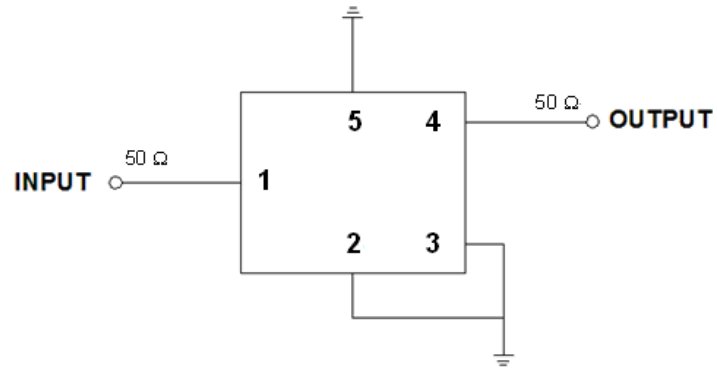
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

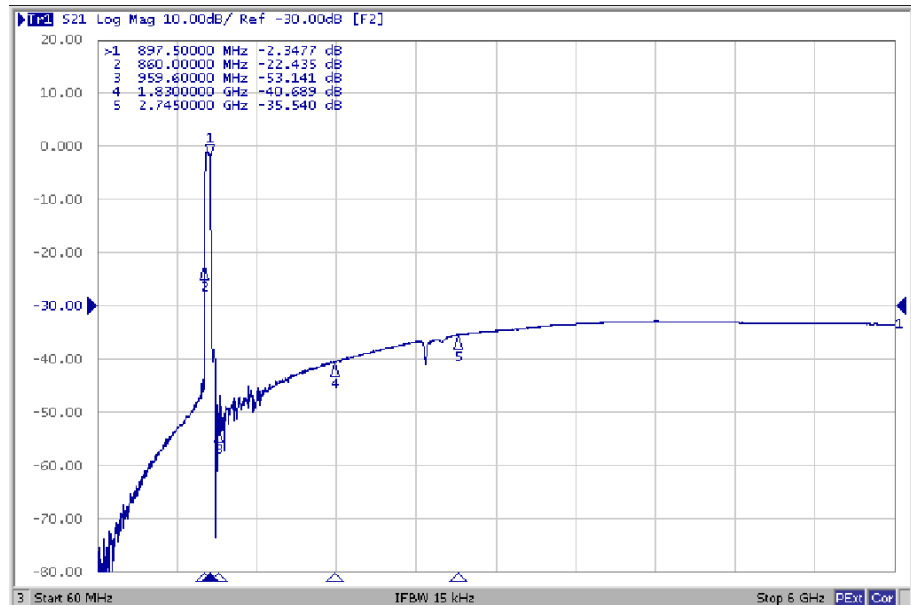
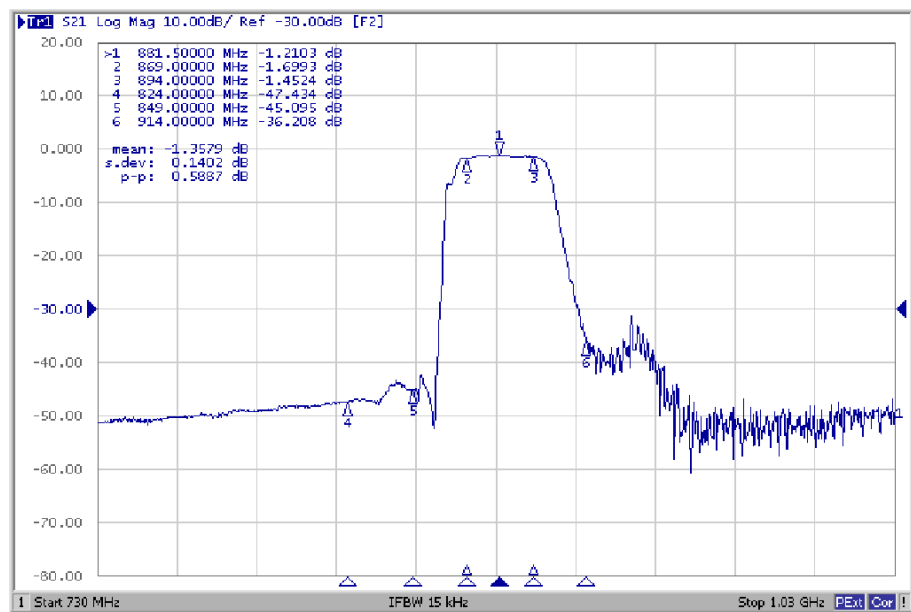
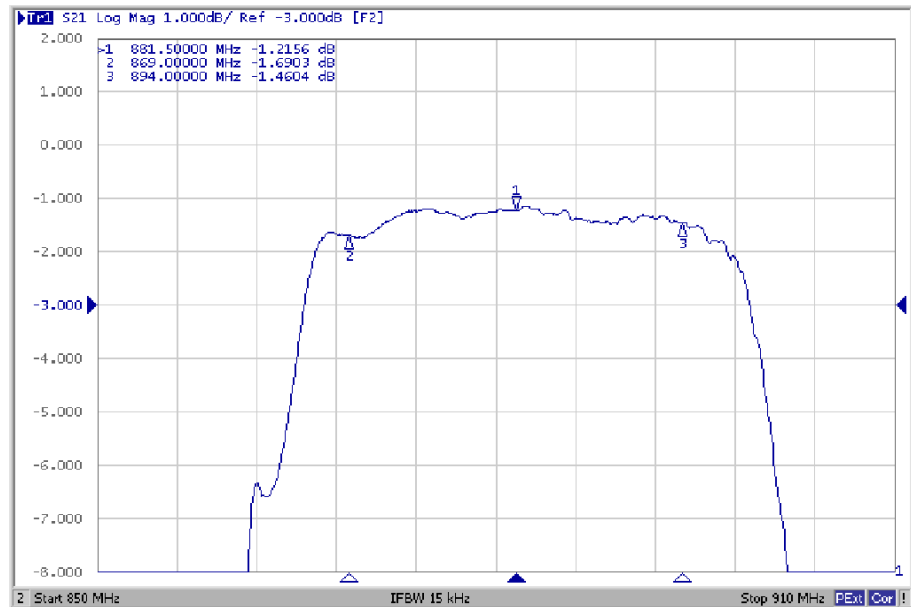
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

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## Measurement Circuit

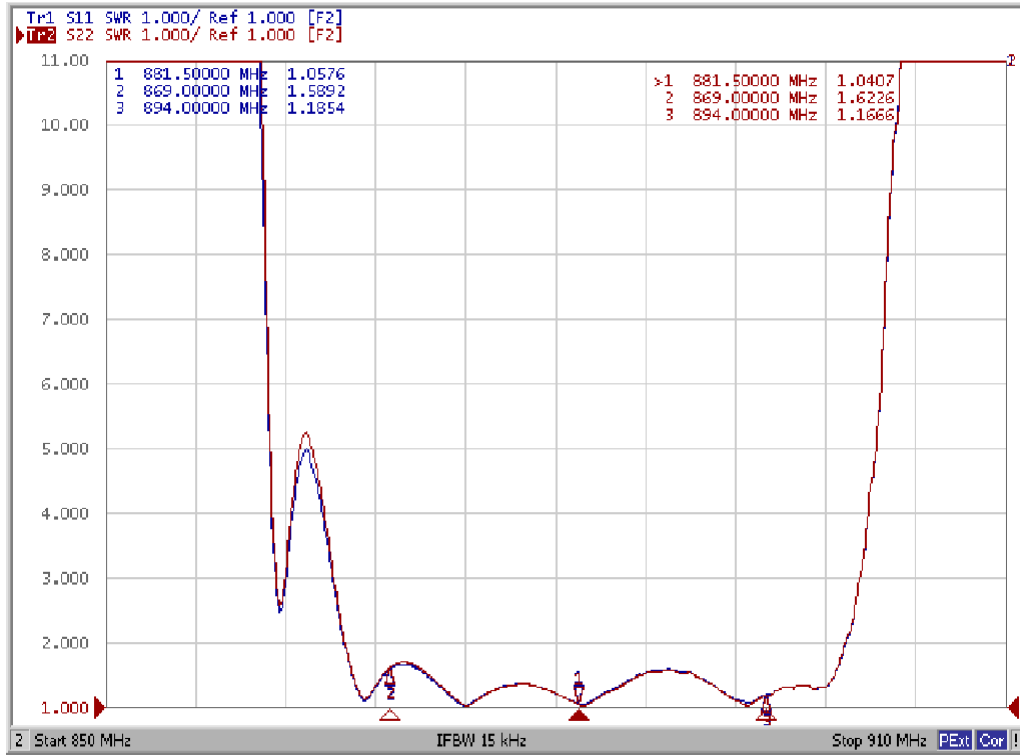


# Frequency Characteristics

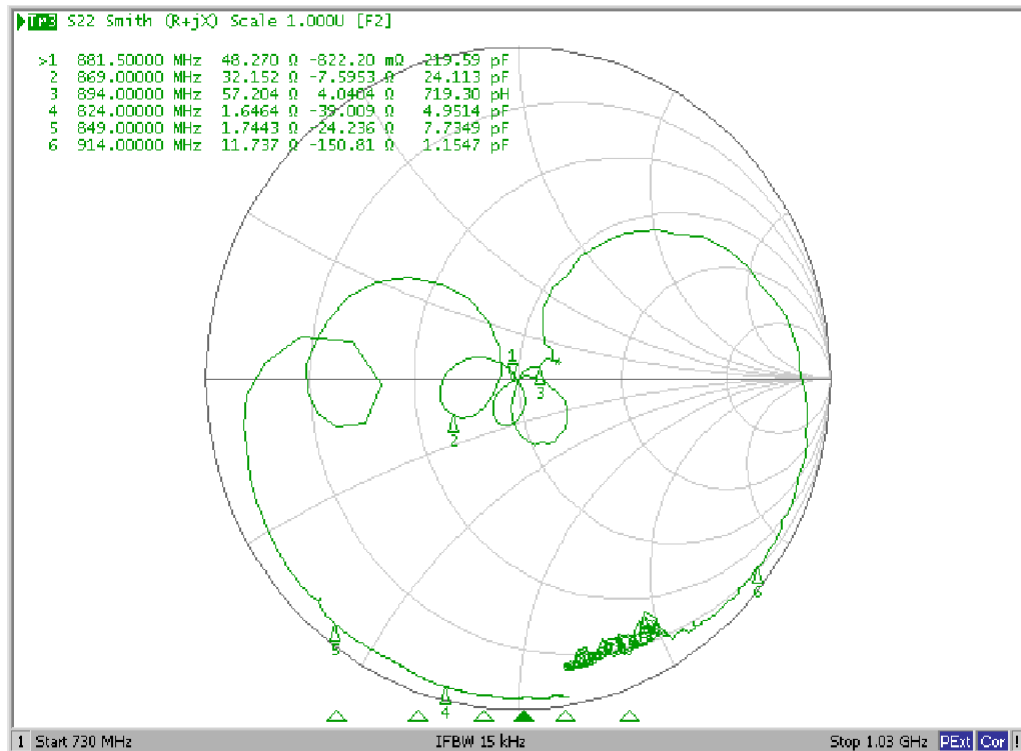
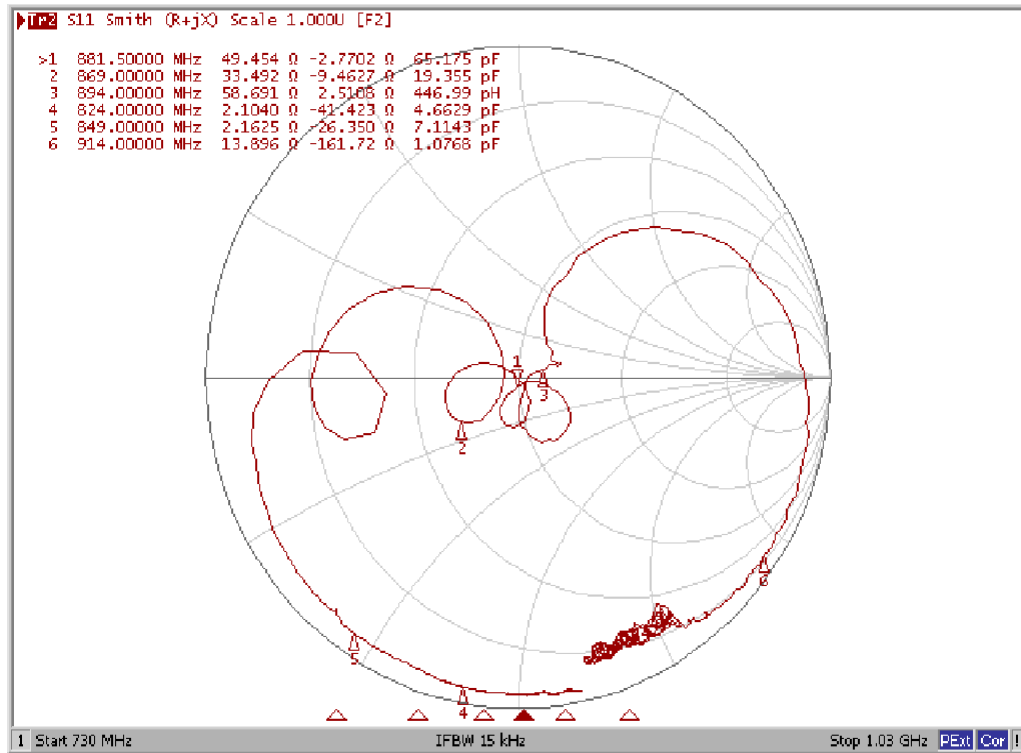


## Reflection Functions:

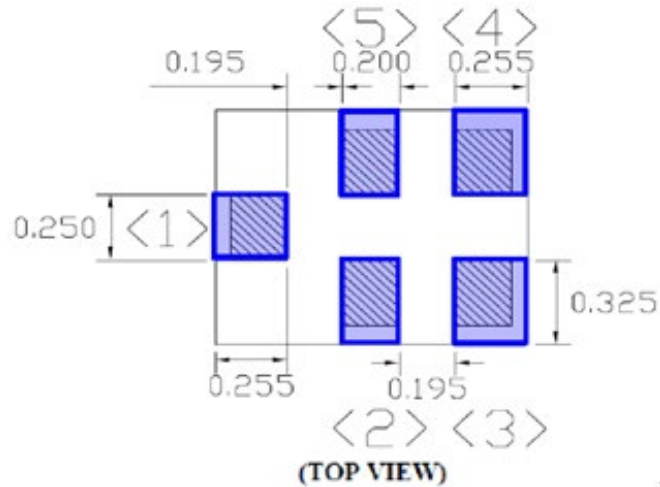
### VSWR



## Smith Chart

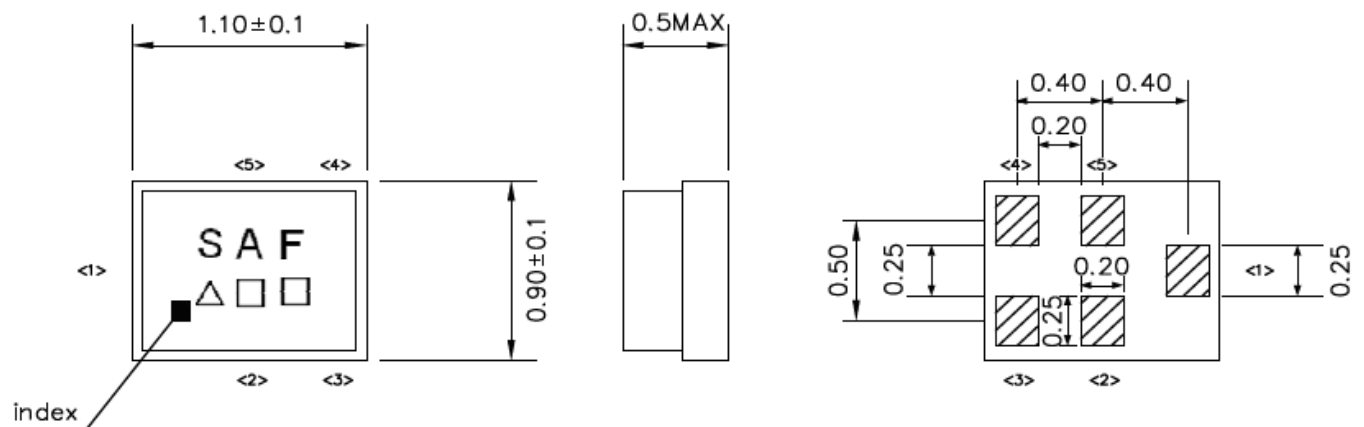


## PCB Footprint



### Outline Drawing (Mass Production):

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

△ : Date Code

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

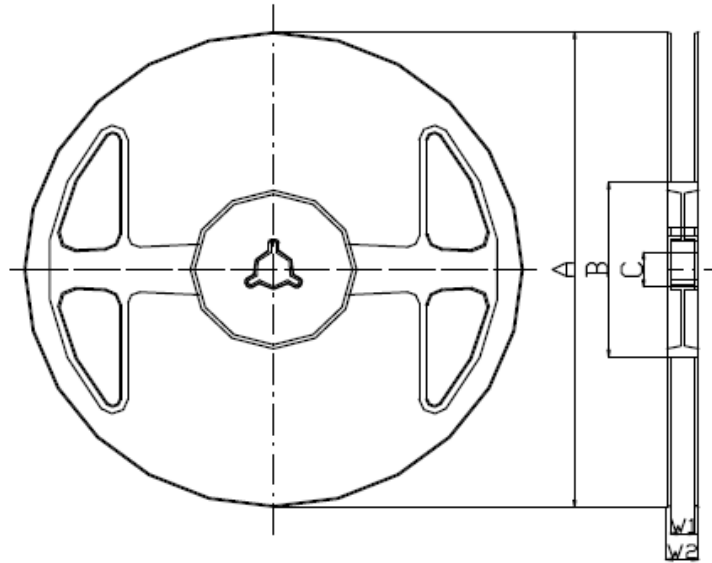
### Date Code:

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

# Packing

## Reel Dimension

Tape and Reel Standard per ANSI/EIA-481



### Materials of Reel

Material : Polystyrene + Carbon

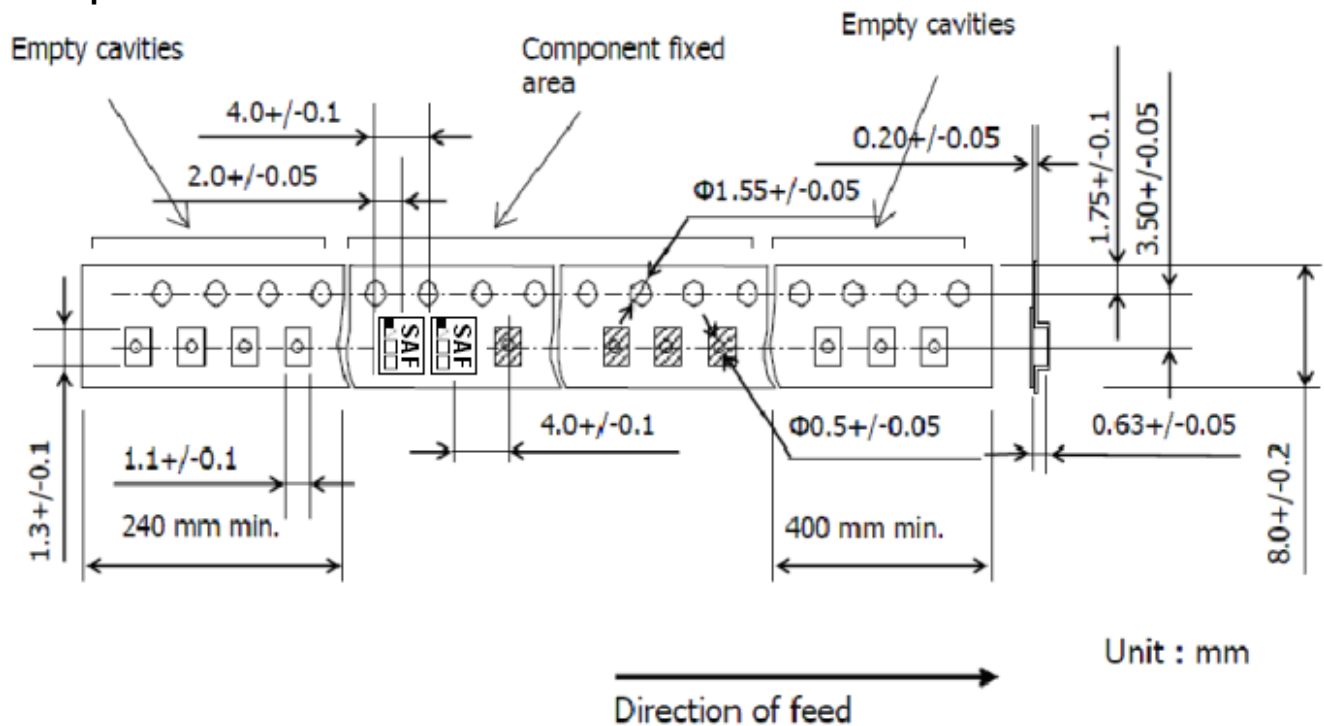
Color : Black

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

Unit : mm

Code	Quantity	A	B	C	W1	W2
J	5,000 pcs	$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

## Tape Dimension



Unit : mm

## 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 (10 seconds).
4. Time: 5 times maximum.

