

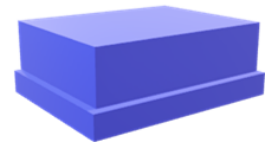
- Complies with Directive 2002/95/EC (RoHS)
- Use for LTE Band 1
- Moisture Sensitivity Level: 1
- AEC-Q200 Qualified

**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Input Power	+10	dBm
DC Voltage	+/- 5	V
Operating Temperature Range	-40 to + 85	°C
Storage Temperature Range in Tape and Reel	-40 to +100	°C

**SF2529LA**

**2140 MHz  
SAW Filter**



SM1109-5H

**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	-	2140	-
<b>Insertion Loss</b>	2110~2170 MHz	dB(*1)	-	1.9	2.7	
	2110~2155 MHz	dB(*1)	-	1.9	2.7	
<b>Amplitude Ripple</b>	2110~2170 MHz	dB	-	0.7	1.5	
	2110~2155 MHz	dB	-	0.7	1.5	
<b>VSWR</b>	2110~2170 MHz	-	-	1.8	2.3	
	2110~2155 MHz	-	-	1.8	2.3	
<b>Attenuation (Reference level from 0 dB)</b>						
50 ~ 1710 MHz		dB	35	43	-	
1710 ~ 1755 MHz		dB	40	44	-	
1920 ~ 1980 MHz		dB	42	46	-	
4220 ~ 4340 MHz		dB	30	40	-	



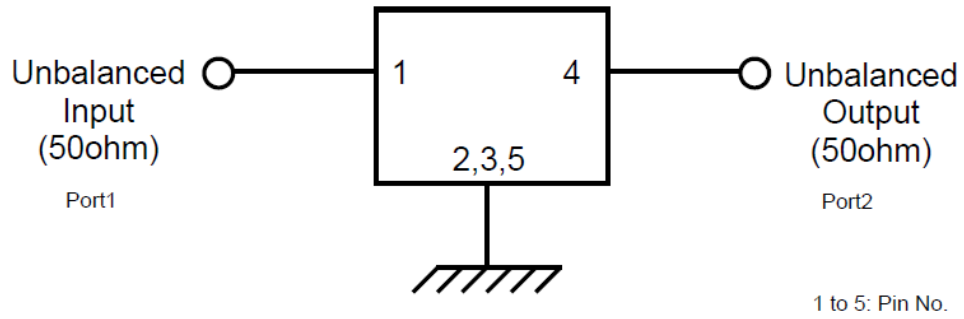
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

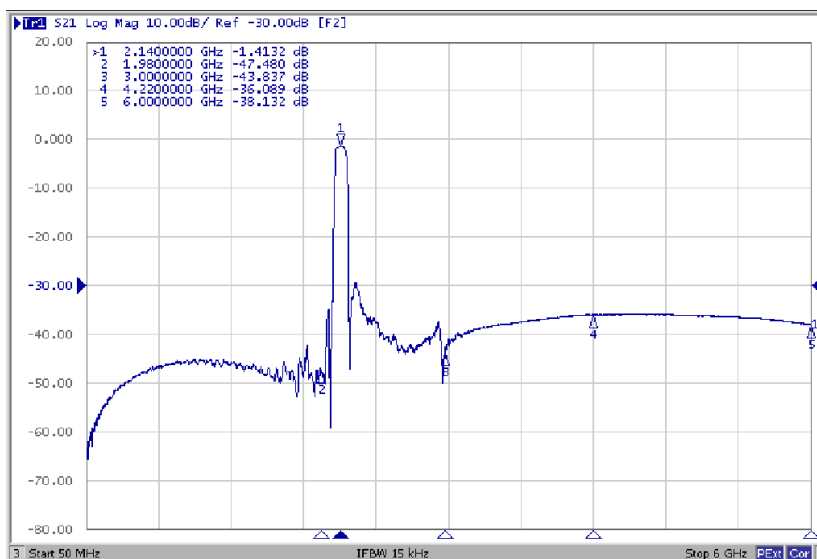
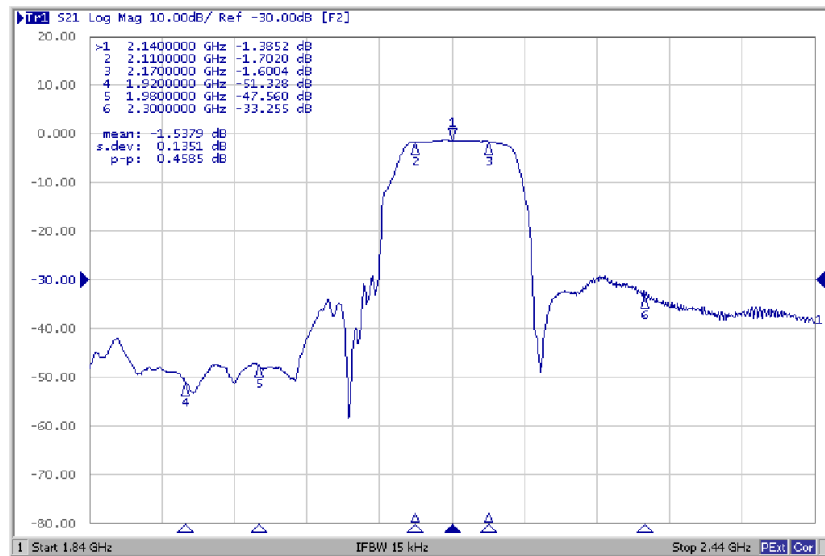
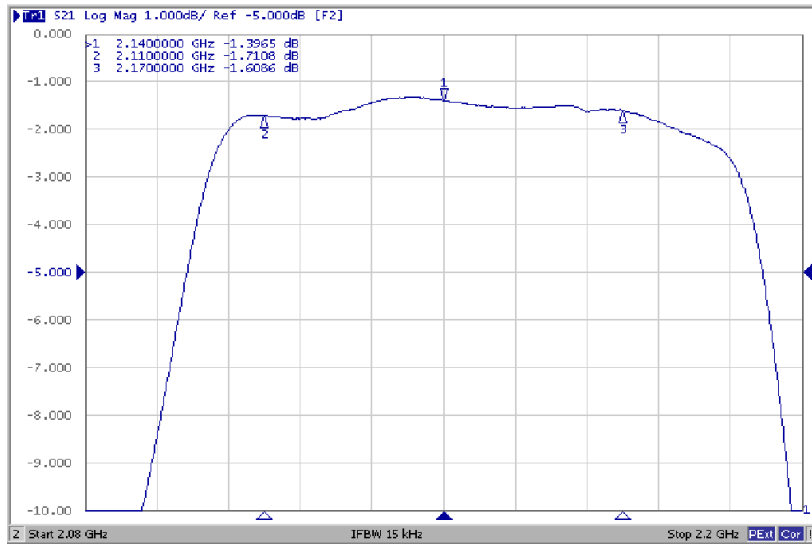
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

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## Measurement Circuit

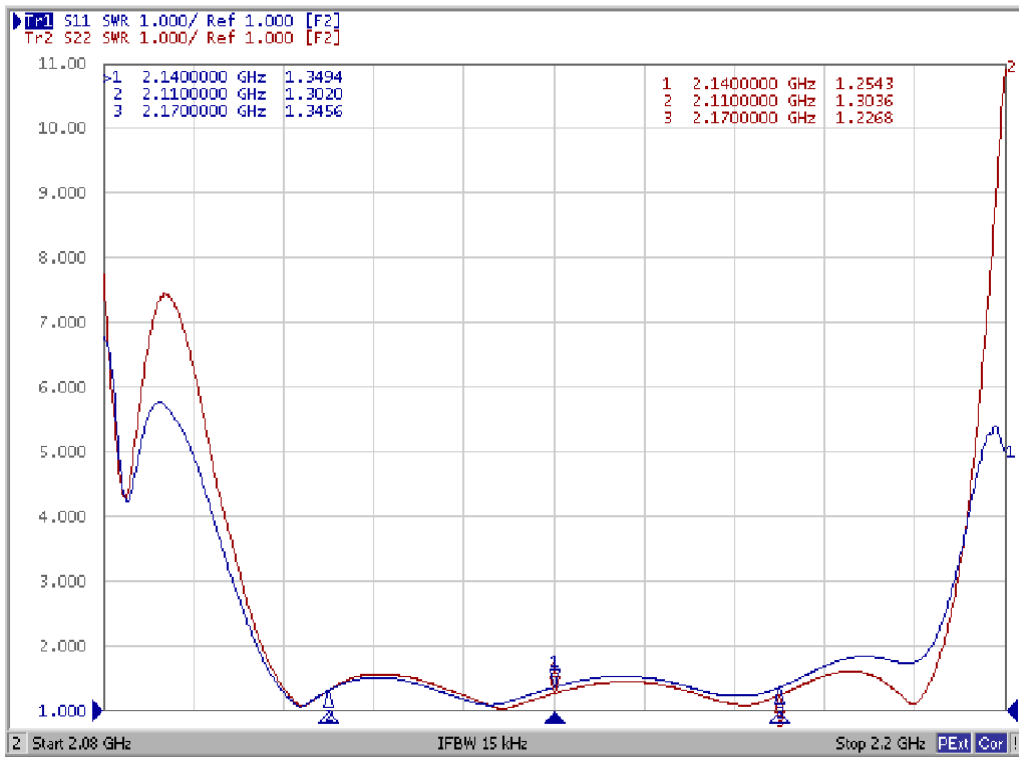


# Frequency Characteristics

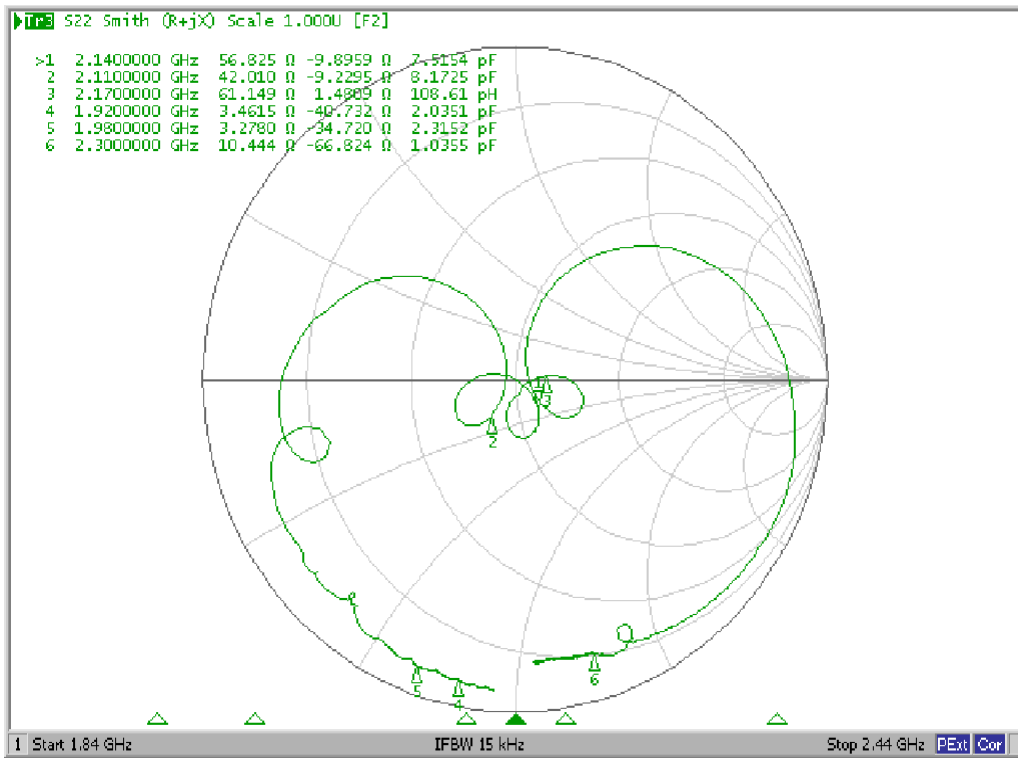
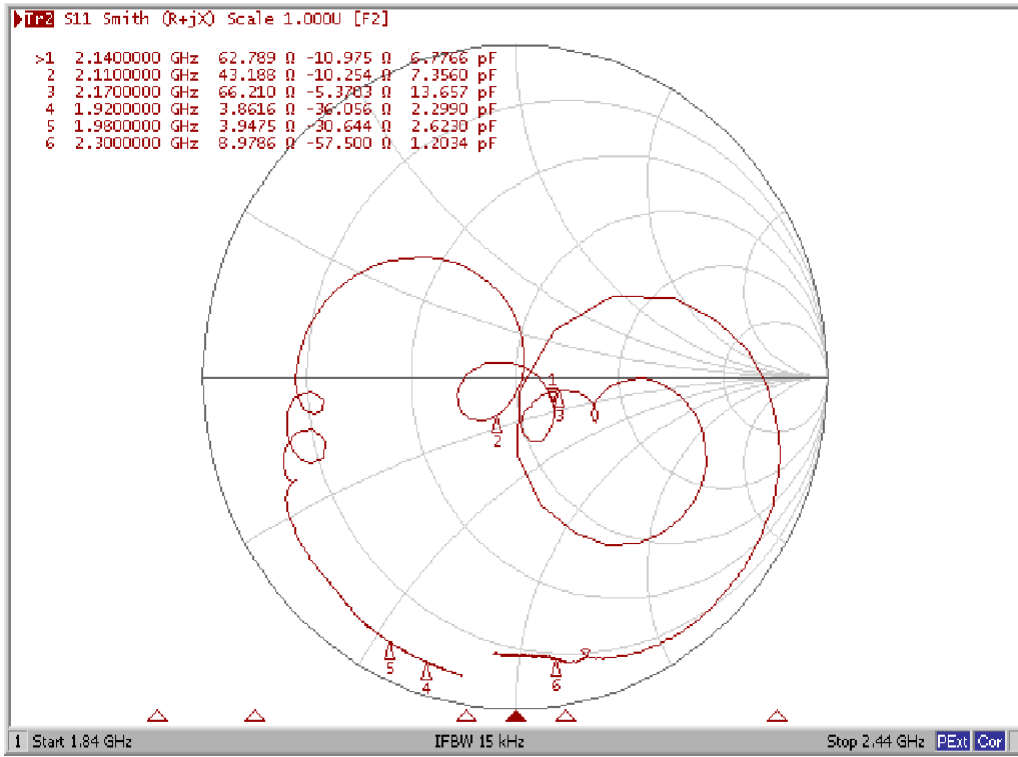


# Reflection Functions

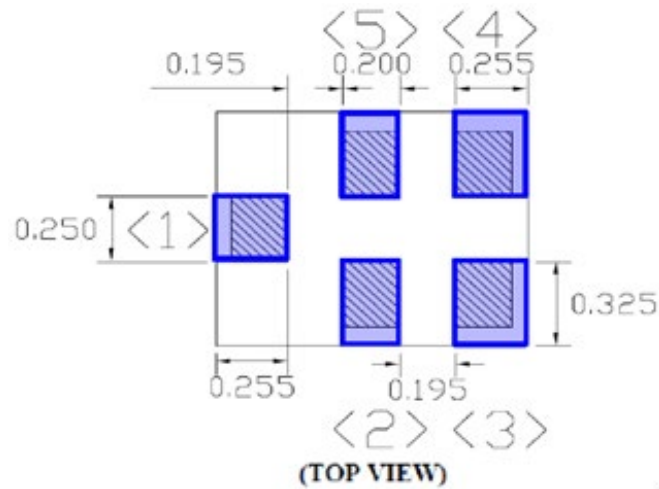
## VSWR



## Smith Chart

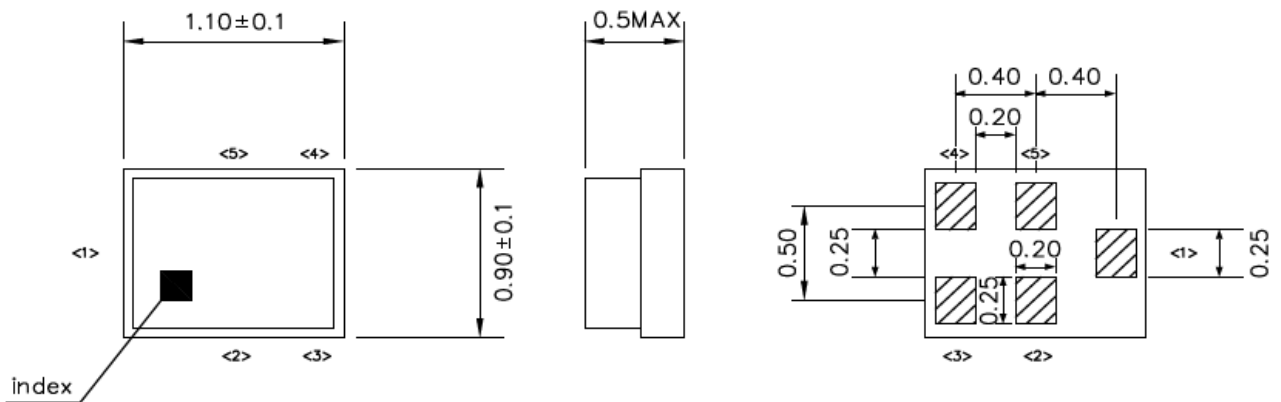


## PCB Footprint



## Outline Drawing

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

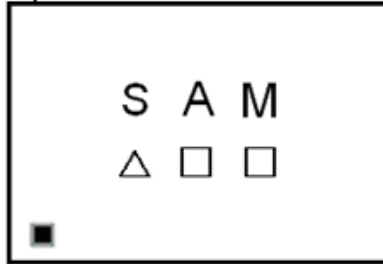


Unit : mm

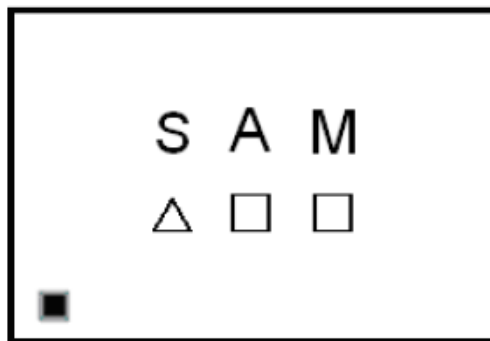
## Pin Configuration

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

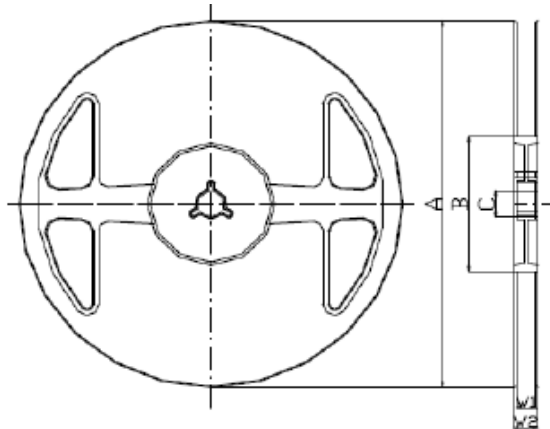
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	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

# Packing

## Reel Dimension

Tape and Reel Standard per ANSI/EIA-481



Reel Count:  
7" = 3000  
13" 10,000

### Materials of Reel

Material : Polystyrene + Carbon

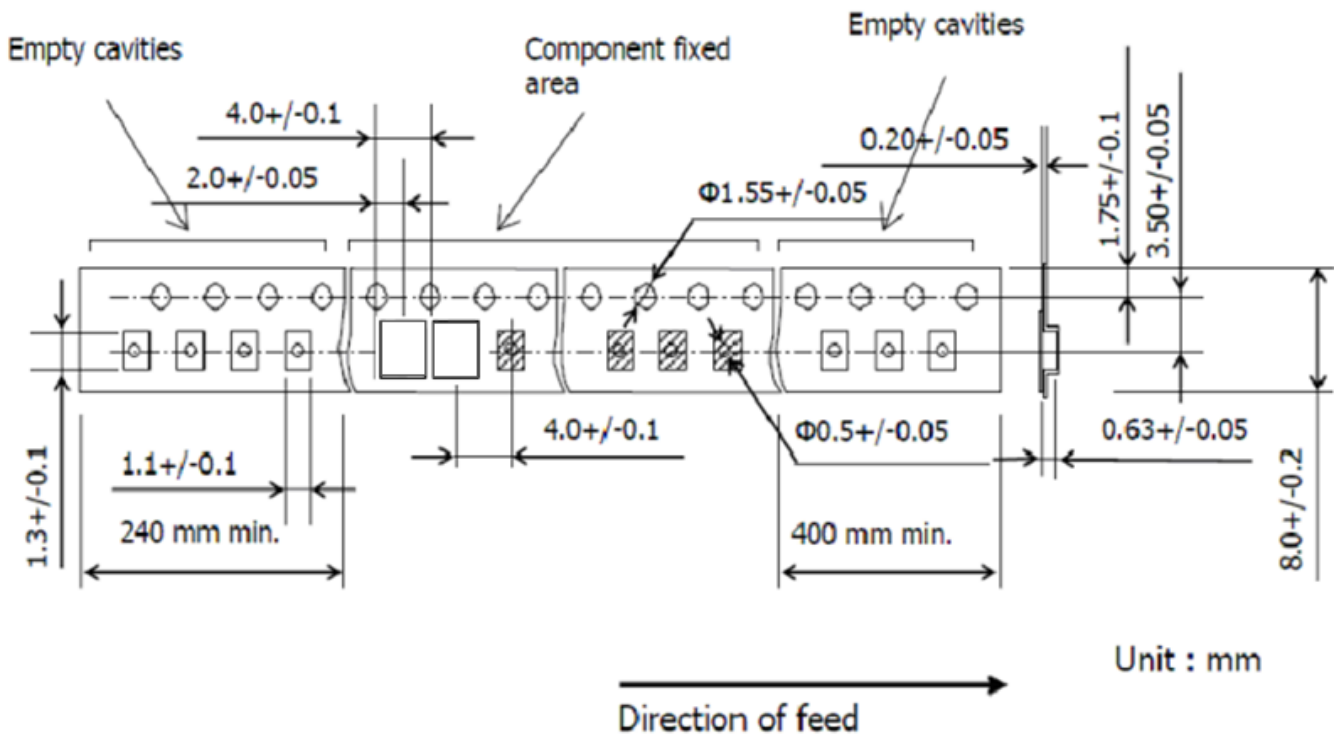
Color : Black

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

Unit : mm

A	B	C	W1	W2
$\phi$ 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





## 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.

