

# 1842.5 MHz SMD SAW Filter

ABSTS5A2-34IM033M

Request Samples



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1.1 x 0.9 x 0.55 mm  
RoHS/RoHS II Compliant  
MSL Level = 3

## Features

- Usable Bandwidth of 75 MHz
- High Out of Band Attenuation
- Compact Package Size

## Applications

- Cellular, LTE, WCDMA RF SAW Filter
- Wireless & telecommunication applications
- Low loss RF Filter for Receive Path.

## Electrical Specifications

Parameters		Specifications		
		Min	Typ	Max
Nominal Center Frequency (Fc) (MHz)			1842.5	
Insertion Loss (dB)* (1805 ~ 1880 MHz)			2.0	4.0
Amplitude Ripple (dB <sub>p-p</sub> ) (1805 ~ 1880 MHz)			1.0	3.3
Input VSWR (1805 ~ 1880 MHz)			1.7	2.3
Output VSWR (1805 ~ 1880 MHz)			1.6	2.2
Attenuation (dB) (reference level from 0dB)	DC~960 MHz	32	35	
	1558~1608 MHz	32	36	
	1710~1785 MHz	34	38	
	1920~2400 MHz	25	37	
	2400 ~ 2500 MHz	33	39	
	2500 ~ 3610 MHz	25	35	
	3610 ~ 3760 MHz	25	38	
	3760 ~ 5415 MHz	20	35	
	5415 ~ 5640 MHz	20	36	
	5640 ~ 7220 MHz	18	27	
	7220 ~ 7520 MHz	16	25	
7520 ~ 8000 MHz	14	23		
Terminating Source Impedance ( $\Omega$ )			50//33nH	
Terminating Load Impedance ( $\Omega$ )			50//12nH	
Maximum Input Power (dBm)				10
DC Voltage (V)				0

\*Note: Specification of insertion loss excludes loss that comes from the test board.

## Mechanical Specifications

Parameters	Specifications
Filter Dimension	1.1 x 0.9 x 0.55
Mounting Type	SMD Mount



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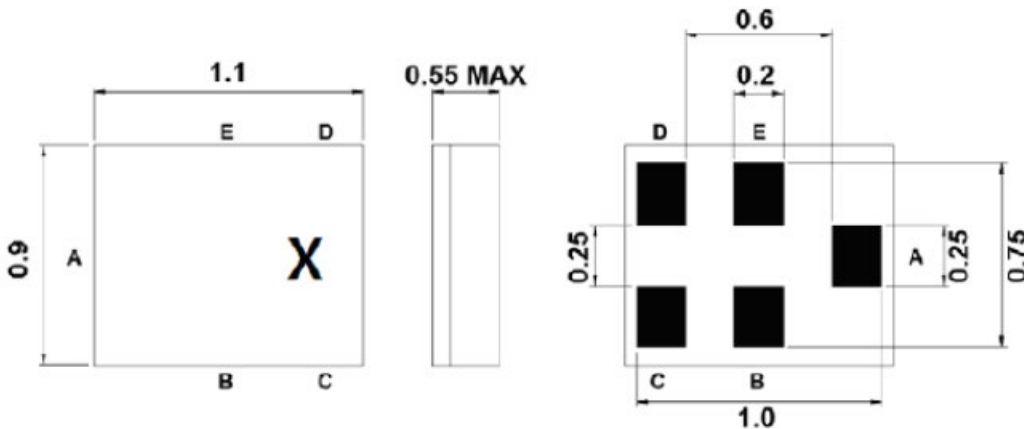


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## Environmental Specifications

Parameters	Specifications
Operating Temperature Range	-20°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C
MSL level	3
ESD	50V (MM), 100V (HBM)

## Package Dimensions



Pin No.	Symbol	Function
A	IN	Input
B	GND	Ground
C	GND	Ground
D	OUT	Output
E	GND	Ground

## Marking Description:

X: Year/ Month Code (Follow the table)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2019	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>j</u>	<u>k</u>	<u>l</u>	<u>m</u>
2020	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

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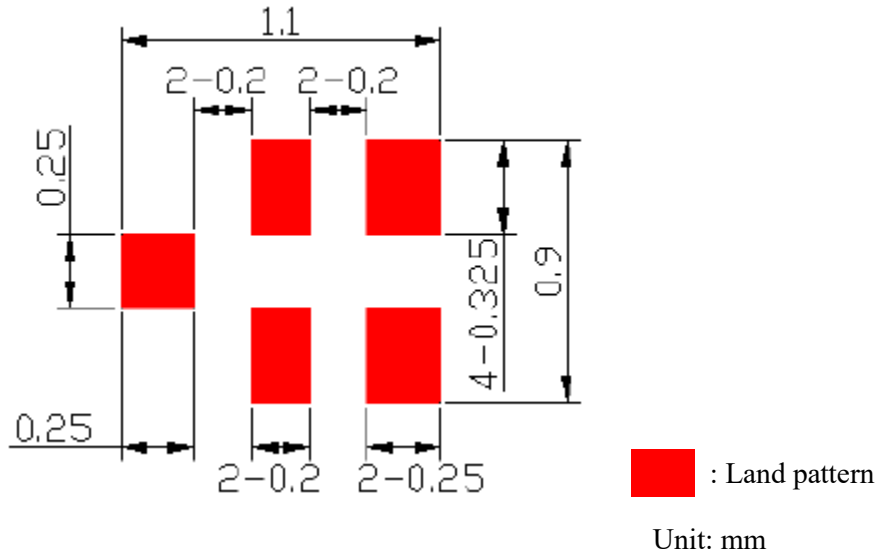


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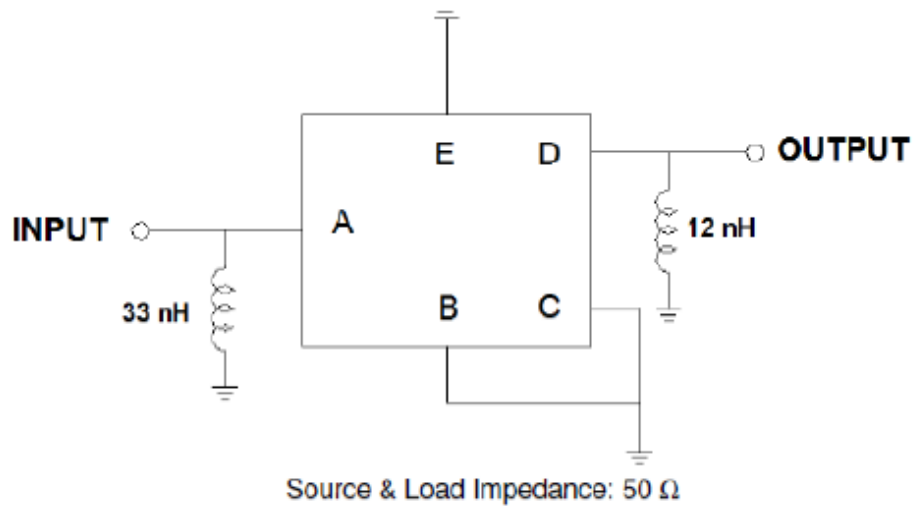


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## PCB Footprint



## Measurement Circuit



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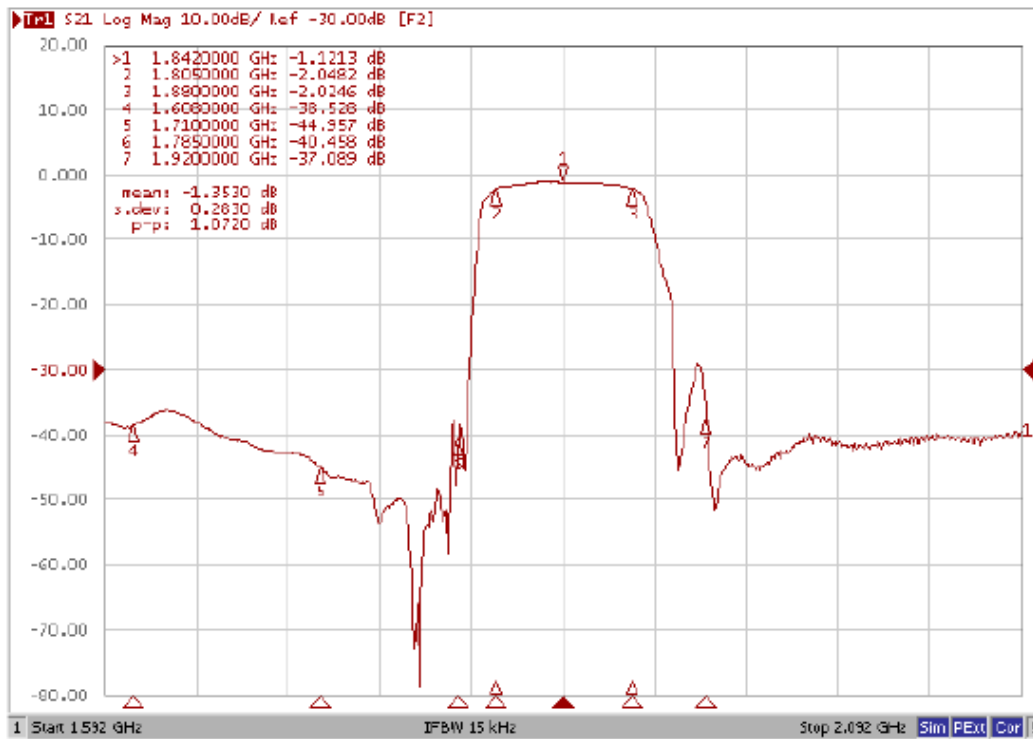
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## Transmission Characteristics

### S21 Response (Narrowband)



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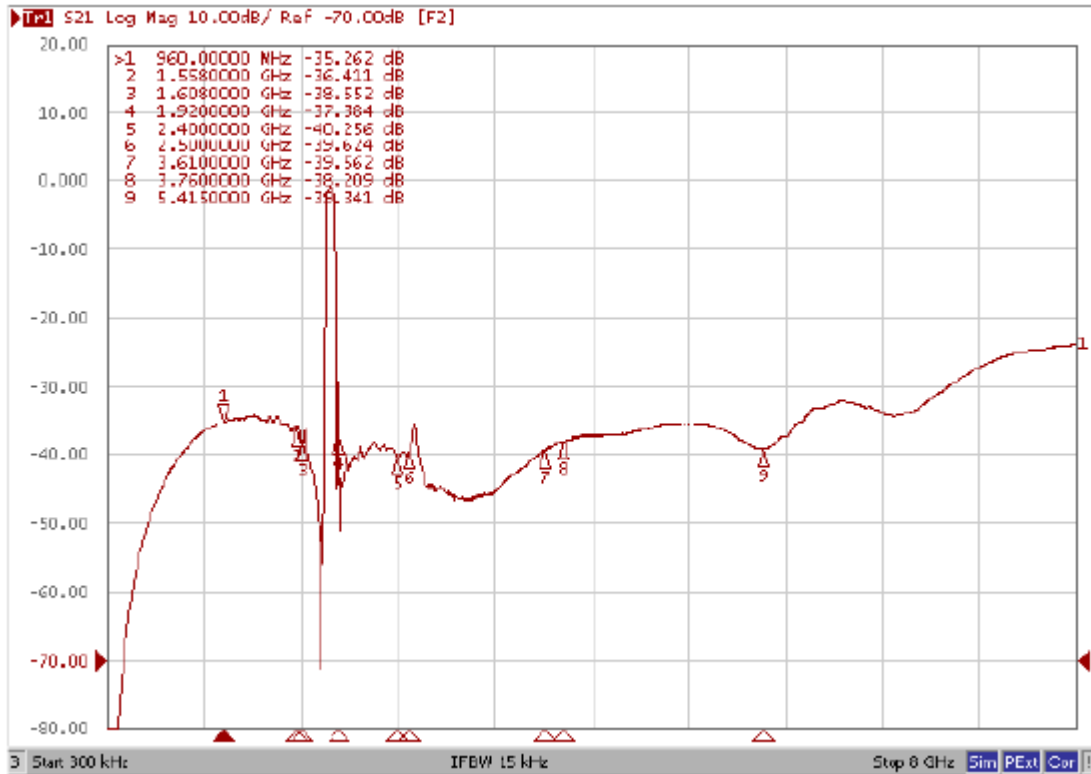


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S21 response (Broadband)



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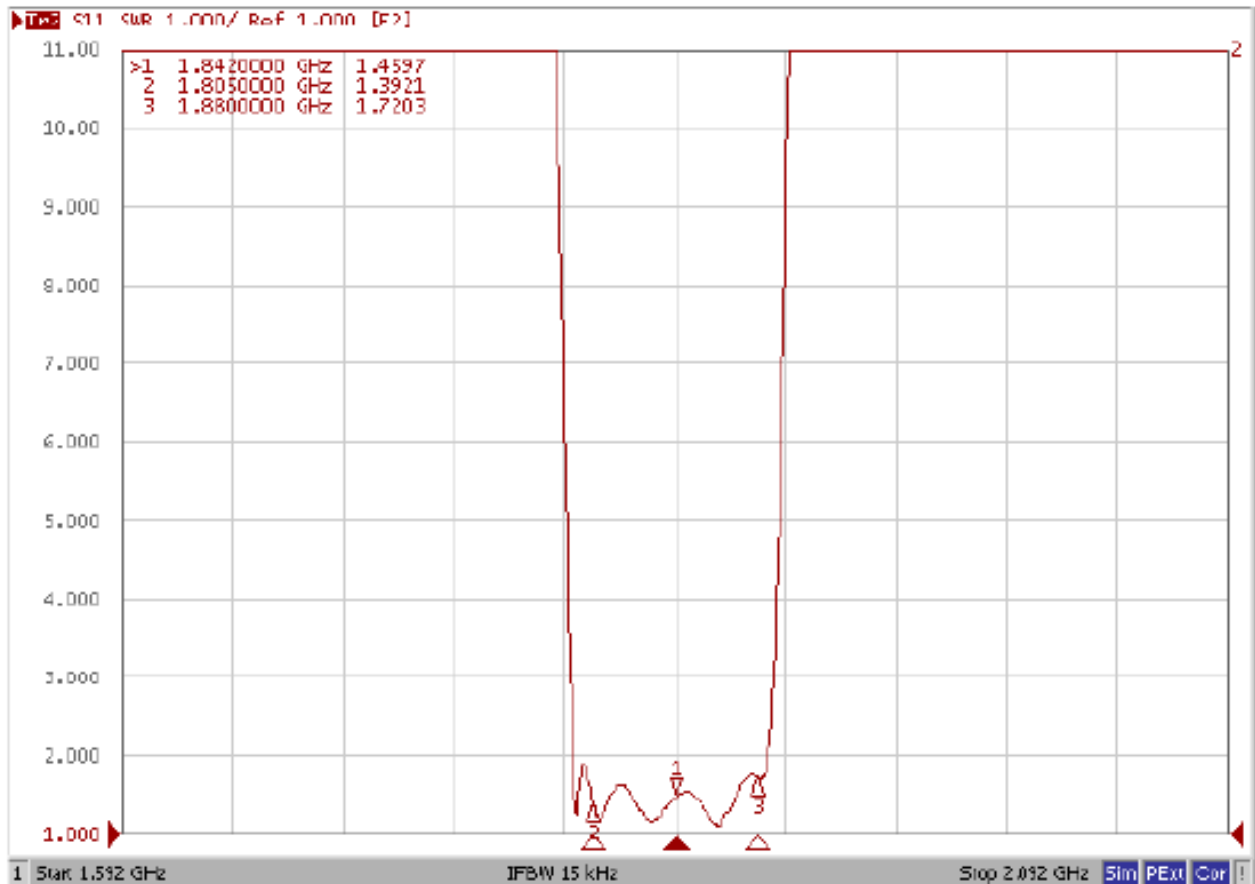
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## Reflection Characteristics

S11 VSWR



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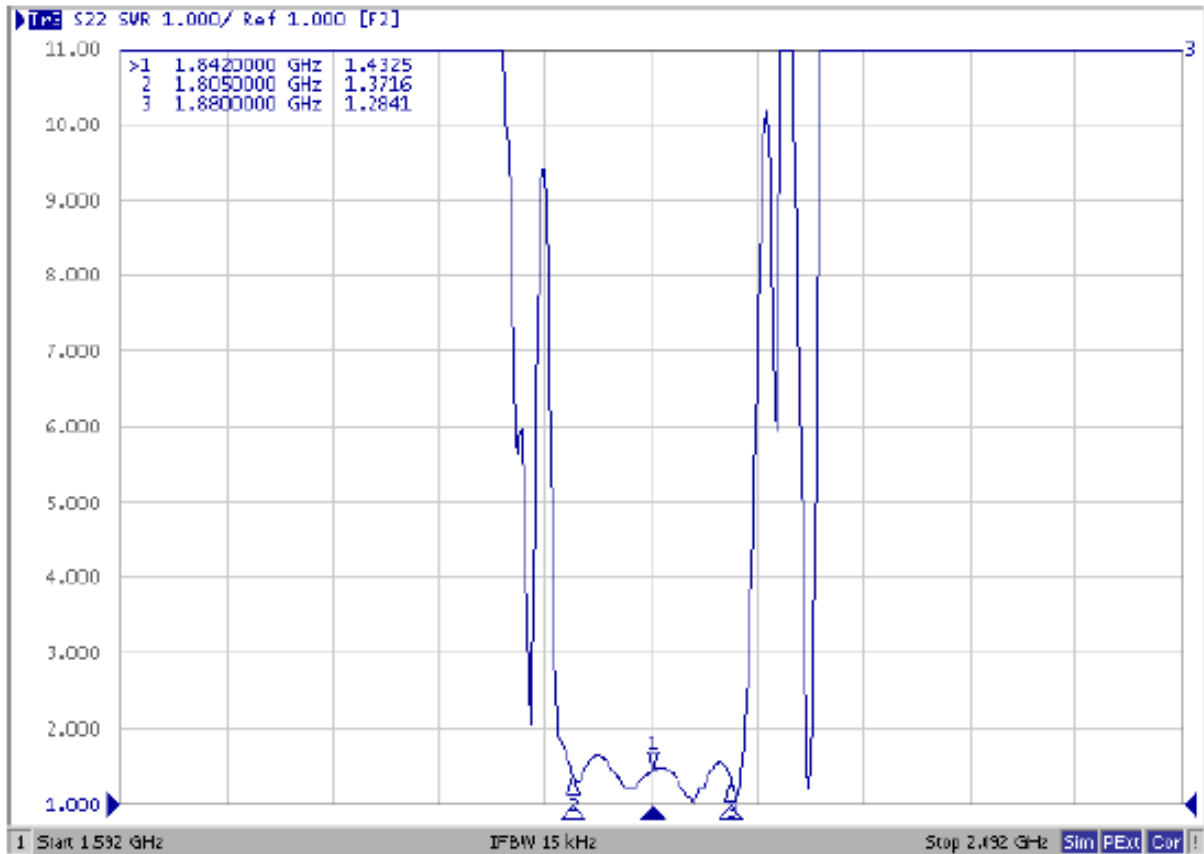


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S22 VSWR



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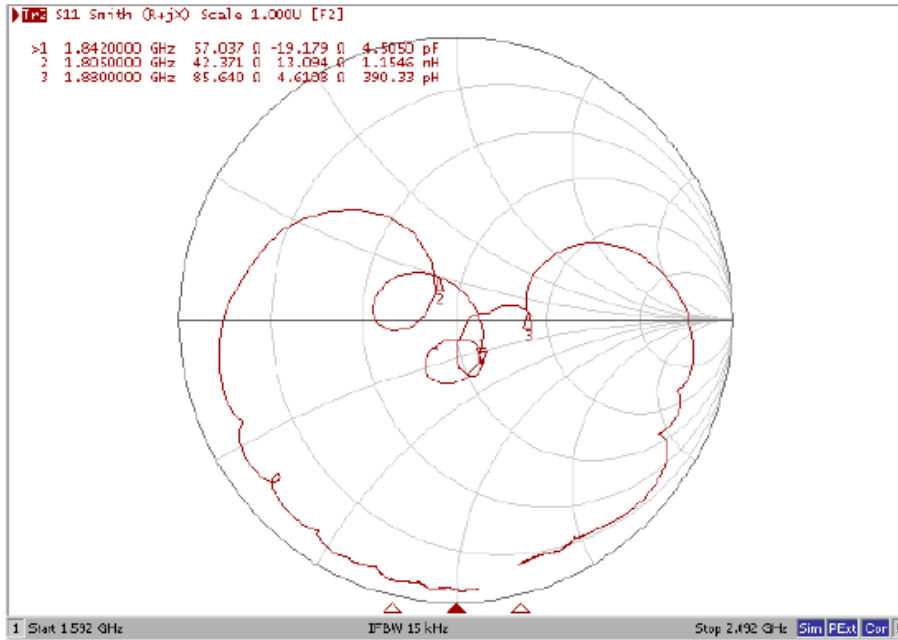


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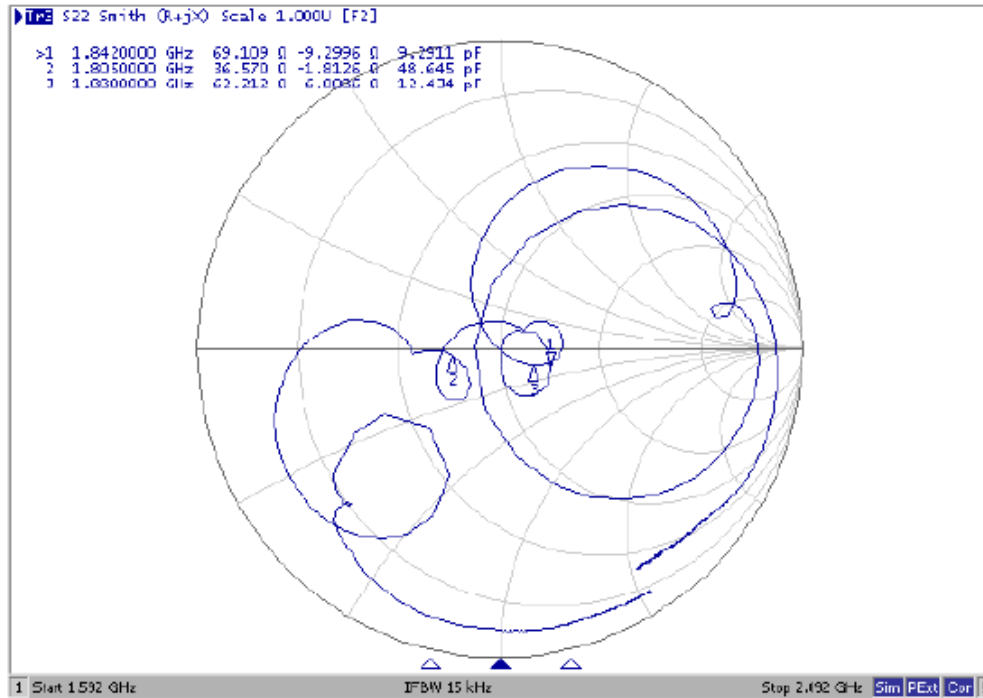


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S11 Smith Chart



S22 Smith Chart





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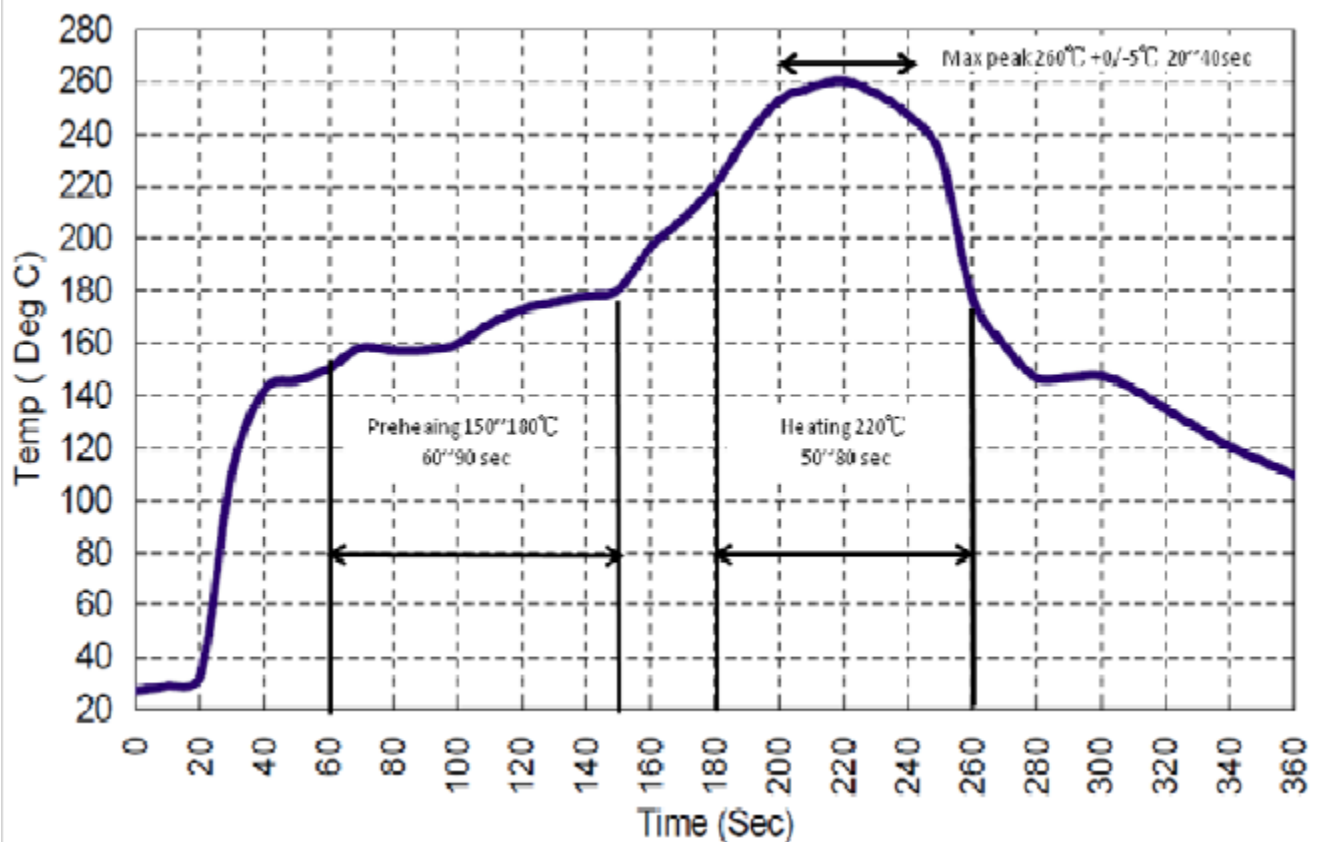
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## Recommended Reflow Profile

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 minimum.
3. Heating shall be fixed at 220°C for 50~80seconds and at 260°C+0/-5°C peak (20~40sec)
4. Time: 2 times



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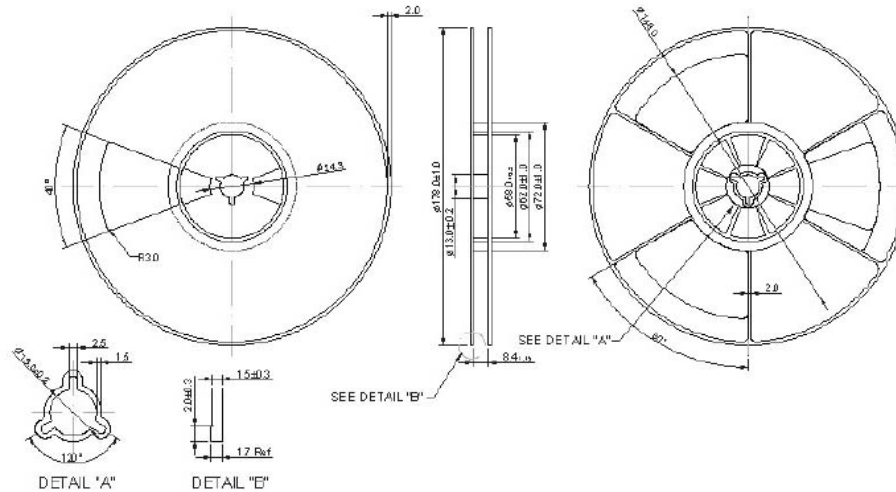


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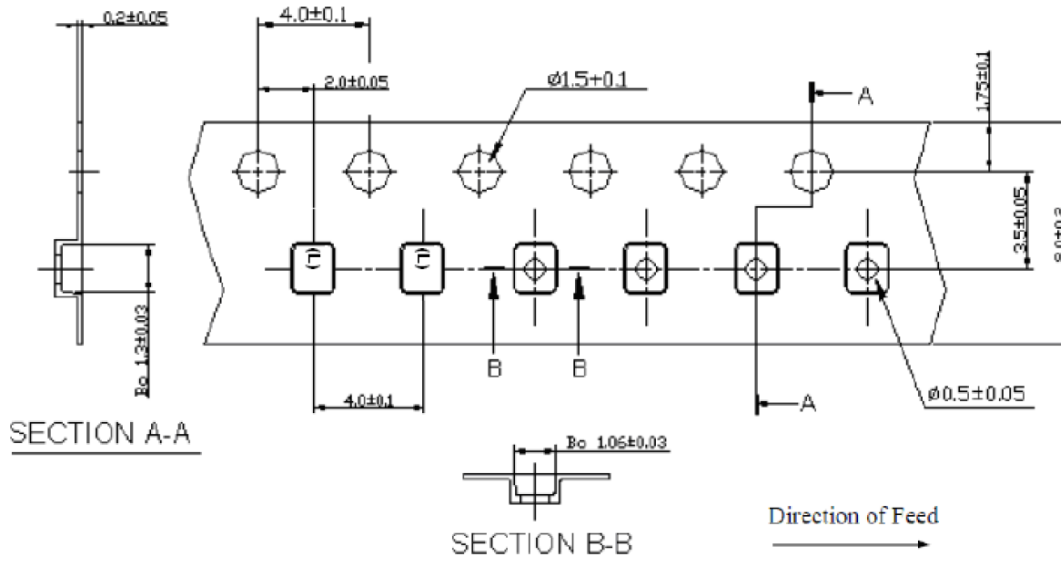
## Packaging

### 1. Reel Dimension

Number of pieces/reel:5k



### 2. Tape Dimension



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