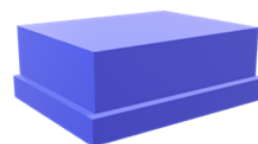


**SF2711L**

**2332.5 MHz  
SAW Filter**



SM1109-5

**MAXIMUM RATING:**

- Input Power Level: 10 dBm
- DC Voltage : 6 V
- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +125°C
- ESD Machine Mode : 50V
- ESD Human Body Mode : 100V
- Moisture Sensitive Level (MSL): Level 2a

**ELECTRICAL CHARACTERISTICS:**

Temperature range for specification : Tspec = -40°C to +105°C

Terminating source impedance : Zs = 50 Ω

Terminating load impedance : ZL = balanced 100 Ω

Item	Unit	Min.	Typ.	Max.
<b>Center Frequency</b> Fc	MHz	-	2332.5	-
<b>Min. Insertion Loss</b> (2320~2345 MHz)	dB	-	1.6	-
<b>Max. Insertion Loss</b> (2320~2345 MHz) IL	dB		1.8	2.8 <sup>1)</sup>
<b>Max. Insertion Loss</b> (2320~2345 MHz) IL	dB	-	1.8	3.2
<b>Amplitude Ripple</b> (2320~2345 MHz)	dB <sub>p-p</sub>	-	0.3	1.3 <sup>1)</sup>
<b>Amplitude Ripple</b> (2320~2345 MHz)	dB <sub>p-p</sub>	-	0.5	1.7
<b>Min. Input Return Loss</b> (2320~2345 MHz)	dB	9	13	-
<b>Min. Output Return Loss</b> (2320~2345 MHz)	dB	9	12	-
<b>Variation of amplitude imbalance</b> (2320~2345 MHz)	dB	-2 <sup>1)</sup>	0.3	2.5 <sup>1)</sup>
<b>Variation of amplitude imbalance</b> (2320~2345 MHz)	dB	-5	-0.5	3.5
<b>Variation of phase imbalance</b> (2320~2345 MHz)	deg	-12 <sup>1)</sup>	-5	12 <sup>1)</sup>
<b>Variation of phase imbalance</b> (2320~2345 MHz)	deg	-15	-5	15
<b>Attenuation</b> (refer to min. IL)				
88 ~ 880 MHz	dB	50	67	-
880 ~ 1710 MHz	dB	41	59	-
1710 ~ 1910 MHz	dB	40	55	-
1910 ~ 2090 MHz	dB	39	55	-

2090 ~ 2190 MHz	dB	35	45	-
2190 ~ 2250 MHz	dB	30	45	-
2250 ~ 2275 MHz	dB	11	40	-
2300 MHz	dB	-	4	-
2305 MHz	dB	-	2.7	-
2310 MHz	dB	-	1	-
2315 MHz	dB	-	0.5	-
2350 MHz	dB	-	0.5	-
2355 MHz	dB	-	1	-
2360 MHz	dB	-	1.5	-
2365 MHz	dB	-	2.5	-
2390 MHz	dB	-	10	-
2400 ~ 2425 MHz	dB	13	22	-
2425 ~ 2500 MHz	dB	30	33	-
2500 ~ 2600 MHz	dB	35	41	-
2600 ~ 2800 MHz	dB	40	47	-
2800 ~ 3000 MHz	dB	38	51	-
3000 ~ 4000 MHz	dB	33	49	-
4000 ~ 4800 MHz	dB	29	50	-
4800 ~ 6000 MHz	dB	25	44	-
<b>Group Delay Variation (2320~2345 MHz) GDV</b>	ns	-	3	15 <sup>1)</sup>
<b>Group Delay Variation (2320~2345 MHz) GDV</b>	ns	-	4	20
Package size	mm	SMD 1.1x0.9		

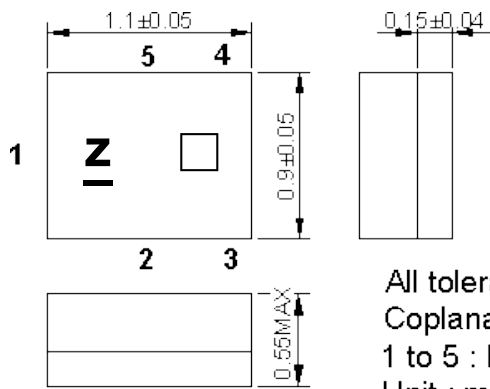
**1) Valid for temperature -20°C ~ +85°C**  
**Insertion Loss include 0.05dB PCB loss**



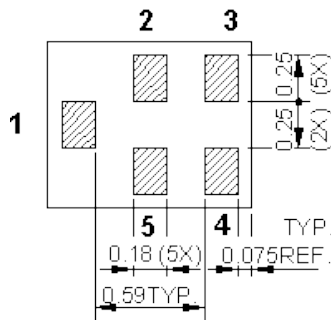
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

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.

**OUTLINE DRAWING:**



All tolerances are  $\pm 0.05$  mm unless otherwise specified  
 Coplanarity : 0.1 mm max.  
 1 to 5 : Pin No.  
 Unit : mm

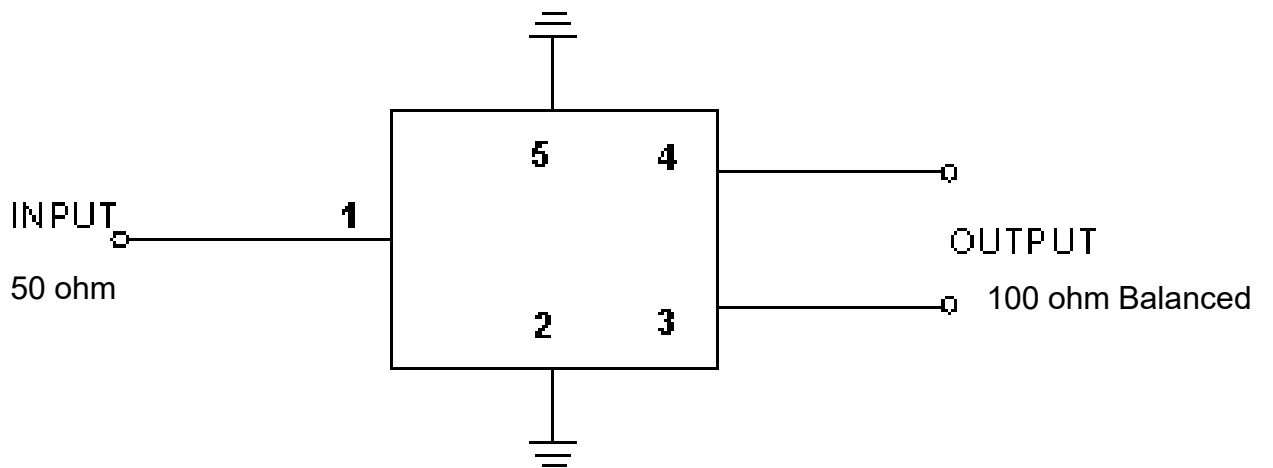


1 : Unbalanced Input  
 3, 4 : Balanced Output  
 2, 5 : Ground

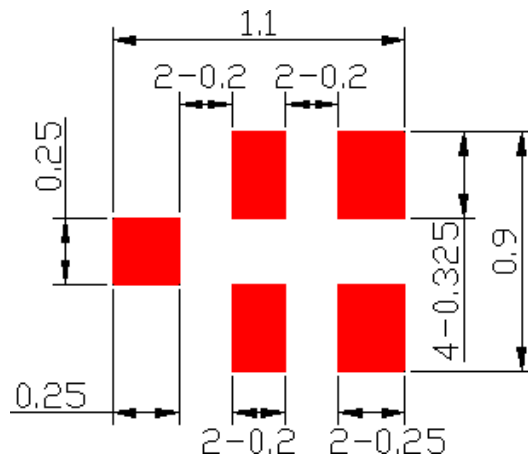
**□ : Year/Month Code (Follow the table)**

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m
2024	n	p	q	r	s	t	u	v	w	x	y	z
2025	<del>A</del>	<del>B</del>	<del>C</del>	<del>D</del>	<del>E</del>	<del>F</del>	<del>G</del>	<del>H</del>	<del>J</del>	<del>K</del>	<del>L</del>	<del>M</del>
2026	<del>N</del>	<del>P</del>	<del>Q</del>	<del>R</del>	<del>S</del>	<del>T</del>	<del>U</del>	<del>V</del>	<del>W</del>	<del>X</del>	<del>Y</del>	<del>Z</del>
2027	a	b	c	d	e	f	g	h	j	k	l	m
2028	n	p	q	r	s	t	u	v	w	x	y	z

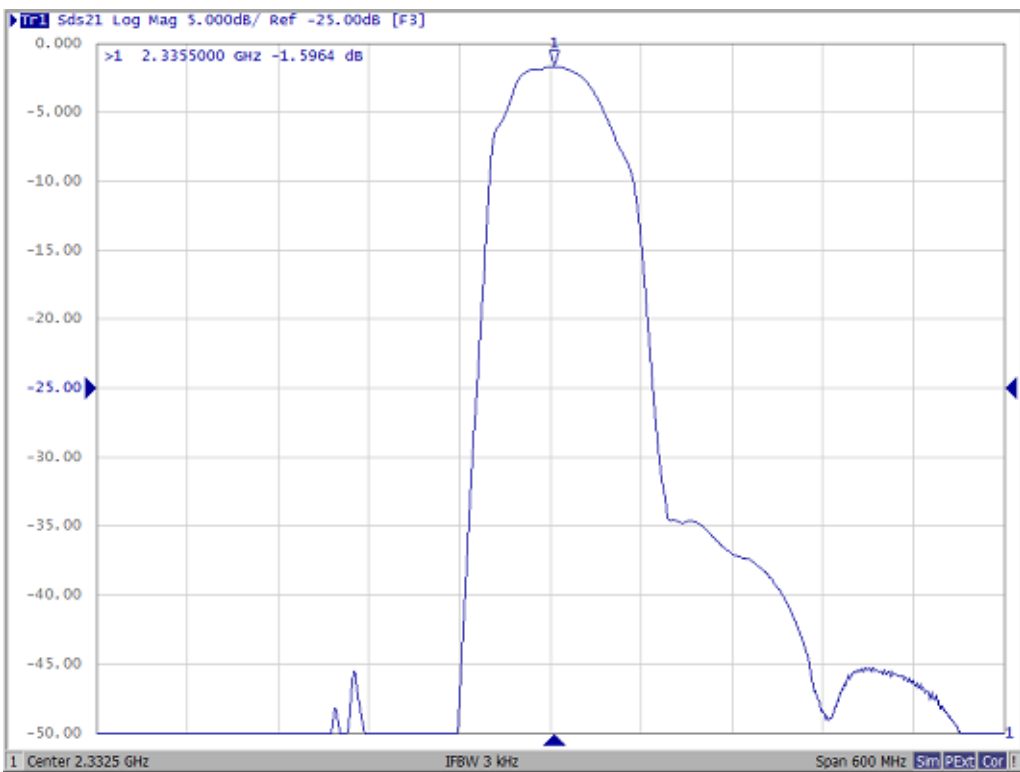
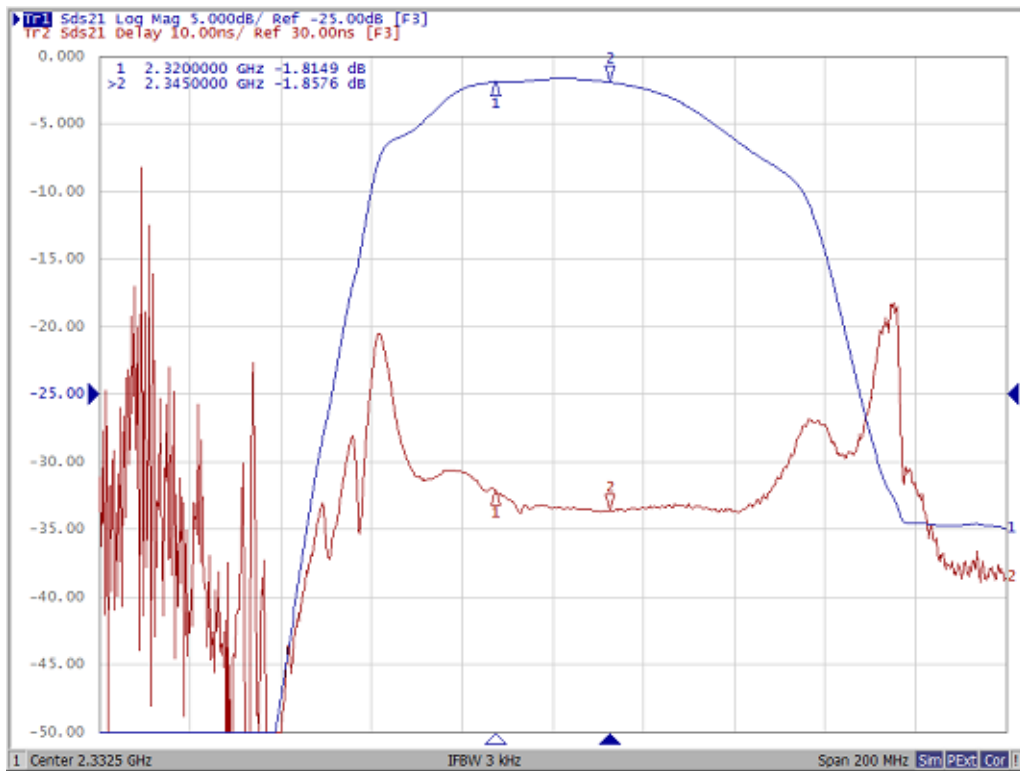
**MEASUREMENT CIRCUIT:**

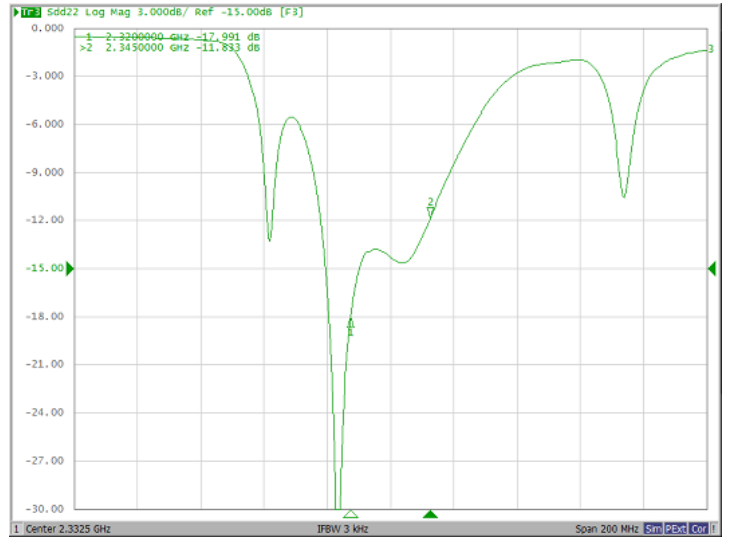
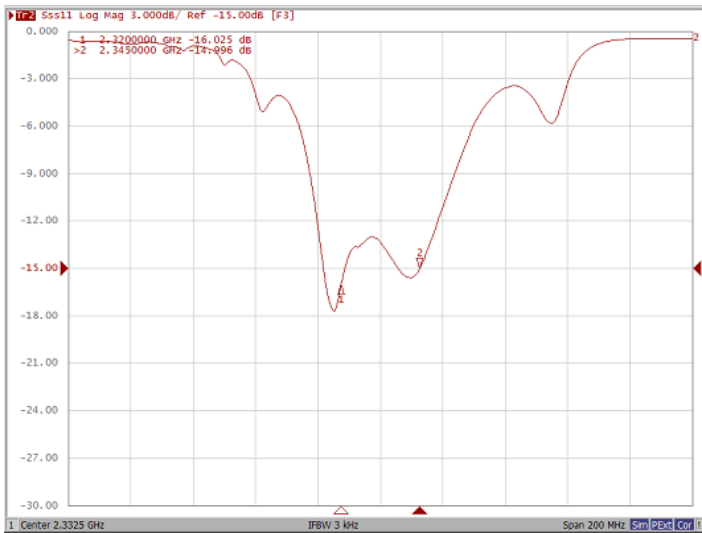
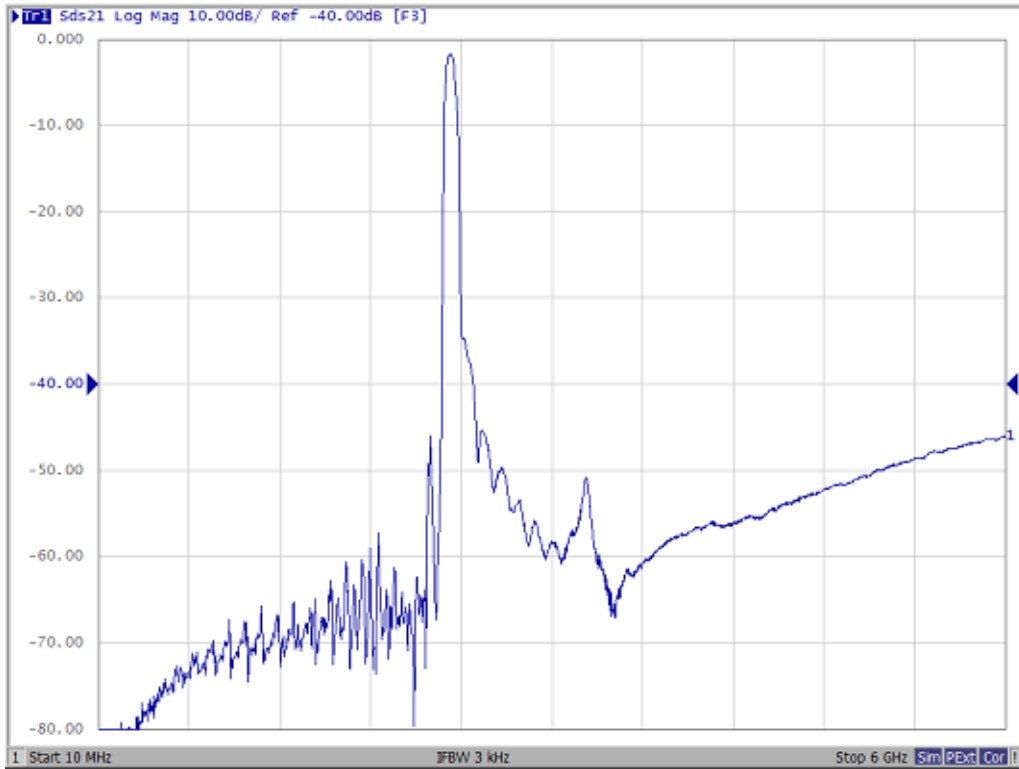


**PCB Footprint:**



# Frequency Characteristics:





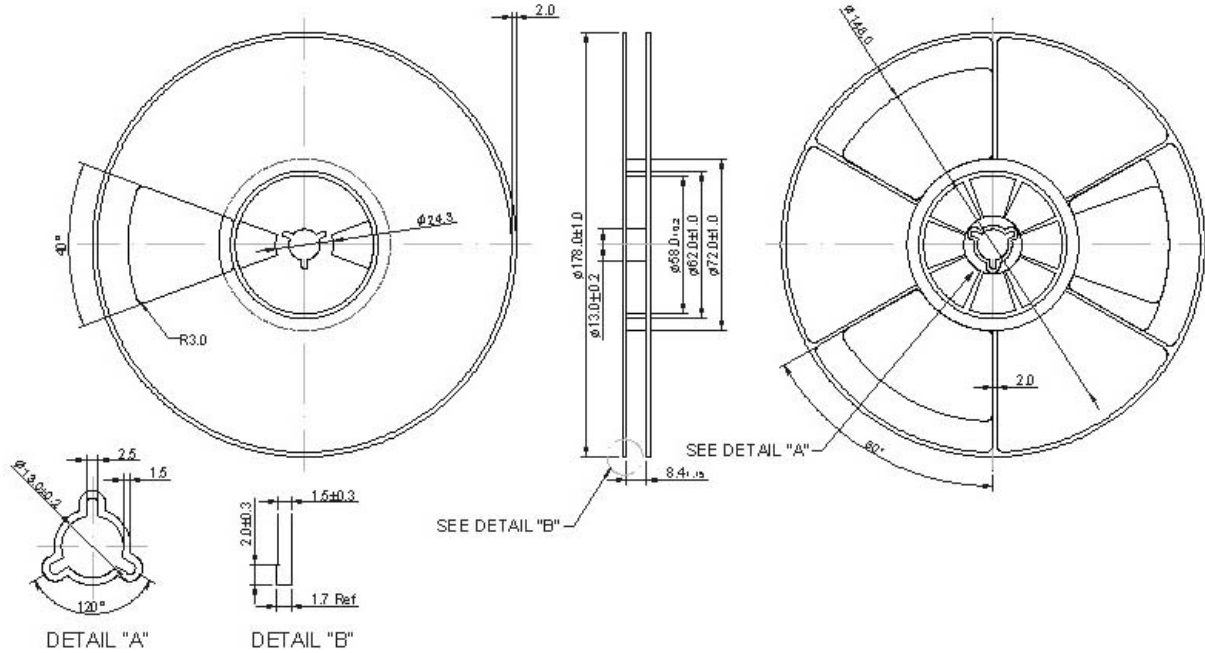
**PACKING:**

**1. REEL DIMENSION**

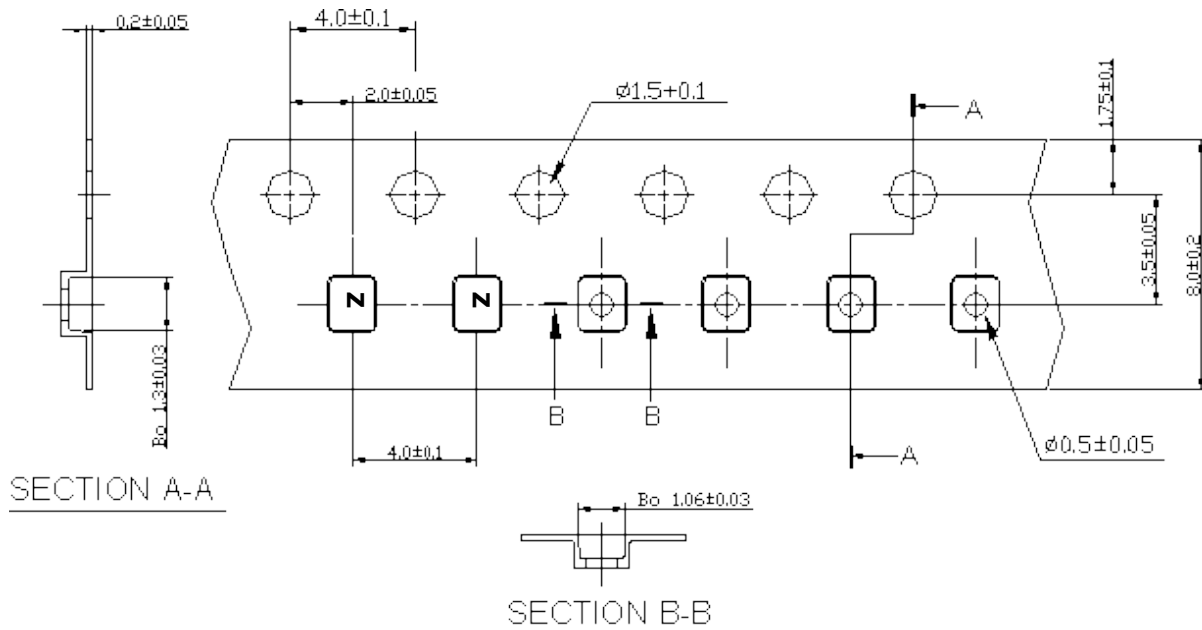
Reel Count:

7" = 3000

13" = 10,000



**2. TAPE DIMENSION**



Direction of Feed



### 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 245~260°C peak (min. 10sec).
4. Time : 2 times.

