

SAW Filter 1900/2017.5MHz 40/15MHz BW Band39/ Band34 SMD1.5X1.1 mm
 MODEL NO.: TE0143A

REV. No.: 1.0

A. MAXIMUM RATING:

1. Input power : 10dBm
2. Maximum DC Voltage: 5V
3. Operating temperature range: -20 °C to +85 °C
4. Storage temperature range: -20 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD 50V(MM) 100V(HBM)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:
 (Filter1)

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss(*1) 1880 ~ 1920 MHz		dB	-	1.5	2.0	
VSWR	Input 1880~ 1920 MHz	-	-	1.7	2.0	
	Output 1880~ 1920 MHz			1.7	2.0	
Attenuation:						
10 ~ 1795 MHz		dB	30	33	-	-
1795 ~ 1820 MHz		dB	25	27	-	-
1820 ~ 1850 MHz		dB	20	25	-	
1820 ~ 1850 MHz		dB	16	25		
1950 ~ 1980 MHz		dB	20	24	-	-
1980 ~ 2025 MHz		dB	20	28	-	-
2025 ~ 2400 MHz		dB	30	34	-	-
2400 ~ 2500 MHz		dB	32	38	-	-
2500 ~ 4900 MHz		dB	20	28	-	-
4900 ~ 6000 MHz		dB	20	26	-	-

(*1) Specification of insertion loss excludes loss that comes from the test board.

(Filter2)

Parameters Description		Unit	Minimum	Typical	Maximum	Note	
Insertion Loss(*1)		2010 ~ 2025 MHz	dB	-	1.8	2.5	
VSWR	Input	2010 ~ 2025 MHz	-	-	1.4	2.0	
	Output		-	-	1.4	2.0	
Attenuation:							
1 ~ 1925 MHz		dB	30	36	-	-	
1925 ~ 1980 MHz		dB	20	26	-	-	
2050 ~ 2085 MHz		dB	8	14	-	-	
2085 ~ 2110 MHz		dB	25	27	-		
2110 ~ 2400 MHz		dB	27	34	-	-	
2400 ~ 2500 MHz		dB	40	45	-	-	
2500 ~ 4900 MHz		dB	30	36	-	-	
4900 ~ 6000 MHz		dB	30	35	-	-	

(*1) Specification of insertion loss excludes loss that comes from the test board.

C. Frequency Characteristics:

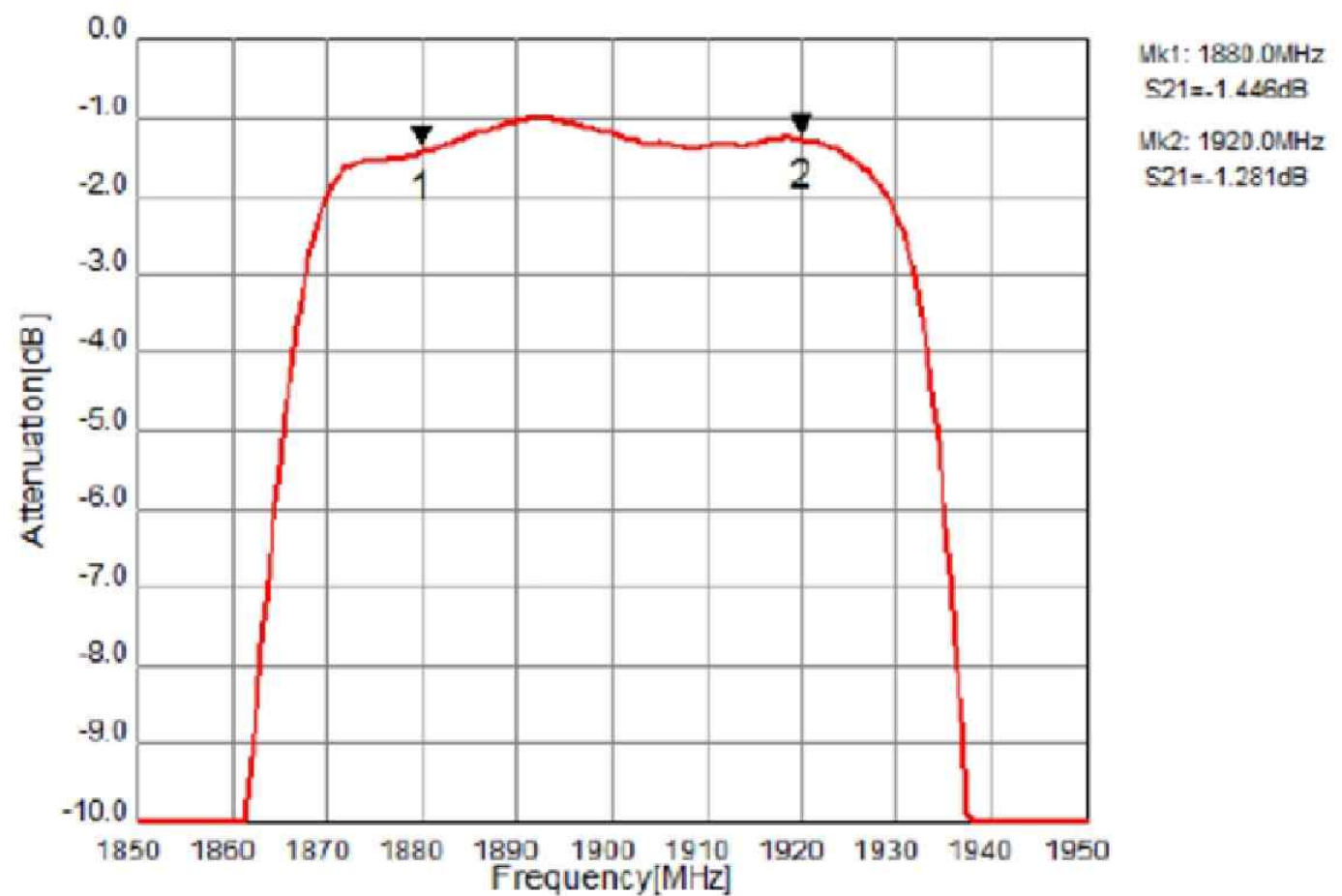
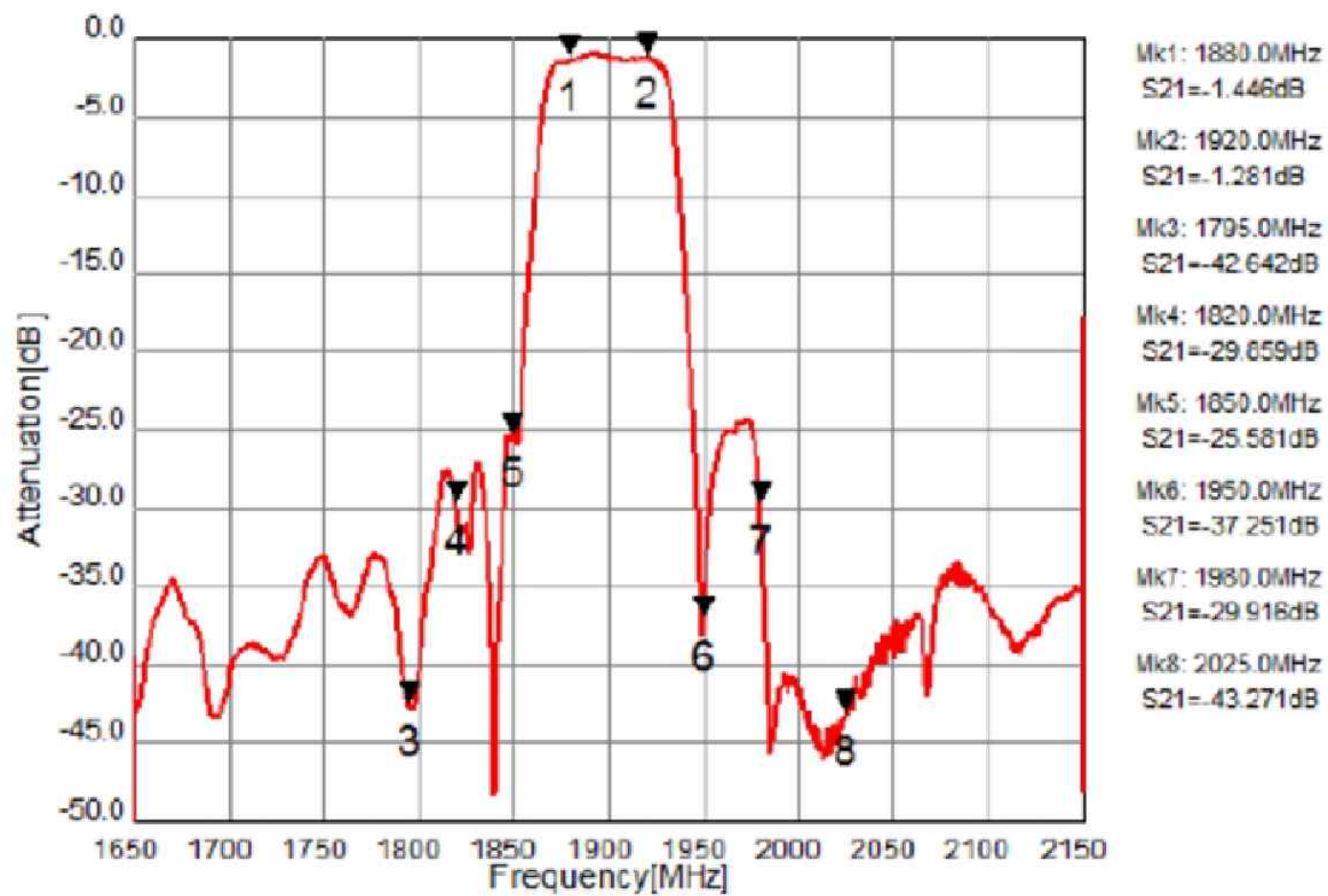


Fig.2 In-band Characteristics (Filter1)

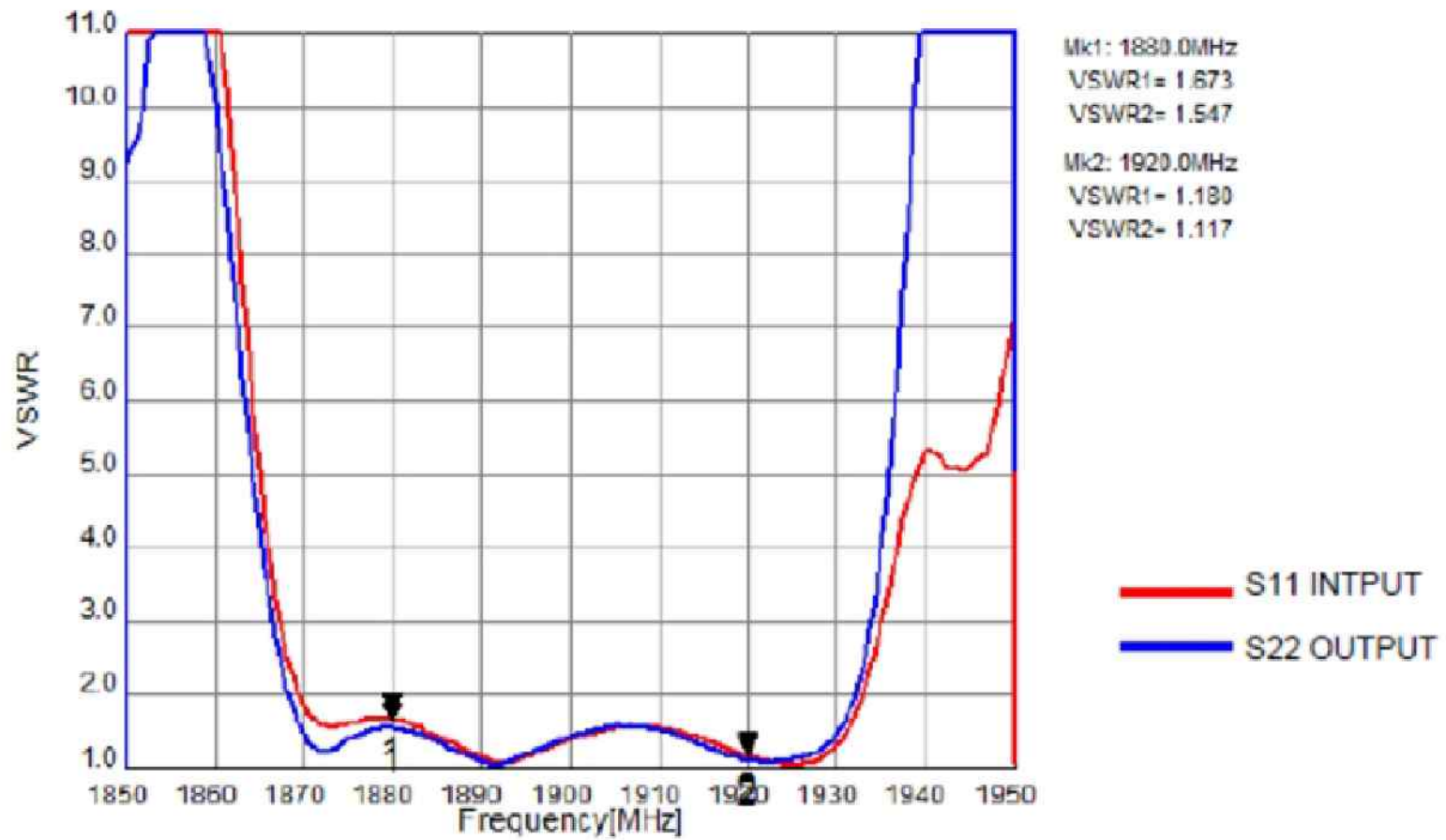


Fig. 3 VSWR (Filter1)

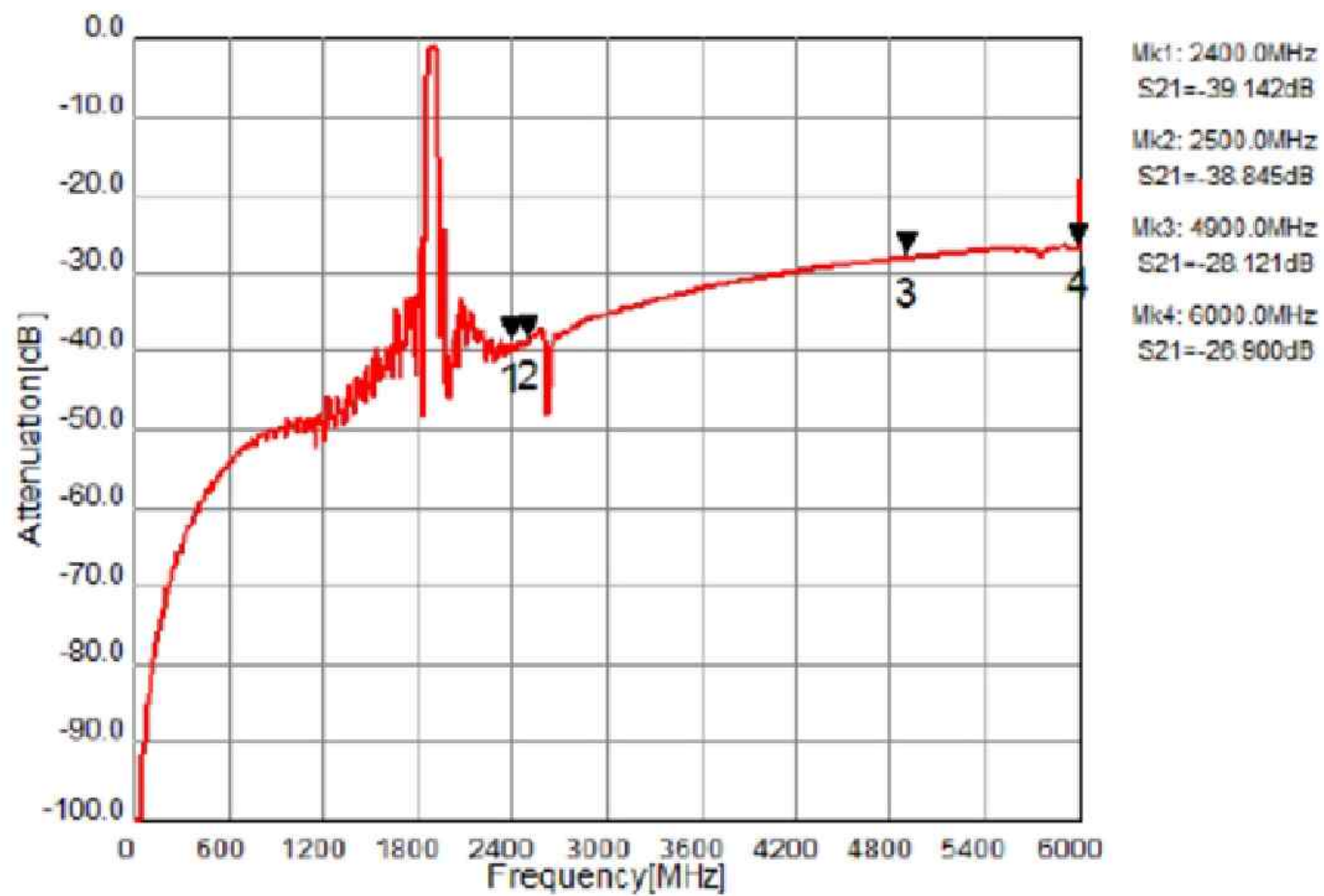


Fig.4 Wide-band Characteristic (Filter1)

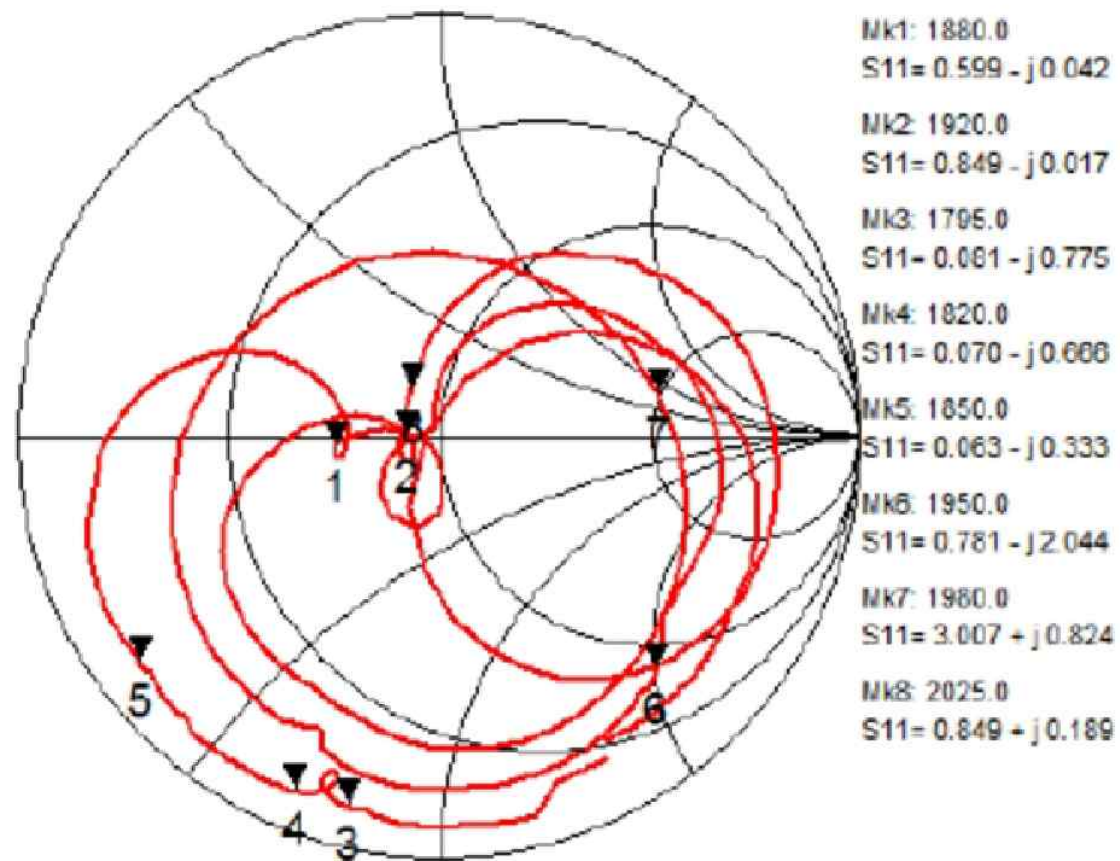


Fig.5 Impedance (INPUT) (Filter1)

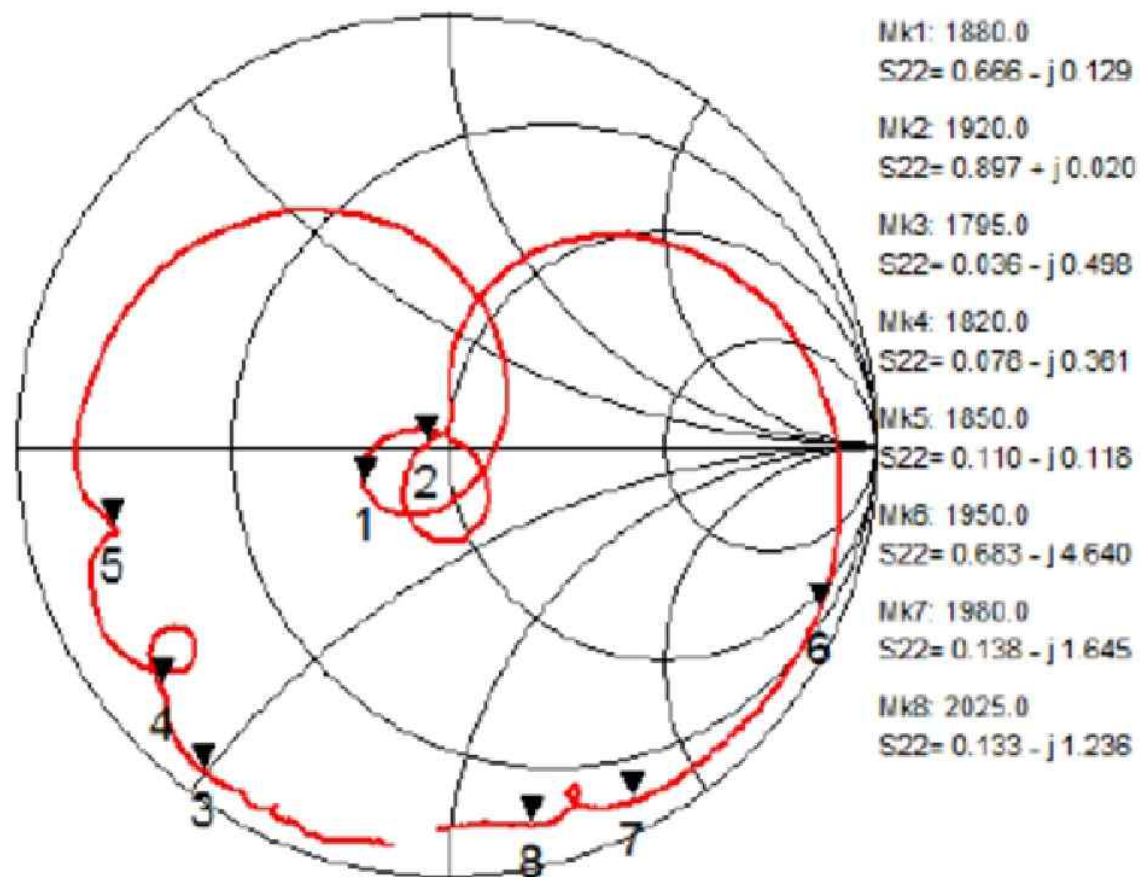


Fig.6 Impedance (OUTPUT) (Filter1)

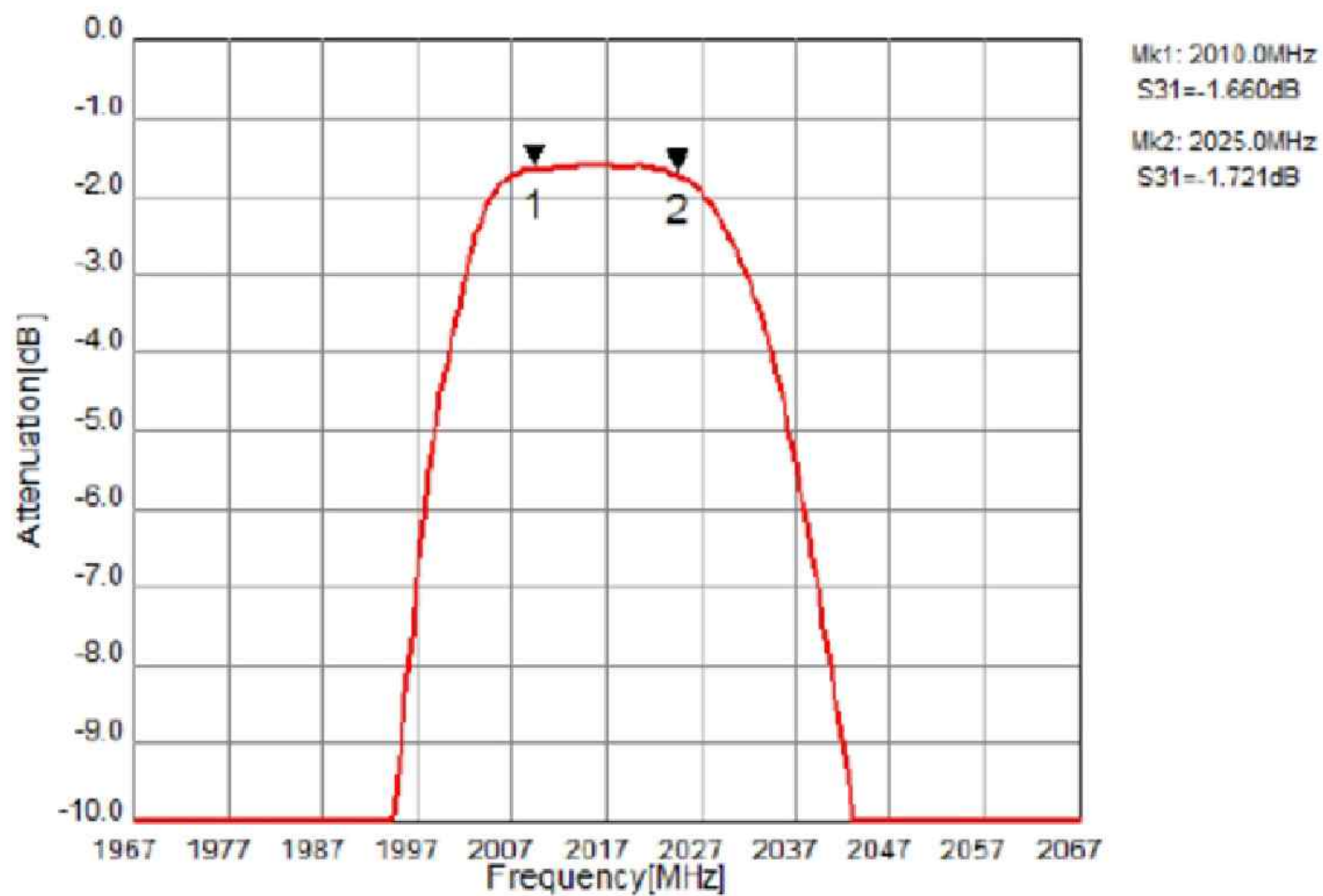
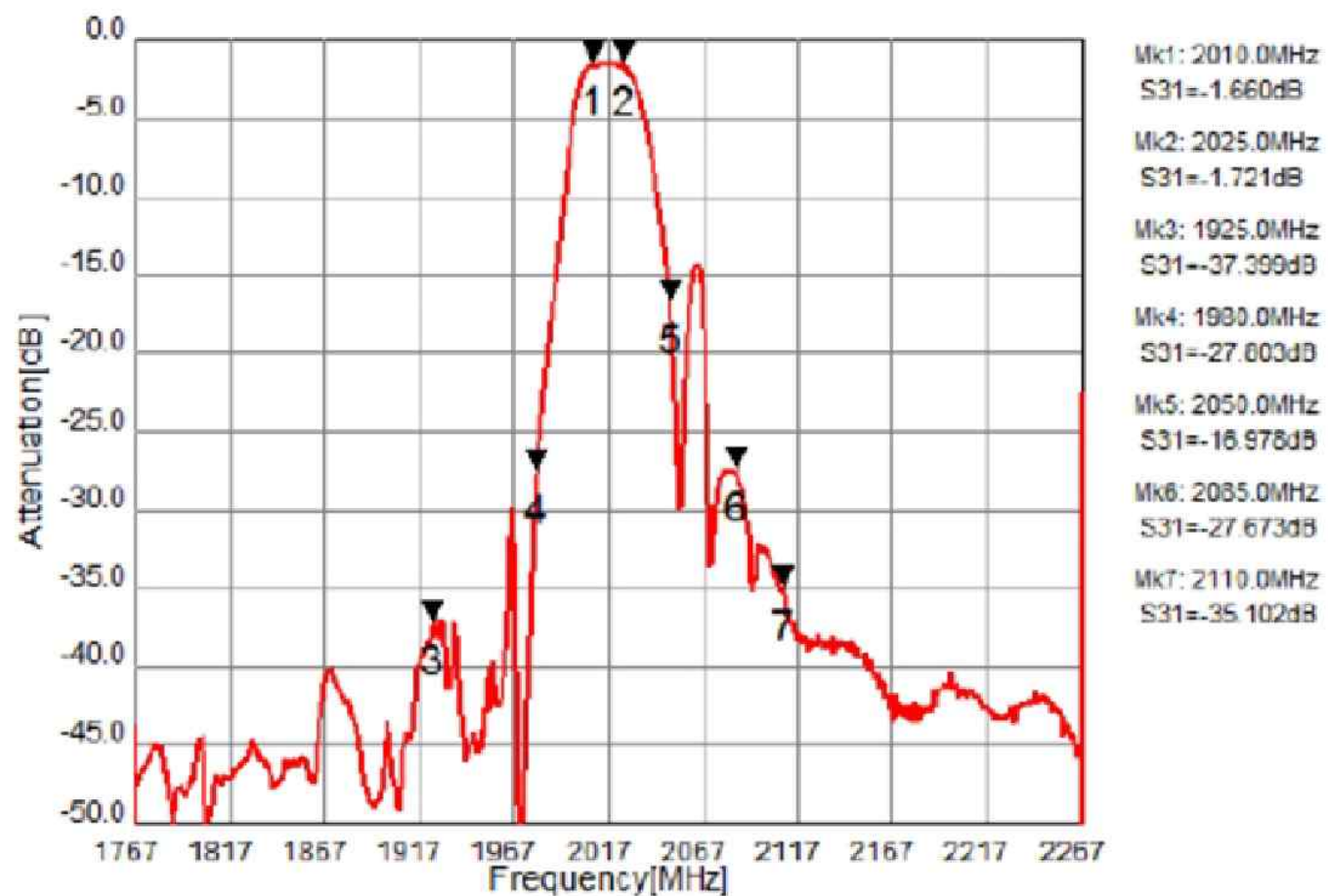


Fig.8 In-band Characteristics (Filter2)

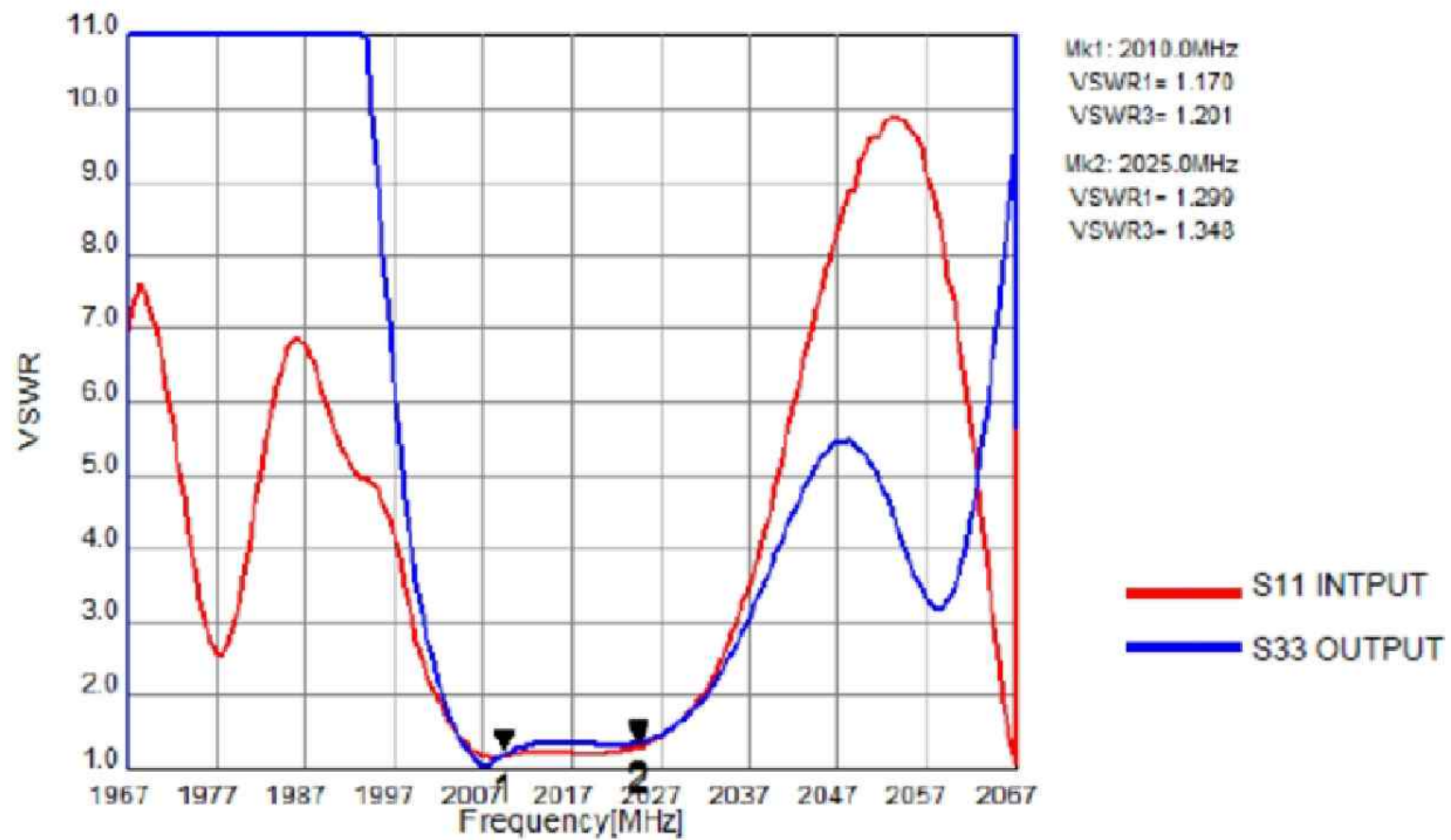


Fig.9 VSWR (Filter2)

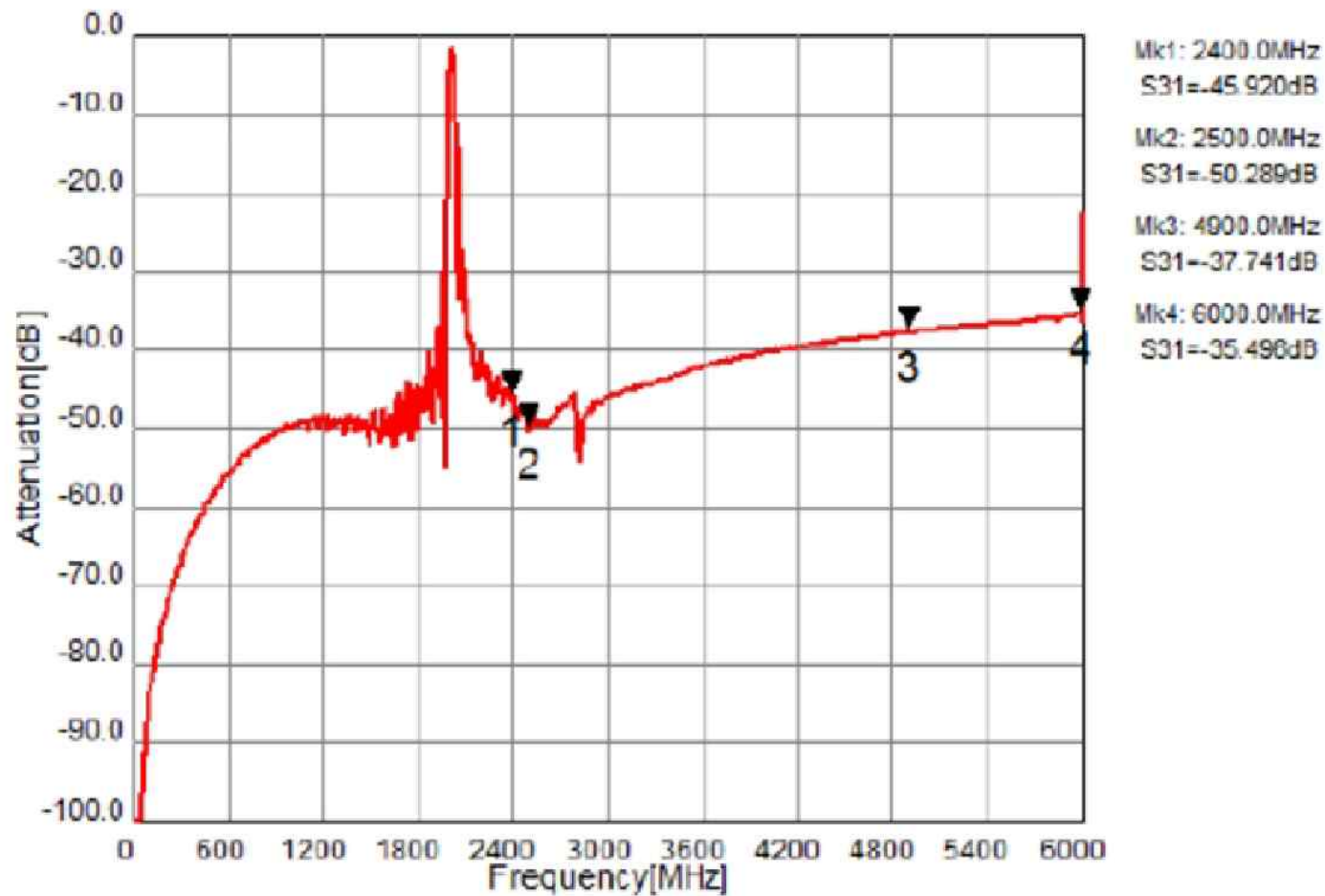


Fig.10 Wide-band Characteristic (Filter2)

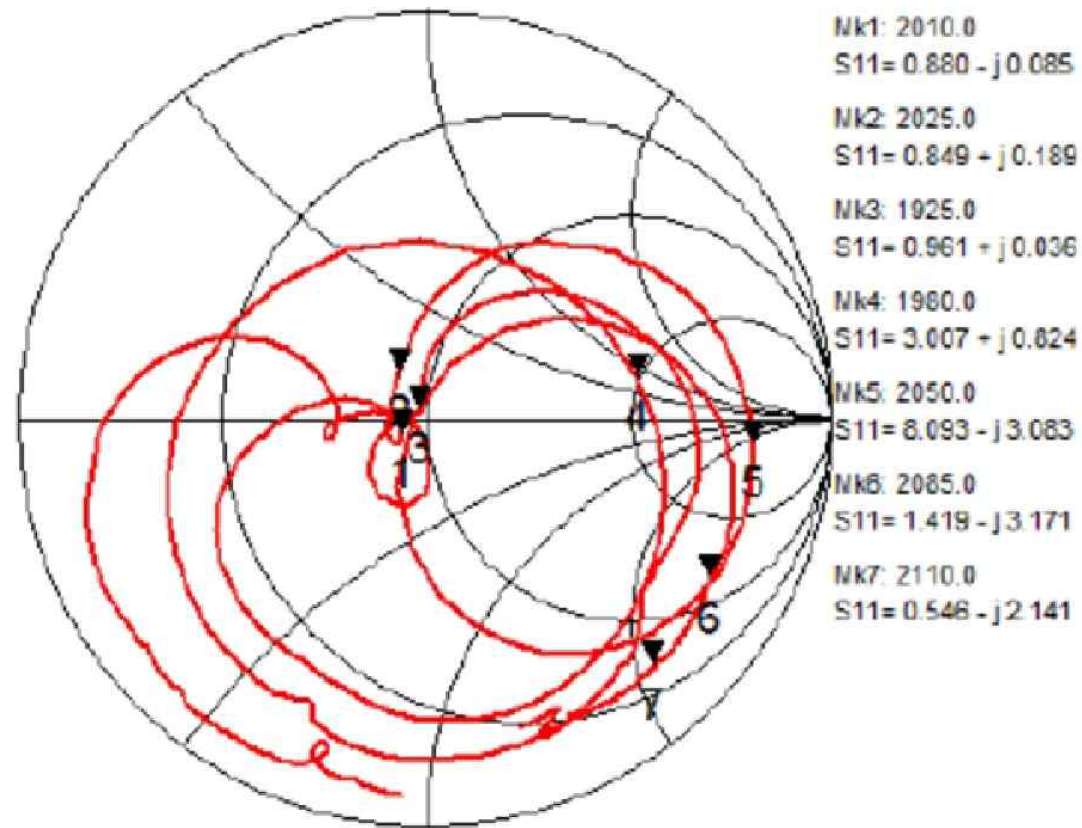


Fig.11 Impedance (INPUT) (Filter1)

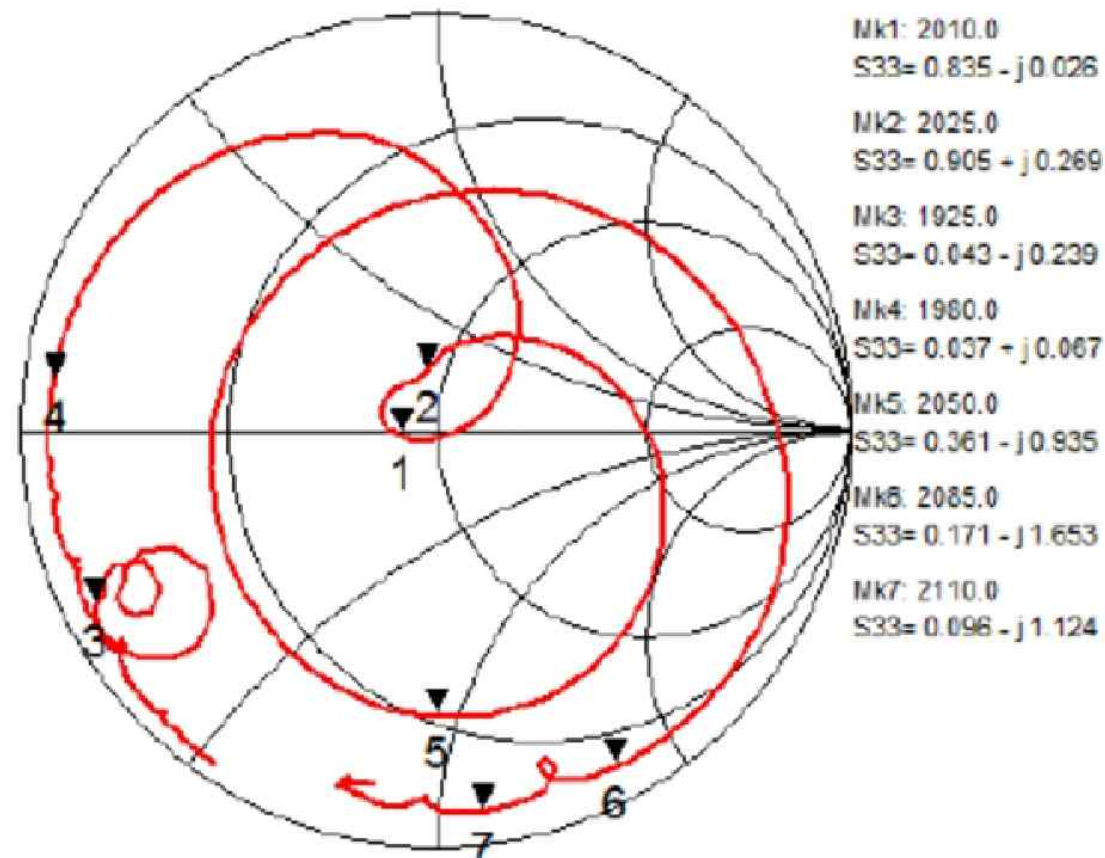
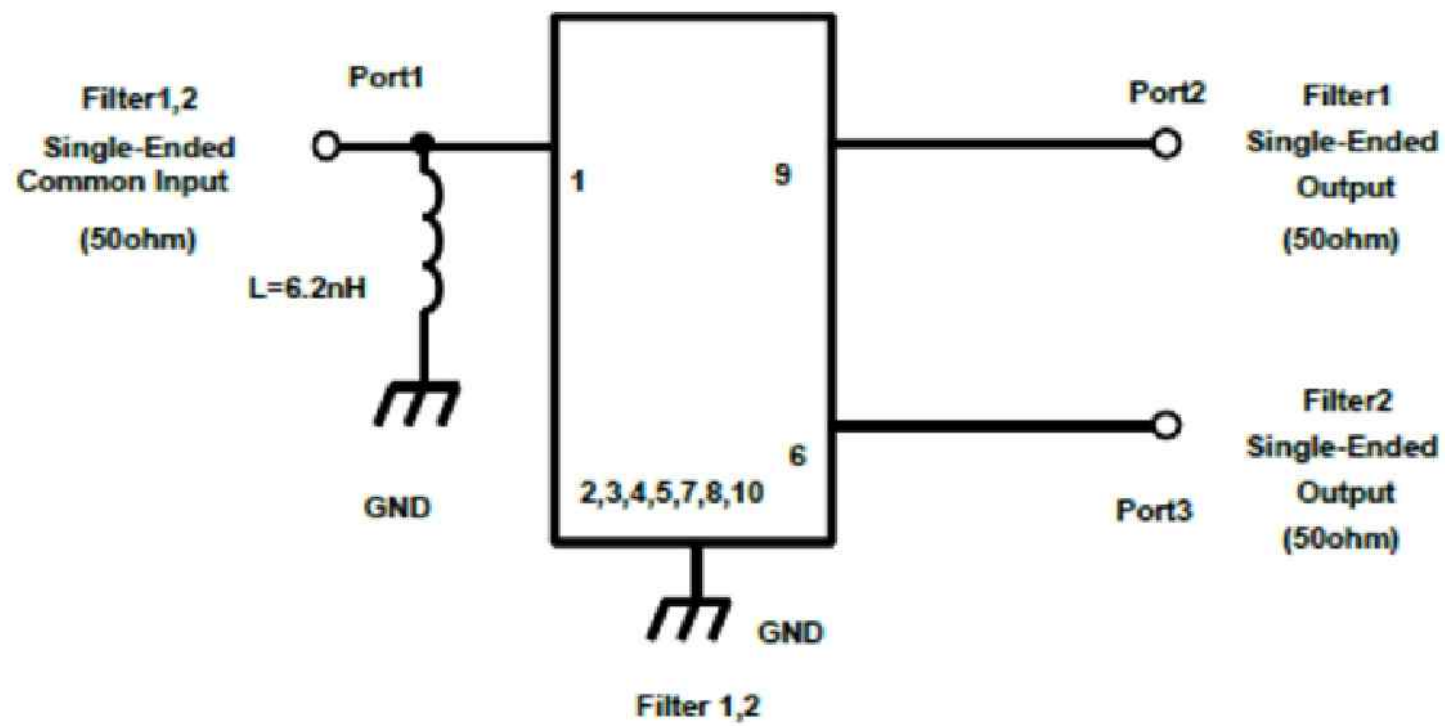
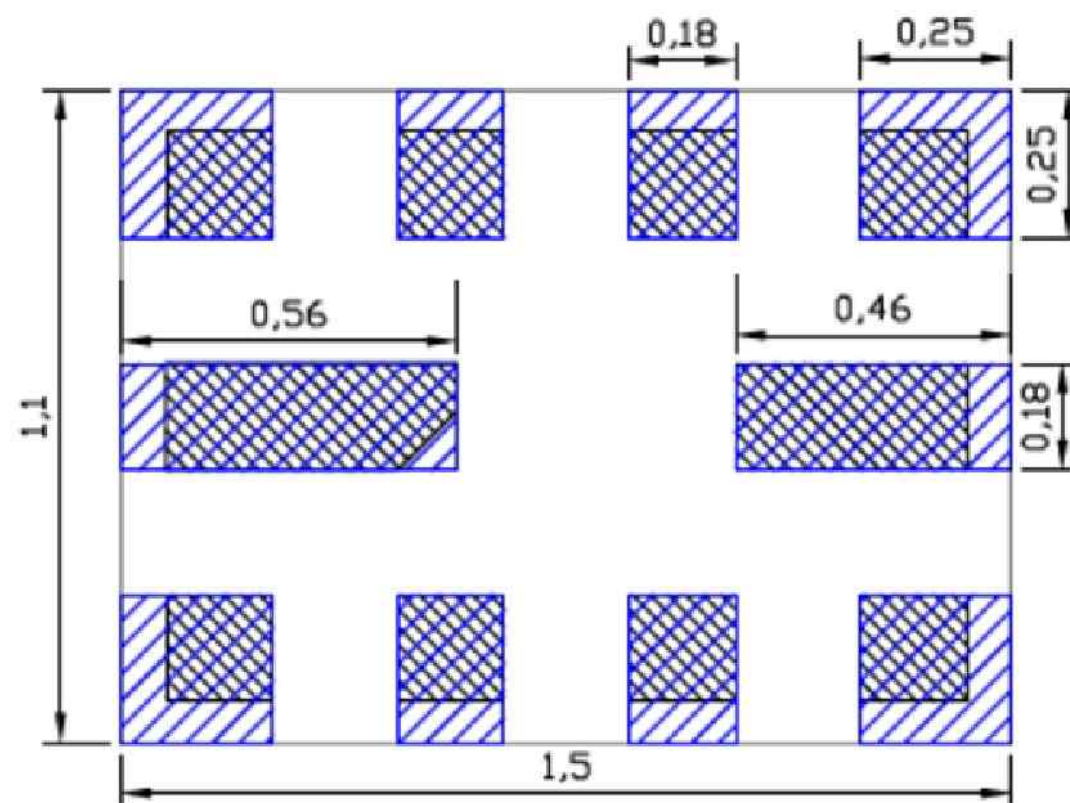


Fig.12 Impedance (OUTPUT) (Filter2)

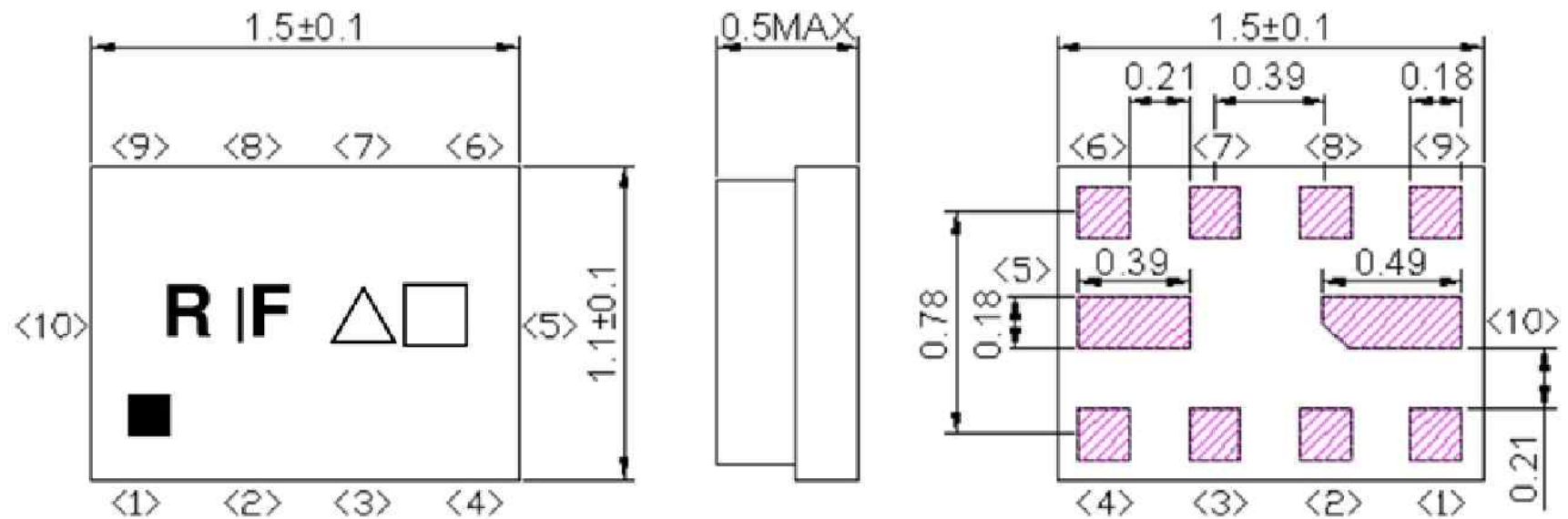
D. MEASUREMENT CIRCUIT:



D. FOOTPRINT:



E. OUTLINE DRAWING:



Not Specified Tolerance : +/-0.10 mm

Coplanarity : 0.1 mm max.

A to H : Pin No.

Unit : mm

Marking name : **RF**

△: Date code(2016 May → s ,....., 2019 Dec→m.)

□: Lot Code.

Product Date Code. Follow below table.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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
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

Pin Configuration

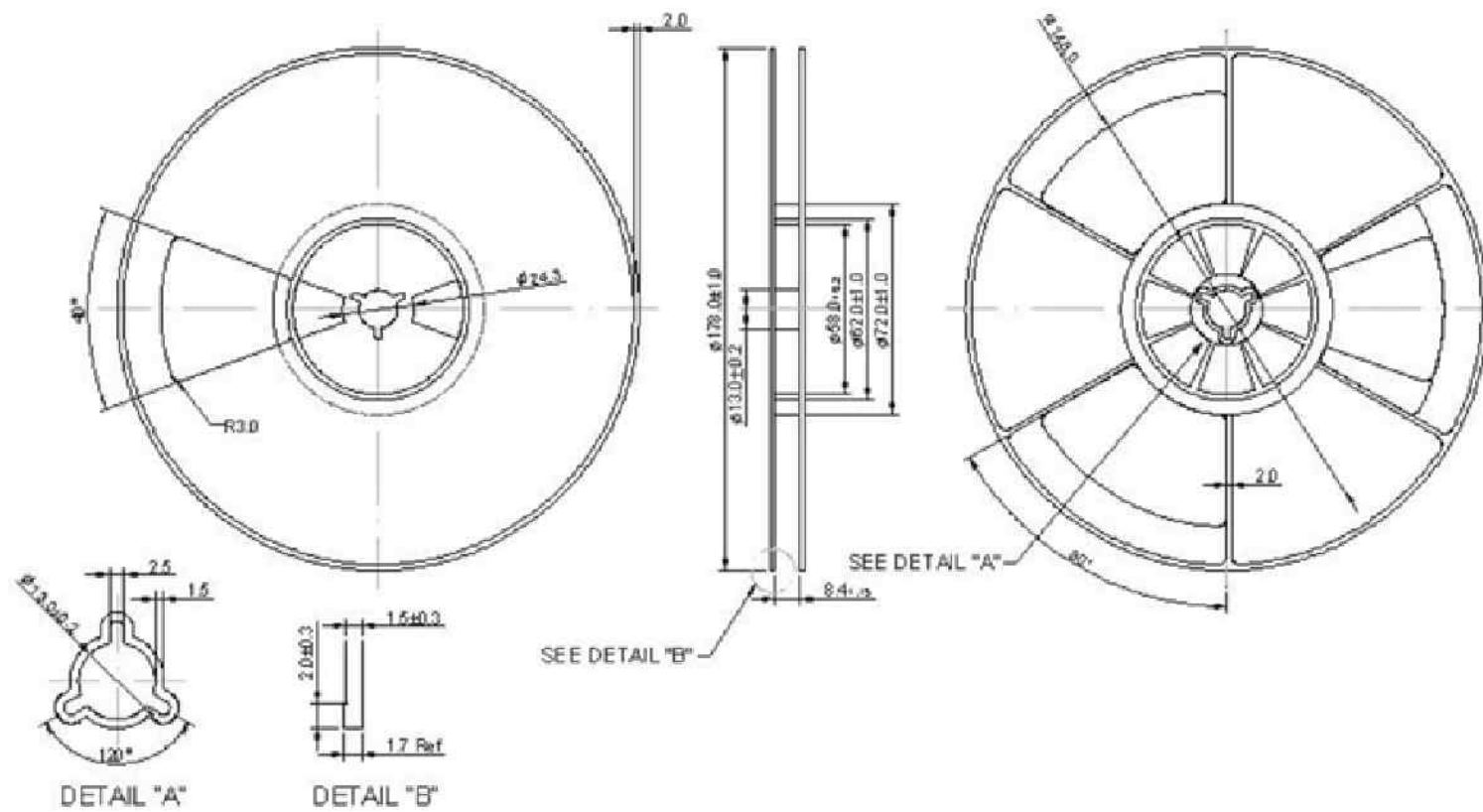
Pin No.	Pin name	Description
1	IN	Filter1,2 input pin
2	GND	Ground
3	GND	Ground
4	GND	Ground
5	GND	Ground
6	OUT	Filter2 output pin
7	GND	Ground
8	GND	Ground
9	OUT	Filter1 output pin
10	GND	Ground

Filter No.	Passband(MHz)	System
1	1880 ~ 1920	Band39
2	2010 ~ 2025	Band34

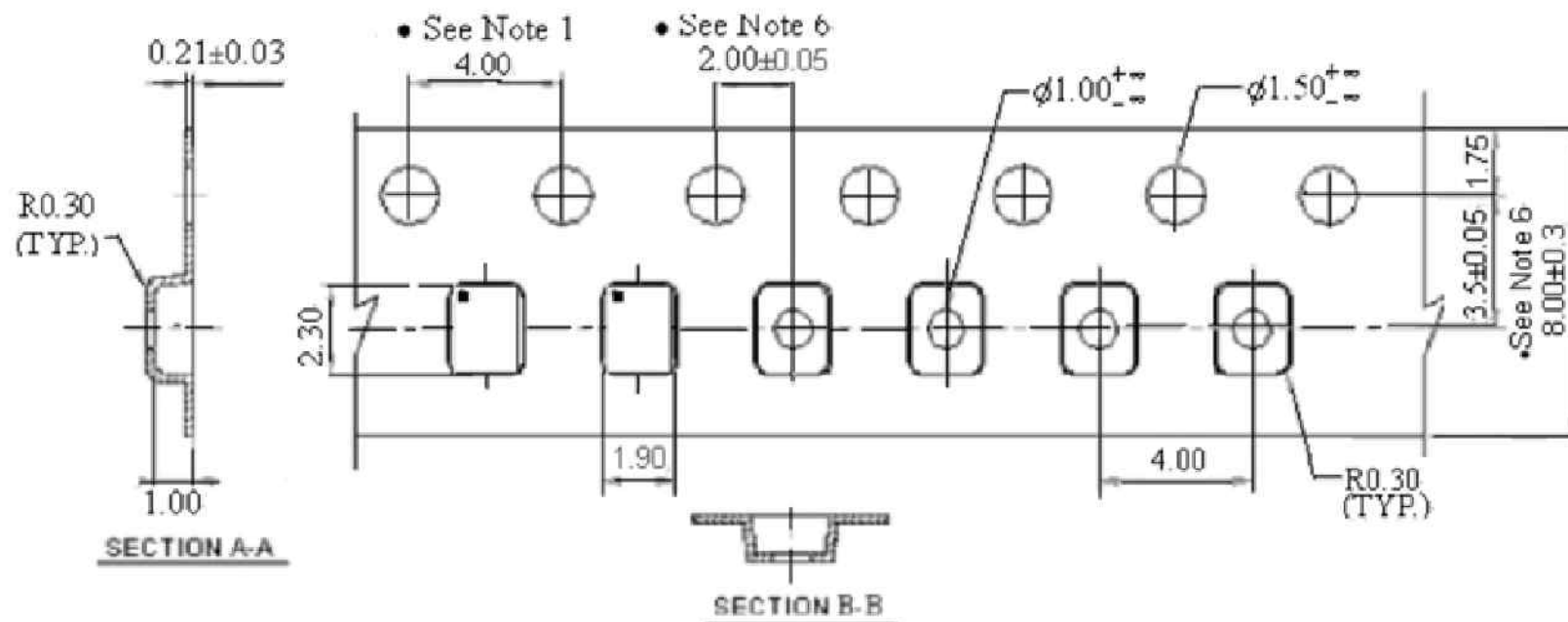
F. PACKING:

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



G. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at $150\sim 180^{\circ}\text{C}$ 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 $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ peak (20~40sec).
4. Time: 2 times.

