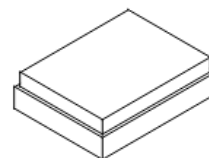


SF2599NA

**847/806 MHz
Filter Duplexer**



SM1814

MAXIMUM RATING:

- Input power : 29dBm (Ta=+50deg C,50000h,CW)
- Maximum DC Voltage: +/-5 V
- Operating temperature range: -40 °C to +85 °C
- Storage temperature range: -55 °C to +125 °C
- Moisture Sensitivity Level: Level 1 (MSL 1)
- ESD 100V(MM) 200V(HBM)
- AEC-Q200 Qualified

ELECTRICAL CHARACTERISTICS:

Terminating impedance(Tx Port): 50 Ω (Single-ended)

Terminating impedance(Rx Port): 50 Ω (Single-ended)

Terminating impedance(Ant Port): 50//10nH Ω (Single-ended)

Tx to ANT

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss	832.25~ 861.75 MHz	dB(*1)	-	1.8	2.5	
Ripple	832~ 862 MHz	dB	-	1.0	1.8	
VSWR	ANT	-	-	1.6	2.0	
	Tx	-	-	1.7	2.0	
Attenuation:						
791.25 ~ 820.75 MHz		dB	45	54	-	-
1565 ~ 1606 MHz		dB	45	57	-	-
1664 ~ 1724 MHz		dB	40	55	-	-
2400 ~ 2586 MHz		dB	35	44	-	-



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.

ANT to Rx

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss	791.25 ~ 820.75 MHz	dB(*1)	-	1.8	3.0	
Ripple)	791~ 821 MHz	dB	-	0.9	2.3	
VSWR	ANT	-	-	1.7	2.3	
	Rx	-	-	1.8	2.2	
Attenuation:						
832.25 ~ 861.75 MHz		dB	45	53	-	-
1623 ~ 1683 MHz		dB	35	47	-	-
2400 ~ 2545 MHz		dB	30	43		

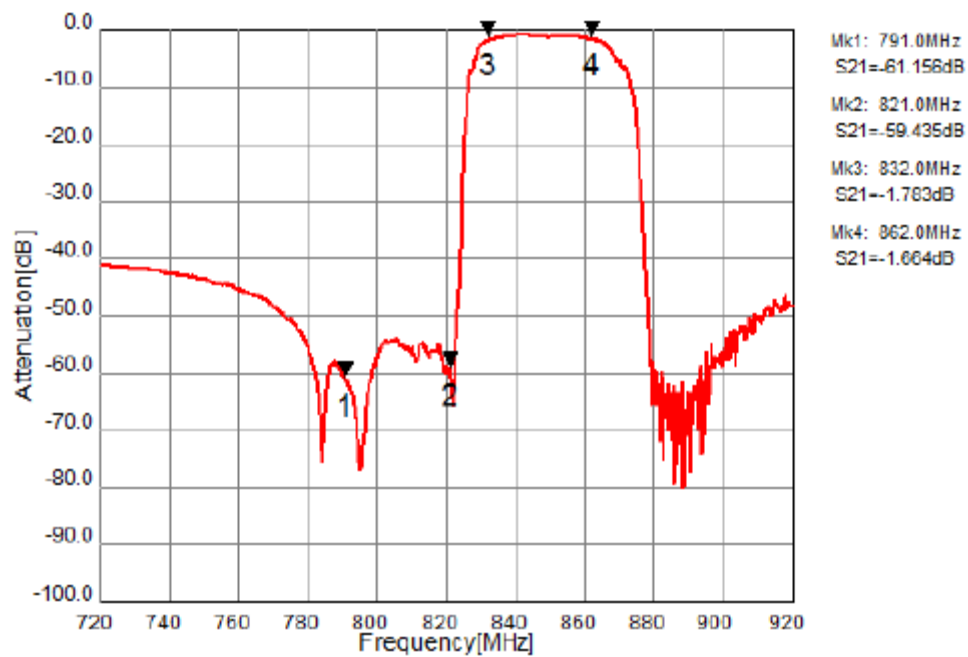
Tx to Rx

Isolation	832.25 ~ 861.75 MHz	dB	50	55	-	
	791.25 ~ 820.75 MHz	dB	53	56	-	

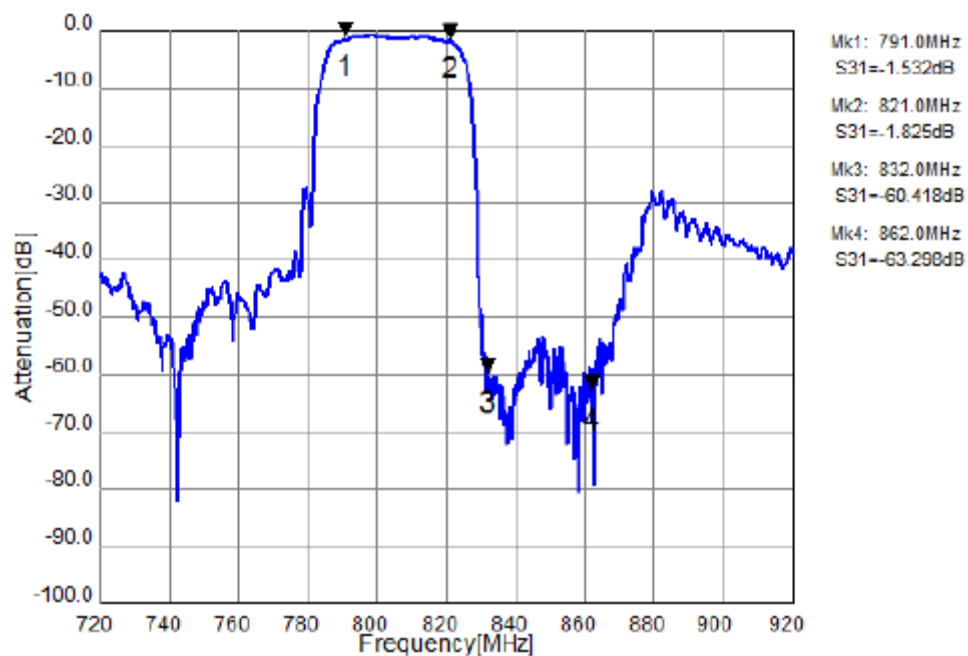
(*1) Specification of insertion loss excludes loss that comes from the test board.

Frequency Characteristics:

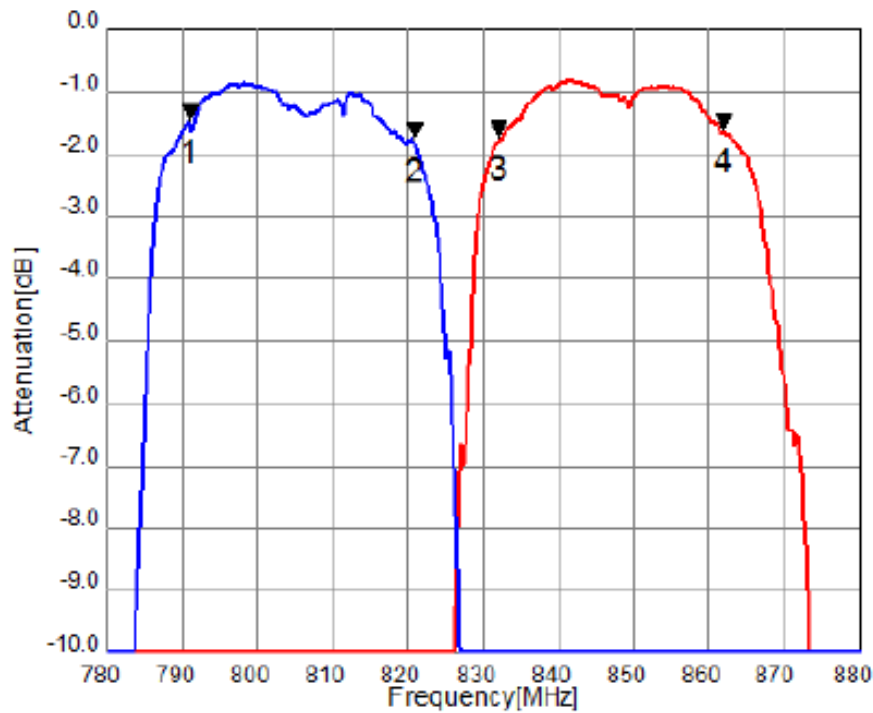
Tx to Ant



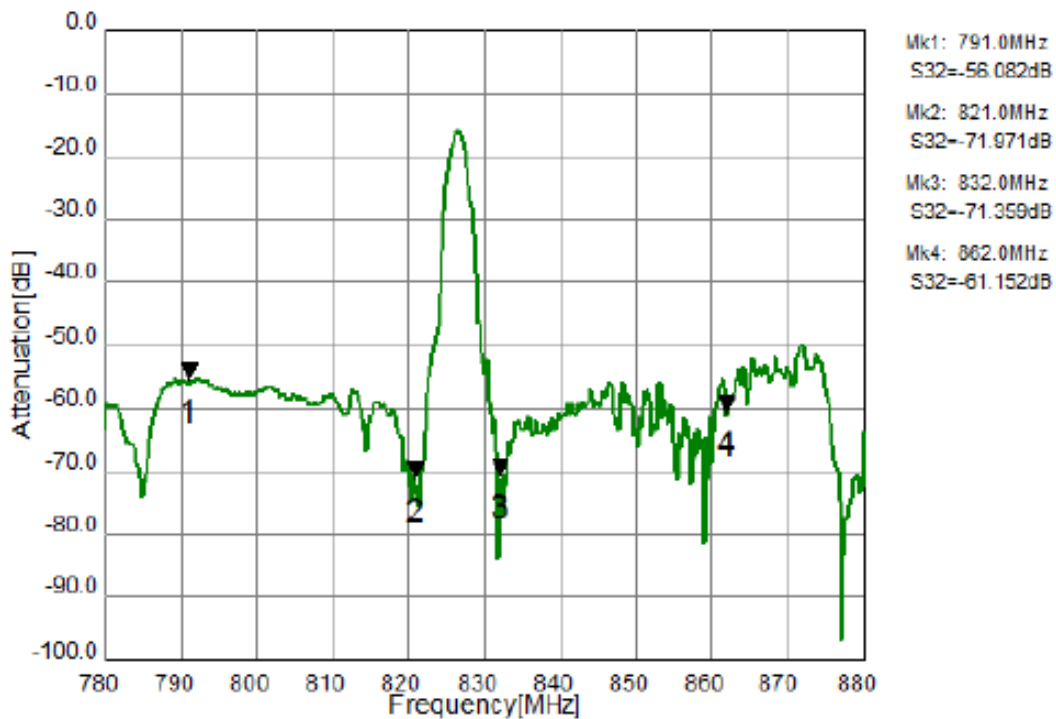
Ant to Rx



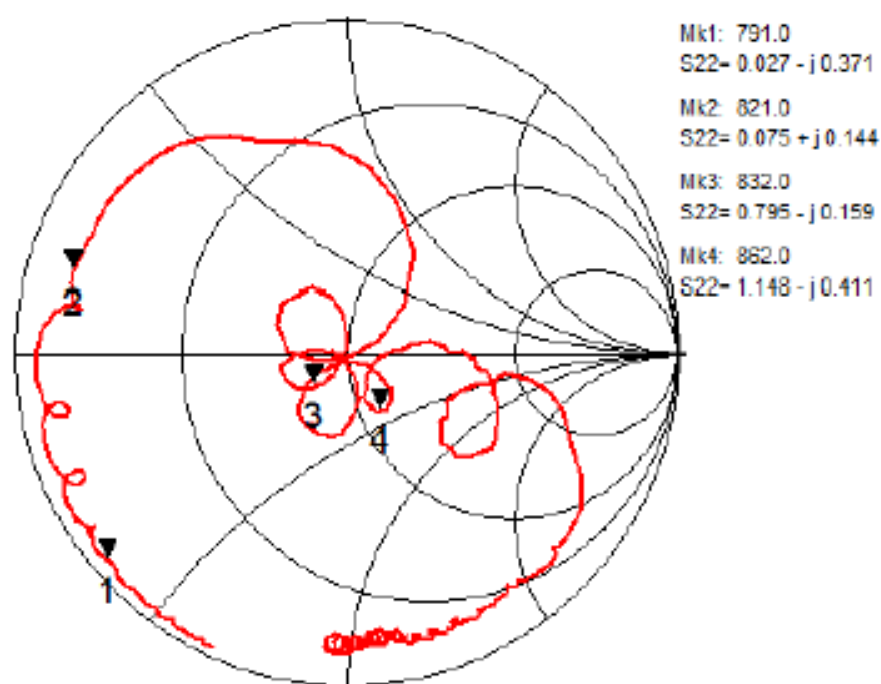
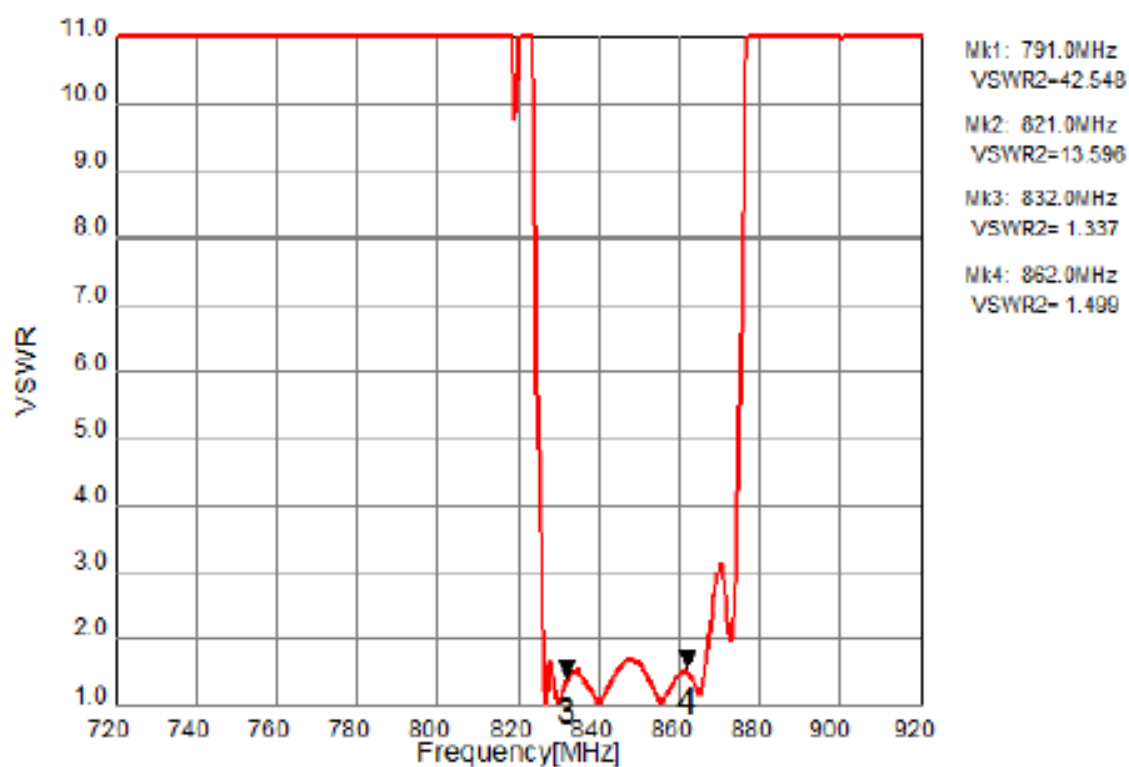
Ant to Rx, Tx to Ant



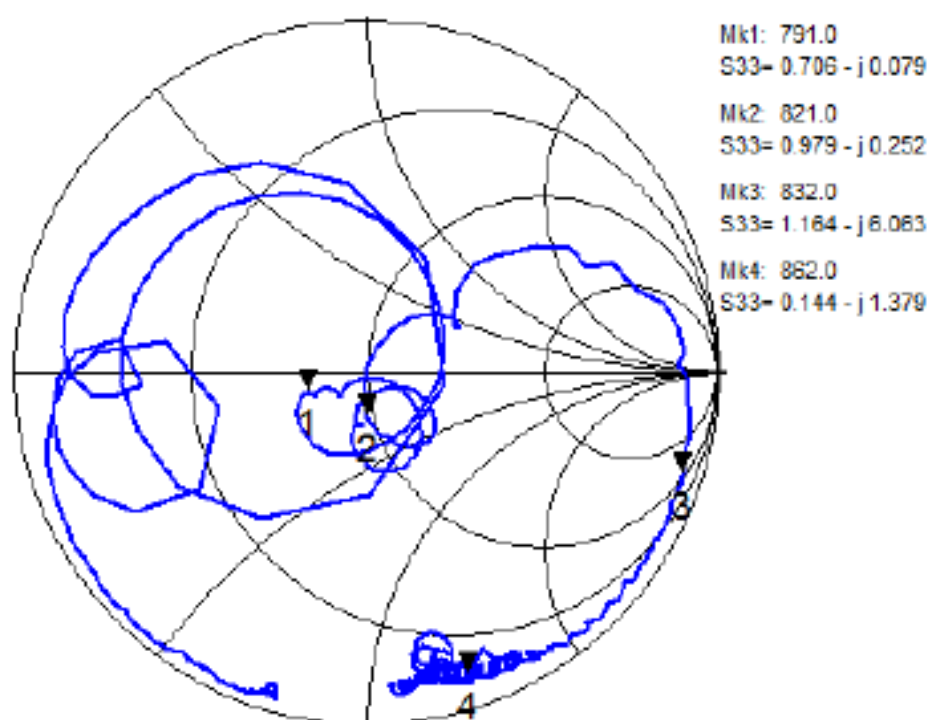
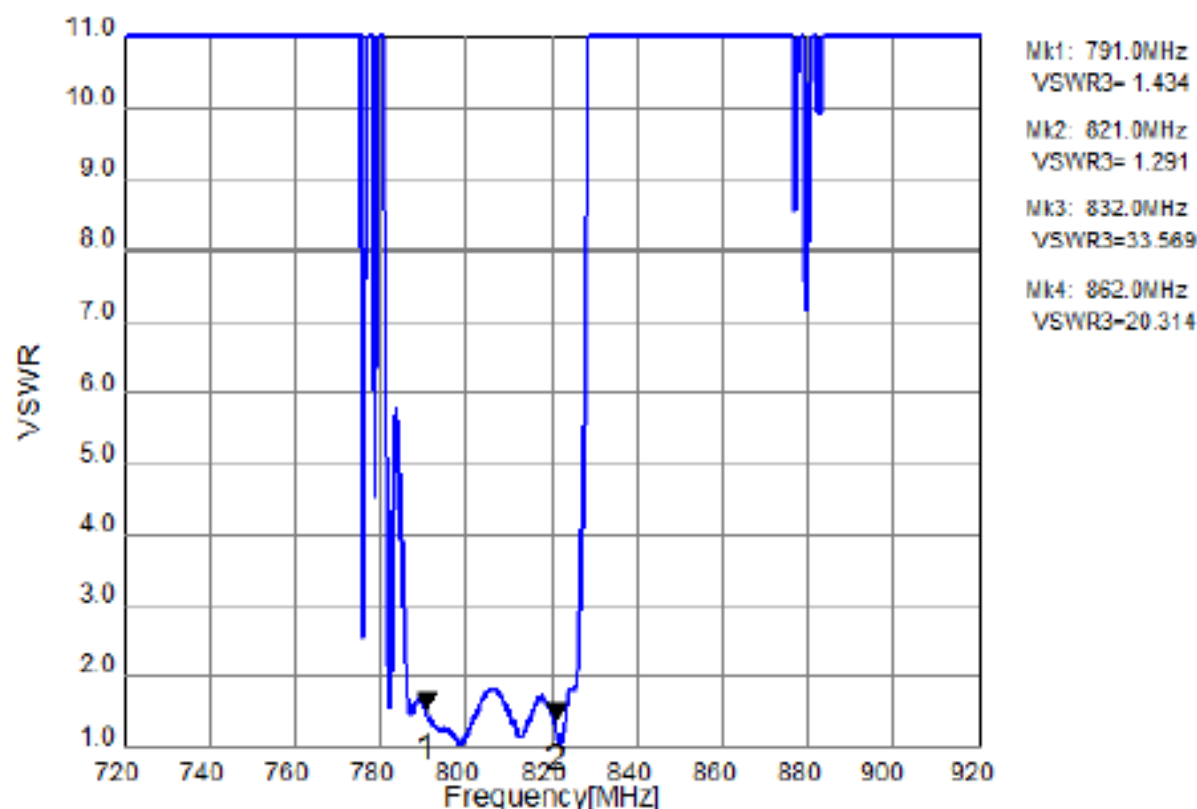
Tx to Rx Isolation



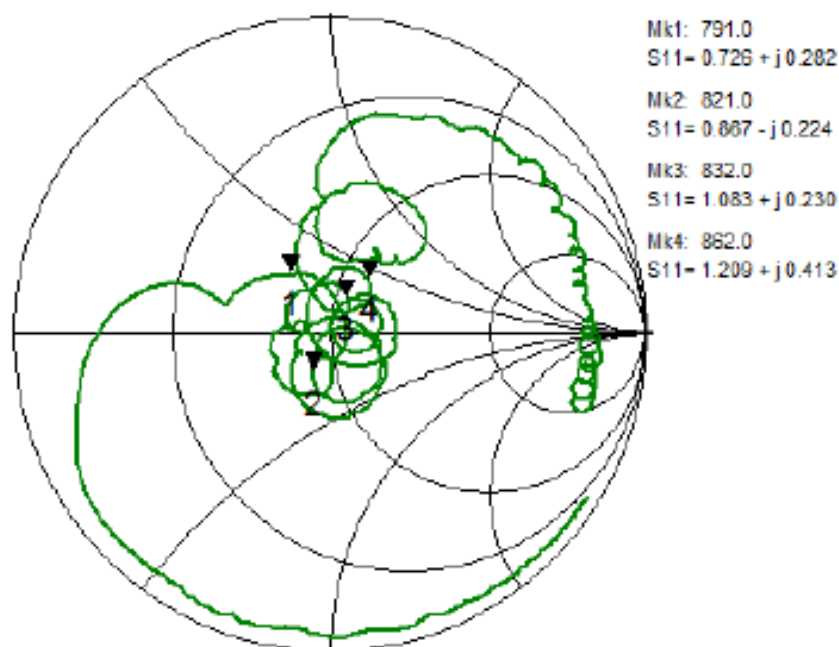
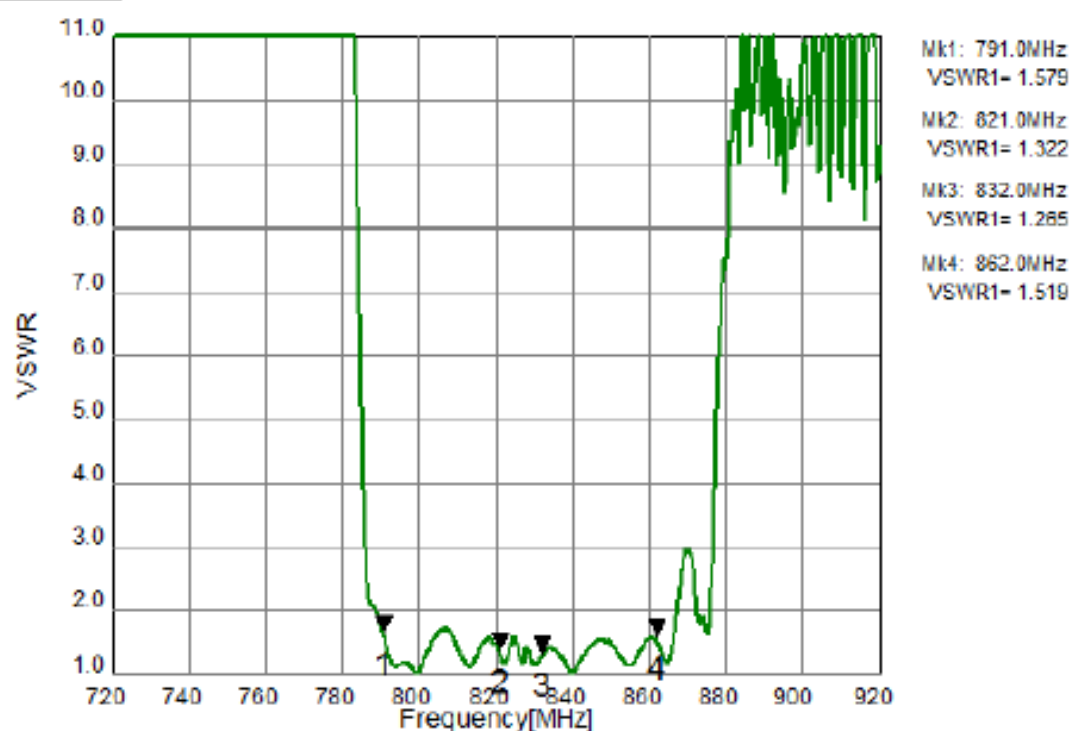
Tx Port



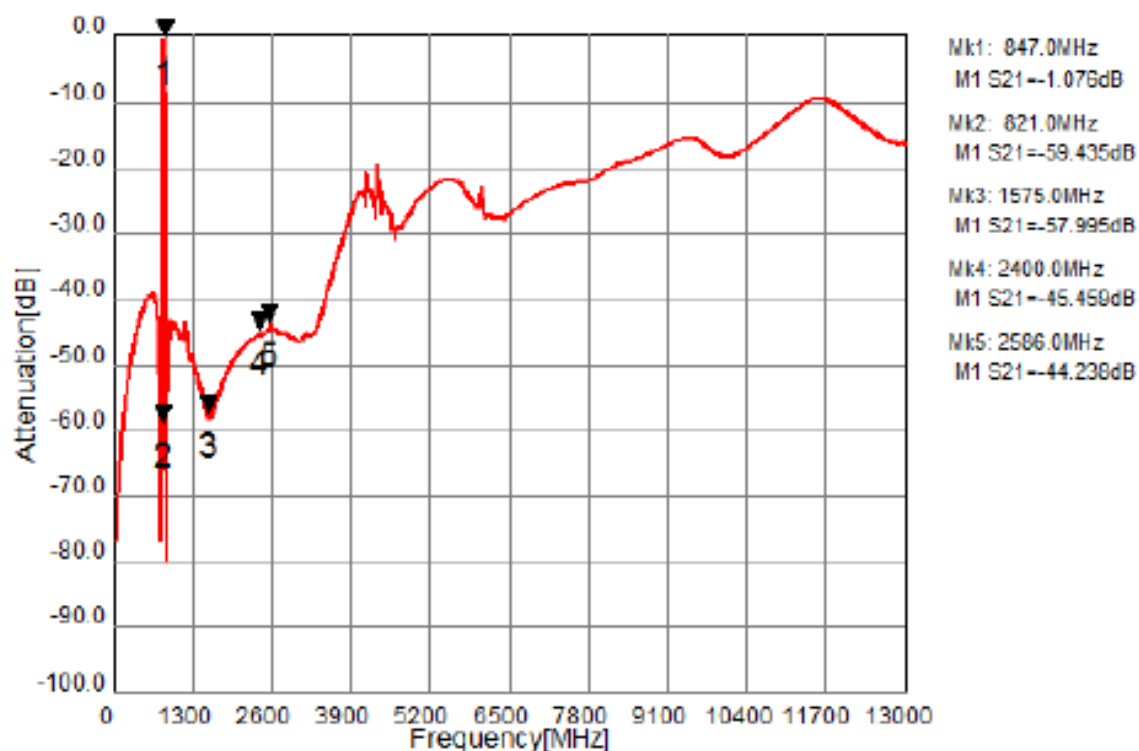
Rx Port



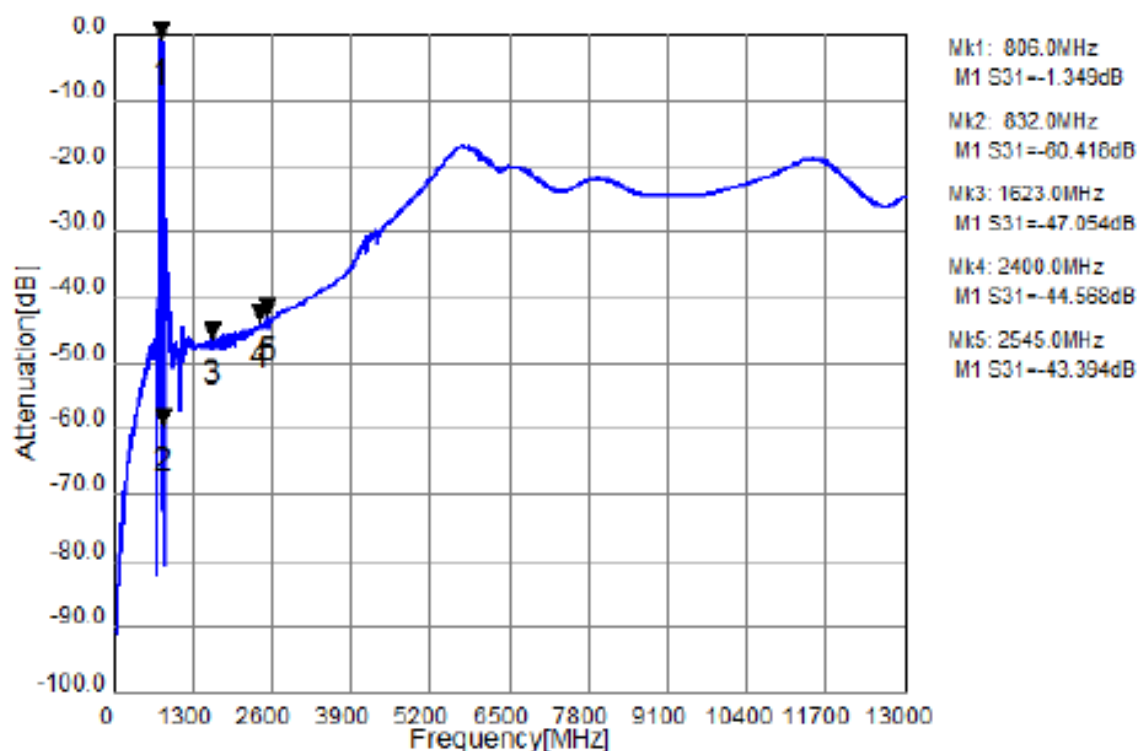
Ant Port



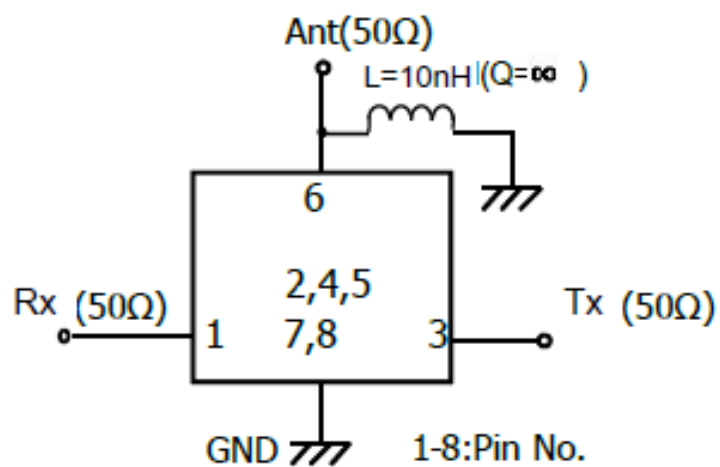
Tx to Ant (Wide span)



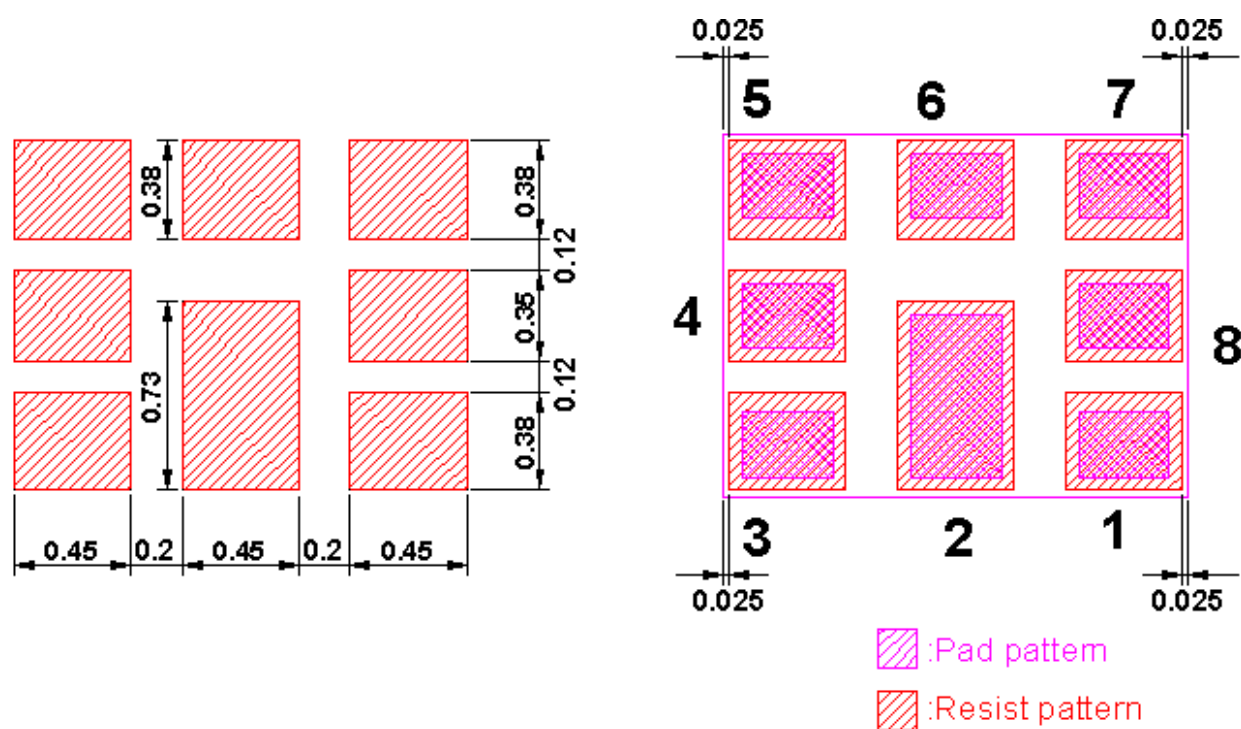
Ant to Rx (Wide span)



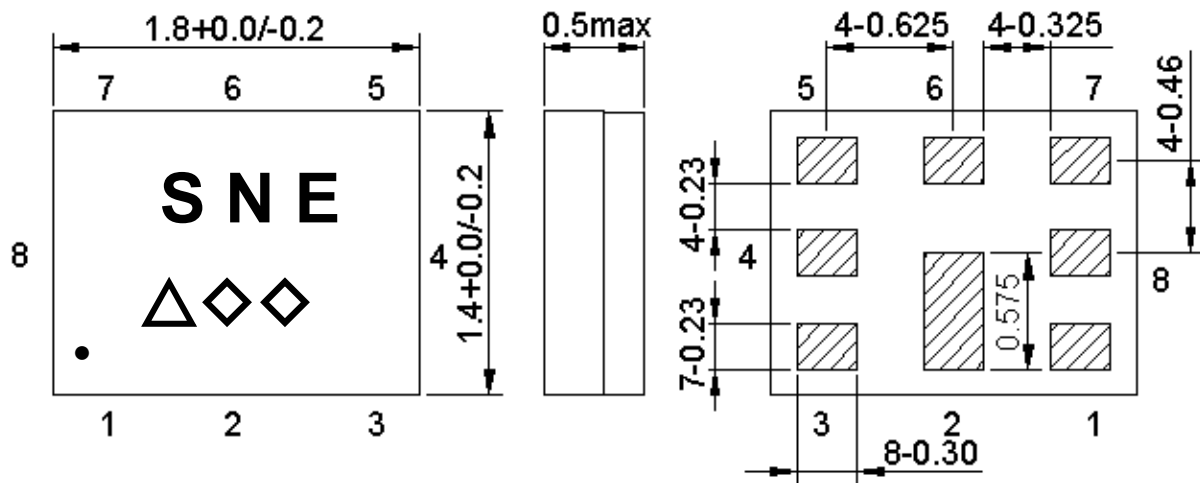
MEASUREMENT CIRCUIT:



FOOTPRINT:



OUTLINE DRAWING: (Mass Production)



Marking name : **SNE**

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

◇◇: Lot Code.

Product Date Code. Follow below table.

Product Date Code. Follow below table.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	n	p	q	r	s	t	u	v	w	x	y	z
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
2021	A	B	C	D	E	F	G	H	J	K	L	M

Not Specified Tolerance : ± 0.05 mm

Coplanarity : 0.1 mm max.

1 to 8 : Pin No.

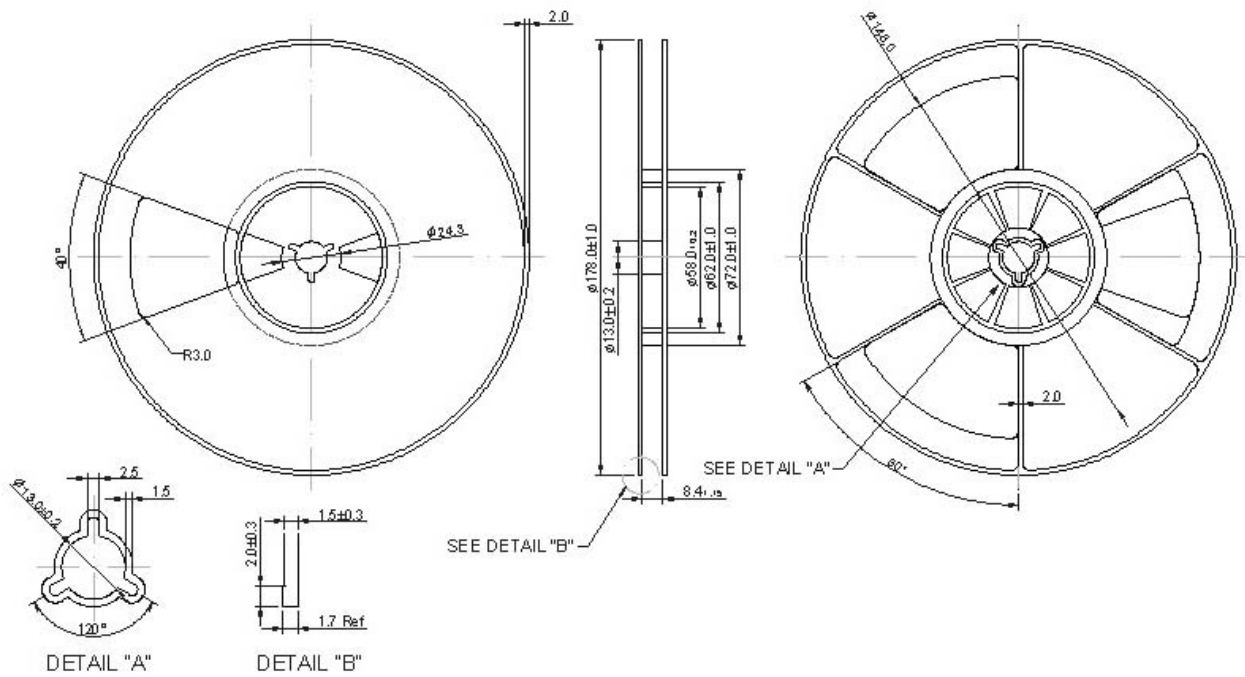
Unit : mm

Pin Configuration

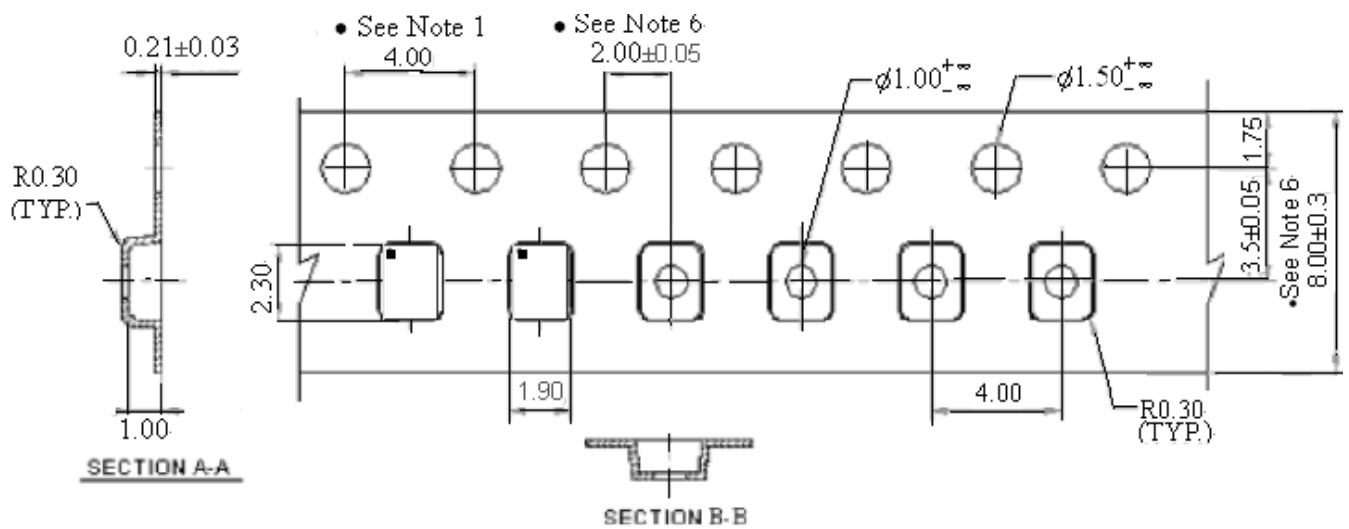
Pin No.	Pin name	Description
1	Rx	Receiver Pin
2	GND	Ground Pin
3	Tx	Transmitter Pin
4	GND	Ground Pin
5	GND	Ground Pin
6	ANT	Antenna Pin
7	GND	Ground Pin
8	GND	Ground Pin

PACKING:
REEL DIMENSION

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



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 (20~40sec).
4. Time: 2 times.

