

Maximum Rating:

- Input Power Level: 29 dBm.
- DC Voltage : 0 V
- Operating Temperature: -30°C to +85°C
- Storage Temperature: -40°C to +100°C
- Moisture Sensitivity Level: Level 1 (**MSL 1**)

Electrical Characteristics:

Item		Unit	Min	Typ	Max	Remarks		
Center frequency		MHz		897.5				
Insertion Loss		880.15-914.85MHz	dB	-	1.7	3.2		
Amplitude Ripple		880.15-914.85MHz	dB	-	1.0	2.8		
VSWR	Tx	880.15-914.85MHz	-	-	1.5	2.0		
	Ant	880.15-914.85MHz	-	-	1.5	2.0		
Attenuation		925.15-959.85 MHz	dB	37	-	-	-30~ -20°C	
			dB	42	-	-	-20~0°C	
			dB	48	57	-	0~85°C	
		1565-1606MHz		dB	35	39	-	
		1760-1830 MHz		dB	37	43	-	
		2640-2745 MHz		dB	30	47	-	

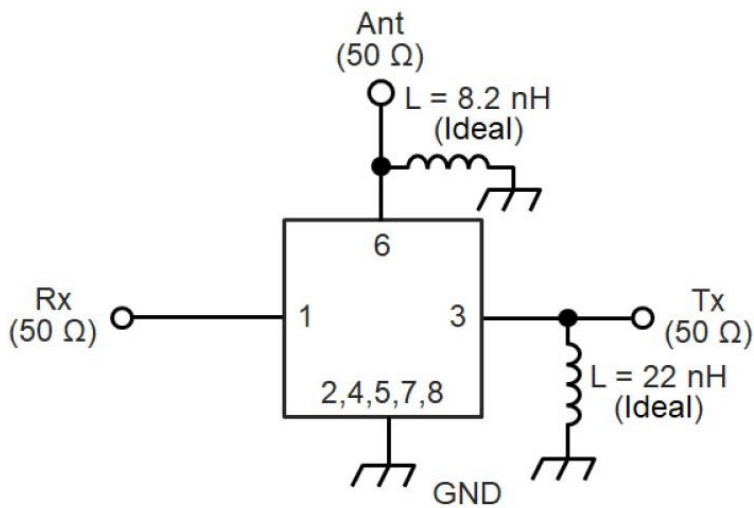
Tx to Ant

Item		Unit	Min	Typ	Max	Remarks	
Center frequency		MHz		942.5			
Insertion Loss		925.15~959.85MHz	dB	-	-	3.5	-30~ -20°C
			dB	-	1.8	3.0	-20~85°C
Amplitude Ripple		925.15~959.85MHz	dB	-	0.8	2.9	
VSWR	Ant	925.15~959.85MHz	-	-	1.7	2.1	
	Tx	925.15~959.85MHz	-	-	1.8	2.1	
Attenuation		880.15-914.85MHz	dB	42	57	-	
		1805-1875MHz	dB	45	65	-	
		2400-2500 MHz	dB	45	65	-	
		2685-2790MHz	dB	40	65	-	

Ant to Rx

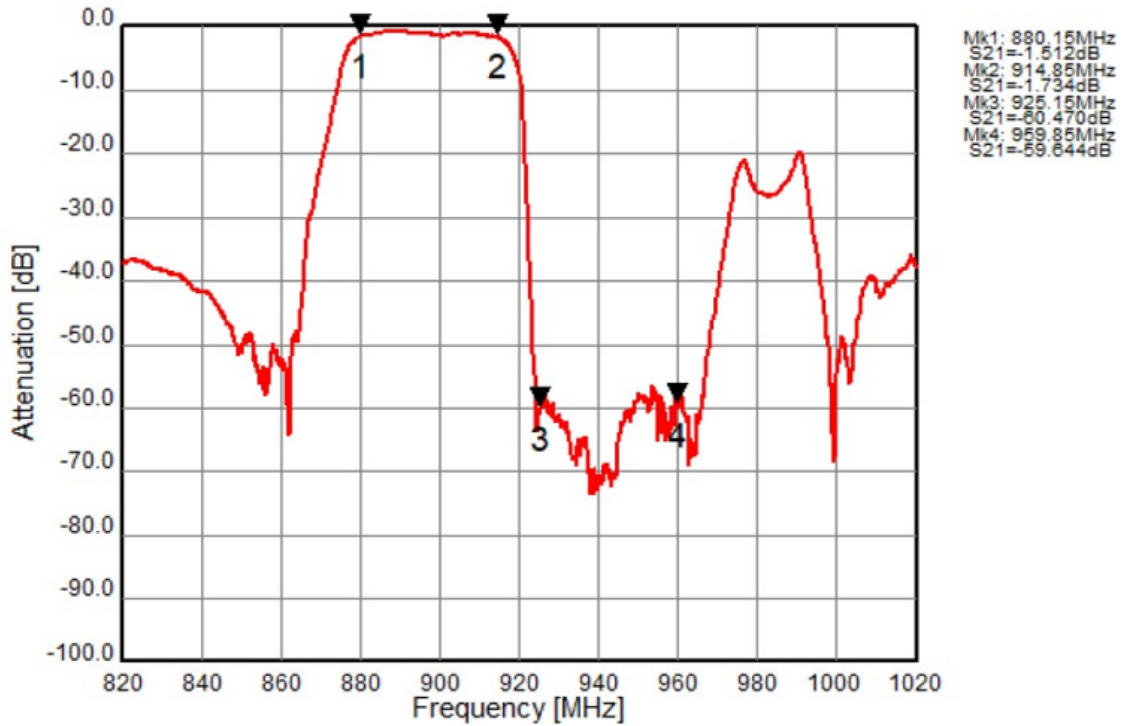
Item			Unit	Min	Typ	Max	Remarks
Tx to Rx	Isolation	880.15-914.85MHz	dB	55	60	-	-30~25°C
			dB	48	-	-	25~85°C
		925.15-959.85MHz	dB	40	-	-	-30~ -20°C
			dB	45	-	-	-20~0°C
			dB	53	59	-	0~85°C
Terminating Impedance	Tx port	Ω	50//22nH				
	Rx port	Ω	50				
	Ant port	Ω	50//8.2nH				
DC Impedance to ground			MΩ	100		Device only	

Schematic

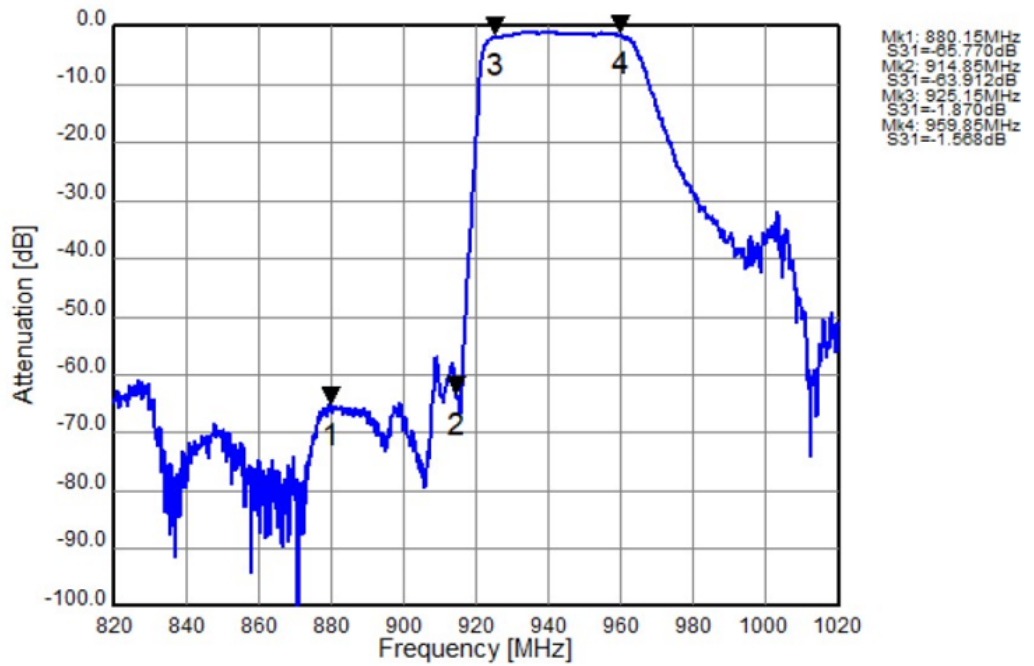


Performance Plots

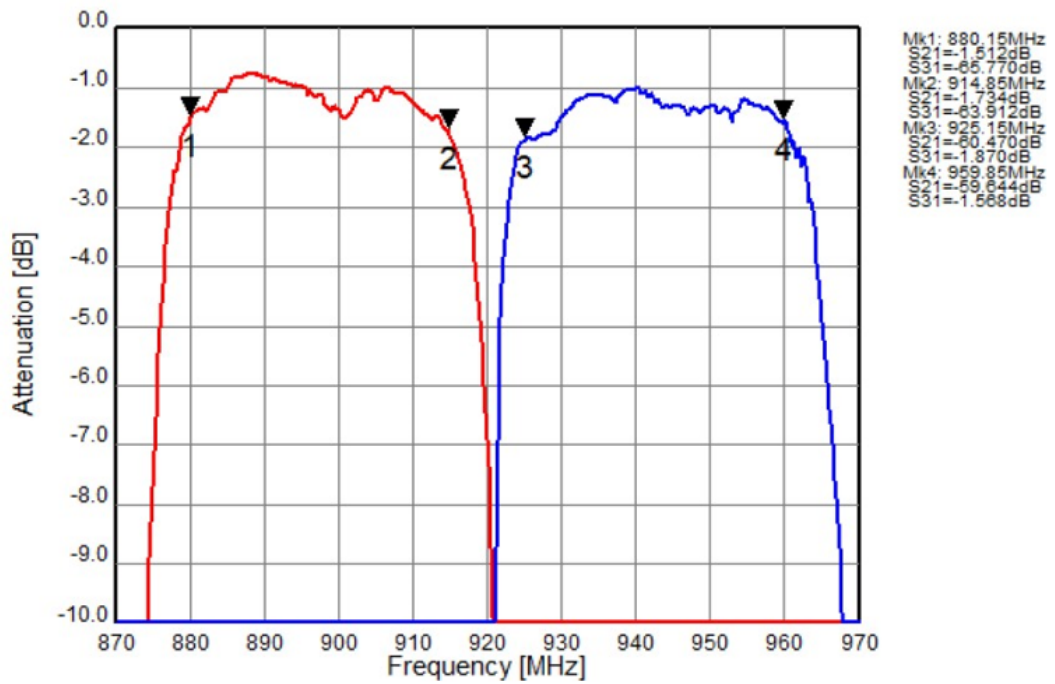
Tx to Ant



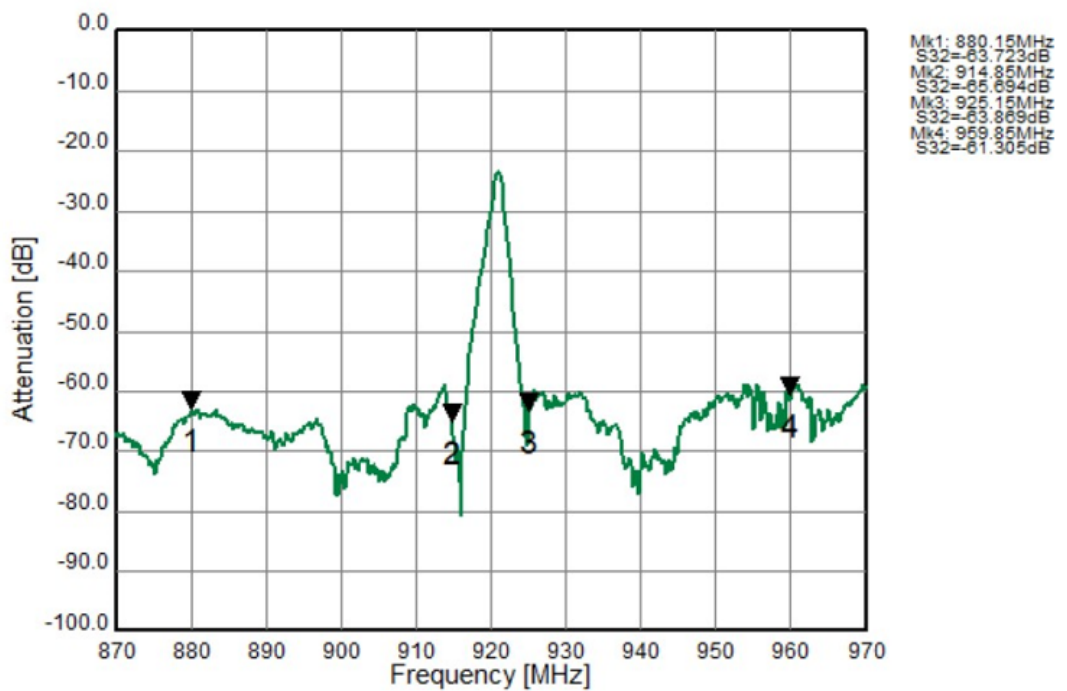
Ant to Rx



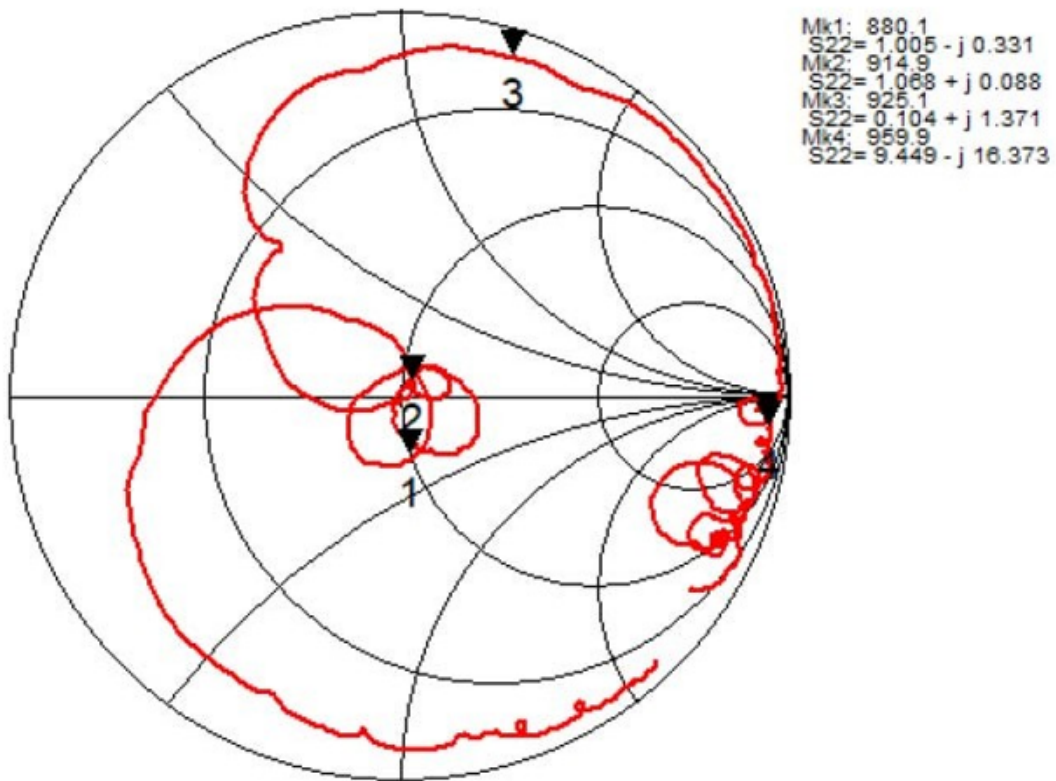
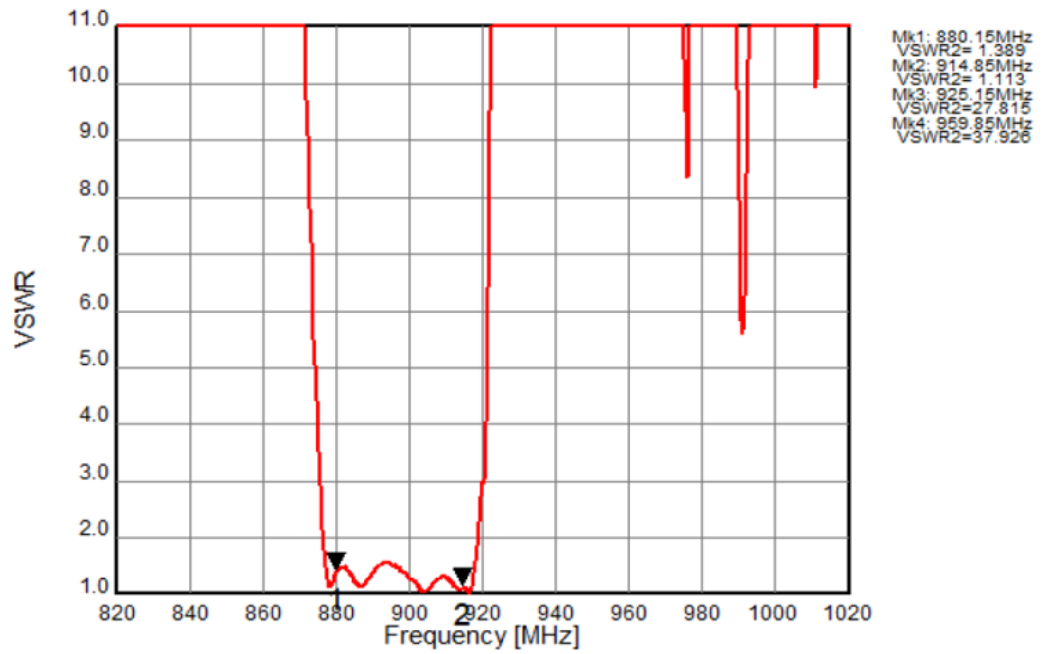
Tx to Ant, Ant to Rx



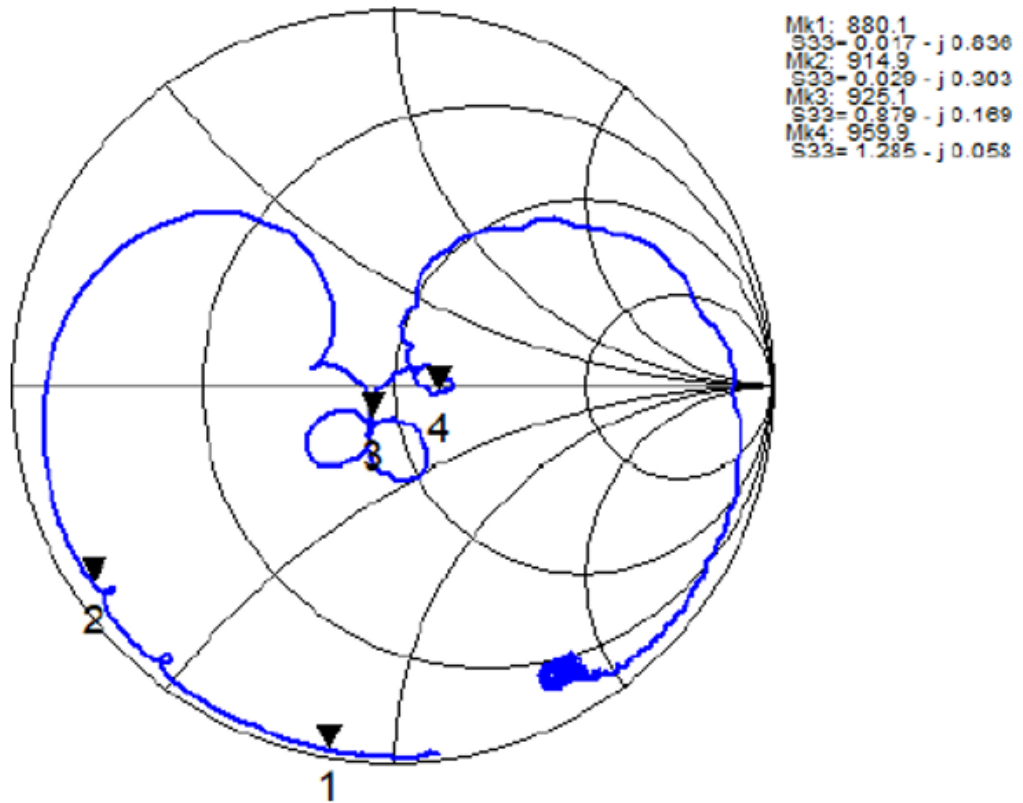
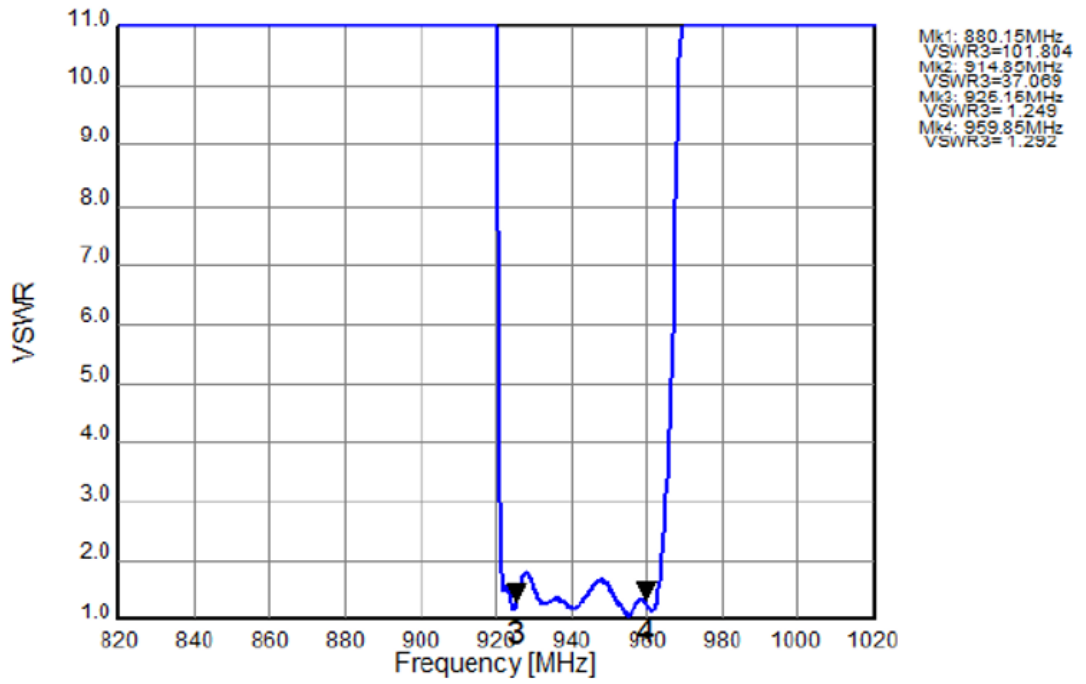
Tx to Rx Isolation



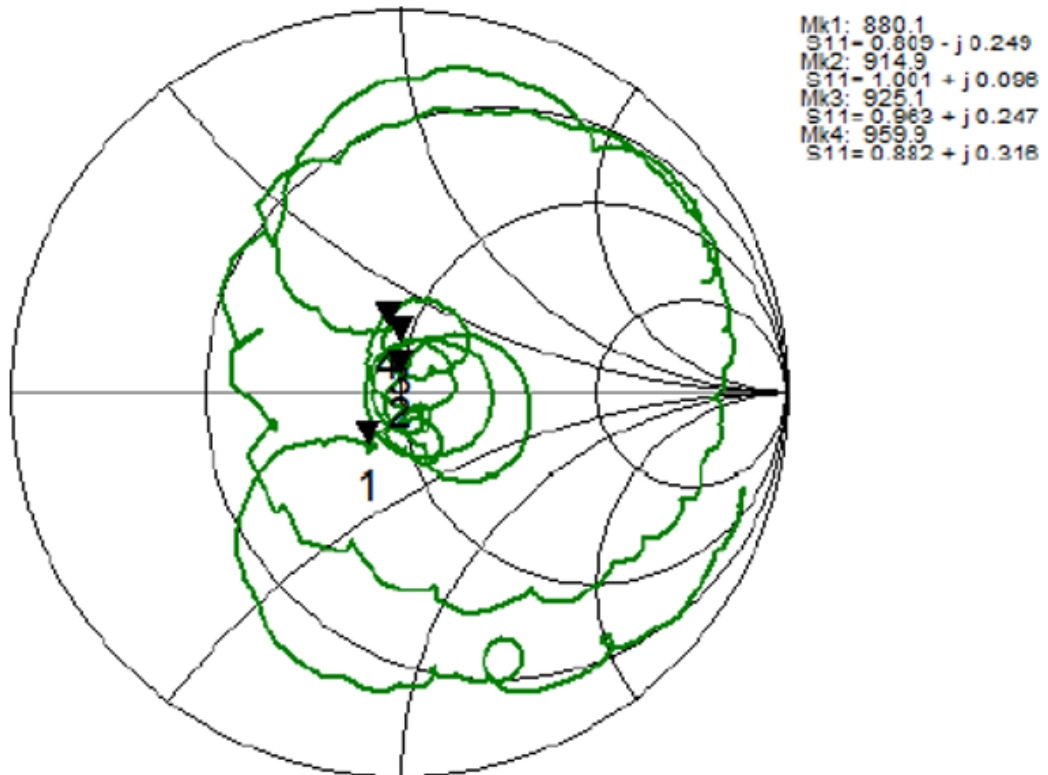
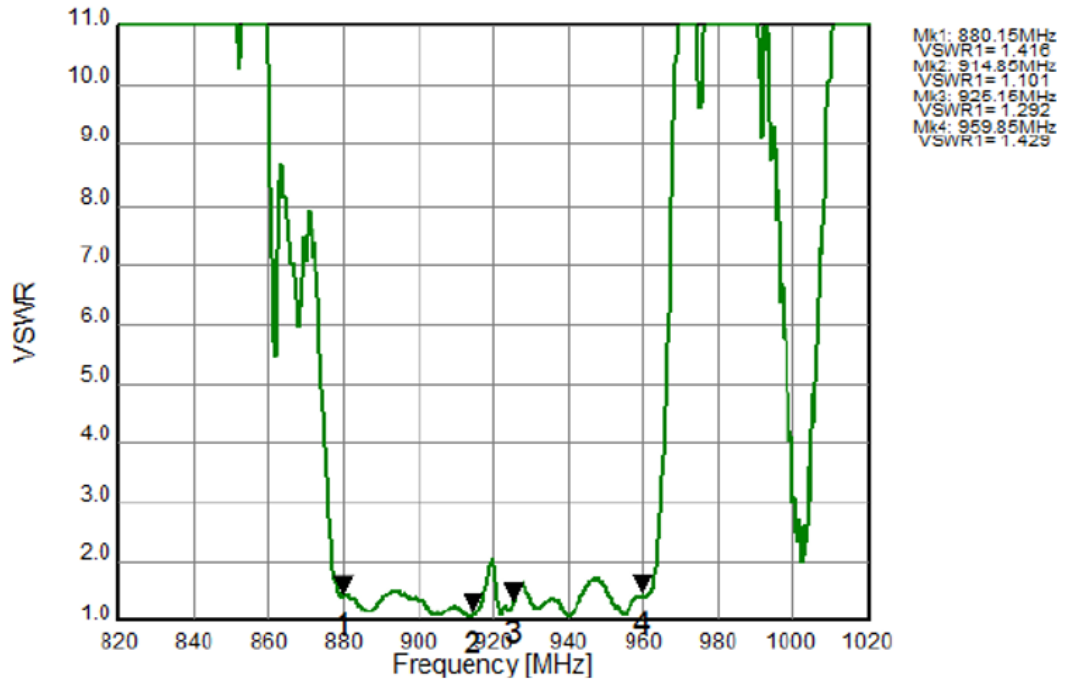
Tx Port



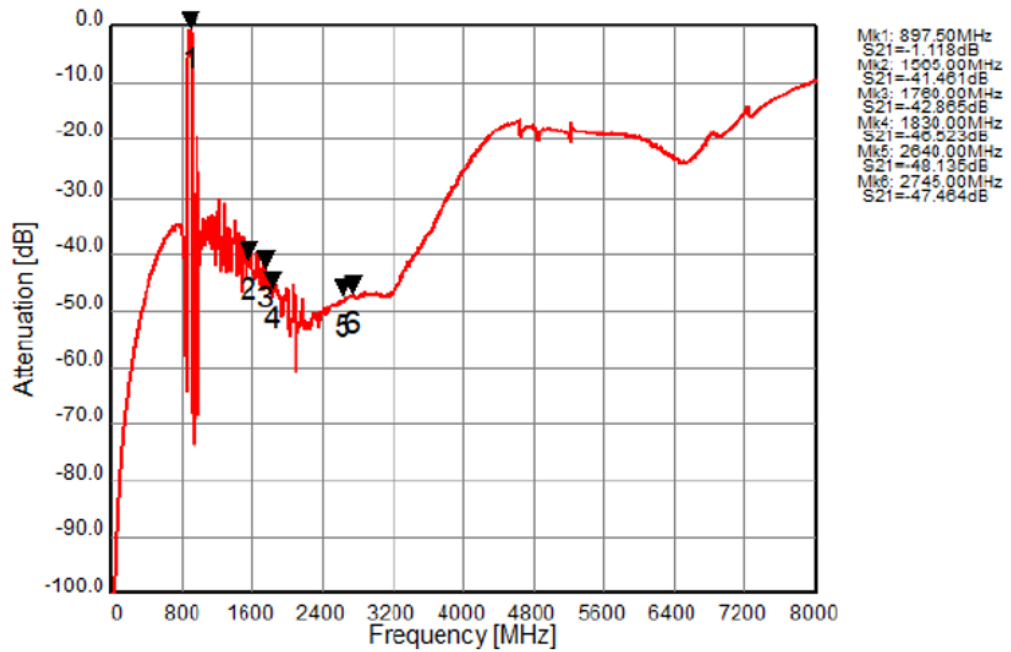
Rx Port



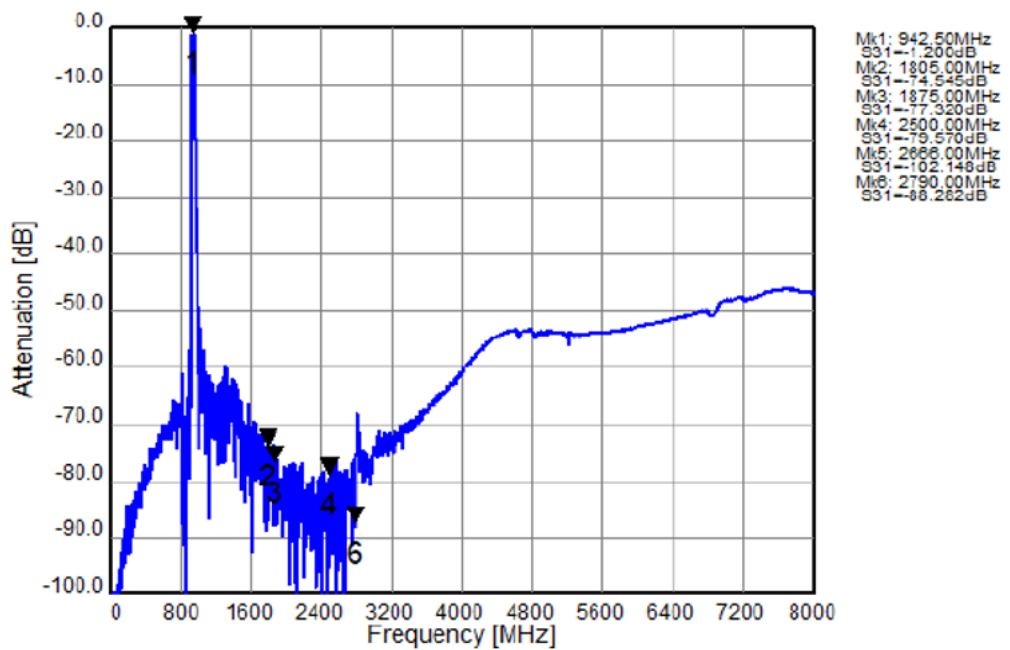
Ant Port



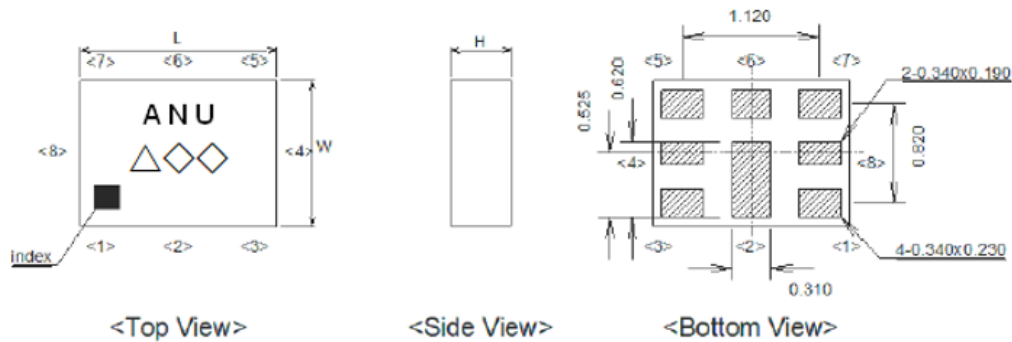
Tx to Ant(Wide span)



Ant to Rx(Wide span)



Package Drawing and Pin Description



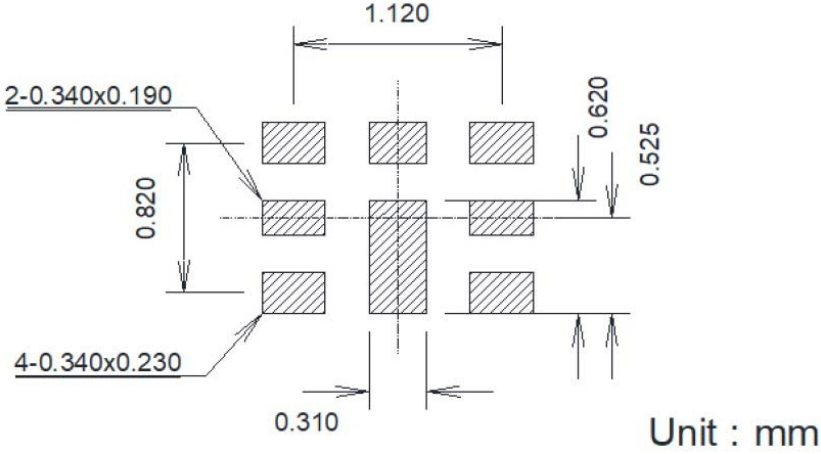
Unit : mm
1 to 8 : Pin No.

Marking name: ANU (Part Symbol)
 △: Trace Code.(2020 May → s,....., 2023 Dec → m)
 ◇◇: Lot Code.
 Product Trace Code.Follow below table.(4-year cycle)

L = 1.6 +/- 0.1 mm
 W = 1.2 +/- 0.1 mm
 H = 0.44 mm Max

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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
2023	a	b	c	d	e	f	g	h	j	k	l	m

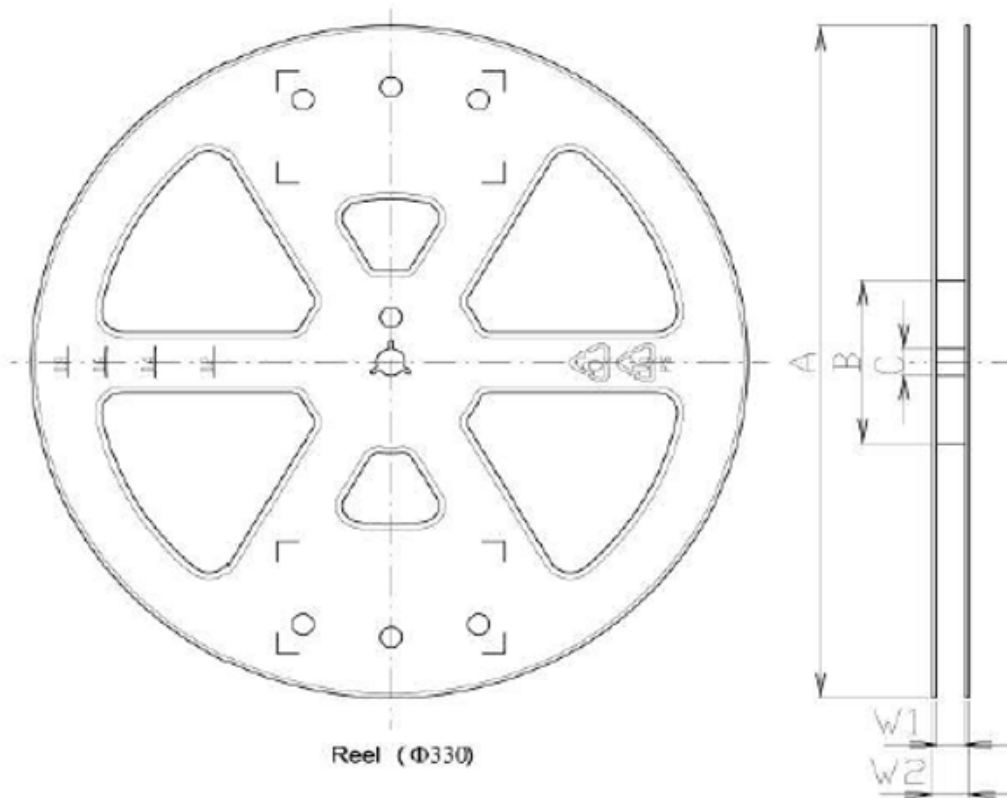
PCB Mounting Pattern



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

- Notes:
- All units are in mm unless otherwise stated
 - General Tolerance
 - Linear: X.XXX = ±0.050mm
 - X.XX = ±0.10mm
 - Terminations
 - Au: 0.10 um min.
 - Pd: 0.10 um min.
 - Ni: 2-5 um
 - Pin 1 indicated by 0.100 mm Chamfer

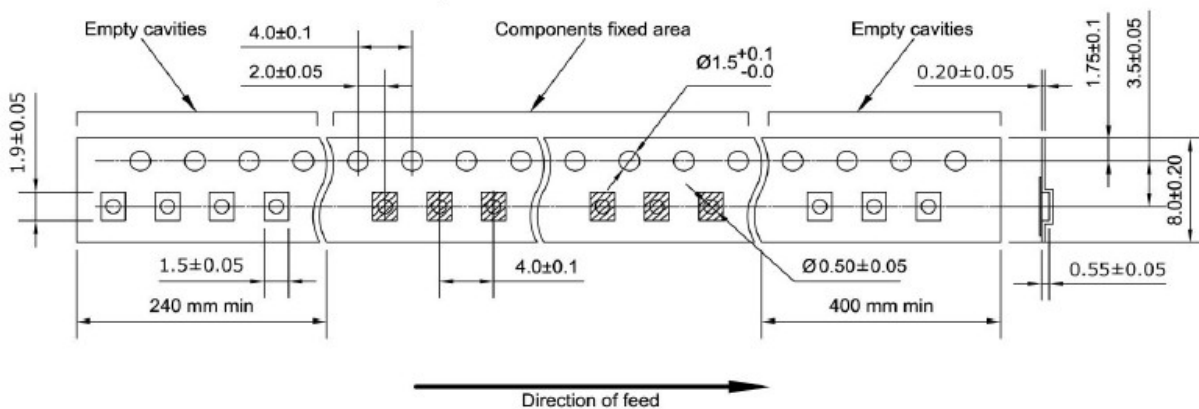
Reel Dimension



Order	Code	Quantity (pcs./reel)	A	B	C	W1	W2	Tape Pitch
Standard	Y	15,000	φ330	φ100	φ13 ±0.2	9.4 ±1.0	13.4 ±1.0	4.0 ±0.1
Option	Z	3,000	φ180	φ60	φ13 ±0.2	9 +1.0/-0.0	11.4 ±1.0	4.0 ±0.1

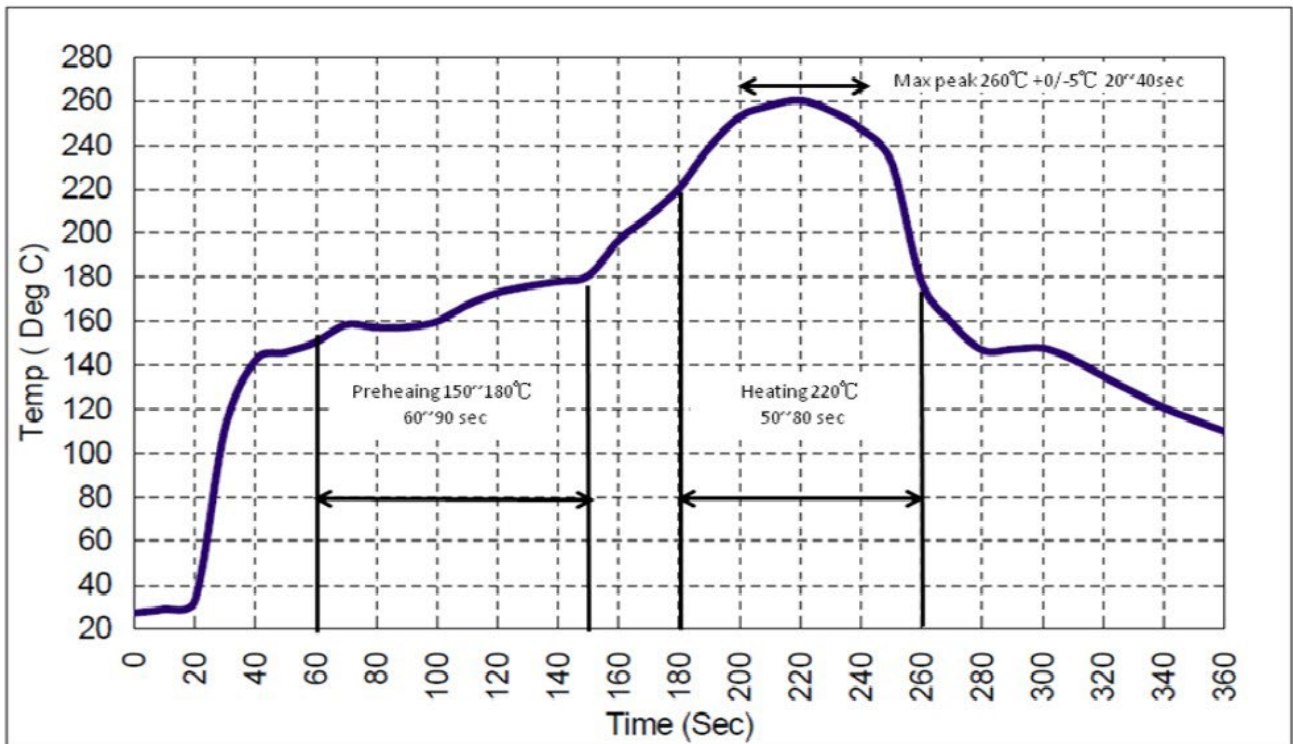
Unit:mm

Dimensions of Tape (Standard)



Recommended Solder 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.



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. This component was always RoHS compliant from the first date of manufacture.