

A. MAXIMUM RATING:

1. Input power : 29dBm (Ta=+50deg C,50000h,CW)
2. Maximum DC Voltage: +/-5 V
3. Operating temperature range: -30 °C to +85 °C
4. Storage temperature range: -30 °C to +85 °C
5. Moisture Sensitivity Level: Level 3 (MSL 3)
6. ESD 100V(MM) 200V(HBM)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

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

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

Terminating impedance(Ant Port): 50//12nH Ω (Single-ended)

Tx to ANT

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss(*1) 704~ 716 MHz		dB	-	1.25	1.85	
Ripple 704~ 716 MHz		dB	-	0.4	1.0	
VSWR	Tx	-	-	1.7	2.0	
	ANT	-	-	1.5	2.0	
Attenuation:						
734 ~ 746 MHz		dB	50	58	-	-
746 ~ 768 MHz		dB	30	45	-	-
768 ~ 805 MHz		dB	25	36	-	-
869 ~ 894 MHz		dB	30	35	-	
1408 ~ 1432 MHz		dB	30	40	-	
1559 ~ 1606 MHz		dB	35	43		
2110 ~ 2155 MHz		dB	30	40		
2400 ~ 2484 MHz		dB	25	36		
2816 ~ 2864 MHz		dB	15	33		
4900 ~ 5850 MHz		dB	5	11		

ANT to Rx

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss(*1)	734 ~ 746 MHz	dB	-	1.65	2.35	
Ripple	734 ~ 746 MHz	dB	-	0.4	1.2	
VSWR	ANT	734 ~ 746 MHz	-	-	1.5	2.0
	Rx		-	-	1.5	2.0
Attenuation:						
704 ~ 716 MHz		dB	55	64	-	
776 ~ 805 MHz		dB	35	41	-	
814 ~ 960 MHz		dB	40	57		
1710 ~ 1755 MHz		dB	40	54		
1850 ~ 1920 MHz		dB	40	53		
2202 ~ 2238 MHz		dB	40	51		
2400 ~ 2500 MHz		dB	40	50		
4900 ~ 5950 MHz		dB	40	50		

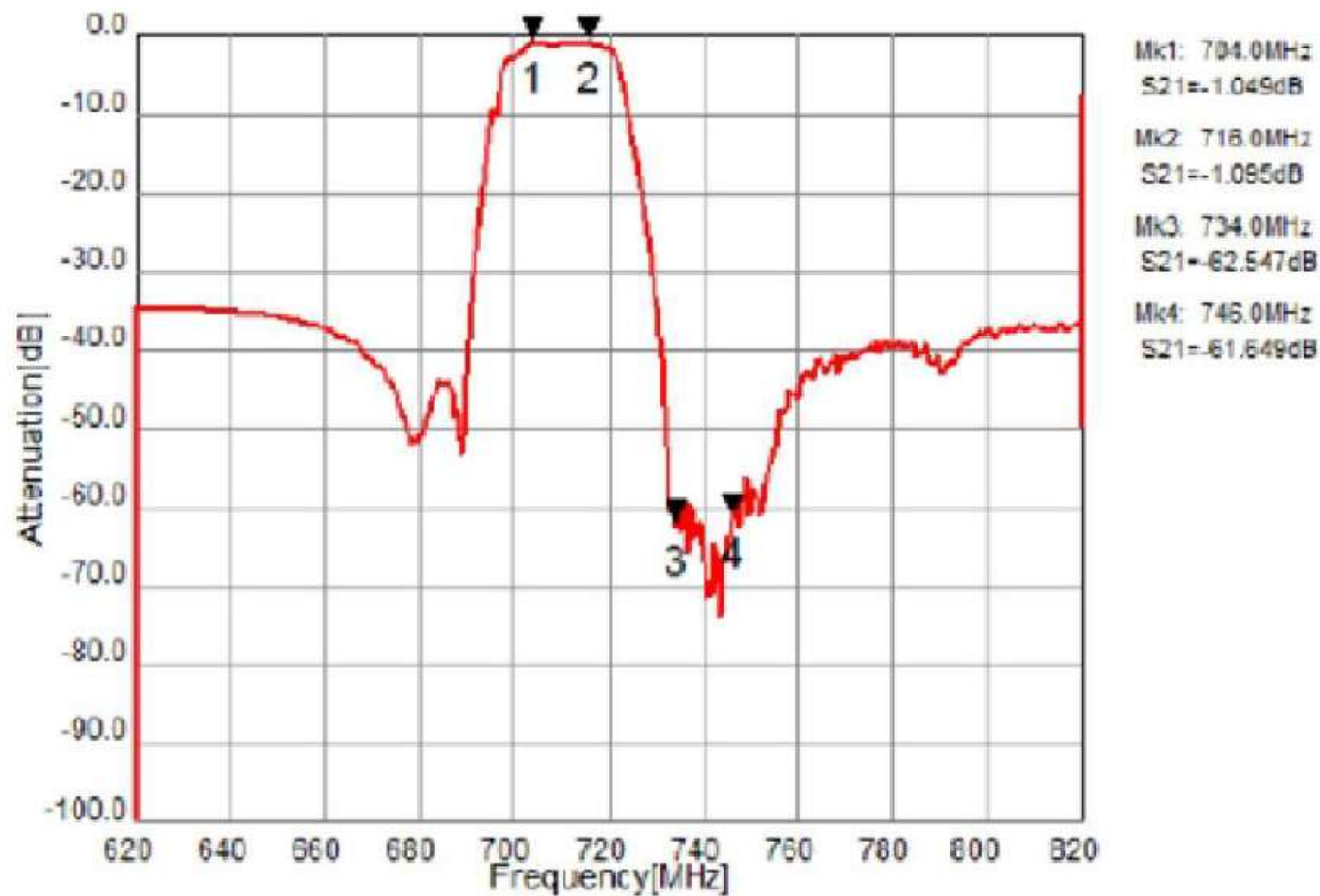
Tx to Rx

Isolation	704 ~ 716 MHz	dB	60	65	-	
	734 ~ 746 MHz	dB	55	60	-	

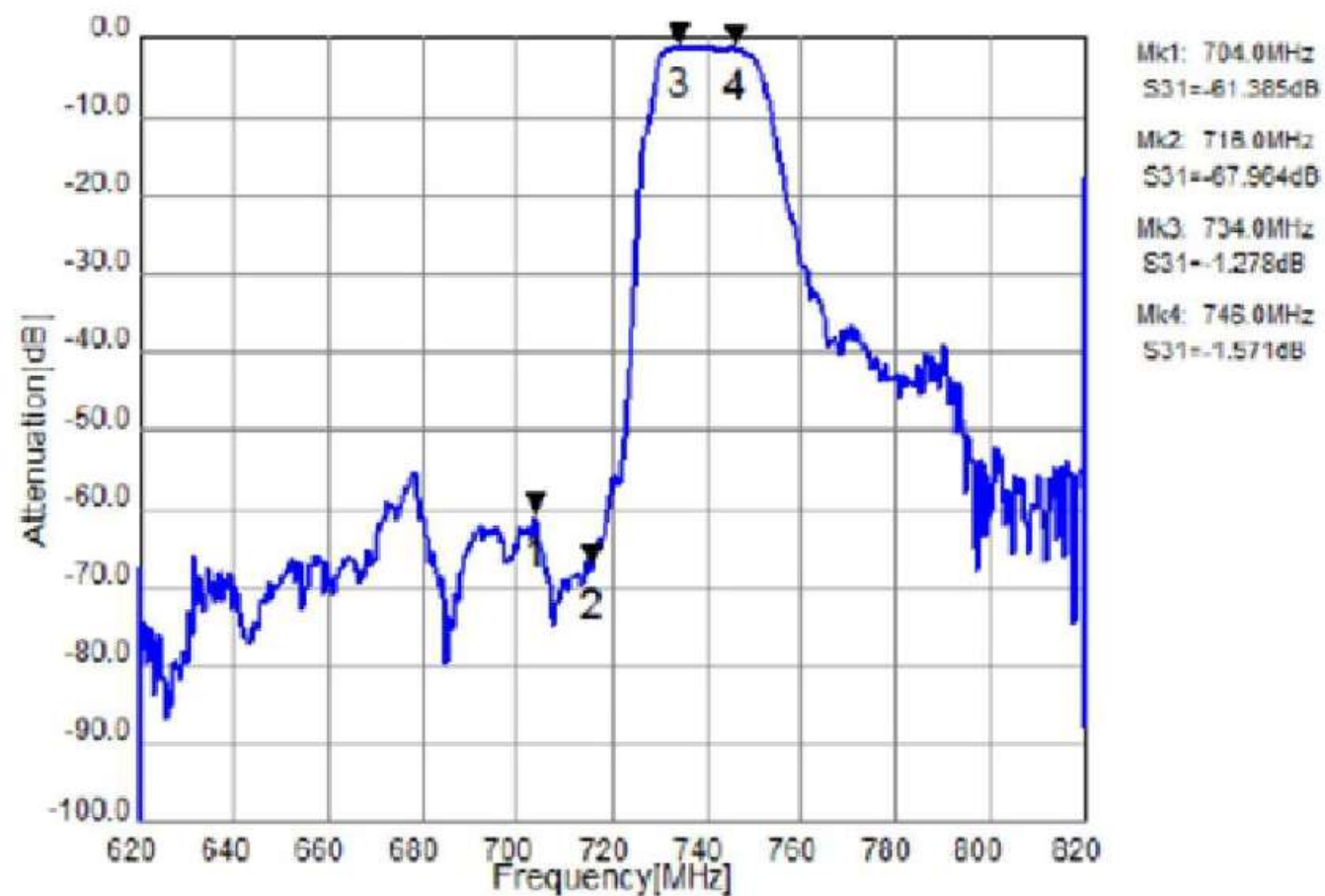
(*1) Specification of insertion loss excludes loss that comes from the test board.

C. Frequency Characteristics:

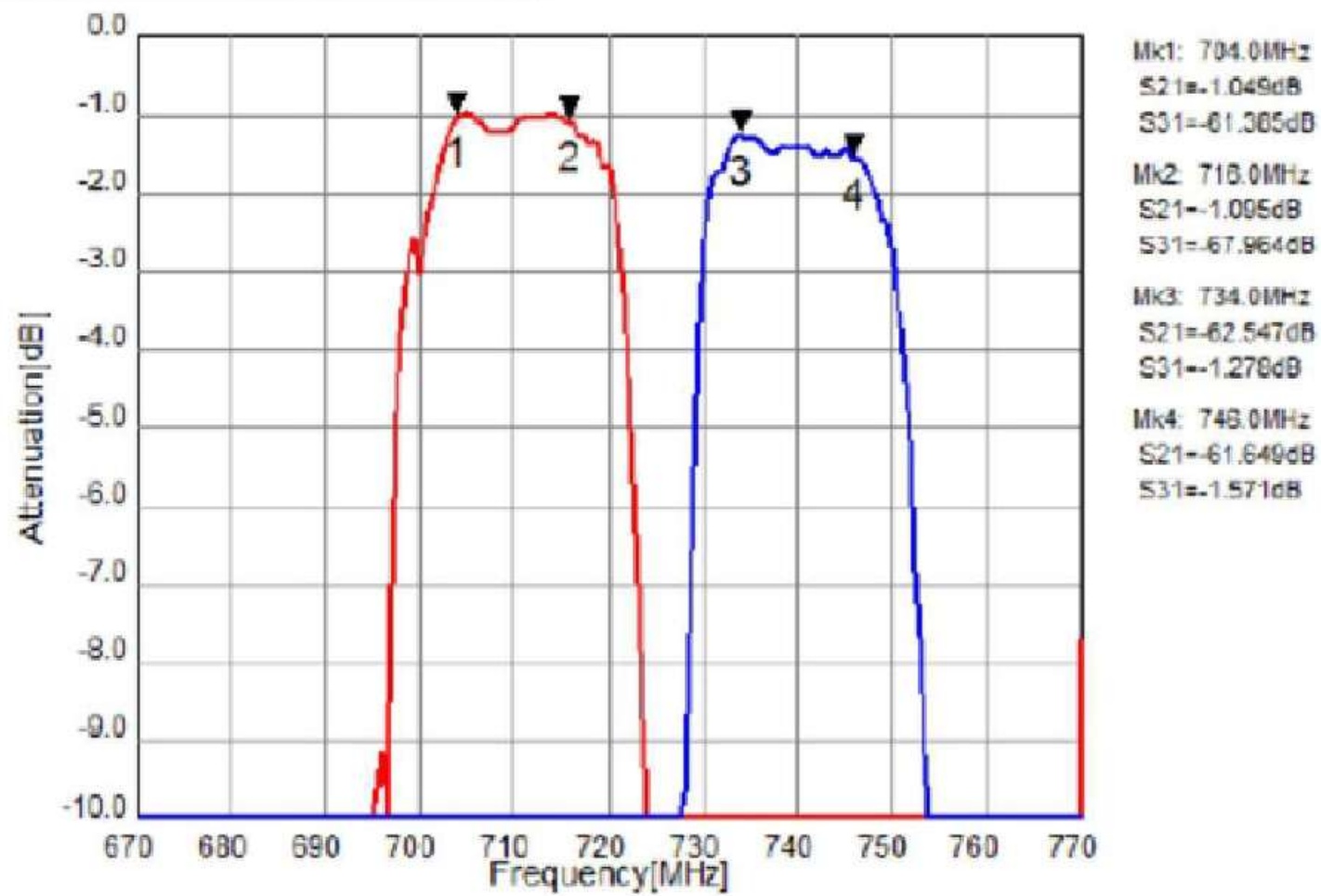
Tx to Ant



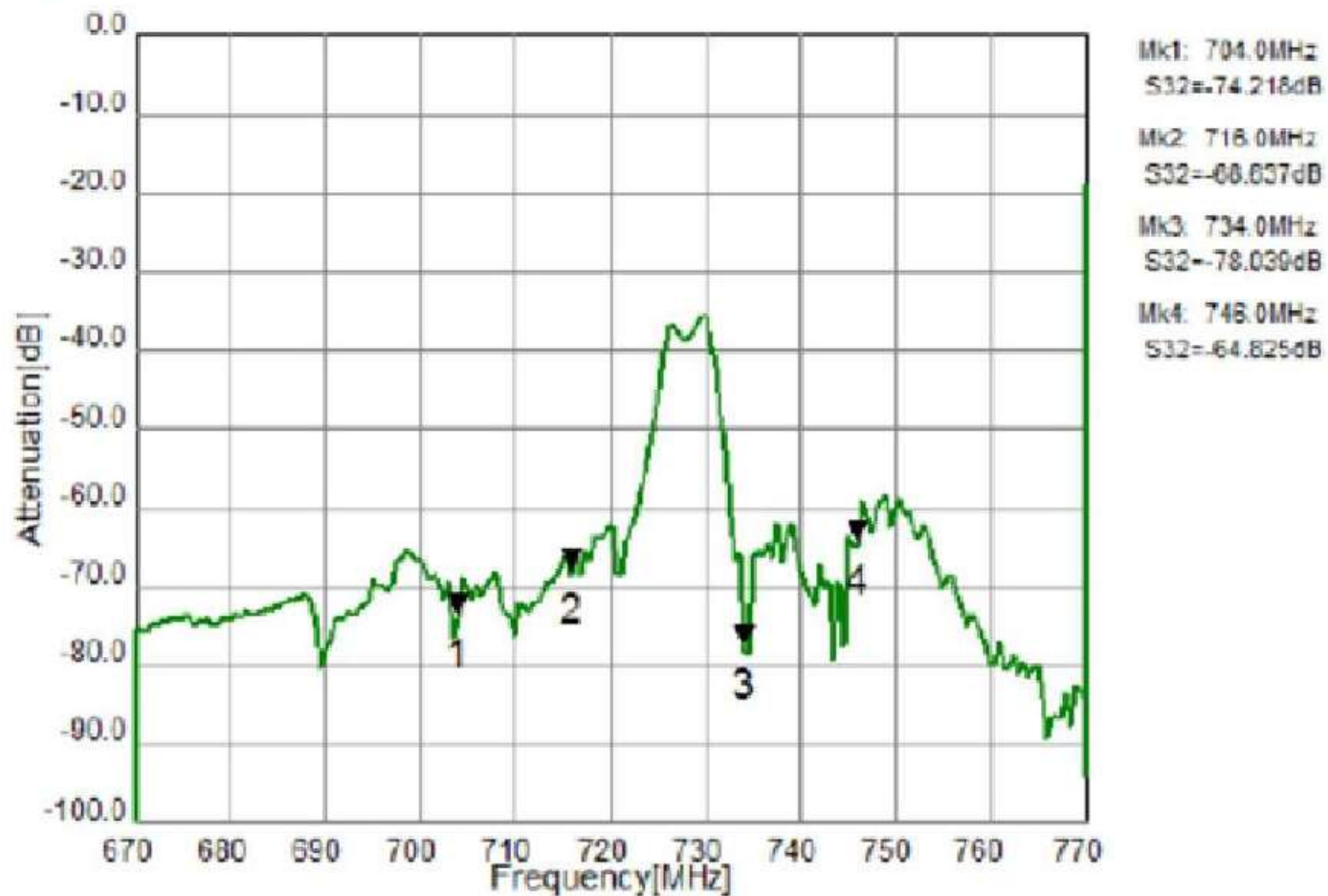
Ant to Rx



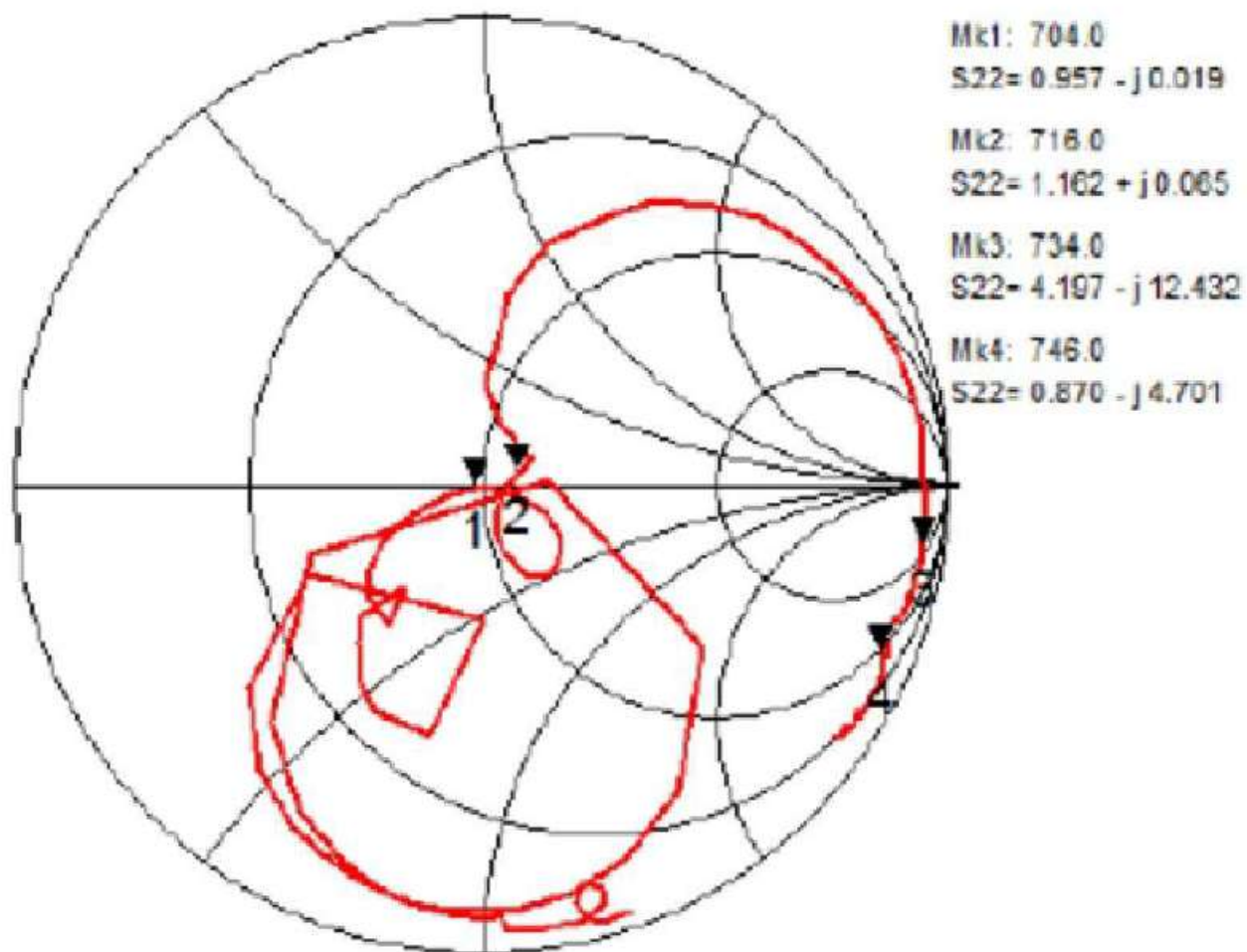
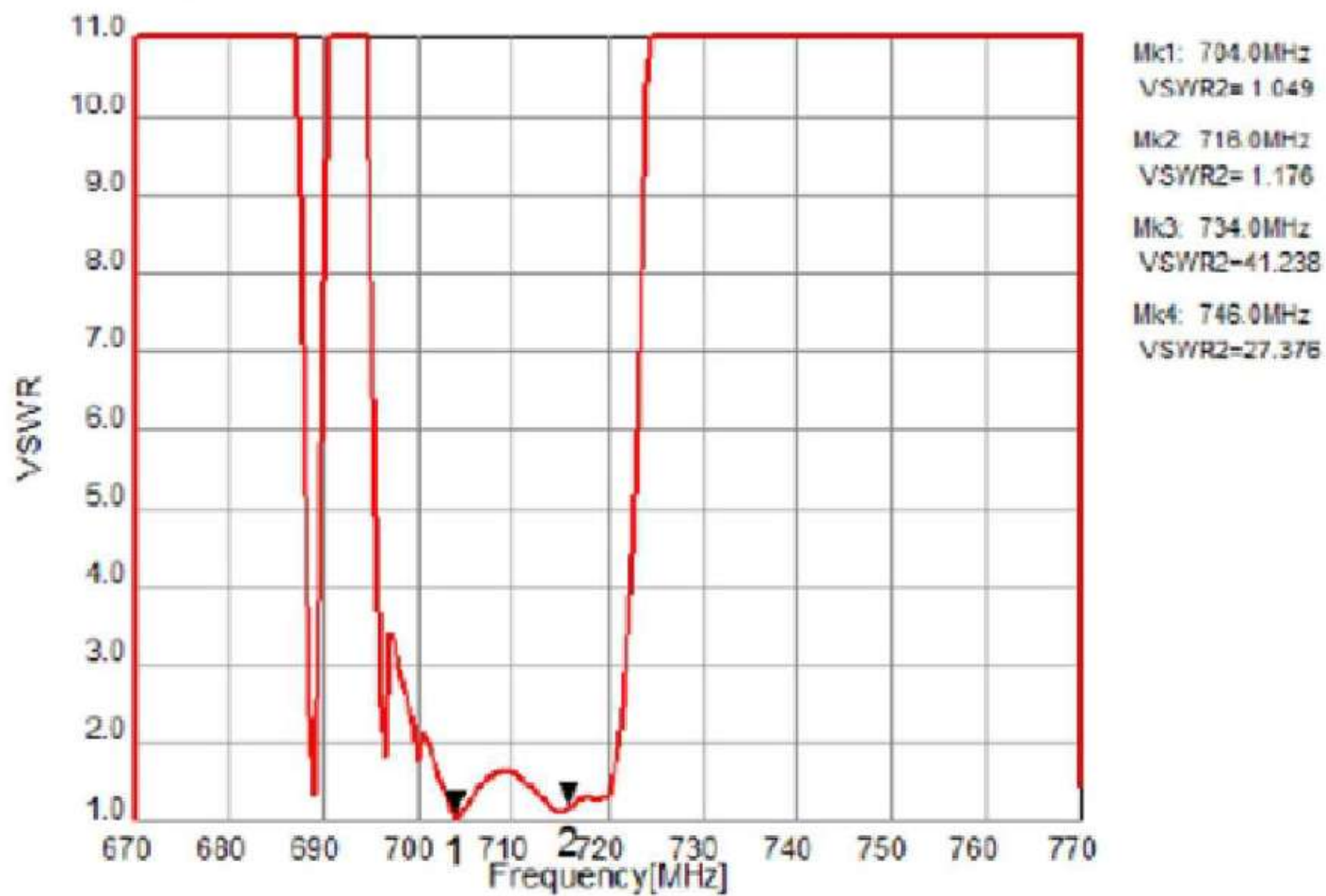
Tx to Ant, Ant to Rx



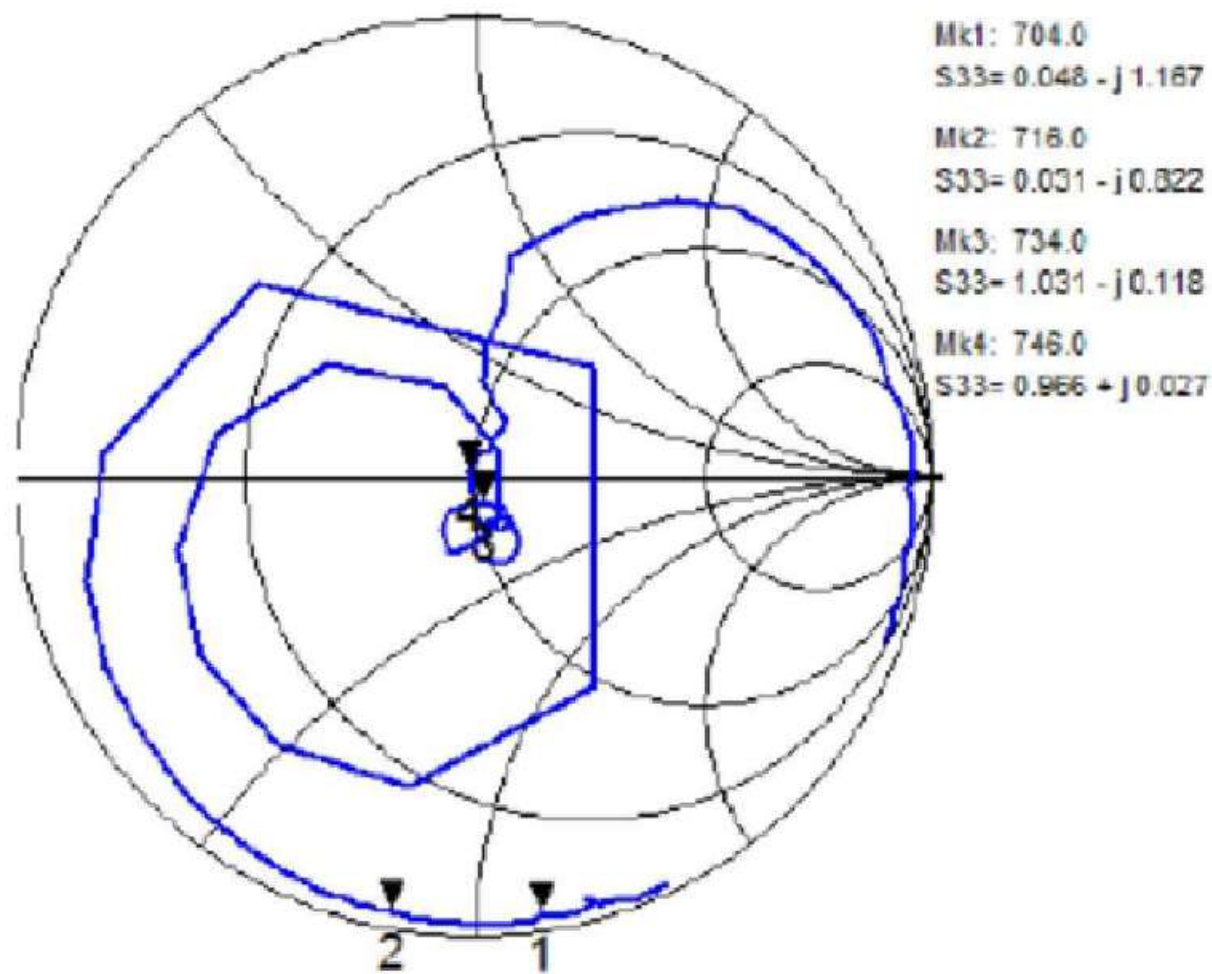
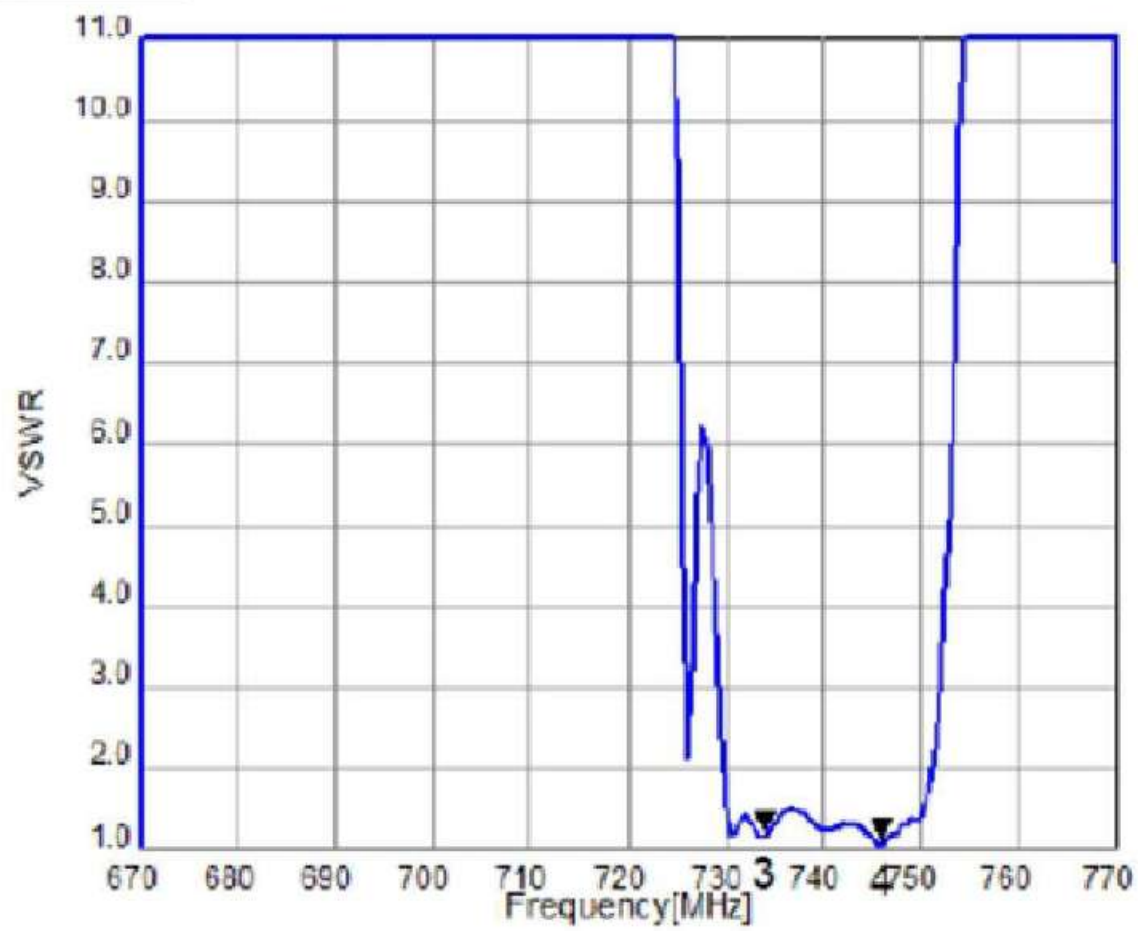
Tx to Rx Isolation



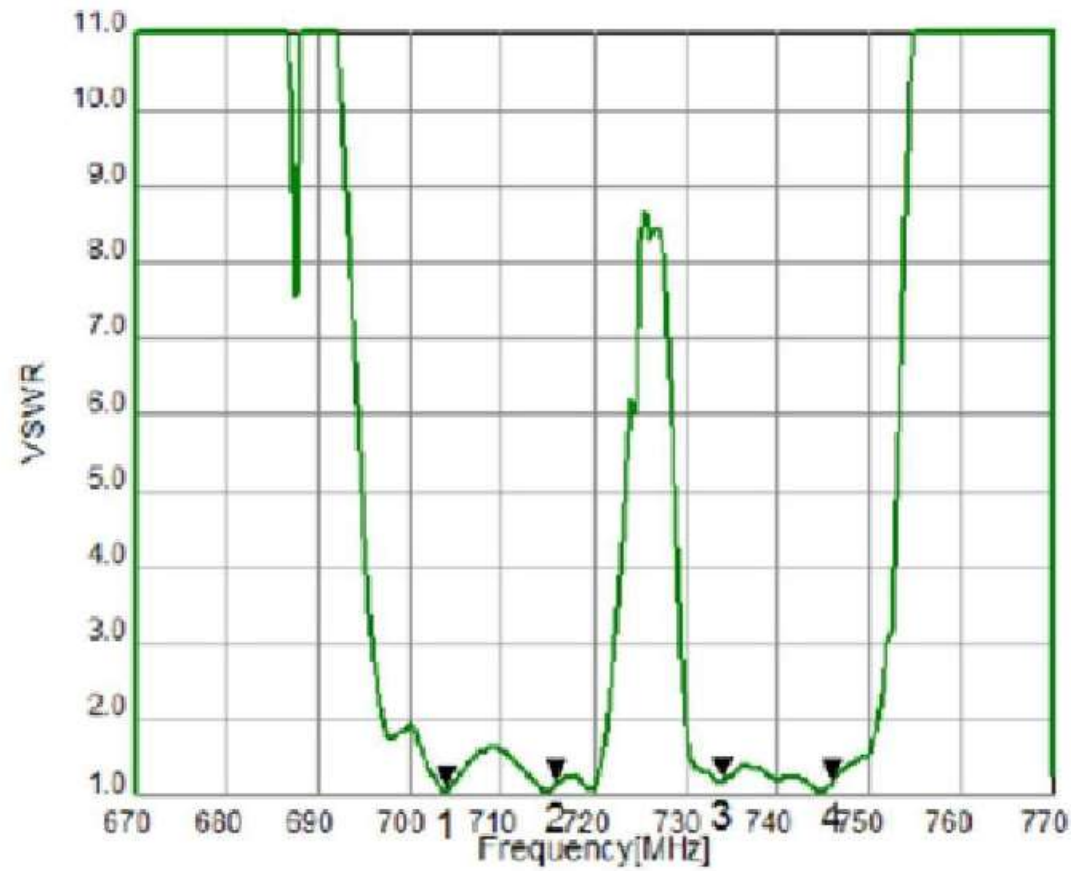
Tx Port



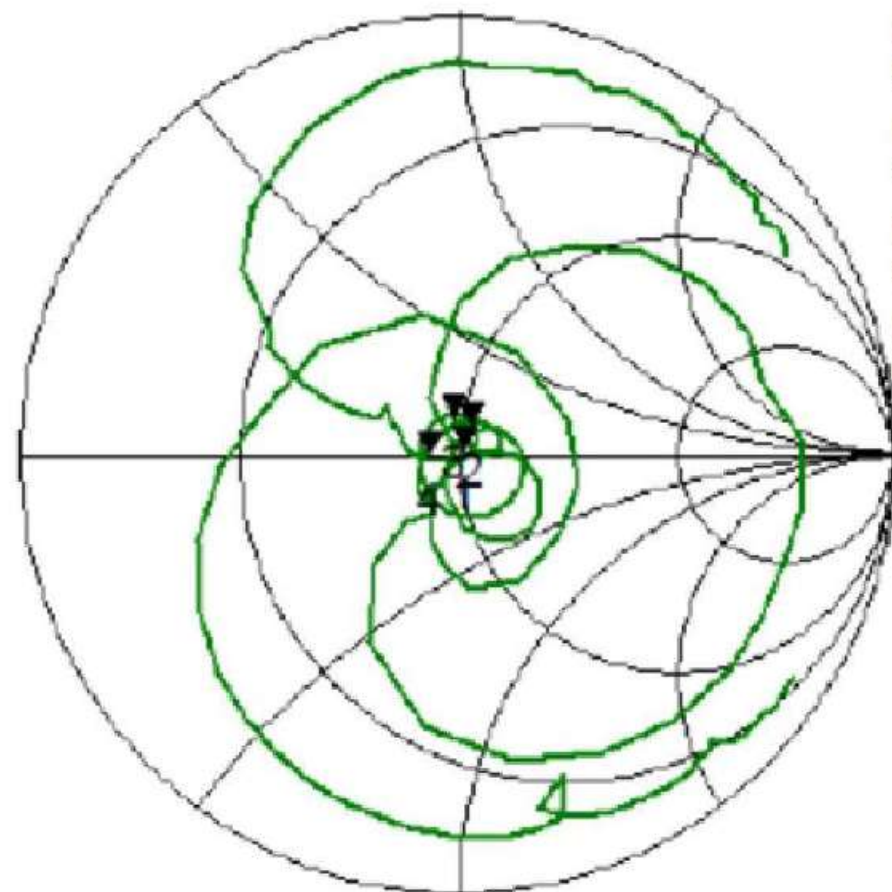
Rx Port



Ant Port

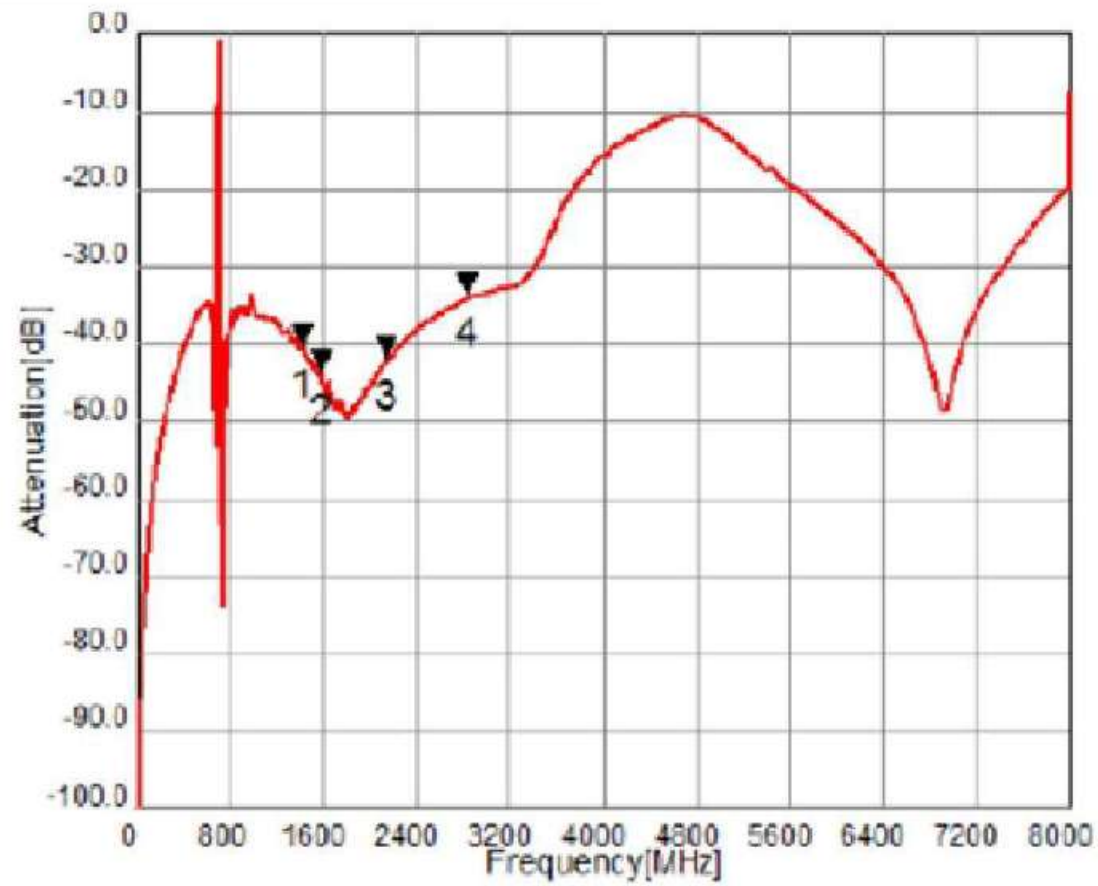


Mk1: 704.0MHz
VSWR1= 1.031
Mk2: 718.0MHz
VSWR1= 1.145
Mk3: 734.0MHz
VSWR1= 1.160
Mk4: 748.0MHz
VSWR1= 1.150

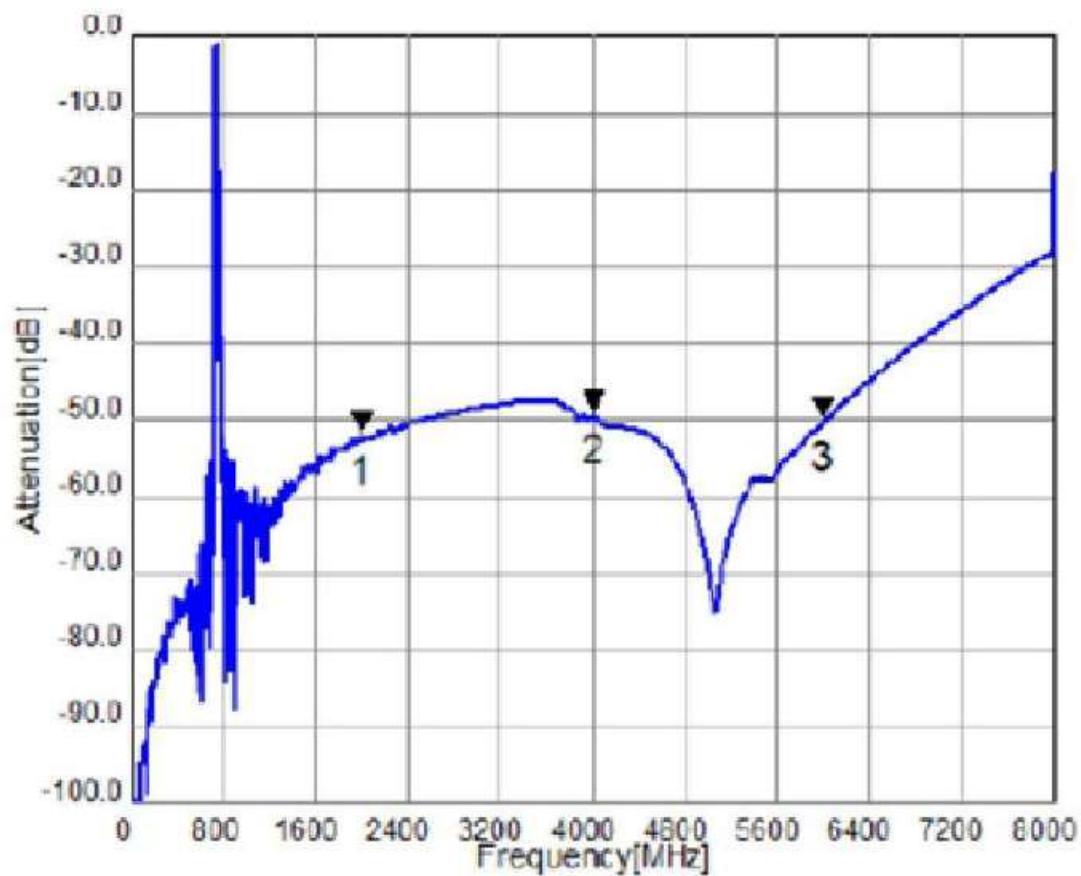


Mk1: 704.0
S11= 1.029 - j0.010
Mk2: 718.0
S11= 1.063 + j0.125
Mk3: 734.0
S11= 0.965 + j0.141
Mk4: 748.0
S11= 0.871 - j0.022

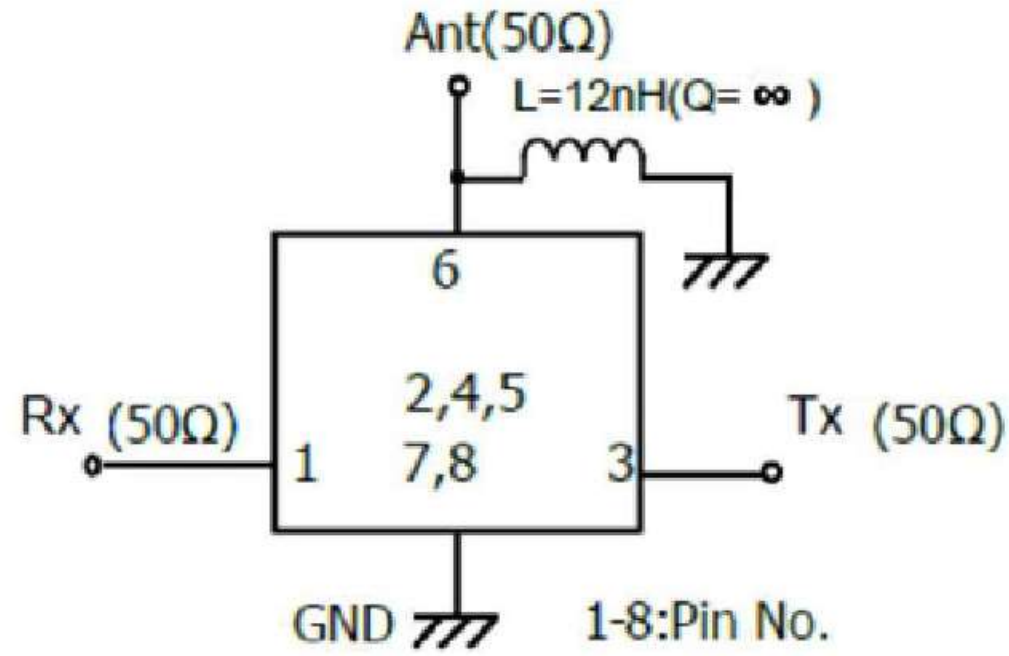
Tx to Ant (Wide Span)



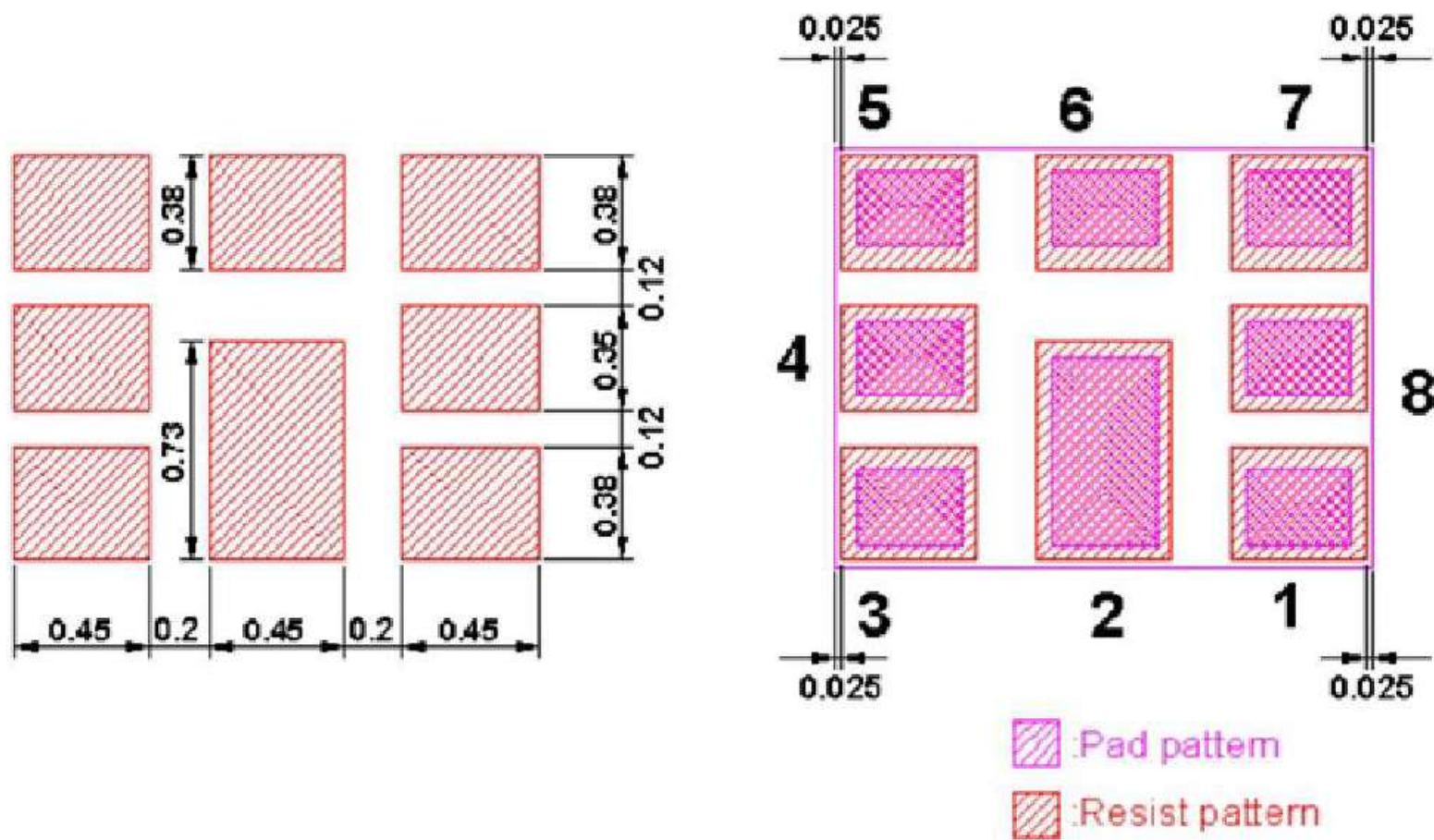
Ant to Rx (Wide Span)



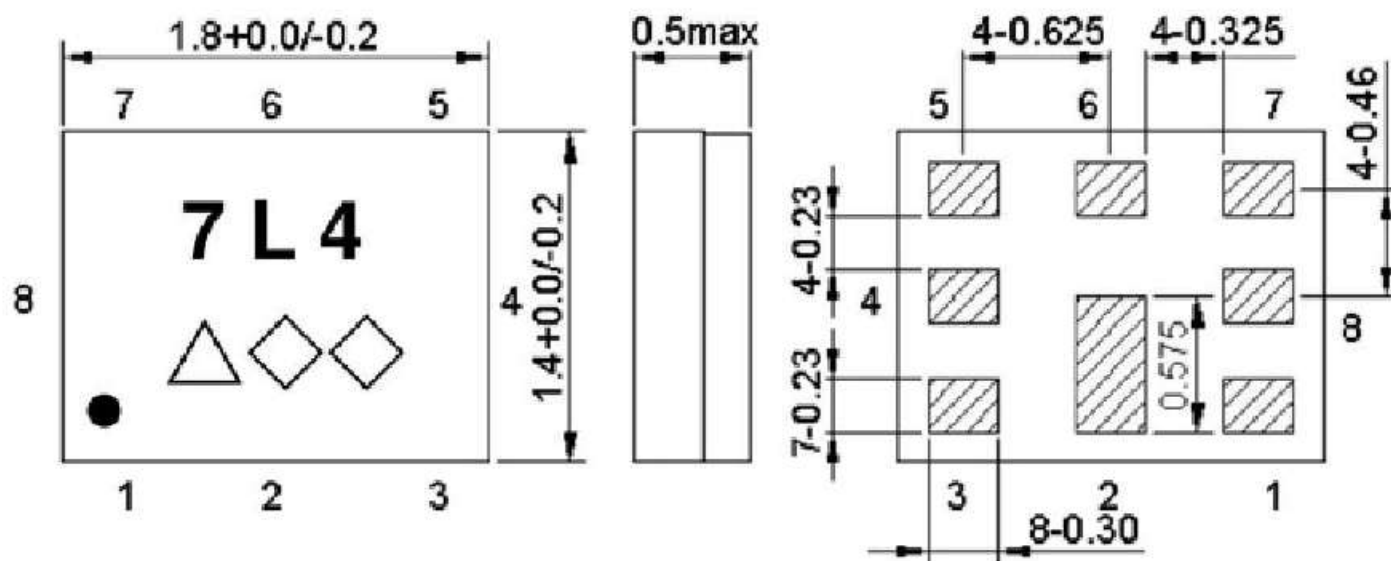
D. MEASUREMENT CIRCUIT:



D. FOOTPRINT:



E.OUTLINE DRAWING: (Mass Production)



Marking name : **7L4**

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

◇◇: Lot Code.

Product Date Code. Follow below table.

Not Specified Tolerance : ± 0.05 mm

Coplanarity : 0.1 mm max.

1 to 8 : Pin No.

Unit : mm

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

Pin assignment

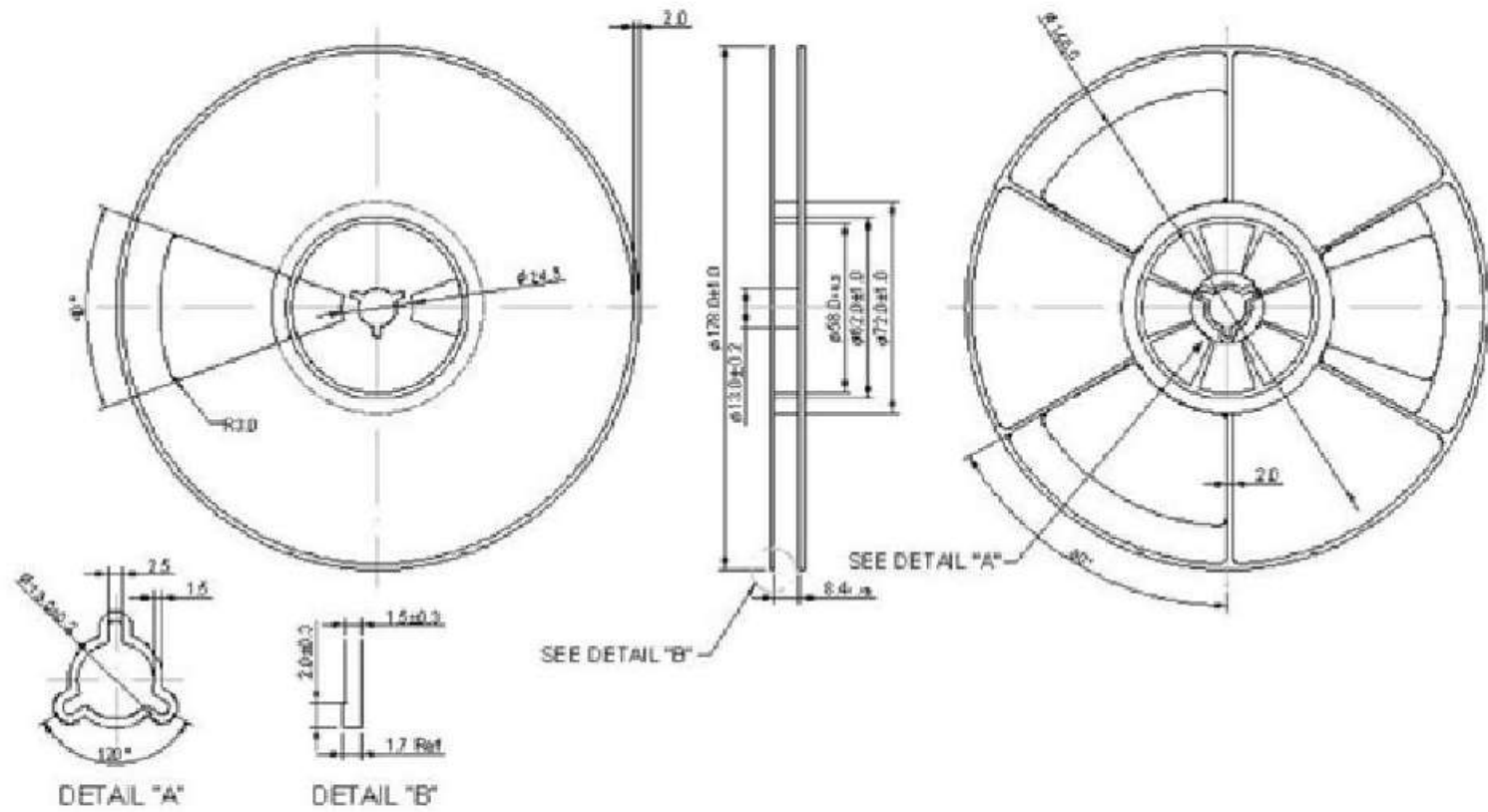
Pin No.	Pin name	Description
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	Ant	Antenna
7	GND	Ground
8	GND	Ground

Figure 1. Dimensions and Pin assignment

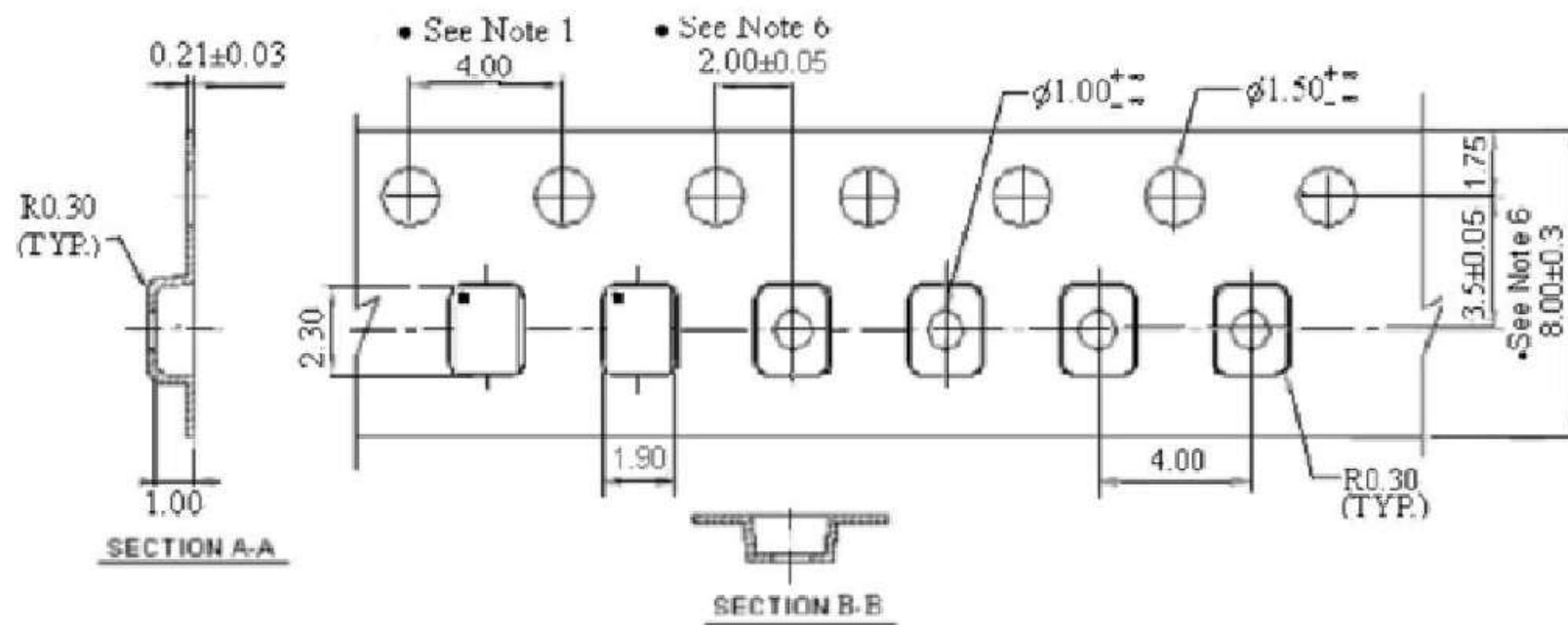
F. PACKING:

1. REEL DIMENSION

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



2. TAPE DIMENSION



1. Preheating shall be fixed at $150\sim 180^{\circ}\text{C}$ for $60\sim 90$ seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for $50\sim 80$ seconds and at $260^{\circ}\text{C} +0/-5^{\circ}\text{C}$ peak ($20\sim 40$ sec).
4. Time: 2 times.

