

SAW DPX 710/740 MHz

MODEL NO.:TF0108B

REV. NO.:3.0

A. MAXIMUM RATING:

1. Input Power Level (704~716 MHz): 29 dBm (50k hours Max.)
2. DC Voltage: +/-5 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 100 V(MM), 200 V(HBM)

RoHS Compliant
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating impedance (Tx port): 50 Ω

Terminating impedance (Rx port): 50 Ω

Terminating impedance (Ant port): 50//12nH Ω

Tx to Ant

Item	Unit	Min.	Typ.	Max.
Insertion Loss (704~716 MHz)	dB(*1)	-	1.6	2.5
Amplitude Ripple (704~716 MHz)	dB	-	0.5	1.2
VSWR Ant (704~716 MHz)	-	-	1.6	2.0
VSWR Tx (704~716 MHz)	-	-	1.6	2.0
Attenuation (Reference level from 0 dB)				
10 ~ 670 MHz	dB	30	38	-
670 ~ 698 MHz	dB	1	5.5	-
722 ~ 728 MHz	dB	2	7.9	-
730 ~ 734 MHz	dB	17	34	-
734 ~ 746 MHz	dB	45	58	-
746 ~ 768 MHz	dB	30	45	-
768 ~ 805 MHz	dB	25	40	-
869 ~ 894 MHz	dB	30	38	-
1408 ~ 1432 MHz	dB	25	42	-
1565.42 ~ 1573.374 MHz	dB	40	44	-
1573.374 ~ 1577.466 MHz	dB	40	44	-
1577.466 ~ 1585.42 MHz	dB	40	44	-
1597.5515 ~ 1605.886 MHz	dB	40	44	-
1805 ~ 1880 MHz	dB	30	42TST DCC	-

1930 ~ 1990 MHz	dB	30	44	-
2110 ~ 2155 MHz	dB	45	47	-
2155 ~ 2170 MHz	dB	30	48	-
2400 ~ 2484 MHz	dB	35	52	-
2816 ~ 2864 MHz	dB	15	56	-
4900 ~ 5850 MHz	dB	5	13	-

Ant to Rx

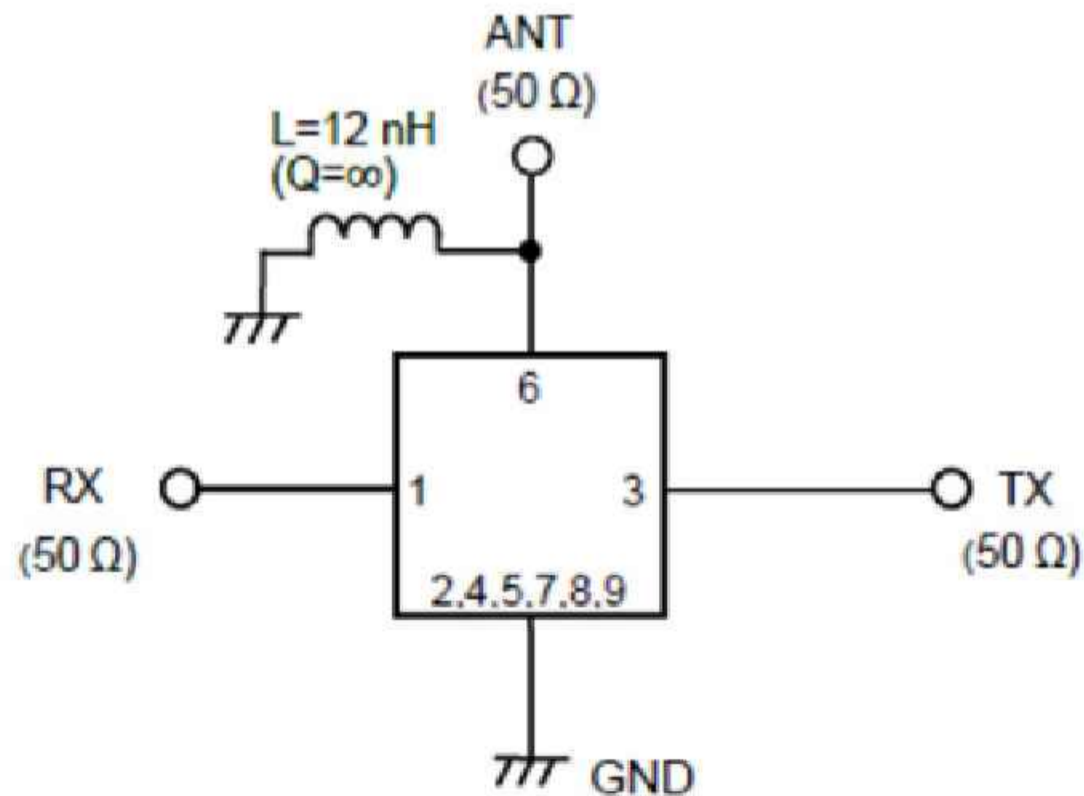
Item	Unit	Min.	Typ.	Max.
Insertion Loss (734~746 MHz)	dB(*1)	-	1.8	2.5
Amplitude Ripple (734~746 MHz)	dB	-	0.5	1.2
VSWR Ant (734~746 MHz)	-	-	1.5	2.0
VSWR Rx (734~746 MHz)	-	-	1.5	2.0
Attenuation (Reference level from 0 dB)				
1 ~ 704 MHz	dB	40	63	-
30 MHz	dB	50	100	-
704 ~ 716 MHz	dB	50	60	-
716 ~ 727 MHz	dB	20	36	-
727 ~ 728 MHz	dB	10	29	-
776 ~ 793 MHz	dB	35	50	-
793 ~ 805 MHz	dB	35	51	-
814 ~ 4000 MHz	dB	40	50	-
4000 ~ 6000 MHz	dB	35	39	-
2202 ~ 2238 MHz	dB	40	53	-
2400 ~ 2500 MHz	dB	40	51	-
6606 ~ 6714 MHz	dB	30	39	-
7340 ~ 7460 MHz	dB	25	39	-
8074 ~ 8206 MHz	dB	20	38	-
8808 ~ 8952 MHz	dB	20	38	-
9542 ~ 9698 MHz	dB	15	39	-
10276 ~ 10444 MHz	dB	15	38	-
11010 ~ 11190 MHz	dB	15	40	-
11744 ~ 11936 MHz	dB	15	41	-
12478 ~ 12682 MHz	dB	15	40	-

Tx to Rx

Item	Unit	Min.	Typ.	Max.	
Isolation (Reference level from 0 dB)	704 ~ 716 MHz	dB	57	61	-
	734 ~ 738 MHz	dB	60	67	-
	738 ~ 742 MHz	dB	60	66	-
	742 ~ 746 MHz	dB	55	63	-
	1408 ~ 1432 MHz	dB	30	60	-
	2112 ~ 2148 MHz	dB	30	53	-
	2816 ~ 2864 MHz	dB	30	49	-

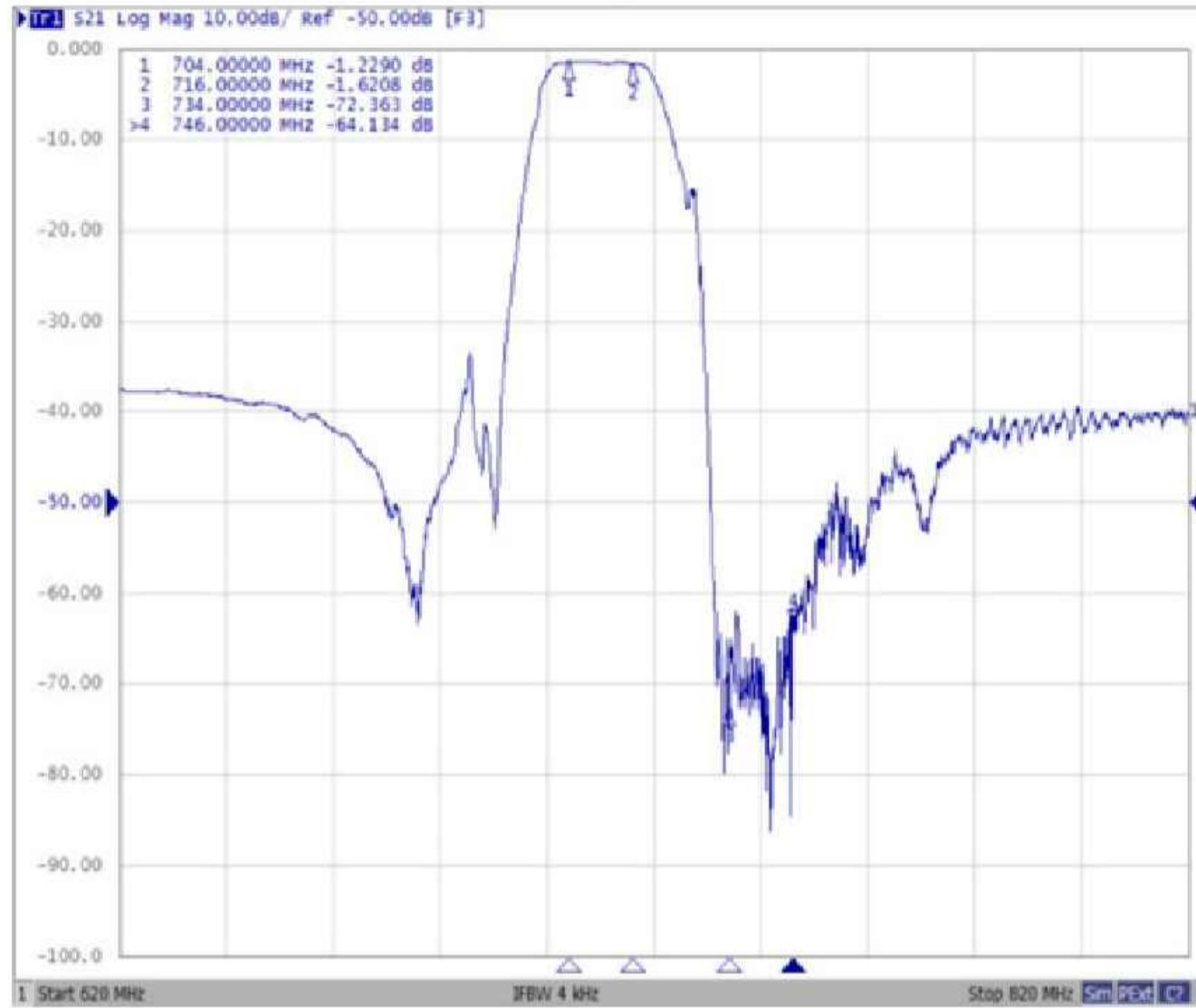
(*1) Specification of insertion loss excludes loss that comes from the test board.

C. MEASUREMENT CIRCUIT:

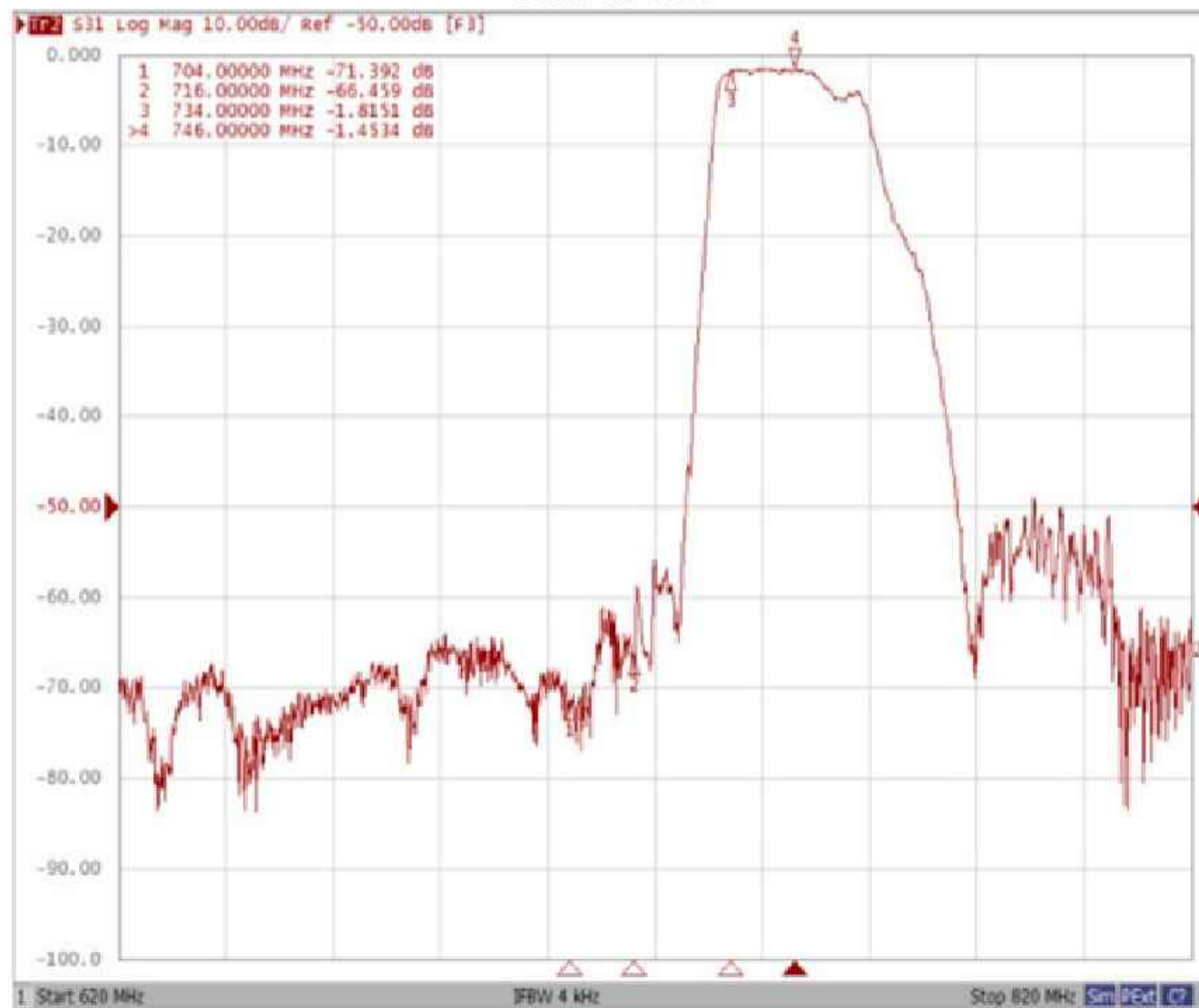


D. FREQUENCY CHARACTERISTICS:

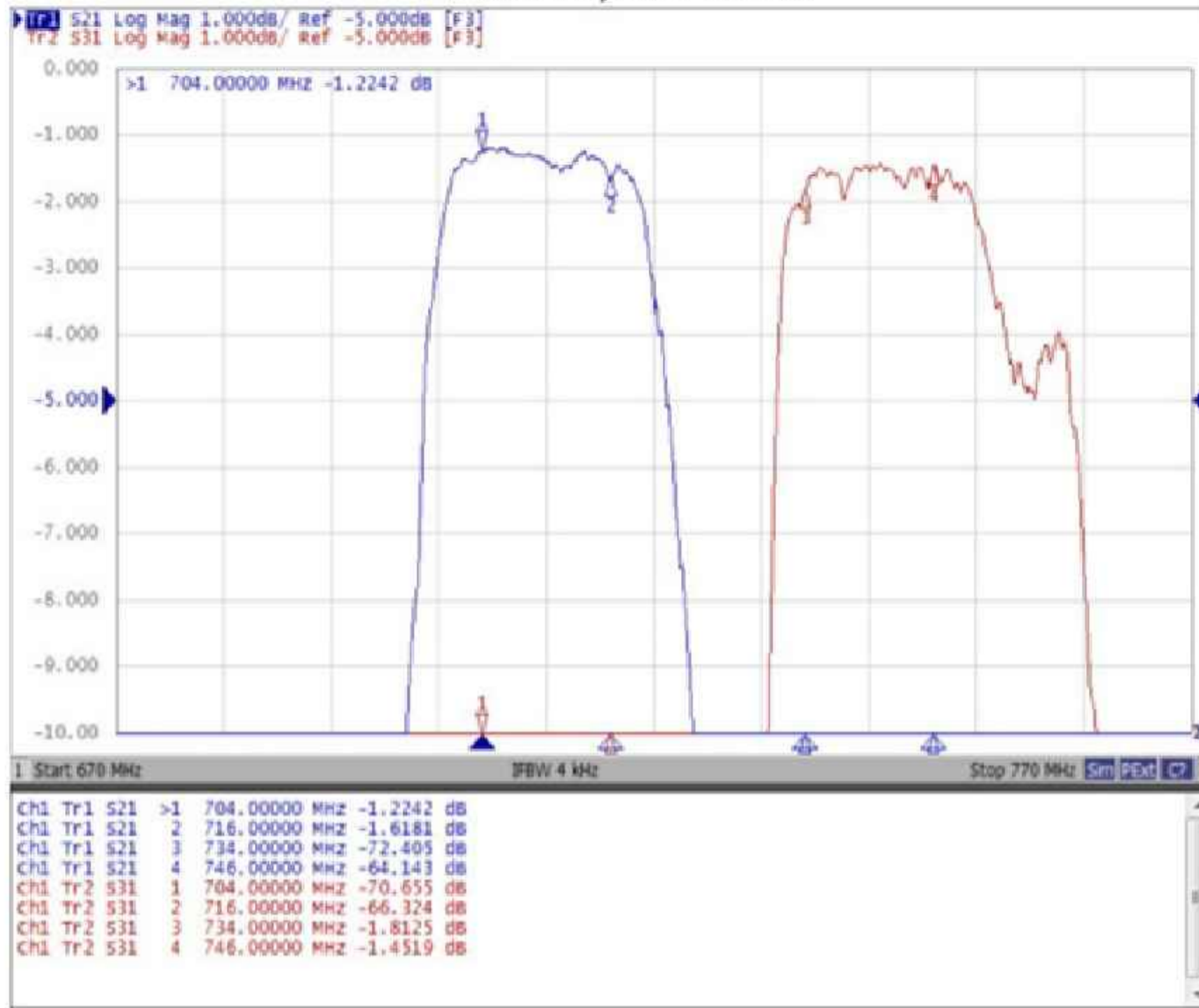
Tx to Ant



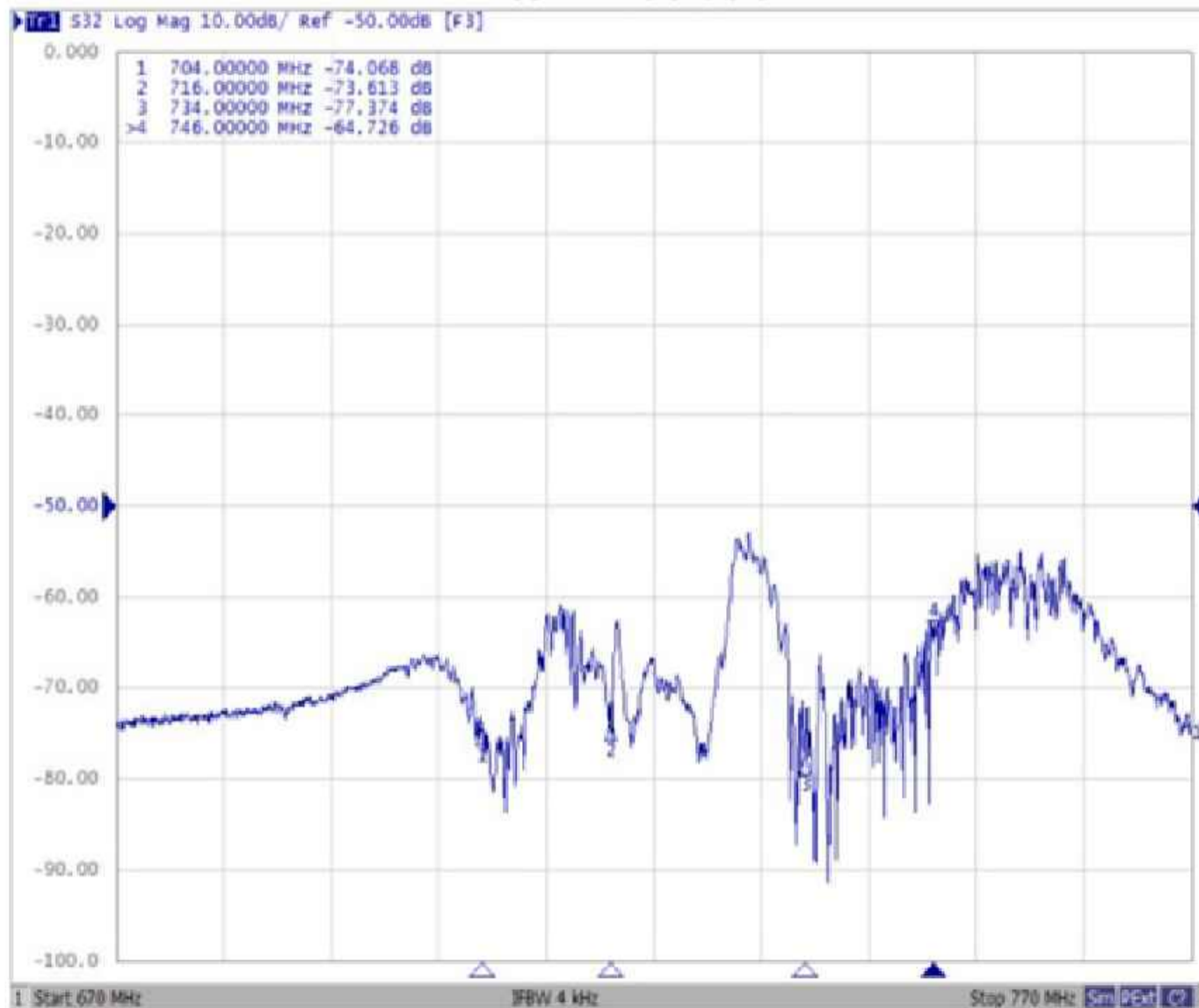
Ant to Rx



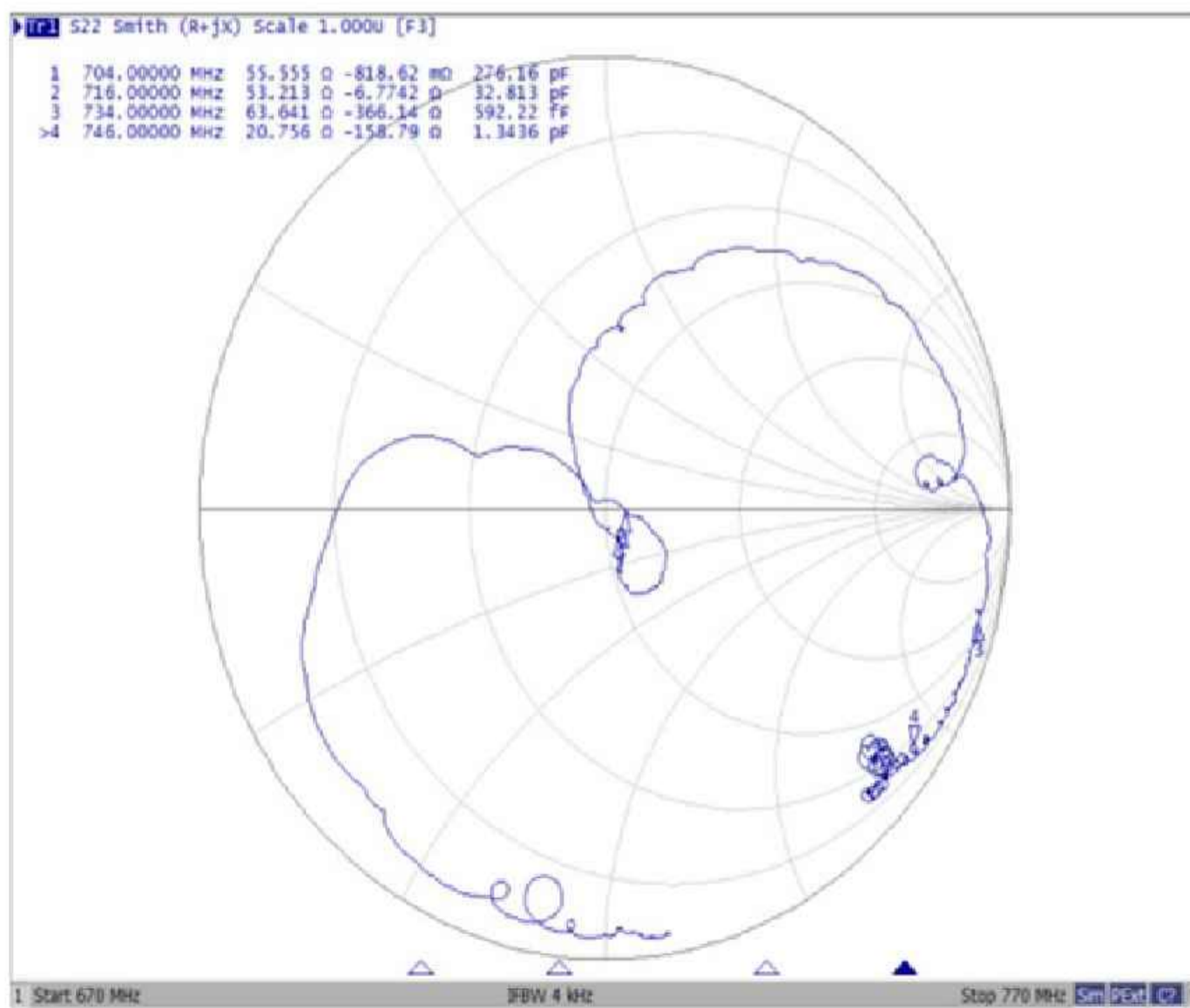
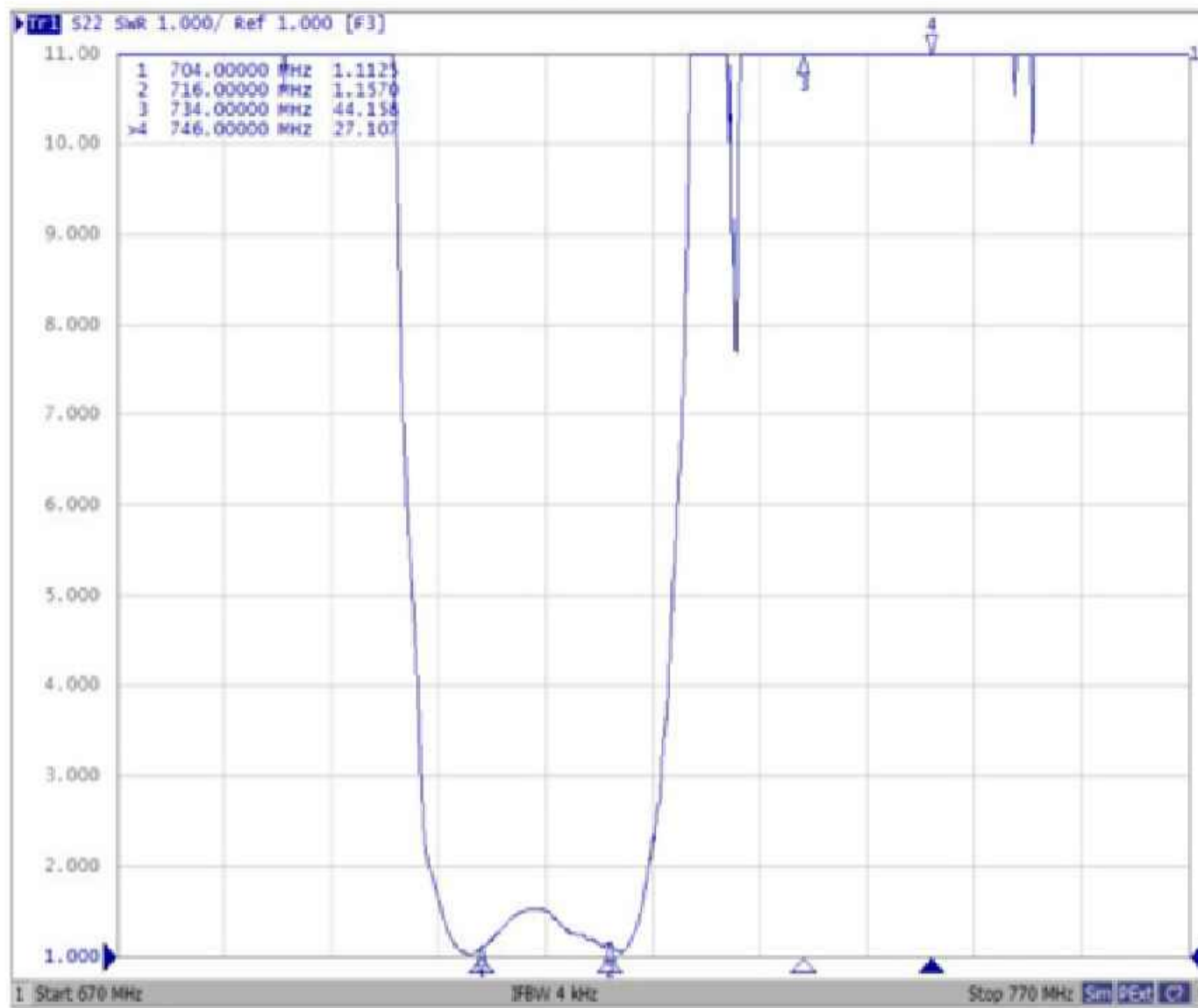
Tx to Ant, Ant to Rx



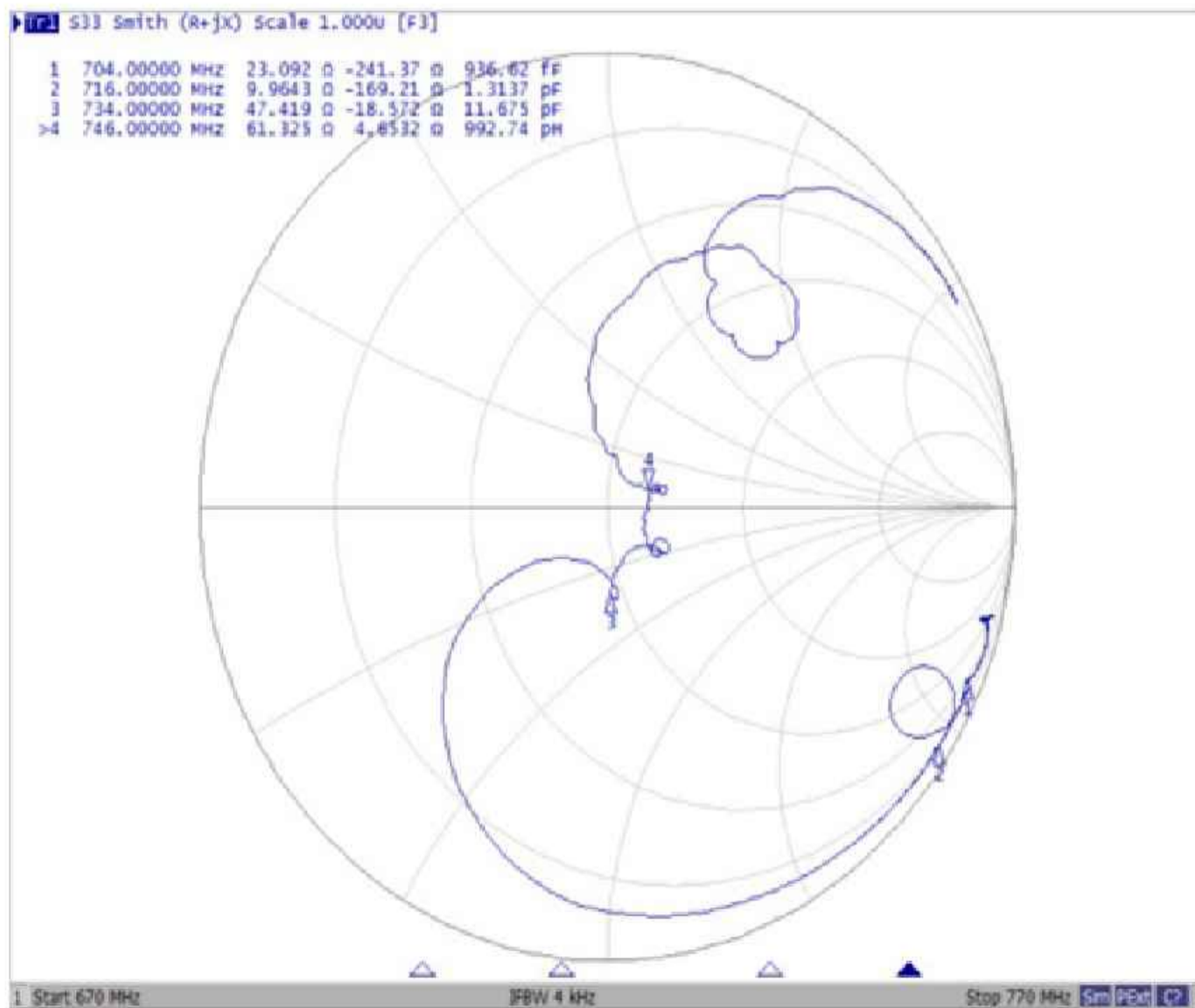
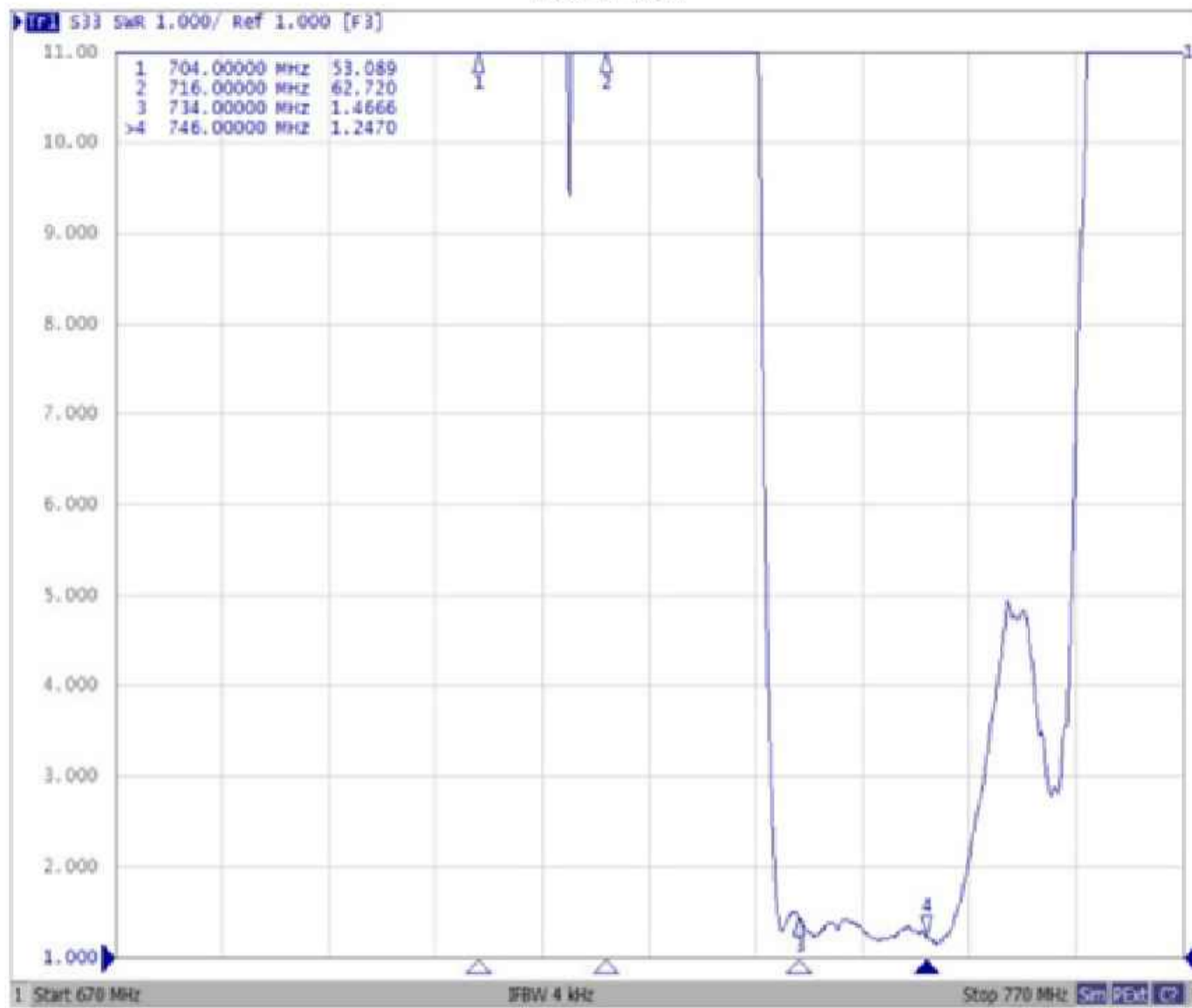
Tx to Rx Isolation



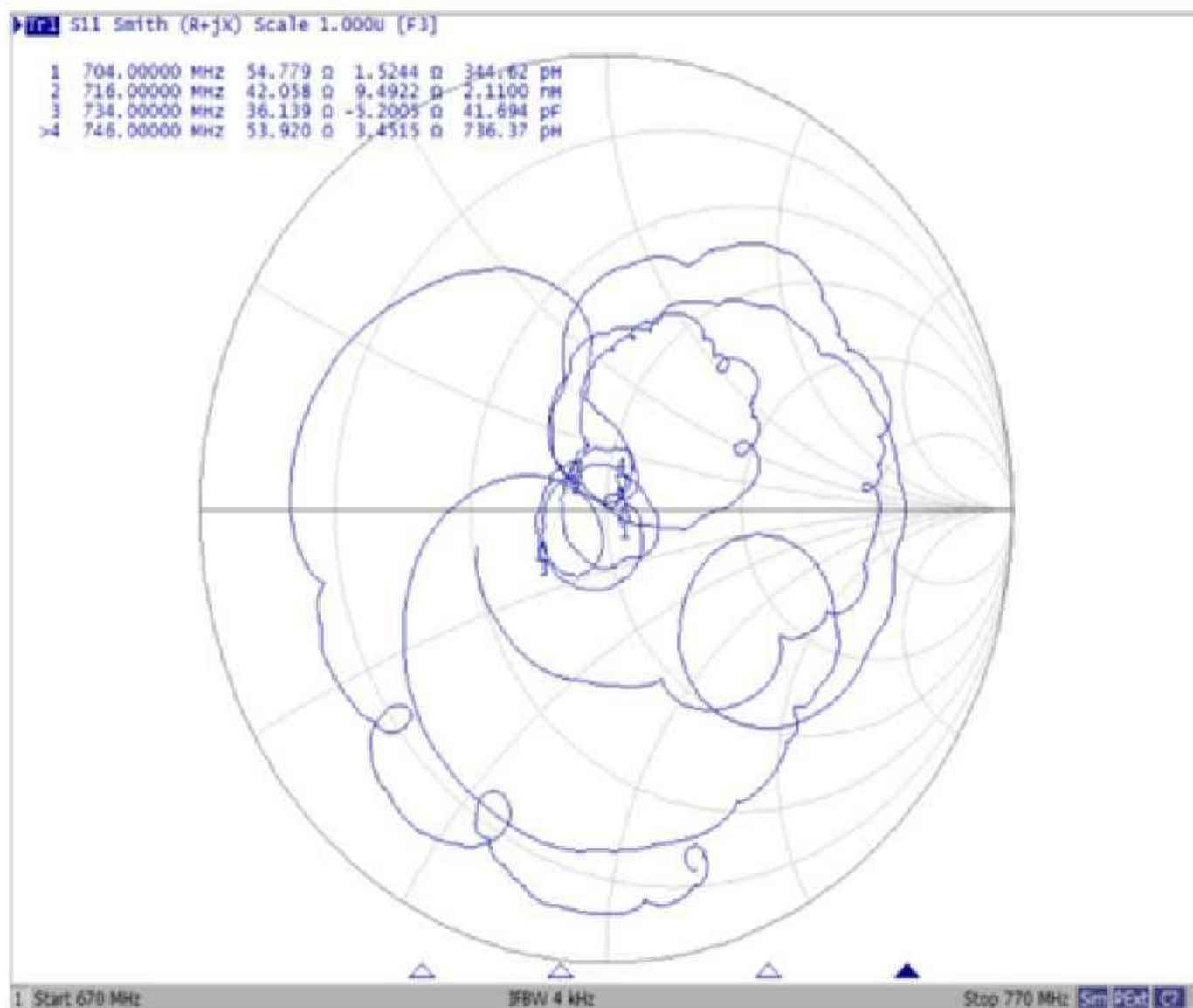
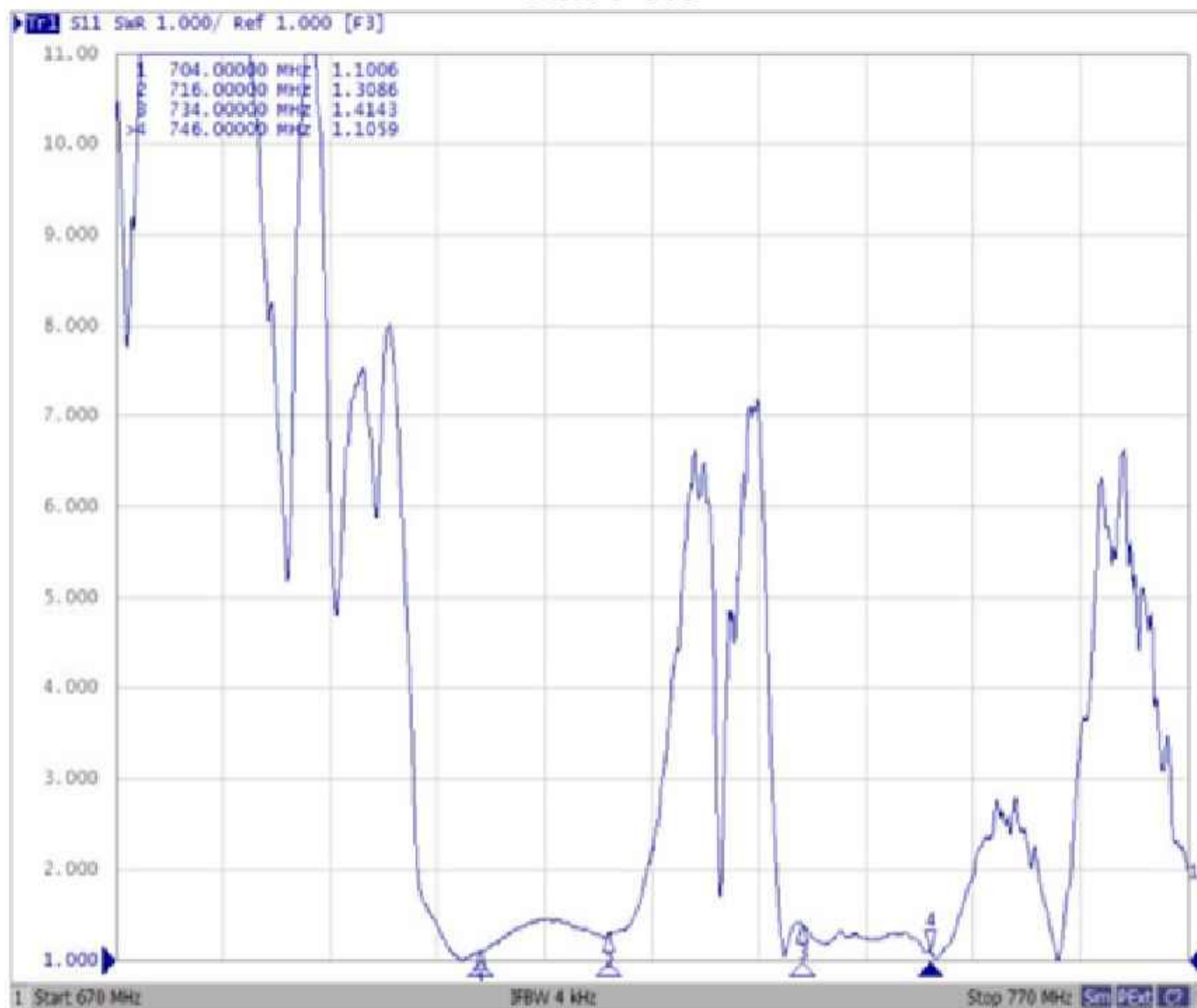
Tx Port



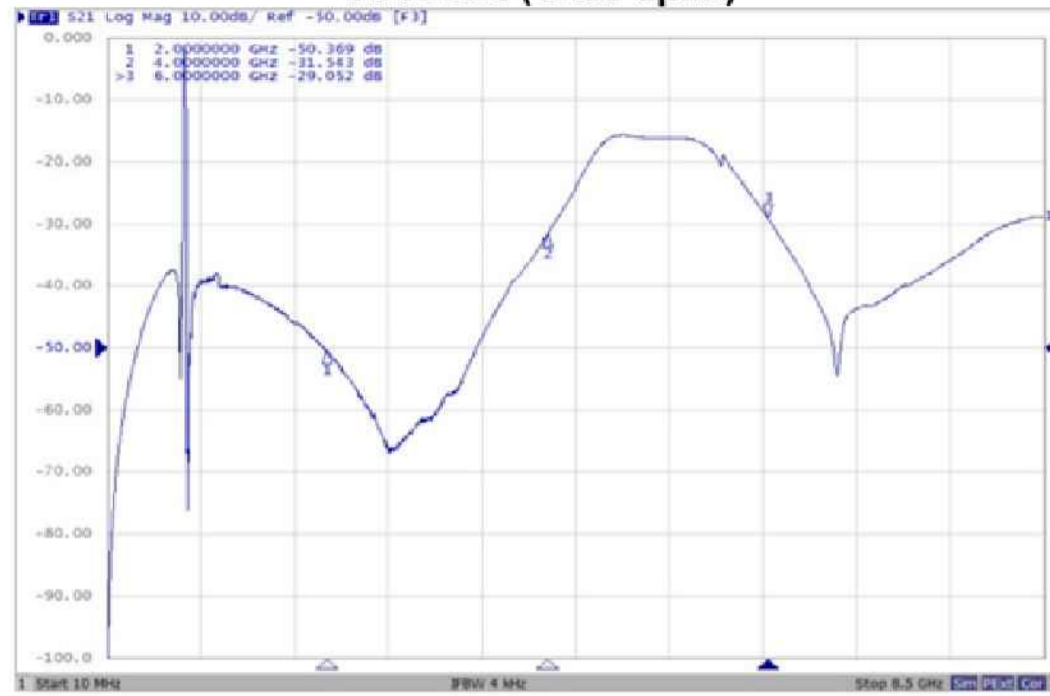
Rx Port



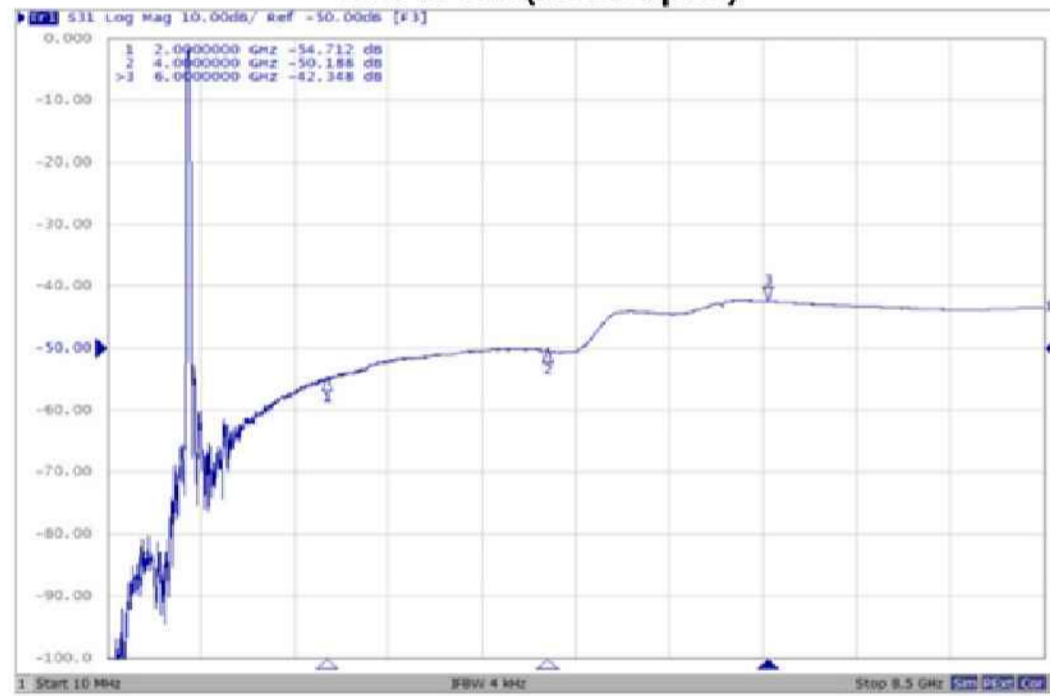
Ant Port



Tx to Ant (Wide span)



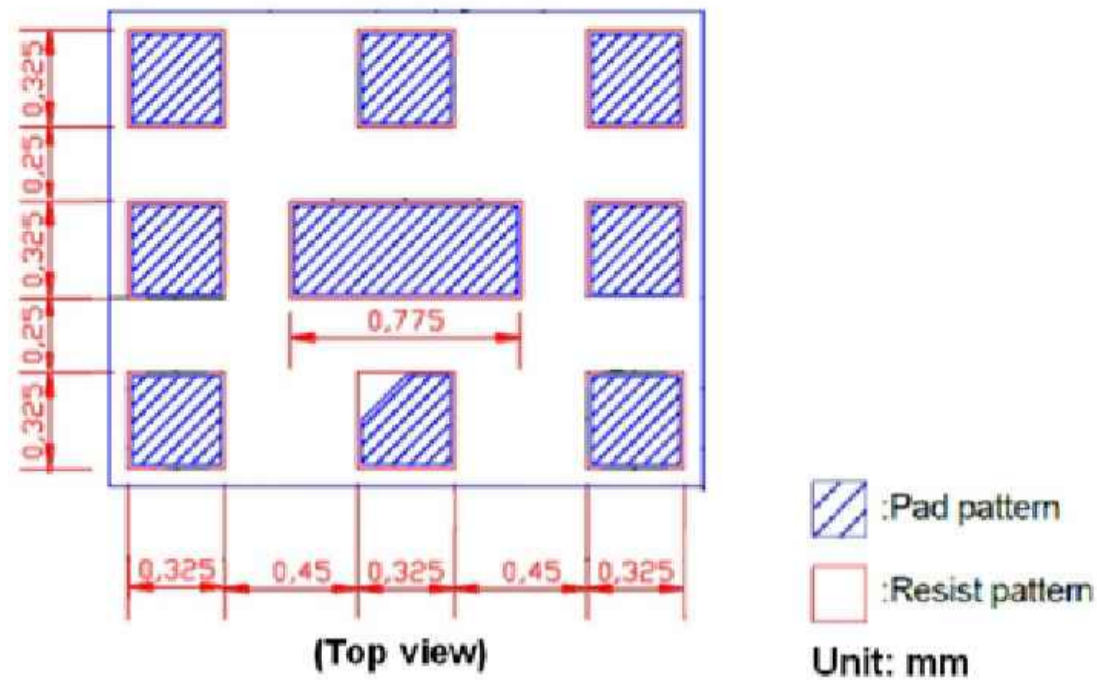
Ant to Rx (Wide span)



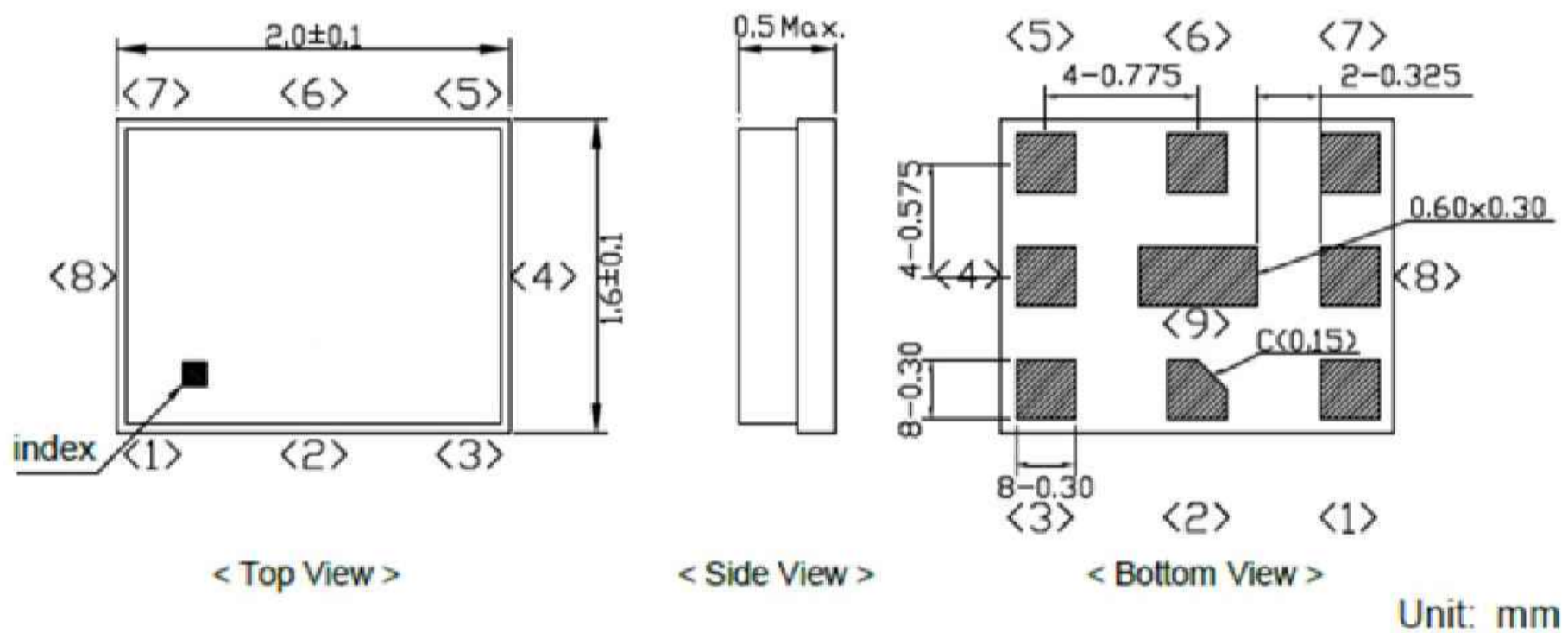
Tx to Rx (Wide span)



E. PCB Footprint:



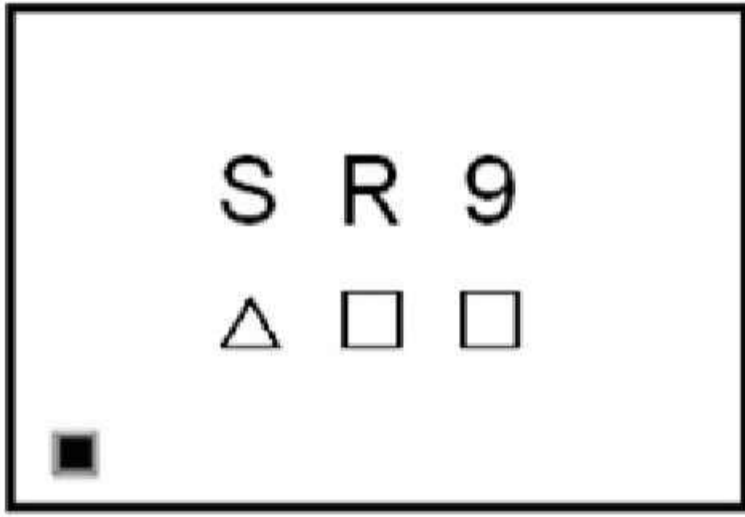
F. OUTLINE DRAWING:



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
9	GND	Ground Pin

Top View (Mass Production):



△ : **Date Code**

□ : **Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)**

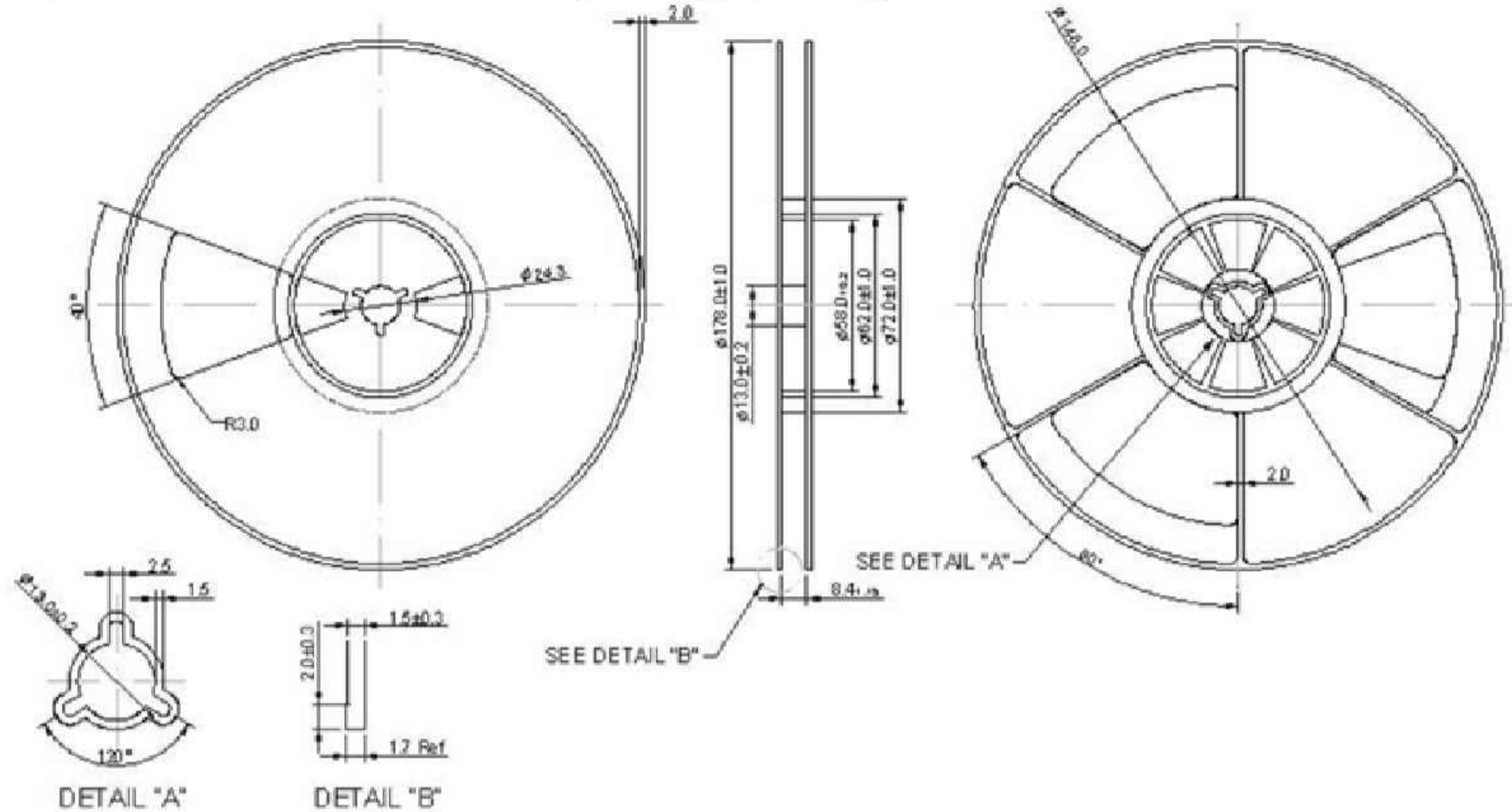
Date Code: Follow below table. (4-year cycle)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019 / 2023	a	b	c	d	e	f	g	h	j	k	l	m
2020 / 2024	n	p	q	r	s	t	u	v	w	x	y	z
2021 / 2025	A	B	C	D	E	F	G	H	J	K	L	M
2022 / 2026	N	P	Q	R	S	T	U	V	W	X	Y	Z

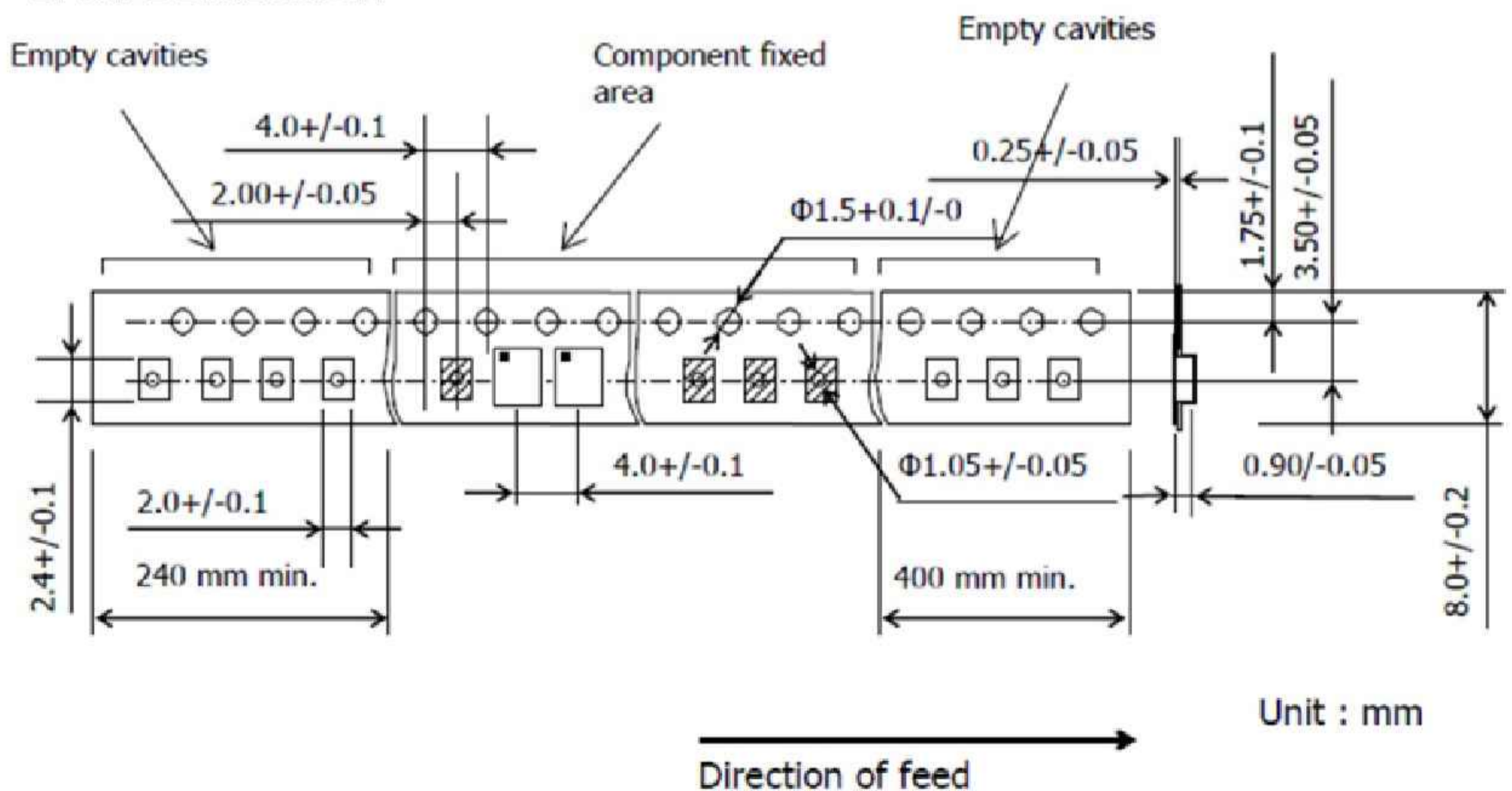
G. PACKING: (Ref: WI-75M03)

1. REEL DIMENSION

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



2. TAPE DIMENSION



H. 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.

