

# BT Antenna Test Report



Customer	Shenzhen Orange Digital
Project	R3
Antenna Revision	A1
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Checked by	15993920520
Date:	2021. 04. 26

## ***Purpose***

This report is to measure the performance of BT antenna for R3. The antenna operating frequency at 2.4-2.5GHz, All test data are showed as below.

## ***Content***

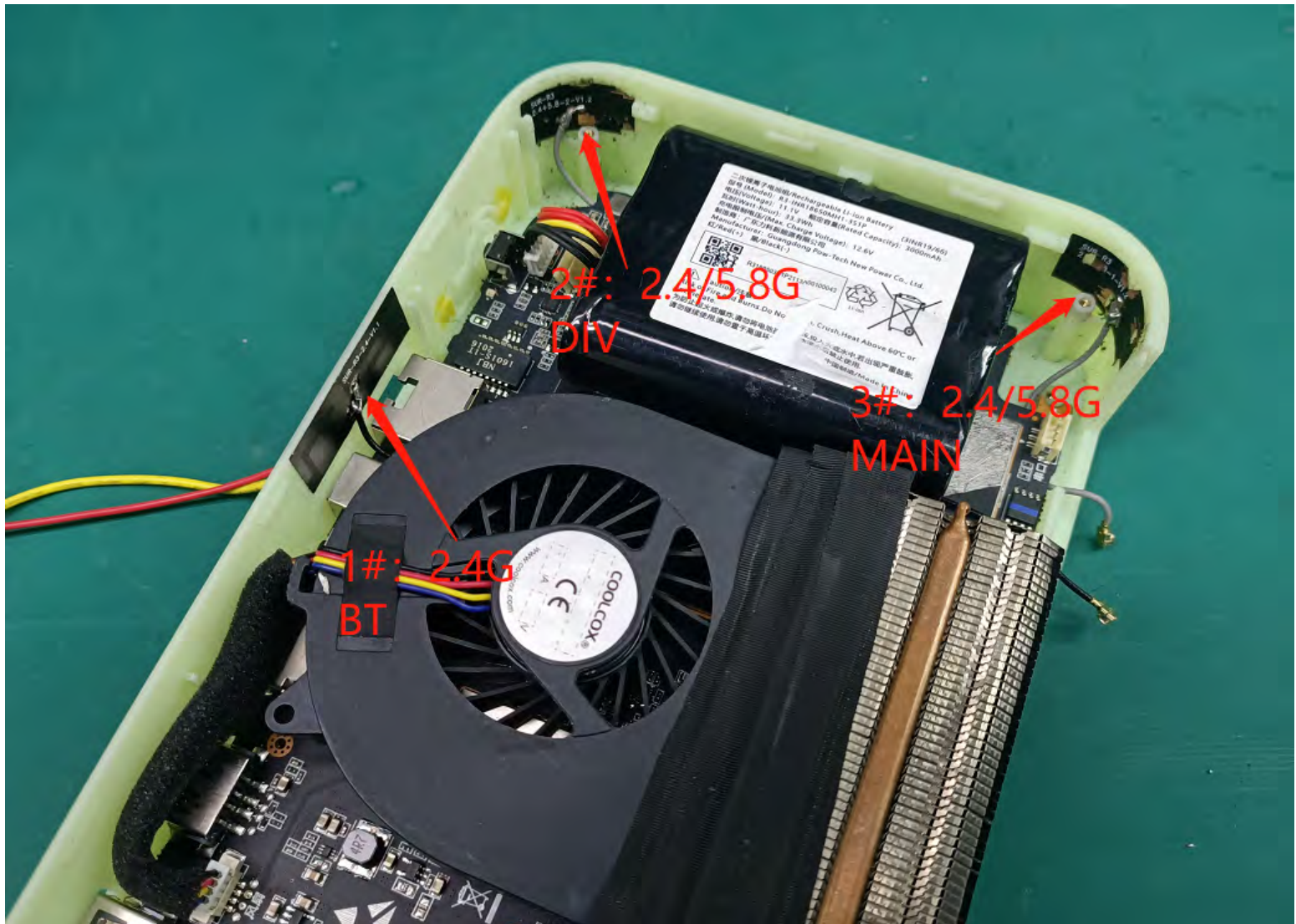
1. Product Overview & Dimension
2. Test system
3. Antenna Matching Network
4. Test Result

# 2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C

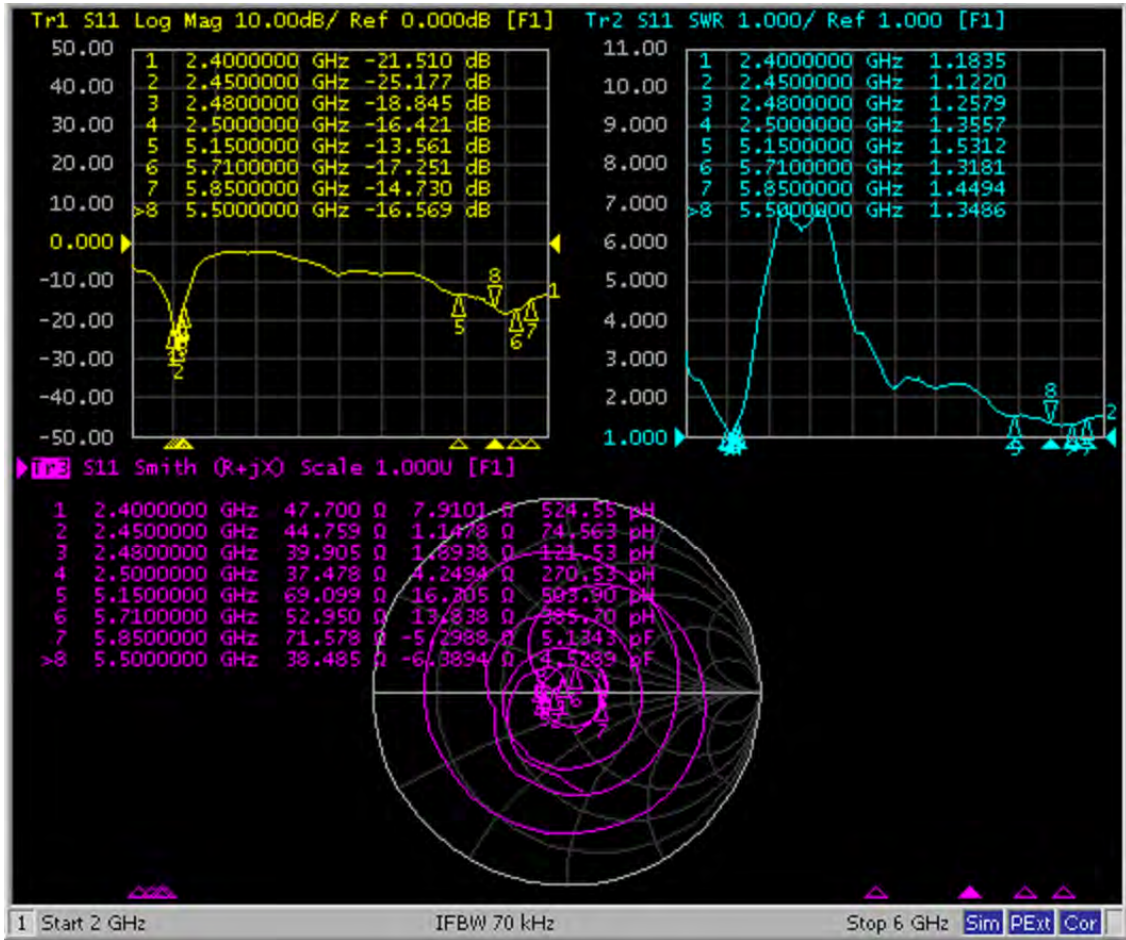


### 3. 装配图

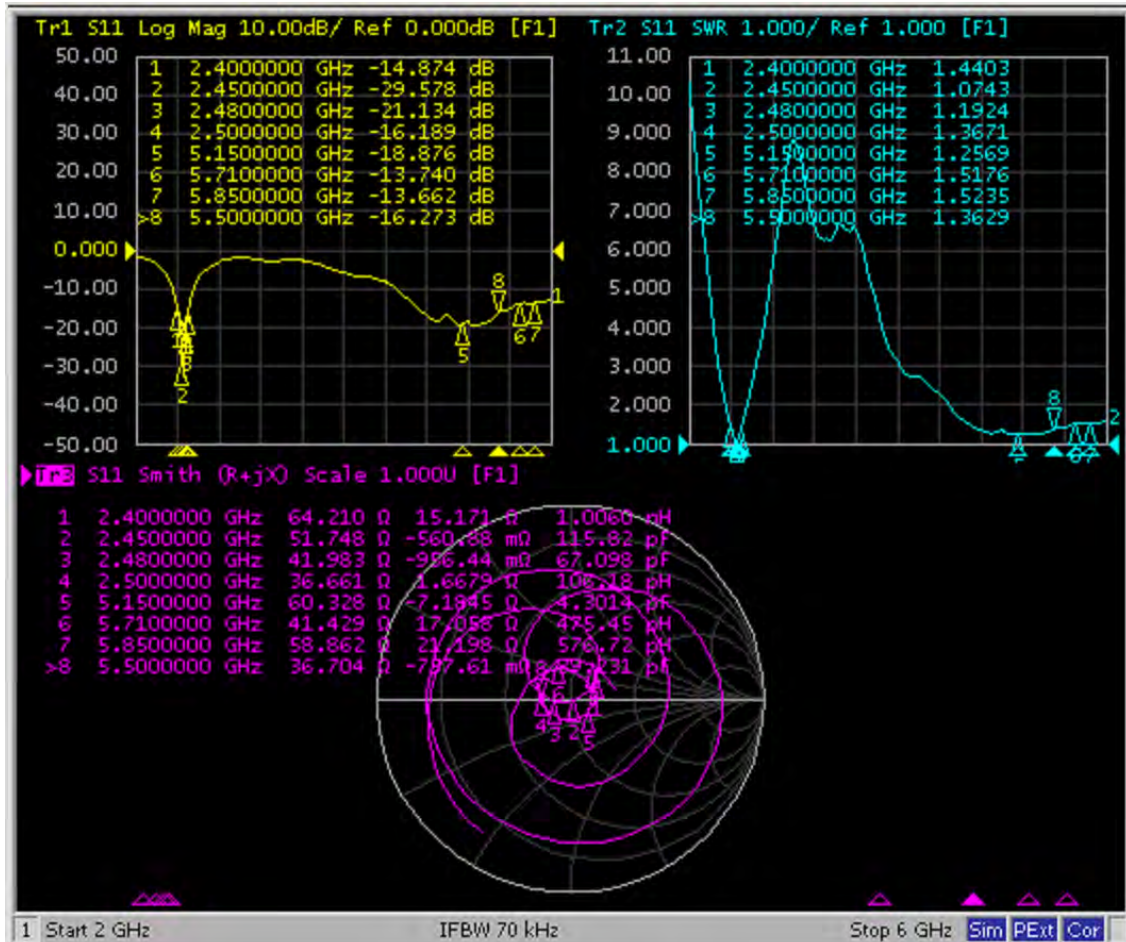


# 天线SS11

1#

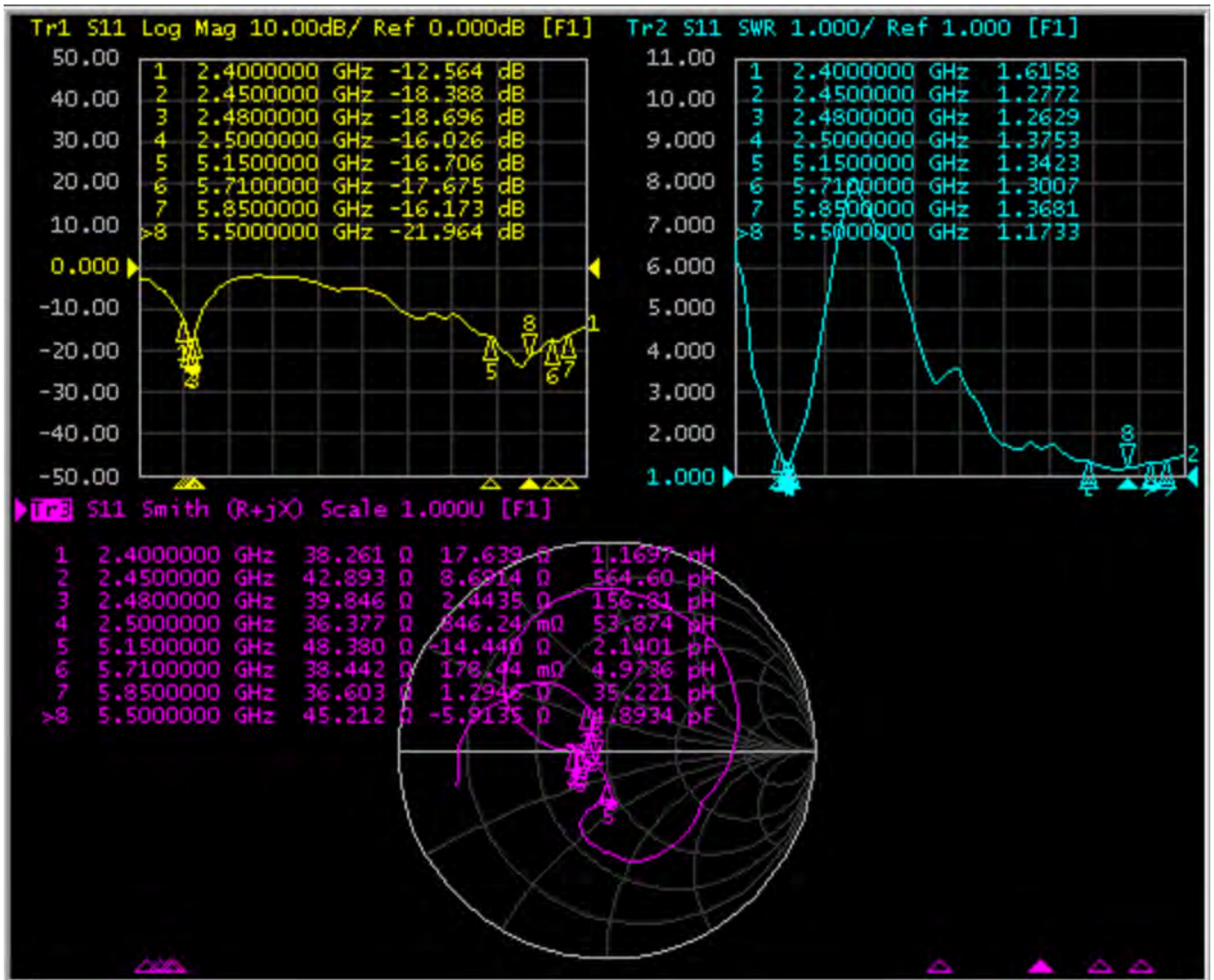


2#



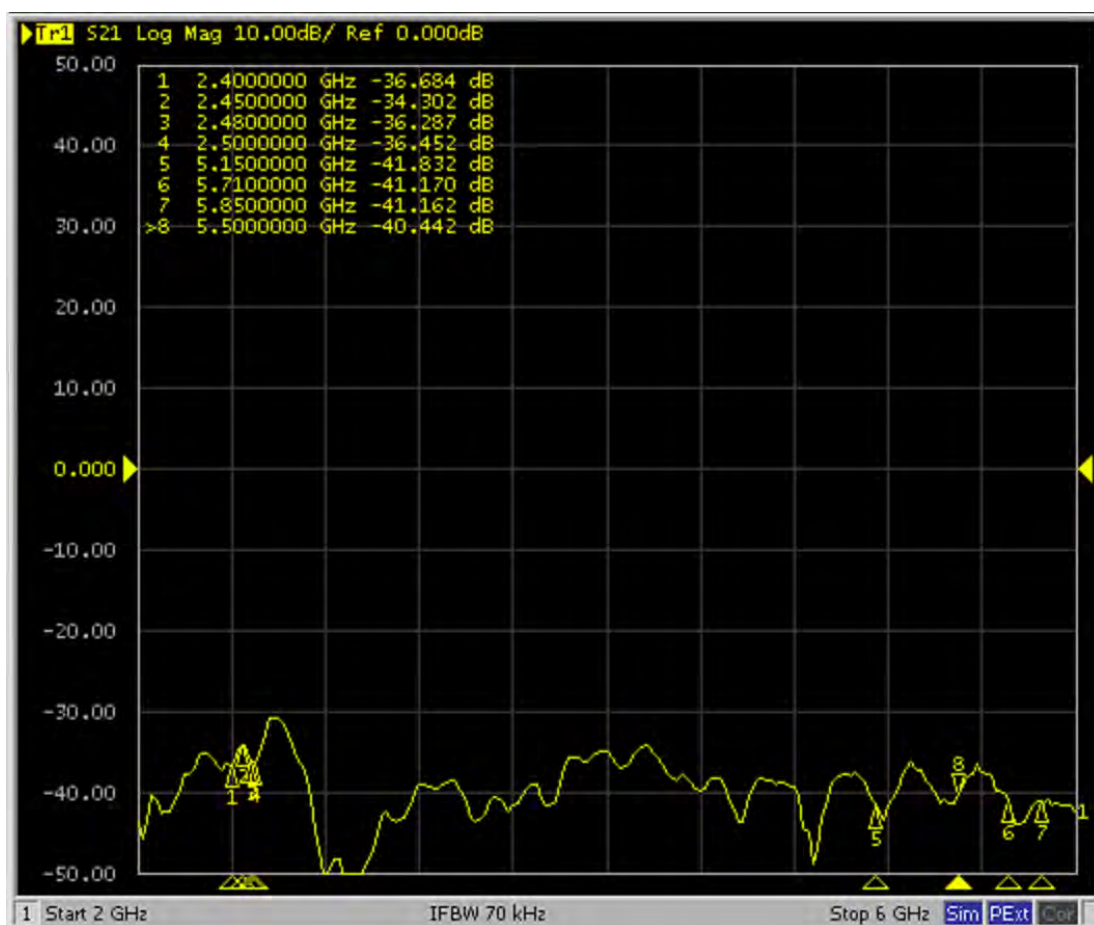
# 天线SS11

3#

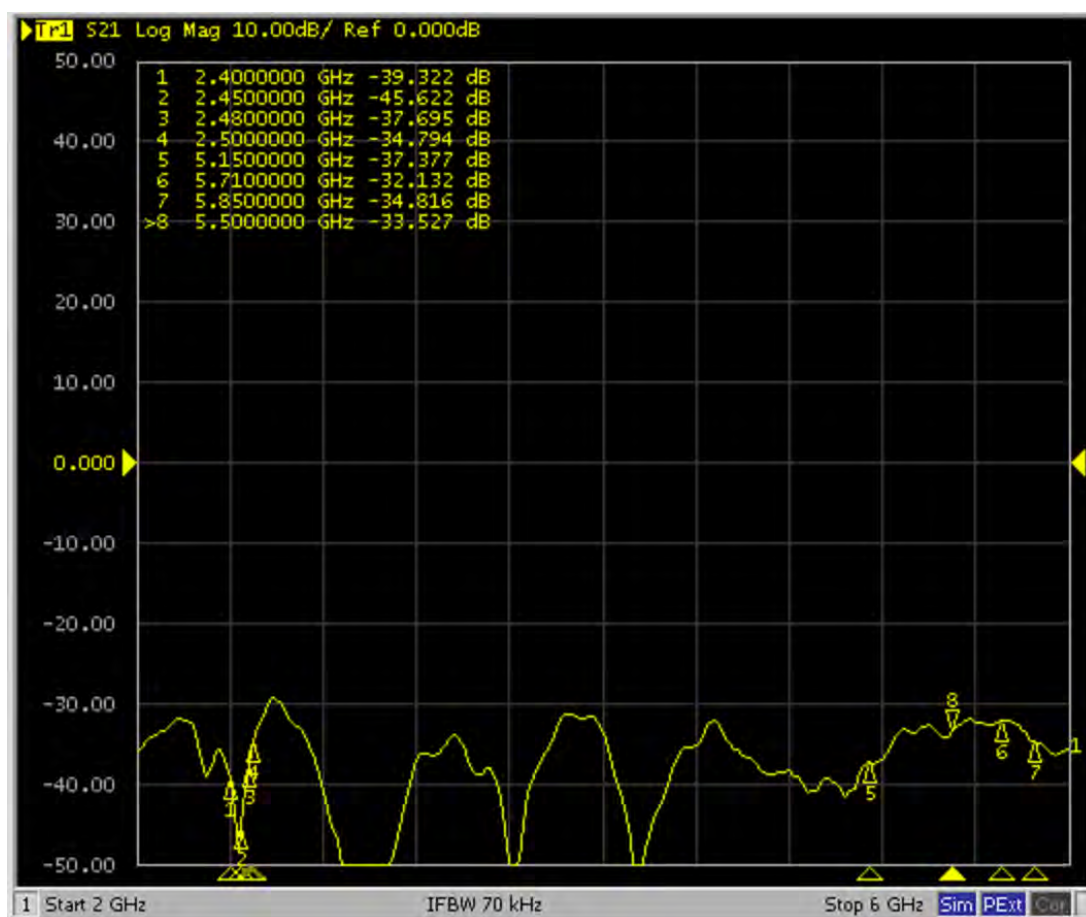


# 天线SS211

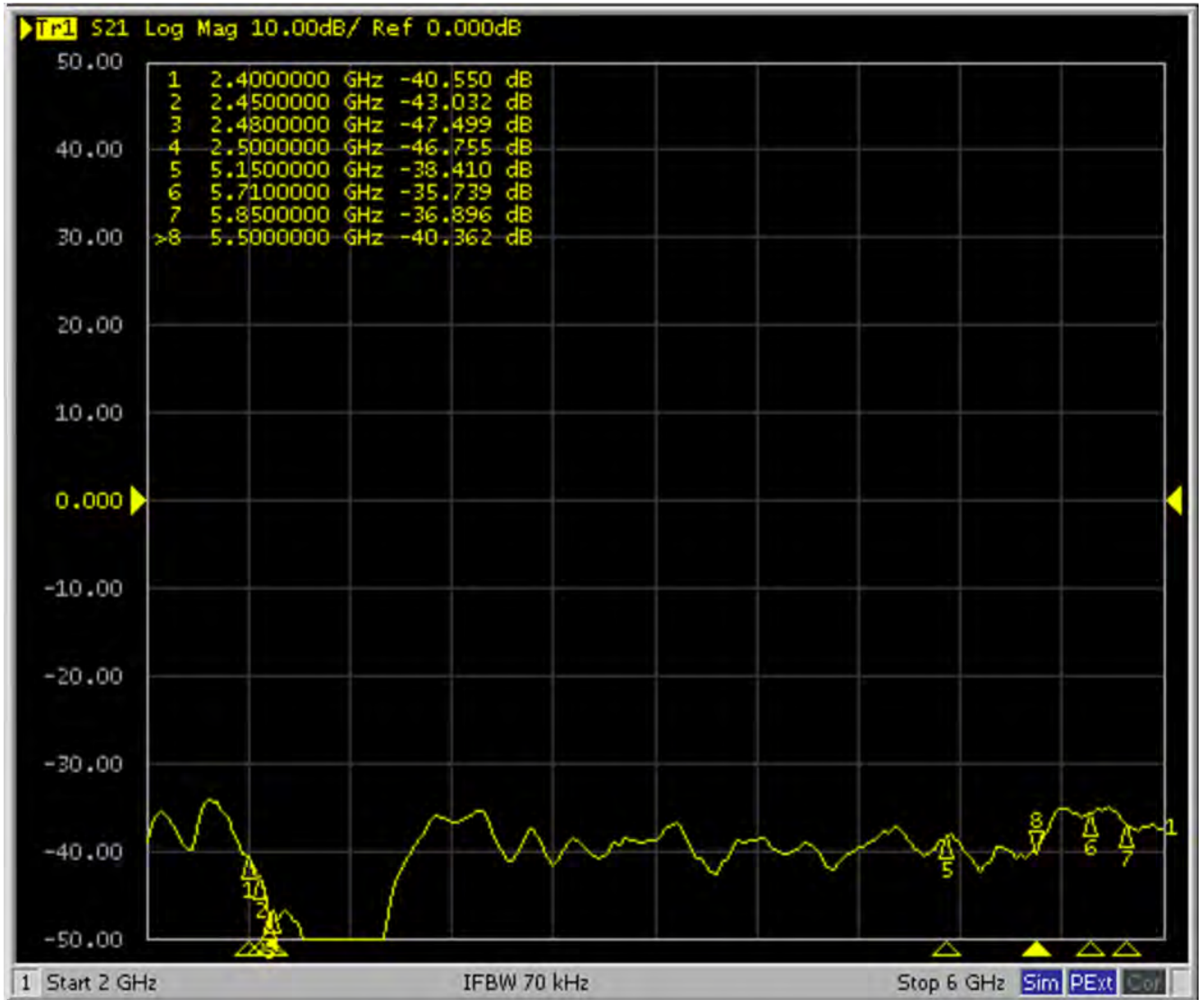
1-2



1-3



# 天线S21S21



2-3



## 6 天线无源效率

1#-BT 天线无源		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	2.95	54.02
2410.0	3.41	52.74
2420.0	3.70	51.55
2430.0	3.74	50.68
2440.0	3.67	51.72
2450.0	3.37	51.46
2460.0	3.00	50.83
2470.0	2.70	50.11
2480.0	2.64	50.16
2490.0	2.68	50.24
2500.0	2.77	50.64

## 6天线无源效率

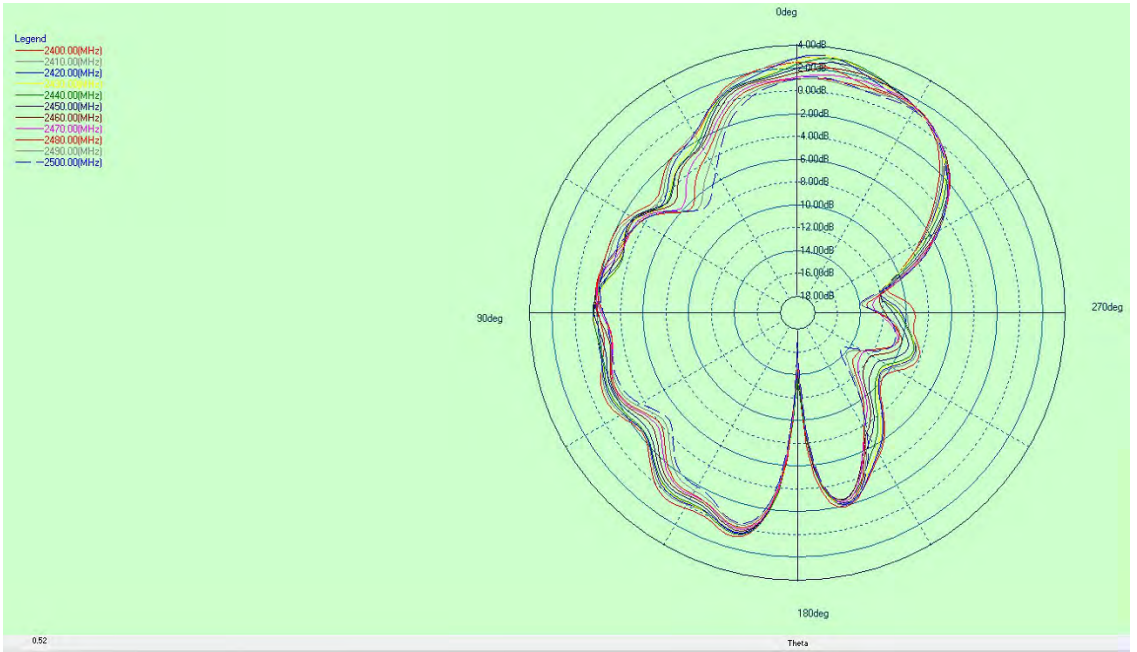
2#-WIFI 天线无源		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	3.28	50.34
2410.0	3.12	50.63
2420.0	3.10	50.47
2430.0	3.07	51.11
2440.0	3.23	51.41
2450.0	3.18	52.25
2460.0	3.19	52.47
2470.0	3.50	52.24
2480.0	3.88	52.70
2490.0	4.03	52.74
2500.0	4.16	51.69
5150.0	3.70	48.87
5200.0	3.97	49.35
5250.0	4.21	51.31
5300.0	4.11	51.34
5350.0	4.32	52.73
5400.0	4.32	54.19
5450.0	4.24	56.48
5500.0	4.22	57.52
5550.0	4.02	57.52
5600.0	4.34	56.09
5650.0	4.40	59.19
5700.0	4.02	58.61
5750.0	4.25	59.86
5800.0	4.51	58.72
5850.0	4.68	58.86

## 6 天线无源效率

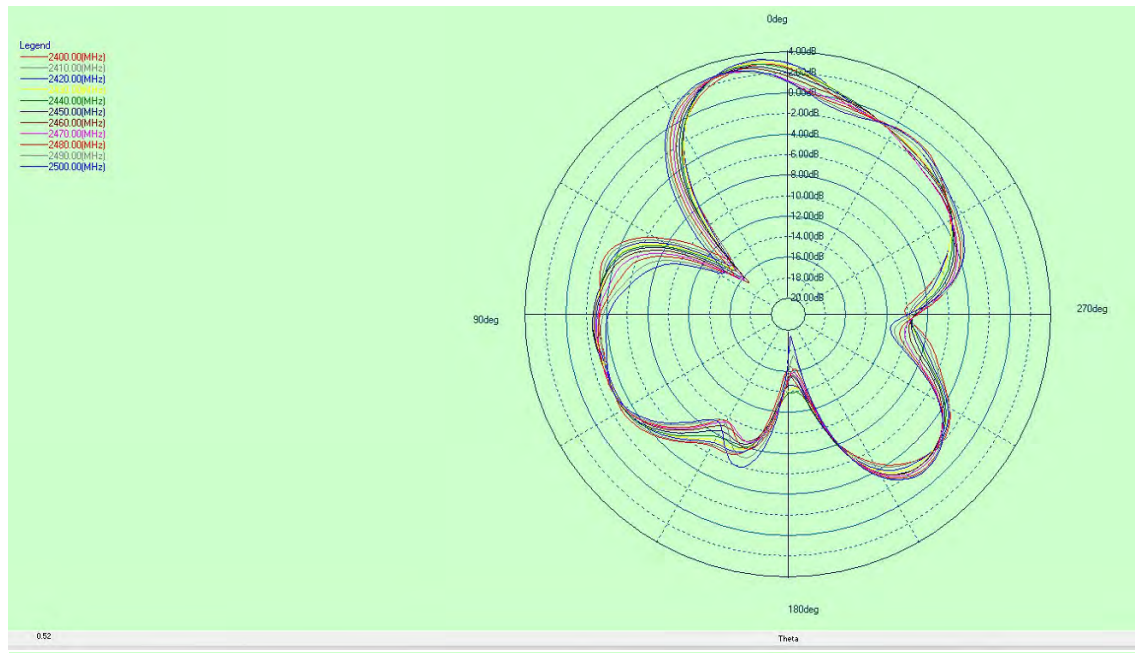
<b>3#-WIFI 天线无源</b>		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	3.72	48.96
2410.0	3.92	49.28
2420.0	4.07	49.68
2430.0	4.17	50.68
2440.0	4.29	51.65
2450.0	4.25	52.05
2460.0	4.40	52.55
2470.0	4.66	53.66
2480.0	4.81	53.59
2490.0	4.76	52.59
2500.0	4.74	51.50
5150.0	2.75	50.61
5200.0	2.48	49.39
5250.0	2.21	48.62
5300.0	2.51	48.86
5350.0	2.58	50.42
5400.0	2.63	51.51
5450.0	2.64	54.79
5500.0	2.68	55.91
5550.0	2.50	56.14
5600.0	2.51	57.01
5650.0	2.89	59.45
5700.0	2.68	59.21
5750.0	3.13	59.11
5800.0	3.42	59.29
5850.0	3.67	60.60

# 7 方向图(1#)

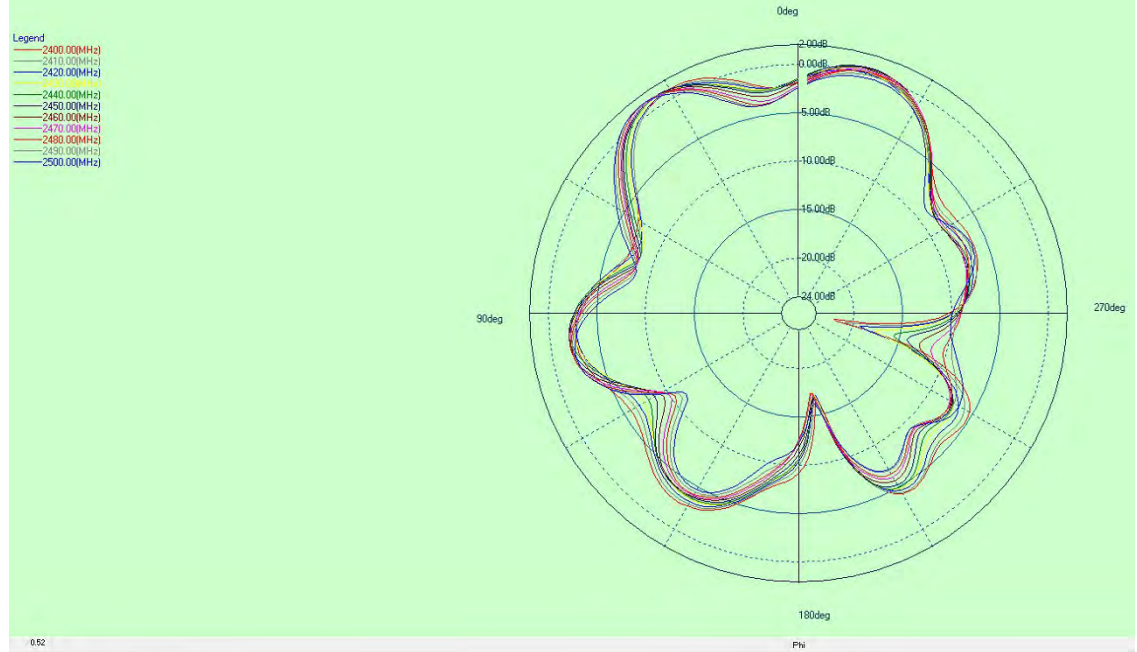
*Phi=0*



*Phi=90*

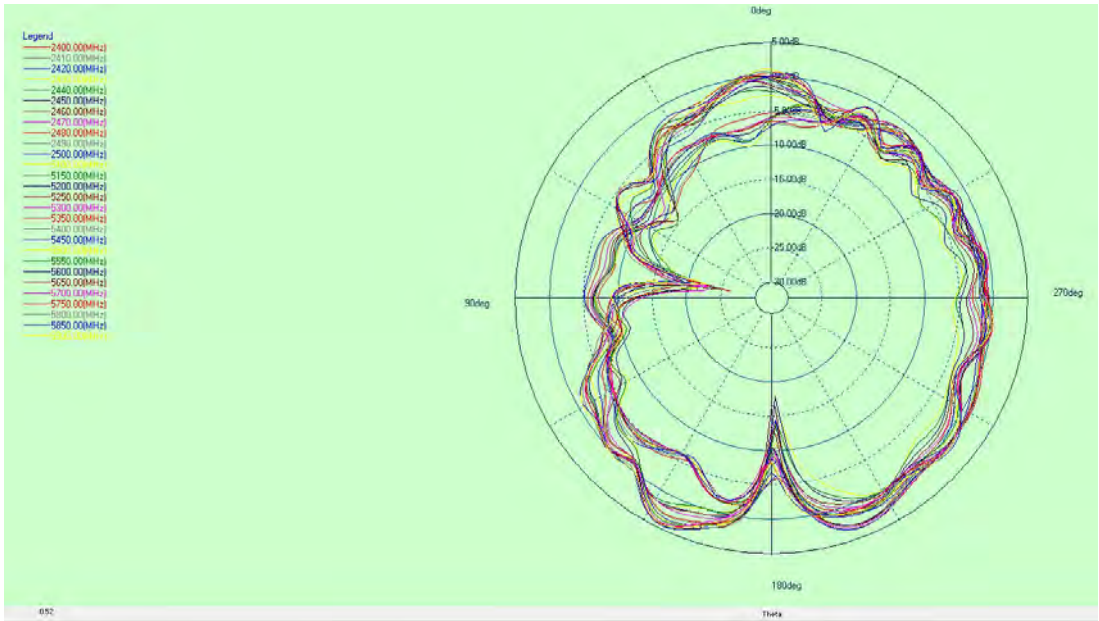


*Theta=90*

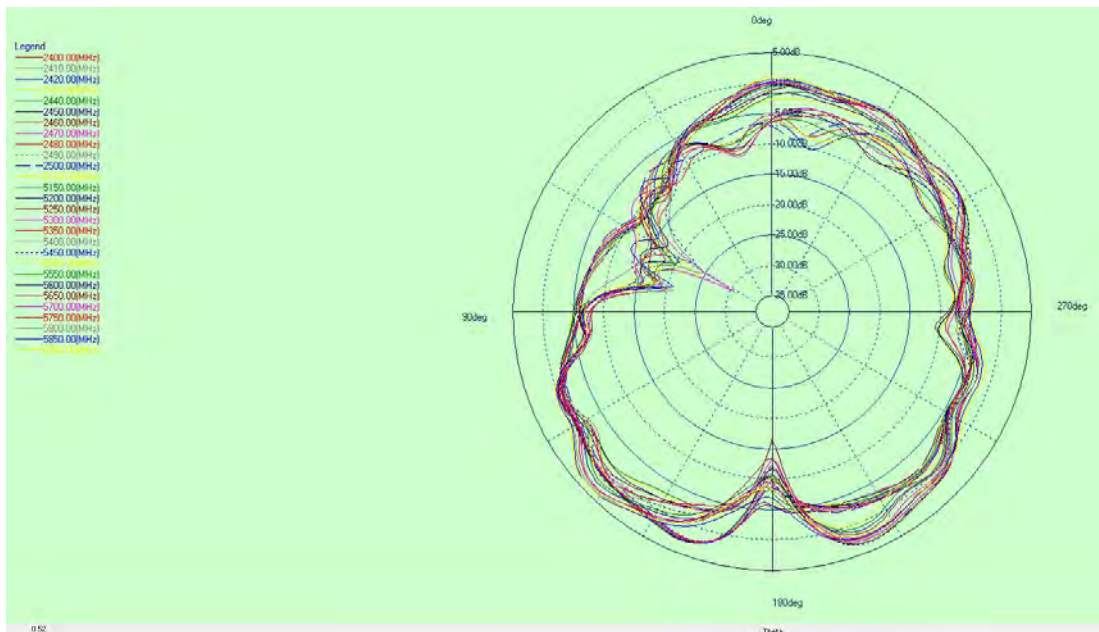


# 7 方向图(2#)

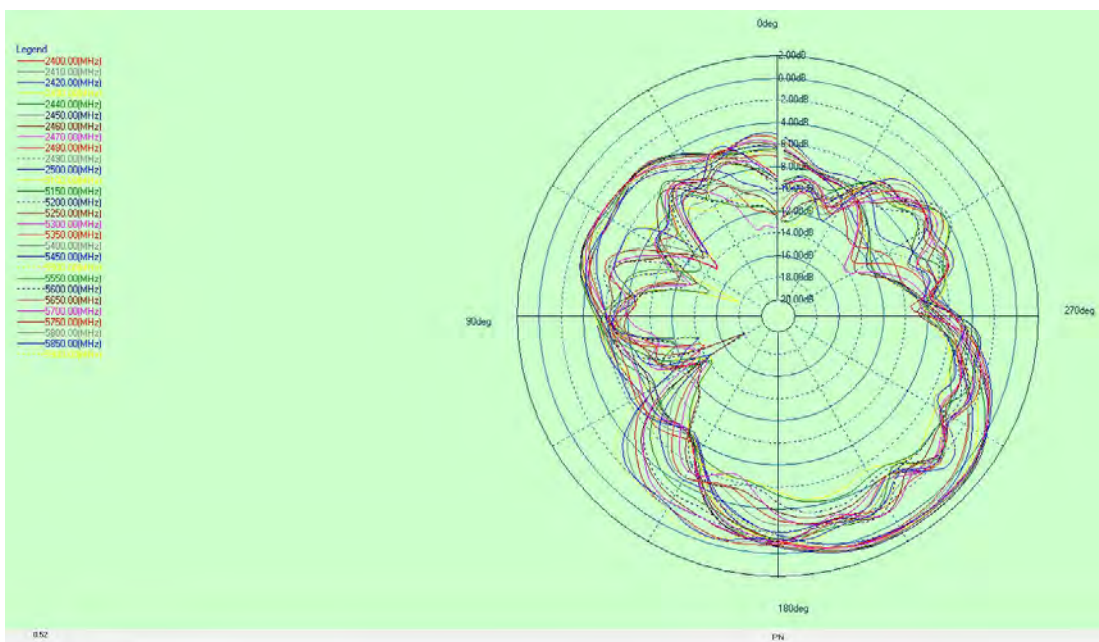
$\Phi=0$



$\Phi=90$

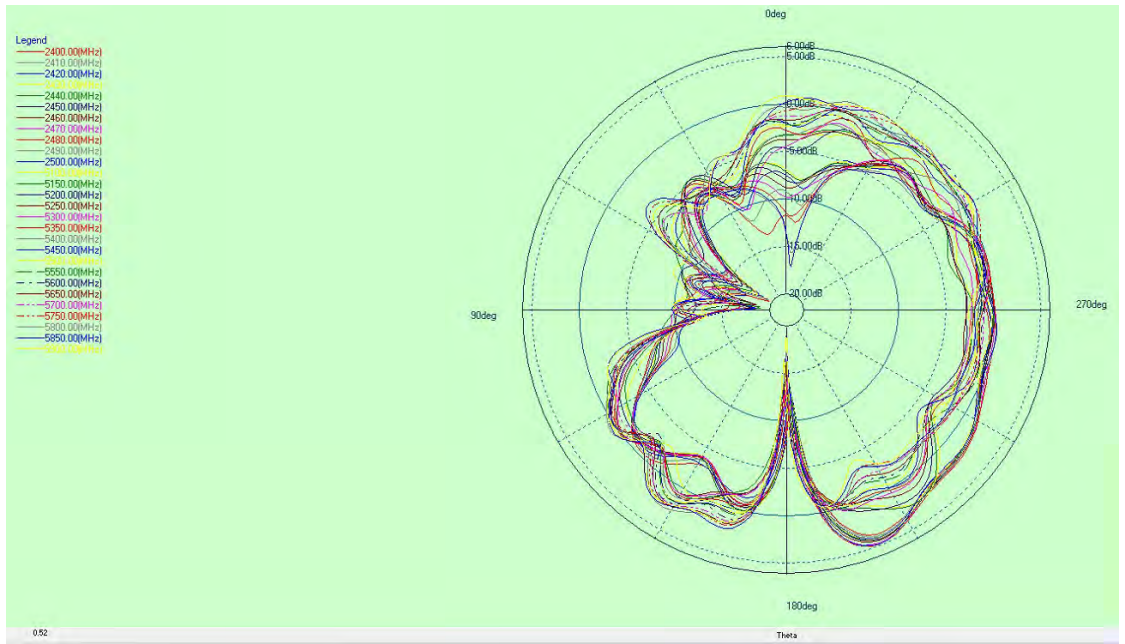


$\Theta=90$

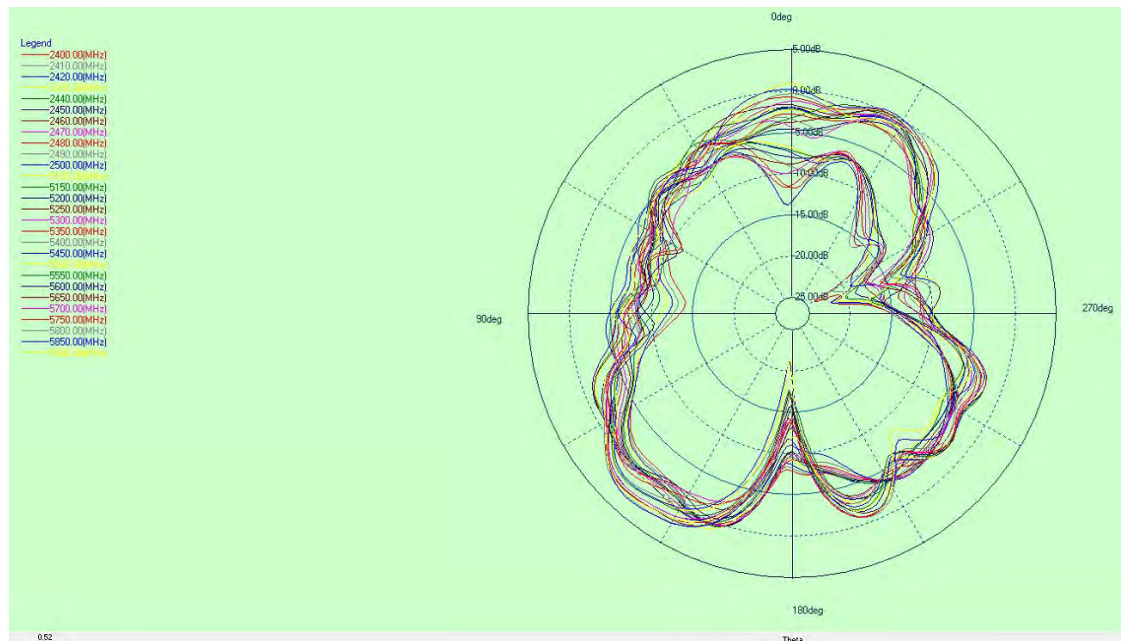


# 7 方向图 (3#)

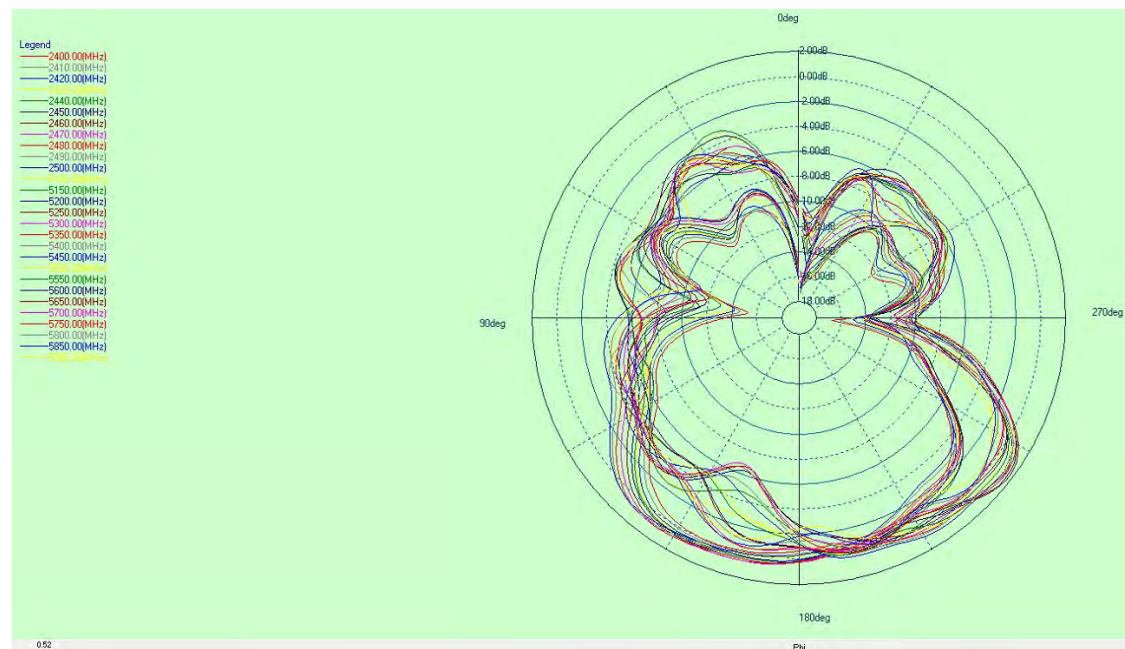
*Phi=0*



*Phi=90*



*Theta=90*



## 8 OTA TEST

OTA TEST			
	信道	TRP	TIS
11b 11Mbps	1	13.81	-82.52
	6	14.28	-82.9
	11	14.4	-82.64
11g 54Mbps	1	12.12	-70.35
	6	12.62	-70.79
	11	12.21	-70.37
11n MCS7	1	11.71	-68.85
	6	11.96	-68.86
	11	11.85	-68.81
11a 54Mbps	36	12.71	-73.56
	100	12.76	-73.65
	165	12.54	-72.88

*Thank you!*

*Thank you!*