

ShenZhen QiXinTongDa Technology Co.,Ltd.

Antenna Test Report

Project Name: F09

Frequency Band:

G2/3/5/8+W1/2/4/5/6/8

FDD1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/66+TDD38/40/41

N1/3/5/8/20/38/41/77/78

DATE: 2024-06-28

ADDRESS: Room503-505,Building211,

1.Test Project

	Test Project	Equipment
1. S Parameter	1. Return Loss (RL) 2. VSWR	Network Analyzer: Agilent 5071B
2. RF Test (2G+3G+4G)	1. power 2. level 3. TRP/TIS	Comprehensive Test: CMW500/8960 Test Environment: Anechoic Chamber

2.Test Equipment



Agilent 5071B (S Parameter (RL/VSWR) Test Equipment)

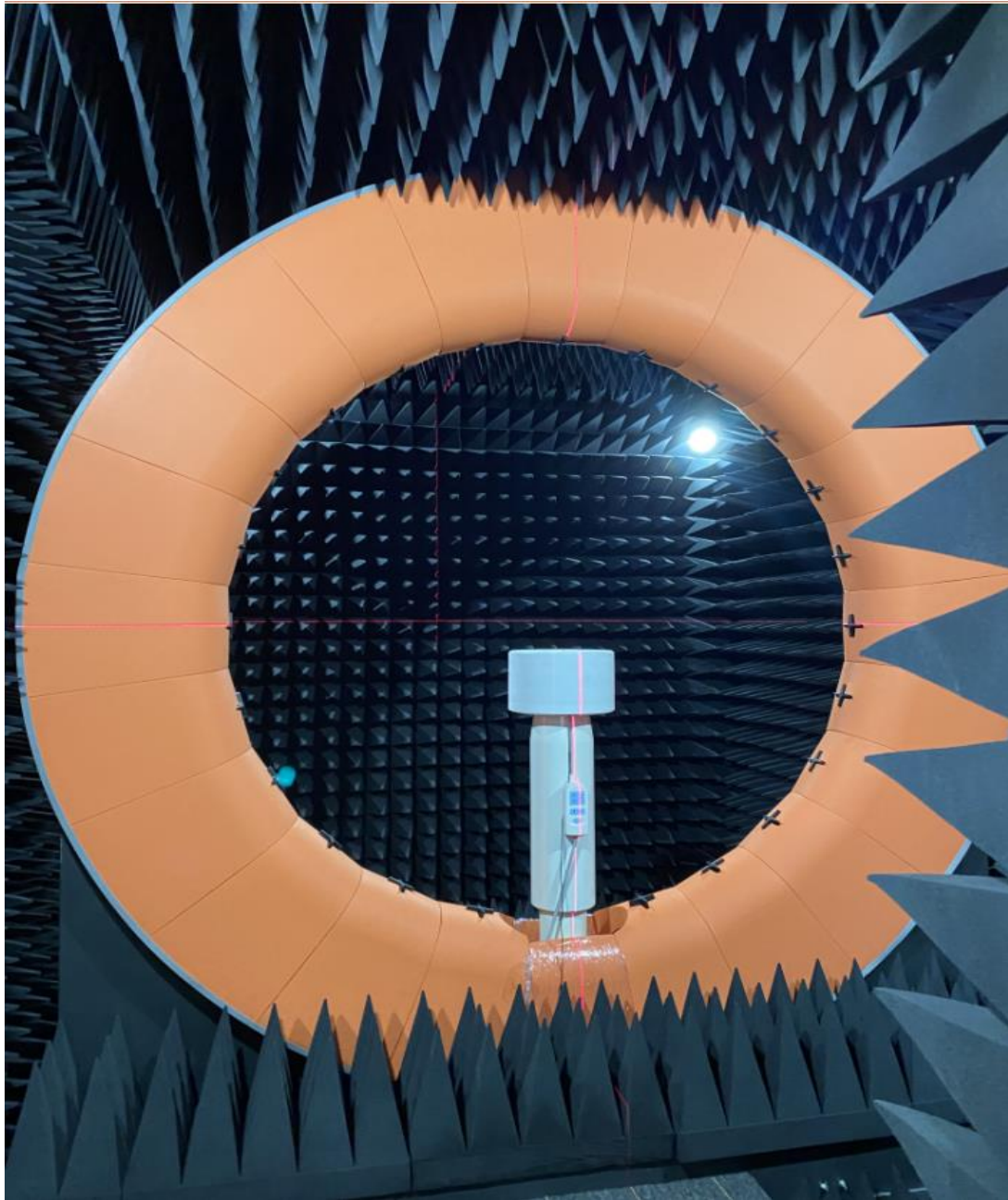


Agilent 8960 (2G/3G Test Equipment)



CMW 500 (2G/3G/4G Test Equipment)

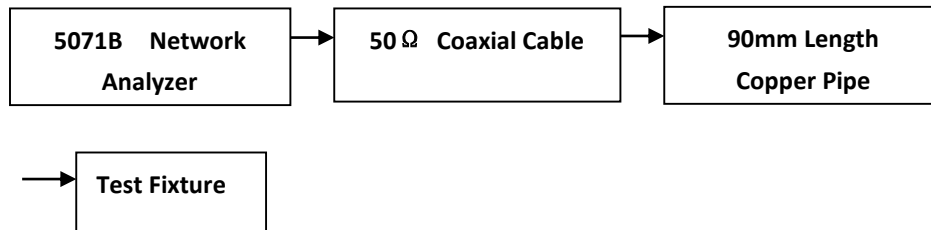
3. TestEnvironment



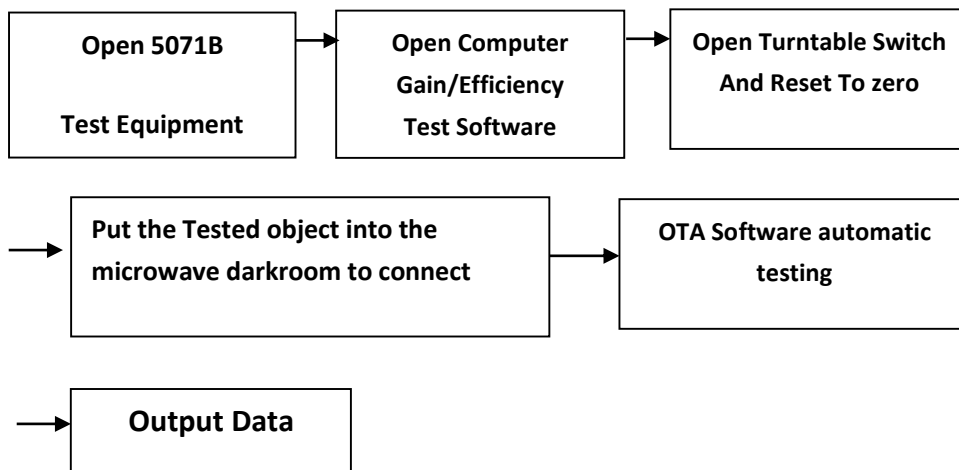
Microwave Anechoic Chamber

4.Test Steps

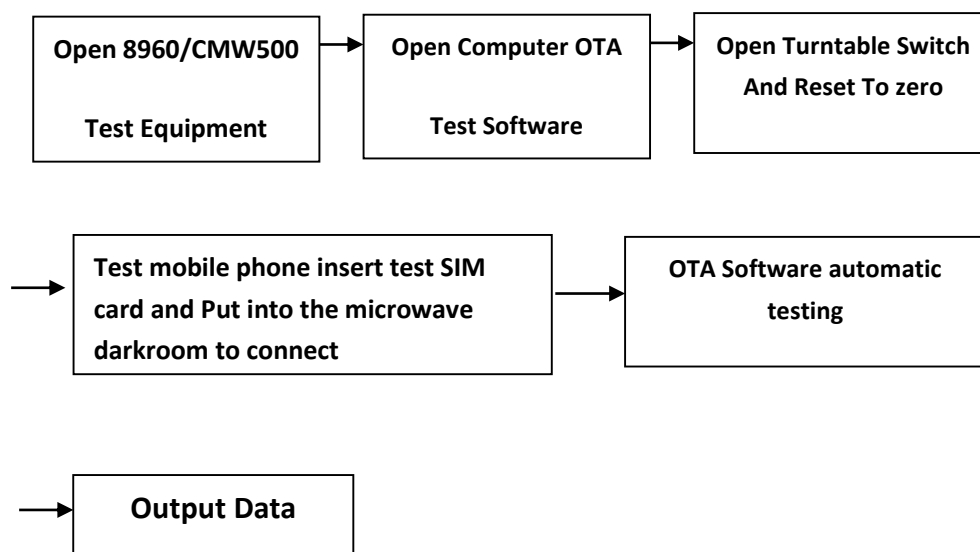
Passive VSWR/RL Test Steps:



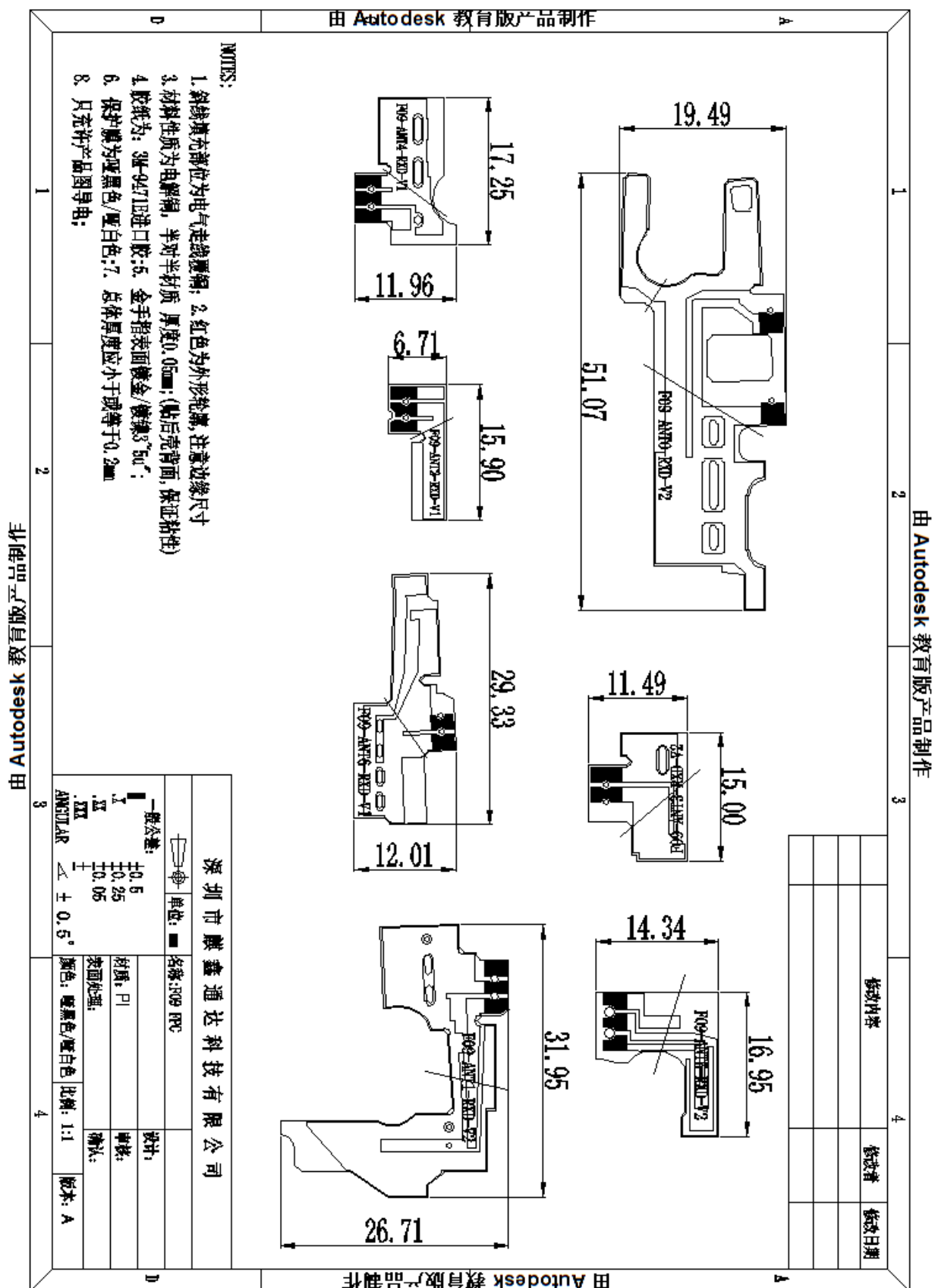
Gain/Efficiency Test Steps:



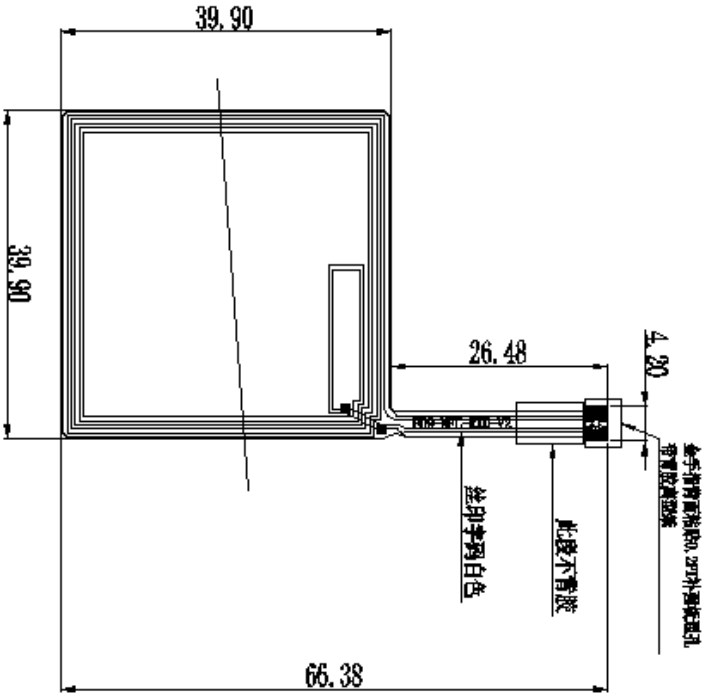
Active TRP/TIS Test Steps:



5. Antenna Dimensions



修改内容		修改者	修改日期



铁氧体贴在NFC天线正面



NOTES:

- 1. 铜线填充部位为电气走线覆铜；
- 2. 红色为外形轮廓，注意边缘尺寸
- 3. 材料性质为电解铜，半对半材质 厚度0.05mm；(贴后壳背面，保证粘性)
- 4. 胶纸为：3M-9471进口胶；
- 5. 金手指表面镀金/镀镍3.5u；
- 6. 保护膜为哑黑色/哑白色；
- 7. 总体厚度应小于或等于0.2mm
- 8. 只允许产品图导电；

深圳市麒鑫通达科技有限公司			
一般公差:		设计:	
1. ± 0.5		审核:	
2. ± 0.25		确认:	
3. ± 0.05		版本: A	
4. ANGULAR $\pm 0.5^\circ$			
名称: NFC			
材料: PI			
表面处理:			
颜色: 哑黑色/哑白色			
比例: 1:1			

6. Antenna Gain

Band	Max Gain	Efficiency
GSM850	-0.28	24%
GSM900	-0.31	25%
DCS1800	0.03	38%
PCS1900	0.13	38%
WCDMA_B1	0.06	35%
WCDMA_B2	0.13	38%
WCDMA_B4	0.06	35%
WCDMA_B5	-0.28	24%
WCDMA_B6	-0.28	24%
WCDMA_B8	-0.31	25%
BAND 1	0.06	35%
BAND 2	0.13	38%
BAND 3	0.03	38%
BAND 4	0.06	35%
BAND 5	-0.28	24%
BAND 7	-0.08	25%
BAND 8	-0.31	25%
BAND 12	-0.57	18%
BAND 13	-0.48	21%
BAND 17	-0.57	18%
BAND 18	-0.28	24%
BAND 19	-0.28	24%
BAND 20	-0.31	22%
BAND 25	0.13	38%
BAND 26	-0.28	24%
BAND 28	-0.57	18%
BAND 66	0.06	35%
BAND 38	0.23	38%
BAND 40	0.3	39%
BAND 41	-0.08	25%
FR1_n1	0.06	35%
FR1_n3	0.03	38%
FR1_n5	-0.28	24%
FR1_n8	-0.31	25%
FR1_n20	-0.31	22%
FR1_n38	0.23	38%
FR1_n41	0.28	40%
FR1_n77	0.43	38%

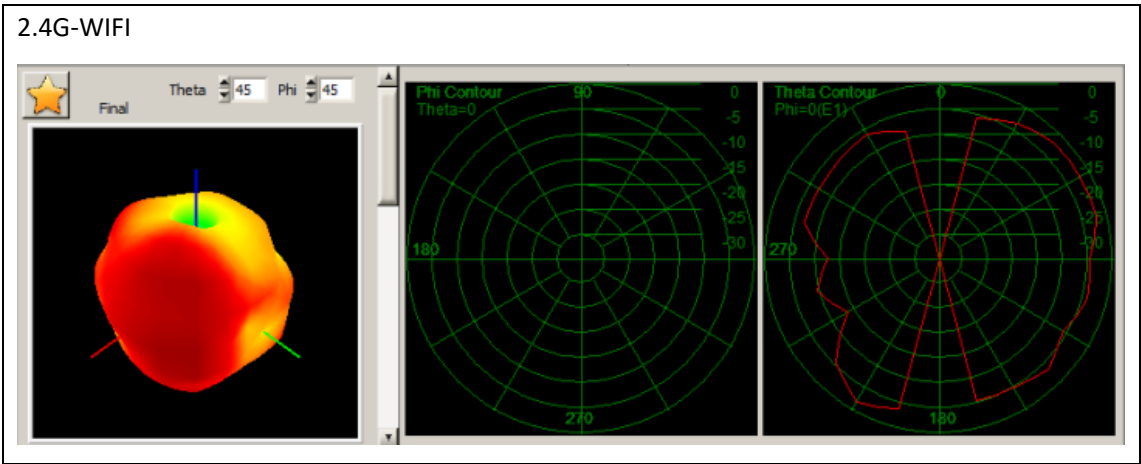
FR1_n78	0.35	40%
Bluetooth	0.22	36%
WIFI	0.22	36%
GPS	0.16	36%

2400-2500MHZ	Frequency ID	1	2	3	4	5	6	7	8	9	10	11
	Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
	Efficiency (%)	31.00	33.20	35.60	35.80	36.60	37.10	35.60	35.20	35.10	35.00	34.20
	Gain (dBi)	-0.40	-0.38	-0.19	-0.15	0.15	0.22	-0.16	-0.23	-0.25	-0.30	-0.35
GPS												
1500-1600MHZ	Frequency ID	1	2	3	4	5						
	Frequency (MHz)	1500.0	1525.0	1550.0	1575.0	1600.0						
	Efficiency (%)	34.10	34.50	35.10	35.80	36.20						
	Gain (dBi)	-0.21	-0.19	-0.11	0.16	0.24						

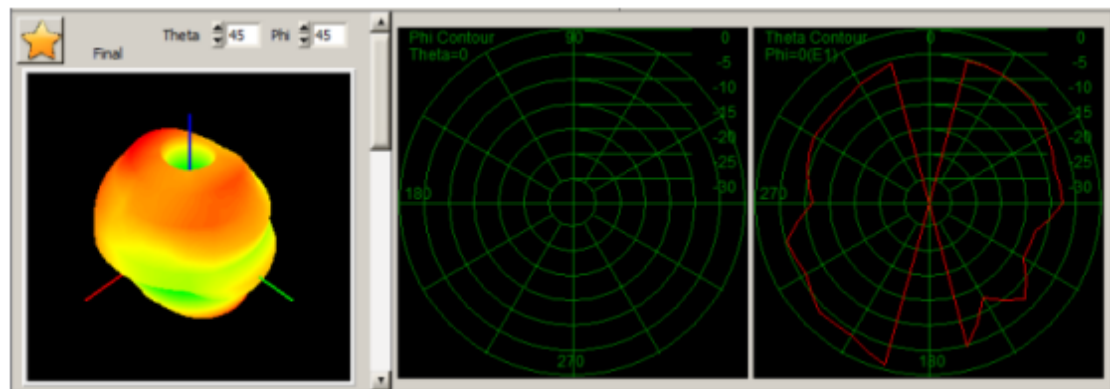
5.1-5.8GWiFi											
2400-2500MHZ	Frequency ID	1	2	3	4	5	6	7	8	9	
	Frequency (MHz)	5000.0	5100.0	5200.0	5300.0	5400.0	5500.0	5600.0	5700.0	5800.0	
	Efficiency (%)	35.10	36.20	35.10	34.00	35.30	34.80	34.40	29.50	27.60	
	Gain (dBi)	-0.19	-0.12	-0.07	-0.21	0.55	0.40	-0.23	-0.82	0.03	

7.3D Lobe Diagram

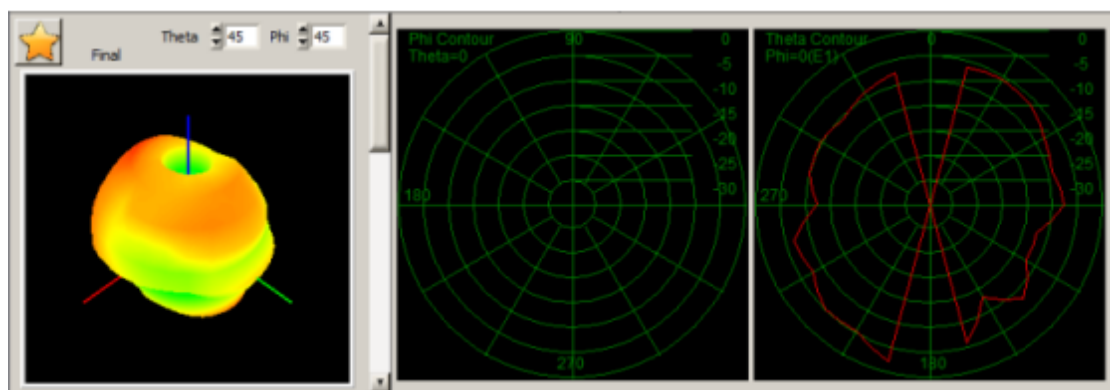
2.4G-WIFI



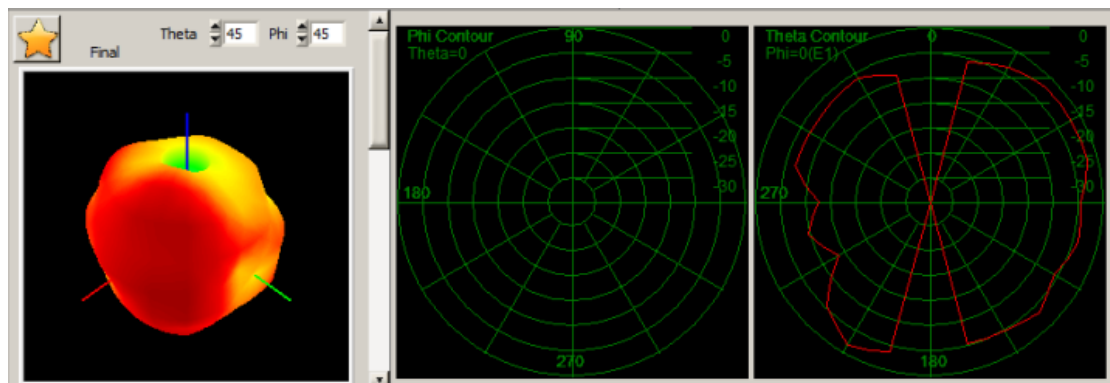
5.1G-WIFI



5.1G-WIFI



BT



GPS



8.Antenna model and type

Band	Model	Type
BT	F09-BWG	PIFA
2.4G WIFI	F09-BWG	PIFA
5.1-5.8G WIFI	F09-BWG	PIFA
GPS	F09-BWG	PIFA
NFC	F09-NFC	PIFA
Main Antenna	F09-MAIN	PIFA
Diversity Antenna	F09-LTE	PIFA