

**ShenZhen QiXinTongDa Technology Co.,Ltd.**

## **Antenna Test Report**

**Client Name: OUQI**

**Project Name: S115**

**FrequencyBand:**

**G2/3/5/8+W1/2/4/5/8+FDD1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/2**

**8/66+TDD38/39/40/41**

**RF: HU WEI QIANG (18079624365)**

**DATE: 2023-04-20**

# 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)

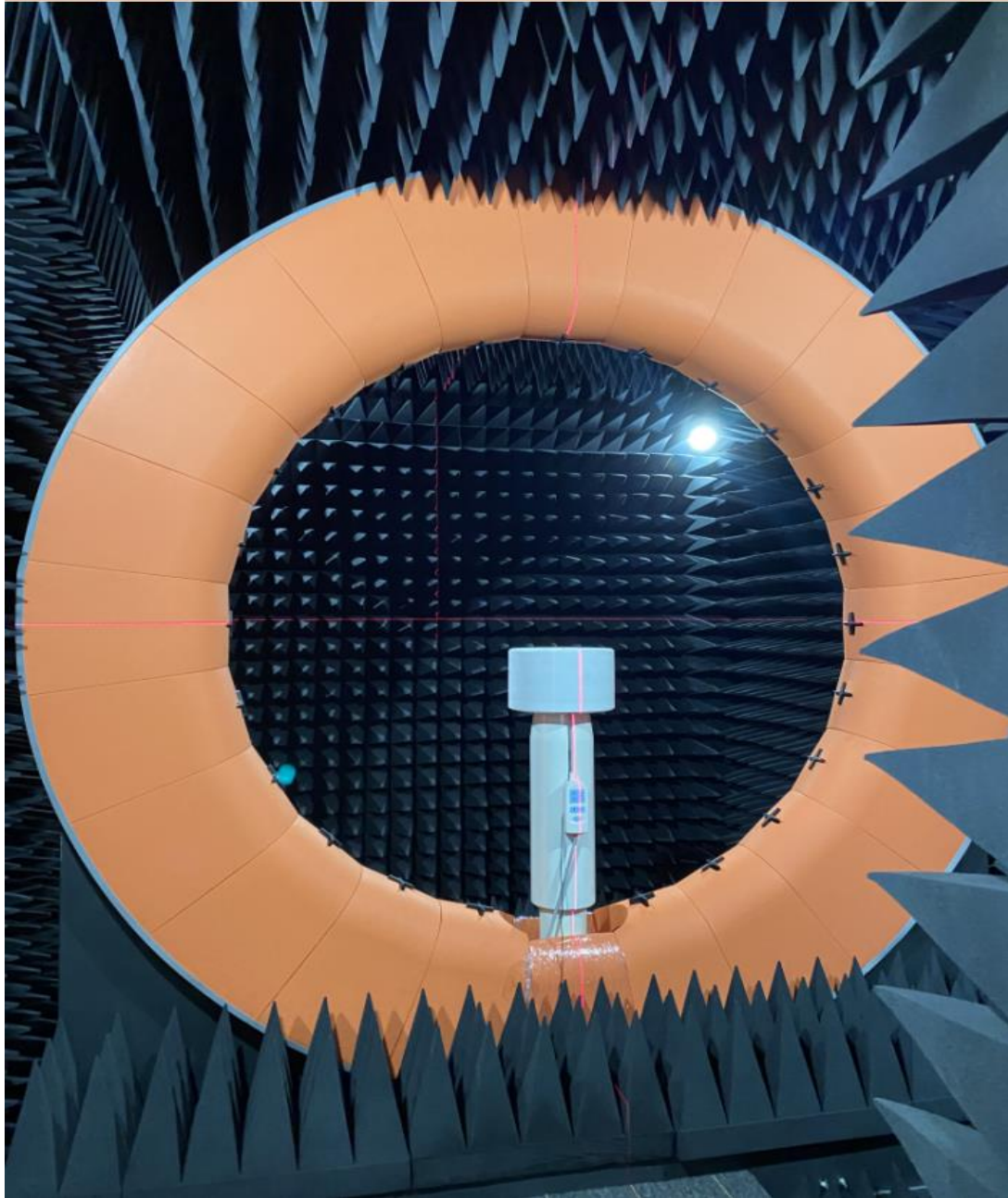


Agilent 8960 (2G/3G Test Equipment)



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

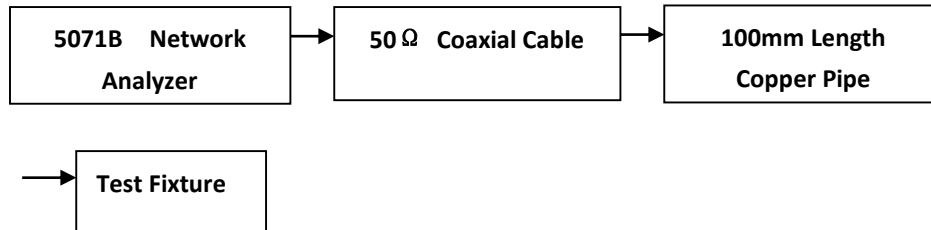
### 3. TestEnvironment



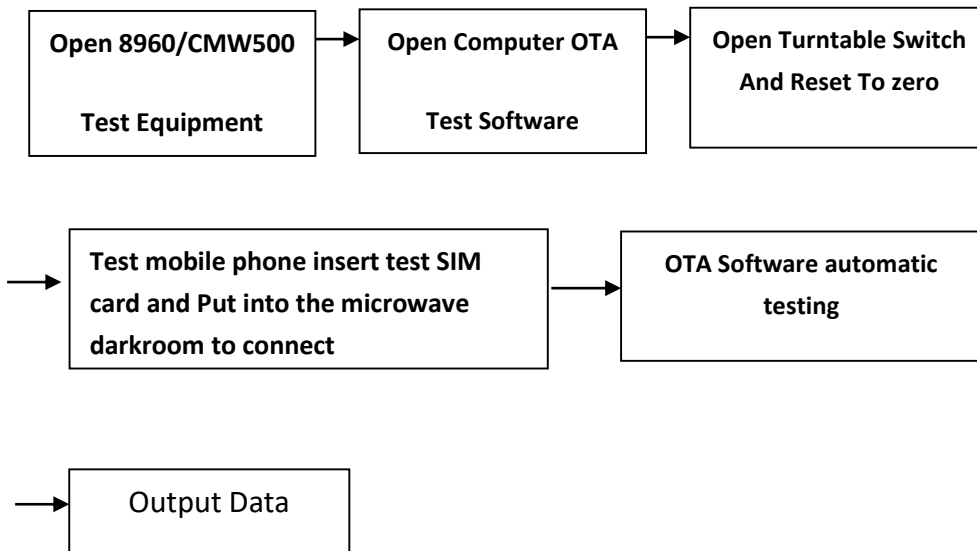
Microwave Anechoic Chamber

## 4. Test Steps

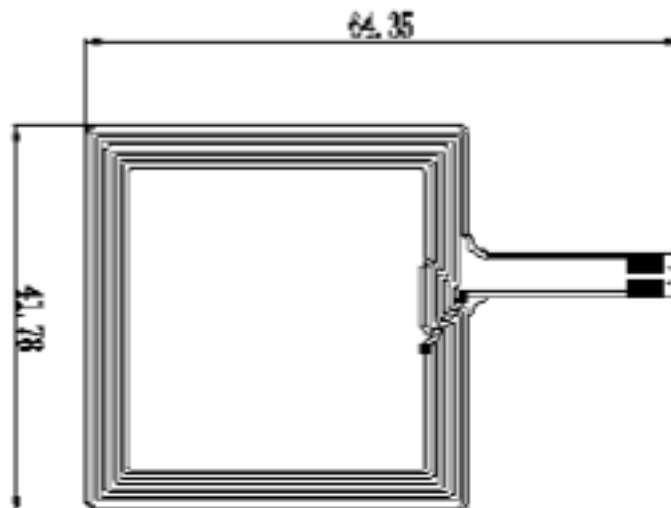
### Passive VSWR/RL Test Steps:



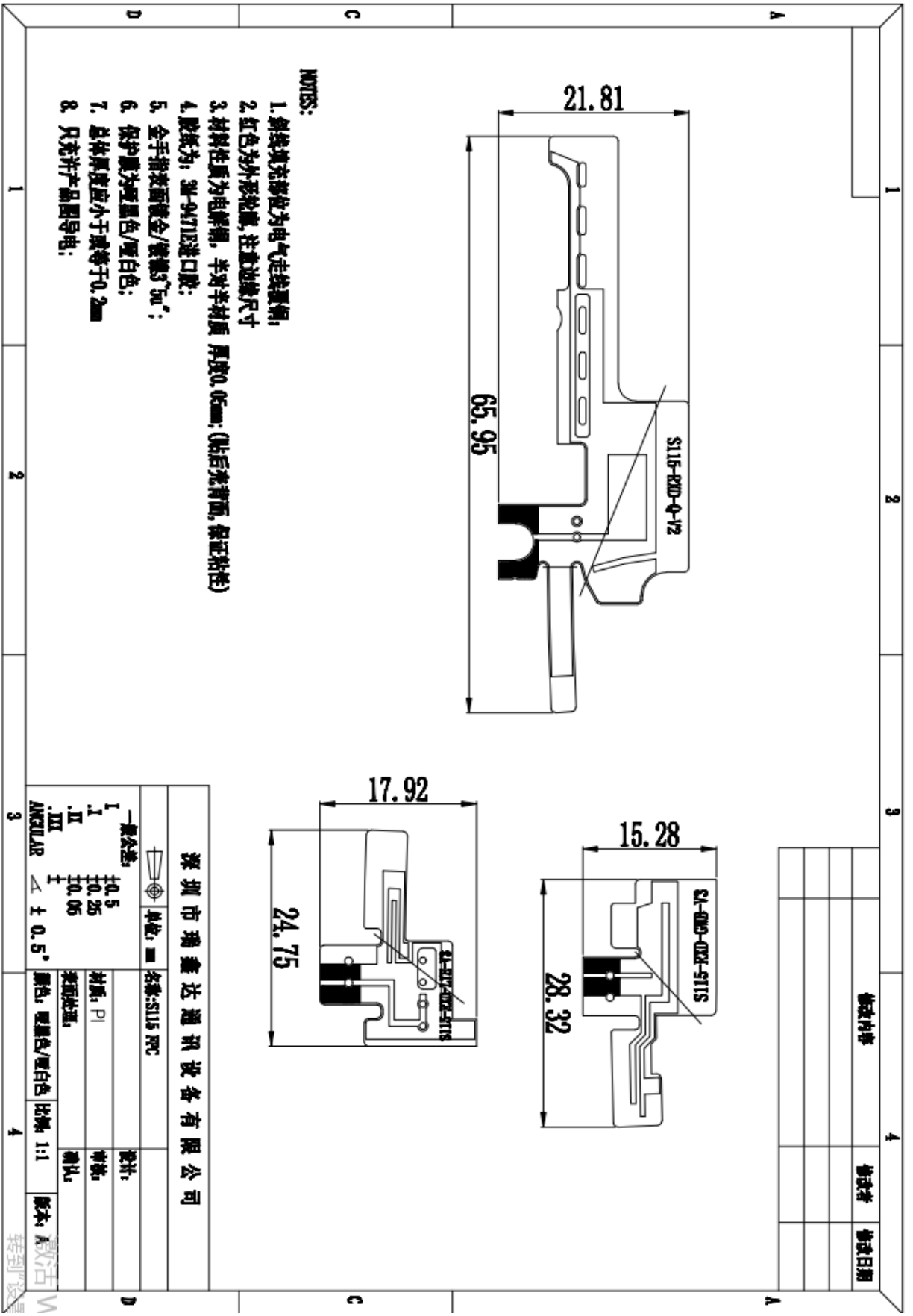
### Active TRP/TIS Test Steps:



NFC



# 5. Antenna Dimensions

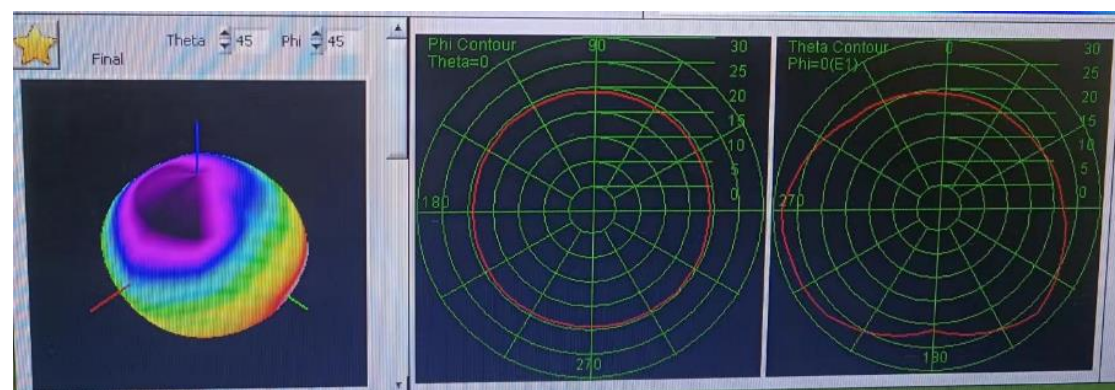


## 6. Antenna Gain

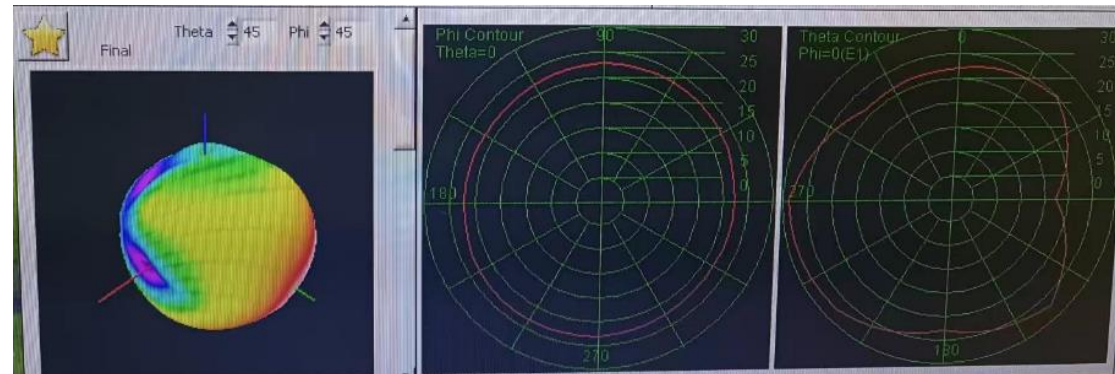
Band	Max Gain	Efficiency
GSM850	-0.25	33%
GSM900	0.2	31%
DCS1800	0.05	32%
PCS1900	0.05	33%
WCDMA2100	0.12	32%
WCDMA1900	0.05	34%
WCDMA1700	0.12	31%
WCDMA850	-0.25	32%
WCDMA900	0.2	34%
BAND 1	0.05	33%
BAND 2	0.05	33%
BAND 3	0.22	32%
BAND 4	0.12	30%
BAND 5	-0.25	33%
BAND 7	0.21	31%
BAND 8	0.22	32%
BAND 12	-0.65	30%
BAND 13	0.26	36%
BAND 17	-0.65	31%
BAND 18	0.32	32%
BAND 19	0.25	32%
BAND 20	0.29	35%
BAND 25	0.24	34%
BAND 26	0.22	32%
BAND 28	-0.14	31%
BAND38	0.26	32%
BAND 39	0.32	34%
BAND 40	0.32	32%
BAND 41	0.3	32%
BAND 66	-0.19	33%
Bluetooth	0.22	36%
WIFI-2.4G	0.22	35%
WIFI-5.8G	-0.15	32%
GPS	0.13	34%

## 7.3D Lobe Diagram

GSM850

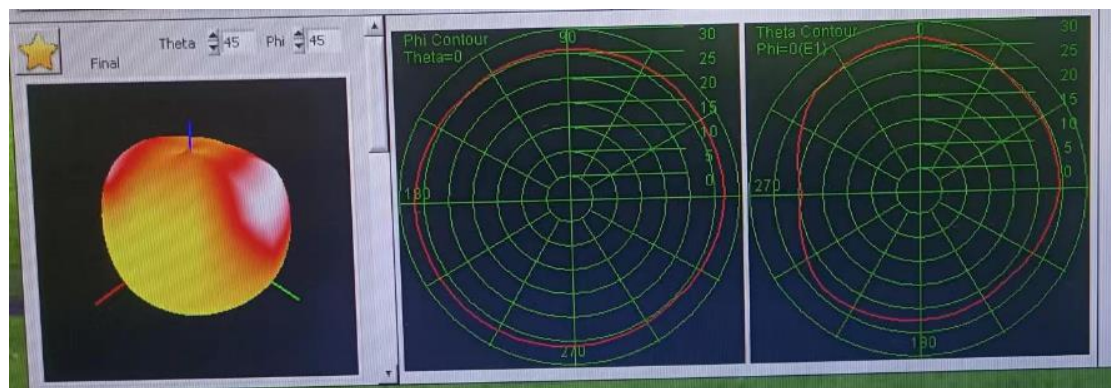


GSM900

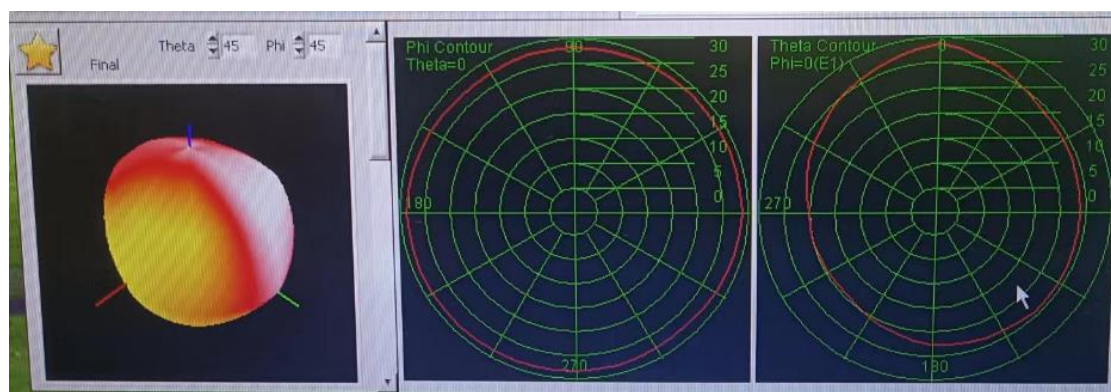




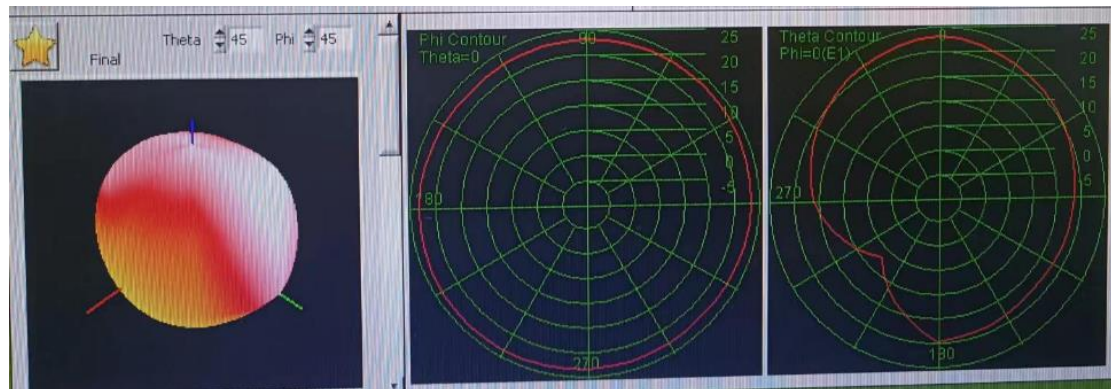
DSC1800



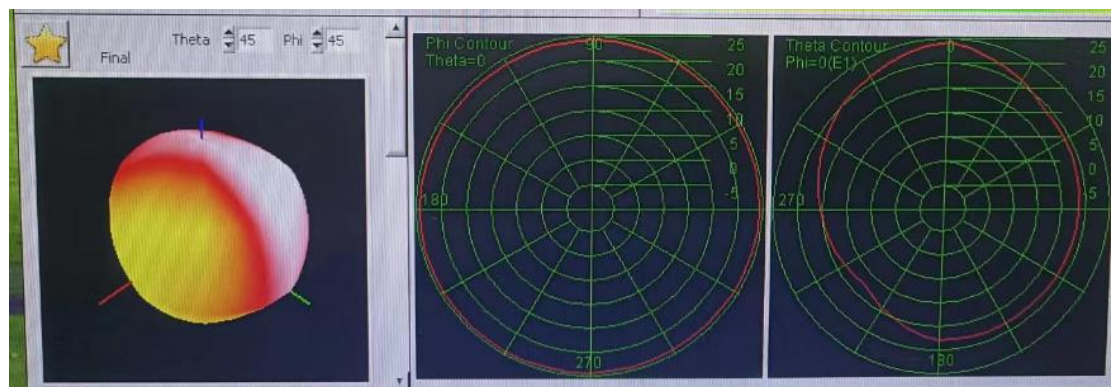
PCS1900



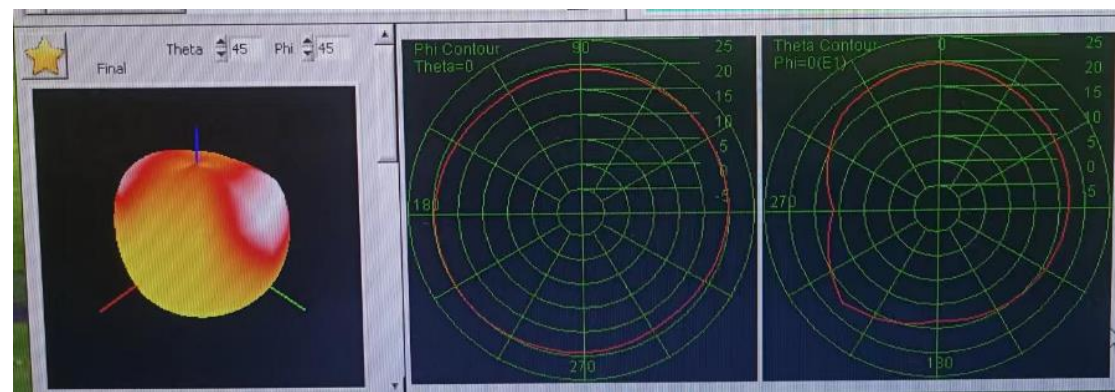
W2100



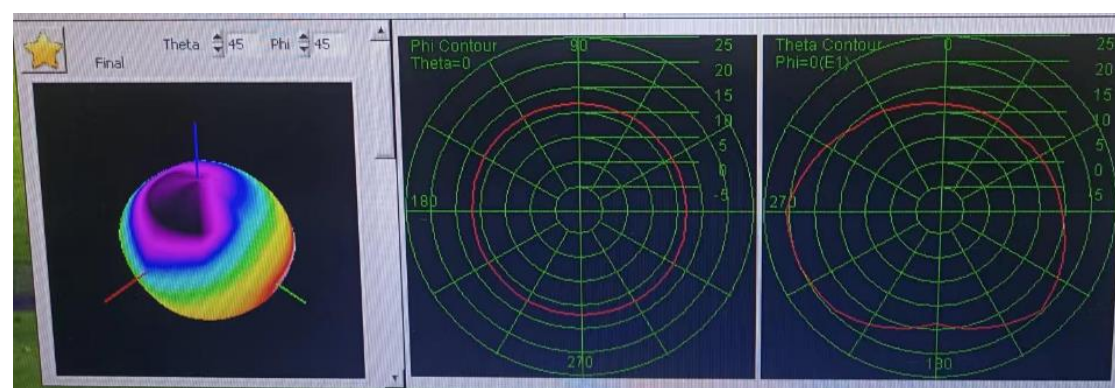
W1900



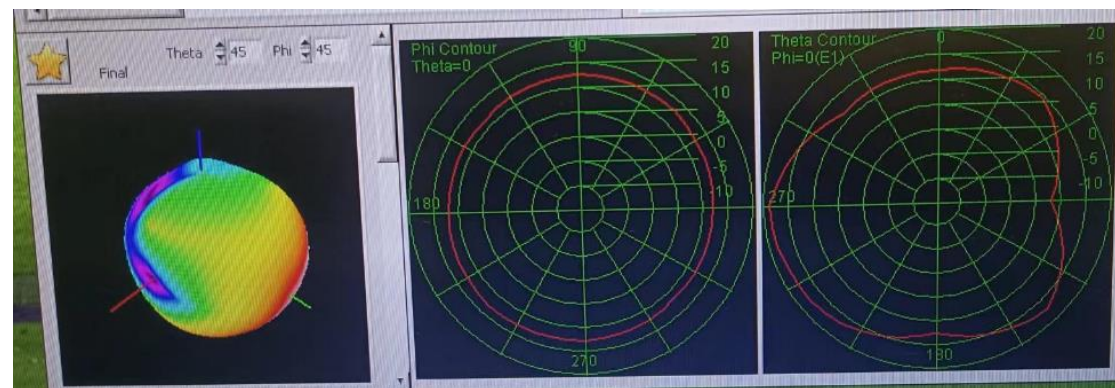
W1700



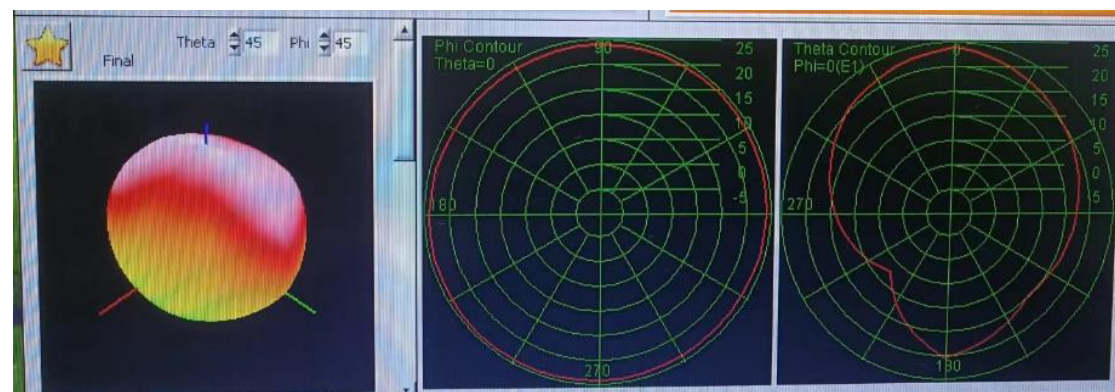
W850



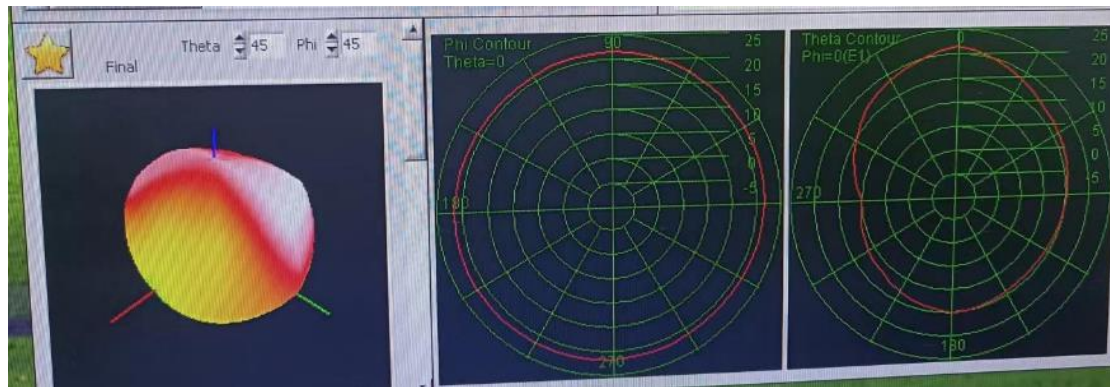
W900



FDD-B1



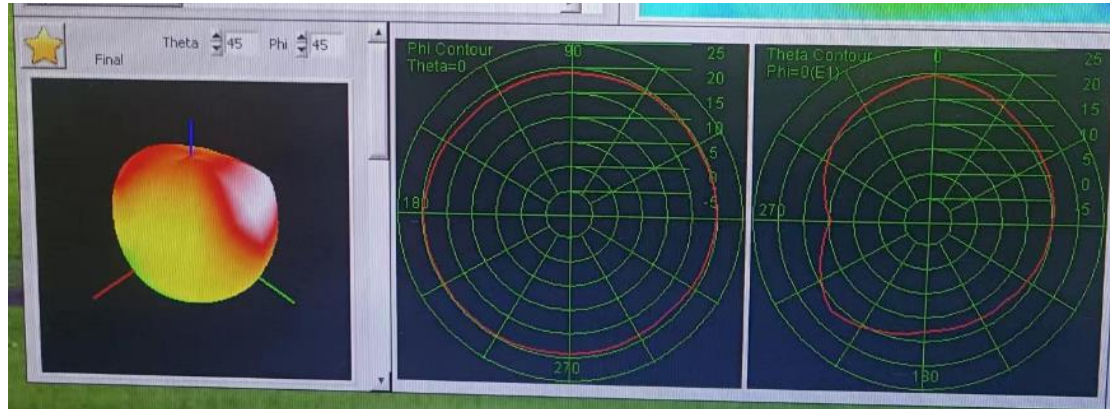
FDD-B2



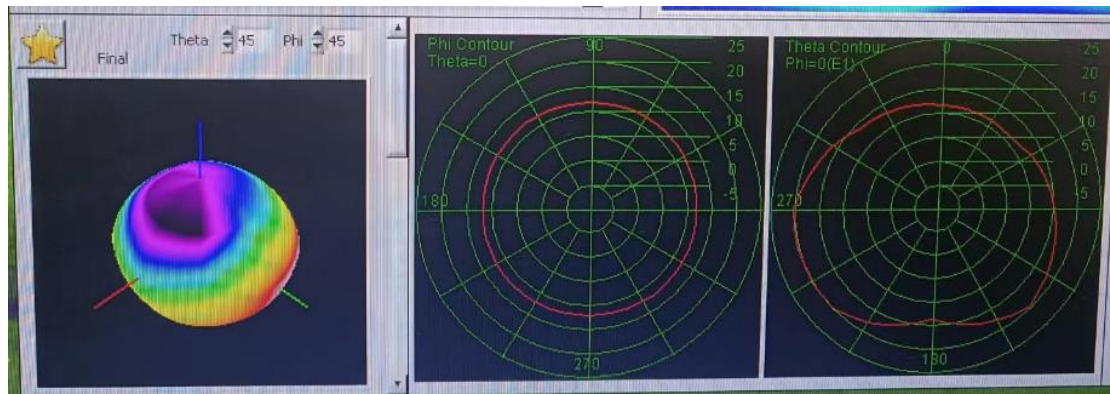
FDD-B3



FDD-B4

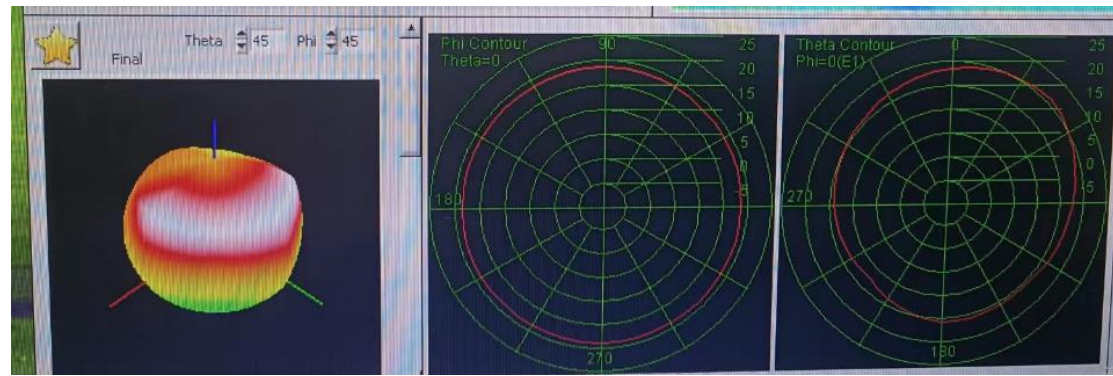


FDD-B5





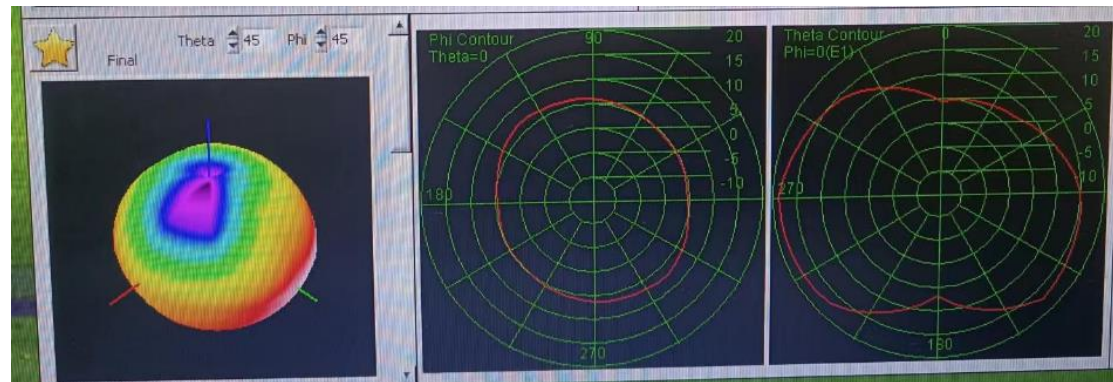
FDD-B7



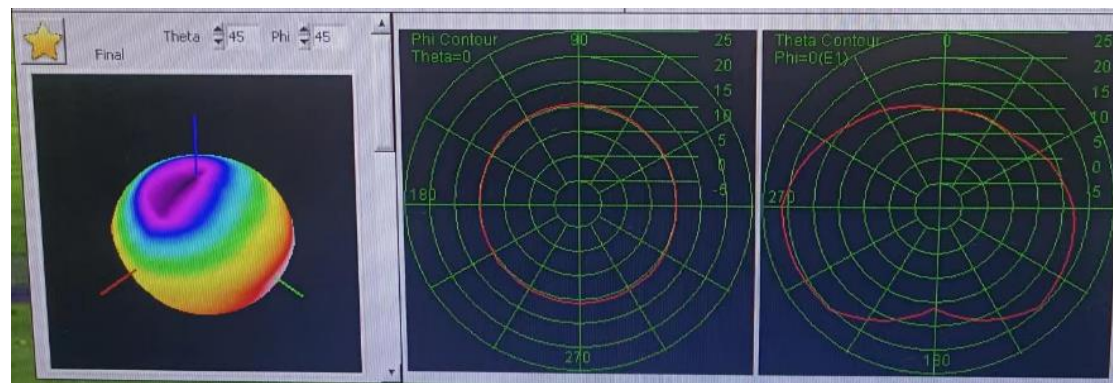
FDD-B8



FDD-B12



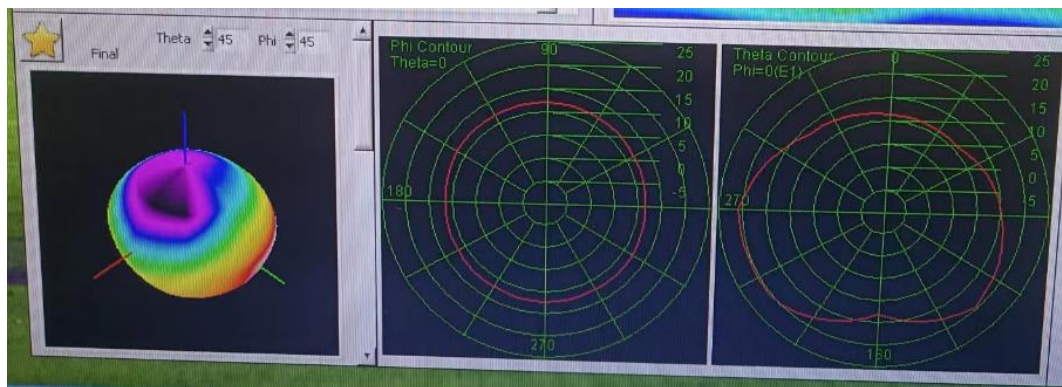
FDD-B13



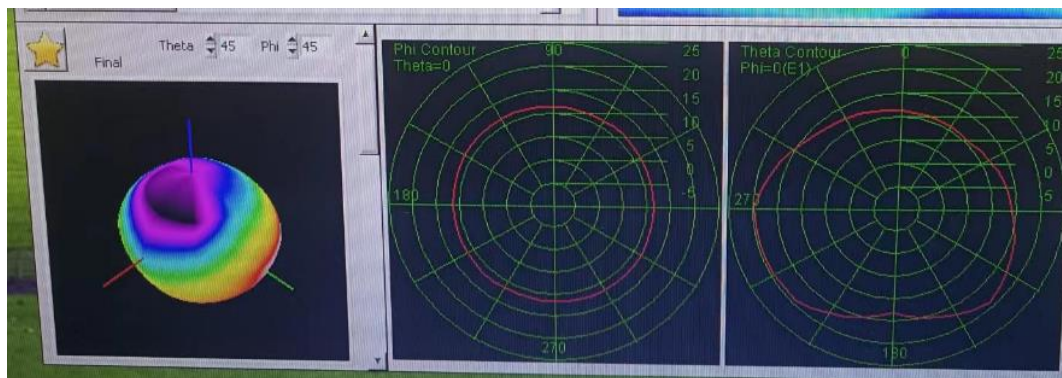
FDD-B17



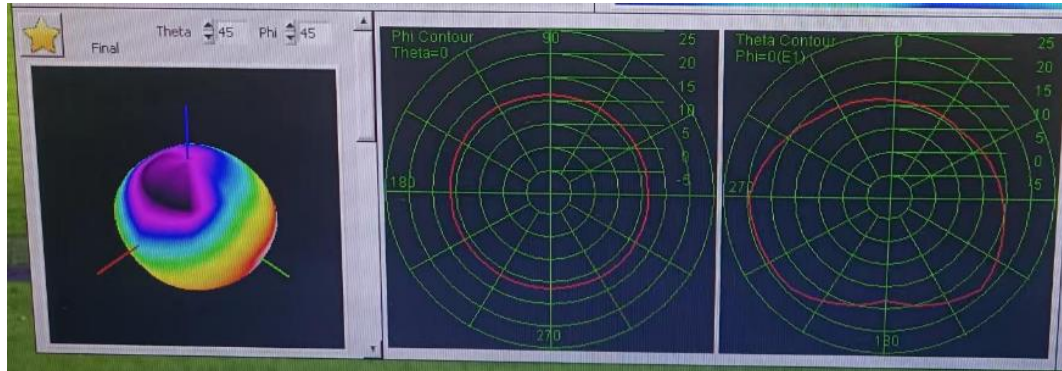
FDD-B18



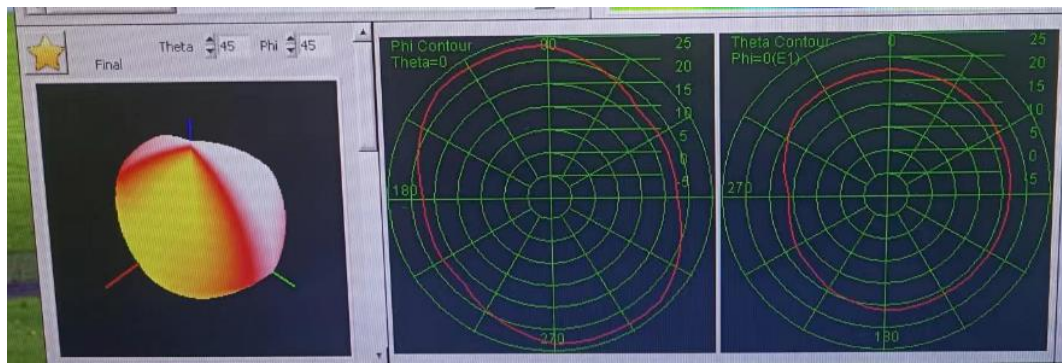
FDD-19



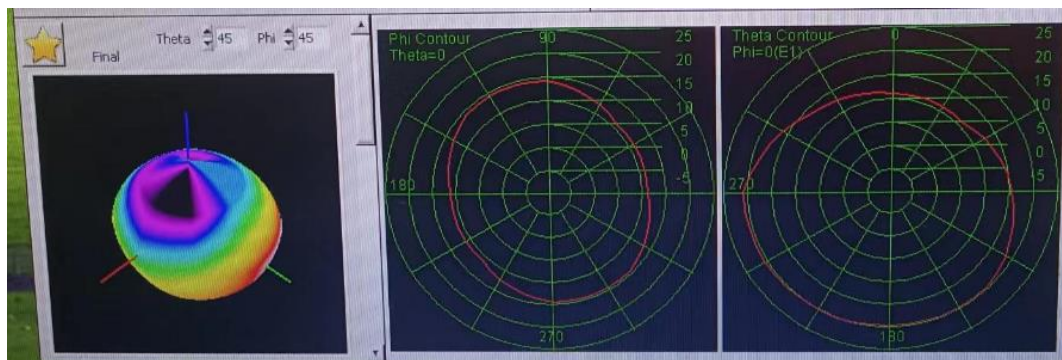
FDD-20



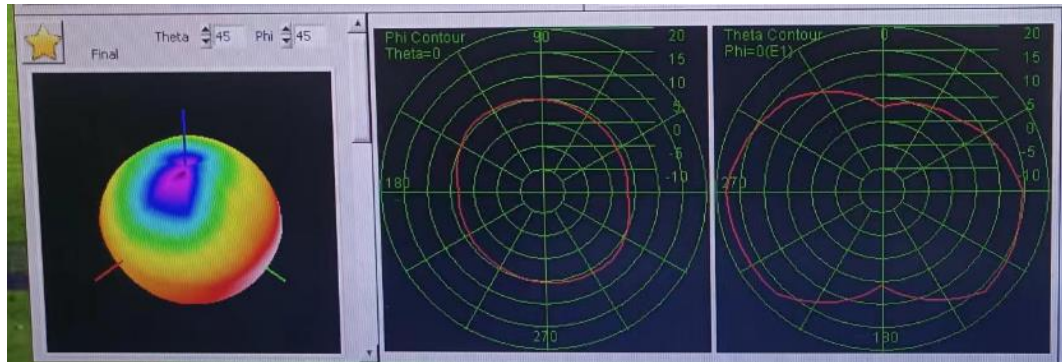
FDD-B25



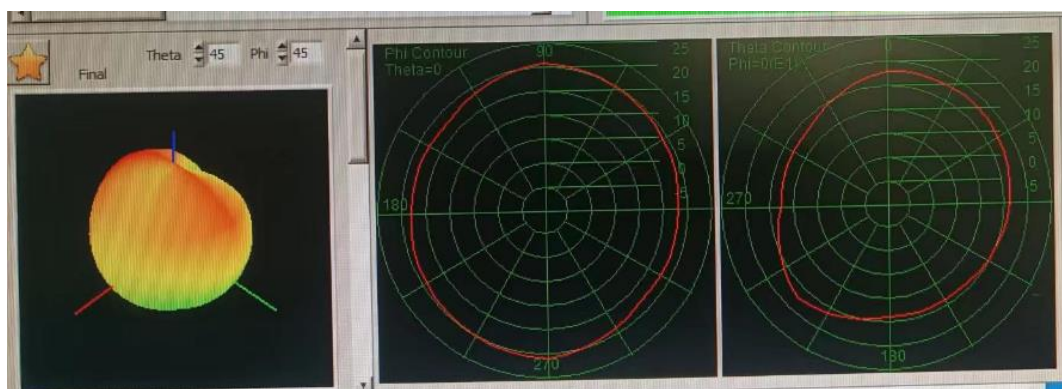
FDD-B26



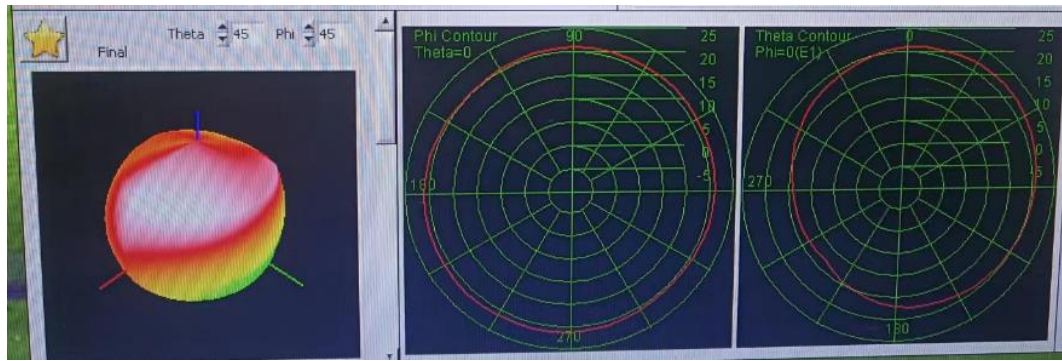
FDD-B28



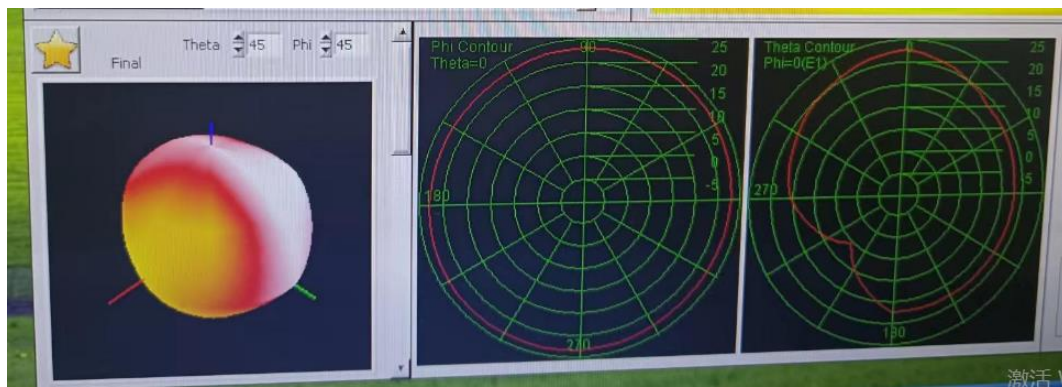
FDD-B66



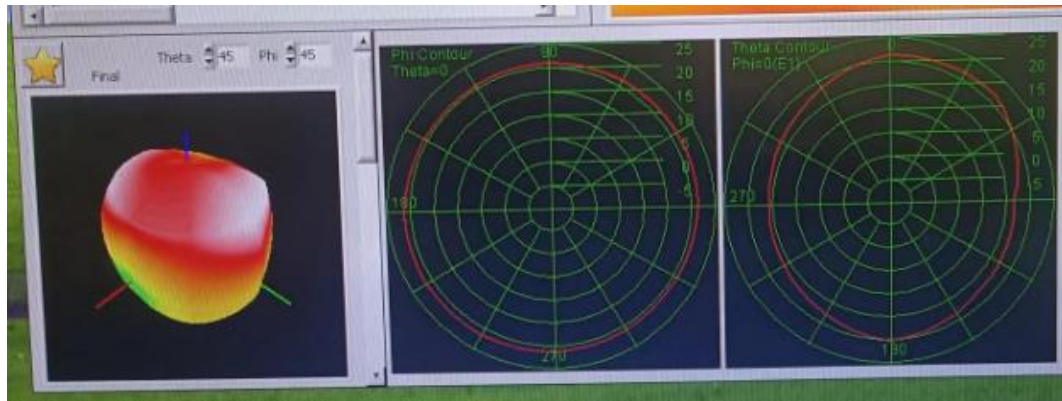
TDD-B38



TDD-B39

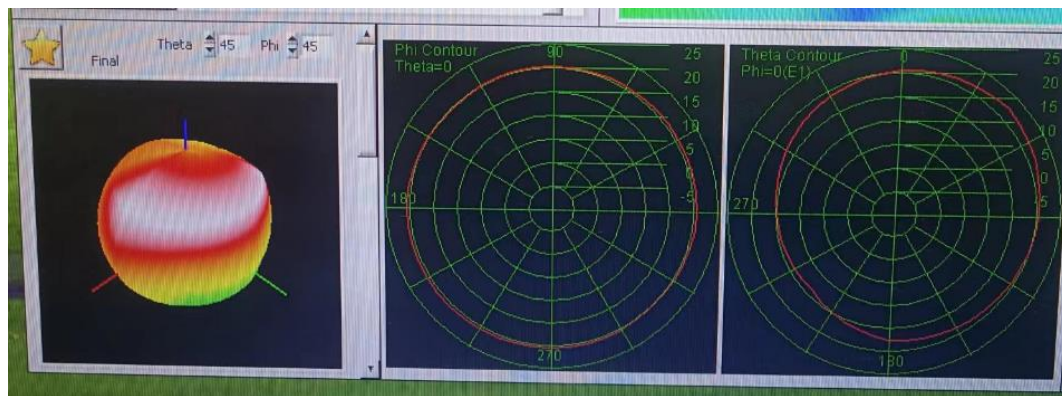


TDD-B40





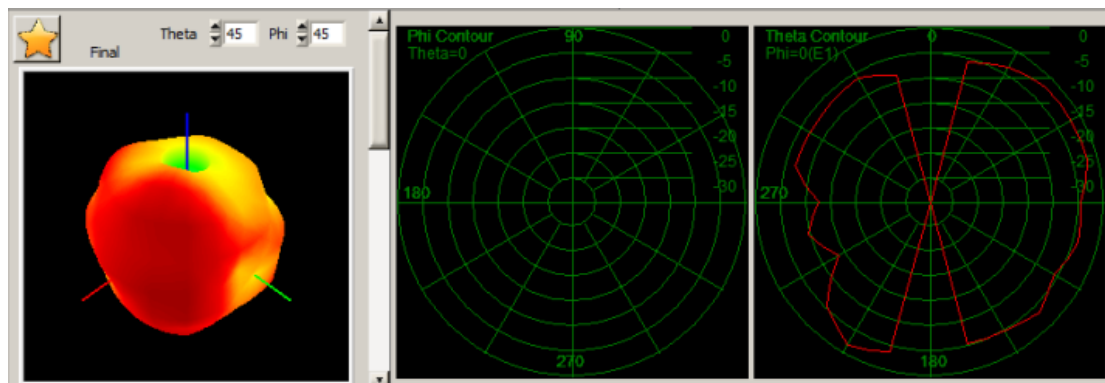
## TDD-B41



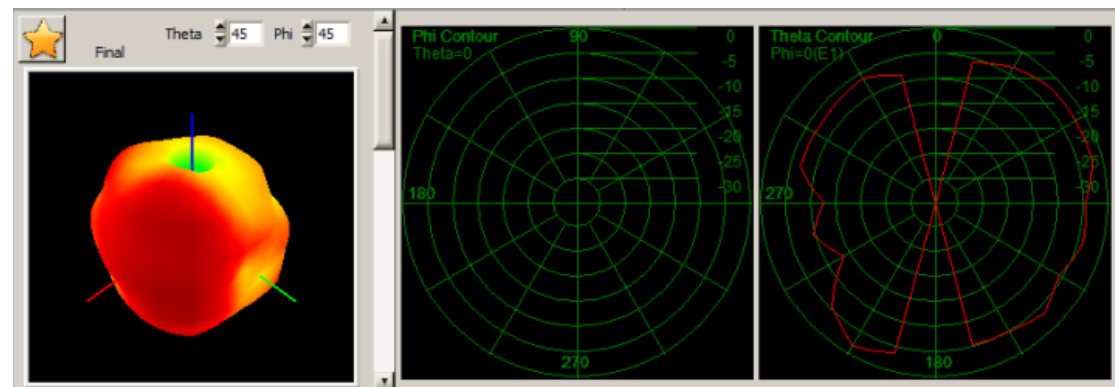
## GPS



## BT



## 2.4G-WIFI



## 5G-WIFI



## 8. Antenna OTA

FS-OTA									
BAND	GSM850 测量数值			GSM900 测量数值			DCS1800 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	25.5	25.6	25.5	25.8	26.0	25.6	24.1	24.7	24.8
TIS(dBm)	-102.6	-102.4	-102.3	-101.4	-100.6	-100.1	-102.4	-103.1	-103.2
BAND	PCS1900 测量数值			WCDMA850 测量数值			WCDMA900 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	24.3	24.0	23.8	17.6	17.3	16.5	16.6	16.3	16.1
TIS(dBm)	-102.8	-103.0	-103.4	-101.6	-101.5	-101.3	-101.3	-101.1	-100.3

FS-OTA									
BAND	WCDMA1700 测量数值			WCDMA1900 测量数值			WCDMA2100 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	17.1	17.6	18.3	18.5	18.8	18.6	18.9	18.8	18.5
TIS(dBm)	-105.8	-106.1	-105.6	-106.2	-106.3	-105.8	-107.2	-107.5	-107.3
BAND	FDD-B1 测量数值			FDD-B2 测量数值			FDD-B3 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	18.3	18.8	18.9	17.9	18.4	18.0	17.9	18.2	18.3
TIS(dBm)	-94.3	-94.6	-94.8	-92.4	-92.3	-92.6	-91.7	-91.8	-92.6
BAND	FDD-B4 测量数值			FDD-B5 测量数值			FDD-B7 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	16.1	16.8	17.4	17.6	17.0	16.4	16.8	17.3	17.6
TIS(dBm)	-95.3	-95.2	-95.1	-91.6	-91.4	-91.3	-91.4	-91.5	-92.3
BAND	FDD-B8 测量数值			FDD-B12 测量数值			FDD-B13 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	17.1	16.6	16.0	16.6	16.5	16.8	17.5	17.5	17.3
TIS(dBm)	-89.9	-89.5	-89.4	-91.3	-91.6	-91.6	-90.6	-91.2	-91.0
BAND	FDD-B17 测量数值			FDD-B18 测量数值			FDD-B19 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	16.6	17.0	17.2	17.6	17.7	17.7	17.2	16.9	16.5
TIS(dBm)	-90.1	-90.3	-90.4	-92.3	-92.4	-92.4	-91.9	-91.5	-91.6
BAND	FDD-B20 测量数值			FDD-B25 测量数值			FDD-B26 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	17.1	16.4	15.6	17.8	18.1	18.5	17.8	17.6	16.5
TIS(dBm)	-93.5	-93.2	-93.7	-92.1	-92.0	-92.2	-91.2	-91.4	-91.3

BAND	FDD-B28 测量数值			FDD-B66 测量数值			TDD-B38 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	15.6	16.5	16.3	16.4	16.6	16.5	17.8	17.9	18.1
TIS(dBm)	-89.6	-89.8	-92.7	-93.8	-93.7	-94.1	-88.4	-88.6	-88.9
BAND	TDD-B39 测量数值			TDD-B40 测量数值			TDD-B41 测量数值		
CHANNEL	L	M	H	L	M	H	L	M	H
TRP(dBm)	18.1	18.2	18.1	17.8	17.6	17.5	17.6	17.8	17.4
TIS(dBm)	-91.2	-91.4	-91.6	-87.6	-87.8	-87.7	-88.2	-88.0	-87.8

## GPS/WIFI/BT

测试项目	测试环境	冷启动定位时间	定位星个数	最高 CN 值
GPS	天台	80s	10 颗以上	45
测试项目	测试环境	热点数量	信号强度	高清视频播放质量
WIFI	办公室	18	≥-50dBm 热点 7 个以上	高清视频播放无卡顿
测试项目	测试环境	最大匹配距离	蓝牙耳机正常通话距离	蓝牙音箱音乐播放流畅距离
BT	办公室	11m	7m	8m