Shenzhen Qixin Tongda Technology Co., Ltd

Antenna test data report

Client: Och

project: S158

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

FDD-1/2/3/4/5/7/8/12/17/19/20/25/26/28/66+TDD-34/38/39/40/41

Engineering: Jason（137 6025 5827）

date：2025-05-09

Factory address: Bao'an District, Shenzhen, Shajing Street, Shayi North

Yongfa Science and Technology Park, the first third floor

1. Test Project

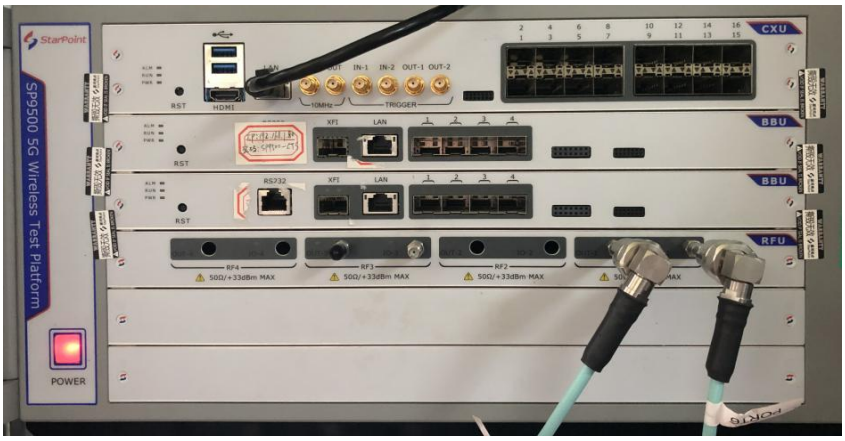
	Test Project	Equipment
1. S Parameter	1. Return Loss(RL) 2. VSWR	Network Analyzer: Agilent 5071B
2. RF Test (2/3/4/5G)	1. power 2. level 3.TRP/TIS	Comprehensive Test: SP9500/CMW500/8960 Test Environment: Anechoic Chamber

2.Test Equipment

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

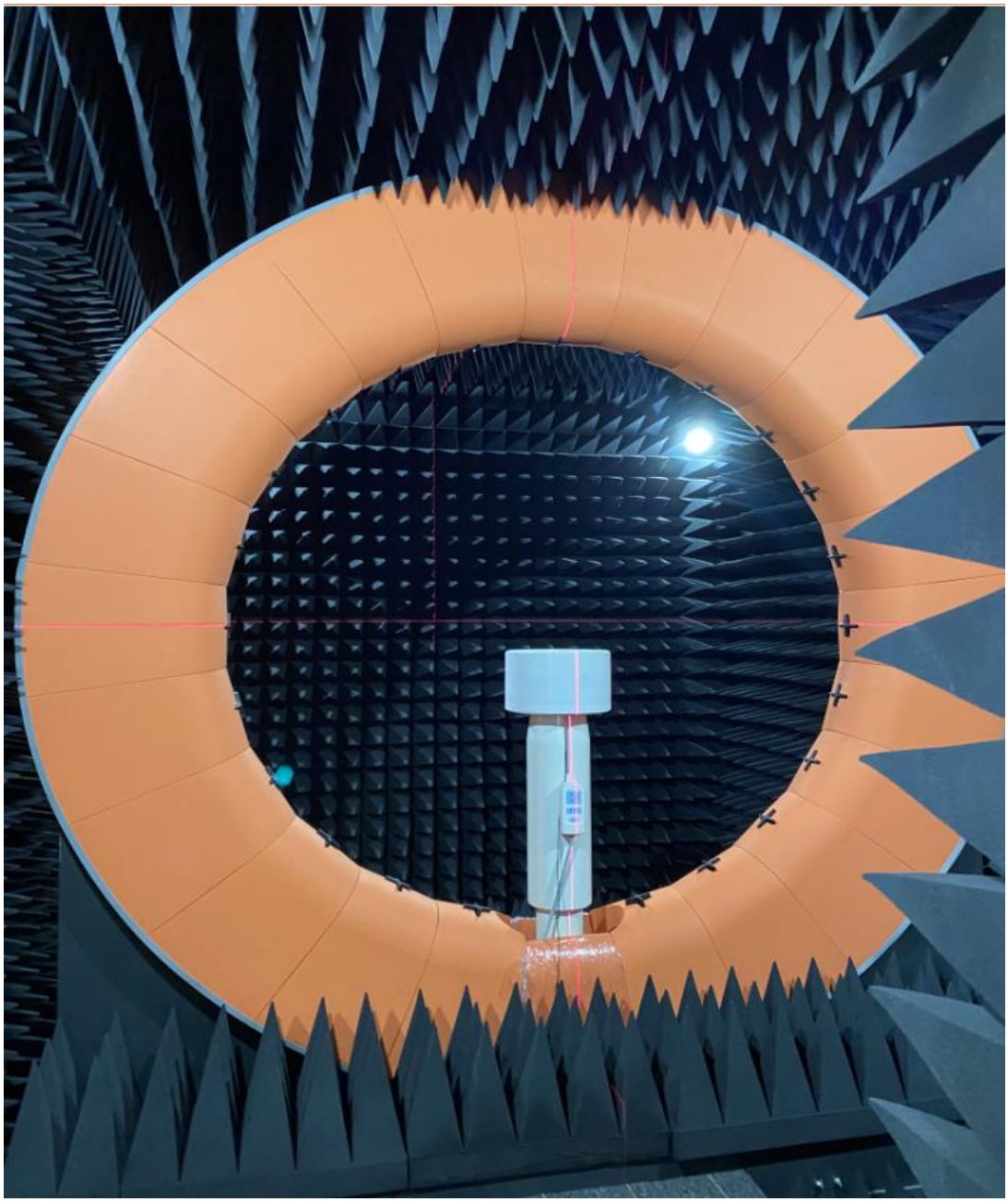
Agilent 8960 （2G/3G Test Equipment）

CMW 500 （2G/3G/4GTest Equipment）



SP9500 （5GTest Equipment）

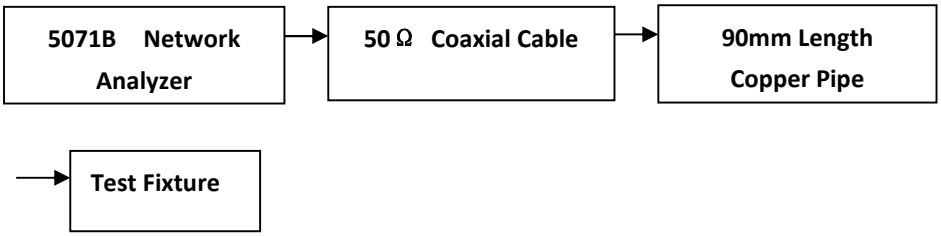
3. TestEnvironment



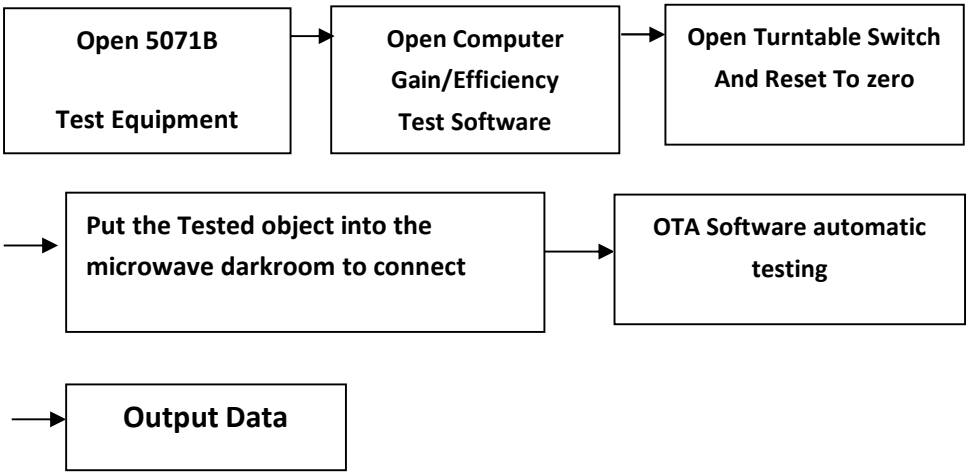
Microwave Anechoic Chamber

4.Test Steps

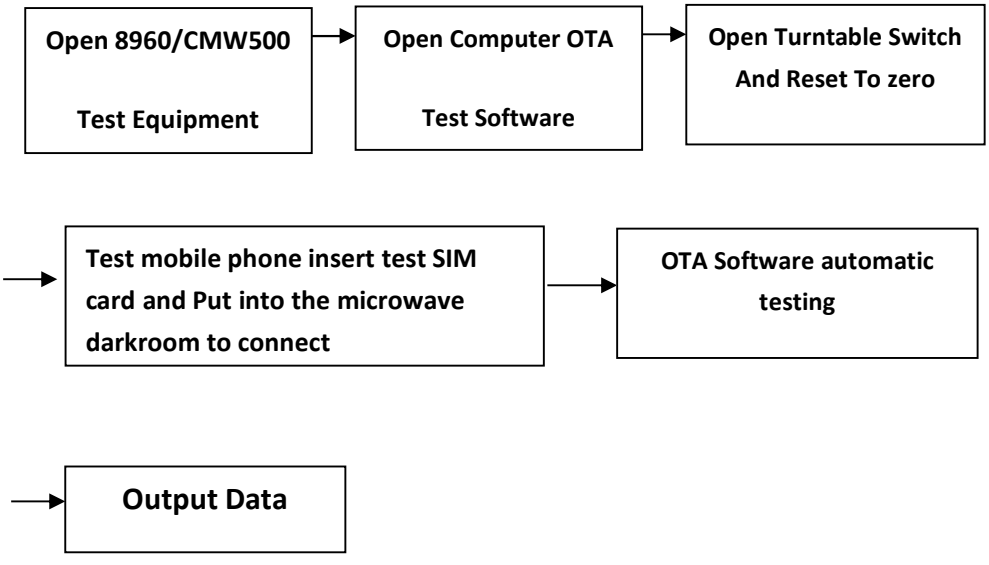
Passive VSWR/RL Test Steps:



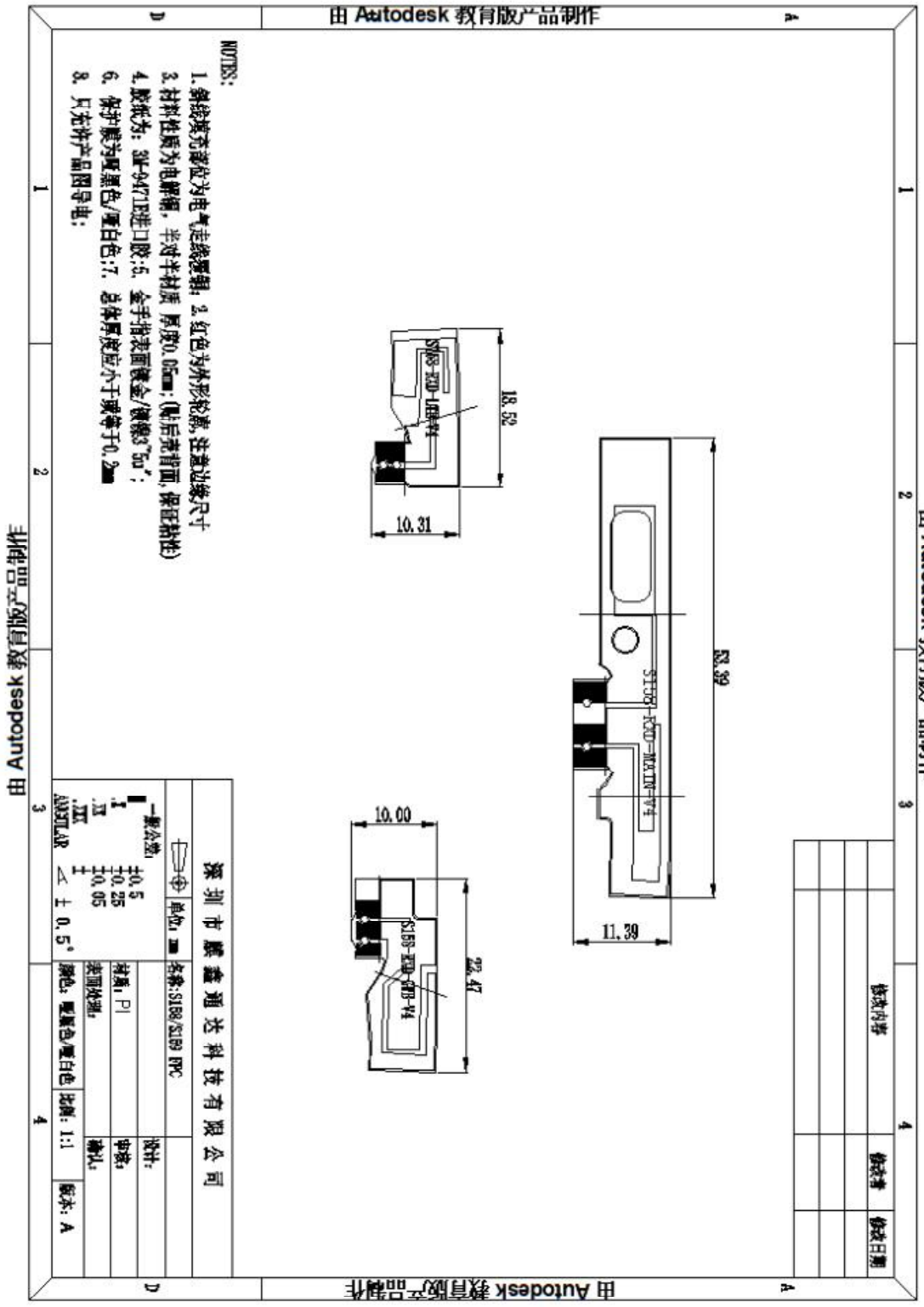
Gain/Efficiency Test Steps:



Active TRP/TIS Test Steps：



5. Antenna size diagram



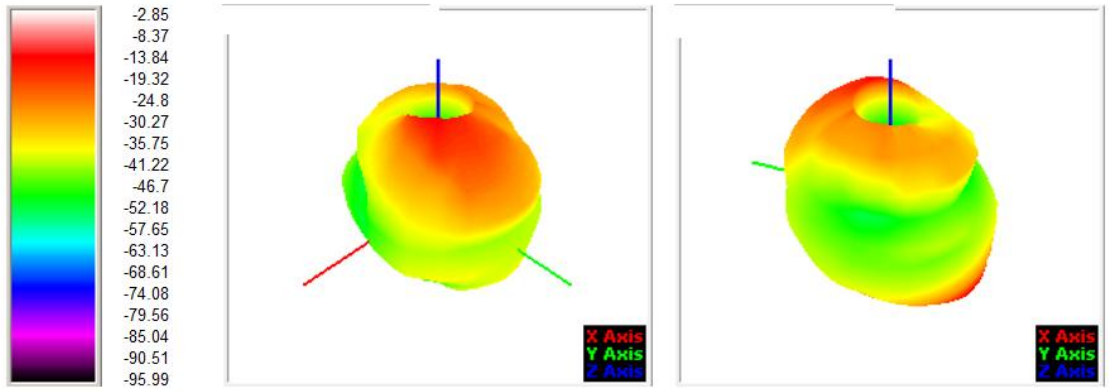
6.Antenna Gain

Frequency Band	Gain（dBi）
GSM850（824-894MHz）	-2.30
GSM900（880-960MHz）	-1.21
DCS1800（1710-1880MHz）	0.20
PCS1900（1850-1990MHz）	0.16
WCDMA850 （824-894MHz）	-2.30
WCDMA900（880-960MHz）	-1.21
WCDMA1700（1710-2155MHz）	0.21
WCDMA1900（1850-1990MHz）	0.16
WCDMA2100（1920-2170MHz）	0.18
FDD B 1（1920-2170MHz）	0.18
FDD B 2（1850-1990MHz）	0.16
FDD B 3（1710-1880MHz）	0.21
FDD B 4（1710-2155MHz）	0.22
FDD B 5（824-894MHz）	-2.26
FDD B 7（2500-2690MHz）	0.35
FDD B 8（880-960MHz）	-1.16
FDD B 12（699-746MHz）	-2.47
FDD B 17（704-746MHz）	-2.46
FDD B 19（830-890MHz）	-2.28
FDD B 20（791-862MHz）	-2.28
FDD B 25（1850-1995MHz）	0.15
FDD B 26（814-894MHz）	-2.26
FDD B 28（703-803MHz）	-2.40
FDD B 66（1700-2200MHz）	0.23
TDD B 34 (2010-2025MHZ)	0.22

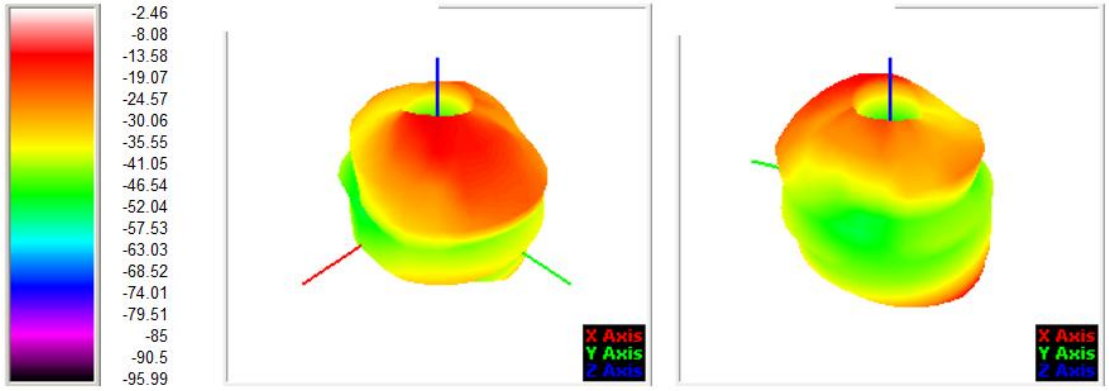
TDD B 38（2570-2620MHz）	**0.35**
TDD B 39（1880-1920MHZ）	**0.21**
TDD B 40（2300-2400MHz）	**0.36**
TDD B 41（2496-2690MHz）	**0.33**
Bluetooth	**0.28**
WIFI-2.4G	**0.28**
WIFI-5G	**0.32**
GPS	**0.11**

8.2D&3D Lobe Diagram

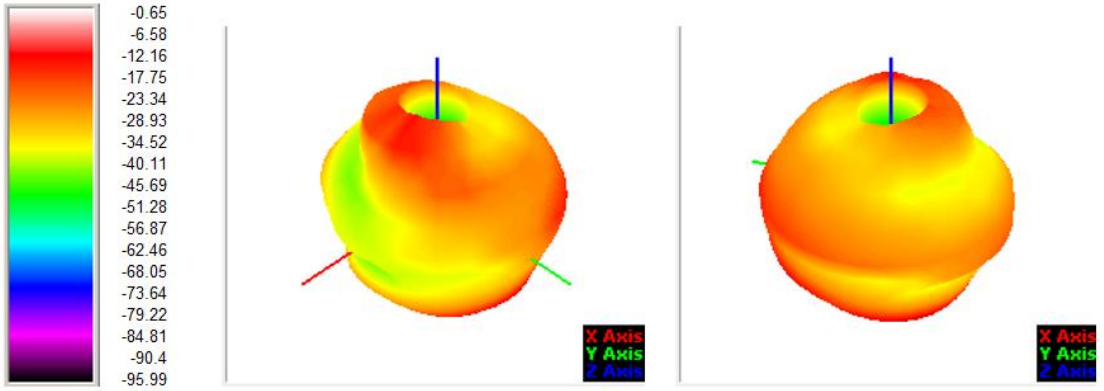
GSM850



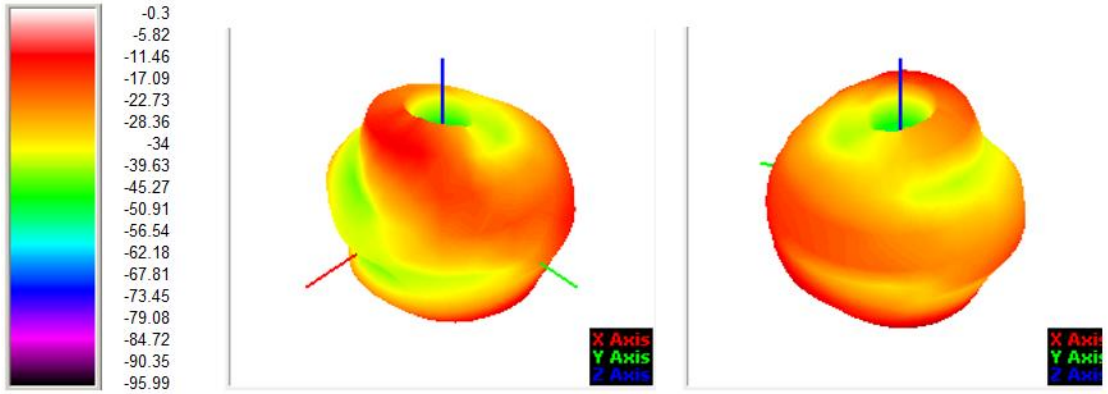
GSM900



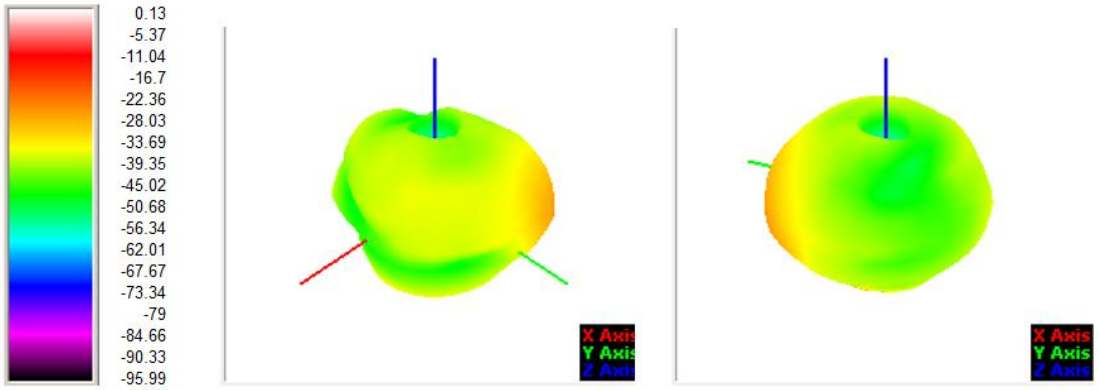
DSC1800



PCS1900



W1



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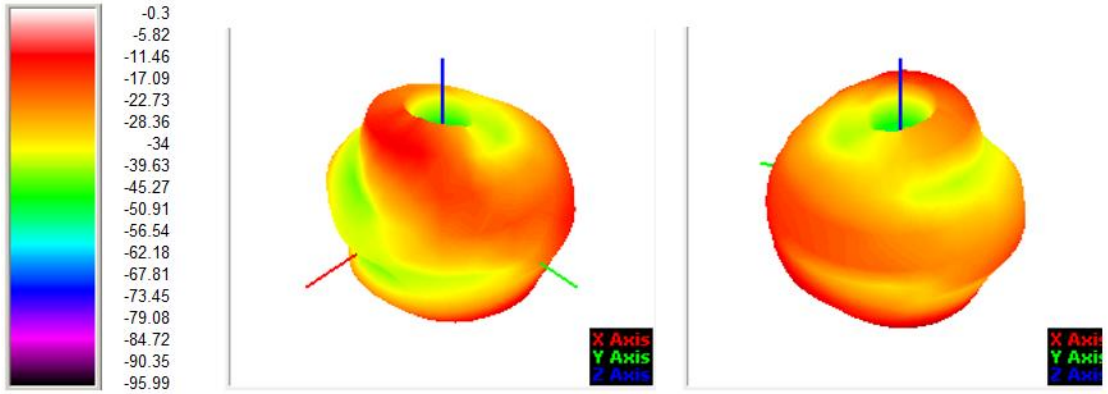
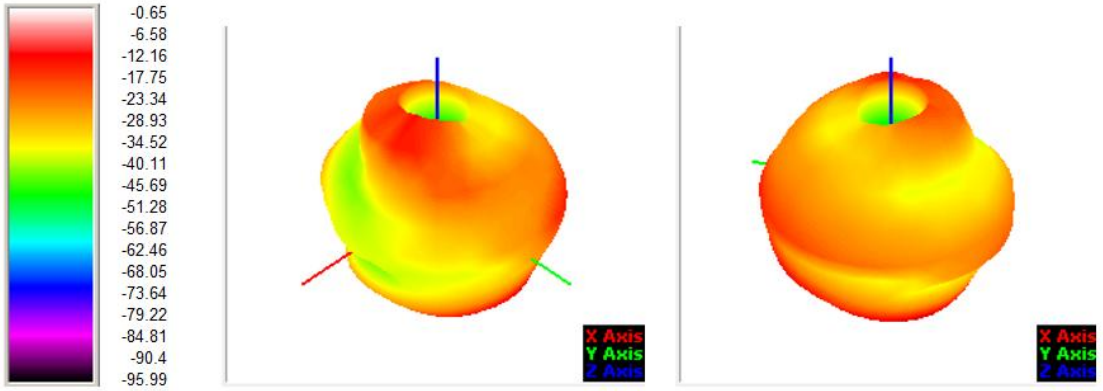
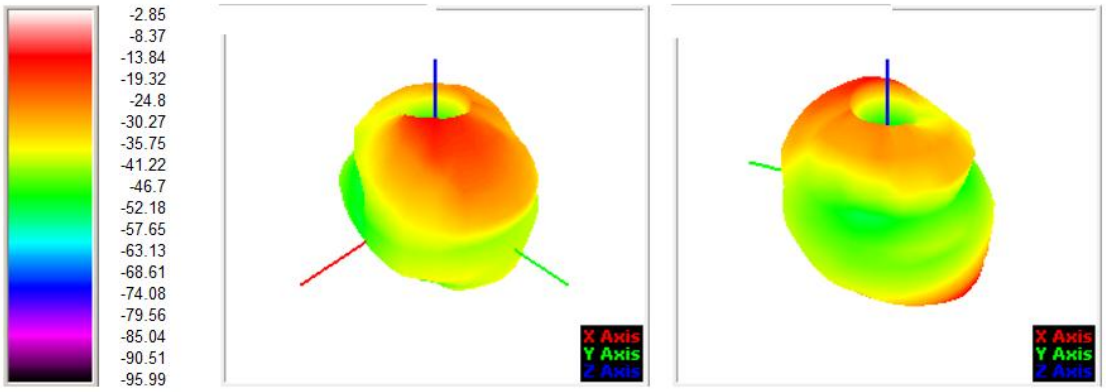


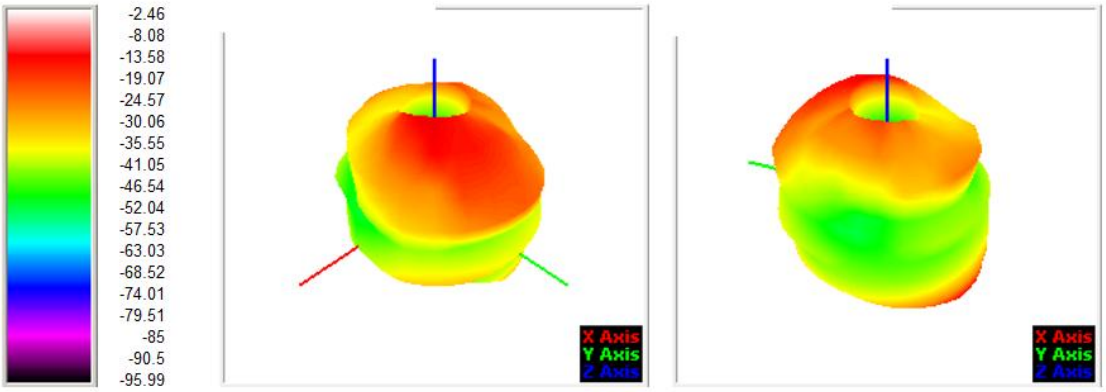
W4


-0.65
-6.58
-12.16
-17.75
-23.34
-28.93
-34.52
-40.11
-45.69
-51.28
-56.87
-62.46
-68.05
-73.64
-79.22
-84.81
-90.4
-95.99
X Axis
Y Axis
Z Axis
X Axis
Y Axis
Z Axis

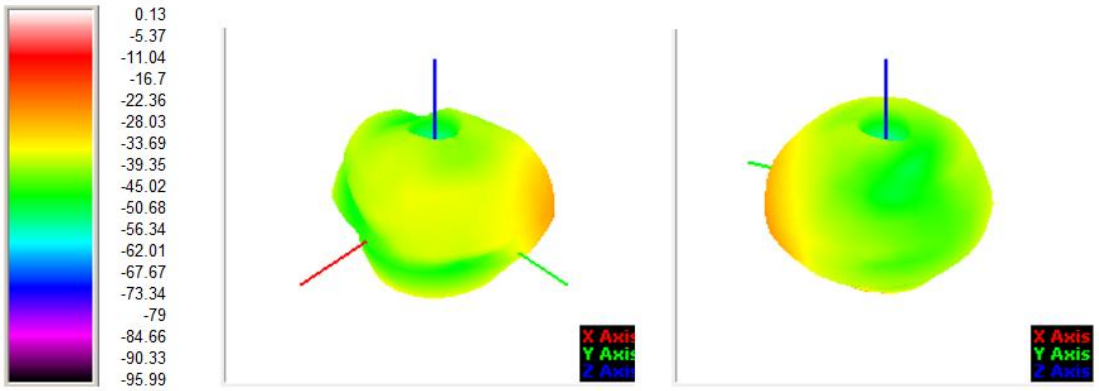
W5


-2.85
-8.37
-13.84
-19.32
-24.8
-30.27
-35.75
-41.22
-46.7
-52.18
-57.65
-63.13
-68.61
-74.08
-79.56
-85.04
-90.51
-95.99
X Axis
Y Axis
Z Axis
X Axis
Y Axis
Z Axis

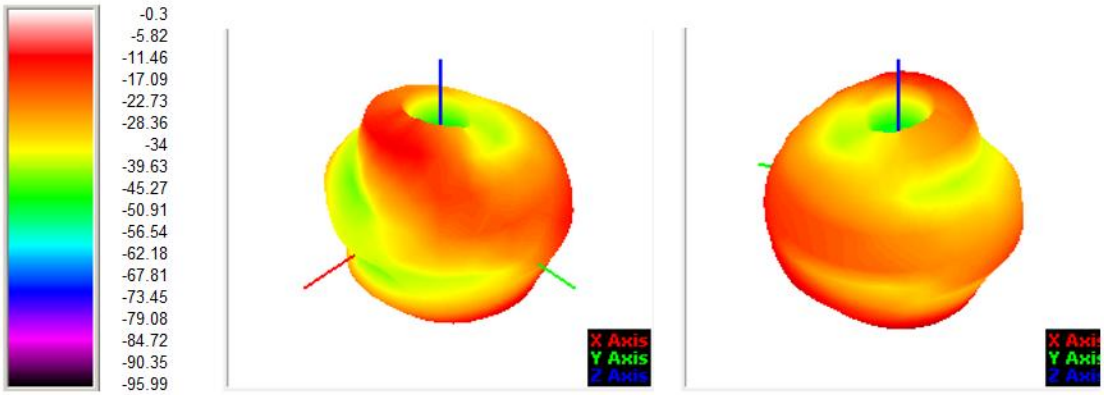
W8


-2.46
-8.08
-13.58
-19.07
-24.57
-30.06
-35.55
-41.05
-46.54
-52.04
-57.53
-63.03
-68.52
-74.01
-79.51
-85
-90.5
-95.99
X Axis
Y Axis
Z Axis
X Axis
Y Axis
Z Axis

FDD-B1



FDD-B2



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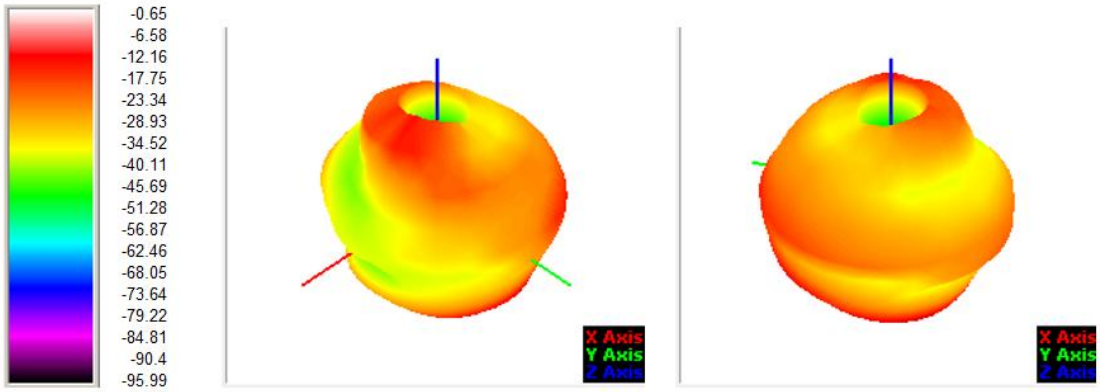

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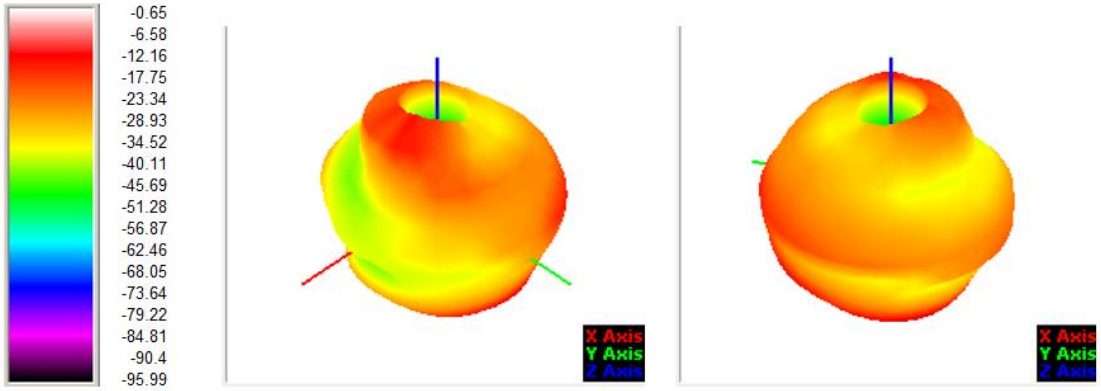

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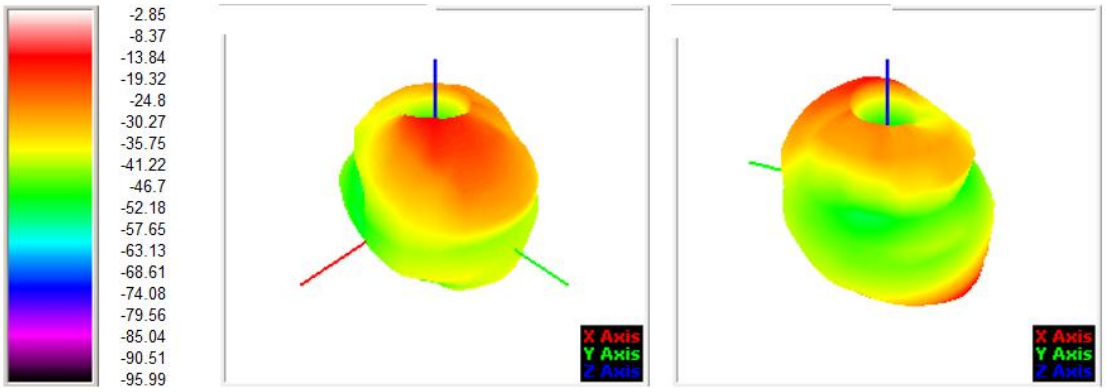
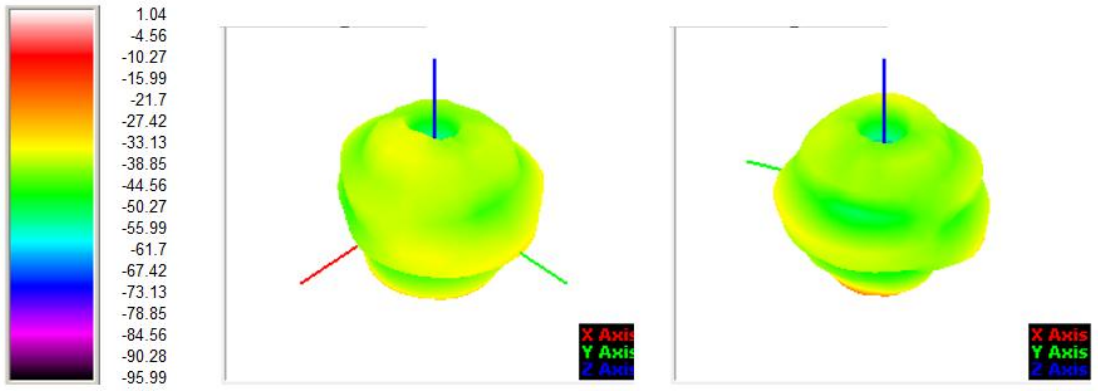


FDD-B7



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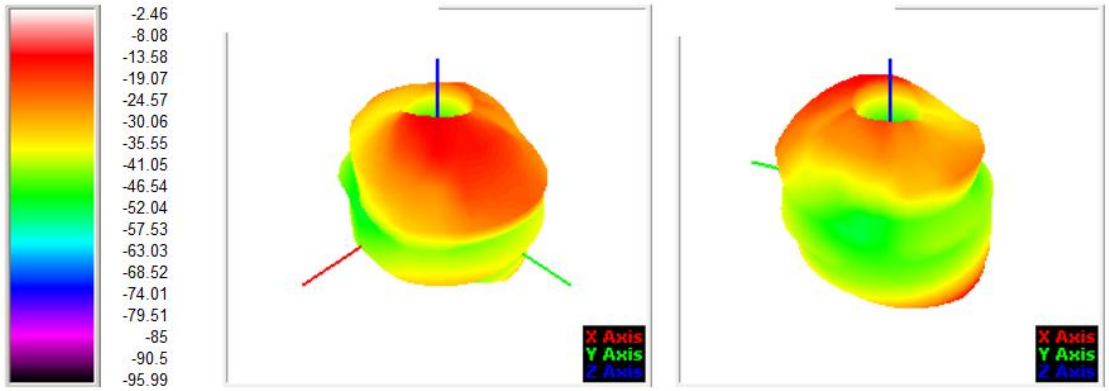

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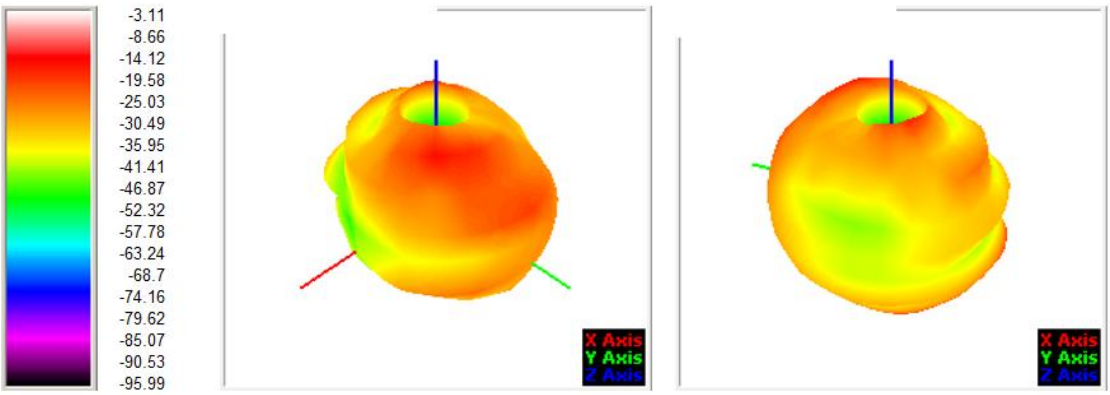
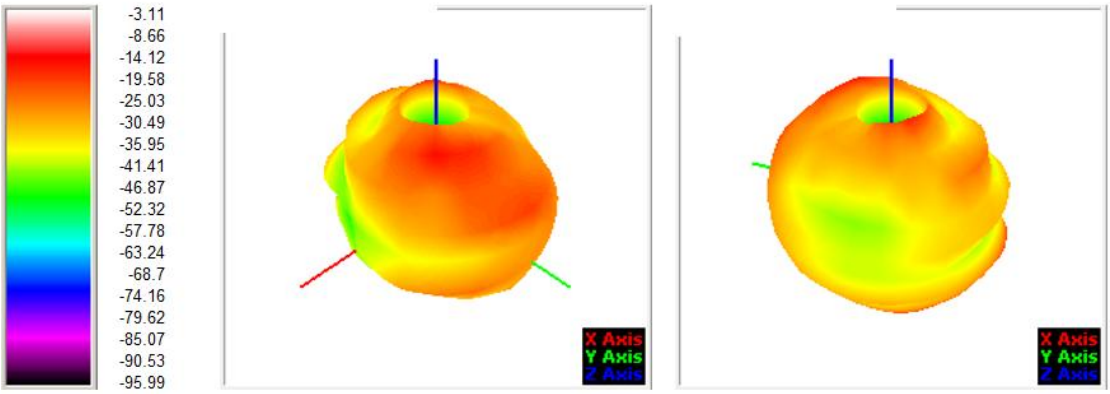
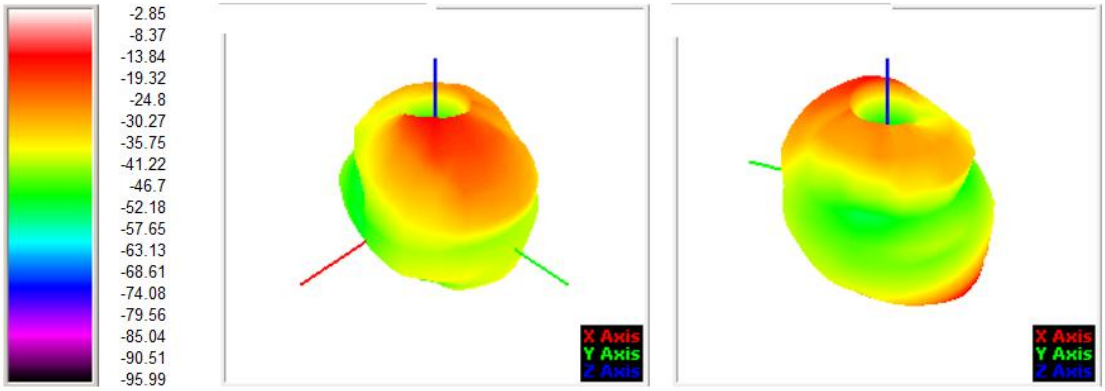


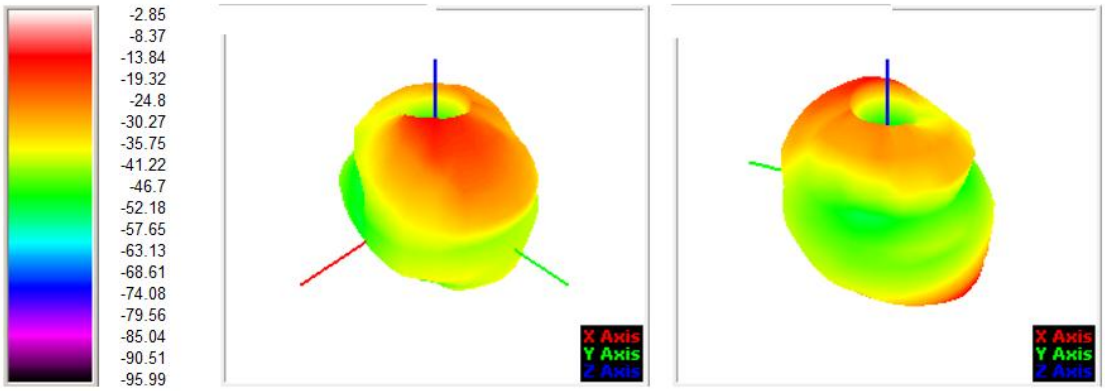
FDD-B17



FDD-B19



FDD-B20



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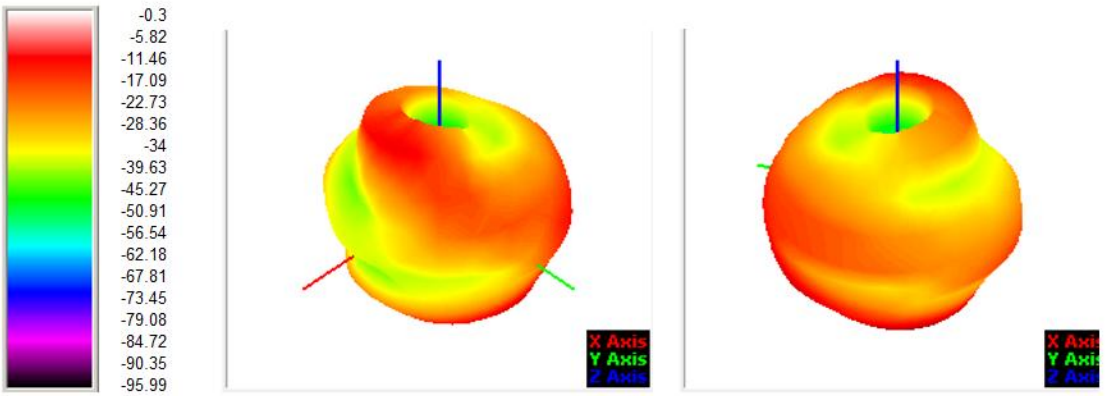

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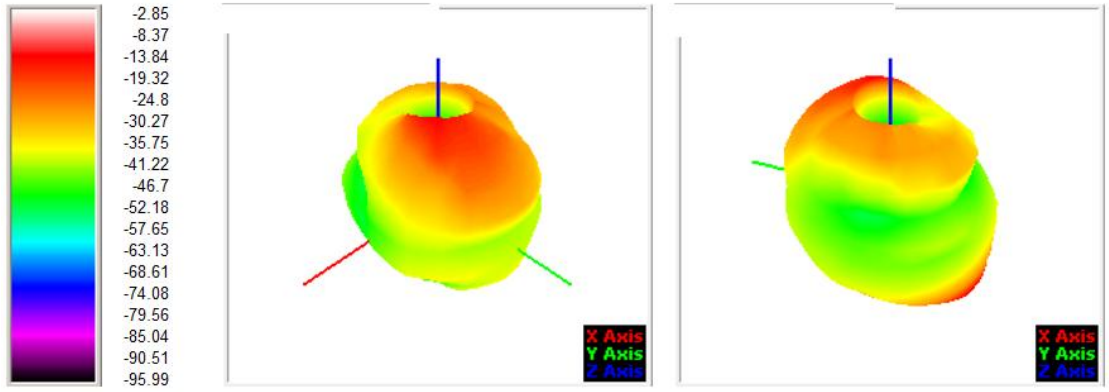

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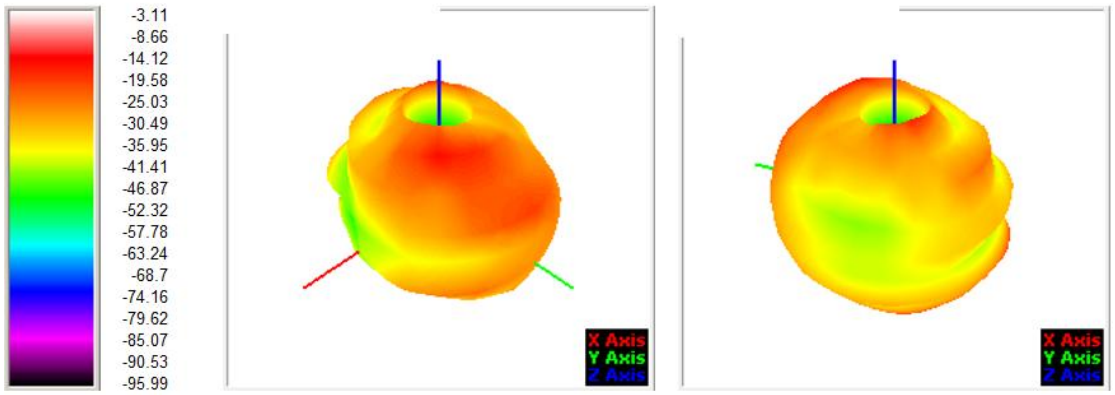

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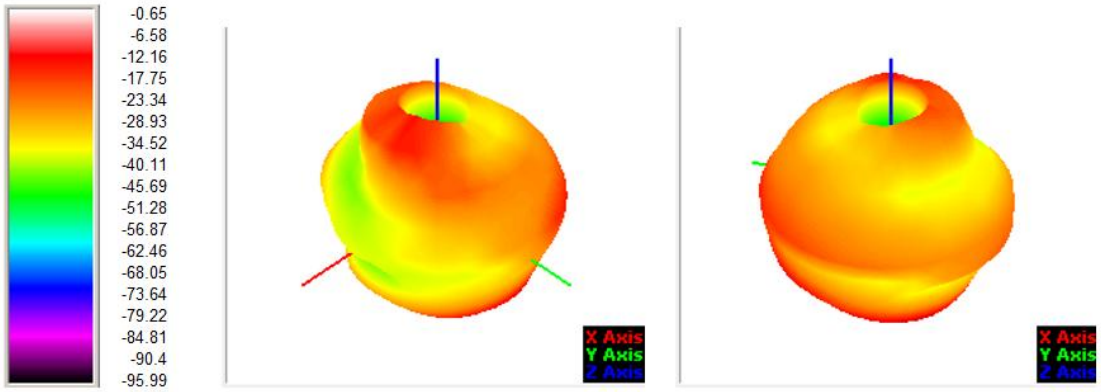

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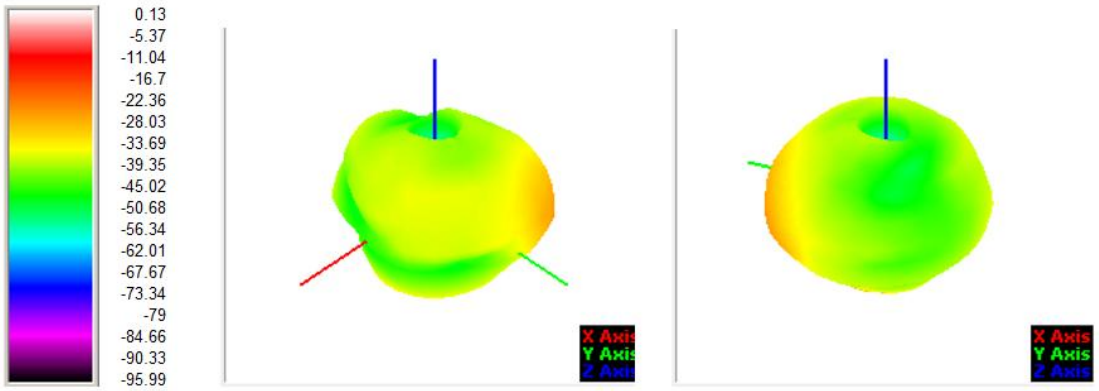

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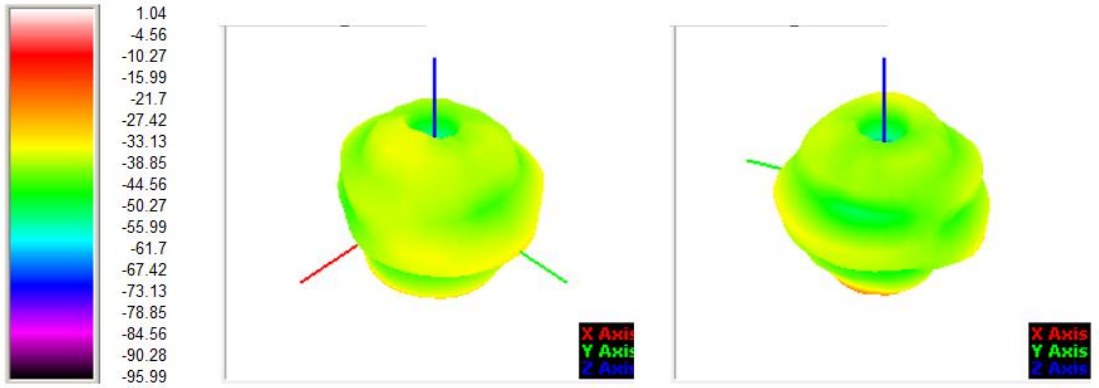

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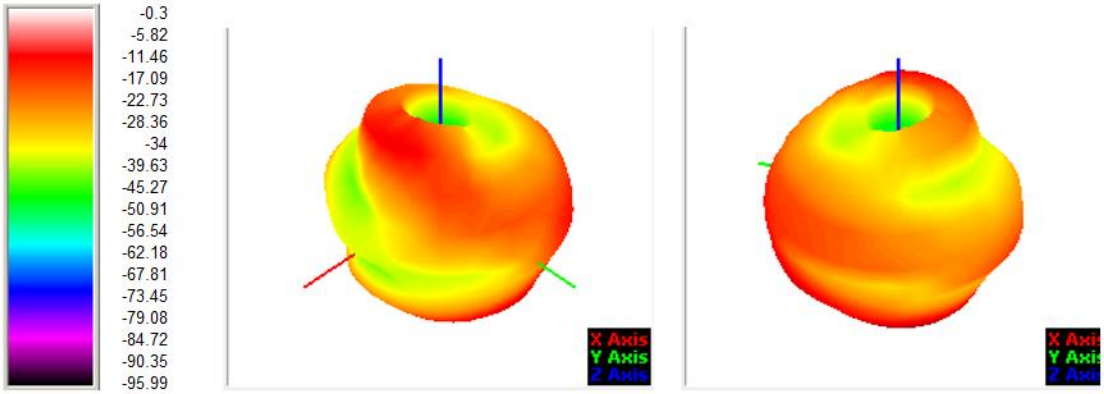

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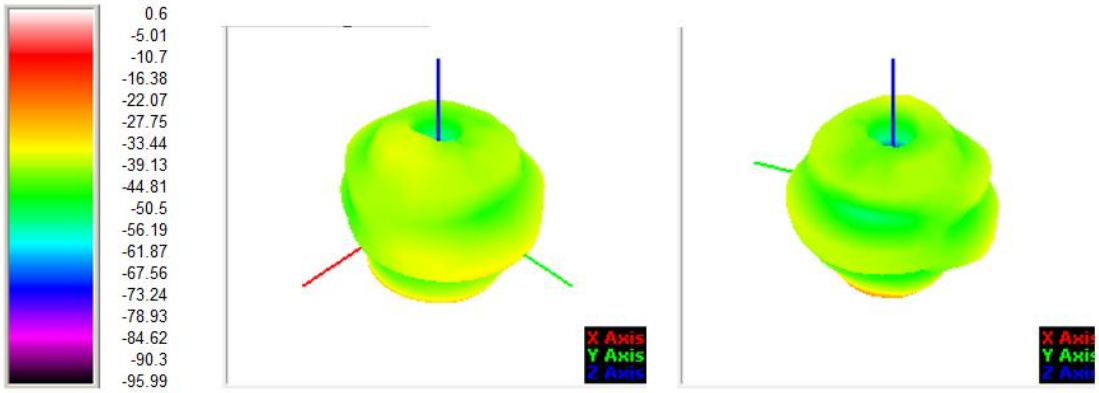
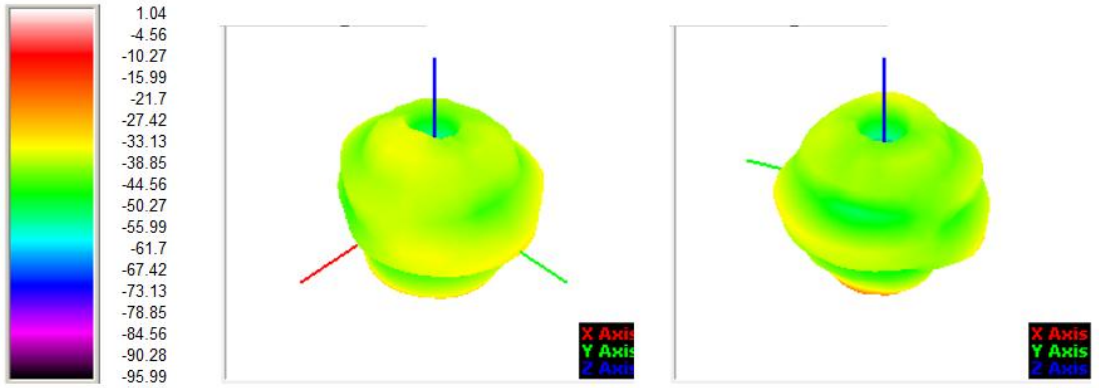
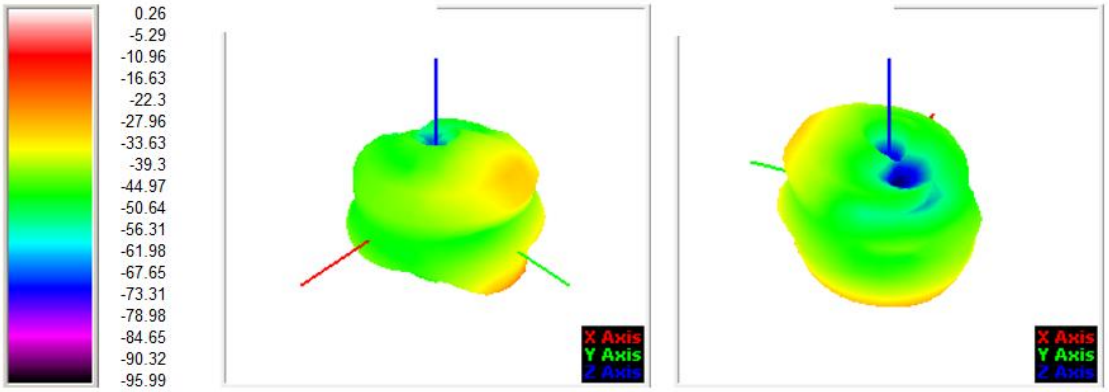


TDD-B41



GPS-L1



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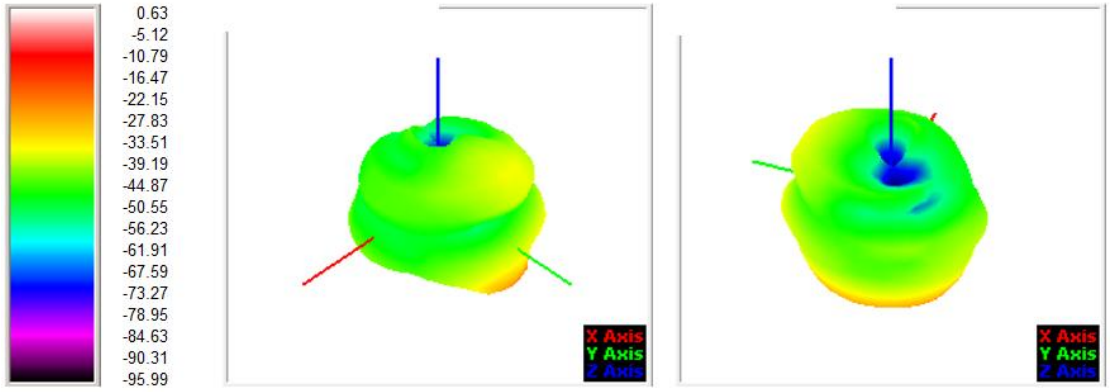
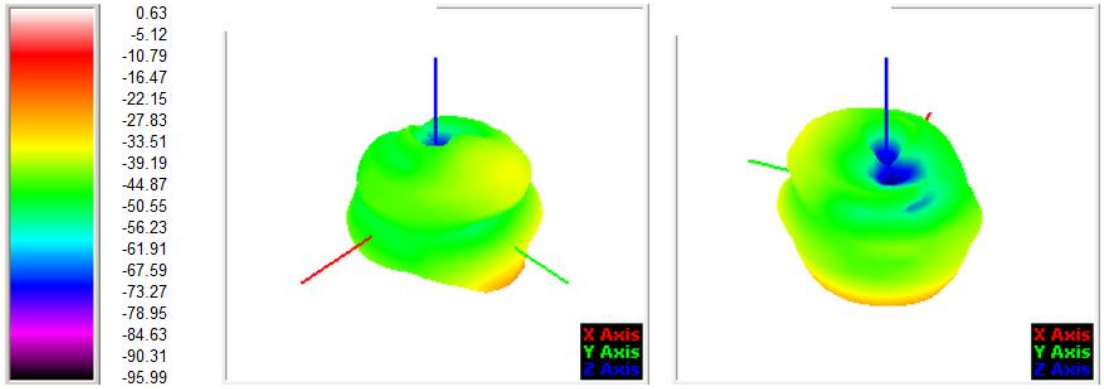
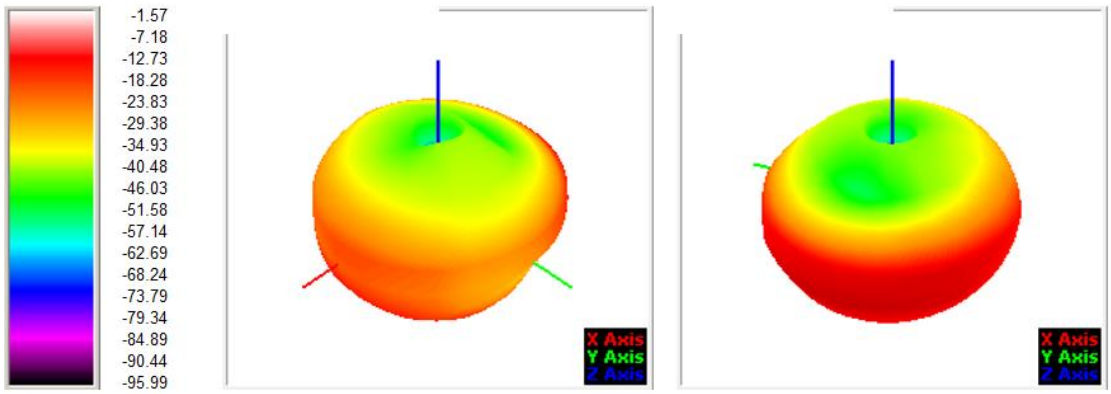
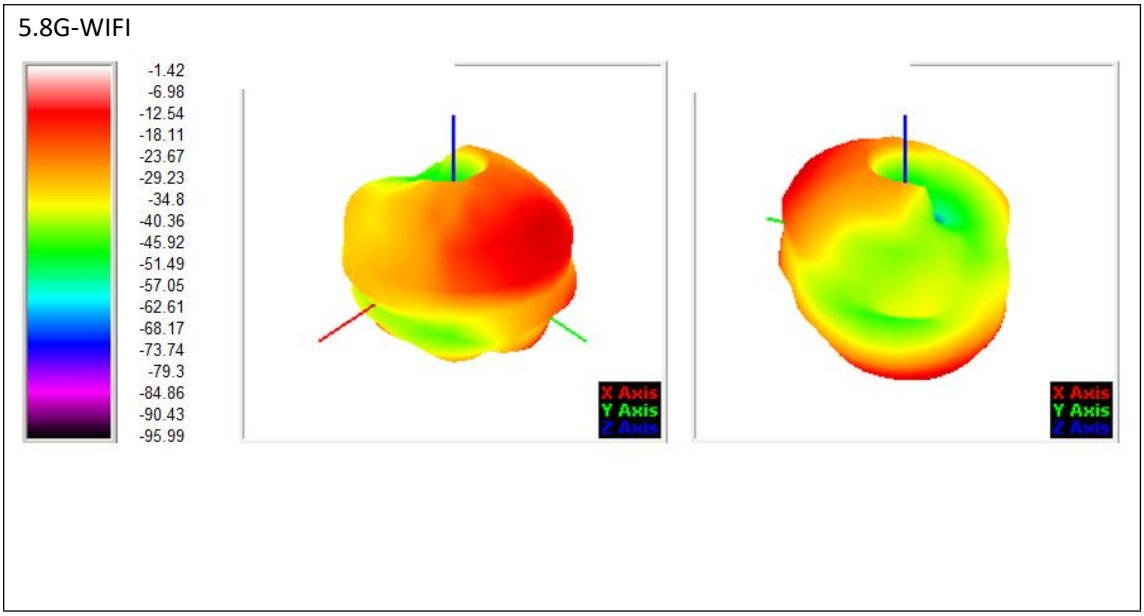


2.4G-WIFI



5.1G-WIFI





9.Introduction to Antenna Information

S158	
Antenna type and frequency band	MAIN ANTENNA(PIFA):2G/3G/4G DIV ANTENNA(PIFA):2G/3G/4G GPS/WIFI/BT ANTENNA(PIFA):L1/2.4GWIFI/5G WIFI/BT
Antenna materia	FPC