ShenZhen QiXinTongDa Technology Co.,Ltd.

Antenna Test Report

QXTD-312A LTE-F Specification

1.Explanation of part number：

Supplier： QXTD

Frequency： 699-960Hhz, 1710-2170Mhz,2300-2690Mhz

Antenna Material： FPC

Antenna model： PIFA

2.Electrical Specification：

2-1. Frequency Band：

Frequency	MHz
LTE	703-960MHz ， 1710-2170MHz ， 2300-2690MHz

Project model:T312A

Frequency Band: GSM B2/3/5/8+WCDMA-B1/2/4/5/8+FDD B1/2/3/4/5/7/8/13/28-TDD B40

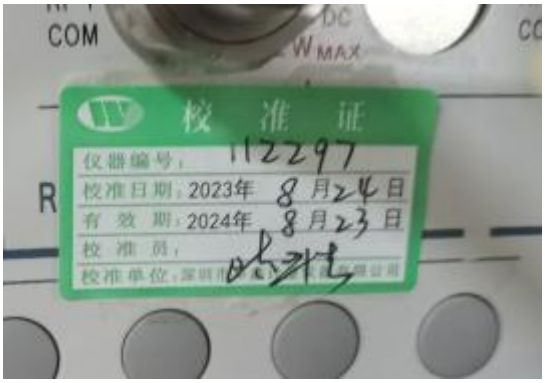
Date：2023/09/20

ADD： Room 503,Building 211,Tairan 9th Road,Tairan Industrial Zone, Chegongmiao, Futian,Shenzhen

1.Test Project

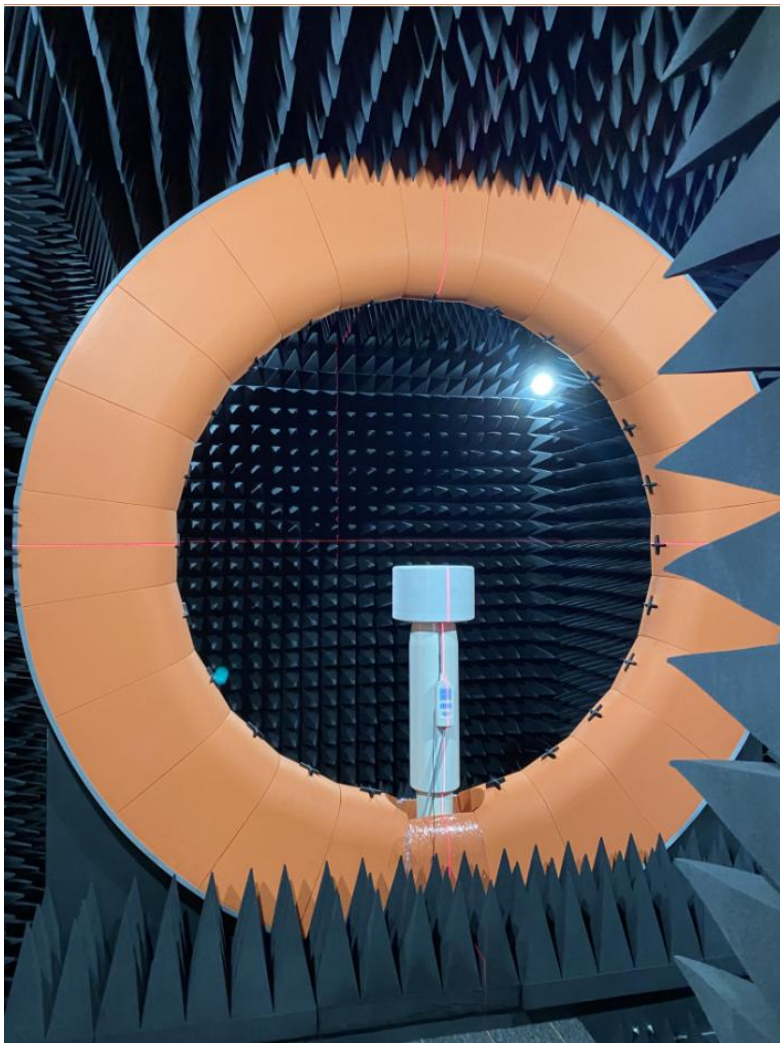
	Test Project	Equipment
1. S Parameter	1. Return Loss(RL) 2. VSWR	Network Analyzer: Agilent 5071B
2. RF Test (2G+3G+4G)	1. power 2. level 3.TRP/TIS	Comprehensive Test: CMW500/8960 Test Environment: Anechoic Chamber

2.Test Equipment



CMW 500 （2G/3G/4GTest Equipment）

3. TestEnvironment



5G antenna debugging /darkroom

SP9500-CTS 5G COMPREHENSIVE TESTER

5G ATS300 Dark

Antenna debugging equipment

SATIMO darkroom

ETS darkroom

Human head and hand

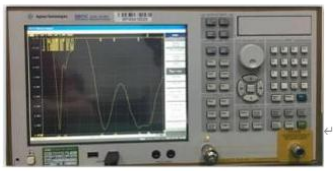
Pyramid

Agilent8960

MT8820C

E5071B

Antenna debugging equipment



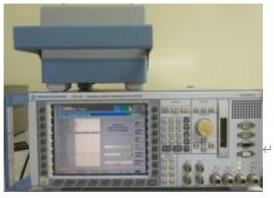
E5071C

HP8753D

ROHDE&SCHWARZ-ZVL

ROHDE&SCHWARZ

HP885046A

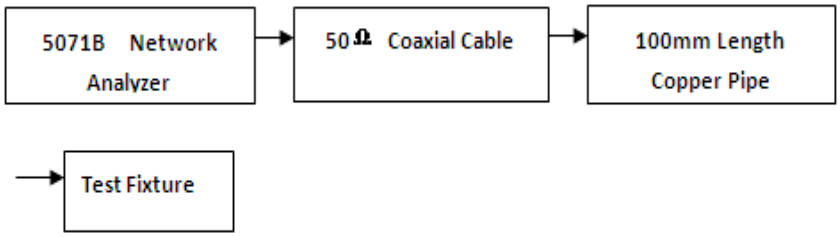


CMU200

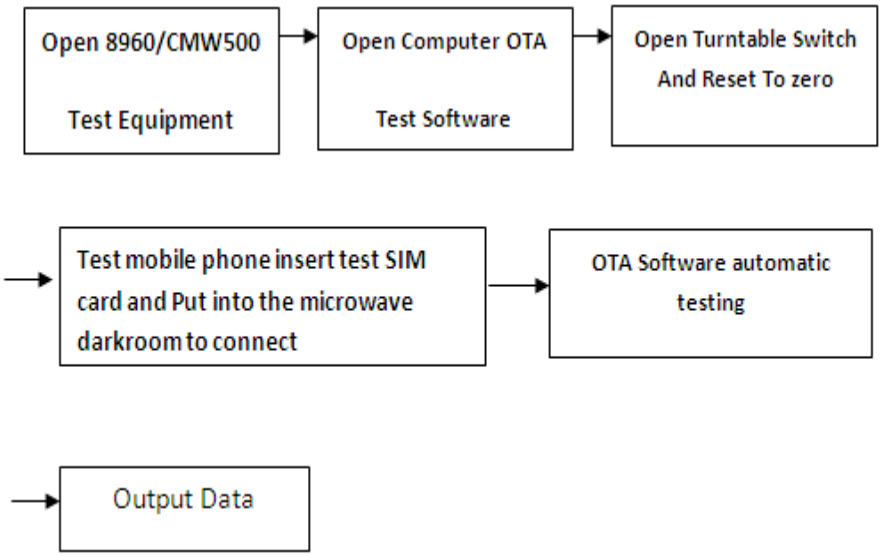
Our company has a number of OTA test darkrooms, ranging from 400MHz to 8.5ghz, which can provide passive test and active test (including OTA overall 2G,3G,4G,5GFR test, WiFi multi-mode test, GPS active test, Bluetooth active test, which can provide antenna gain and efficiency. 2D orientation and apple chart analysis and upper and lower hemisphere efficiency values, mutual disturbance correlation coefficient test items

4.Test Steps

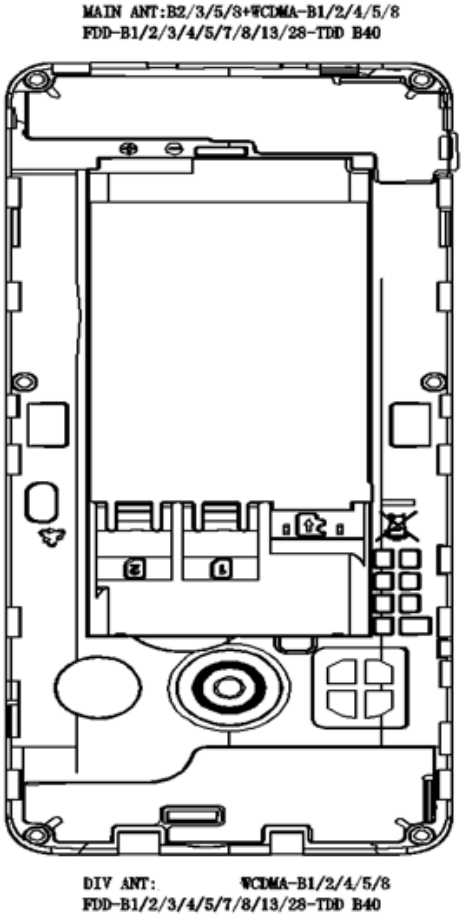
Passive VSWR/RL Test Steps:

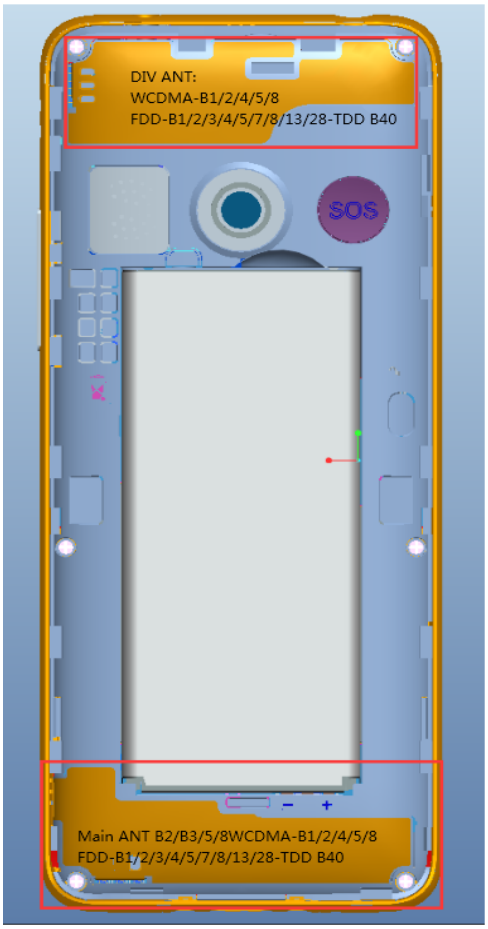


Active TRP/TIS Test Steps:

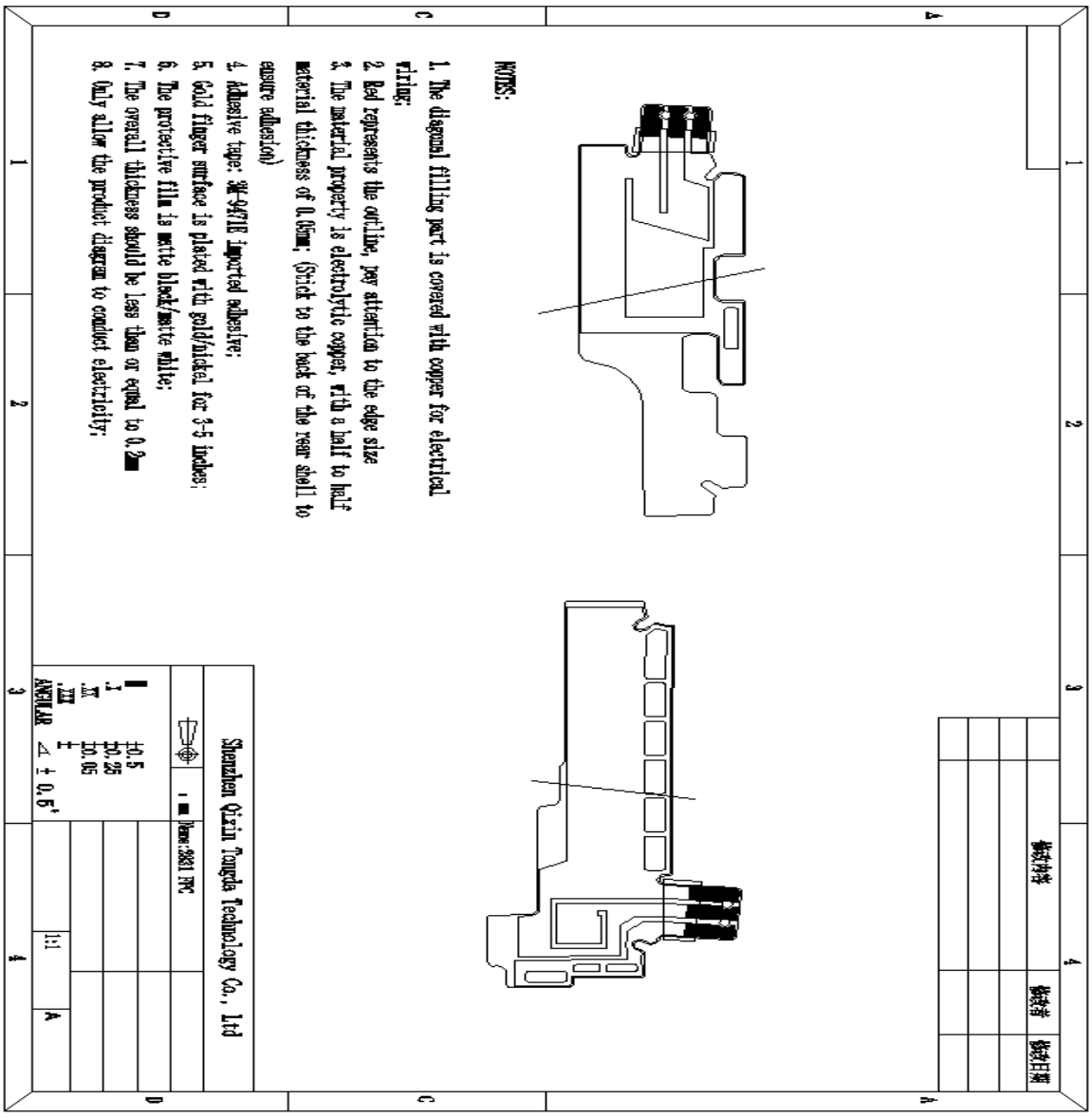


5. Antenna Placement





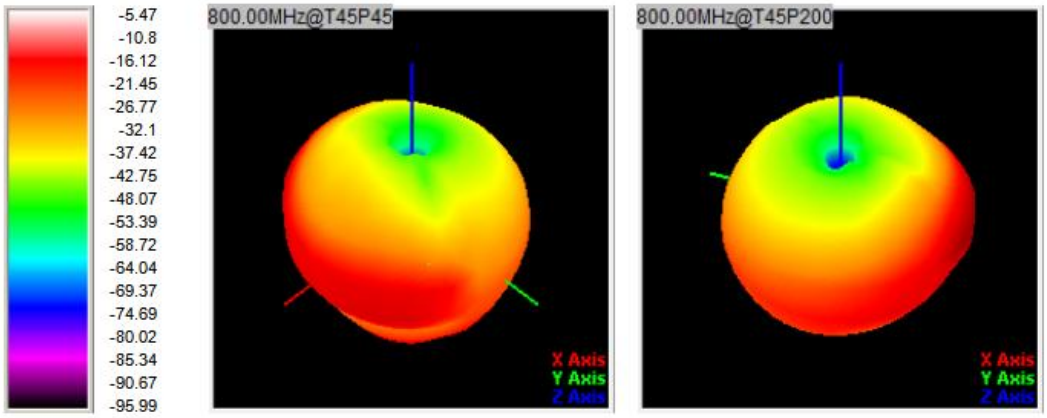
6.Antenna Dimensions

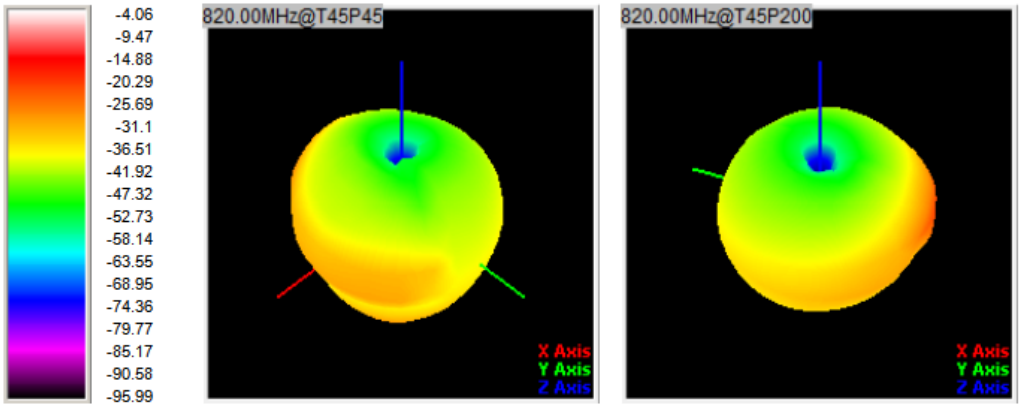


6. Antenna Gain

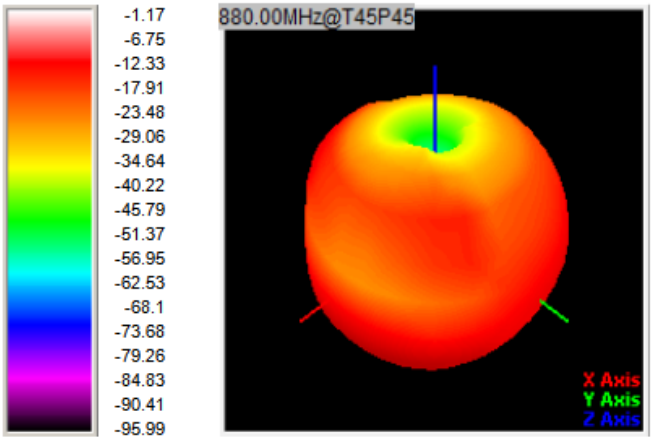
Frequency	Gain(dBi)
GSM850	0.35
EGSM900	0.4
DCS1800	0.6
PCS1900	0.7
WCDMA B1	0.85
WCDMA B2	0.6
WCDMA B4	0.55
WCDMA B5	0.5
WCDMA B8	0.4
FDD B1	0.8
FDD B2	0.55
FDD B3	0.6
FDD B4	0.55
FDD B5	0.3
FDD B7	1.3
FDD B8	0.4
FDD B13	0.2
FDD B28	0.2
TDD B40	0.9
BT	0.8

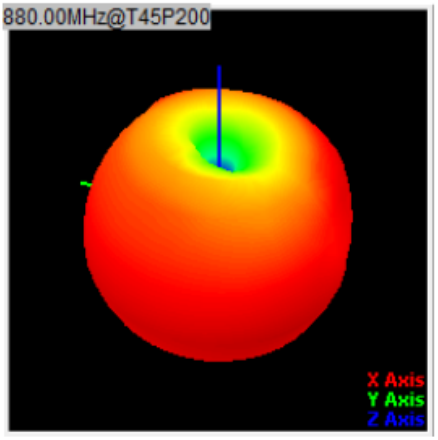
7． 3D Lobe Diagram（1）

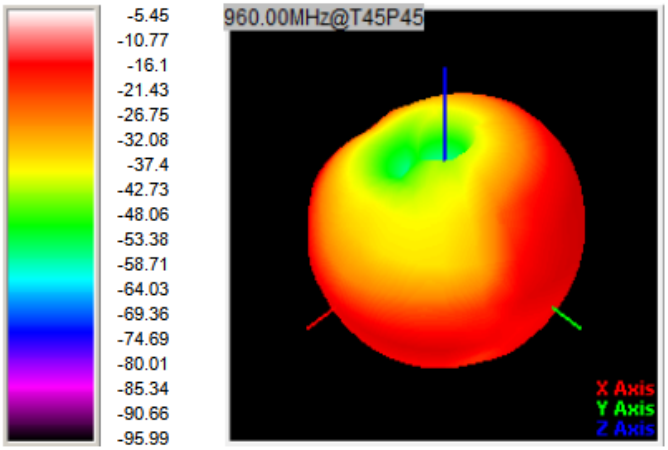


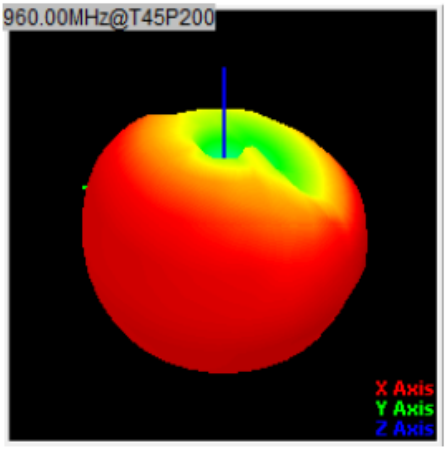


8. 3D Lobe Diagram（2）

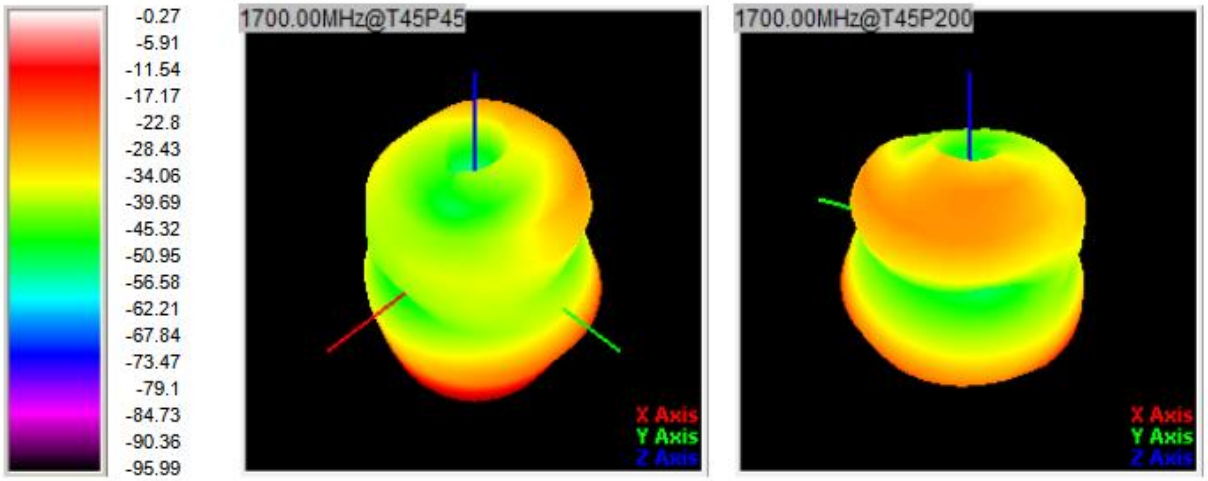


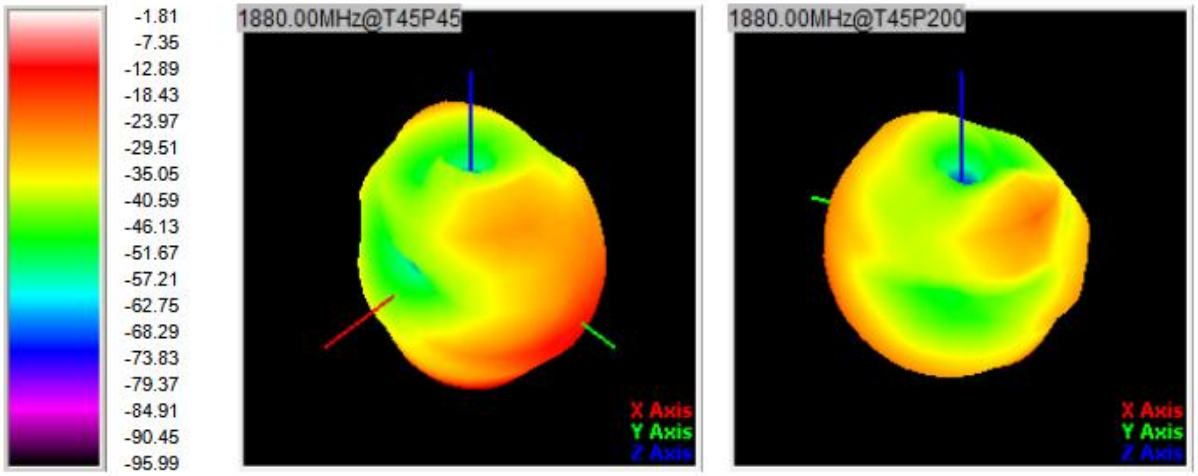




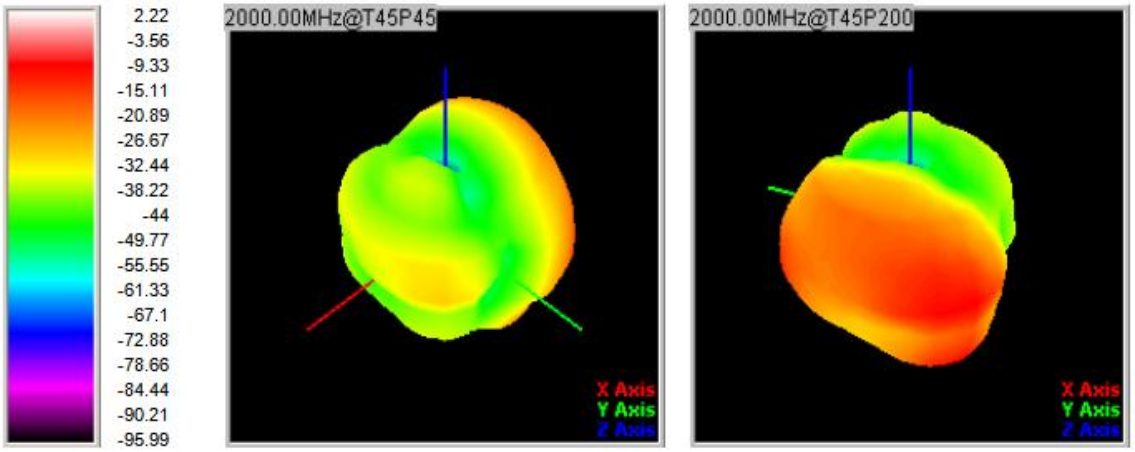


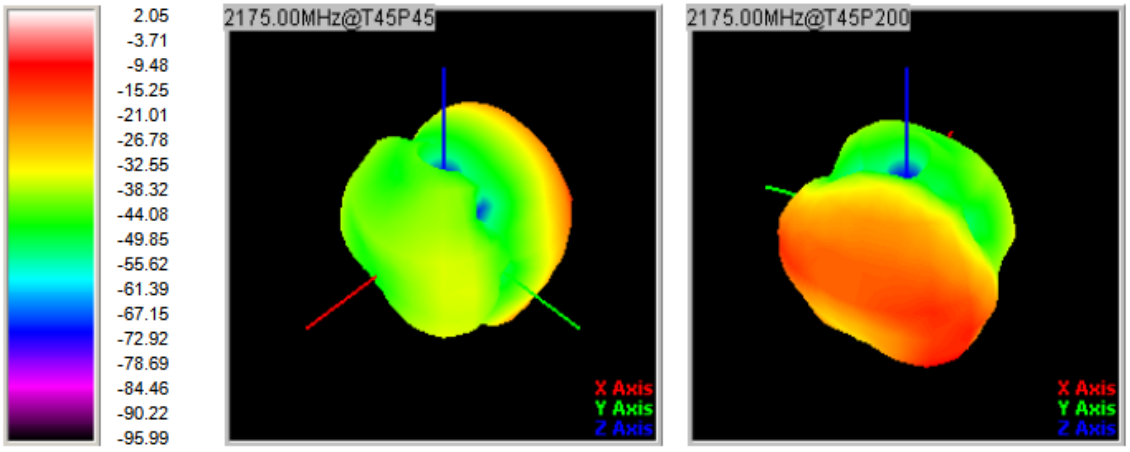
9. 3D Lobe Diagram（3）





10. 3D Lobe Diagram（4）





11. 3D Lobe Diagram（5）