

ShenZhen QiXinTongDa Technology Co.,Ltd.

Antenna Test Report

客户: 启昌

项目: **F13**

**GSM2/3/5/8+W1/2/4/5/8+LTE1/2/3/4/5/7/8/12/17/18/19/20/25/26/28/3
4/38/39/40/41/66+N1/3/7/8/28/38/41/77/78**

工程: 傅工 (187 1893 6792)

日期: **2025-7-24**

ADDRESS: Room503-505,Building211,

Tairan IndustrialandTradePark,Chegongmiao,FutianDistrict,Shenzhen

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)

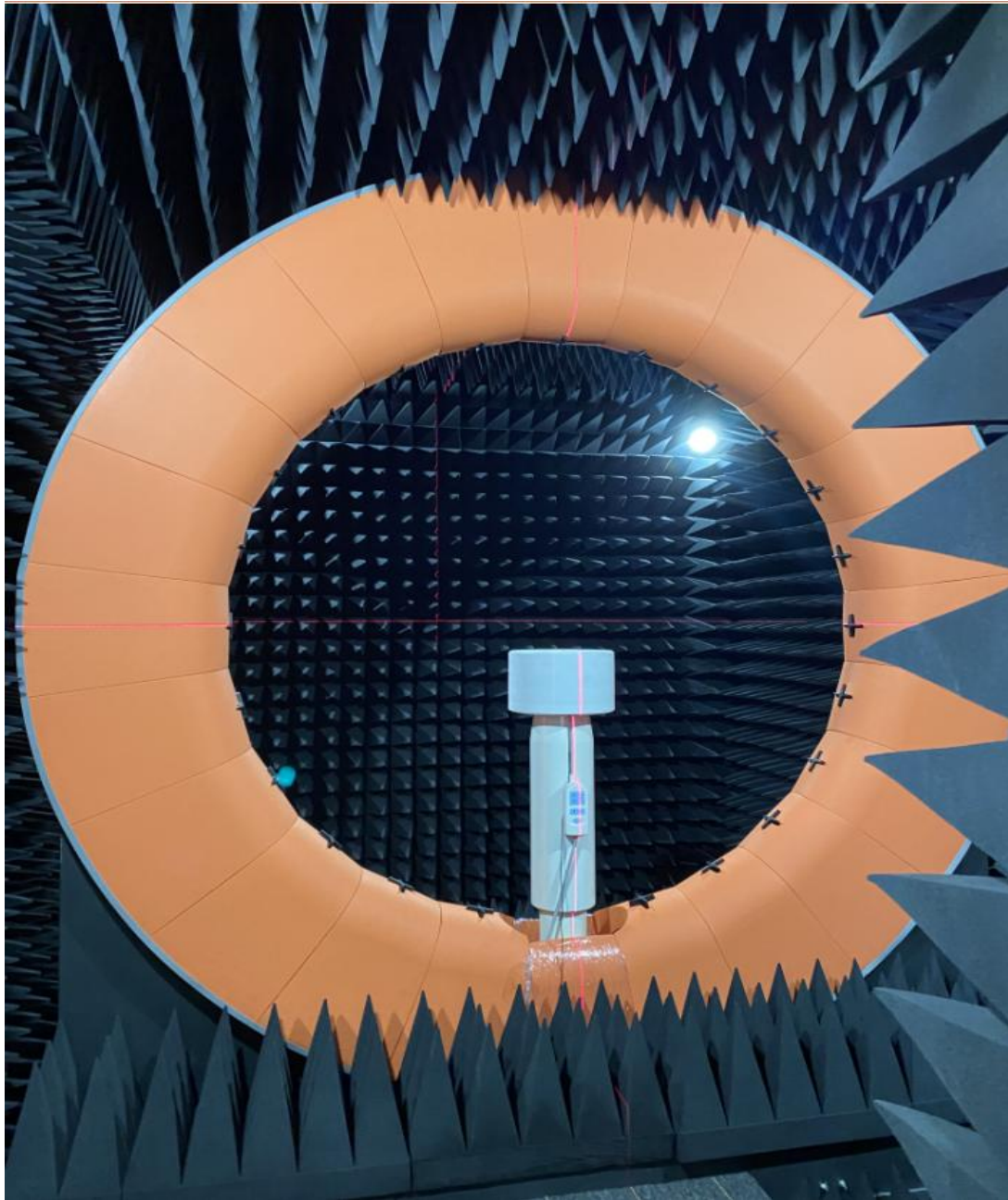


CMW 500 (2G/3G/4G Test Equipment)



SP9500 (5G Test Equipment)

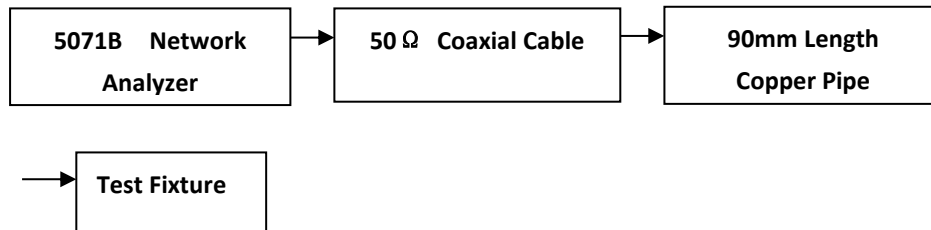
3. TestEnvironment



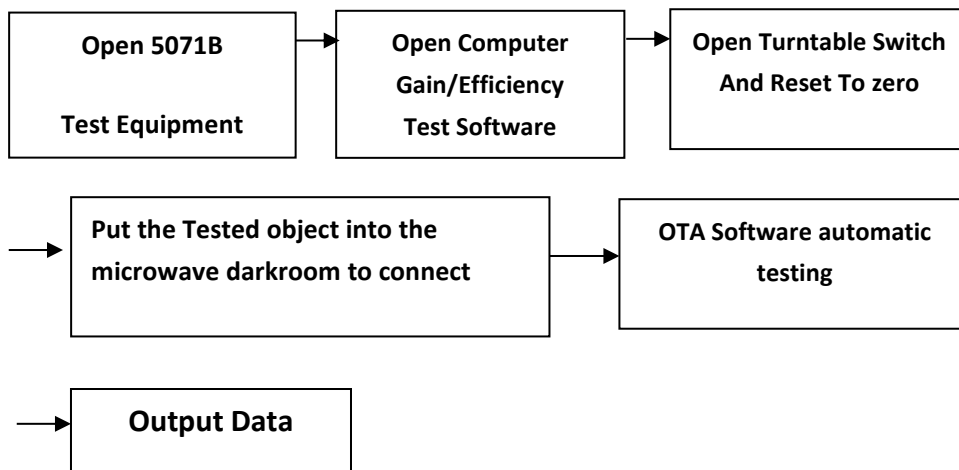
Microwave Anechoic Chamber

4.Test Steps

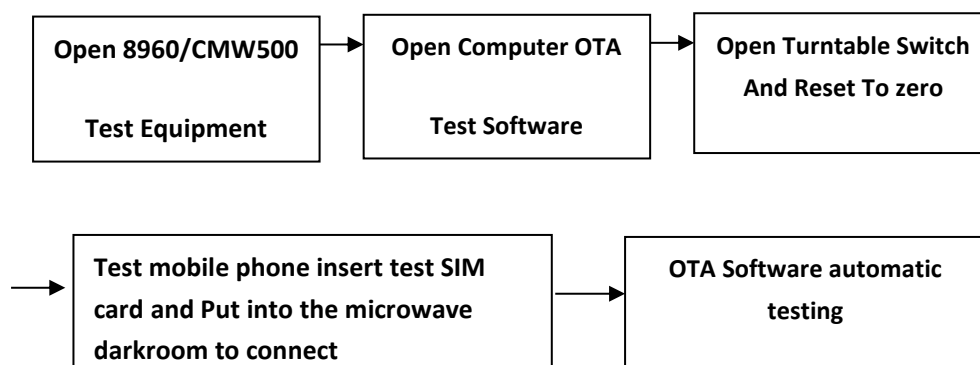
Passive VSWR/RL Test Steps:



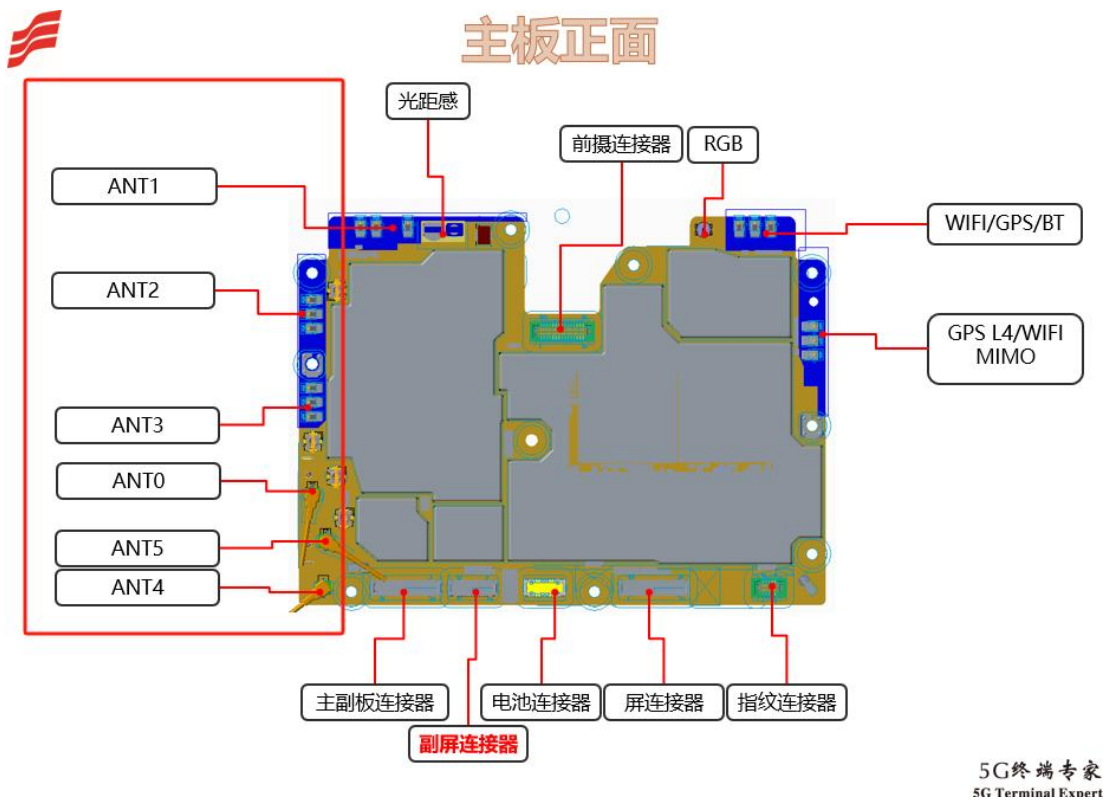
Gain/Efficiency Test Steps:



Active TRP/TIS Test Steps:



5. Antenna frequency band distribution

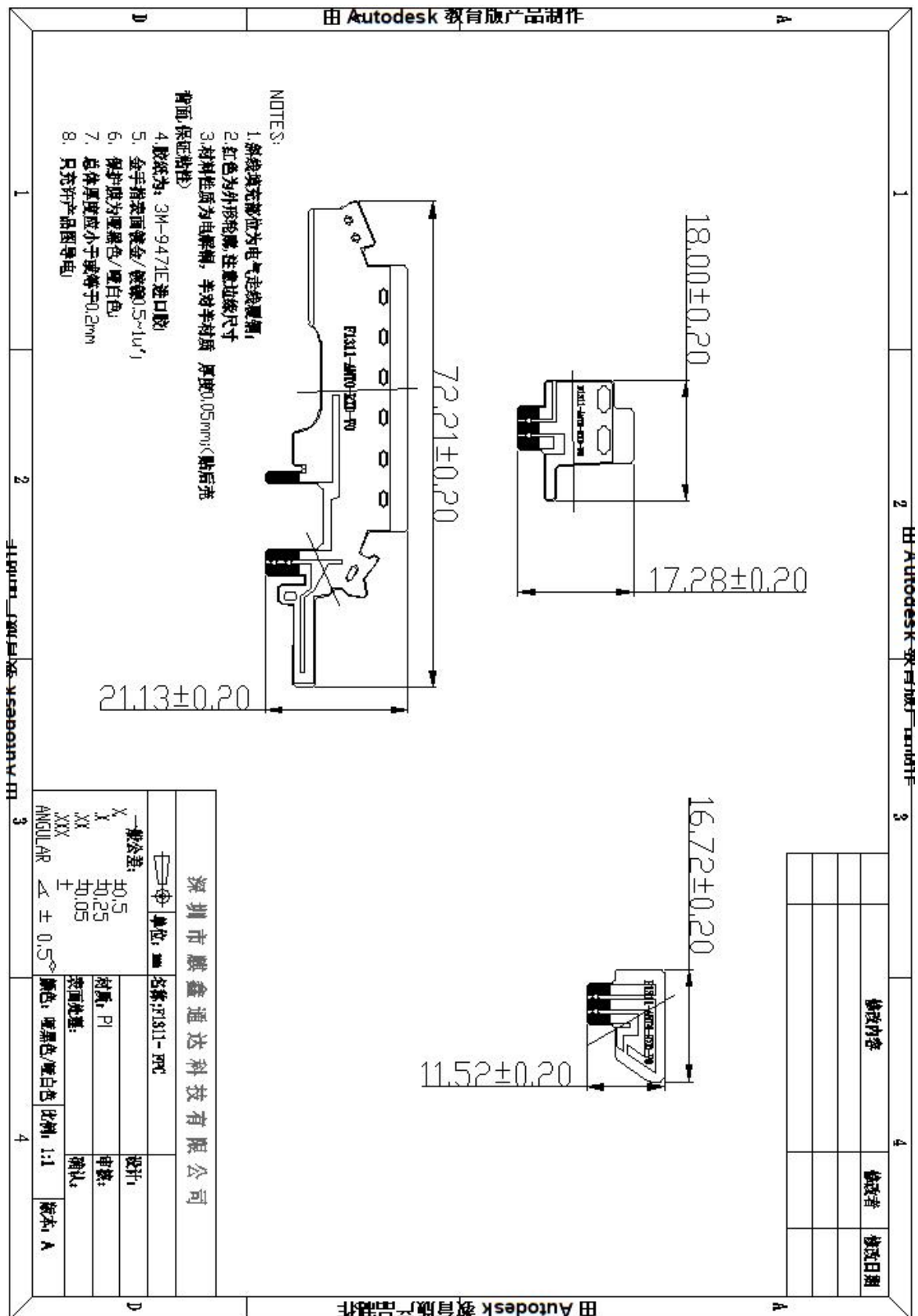


M1702		ANT0	ANT1	ANT2	ANT3	ANT4	ANT5
LB 1T2R	CSM850/CSM900/W5/W8/B5/B8/B12/B17/B18/B19/B20/B26/B28A/B/n8/n28	T_P	D与ANT0 DPDT	/	/	/	/
MGB 1T2R	DCS1800/PCS1900/W1/W2/W4/B2/B3/B4/B7/B25/B34/B38/B39/B40/B41/B66/n3/n7	T_P	D与ANT0 DPDT	/	/	/	/
MGB 1T4R	B1/n1	T_P	D与ANT0 DPDT	/	PRX2	DEX2	/
MGB 1T4R	n38/n41	/	DEX	/	PRX2	DEX2	T_P
SUB6 1T4R	n77/n78	/	/	T_P	PRX2	DEX2	DEX

6. Antenna distribution diagram



7. Antenna Dimensions



Technical drawing of a mobile phone chassis (likely a PDA or rugged phone) showing front, back, and side views. The drawing includes dimensions and labels for various components.

Dimensions:

- Top view (Front): 71.96±0.20 (width), 54.58±0.20 (height)
- Side view: 23.41±0.20 (thickness)

Labels:

- MTL/GPS/MT
- GPS/A/MT/MT
- ANT1
- ANT2
- ANT3

Technical Requirements:

1. 支架表面干净, 无油污, 被峰, 缩水, 断裂, 变形等不良;
2. 带*号尺寸与带公差尺寸为重点管控尺寸, 其它尺寸按明细栏公差管控;
3. 产品符合RoHS标准。

Company Information:

深圳市麒鑫通达科技有限公司

Table 1: Revision History

版本	修改内容	修改者	修改日期
A			

Table 2: Drawing Information

名称	单位	材料	数量	备注
手机外壳	MM	铝合金	1	

Table 3: Drawing Information

名称	单位	材料	数量	备注
手机外壳	MM	铝合金	1	

Table 4: Drawing Information

名称	单位	材料	数量	备注
手机外壳	MM	铝合金	1	

8. Antenna Gain(dBi)

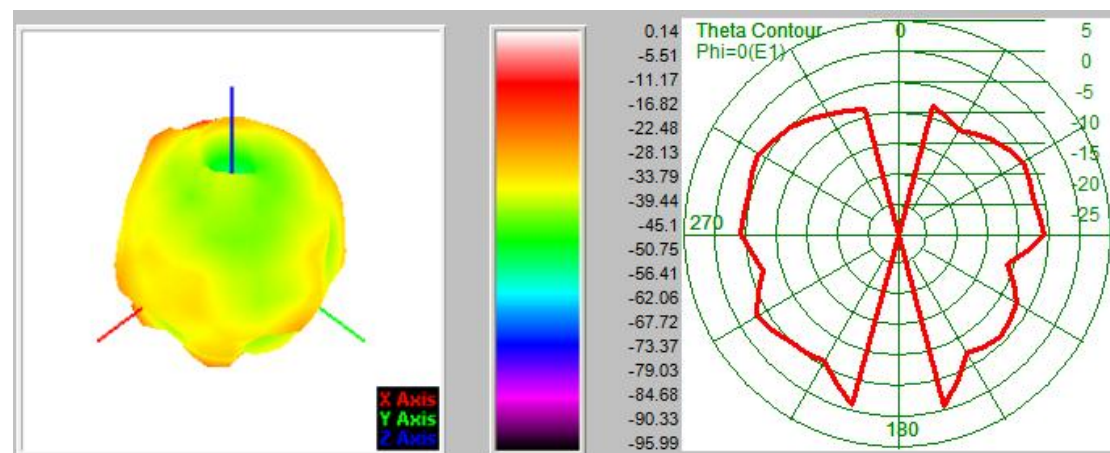
Band	Max Gain	Band	Max Gain
GSM850(824-894MHz)	-0.28	LTE-B38(2570-2620)	-1.42
GSM900(880-960MHz)	-0.20	LTE-B39(1880-1920)	-0.03
DCS1800(1710-1880MHz)	-0.64	LTE-B40(2300-2400)	-0.77
PCS1900(1850-1990MHz)	-0.03	LTE-B41(2496-2690)	-1.42
WCDMA1(1920-2170MHz)	0.95	NR-B1(1920-2170)	0.95
WCDMA2(1850-1990MHz)	-0.03	NR-B3(1710-1880)	-0.64
WCDMA4(1712-2153MHz)	-0.64	NR-B7(2500-2690)	-1.42
WCDMA5(826-892MHz)	-0.28	NR-B8(880-960)	-0.20
WCDMA8(882-958MHz)	-0.20	NR-B28(703-803)	-2.62
LTE-B1(1920-2170)	0.95	NR-B38(2570-2620)	-0.22
LTE-B2(1850-1990)	-0.03	NR-B41(2496-2690)	-0.22
LTE-B3(1710-1880)	-0.64	NR-B77(3300-4200)	0.74
LTE-B4(1710-2155)	-0.64	NR-B78(3300-3800)	0.69
LTE-B5(824-894)	-0.28		
LTE-B7(2500-2690)	-1.42		
LTE-B8(880-960)	-0.20		
LTE-B12(699-746)	-1.45		
LTE-B17(704-746)	-1.45		
LTE-B18(815-875)	-0.28		
LTE-B19(830-890)	-0.28		
LTE-B20(791-862)	-0.28		
LTE-B25(1850-1995)	-0.64		
LTE-B26(814-894)	-0.28		
LTE-B28(703-803)	-1.45		
LTE-B66(1710-2200)	-0.64		
LTE-B34(2010-2024)	0.03		

(L1/BT/WIFI2.4/5-7.125G)	
Band	Max Gain
Bluetooth(2402-2480)	0.14
WIFI-2.4(2412-2484)	0.14
WIFI-5.1(5150-5350)	1.10
WIFI-5.8(5725-5850)	1.69
GPS-L1(1575.42)	-0.36

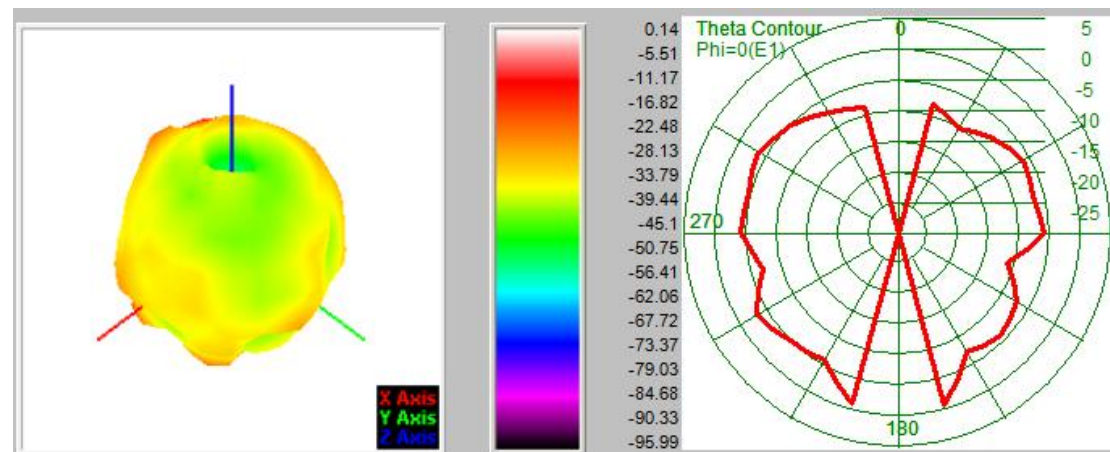
(L4/WIFI2.4/5-7.125G)	
Band	Max Gain
WIFI-2.4(2412-2484)	-0.68
WIFI-5.1(5150-5350)	1.90
WIFI-5.8(5725-5850)	1.61
GPS-L4(1379.91)	-0.99

9.2D&3D Lobe Diagram

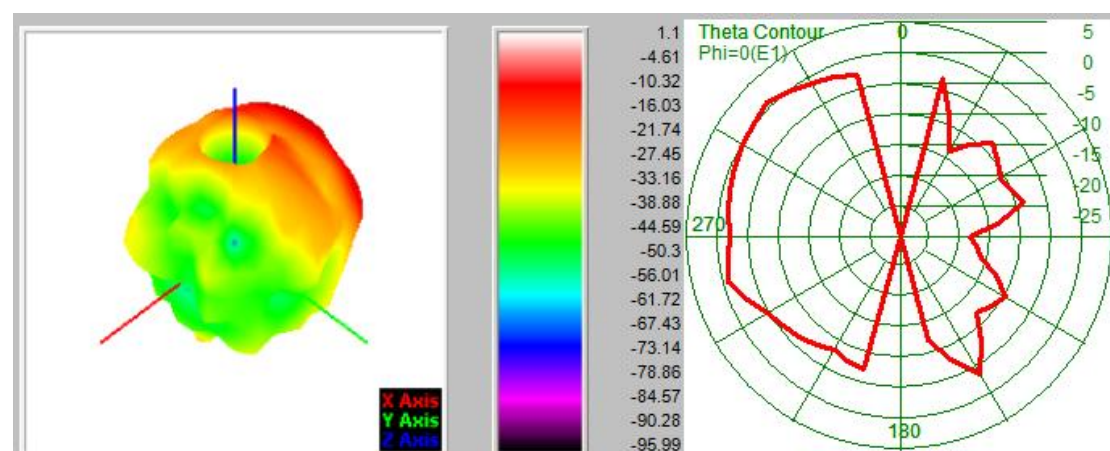
BT



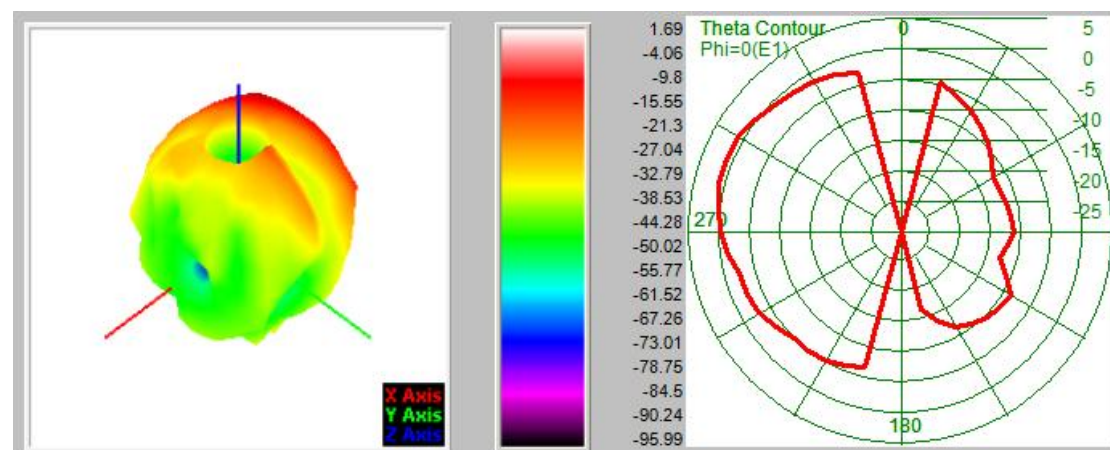
2.4GWIFI



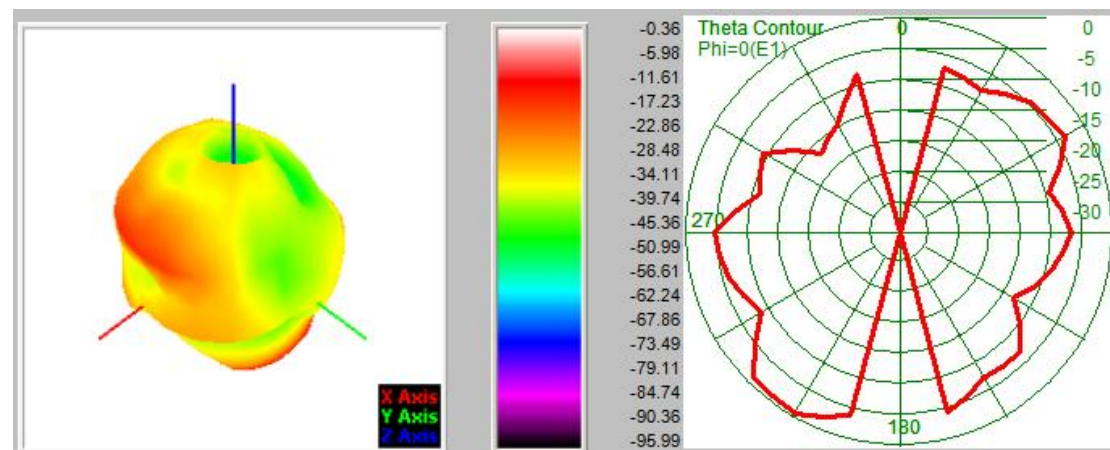
5.1GWIFI



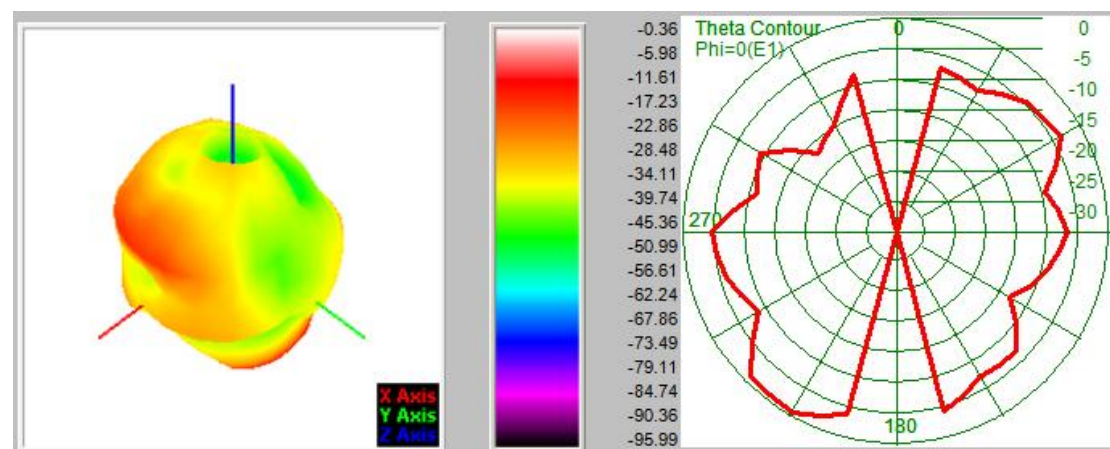
5.8GWIFI



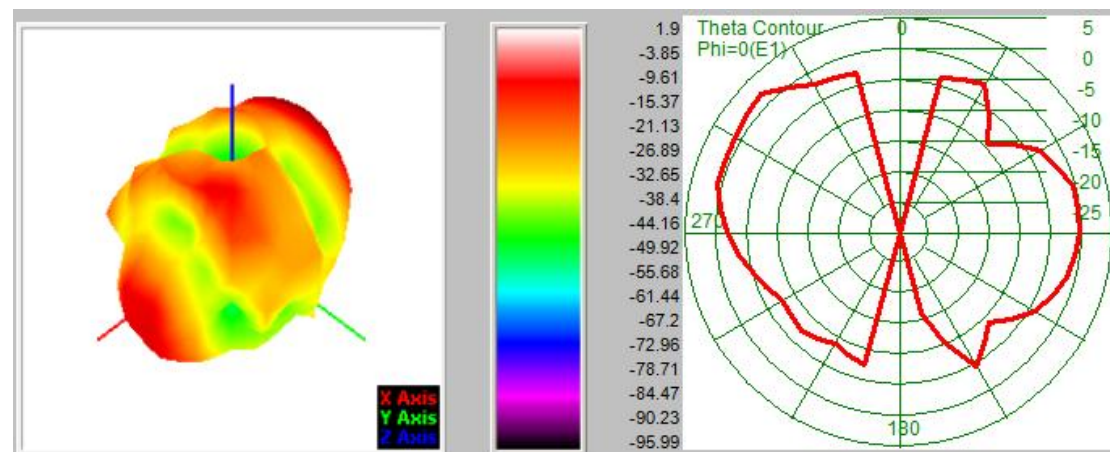
GPS-L1



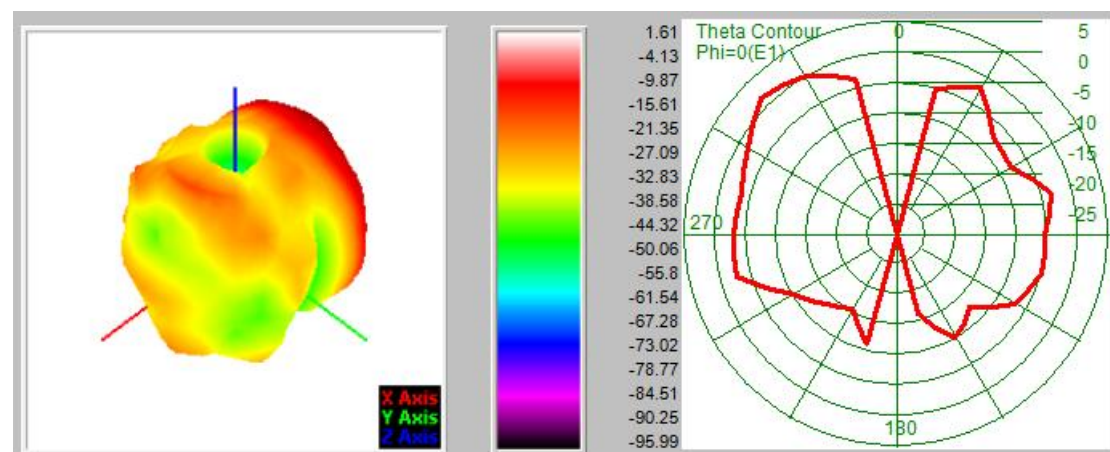
2.4GWIFI MIMO



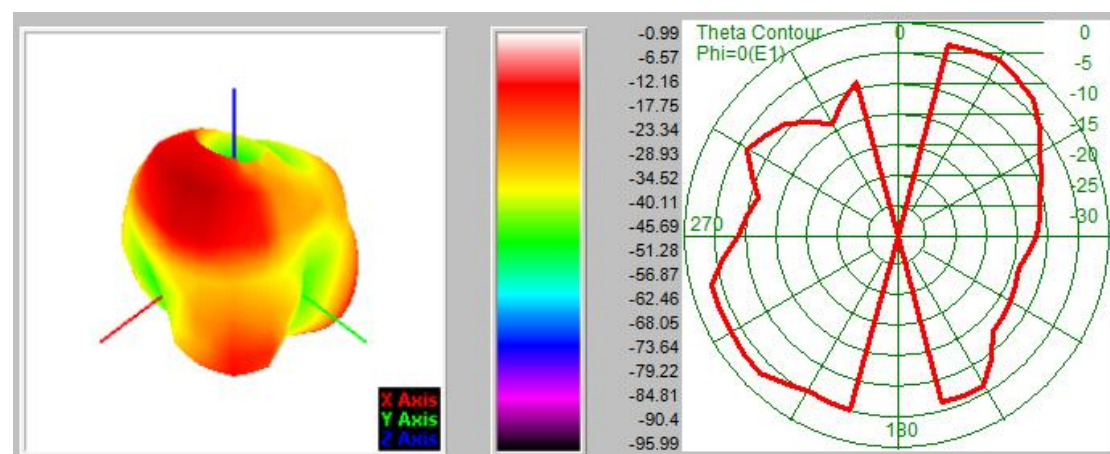
5.1GWIFI MIMO



5.8GWIFI MIMO



GPS-L4



10.Introduction to Antenna Information

F13	
Antenna type and frequency band	MAIN ANTENNA(PIFA):2G/3G/4G/5G DIV ANTENNA(PIFA):2G/3G/4G/5G GPS/WIFI/BT ANTENNA(PIFA): L1/L4/WIFI(2.4G/5G)/BT
Antenna materia	FPC+LDS