

ShenZhen QiXinTongDa Technology Co.,Ltd.

Antenna Test Report

Project Name: CT7

Frequency Band:

G2/3/5/8+W1/2/4/5/8/11/19+

FDD1/2/3/4/5/7/8/11/12/13/14/17/20/21/25/26/28/30/66/71+TDD38/40/41

GPS+BT+2.4GWIFI+5.1-5.8GWIFI

DATE: 2023-12-08

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 (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)

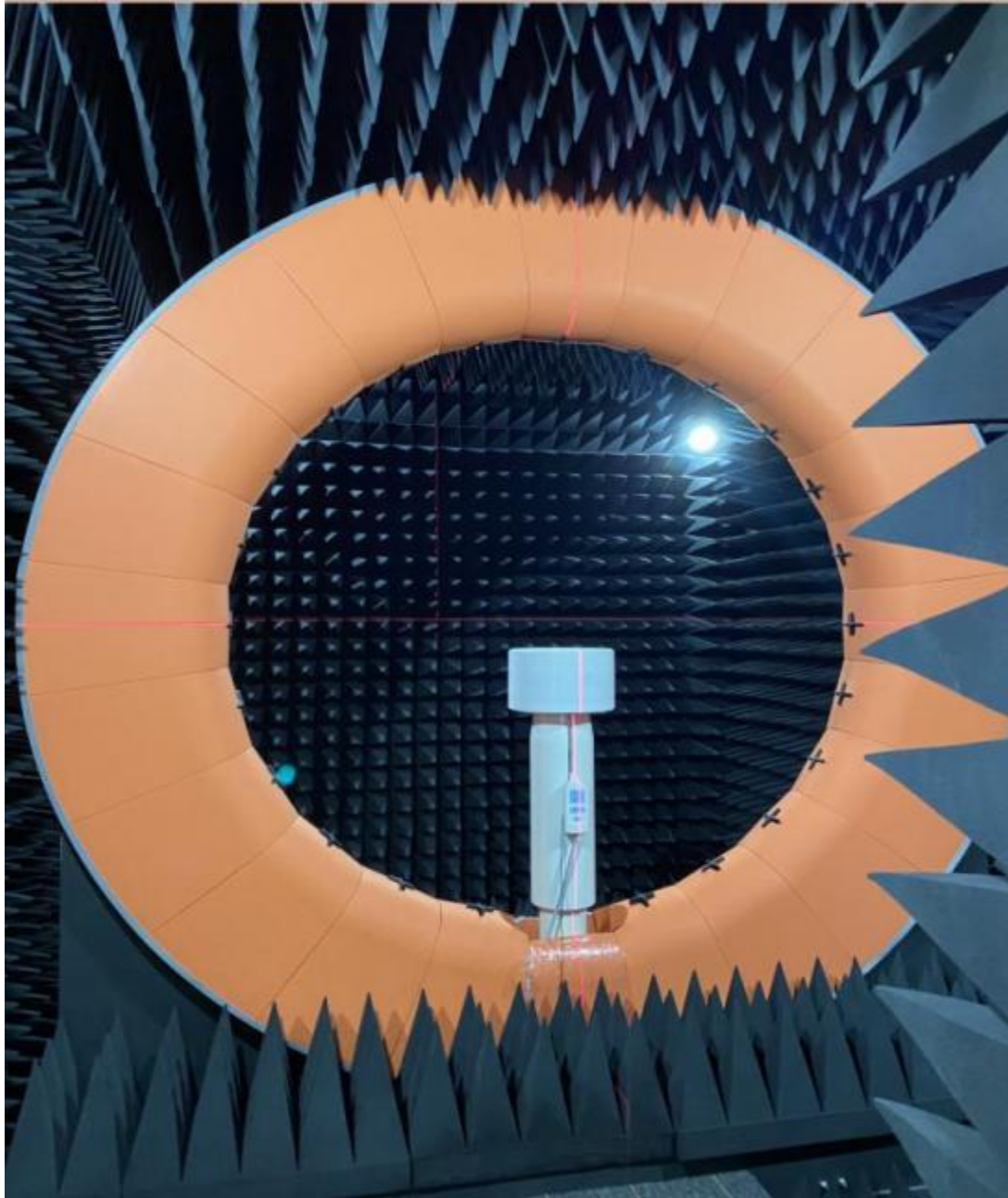


Agilent 8960 (2G/3G Test Equipment)



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

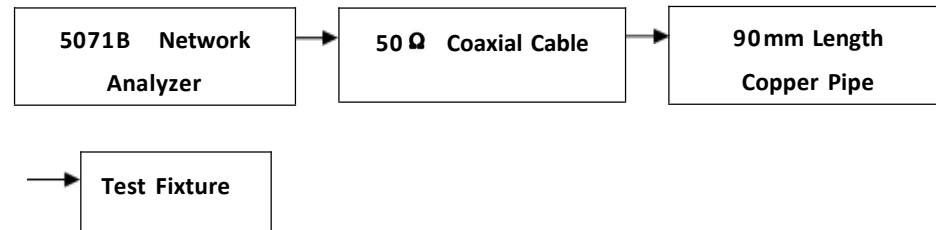
3. TestEnvironment



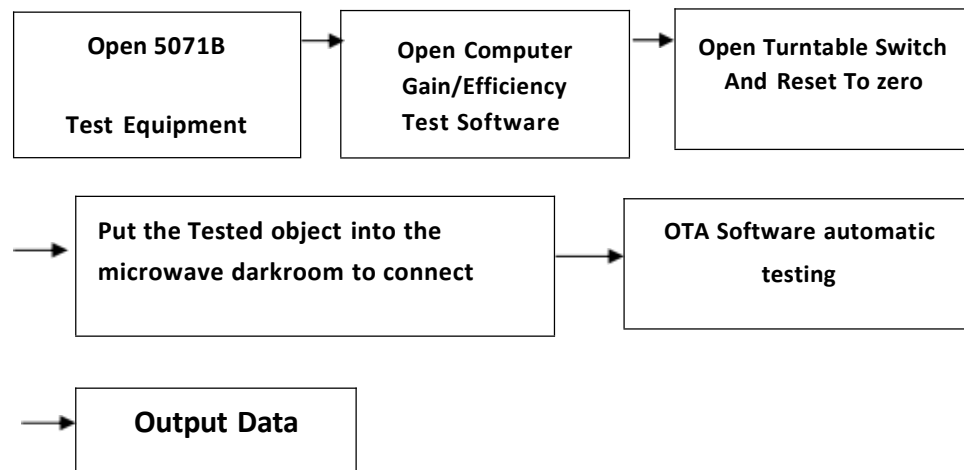
Microwave Anechoic Chamber

4. Test Steps

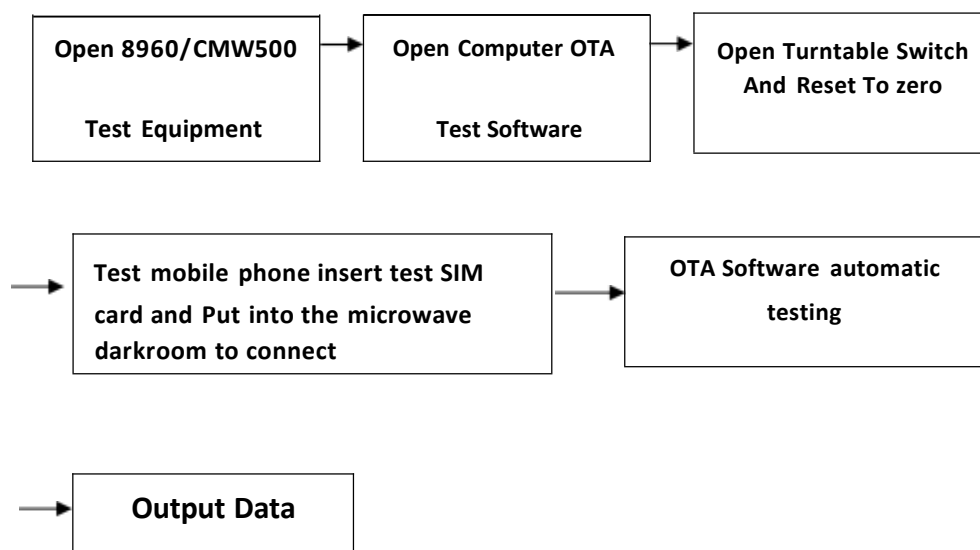
Passive VSWR/RL Test Steps:



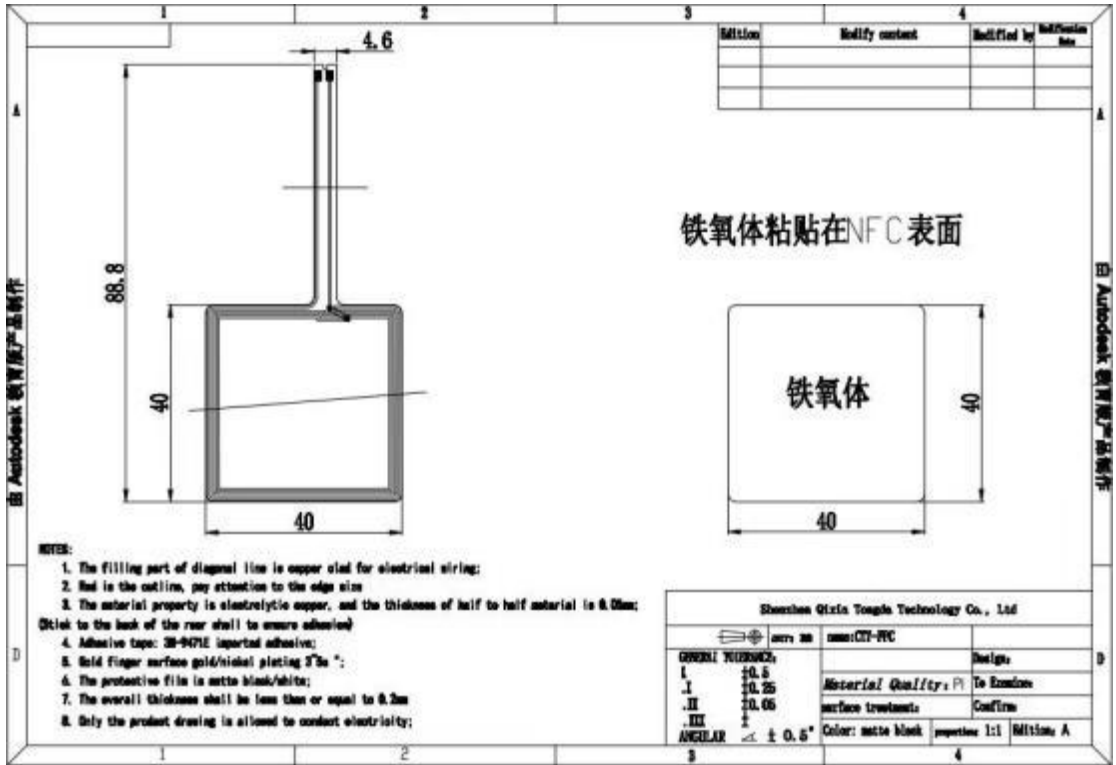
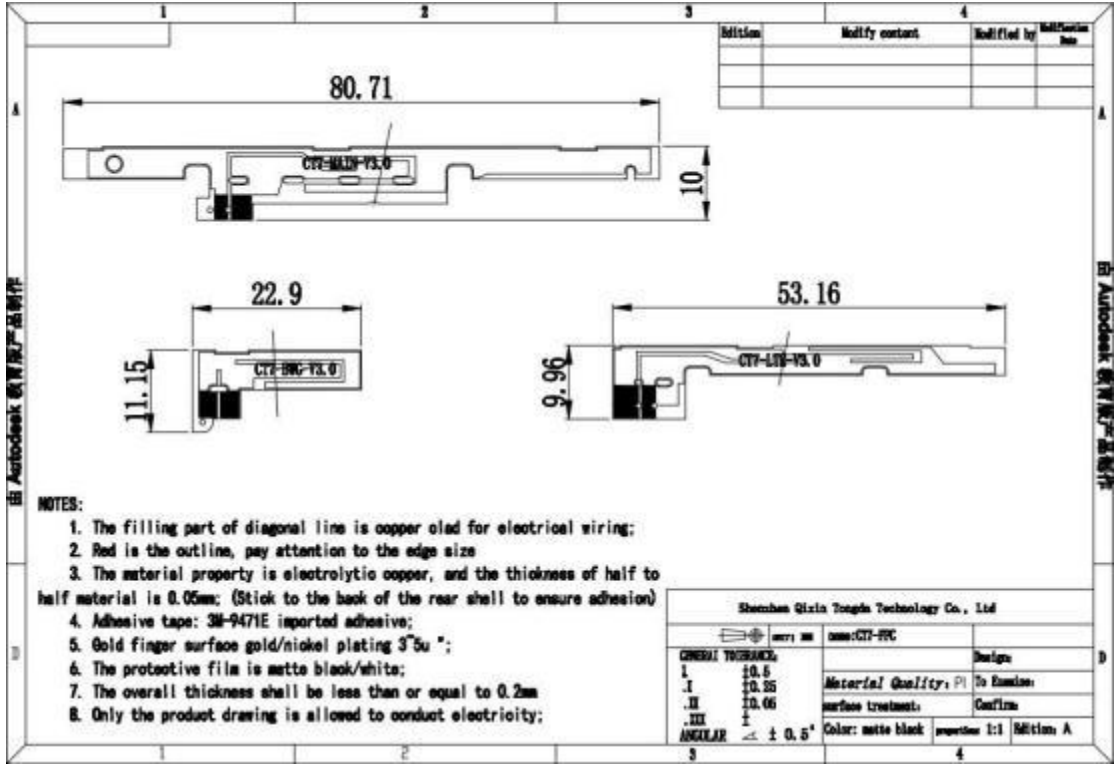
Gain/Efficiency Test Steps:



Active TRP/TIS Test Steps:



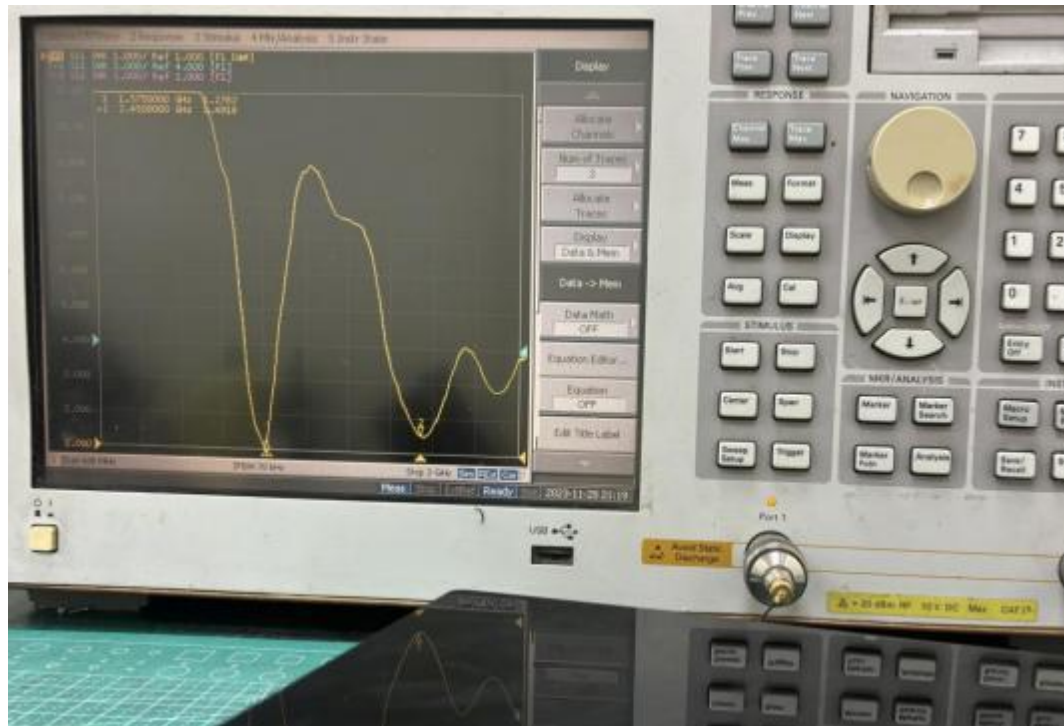
5. Antenna Dimensions



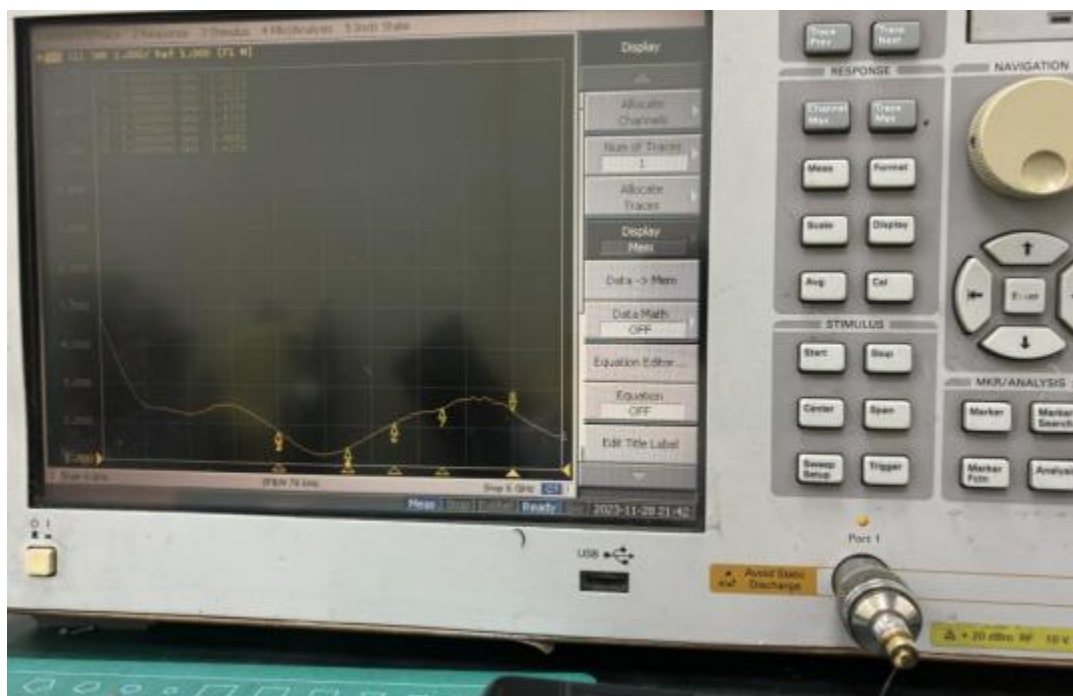
6.Introduction to Antenna Information

CT7	
Antenna type and frequency band	1、MAIN ANTENNA (CT7–MAIN–V3.0) (<u>PIFA</u>) : 2G/3G/4G 2、DIV ANTENNA (CT7–LTE–V3.0) (<u>PIFA</u>) : 2G/3G/4G 3、GPS/WIFI/BT ANTENNA (CT7–BWG–V3.0) (<u>PIFA</u>) : L1/2.4GWIFI/5GWIFI/BT
Antenna materia	FPC

7.S11 SWR



(GPS+2.4GWIFI/BT)



(5.1-5.8GWIFI)

8. Antenna Gain

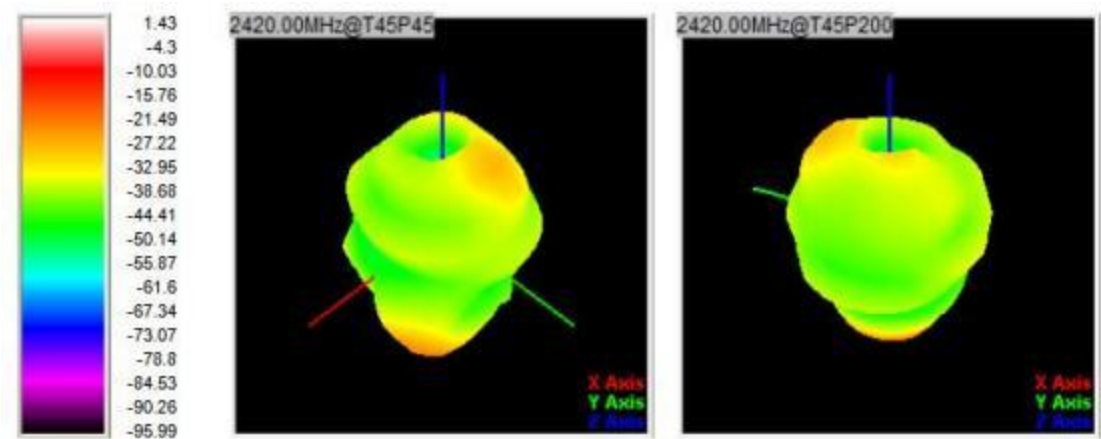
GT7-GAIN	
Frequency Band	Gain (dBi)
GSM850 (824-894MHz)	-2.31
GSM900 (880-960MHz)	-1.22
DCS1800 (1710-1880MHz)	0.22
PCS1900 (1850-1990MHz)	0.16
WCDMA B5 (824-894MHz)	-2.31
WCDMA B8 (880-960MHz)	-1.22
WCDMA B4 (1710-2155MHz)	0.22
WCDMA B2 (1850-1990MHz)	0.16
WCDMA B1 (1920-2170MHz)	0.18
WCDMA B11 (1427-1496MHz)	0.07
WCDMA B19 (830-890MHz)	-2
FDD B 1 (1920-2170MHz)	0.18
FDD B 2 (1850-1990MHz)	0.16
FDD B 3 (1710-1880MHz)	0.22
FDD B 4 (1710-2155MHz)	0.22
FDD B 5 (824-894MHz)	-2.31
FDD B 7 (2500-2690MHz)	0.33
FDD B 8 (880-960MHz)	-1.22
FDD B 11 (1429-1496MHz)	0.07
FDD B 12 (699-746MHz)	-2.55
FDD B 13 (746-787MHz)	-2.22
FDD B 17 (704-746MHz)	-2.51
FDD B 18 (815-875MHz)	-2.3
FDD B 19 (830-890MHz)	-2.32
FDD B 20 (791-862MHz)	-2.33
FDD B 21 (1447-1511MHz)	0.07
FDD B 25 (1850-1995MHz)	0.16
FDD B 26 (814-894MHz)	-2.32
FDD B 28 (703-803MHz)	-2.45
FDD B 30 (2305-2315MHz)	-0.35
FDD B 66 (1700-2200MHz)	0.22
FDD B 71 (617-698MHz)	-2.76
TDD B 38 (2570-2620MHz)	0.33
TDD B 39 (1880-1920MHz)	0.21
TDD B 40 (2300-2400MHz)	0.35
TDD B 41 (2496-2690MHz)	0.33
GPS	-1.28

2.4GWIFI (2400-2500MHz)	Frequency ID	1	2	3	4	5	6
	Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0
	Efficiency (%)	34.60	35.10	35.20	32.90	32.80	28.90
	Gain (dBi)	1.52	1.55	1.43	1.09	0.96	0.87
2.4GWIFI (2400-2500MHz)	Frequency ID	7	8	9	10	11	
	Frequency (MHz)	2460.0	2470.0	2480.0	2490.0	2500.0	
	Efficiency (%)	30.10	29.20	30.90	31.10	31.80	
	Gain (dBi)	1.42	1.52	1.77	1.84	1.81	

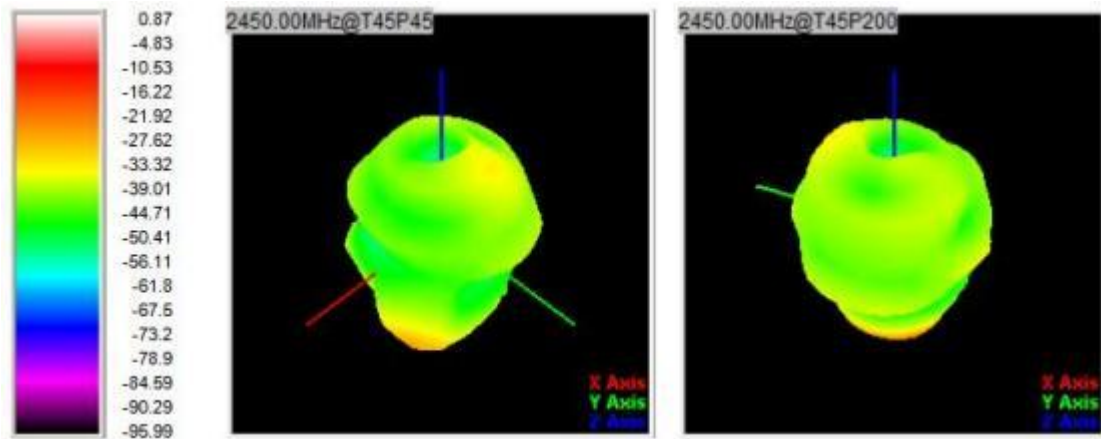
5GWIFI (5000-6000MHz)	Frequency ID	1	2	3	4	5	6	7	8
	Frequency (MHz)	5000.0	5020.0	5040.0	5060.0	5080.0	5100.0	5120.0	5140.0
	Efficiency (%)	46.30	48.90	46.40	42.00	36.50	30.70	31.00	28.10
	Gain (dBi)	1.54	1.99	1.90	1.34	0.74	0.24	0.52	0.08
5GWIFI (5000-6000MHz)	Frequency ID	9	10	11	12	13	14	15	16
	Frequency (MHz)	5160.0	5180.0	5200.0	5220.0	5240.0	5260.0	5280.0	5300.0
	Efficiency (%)	28.10	25.90	25.20	25.50	28.50	28.30	29.20	24.60
	Gain (dBi)	0.23	-0.08	0.18	0.32	0.48	0.54	0.86	-0.12
5GWIFI (5000-6000MHz)	Frequency ID	17	18	19	20	21	22	23	24
	Frequency (MHz)	5320.0	5340.0	5360.0	5380.0	5400.0	5420.0	5440.0	5460.0
	Efficiency (%)	27.20	25.00	26.60	32.50	25.00	29.70	22.30	20.60
	Gain (dBi)	-0.08	-0.44	-0.07	0.87	-0.38	0.22	-1.14	-1.42
5GWIFI (5000-6000MHz)	Frequency ID	25	26	27	28	29	30	31	32
	Frequency (MHz)	5480.0	5500.0	5520.0	5540.0	5560.0	5580.0	5600.0	5620.0
	Efficiency (%)	22.70	21.30	25.80	28.00	33.20	30.60	30.80	30.00
	Gain (dBi)	-1.03	-1.56	-1.11	-0.98	-0.24	-0.56	-0.58	-0.46
5GWIFI (5000-6000MHz)	Frequency ID	33	34	35	36	37	38	39	40
	Frequency (MHz)	5640.0	5660.0	5680.0	5700.0	5720.0	5740.0	5760.0	5780.0
	Efficiency (%)	25.10	30.00	27.80	27.50	30.10	29.60	33.30	28.70
	Gain (dBi)	-1.49	-0.50	-0.98	-1.18	-0.51	-0.39	0.01	-0.74
5GWIFI (5000-6000MHz)	Frequency ID	41	42	43	44	45	46	47	48
	Frequency (MHz)	5800.0	5820.0	5840.0	5860.0	5880.0	5900.0	5920.0	5940.0
	Efficiency (%)	28.30	31.10	33.60	36.70	40.70	38.00	38.60	40.90
	Gain (dBi)	-0.68	-0.48	-0.08	0.43	1.04	0.83	1.11	1.19

9.3D antenna orientation diagram

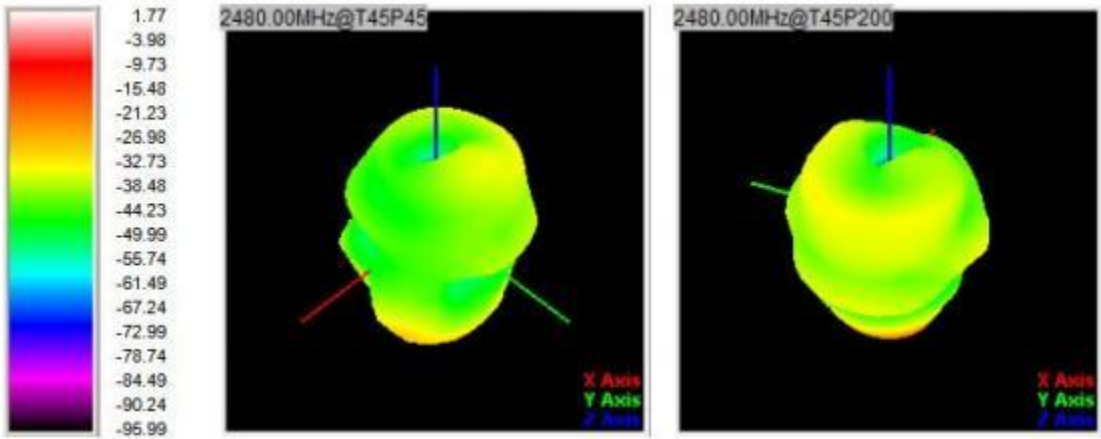
2.4G-WIFI



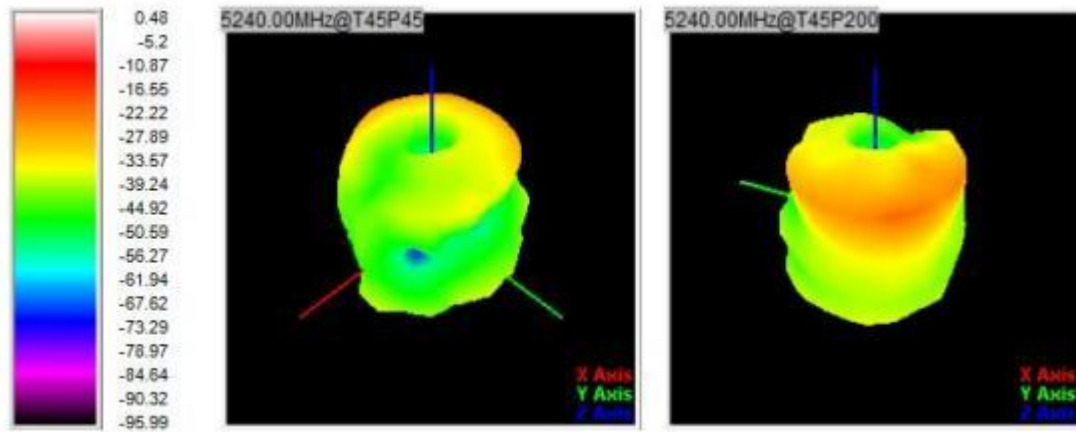
2.4G-WIFI



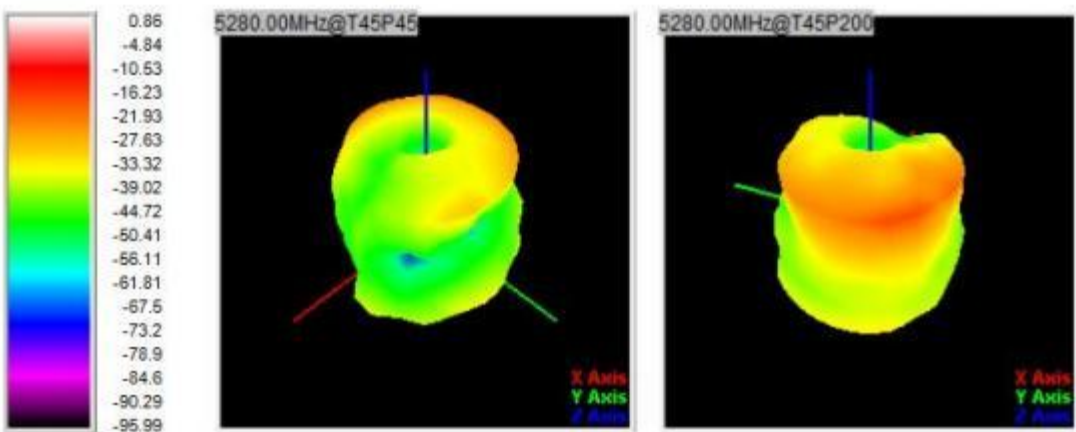
2.4G-WIFI



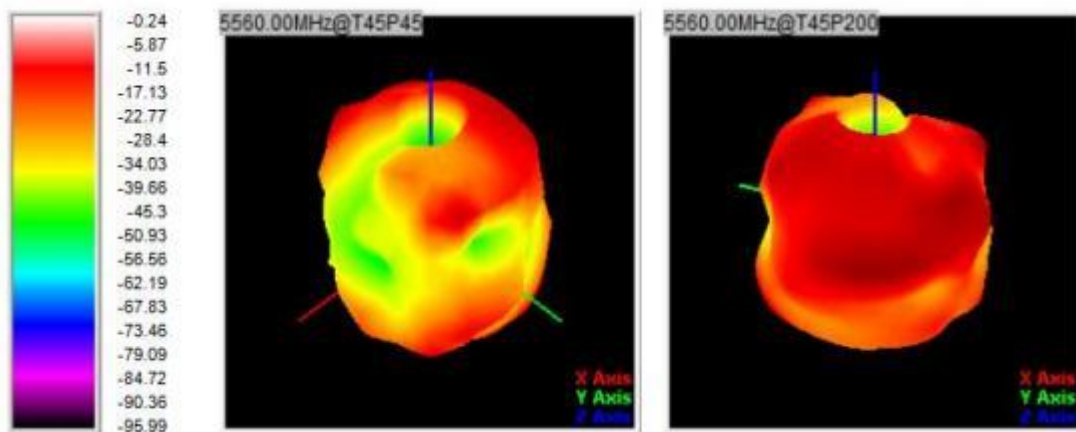
5.1-5.8G-WIFI



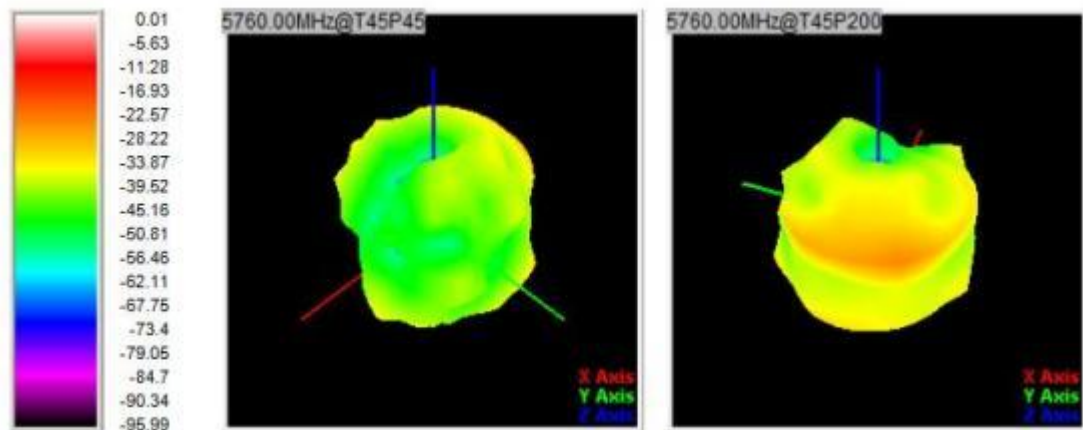
5.1-5.8G-WIFI



5.1-5.8G-WIFI

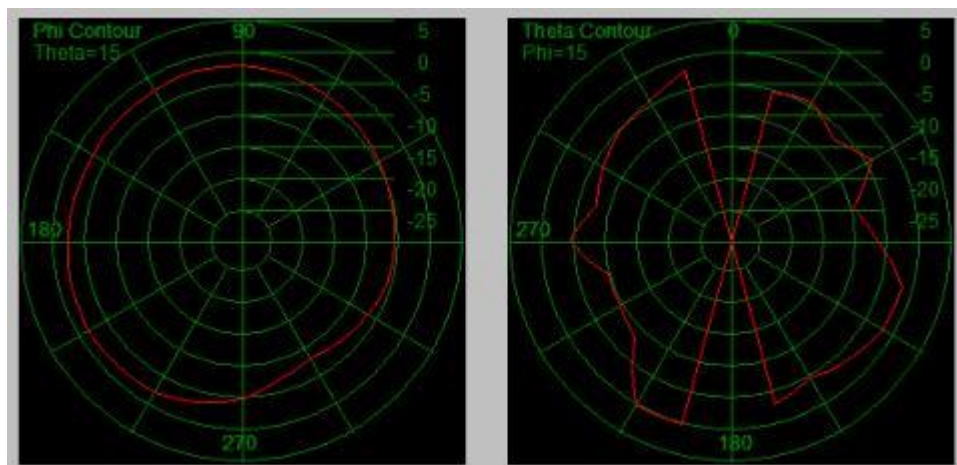


5.1-5.8G-WIFI

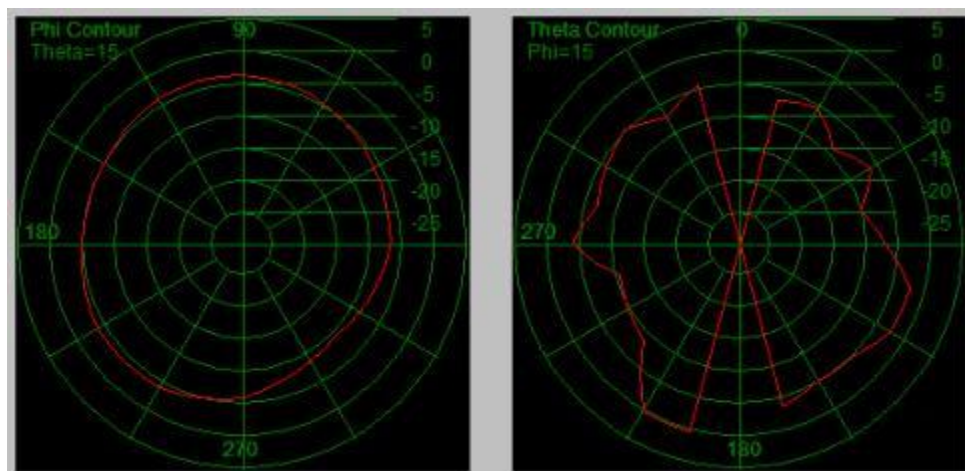


10.2D antenna orientation diagram

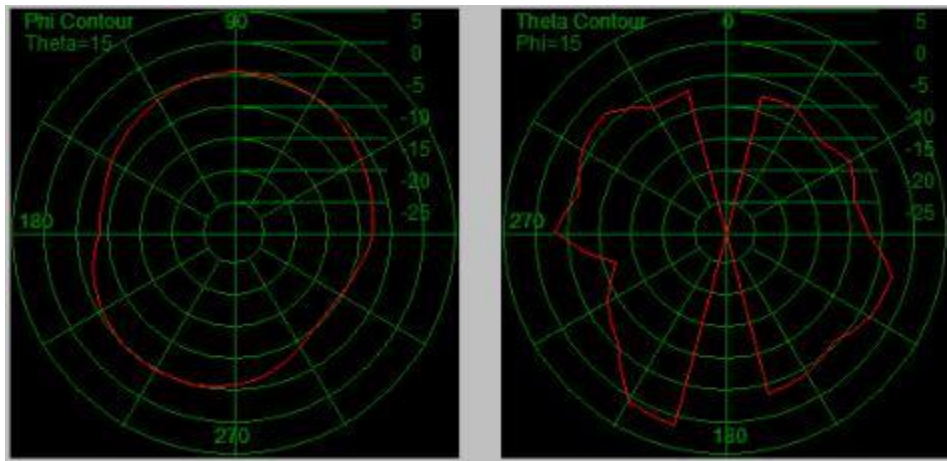
2.4GWIFI-2420Mhz



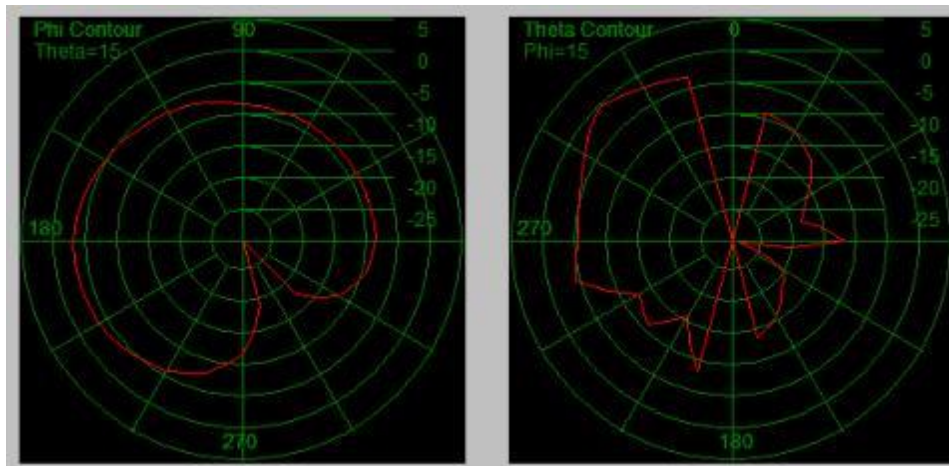
2.4GWIFI-2450Mhz



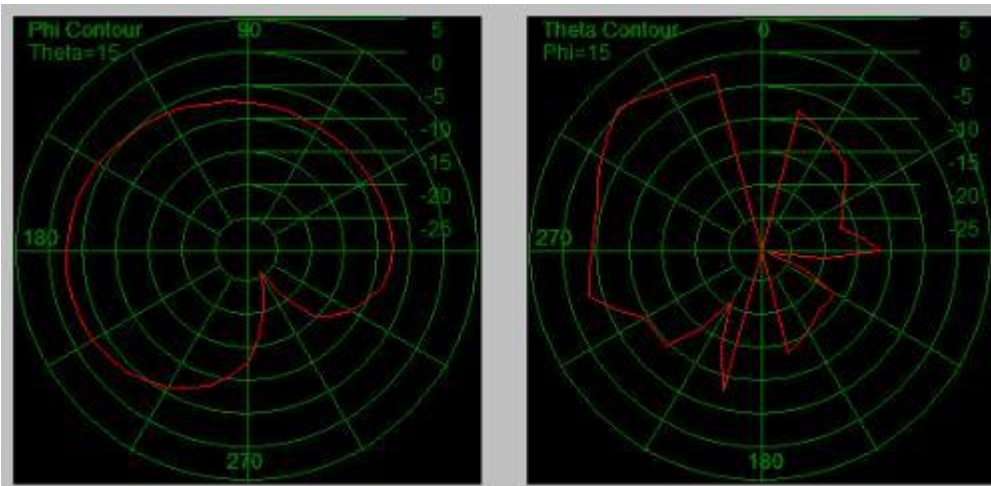
2.4GWIFI-2480Mhz



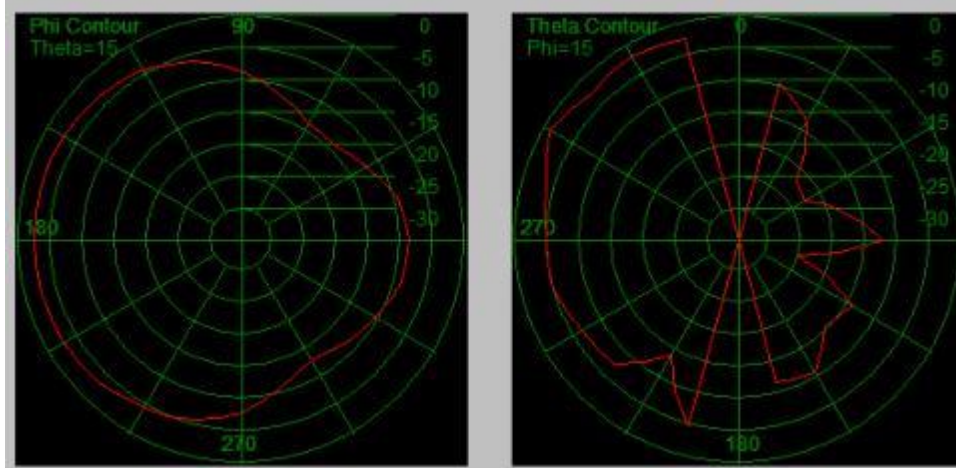
5.1-5.8GHz WiFi-5240Mhz



5.1-5.8GHz WiFi-5280Mhz



5.1-5.8GHz WiFi-5560Mhz



5.1-5.8GWIFI-5760Mhz

