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 Huaning Road, Dalang Street, Longhua District, Shenzhen City, Guangdong Province

# Antenna specifications

客户 Customer	Youmi	规格型号 Specs	G7 tab Pro	
安威料号 Part Number	G7 TAB PRO-MAIN-AW-V0.1 G7 TAB PRO-GWB-AW-V0.1	频段 Frequency Band	2G 3G 4G BT/WIFI GPS	2/3/5/8 1/2/4/5/8 B1/2/3/4/5/7/8/12/17/ 18/19/20/25/26/28/66/ /34/38/39/40/41 2. 4G+5G 1575. 42MHz
颜色 Color	black	版本 Edition	REV:A1	
销售 Salesperson	Mr.Xie	设计 Design	WUXI	
结构 Structure	QIN YUN LIN			
日期 Date	2024.1.11			

客户确认 Customer confirmation:

携手共进 共创未来

Join hands to create the future

# 1. Product specifications

The report mainly provides parameter testing of G7 tab Pro antenna performance. The G7 tab Pro antenna is a 4G antenna. (As shown below)

## Three-in-one antenna

123456

AA

BB

CC

DD

123456

丝印白色亮光字码/正面压黑色覆盖膜

背面此区域不背胶

3代端子  
黑色线材  
焊接端口朝下

**1对半材料**

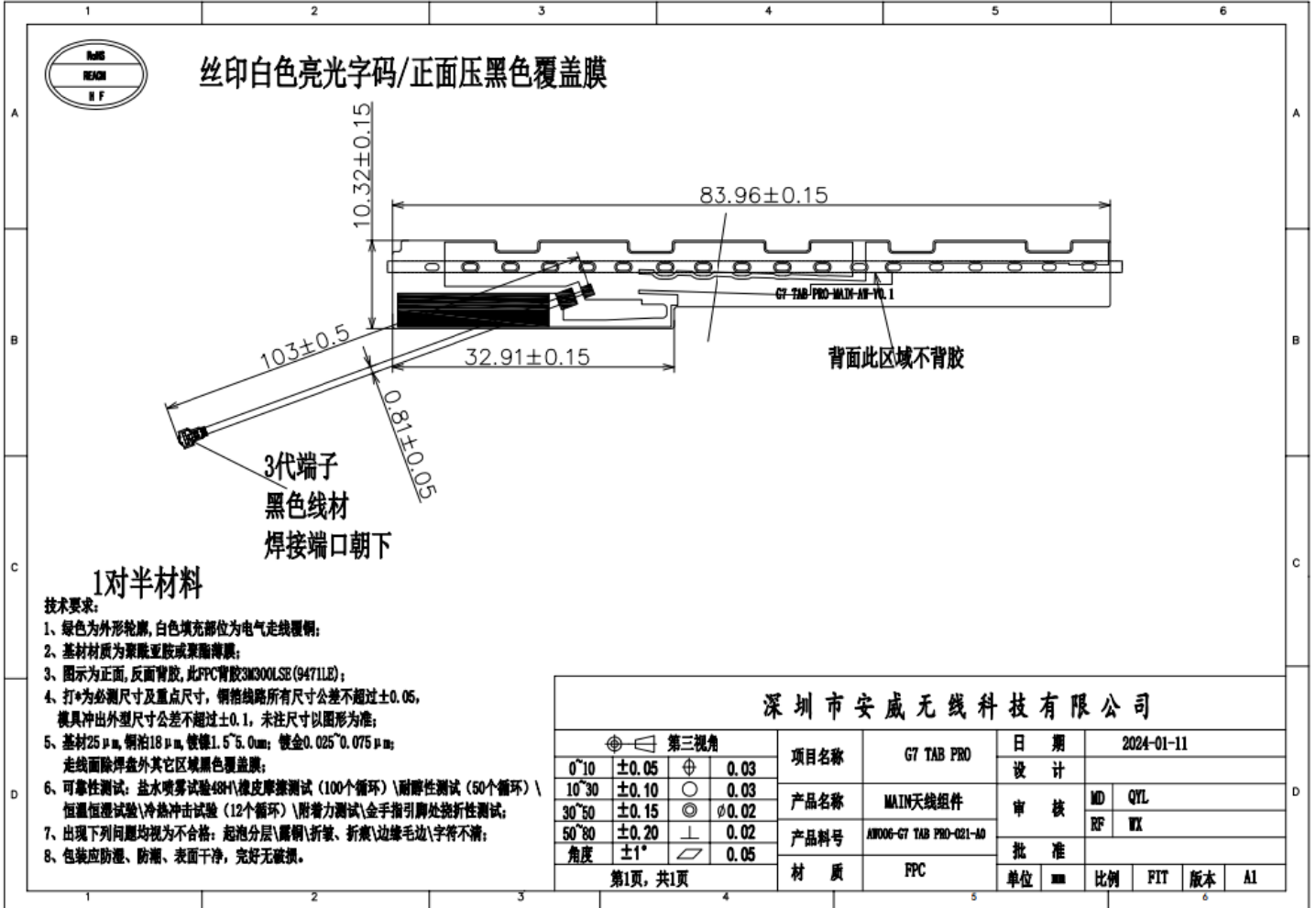
技术要求:

- 绿色为外形轮廓,白色填充部位为电气走线覆铜;
- 基材材质为聚酰亚胺或聚酰亚胺薄膜;
- 图示为正面,反面背胶,此FPC背胶3M300LSE(9471LE);
- 打\*为必测尺寸及重点尺寸,铜箔线路所有尺寸公差不得超过±0.05,模具冲出外型尺寸公差不得超过±0.1,未注尺寸以图形为准;
- 基材25μm,铜箔18μm,镀镍1.5~5.0um;镀金0.025~0.075μm;走线面除焊盘外其它区域黑色覆盖膜;
- 可靠性测试:盐水喷雾试验48H\橡皮摩擦测试(100个循环)\耐醇性测试(50个循环)\恒温恒湿试验\冷热冲击试验(12个循环)\附着测试\金手指引脚处挠折性测试;
- 出现下列问题均视为不合格:起泡分层\露铜\折皱、折痕\边缘毛边\字码不清;
- 包装应防湿、防潮、表面干净,完好无破损。

深圳市安威无线科技有限公司

第三视角		项目名称	G7 TAB PRO	日期		2024-01-11	
0°/10	±0.05			设计			
10°/30	±0.10	产品名称	GWB天线组件	审核	MD	QYL	
30°/50	±0.15				RF	WX	
50°/80	±0.20	产品料号	AW006-G7 TAB PRO-022-10	批准			
角度	±1°						
第1页,共1页		材质	FPC	单位	mm	比例	FIT
				版本	A1		

Main ANT



## 2. Electrical performance

### (1.) Specifications and standards

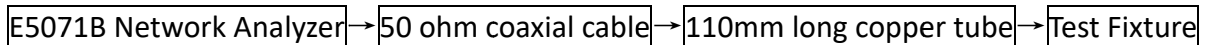
The working frequency band of antenna is 699~960MHZ, 1710~2700MHZ, and resonates in this frequency band

Antenna structure: FPC

## 3. Parameter testing

### (1.) Test settings

The sequential connections of the VSWR test device are:



Handling of test fixtures:

Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to a copper tube covered with a choke, and then connect it to other devices in turn.

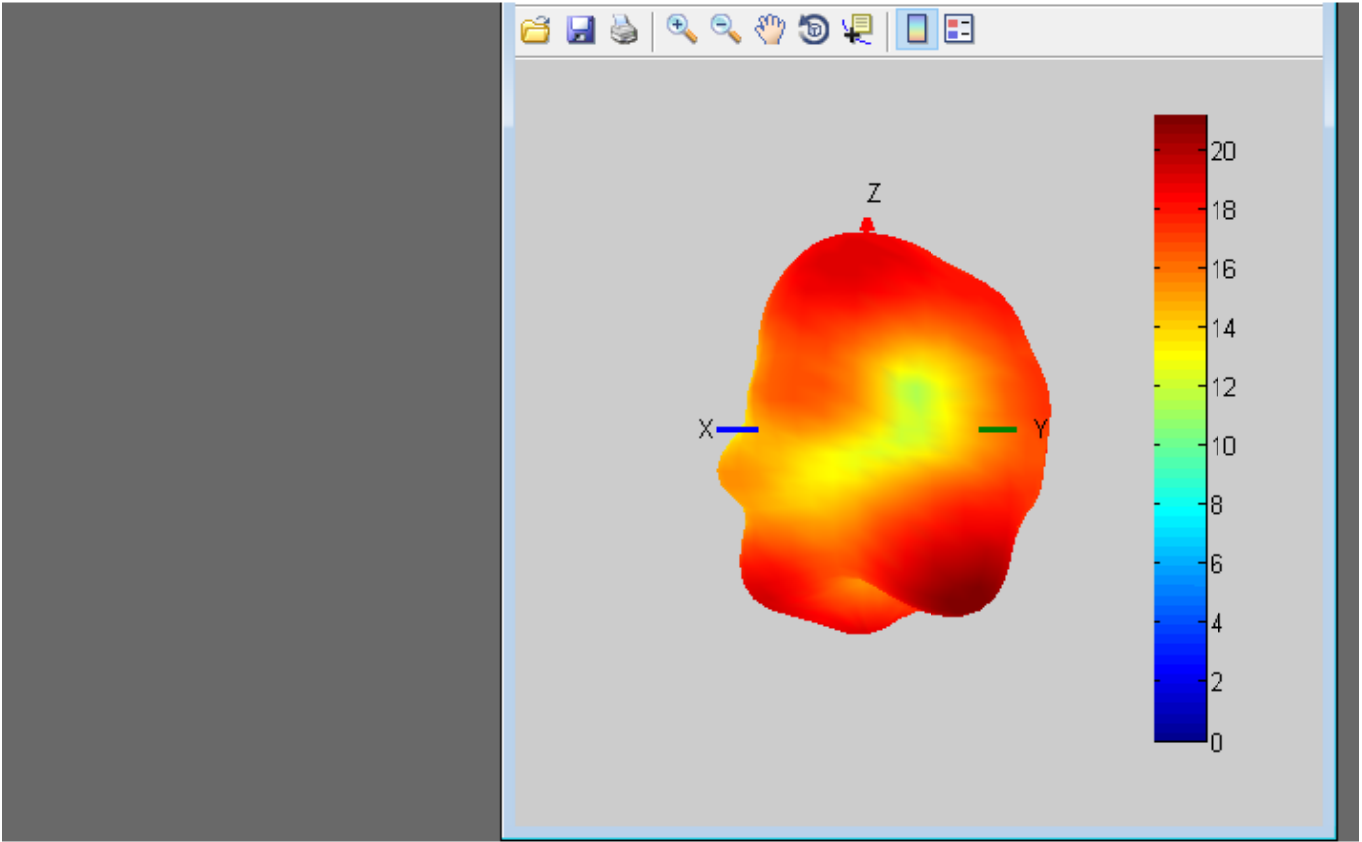
## Antenna parameters:

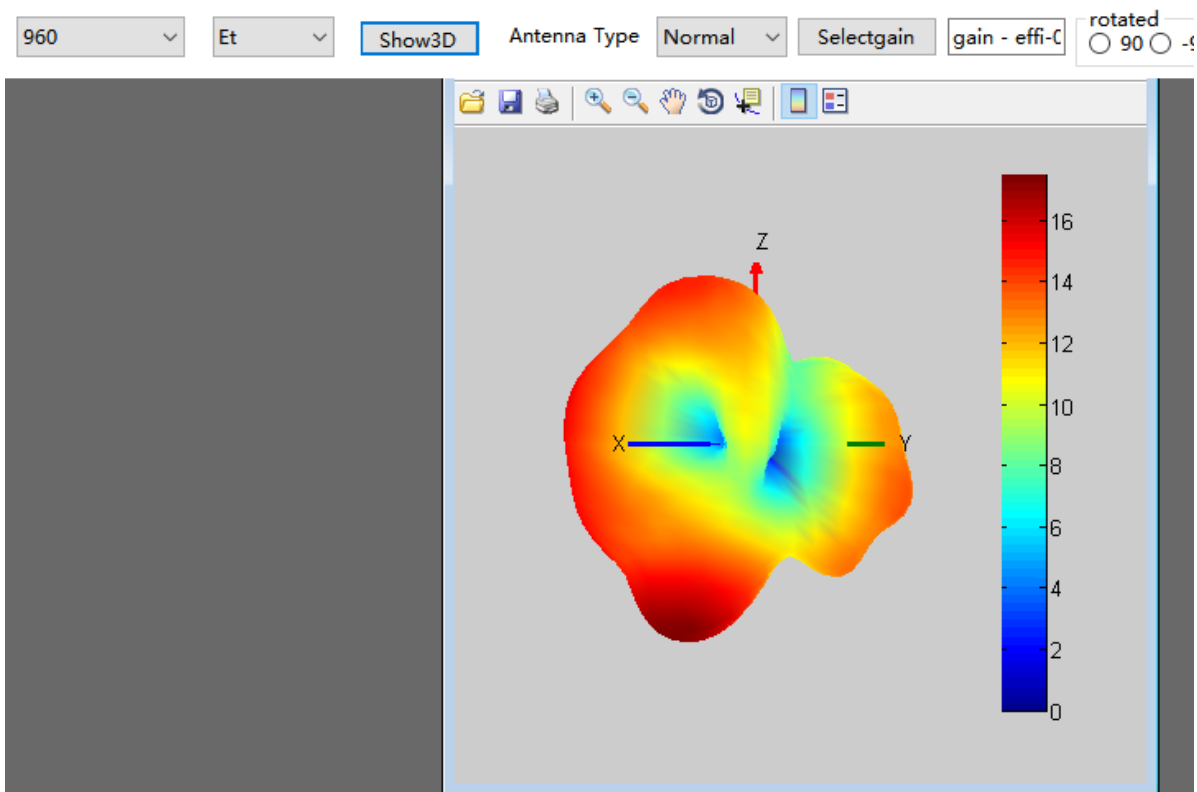
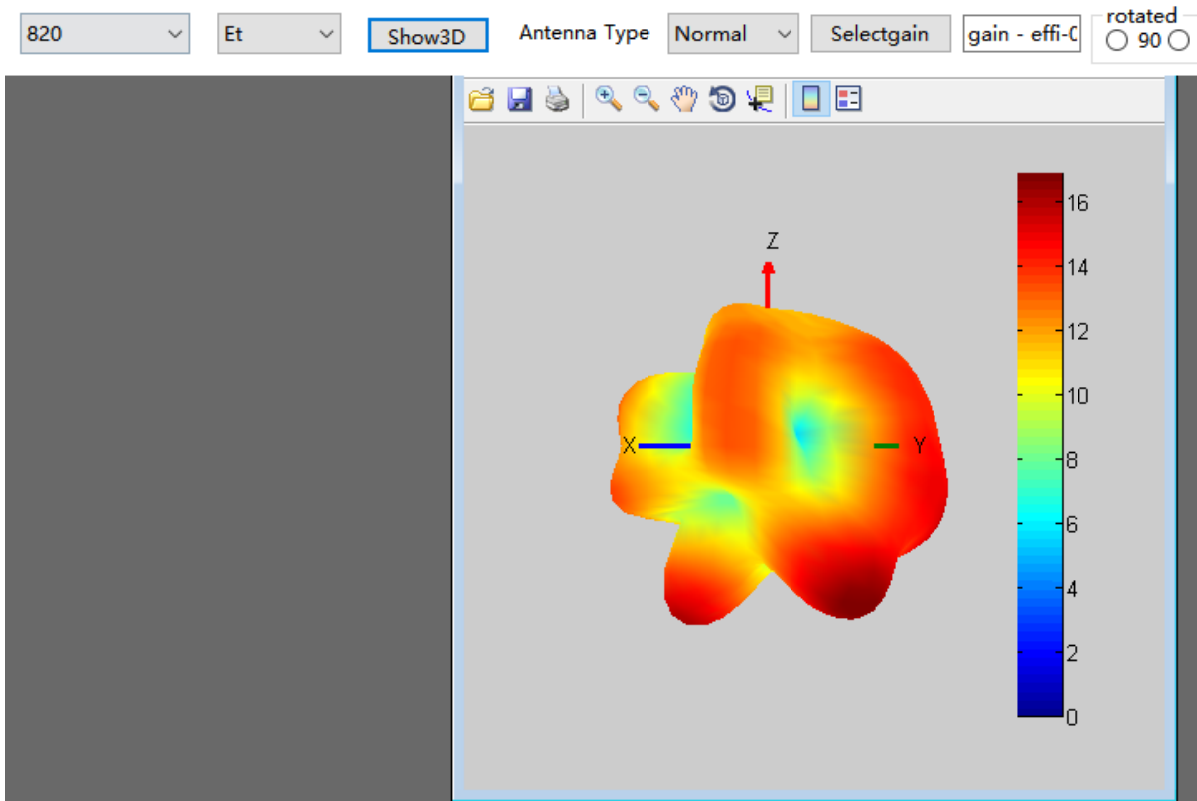
工作频段(Working frequency band): 699~960MHZ, 1710~2700MHZ

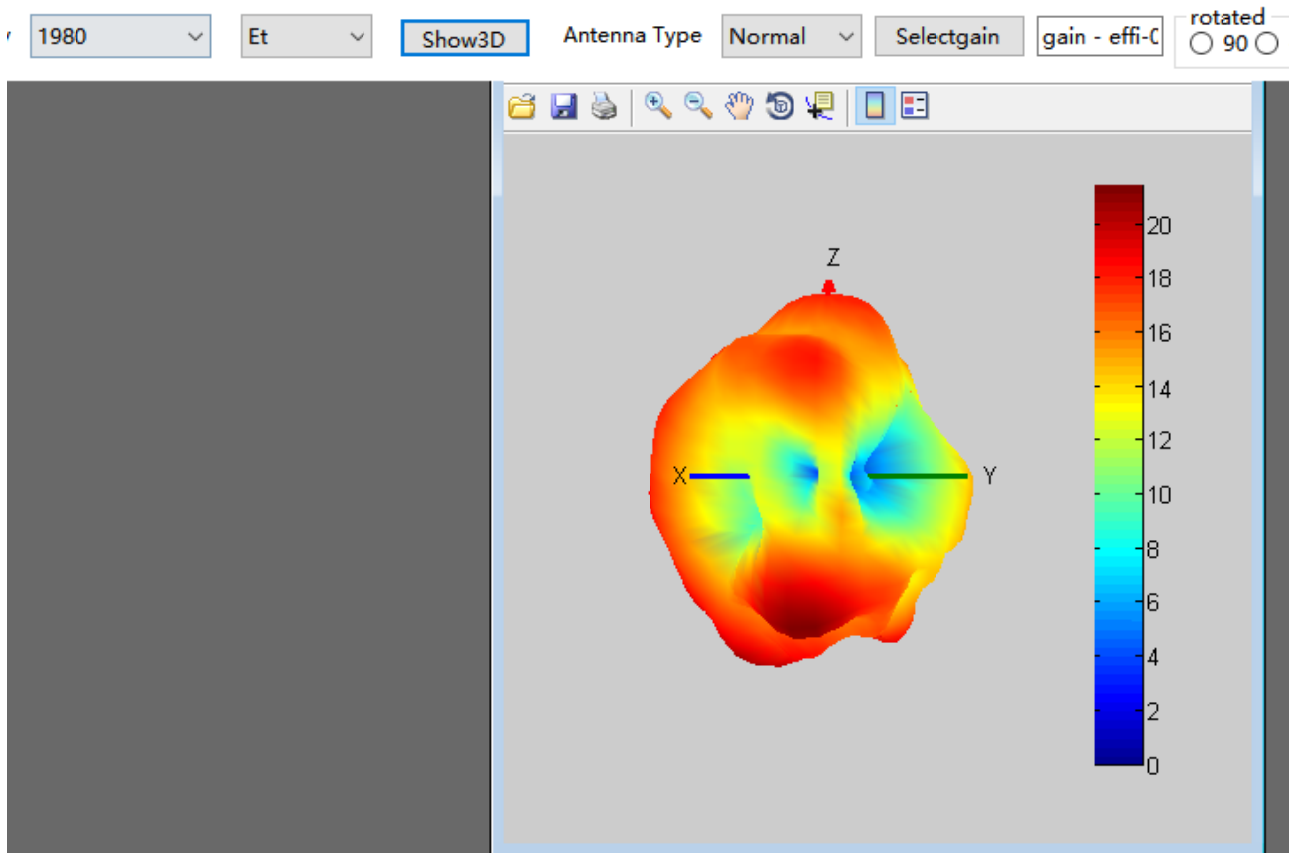
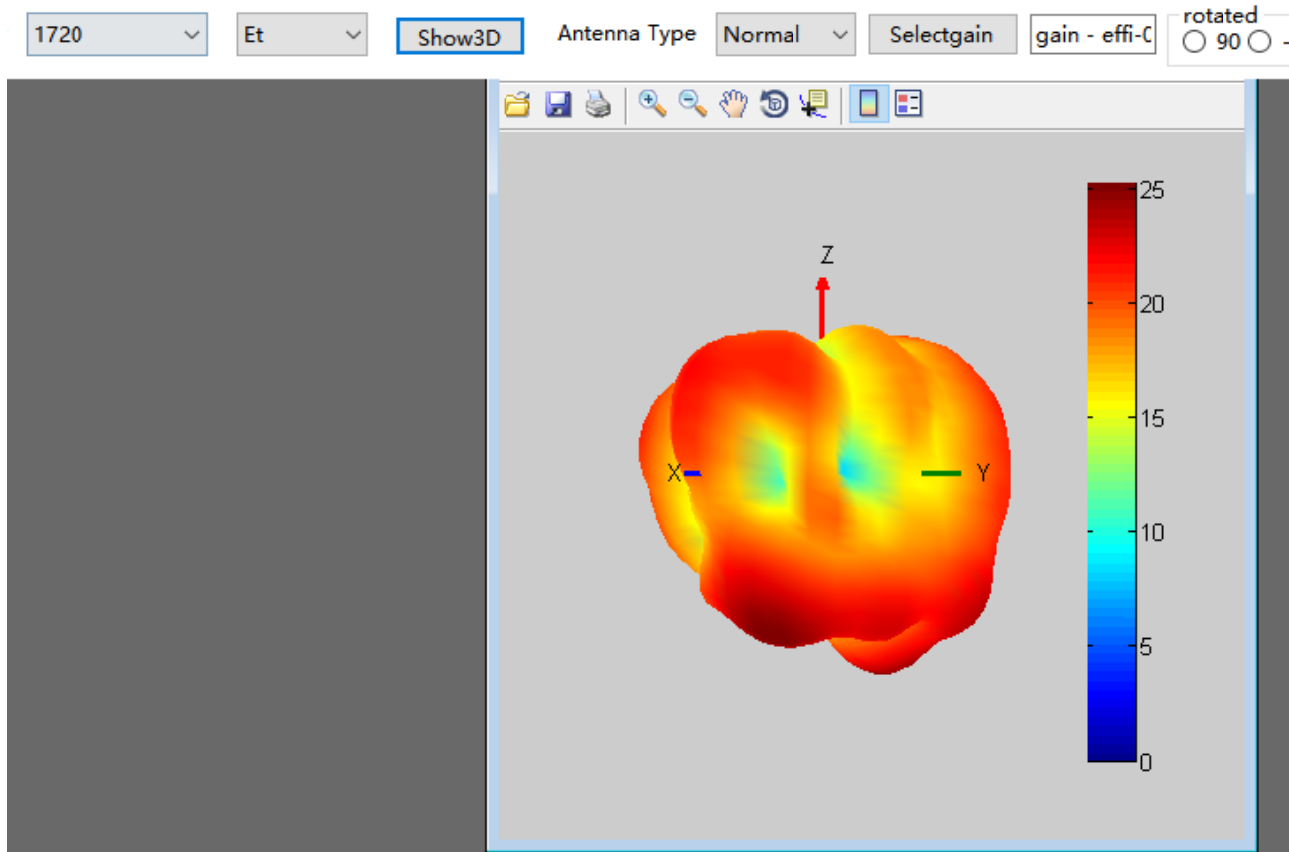
2G	2/3/5/8
3G	1/2/4/5/8
4G	B1/2/3/4/5/7/8/12/17/18/19/20/25/26/28/66 /34/38/39/40/41
BT/WIFI	2.4G+5G
GPS	1575.42MHz

Band	gain (dBi)	Frequency
LTE-B12/B13/B17/B28	-6.55	720MHZ
BC0/BC10/GSM850,WCDMA-B5/B6/B19,LTE-B5/B18/B19/B20/B26	-4.35	820MHZ
GSM900,WCDMA-B8,LTE-B8	-5.42	960MHZ
DCS1800,LTE-B3,WCDMA-B4,LTE-B4/B66	0.24	1720MHZ
BC1,PCS1900,WCDMA-B2,LTE-B2/B25/B39	0.15	1980MHZ
WCDMA-B1,LTE-B1/B34	0.78	2180MHZ
LTE-B7/B38/B41,	2.30	2680MHZ
LTE-B40	-0.16	2380MHZ
GPS	1.2	1575MHZ
2.4G WIFI/BT	2.0	2450MHZ
5G WIFI	0.82	5300MHZ

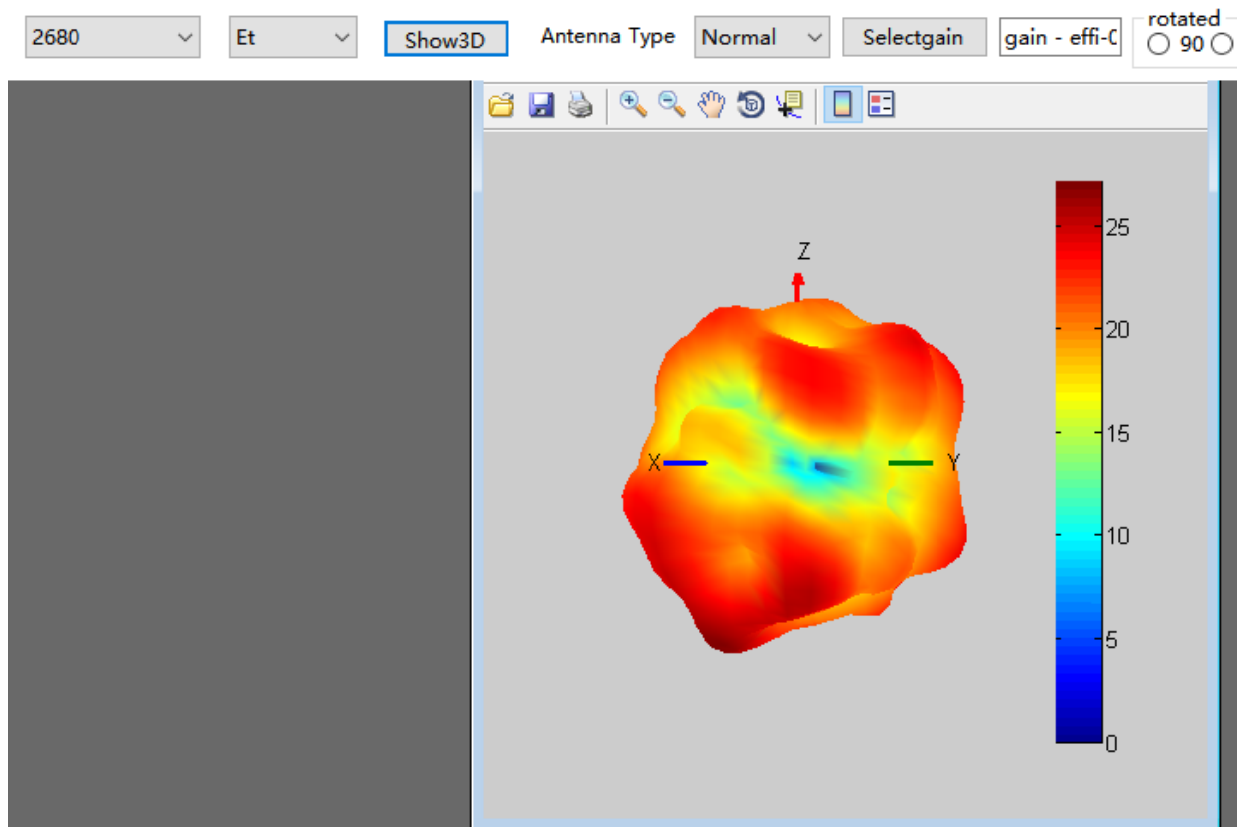
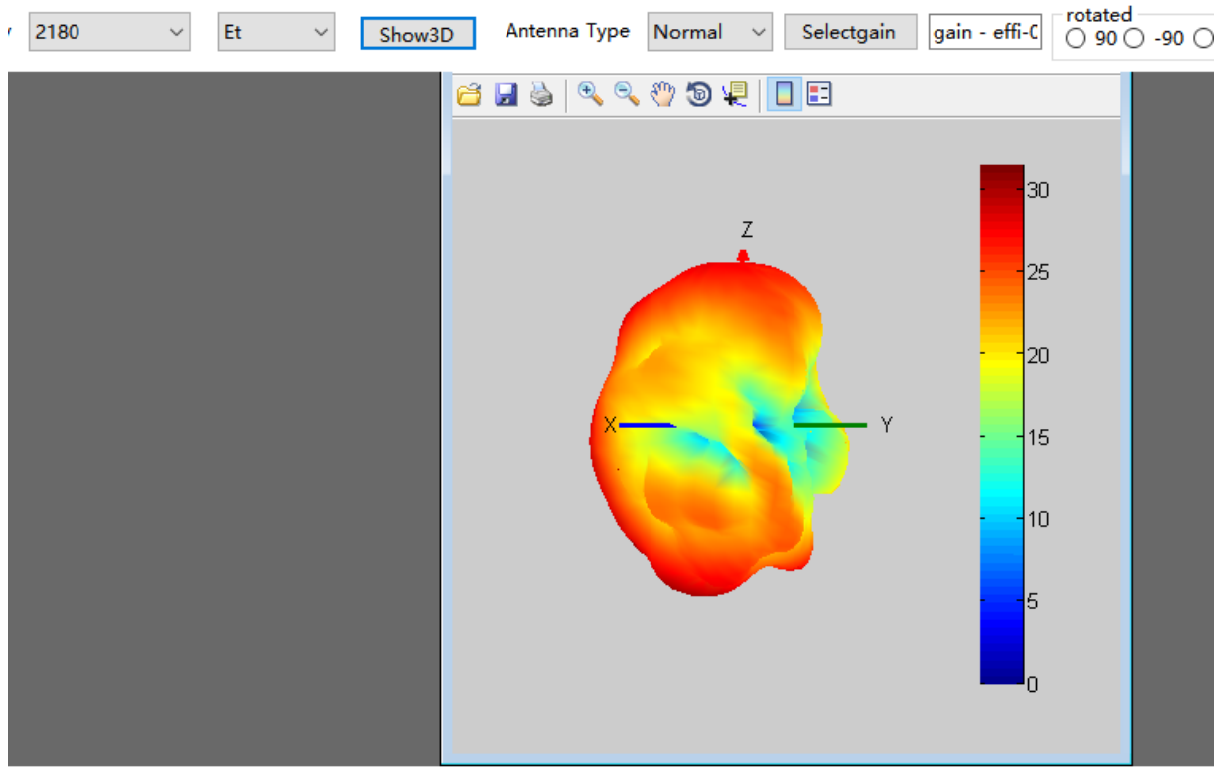
720 ▾ Et ▾ Show3D Antenna Type Normal ▾ Selectgain gain - effi-C rotated 90

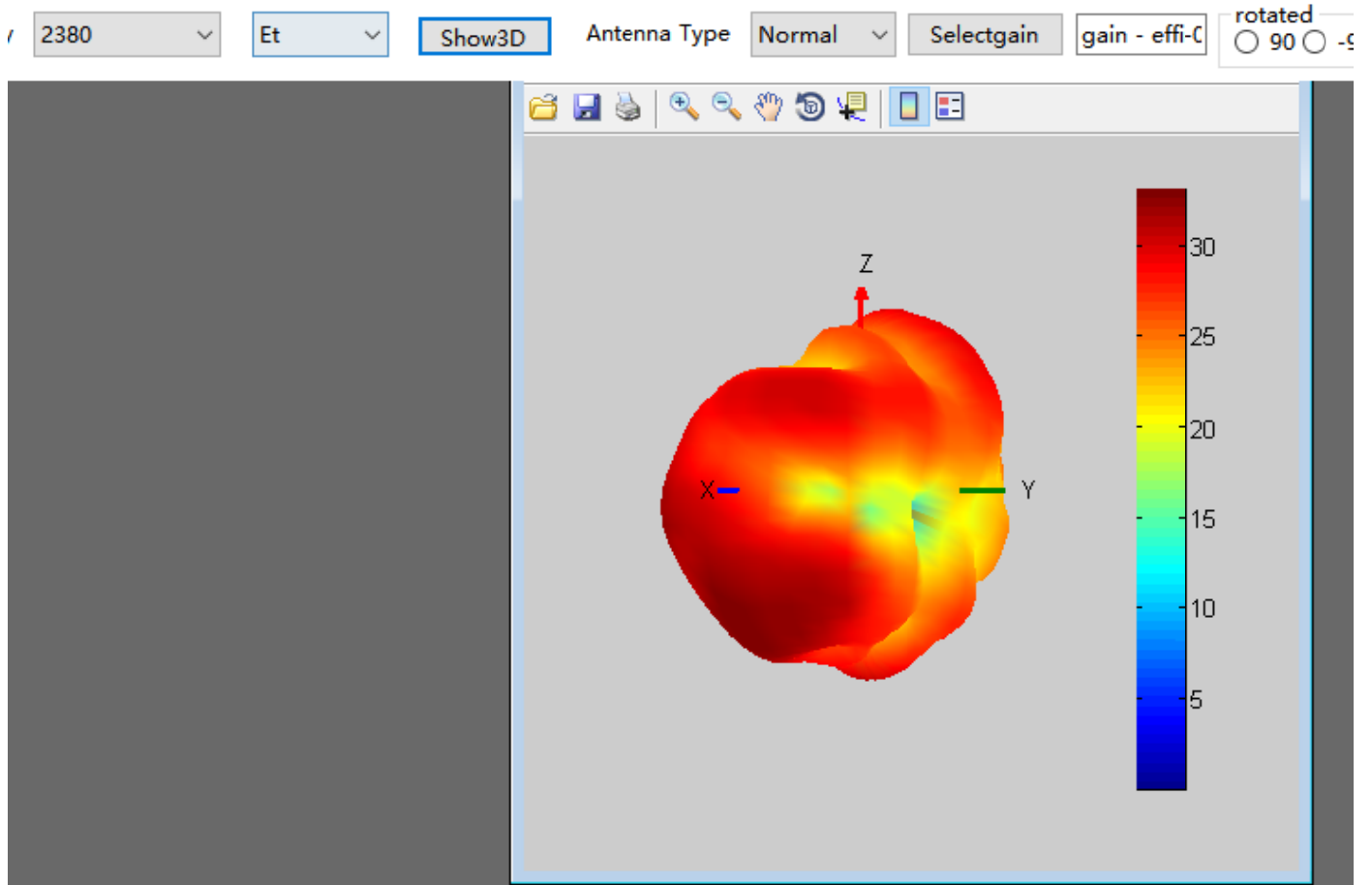






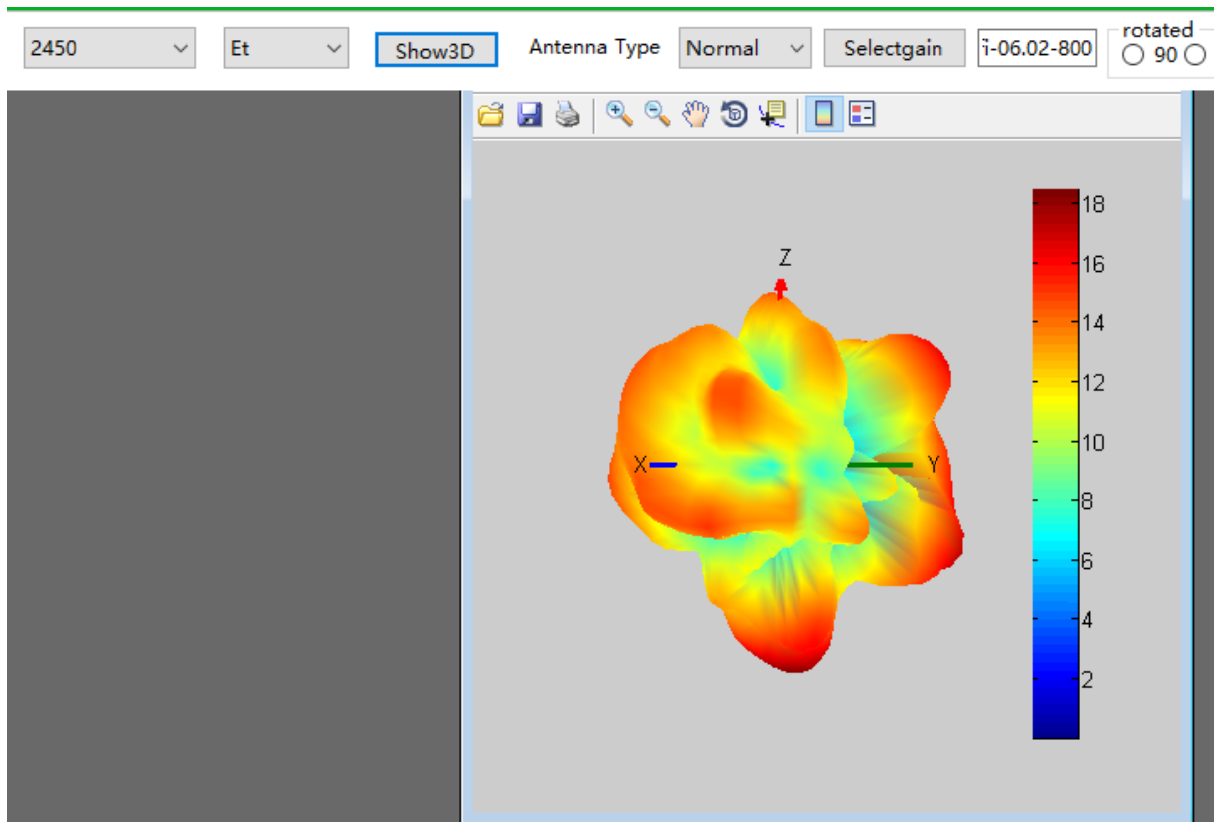
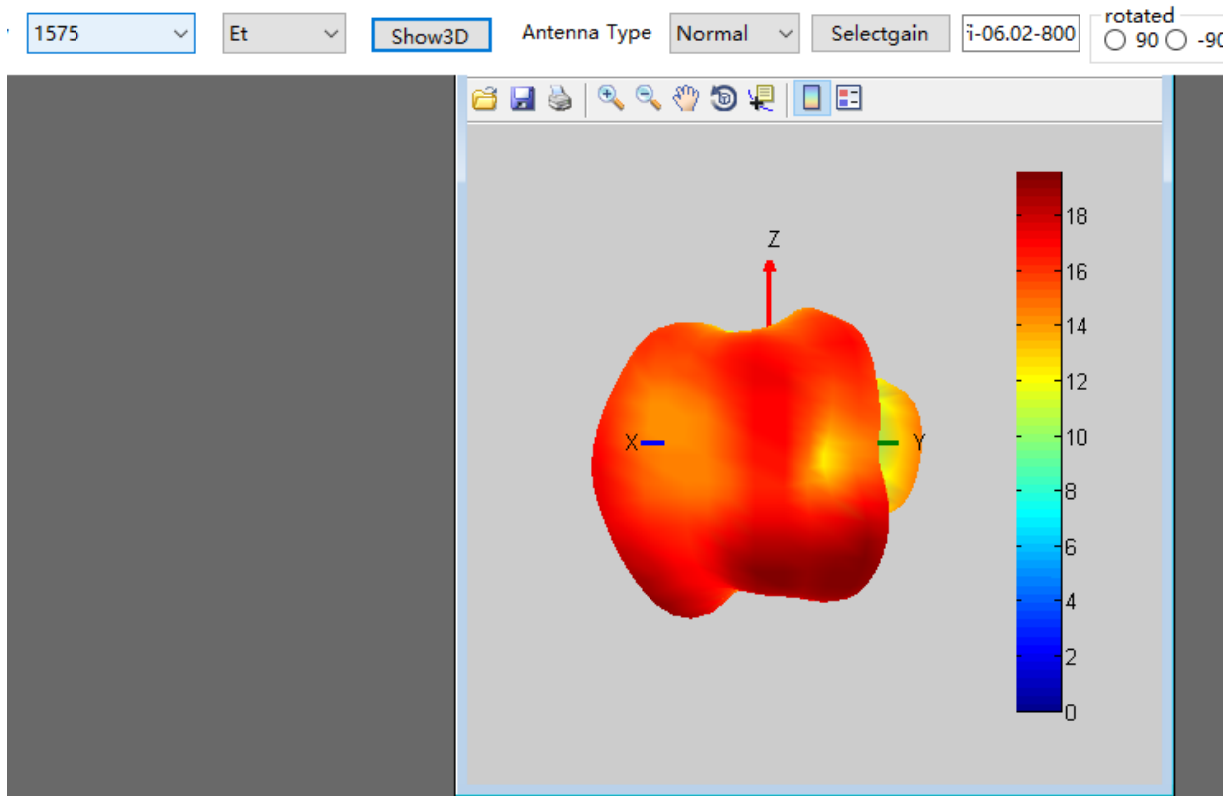


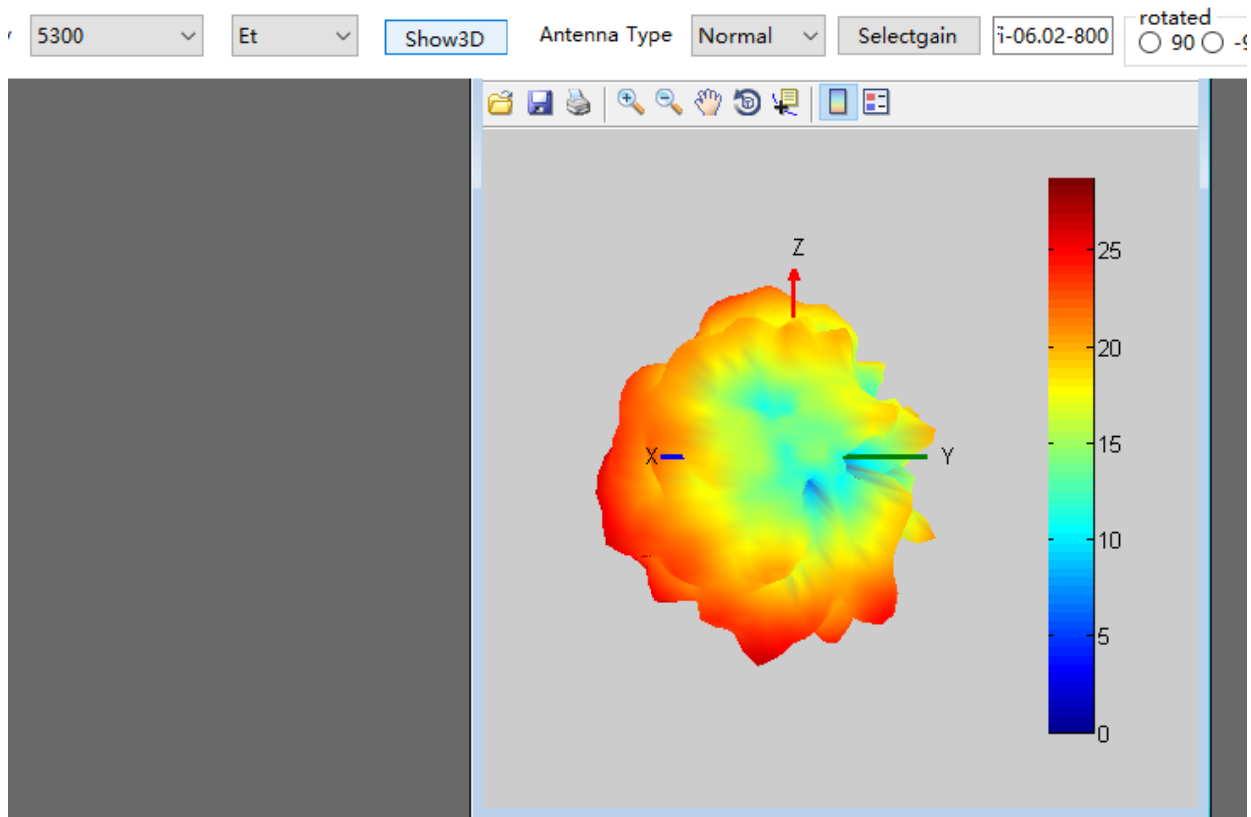




**GPS/WIFI/BT Antenna parameters:**

工作频段(Working frequency band): 1560~1580MHZ, 2400~2500MHZ,5180~8525MHZ



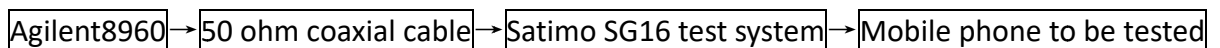


## 2. Test results

everything is normal.

## 4. Settings for active testing

The active test device connections in sequence are:



## 1. Testing venue

AW microwave anechoic chamber: The test frequency range is 400MHz-6GHz, the quiet zone range is 40cm circumference, and the reflectivity is less than -90 dB.

## 2. Test Results

The maximum radiated power and maximum receiving sensitivity reflect the maximum power radiation value and best receiving performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiated power and average receiving sensitivity of the antenna, that is, they reflect the overall receiving performance of the antenna.

The following are the active test results of the main antenna of the G7 tab Pro mobile phone:

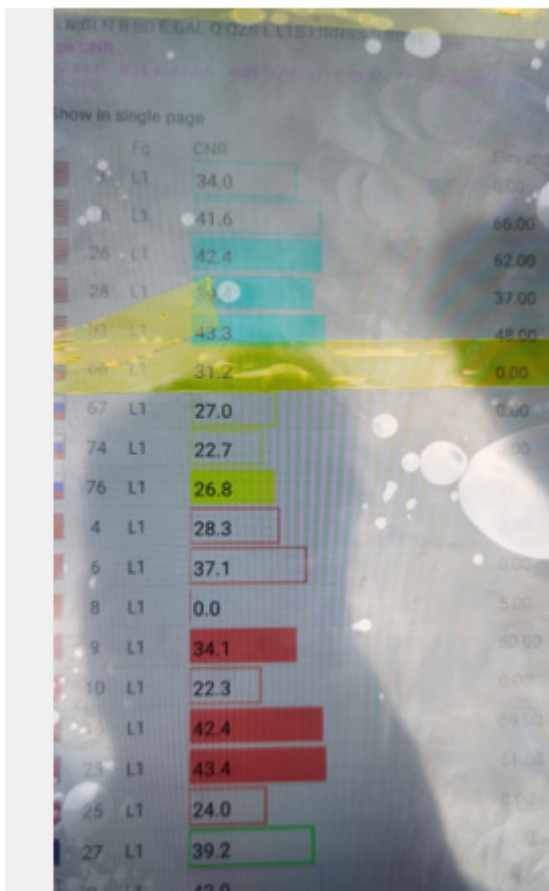
### 主天线暗室数据

	Channel	TRP (dBm)	TIS (dBm)						Channel	TRP (dBm)	TIS (dBm)
FDD B1	LOW	17.7		FDD B17	LOW	14.59		FDD B66	LOW	16.13	
	medium	17.55			medium	14.77			medium	16.11	
	high	17.37	-90.3		high	14.27	-87.4		high	16.21	-88.5
FDD B2	LOW	16.22		FDD B18	LOW	17.84					
	medium	16.67			medium	16.66					
	high	16.77	-90.5		high	16.32	-90.5				
FDD B3	LOW	18.01		FDD B19	LOW	16.38					
	medium	17.68			medium	16.59					
	high	16.97	-90.4		high	16.13	-90.6				
FDD B4	LOW	16.85		FDD B20	LOW	16.68		TDD B34	LOW	16.39	
	medium	16.49			medium	16.13			medium	17.12	
	high	16.27	-89.5		high	16.48	-89.5		high	16.17	-90.45
FDD B5	LOW	17.42		FDD B25	LOW	16.9		TDD B38	LOW	17.94	
	medium	17.42			medium	17.42			medium	17.82	
	high	17.65	-90.2		high	17.51	-87		high	17.71	-89.66
FDD B7	LOW	17.26		FDD B26	LOW	16.72		TDD B39	LOW	17.92	
	medium	16.96			medium	16.36			medium	17.58	
	high	17.86	-89.2		high	17.08	-90.3		high	17.31	-90.0
FDD B8	LOW	16.82		FDD B28A	LOW	14.6		TDD B40	LOW	16.09	
	medium	15.34			medium	14.79			medium	16.19	
	high	14.63	-89		high	14.14	-87.1		high	16.56	-88.2
FDD B12	LOW	13.48		FDD B28B	LOW	14.87		TDD B41	LOW		
	medium	13.74			medium	14.31			medium	17.05	-88.1
	high	13.34	-87.5		high	14.05	-87.2		high		

## 主天线暗室数据

GSM 850	128	26.02		主天线暗室数据	W 1	LOW	17.35	
	190	25.54				medium	17.54	
	251	25.56	-101.2			high	17.34	-104.5
GSM 900	1	25.31			W 2	LOW	16.57	
	62	24.50				medium	17.24	
	124	24.31	-100			high	17.62	-102.2
DCS 1800	512	24.01			W 4	LOW	16.3	
	698	24.12				medium	16.45	
	885	25.1	-103.1			high	17.12	-103.3
PCS 1900	512	24.34			W 5	LOW	16.17	
	661	25.15				medium	16.78	
	810	24.42	-102.2			high	16.11	-101.5
					W 8	LOW	14.13	
						medium	14.01	
						high	14.62	-100.5

### GPS天线实际测试效果：



WIFI测试效果：

BAND	2.4GWIFI			5GWIFI		
CHANNEL	low	medium	high	low	medium	high
TRP (dBm)	11.42	10.24	10.1	9.54	10.24	11.35
TIS (dBm)	-79.3	-80.0	-79.06	-68.14	-68.35	-71

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