

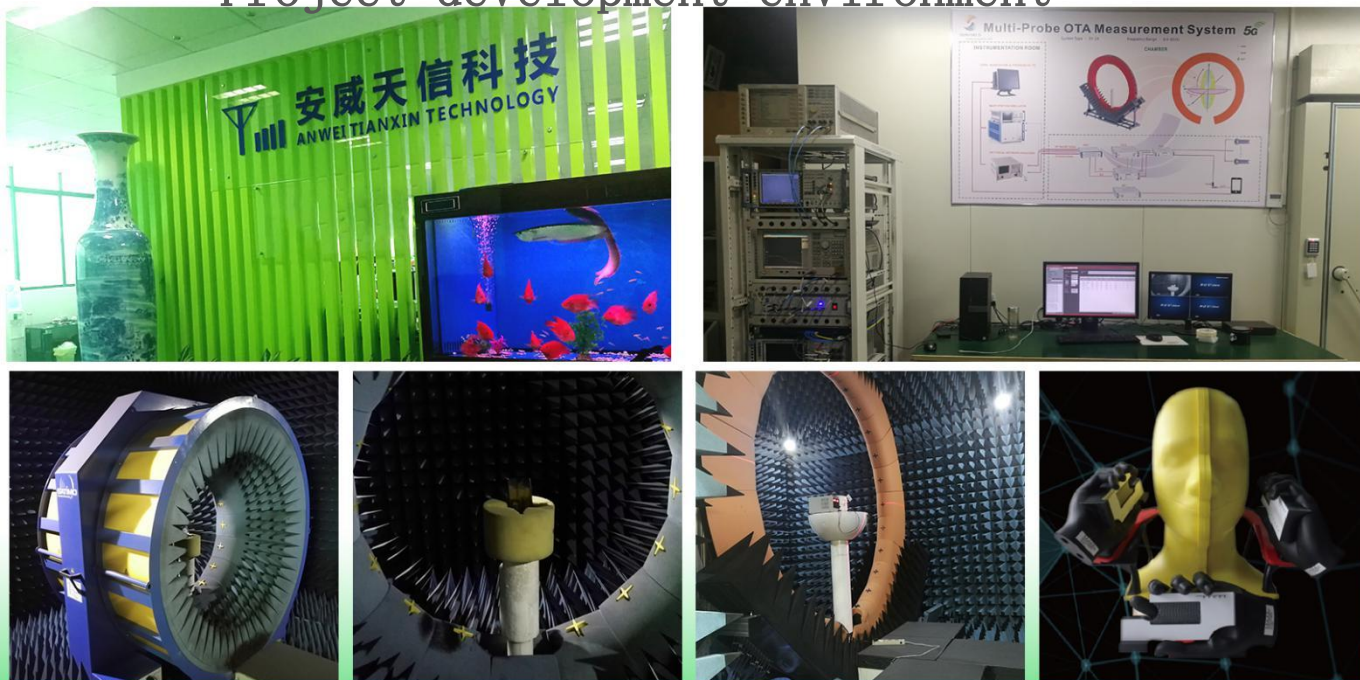
ANWEI commnuication Equipment Co.,Ltd

APPROVAL SHEET

Customer	Yunji	Specs	S215(S213)
Part Number		Frequency Band	GSM: B2/3/5/8 WCDMA: B1/2/4/5/8 TDD: 38/39/40/41 FDD:B1/2/3/4/5/7/8/12/17/18/19/20/ 25/26/28/66
Color	Black	Edition	REV:A0
Salesperson	Mr.Xie	Design	WUXI
Structure	Qin Yun Lin	Confirm	
Date	2026.6.8	Signing Date	

Address:2nd Floor, East Building 5, Yifenghua Industrial Zone,
Dalang, Longhua New District, Shenzhen

Project development environment



安威无线一直都是您值得信赖且优秀的合作伙伴，我们为您提供全方位一站式的产品以及技术服务！

“质量第一，服务至上”是安威一直以来的发展宗旨

主板传导数据（无线损点测）中高频传导偏低

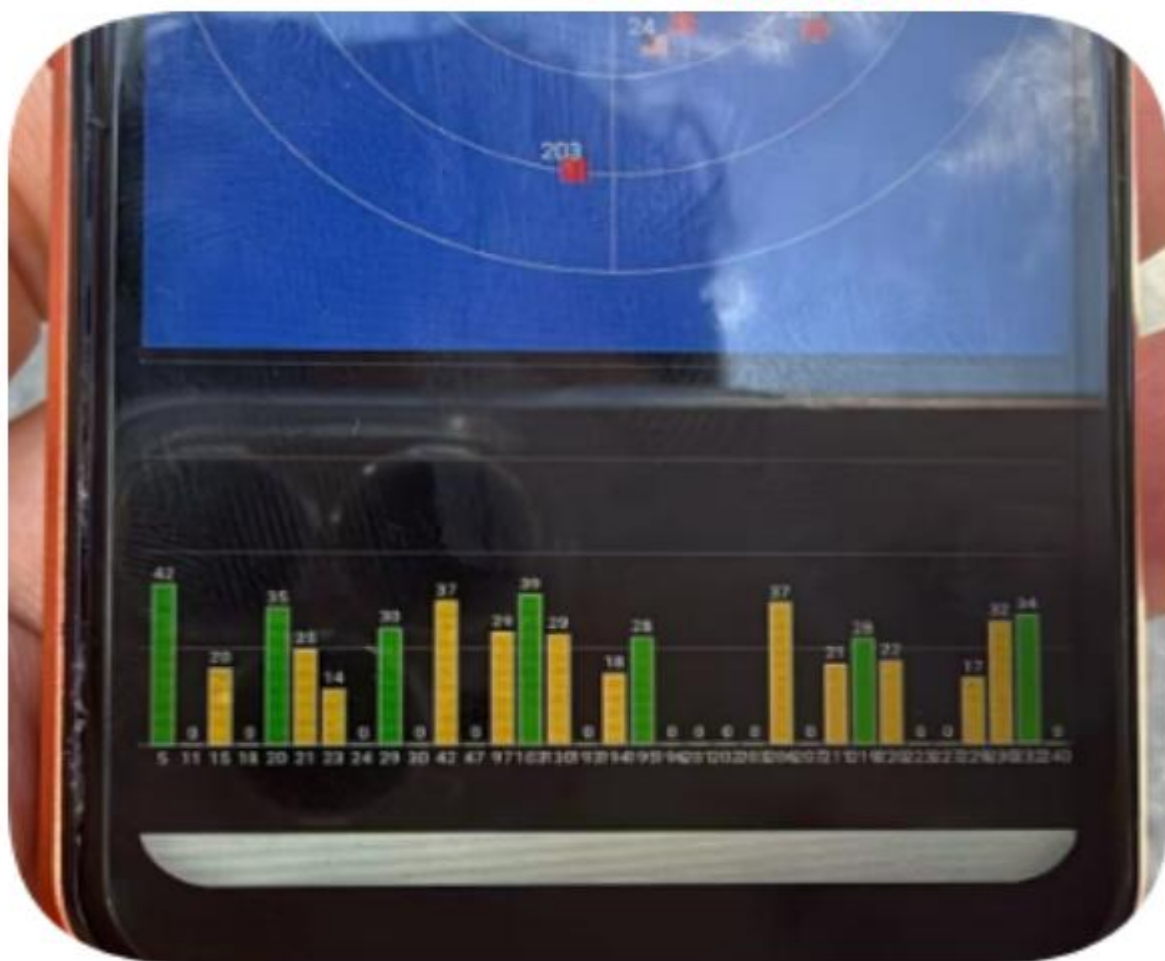
	Channel	点测)		Channel	点测)		Channel	点测)		Channel	点测)		Channel	FRP (dBm)
GSM 850	128	32.5	W 8	LOW	23.00	FDD B1	LOW	21.26	FDD B17	LOW	22.80	FDD B66	LOW	20.50
	190	32.5		medium	23.0		medium	21.47		medium	22.80		medium	20.50
	251	32.5		high	23.0		high	21.35		high	22.80		high	20.50
	1	32.0					LOW	21.37		LOW	22.80			
GSM 900	62	32.1				FDD B2	medium	21.58	FDD B18	medium	22.80			
	124	32.0					high	21.91		high	22.80			
	512	27.80					LOW	20.34		LOW	22.80			
DCS 1800	698	27.9				FDD B3	medium	20.35	FDD B19	medium	22.80	TDD B38	LOW	21.18
	885	28.0					high	20.53		high	22.80		medium	21.25
	512	28.7					LOW	20.43		LOW	22.50		high	21.17
PCS 1900	661	28.8				FDD B4	medium	20.51	FDD B20	medium	22.60	TDD B39	LOW	21.4
	810	28.9					high	20.53		high	22.60		medium	21.59
	LOW	21.40					LOW	22.50		LOW	21.20		high	21.52
W 1	medium	21.5				FDD B5	medium	22.60	FDD B25	medium	21.70	TDD B40	LOW	21.21
	high	21.3					high	22.70		high	21.60		medium	21.72
	LOW	21.30					LOW	21.97		LOW	22.50		high	21.48
W 2	medium	21.20				FDD B7	medium	22.08	FDD B26	medium	22.60	TDD B41	LOW	21.27
	high	21.10					high	22.04		high	22.60		medium	21.35
	LOW	20.50					LOW	22.70		LOW	22.60		high	21.01
W 4	medium	20.50				FDD B8	medium	22.70	FDD B28A	medium	22.60			
	high	20.50					high	22.60		high	22.60			
	LOW	23.00					LOW	22.80		LOW	22.60			
W 5	medium	23.0				FDD B12	medium	22.80	FDD B28B	medium	22.60			
	high	23.0					high	22.80		high	22.60			

主天线暗室数据

	Channel	TRP (dBm)	TIS (dBm)	壳屏		Channel	TRP (dBm)	TIS (dBm)	壳屏
GSM 850	128	25.3		-100.2	W 1	LOW	16.34		-102.5
	190	26.12				medium	16.41		
	251	26.56	-102.6			high	16.56	-102.5	
GSM 900	1	27.03		-100.09	W 2	LOW	16.19		-102.3
	62	26.11				medium	16.21		
	124	26.08	-102.1			high	16.38	-102.1	
DCS 1800	512	23.4		-99.5	W 4	LOW	15.03		-102.0
	698	23.25				medium	15.19		
	885	23.03	-101.2			high	15.28	-102.0	
PCS 1900	512	23.23		-99.3	W 5	LOW	16.03		-99.0
	661	23.29				medium	16.44		
	810	23.6	-101.1			high	16.71	-102.0	
					W 8	LOW	17.46		-100.1
						medium	17.15		
						high	16.74	-102.5	

	Channel	TRP (dBm)	TIS (dBm)	壳屏		Channel	TRP (dBm)	TIS (dBm)	壳屏		Channel	TRP (dBm)	TIS (dBm)	壳屏
FDD B1	LOW	16.47		-89.2	FDD B17	LOW	13.33		-85.4	FDD B66	LOW	14.64		-88.3
	medium	16.32				medium	13.08				medium	15.83		
	high	16.37	-90.6			high	13.17	-88.2			high	15.29	-89.5	
FDD B2	LOW	16.14		-87.3	FDD B18	LOW	16.09		-86.0					
	medium	16.08				medium	15.72							
	high	16.13	-89.3			high	16.12	-90.2						
FDD B3	LOW	16.02		-88.2	FDD B19	LOW	16.32		-87.1					
	medium	15.56				medium	16.82							
	high	15.52	-90.1			high	17.33	-90.1						
FDD B4	LOW	15.47		-88.1	FDD B20	LOW	16.62		-86.2					
	medium	15.16				medium	16.57							
	high	15.13	-89.2			high	17.07	-89.2						
FDD B5	LOW	16.04		-85.2	FDD B25	LOW	14.78		-87.3	TDD B38	LOW	18.12		-86.2
	medium	16.73				medium	15.03				medium	17.72		
	high	17.02	-89.5			high	15.31	-88.52			high	17.13	-88.5	
FDD B7	LOW	17.95		-88.09	FDD B26	LOW	15.22		-87.3	TDD B39	LOW	16.43		-87.4
	medium	17.86				medium	16.09				medium	16.27		
	high	17.75	-89.06			high	16.76	-90.0			high	16.32	-89.31	
FDD B8	LOW	17.67		-86.2	FDD B28A	LOW	13.34		-85.41	TDD B40	LOW	17.3		-87.4
	medium	16.97				medium	13.02				medium	17.27		
	high	16.57	-90.6			high	13.74	-88.0			high	17.58	-87.6	
FDD B12	LOW	13.07		-85.46	FDD B28B	LOW	13.62		-85.3	TDD B41	LOW	17.29		-86.2
	medium	13.14				medium	13.89				medium	17.08		
	high	13.11	-88.62			high	14.76	-89.0			high	17.32	-87.5	

GPS测试结果



WIFI测试效果:

BAND	2.4G WIFI			5.G WIFI		
CHANNEL	low	medium	high	low	medium	high
TEP (dBm)	10.14	10.86	10.55	8.64	7.28	7.05
TIS (dBm)	-79.27	-79.54	-79.36	-69.5	-69.4	-69.5

 BT测试效果:

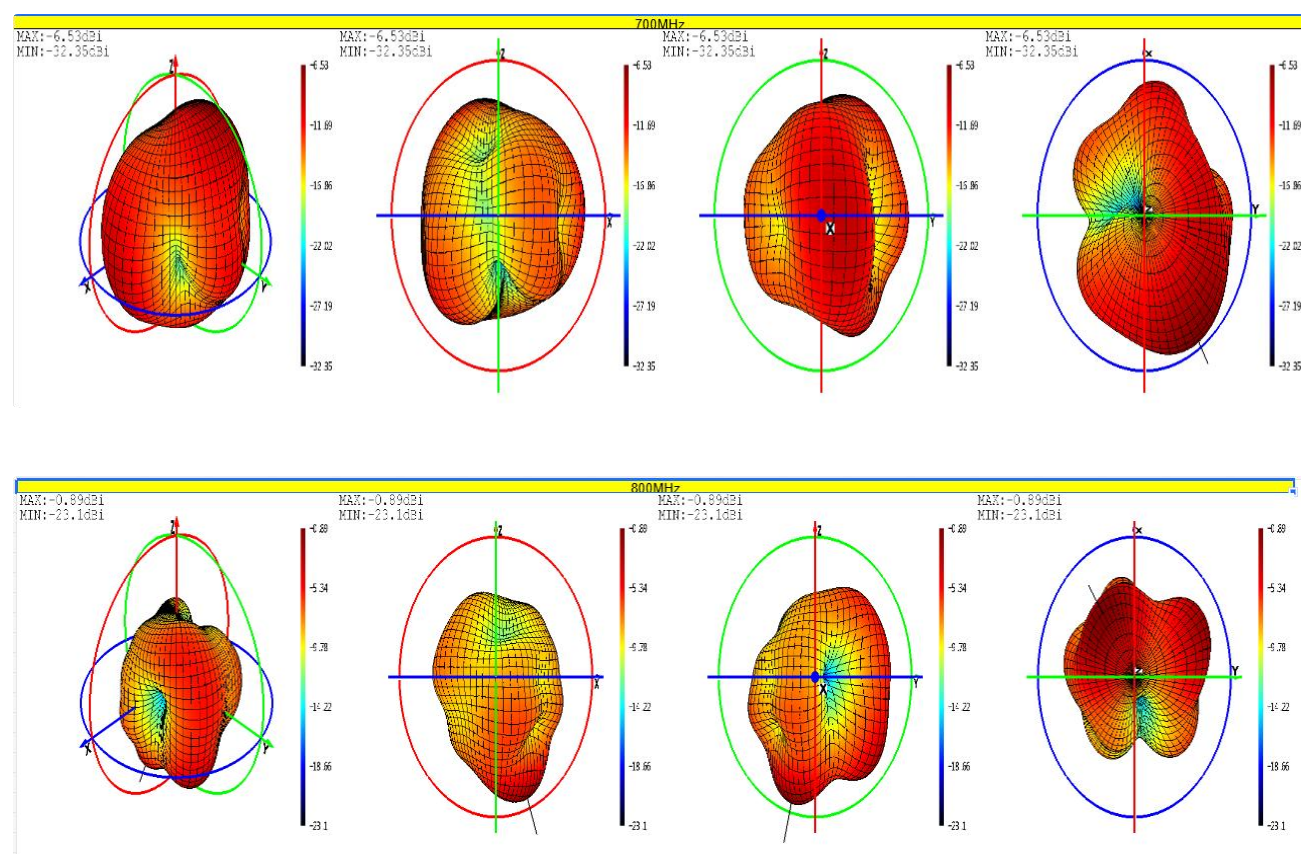
BAND	BT		
CHANNEL	low	medium	high
TEP (dBm)	2.21	2.04	2.10
TIS (dBm)	-82.41	-82.30	-83.27

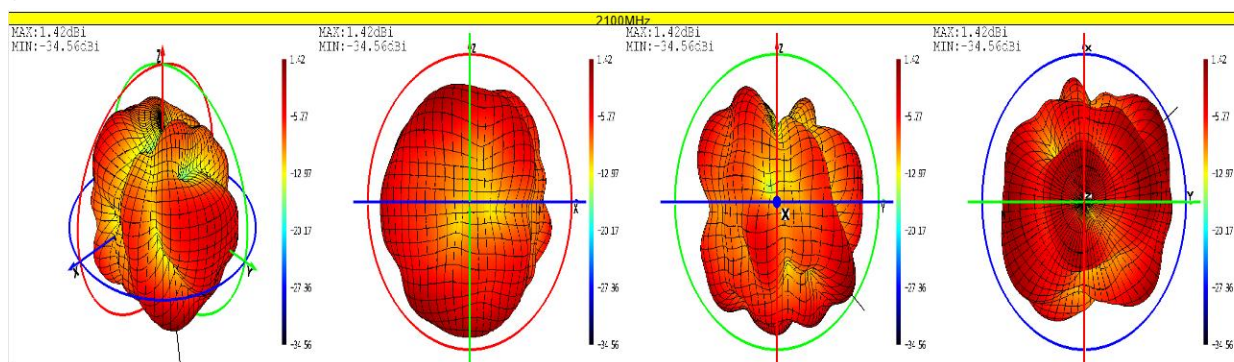
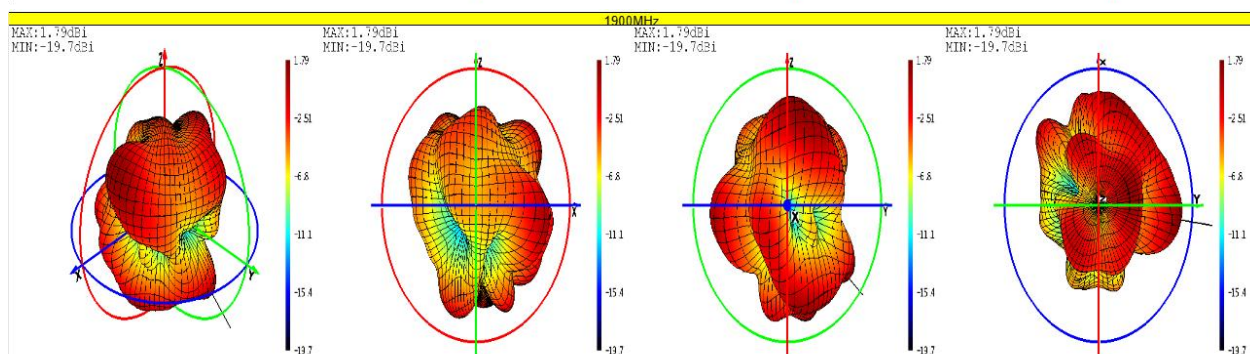
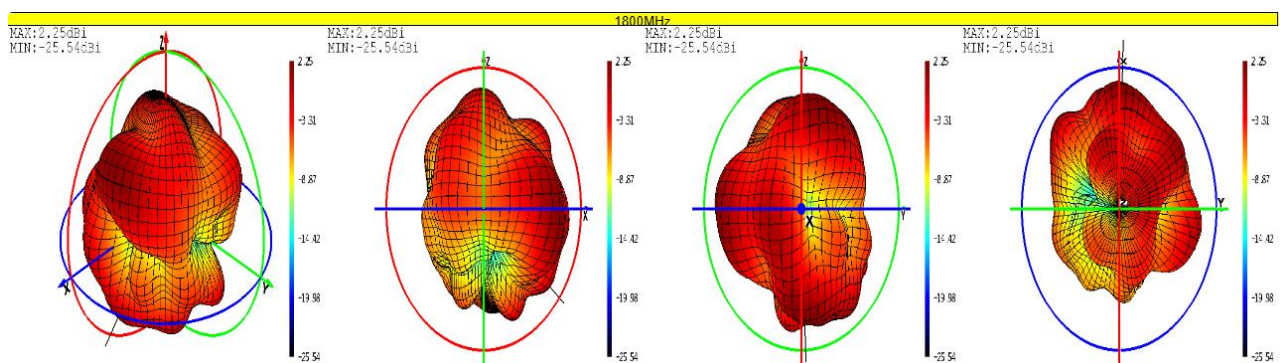
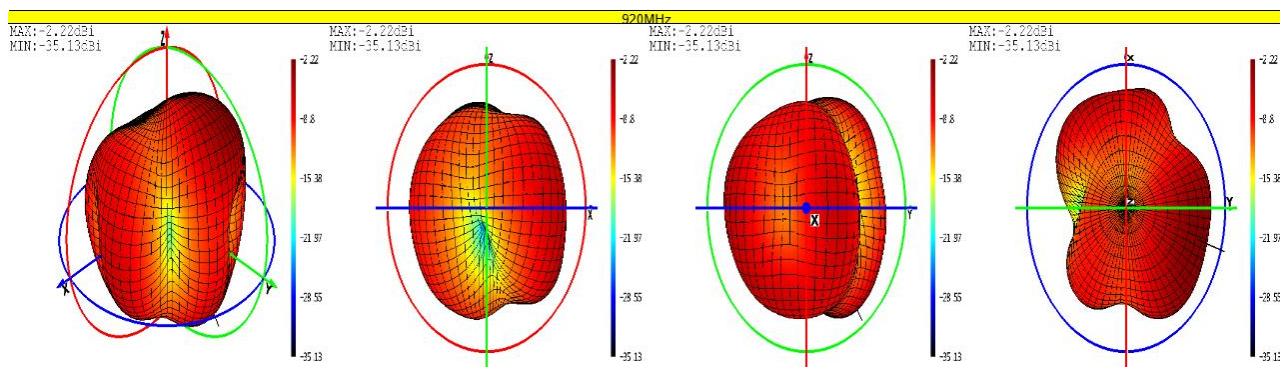
天线增益(Antenna gain)

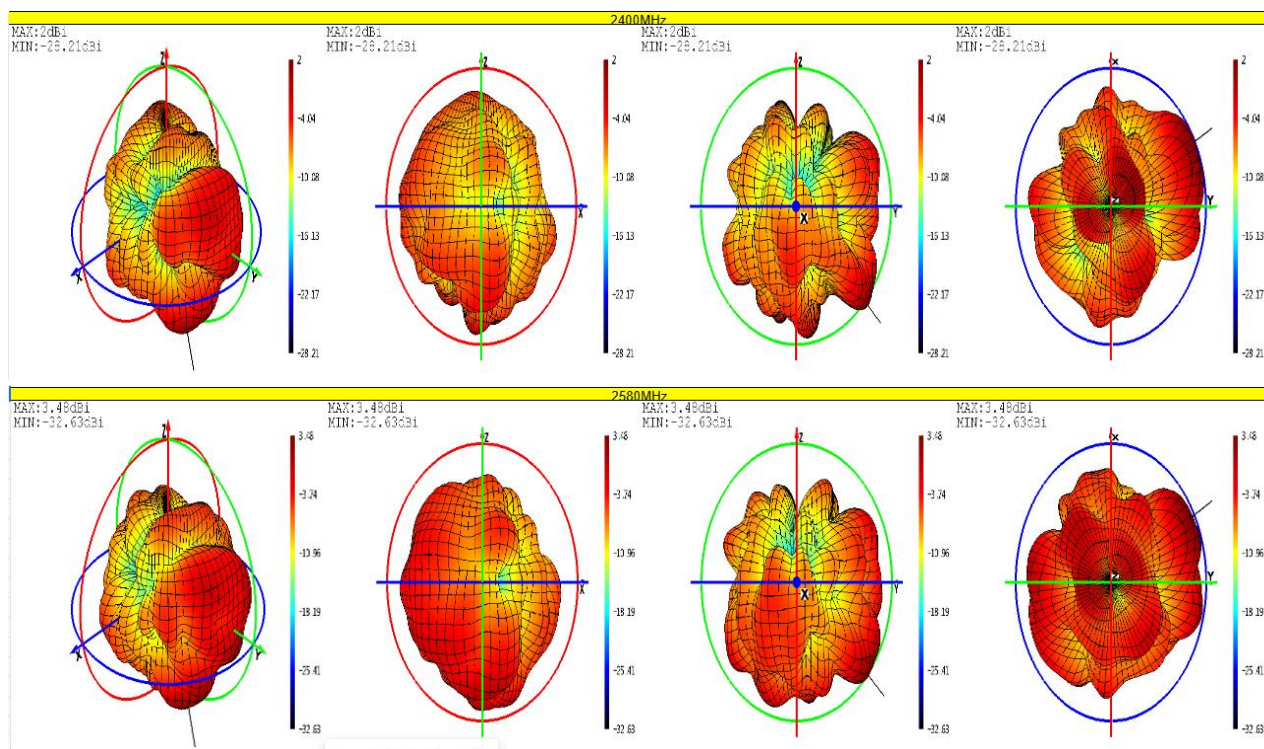
Standard	Band (LTE)	Frequency	Gain(dbi)
TDD_LTE	TDD_B38	2580	3.48
TDD_LTE	TDD_B39	1900	1.79
TDD_LTE	TDD_B40	2400	2
TDD_LTE	TDD_B41	2580	3.48
FDD_LTE	FDD_B1	2100	1.42
FDD_LTE	FDD_B2	1900	1.79
FDD_LTE	FDD_B3	1800	2.25
FDD_LTE	FDD_B4	1800	2.25
FDD_LTE	FDD_B5	800	-0.89
FDD_LTE	FDD_B7	2580	3.48
FDD_LTE	FDD_B8	920	-2.22
FDD_LTE	FDD_B12	700	-6.53
FDD_LTE	FDD_B17	700	-6.53
FDD_LTE	FDD_B18	800	-0.89
FDD_LTE	FDD_B19	800	-0.89
FDD_LTE	FDD_B20	800	-0.89
FDD_LTE	FDD_B25	1900	1.79
FDD_LTE	FDD_B26	800	-0.89
FDD_LTE	FDD_B28	700	-6.53
FDD_LTE	FDD_B66	1800	2.25
WCDMA	WCDMA_B1	2100	1.42
WCDMA	WCDMA_B2	1900	1.79
WCDMA	WCDMA_B4	1800	2.25
WCDMA	WCDMA_B5	800	-0.89
WCDMA	WCDMA_B8	920	-2.22
GSM	GSM850	800	-0.89
GSM	GSM900	920	-2.22
GSM	DCS1800	1800	2.25
GSM	PCS1900	1900	1.79

2.4G WIFI		2460	-0.7
5G WIFI		5300	1.19
GPS	L1	1575	0.74
BT		2460	-0.7

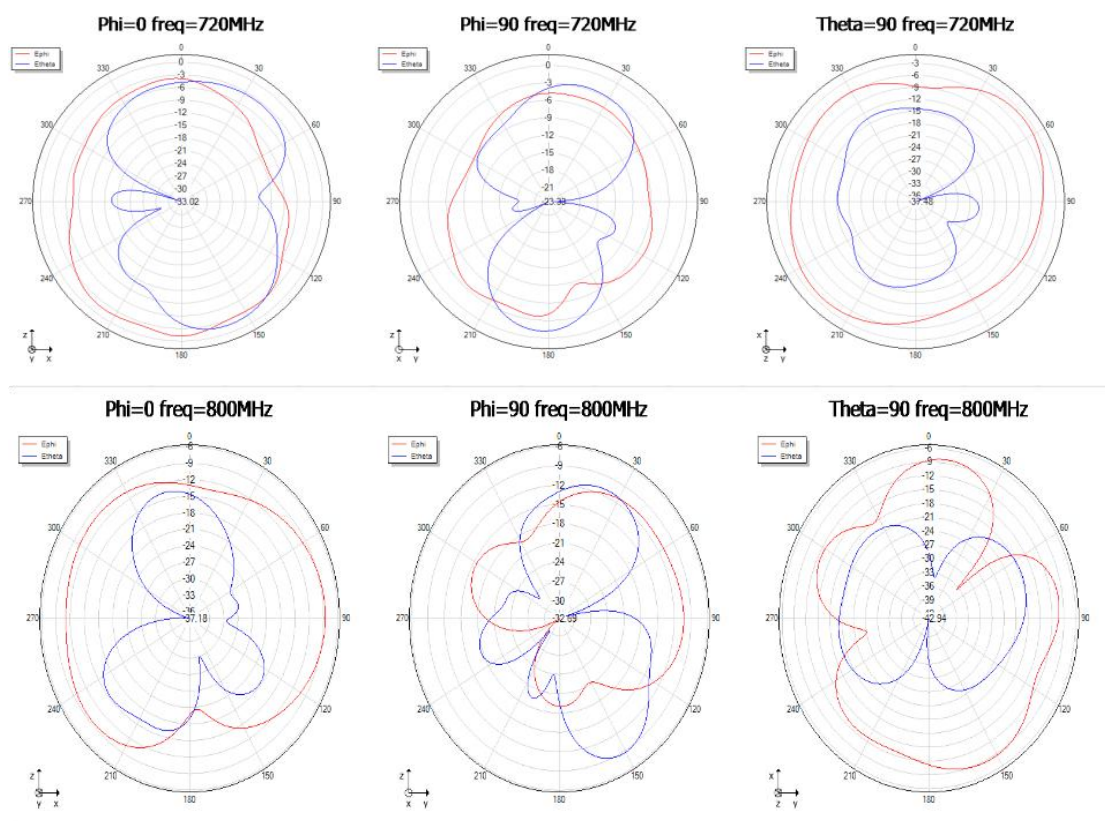
MIMO antenna apple map

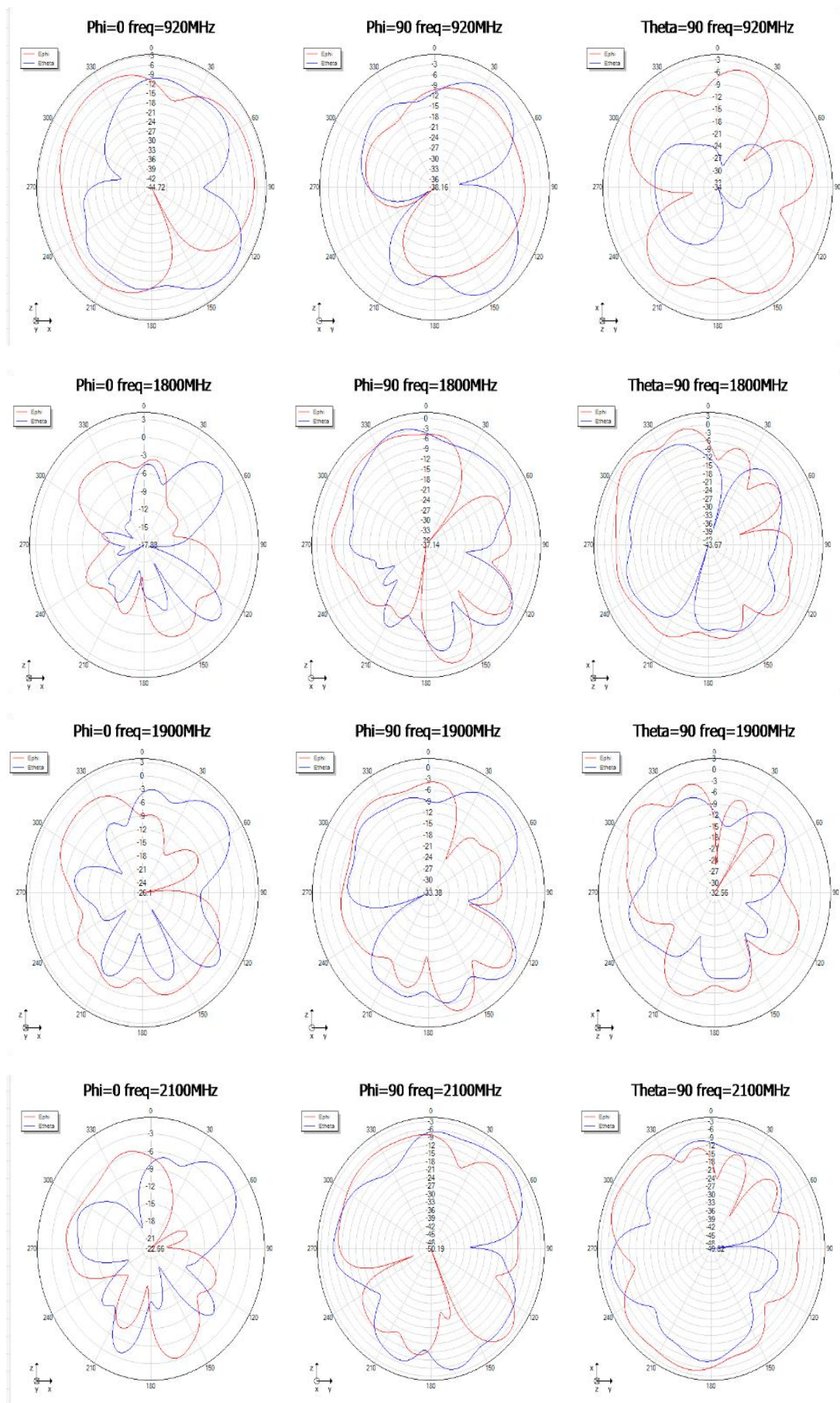


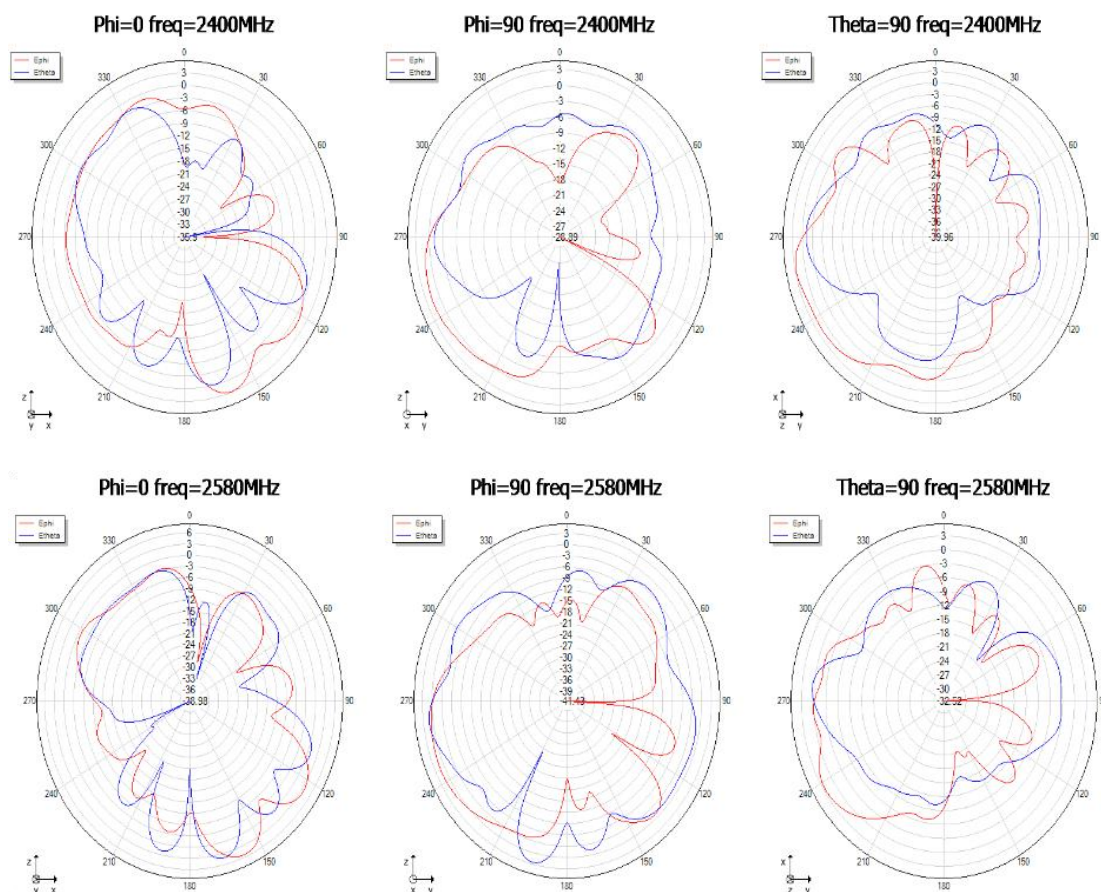




(MIMO antenna) PolarGraphs/EtotalGraphs

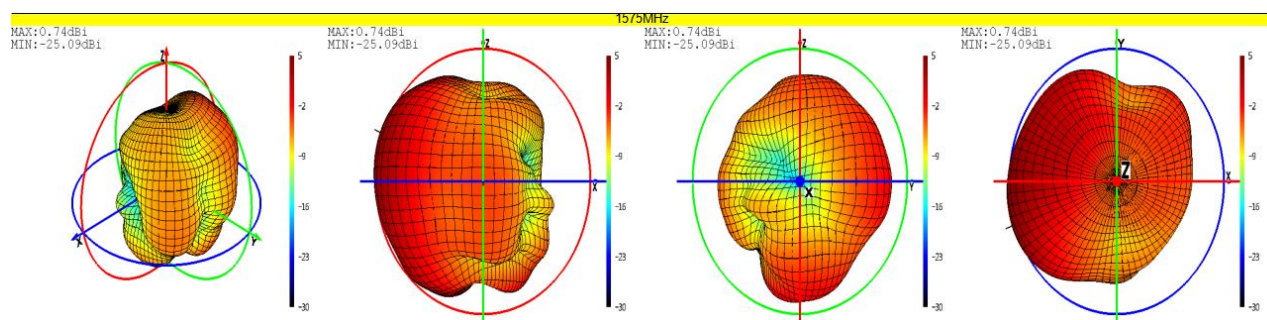


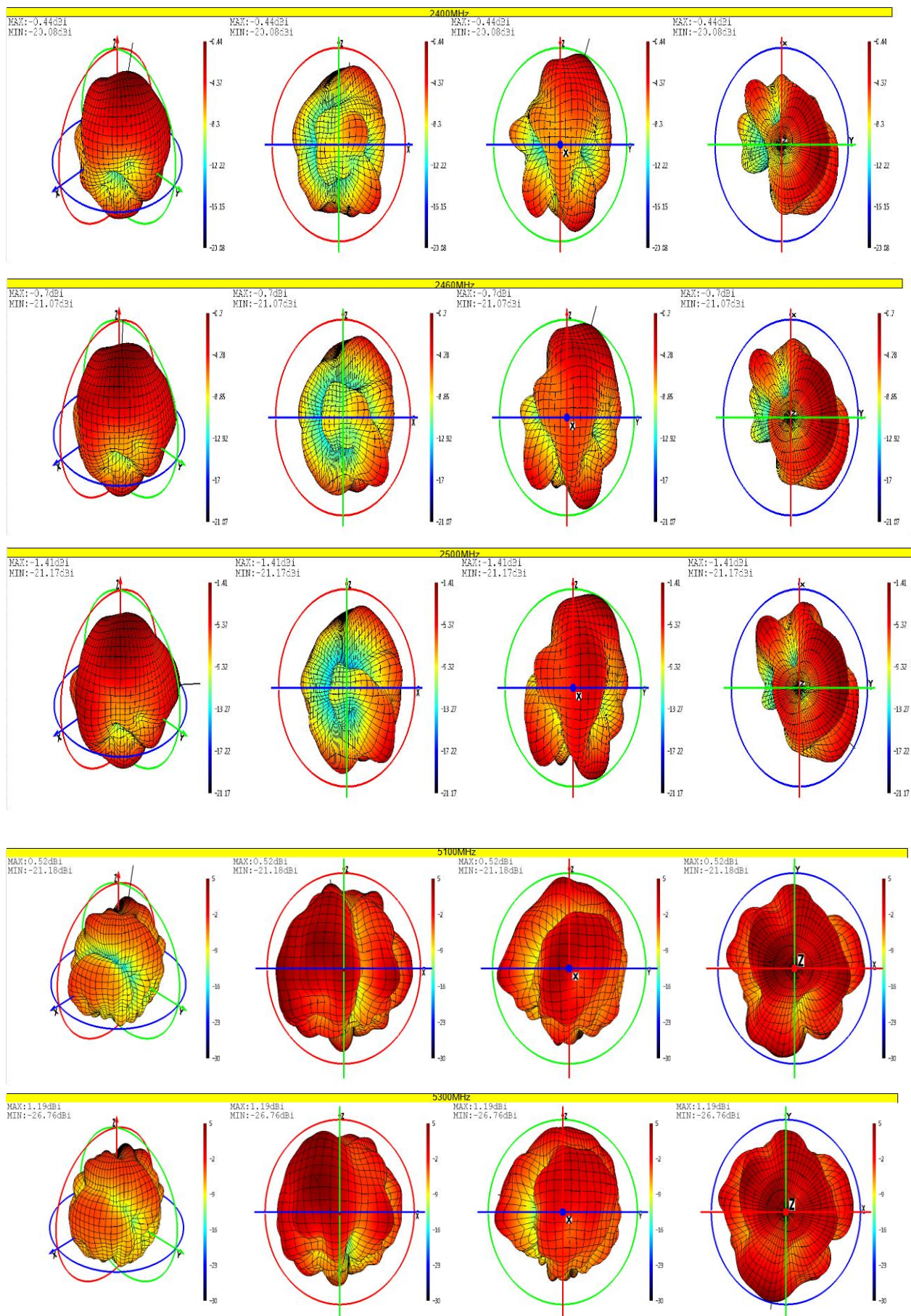


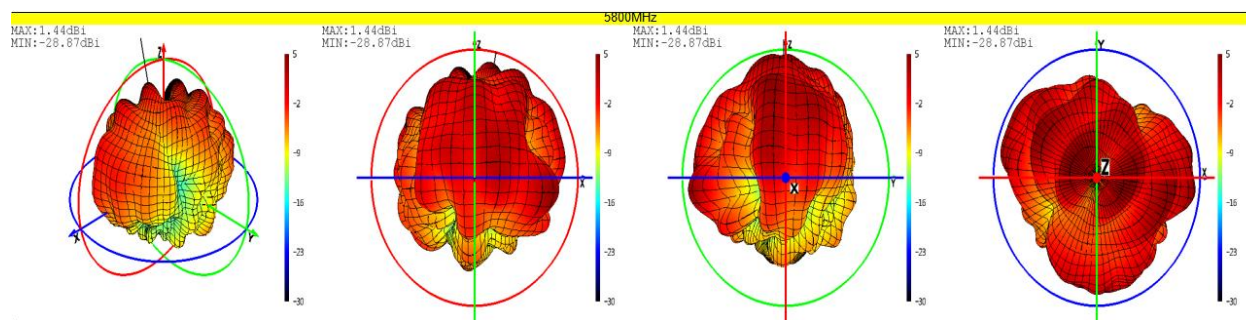


(GPS antenna) + (2.4G/5G WIFI/BT antenna) apple

Map

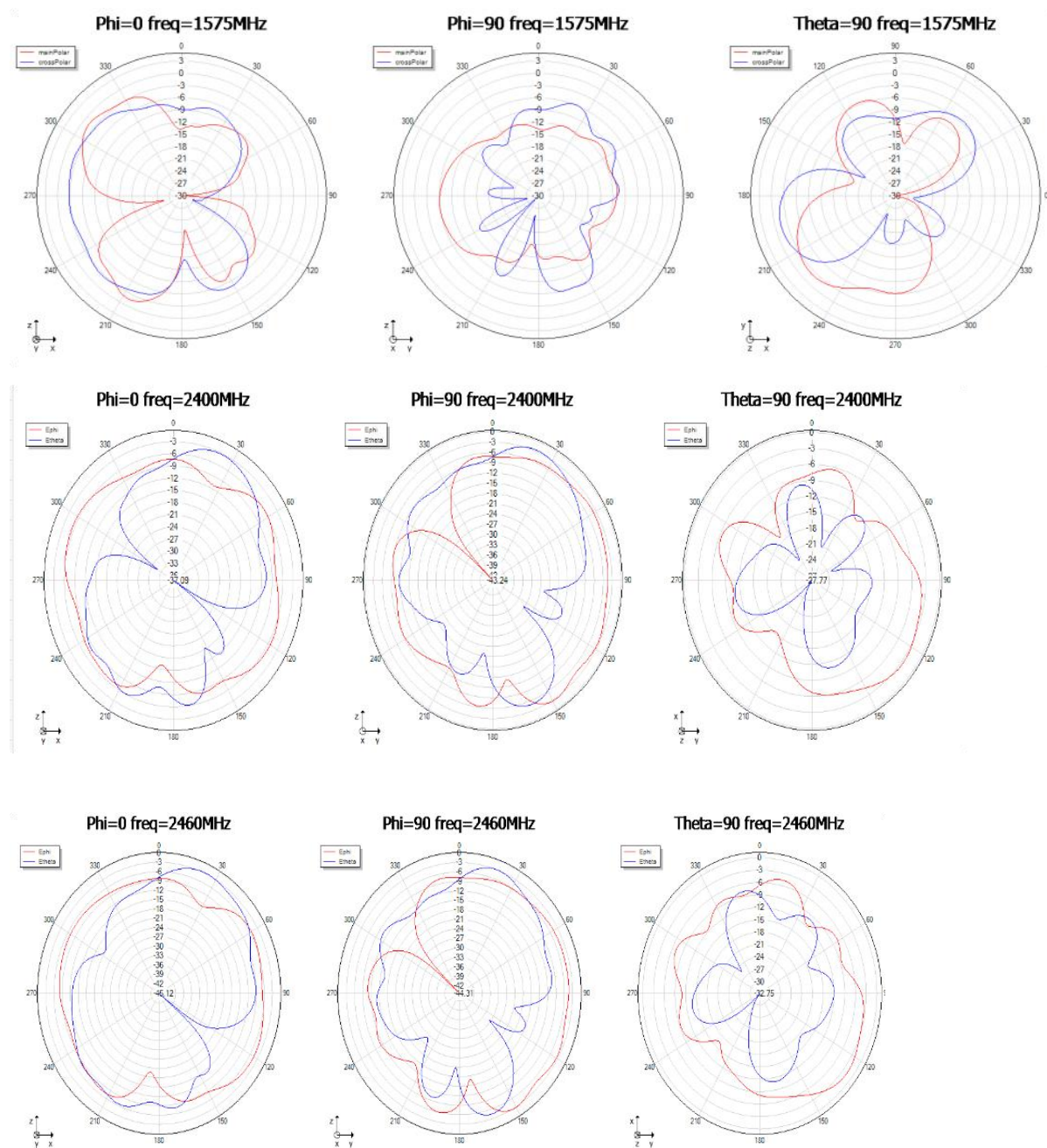


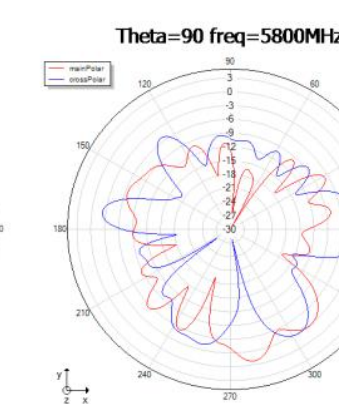
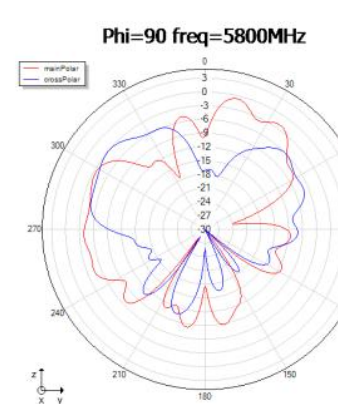
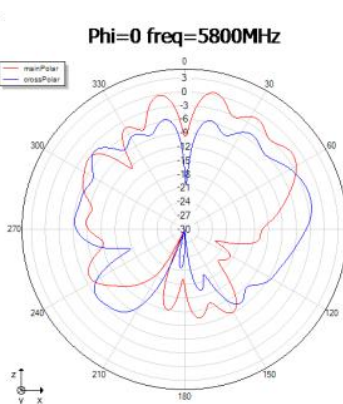
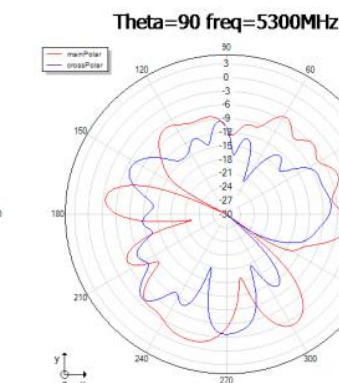
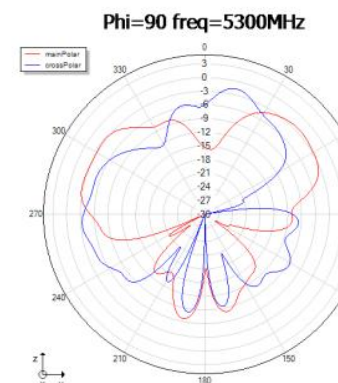
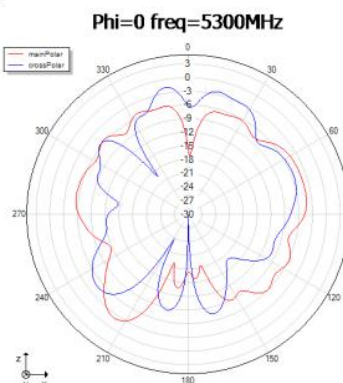
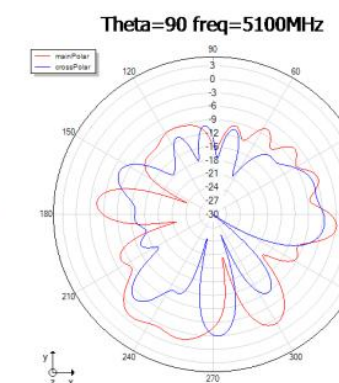
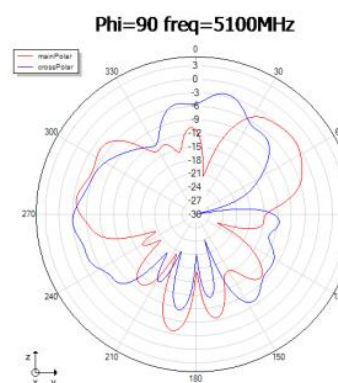
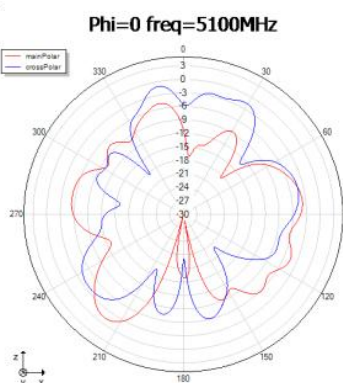
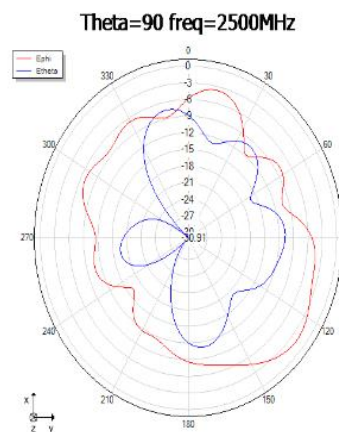
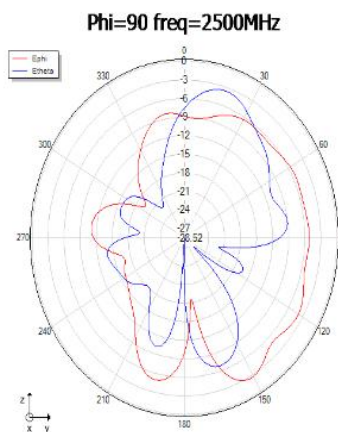
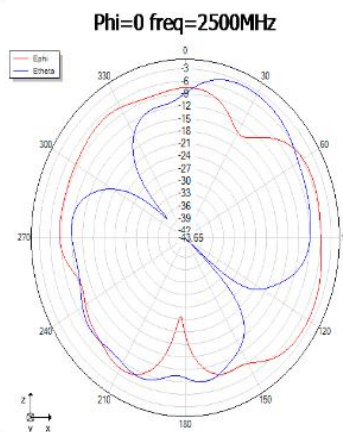


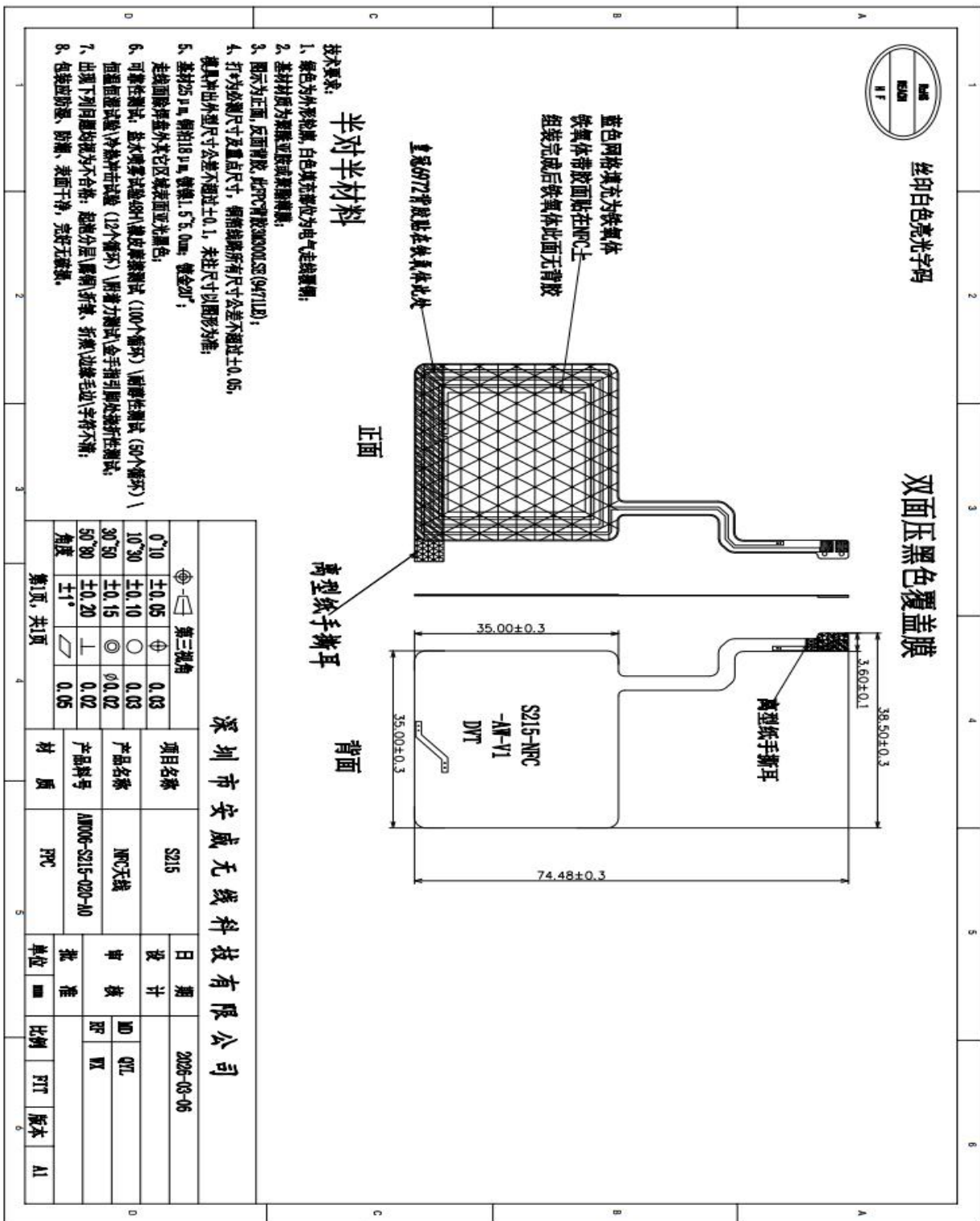


(GPS antenna) + (2.4G/5G WIFI/BT antenna)

PolarGraphs/EtotalGraphs



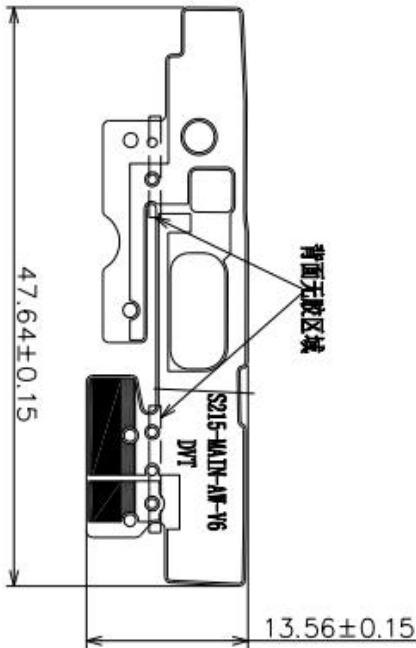






丝印白色亮光字码

正面压黑色覆盖膜



半对半材料

- 技术要求:
- 颜色为外形轮廓, 白色填充部位为电气走线覆膜;
 - 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3M300LSB (94711E);
 - 打时为必须尺寸及重点尺寸; 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12.5μm, 铜箔18μm, 镀镍2-6um; 镀金≥20μ;
 - 走线面除焊盘外其它区域表面黑色;
 - 可靠性测试: 盐水喷雾试验96h\橡皮擦测试 (100个循环) \耐磨性测试 (50个循环) \恒温恒湿试验\冷热冲击试验 (12个循环) \附着力测试\金手指引脚处抗折性测试;
 - 出现下列问题均视为不合格: 起泡\分层\漏铜\折痕、折痕\边缘毛边\字符不清;
 - 包装防静电、防潮、表面干净, 无灰尘等。

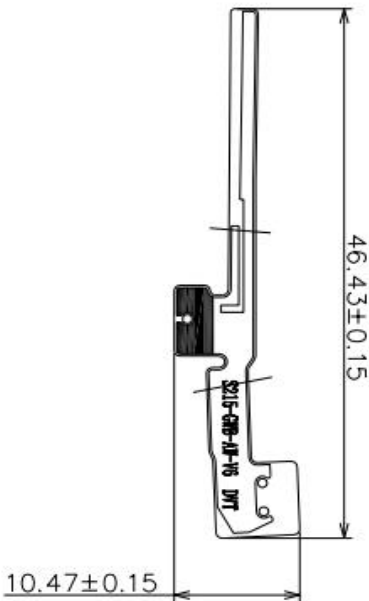
第三视角									
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10°~30°	±0.05	±0.10	0.03	0.03	0.03	0.03	0.03	0.03	0.03
30°~50°	±0.15	±0.20	0.03	0.02	0.02	0.02	0.02	0.02	0.02
50°~80°	±0.20	±0.25	0.03	0.02	0.02	0.02	0.02	0.02	0.02
角度	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°
第1页, 共1页									

深圳市安威无线科技有限公司

项目名称		S215		日期		设计		2026-05-26	
产品名称		MALIN天线		审核		ID		QTL	
产品料号		AW006-S215-021-10		批准		PR		VX	
材质		FPC		单位		比例		FTT	
				mm				版本	
								AI	



丝印白色亮光字码



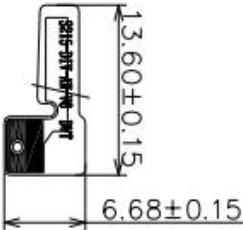
半对半材料

- 技术要求:
- 颜色为外形轮廓, 白色填充部位为电气走线覆铜;
 - 基材材质为聚酰亚胺或聚酯薄膜;
 - 图示为正面, 反面背胶, 此PCB需做300.00.50 (9471L2);
 - 打方为外测尺寸及重点尺寸, 铜箔线路所有尺寸公差不得超过±0.05, 模具冲切外型尺寸公差不得超过±0.1, 未注尺寸以图形为准;
 - 基材12.5μm, 铜箔18μm, 镀层≥6um; 镀金≥20μ;
 - 走线面除焊盘外其它区域表面黑色;
 - 可靠性测试: 盐雾腐蚀试验(48h)、老化试验(100个循环)、耐弯折测试(50个循环)、恒湿恒湿试验(冷热冲击试验(12个循环)、耐弯折测试(金手指引脚处弯折性测试);
 - 出现下列问题均视为不合格: 起翘分层、露铜、折痕、边缘毛边、字符不清;
 - 包装应防潮、防锈、表面干净, 完好无破损。

深圳市安威无线科技有限公司									
第三视图				项目名称		日期		2026-05-26	
0°~10°	±0.05	0°	0.03	产品名称	天线	设计	日期	2026-05-26	
10°~30°	±0.10	0°	0.03	产品料号	AM06-S215-022-40	审核	日期		
30°~50°	±0.15	0°	0.02	材料	PPC	批准	日期		
50°~90°	±0.20	0°	0.02	单位	mm	比例	FTT	版本	A1
角度	±1°	0°	0.05	单位	mm	比例	FTT	版本	A1



丝印白色亮光字码



半对半材料

- 技术要求:
- 1、绿色为外形轮廓,白色填充部位为电气走线覆铜;
 - 2、基材材料为聚酰亚胺或聚酰亚胺;
 - 3、图示为正面,反面背胶,此PCB背胶3030LSE(9471LE);
 - 4、打*为必须尺寸及重点尺寸,铜箔线路所有尺寸公差不得超过±0.0;
 - 5、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;
 - 6、基材12.5μm,铜箔18μm,镀锡2-6um;镀金≥20μ;
 - 7、走线面除焊盘外其它区域表面黑色;
 - 8、可靠性测试:盐水喷雾试验48h(12个循环)\耐刮性测试(50个循环)\耐温恒湿试验(12个循环)\耐着力测试(金手指引脚处耐折性测试);
 - 9、出现下列问题均视为不合格:起翘\分层\露铜\折痕\边缘毛边\字符不清;
 - 10、包装应防潮、防漏、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				日期		2025-05-26				
0°~10°	±0.05	⊕	0.03	S215	设计					
10°~30°	±0.10	○	0.03		审 核	MD	QTL			
30°~50°	±0.15	◎	0.02			RF	WX			
50°~80°	±0.20	⊥	0.02							
角度	±1°	∇	0.05		批 准					
第1页, 共1页				材 质	PPC	单 位	比 例	FTT	版 本	A1

第1页,共1页