

Project Antenn天线HW08项目天线测试报告

Antenna HW08 Project Antenna Test Reporta Test Report

客户：图高 Tu gao

项目名：HW08

射频：LEI SIR

手机MOBILE：15986728949

报告版次NO.：

Antenna HW08 Project Antenna Test Report

ANT Manufacturers: ANWEI commnuication Equipment Co.,Ltd

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Shenzhen City, Guangdong Province



www.aw168.cn

项目调试简介Introduction to project
commissioning

板型	整机mobile phone						
天线概况 Antenna overview	主天线 Main antenna	频段 band		天线状态 Antenna status	天线形式 Antenna form	设计区域 Design area	匹配改动 Match Changes
		2G	B2/3/5/8	FPC	PIFA		YES
		3G	WCDMA B1/2/4/5/8 +bc0/bc1				
		4G	FDD B1/2/3/4/5/7/8/12/13/17/18 /19/20/25/26/28A/B/66 TDD 34/38/39/40/41				
		5G	SA:1/3/5/7/8/20/28/38/40/4 1/77/78/79				
	其他天线 other antenna	BT/WIFI	2. 4G/5G/WIFI	FPC	PIFA		NO
		GPS+BEIDOU+Glo nass+Galileo	1575				NO
		分集		FPC	PIFA		NO
样机状态 sample status	手板样机 Trial production sample		环境处理 Environmental treatment	携手共进 共创			

携手共进 共创未来

HW08A ()

	Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)
FDD B1	18050	18.38			FDD B13		16.6			FDD B28B	27410	15.37	
	18300	18.06				23230	16.7	-92.54			27510	15.39	
	18550	18.47	-95.25				16.5				27600	15.17	-92.44
FDD B2	18650	17.2			FDD B17	23790	15.41			FDD B66	132022	16.41	
	18900	17.4				23790	15.15				132322	16.9	
	19150	17.93	-95.63			23790	15.24	-91.6			132622	17.17	-95.46
FDD B3	19250	17.54			FDD B18	23900	16.66			FDD B30			
	19575	17.25				23925	16.88				27710		
	19900	17.08	-95.13			23950	16.47	-91.88					
FDD B4	20000	17.23			FDD B19	24050	16			TDD B34	36250	18.04	
	20175	17.1				24075	16.36				36275	18.49	
	20350	17.57	-95.19			24100	16.48	-91.12			36300	18.43	-92.08
FDD B5	20450	16.16			FDD B20	24200	16.56			TDD (B38)	37850	18.65	
	20525	16.33				24300	16.22				38000	18.9	
	20600	16.46	-90.75			24400	16.27	-92.14			38150	18.58	-92.61
FDD B7	20800	16.16			FDD B25	26090	17.7			TDD B39	38350	18.38	
	21100	16.59				26365	17.86				38450	18.97	
	21400	16.74	-93.41			26640	18.44	-92.85			38550	19.26	-91.59
FDD B8	21500	17.03			FDD B26	26740	16.01			TDD (B40)	38750	16.14	
	21625	16.92				26865	16.16				39150	16.07	
	21750	16.01	-91.04			26990	16.28	-92.29			39550	16.25	-89.8
FDD B12	23060	15.6			FDD B28A	27260	15.49			TDD (B41)	40340	18.19	
	23095	15.54				27370	15.15				40620	18.09	
	23130	15.29	-91.91			27469	15.34	-92.28			41140	18.26	-91.73

HW08A ()

	Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)			Channel	TRP (dBm)	TIS (dBm)
WCDMA B1	10562	18.42			GSM 850	128	25.32						
	10700	18.12				190	25.43						
	10838	18.36	-107.44			251	25.58	-103.4					
WCDMA B2	9262	18.85			GSM 900	1	26.39						
	9400	18.79				62	26.25						
	9538	18.35	-107.28			124	25.57	-103.01					
WCDMA B4	1312	18.95			DCS1800	512	24.78						
	1413	18.31				698	24.49						
	1513	18.01	-106.31			885	24.29	-105.52					
WCDMA B5	4132	16.27			PCS 1900	512	24.29						
	4183	16.06				661	24.27						
	4233	16.17	-104.41			810	24.7	-105.39					
WCDMA B6	4162	16.14			BC0	283	16.02						
	4175	16.21				384	16.13						
	4188	16.01	-104.13			777	16.24	-100.62					
WCDMA B8	2712	16.58			BC1	25	17.88						
	2787	16.34				600	17.96						
	2863	16.02	-102.95			1175	17.84	-103.8					
WCDMA B19	312	16.18											
	387	16.2											
	437	16.37	-104.57										

HW08A（默认测试）

	Channel	TRP（dBm）	TIS（dBm）			Channel	TRP（dBm）	TIS（dBm）			Channel	TRP（dBm）	TIS（dBm）
SA-N1	386000	18.52			SA-N40	461000	17.69						
	390000	18.4				470000	18.62						
	394000	18.02	-95.79			479000	18.41	-92.72					
SA-N3	344000	16.48			SA-N41	509202	18.31						
	349500	16.72				518598	18.42						
	355000	16.78	-95.82			528000	18.99	-86.08					
SA-N5	166800	16.57			SA-N77	623334	18.83						
	167300	16.53				650000	17.04						
	167800	16.58	-92.02			676666	17.74	-88.52					
SA-N7	502000	16.17			SA-N78	623334	18.92						
	507000	16.78				636666	19.49						
	512000	16.27	-90.06			650000	17.05	-88.09					
SA-N8	178000	17.96											
	179500	17.71											
	181000	17.02	-90.5										
SA-N20	168400	16.75									单独ANT2 N77		
	169400	16.05											
	170400	16.04	-90.42										
SA-N28	142600	15.25							SA-N77	623334	13.85		
	145600	15.12								650000	15.72		
	147600	15.24	-90.6							676666	12.74	-85.88	
SA-N38	515000	17.5											
	519000	16.97											
	523000	18.48	-92.1										

WIFI测试结果WIFI test results



WIFI测试效果：WIFI test

results

亮屏测试Screen-on test						
BAND	2.4G WIFI-B-54M			5G-WIFI-A-54M		
CHANNEL	1	6	11	36	64	165
TRP (dBm)	13.77	13.85	13.47	14.88	14.75	14.93
TIS (dBm)	-82.92	-82.75	-82.42	-74.66	-74.34	-73.52

GPS实际测试结果Actual GPS
test results

SVID	Fq	CNR	Elevation	Azimuth
 5 L1	41.2	29.00	80.00	
 13 L1	37.5	24.00	37.00	
 15 L1	37.6	50.00	15.00	
 18 L1	36.0	55.00	318.00	
 18 L5	30.9	55.00	318.00	
 21 L1	0.0	3.00	97.00	
 23 L1	41.4	30.00	322.00	
 23 L5	29.2	30.00	322.00	
 24 L1	40.5	65.00	151.00	
 24 L5	33.6	65.00	151.00	
 29 L1	35.4	26.00	215.00	
 32 L1	0.0	3.00	241.00	
 69 L1	33.8	24.00	27.00	
 70 L1	0.0	37.00	310.00	
 71 L1	25.0	13.00	267.00	
79 L1	36.5	17.00	33.00	

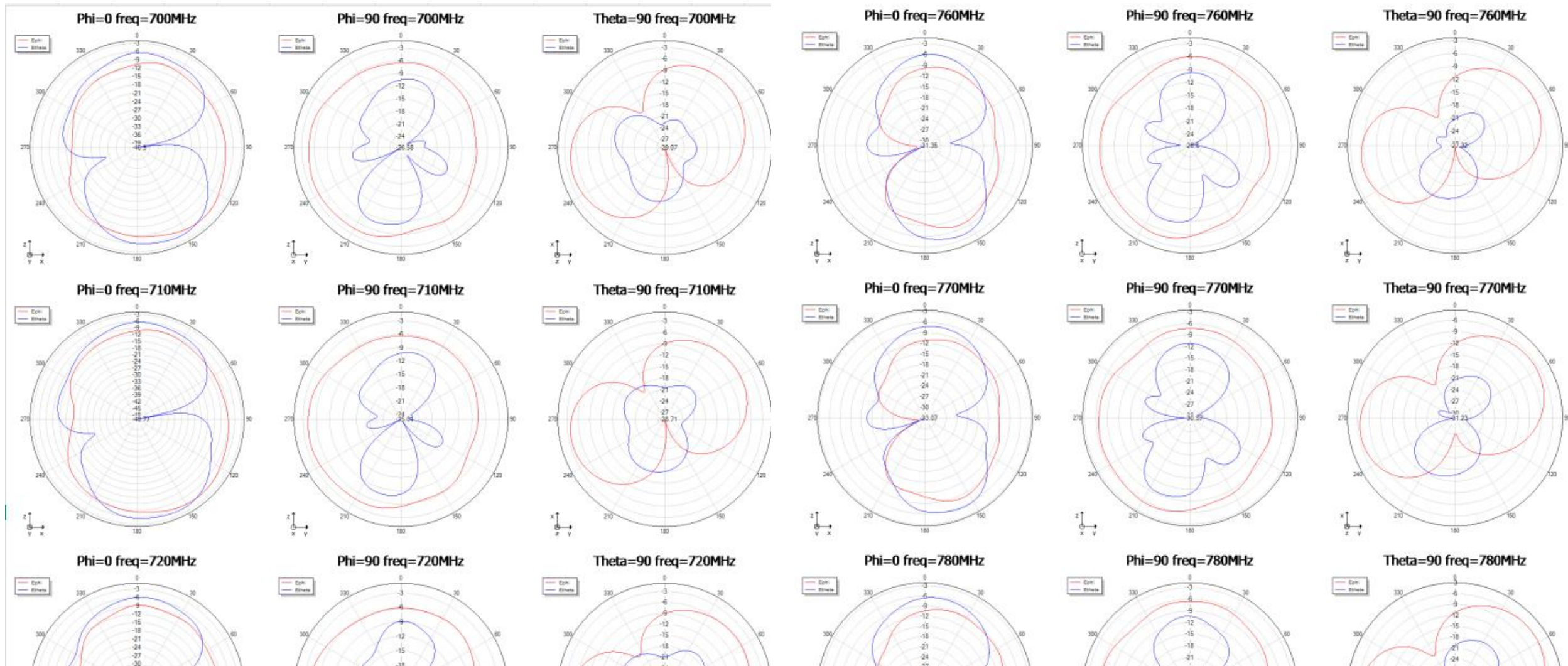
SVID	Fq	CNR	Elevation	Azimuth
 5 L1	33.5	29.00	80.00	
 10 L1	0.0	24.00	37.00	
 13 L1	34.2	23.00	37.00	
 15 L1	35.3	49.00	15.00	
 18 L1	35.1	56.00	317.00	
 18 L5	43.6	56.00	317.00	
 21 L1	0.0	3.00	97.00	
 23 L1	26.9	30.00	322.00	
 23 L5	41.2	30.00	322.00	
 24 L1	37.3	65.00	151.00	
 24 L5	41.4	65.00	151.00	
 29 L1	25.9	26.00	215.00	
 32 L1	20.0	3.00	241.00	
69 L1	34.9	24.00	27.00	
70 L1	39.9	37.00	310.00	

天线增益 antenna gain

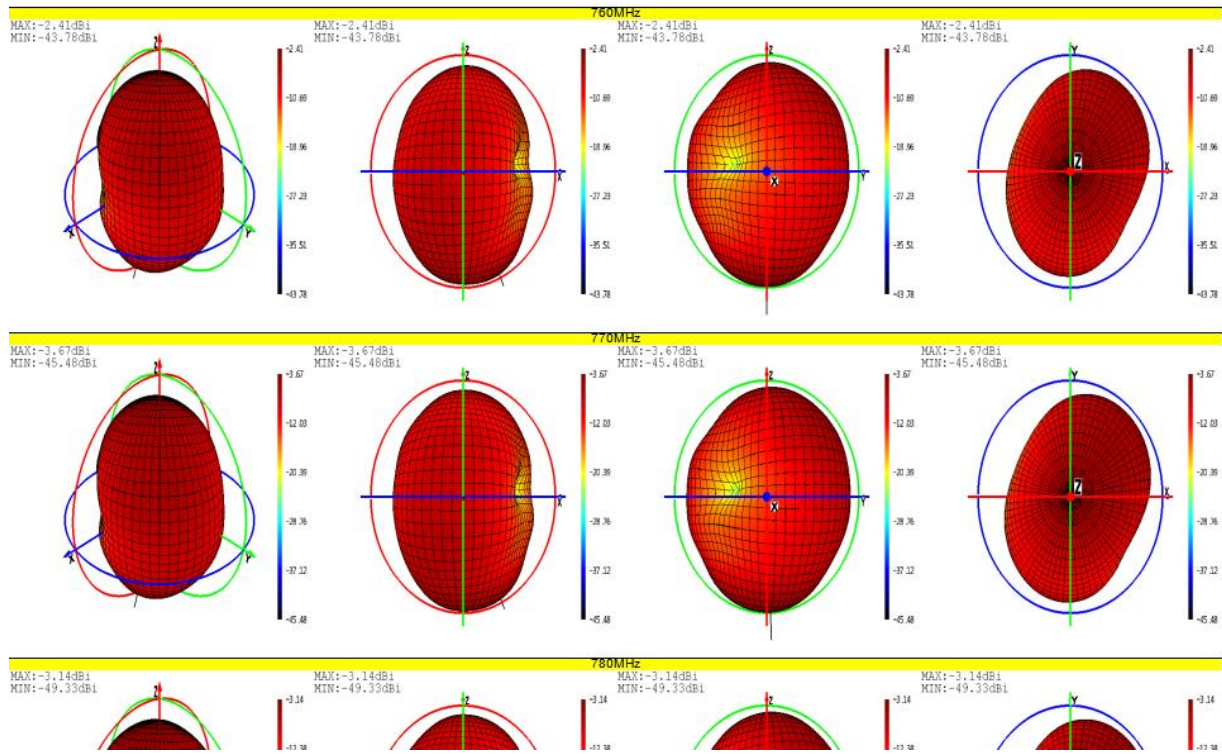
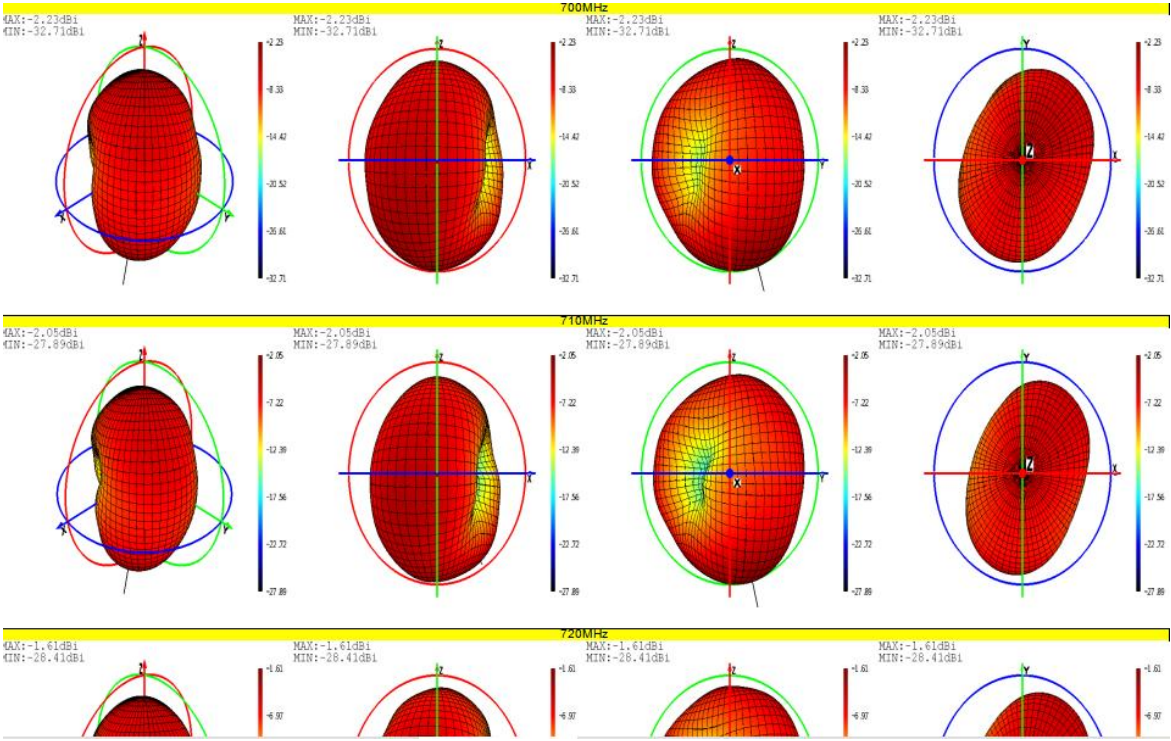
天线增益(Antenna gain)

Standard	Band	Frequency	Gain(dbi)				
FDD_LTE	FDD_B1	1925	0.85				
FDD_LTE	FDD_B2	1855	1.31				
FDD_LTE	FDD_B3	1715	0.14				
FDD_LTE	FDD_B4	1715	0.14				
FDD_LTE	FDD_B5	829	-2.15				
FDD_LTE	FDD_B7	2505	1.58				
FDD_LTE	FDD_B8	885	-1.63				
FDD_LTE	FDD_B12	707	-2.75	GSM	GSM850	824.2	-2.15
FDD_LTE	FDD_B13	782	-2.43	GSM	GSM900	890.2	-1.63
FDD_LTE	FDD_B17	709	-2.71	GSM	PCS1900	1850.2	1.31
FDD_LTE	FDD_B18	820	-2.19	GSM	DCS1800	1710.2	0.14
FDD_LTE	FDD_B19	835	-2.15	2.4GWIFI		2412	1.83
FDD_LTE	FDD_B20	837	-1.98	BT		2400	1.83
FDD_LTE	FDD_B25	1855	0.84	5GWIFI		5800	0.48
FDD_LTE	FDD_B26	819	-2.20	GPS		1575	1.64
FDD_LTE	FDD_B28	719	-2.58	5GNR	N1	1930	0.85
FDD_LTE	FDD_B66	1715	0.14	5GNR	N3	1720	0.14
FDD_LTE	TDD_B34	2015	0.90	5GNR	N5	829	-2.15
FDD_LTE	TDD_B38	2580	1.59	5GNR	N7	2510	1.58
FDD_LTE	TDD_B39	1890	0.84	5GNR	N8	885	-1.63
FDD_LTE	TDD_B40	2310	1.43	5GNR	N20	837	-1.98
FDD_LTE	TDD_B41	2580	1.61	5GNR	N28	708	-2.58
WCDMA	WCDMA_B1	1922.4	0.85	5GNR	N38	2575	1.59
WCDMA	WCDMA_B2	1852.4	1.31	5GNR	N40	2305	1.43
WCDMA	WCDMA_B4	1715	0.14	5GNR	N41	2590	1.61
WCDMA	WCDMA_B5	826.4	-2.15	5GNR	N77	3750	1.57
WCDMA	WCDMA_B8	882.4	-1.63	5GNR	N78	3750	1.57
CDMA	BC0	824	-2.14				
CDMA	BC1	1922	0.85				

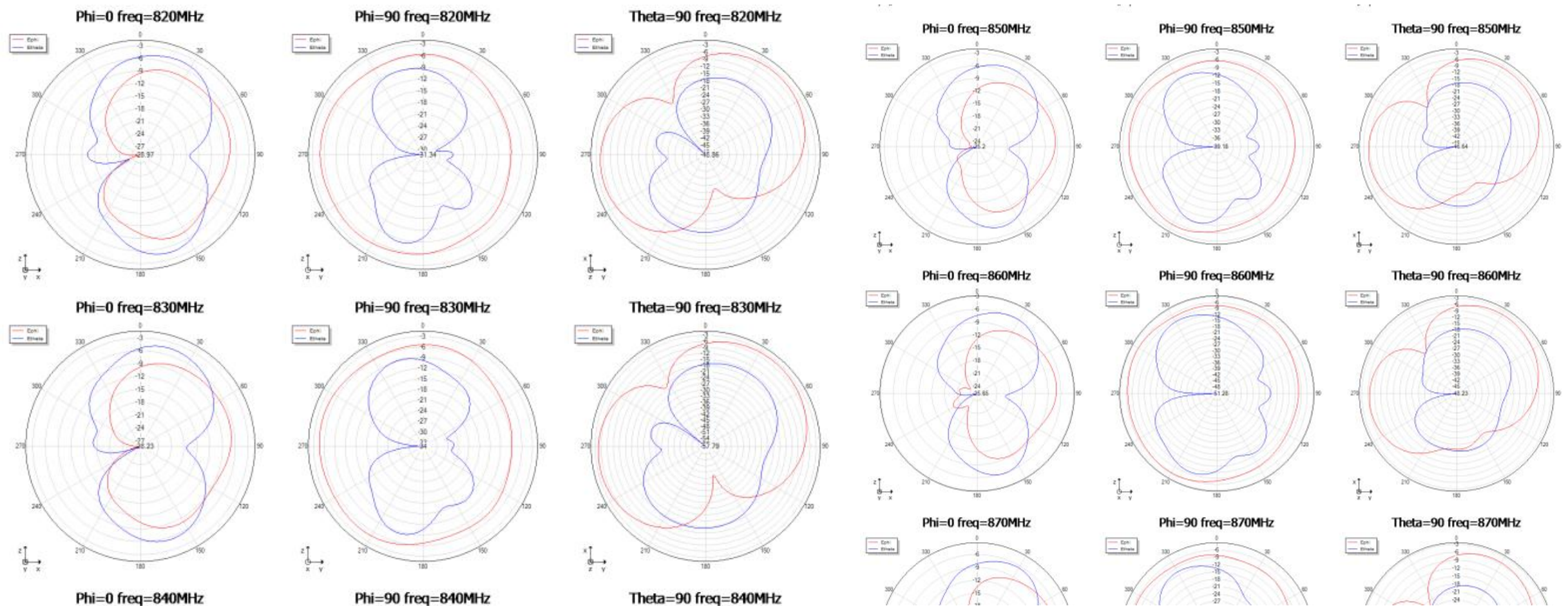
主天线700MHZ苹果图与方向图Main antenna 700MHz Apple diagram and directional diagram



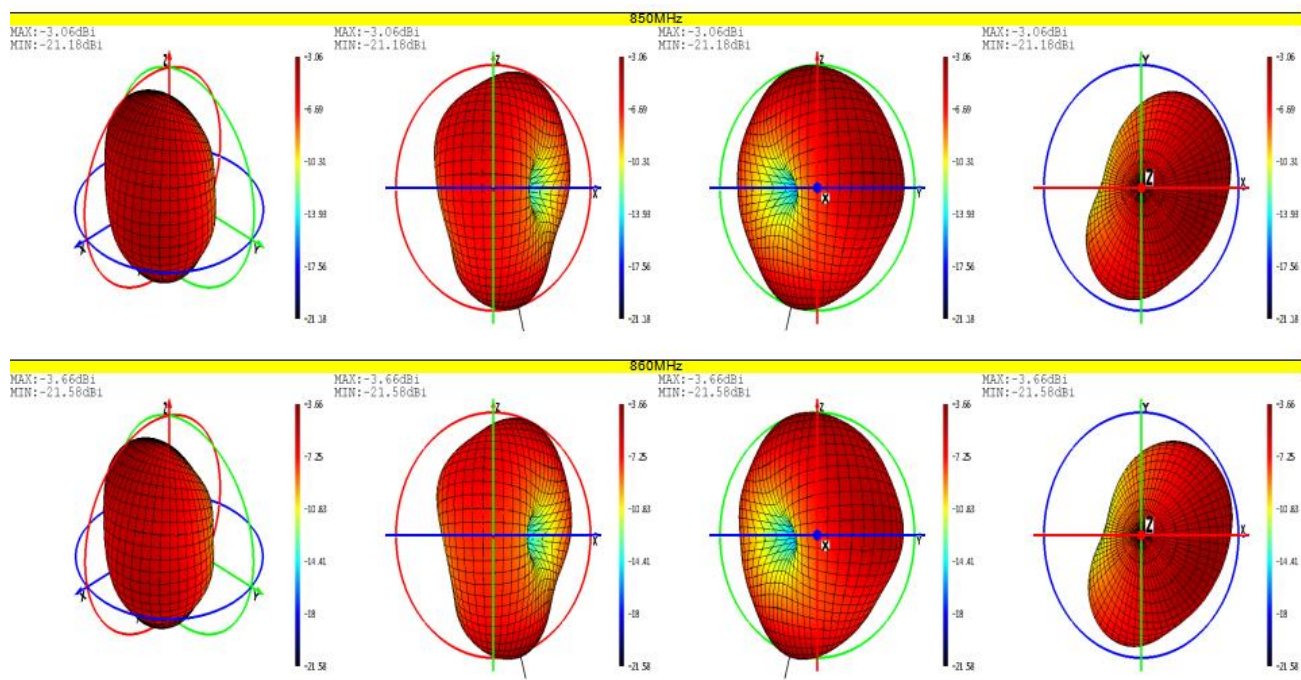
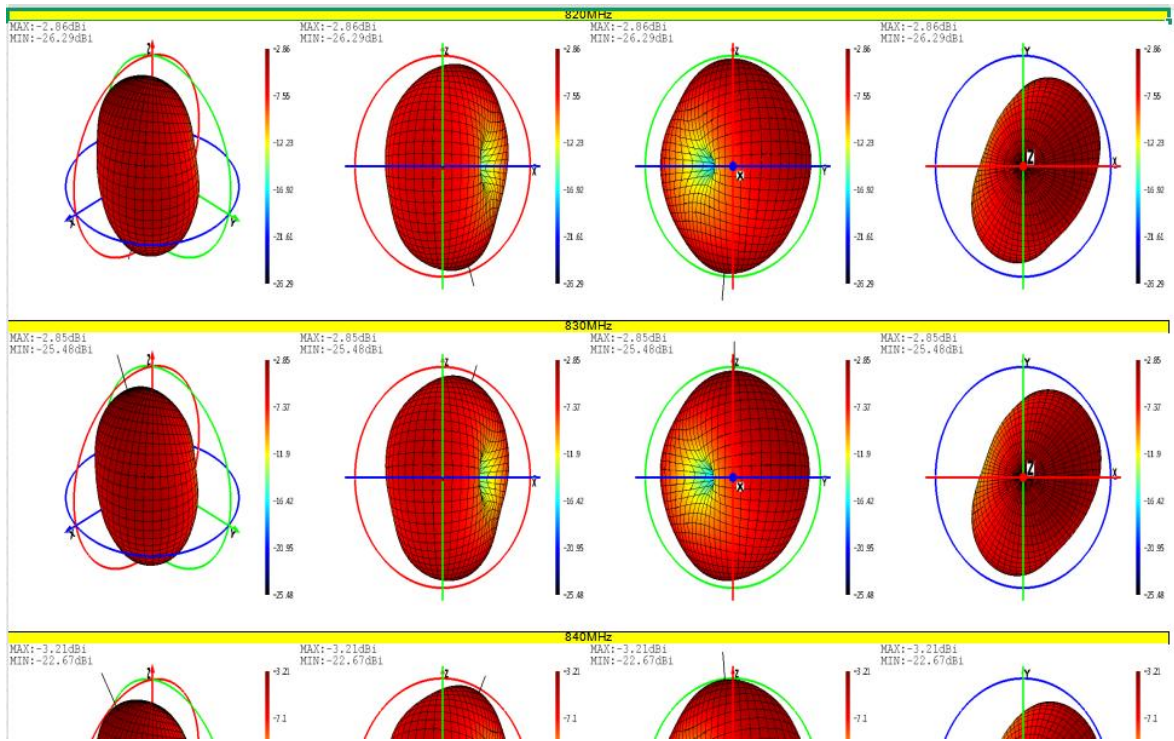
主天线700MHZ苹果图与方向图Main antenna 700MHZ
Apple diagram and directional diagram



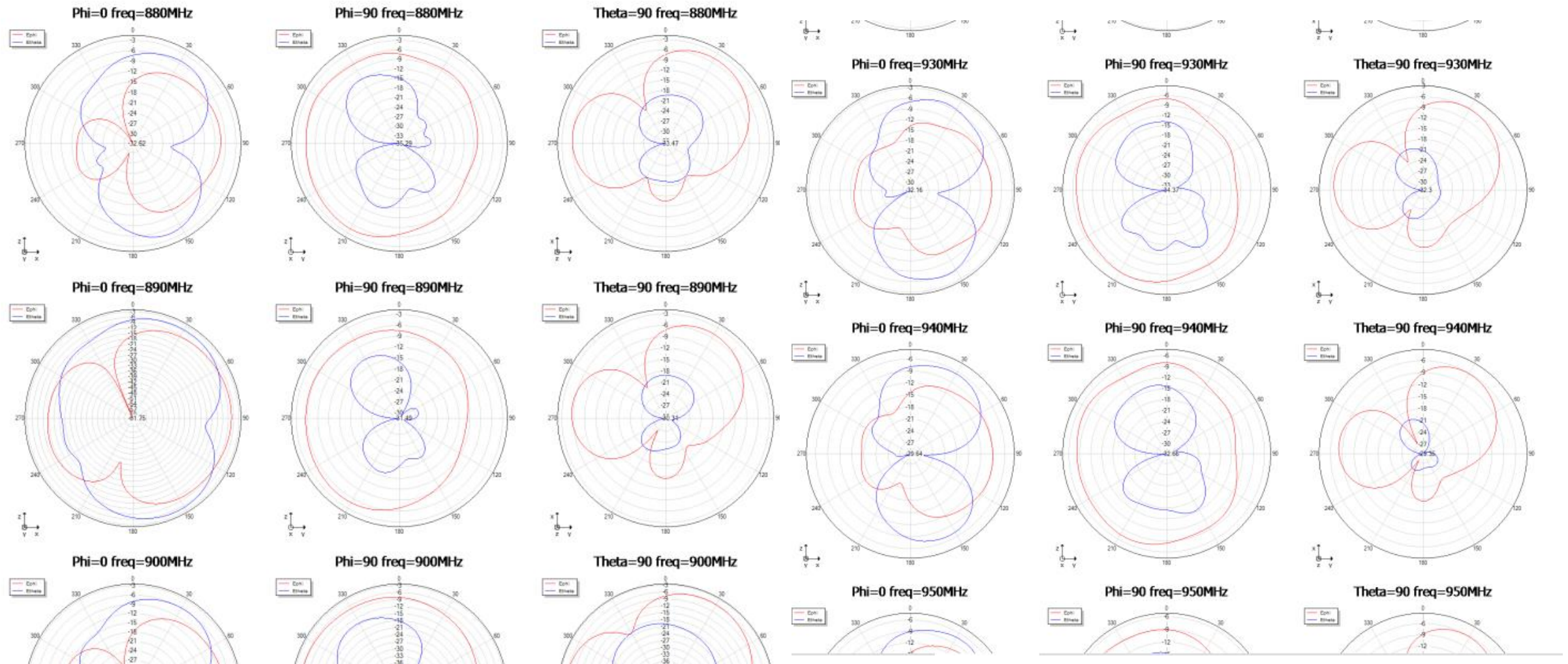
主天线800MHZ苹果图与方向图Main antenna 800MHz
Apple diagram and directional diagram



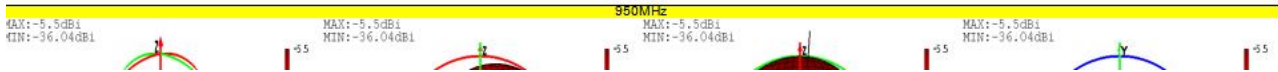
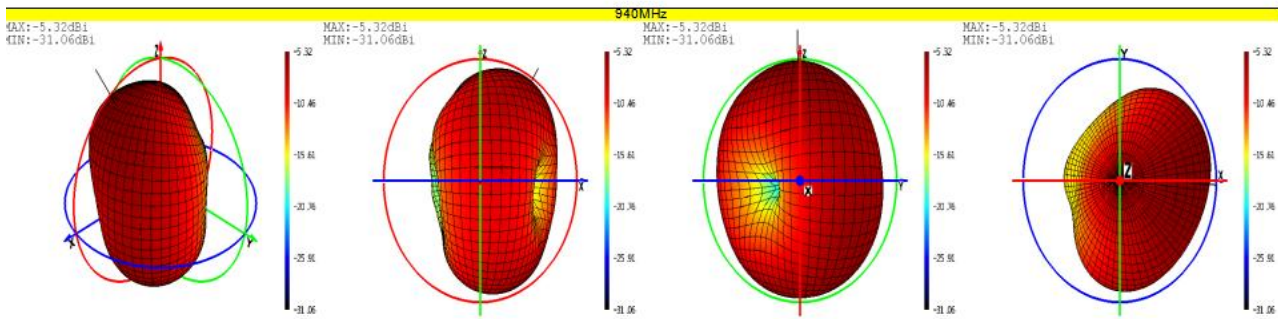
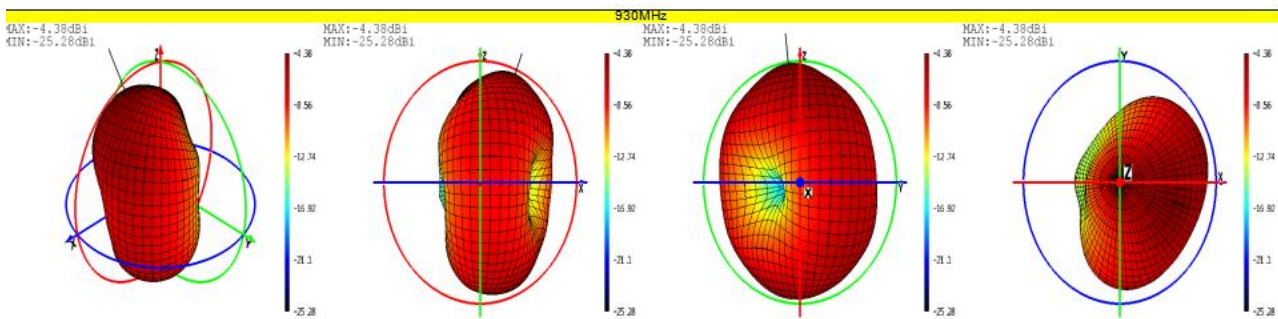
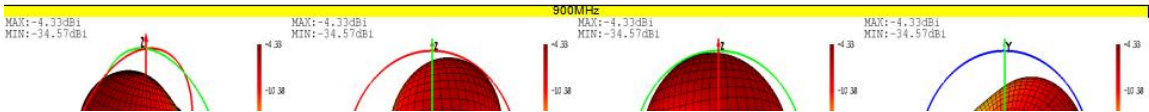
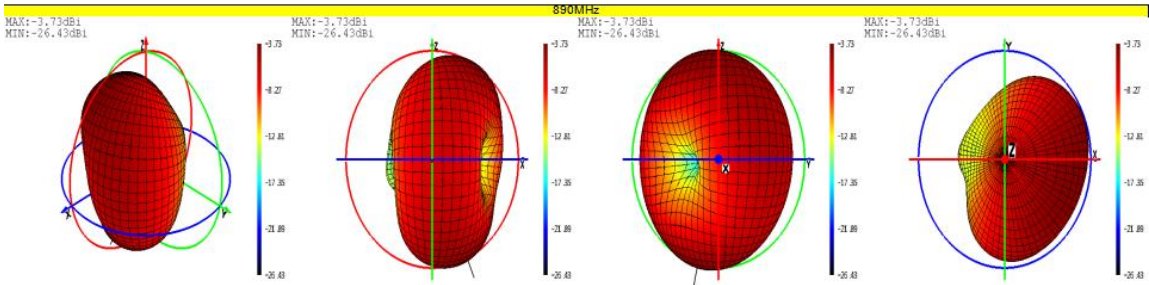
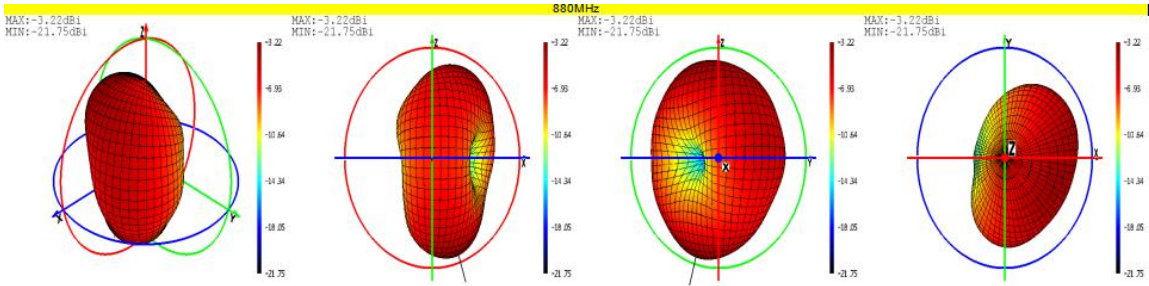
主天线800MHZ苹果图与方向图Main antenna 800MHz Apple diagram and directional diagram



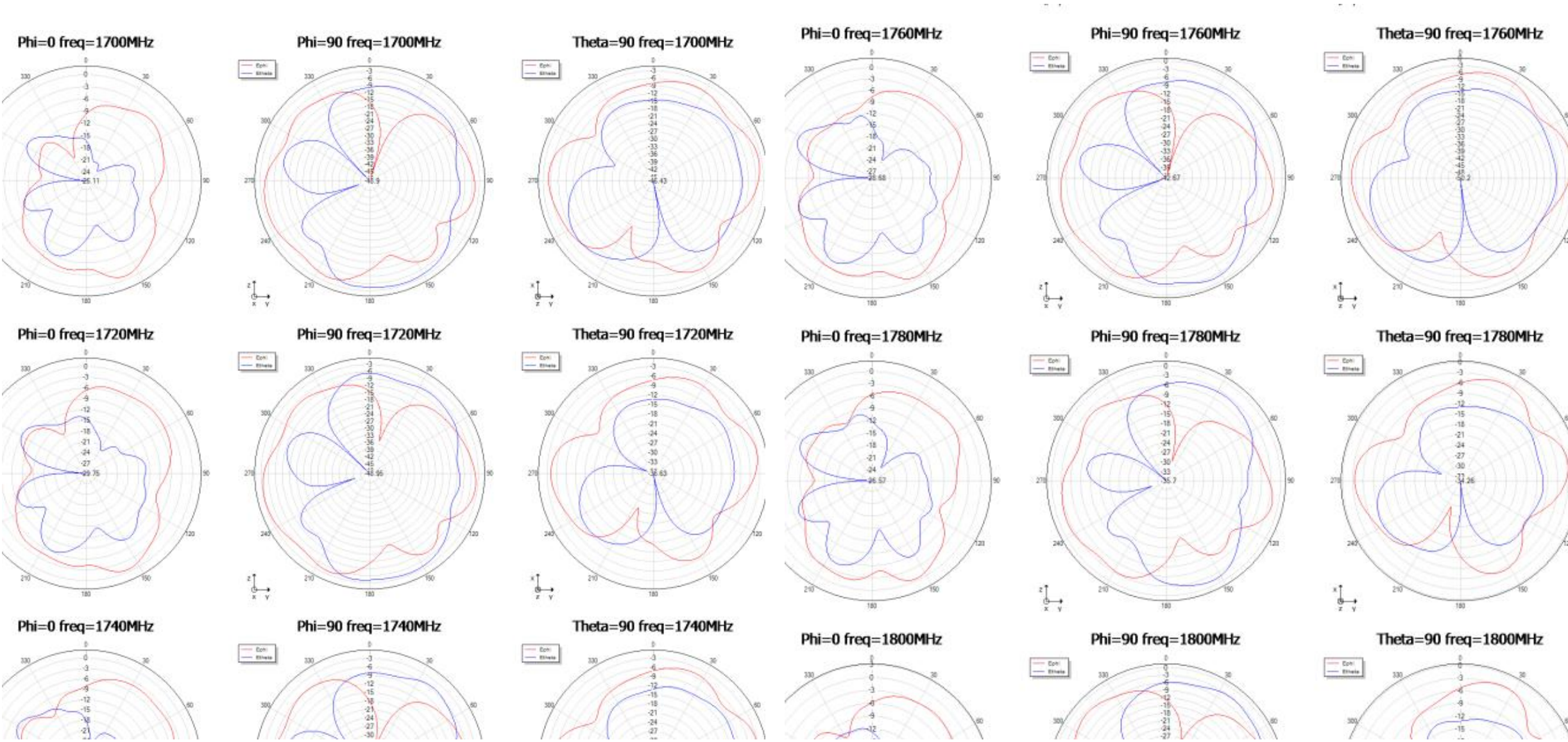
主天线900MHZ苹果图与方向图Main antenna 900MHz Apple diagram and directional diagram



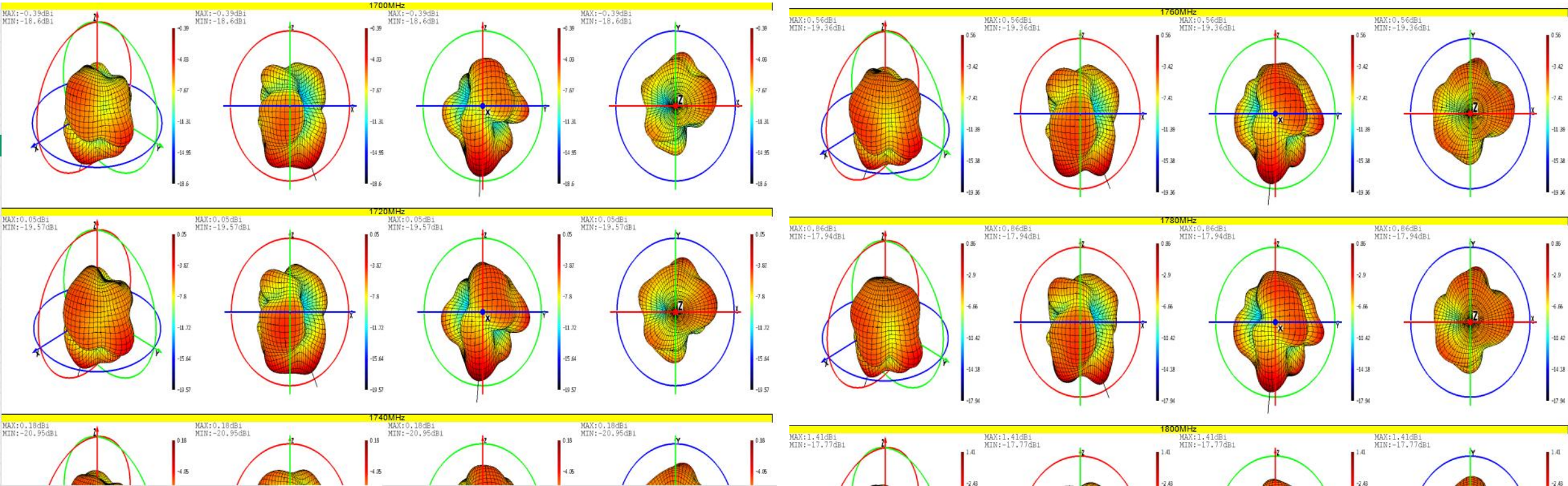
主天线1700MHZ苹果图与方向图Main antenna 1700MHZ
Apple diagram and directional diagram



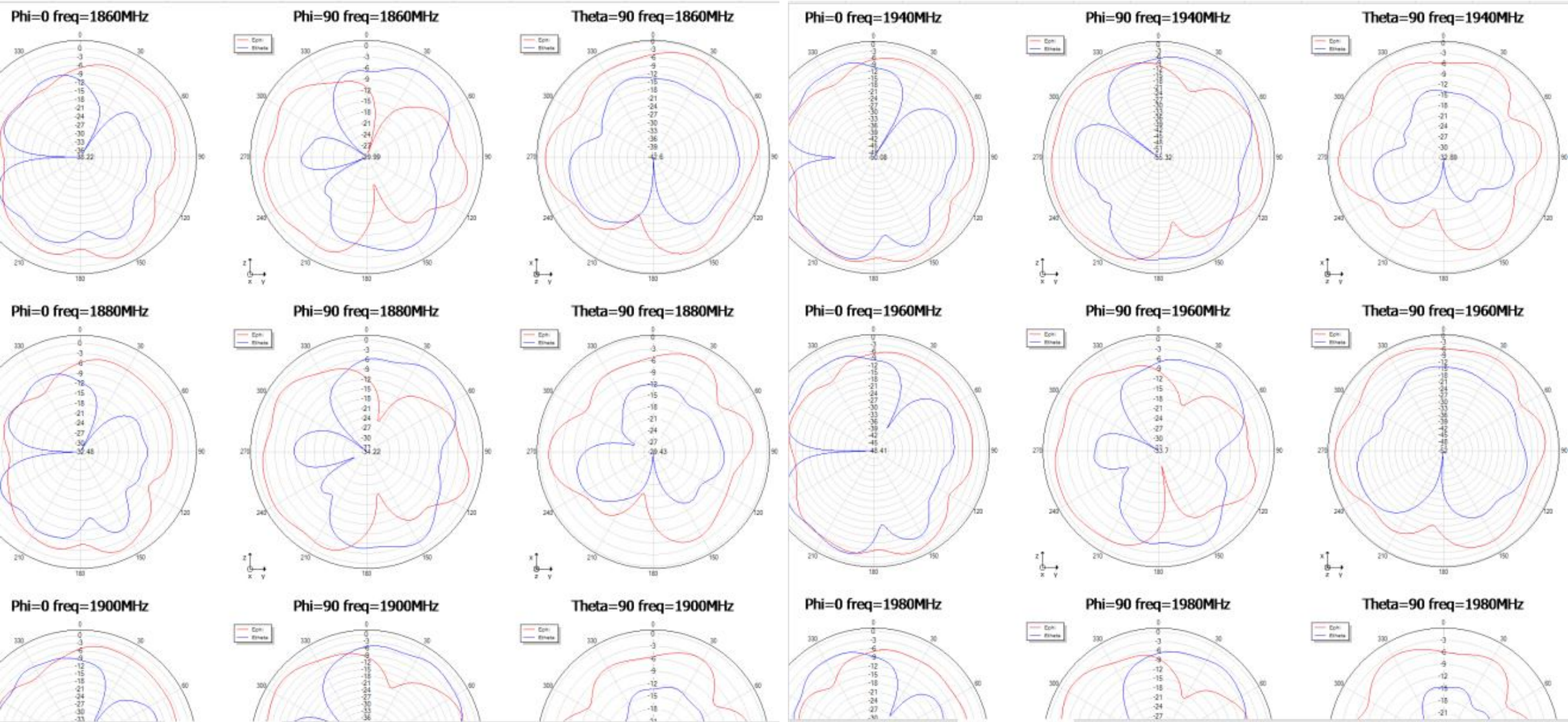
主天线1700MHZ苹果图与方向图Main antenna 1700MHz
Apple diagram and directional diagram



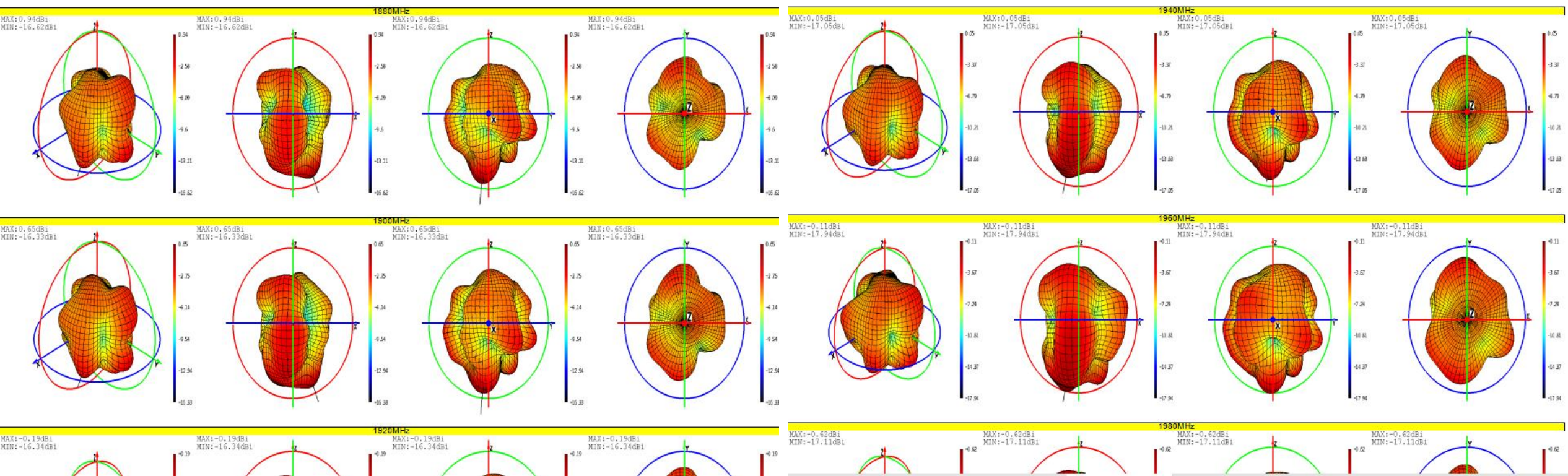
主天线1900MHZ苹果图与方向图Main antenna 1900MHZ
Apple diagram and directional diagram



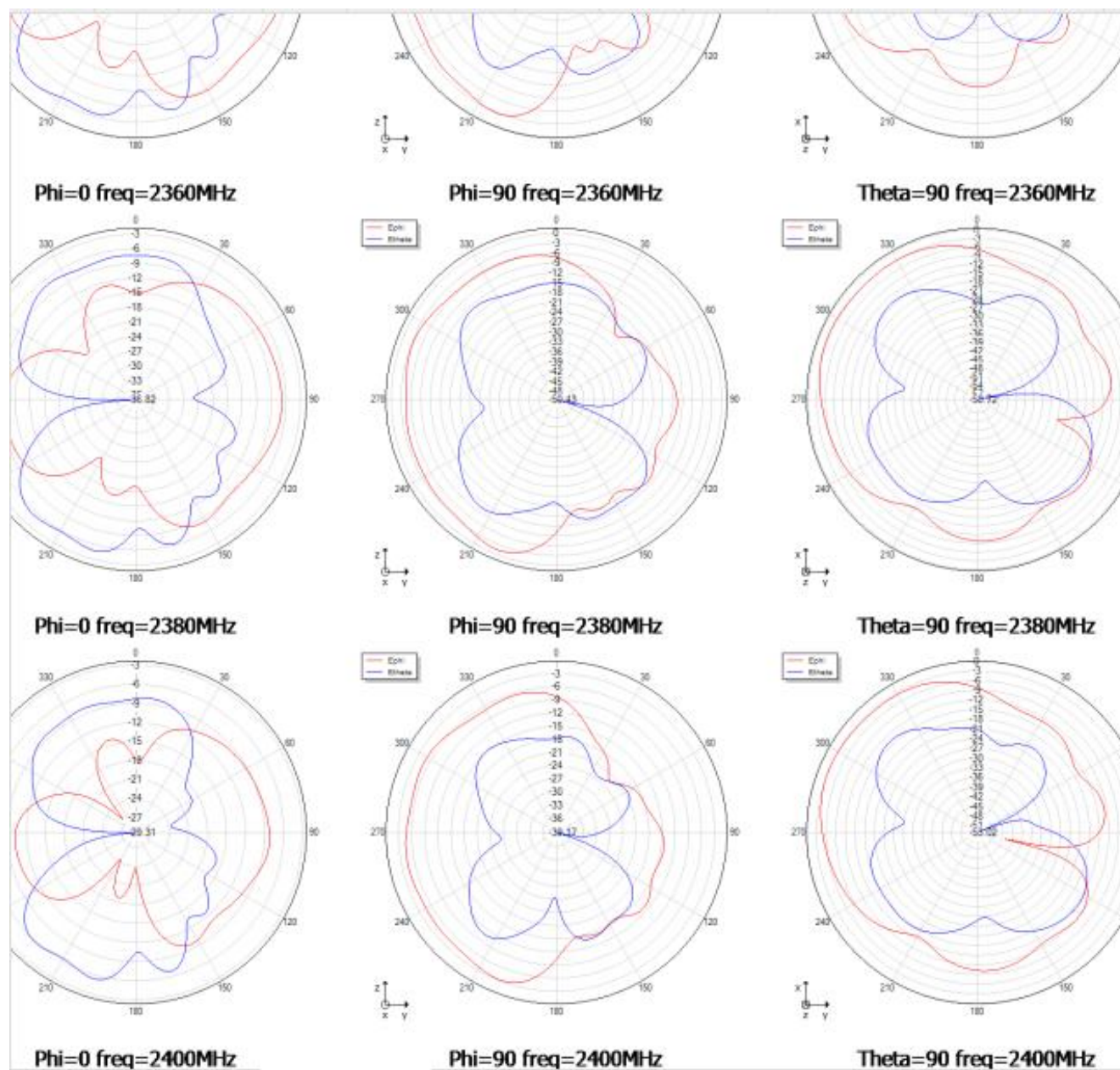
主天线1900MHZ苹果图与方向图Main antenna 1900MHz
Apple diagram and directional diagram



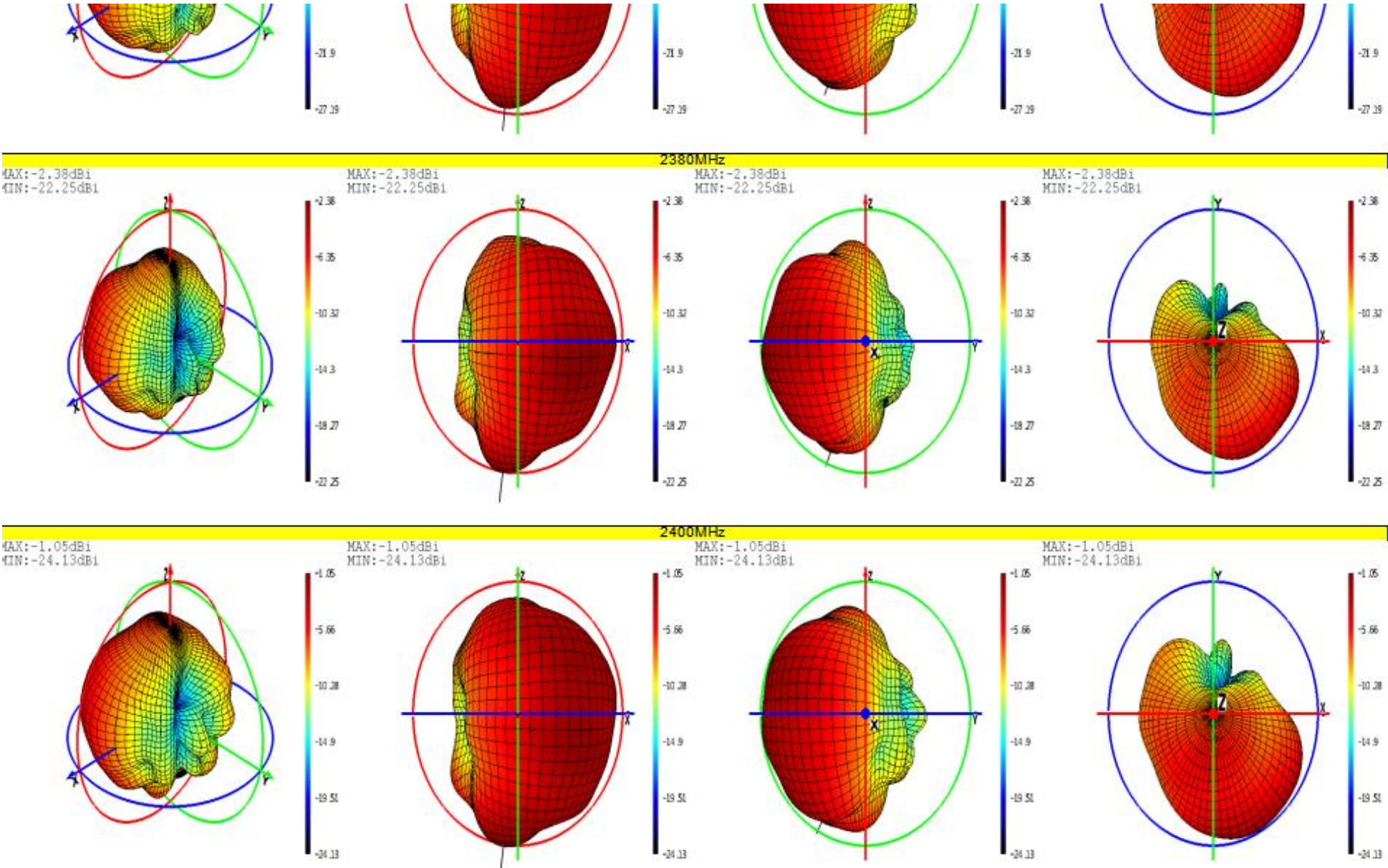
主天线2300MHZ苹果图与方向图Main antenna 2300MHZ Apple diagram and directional diagram



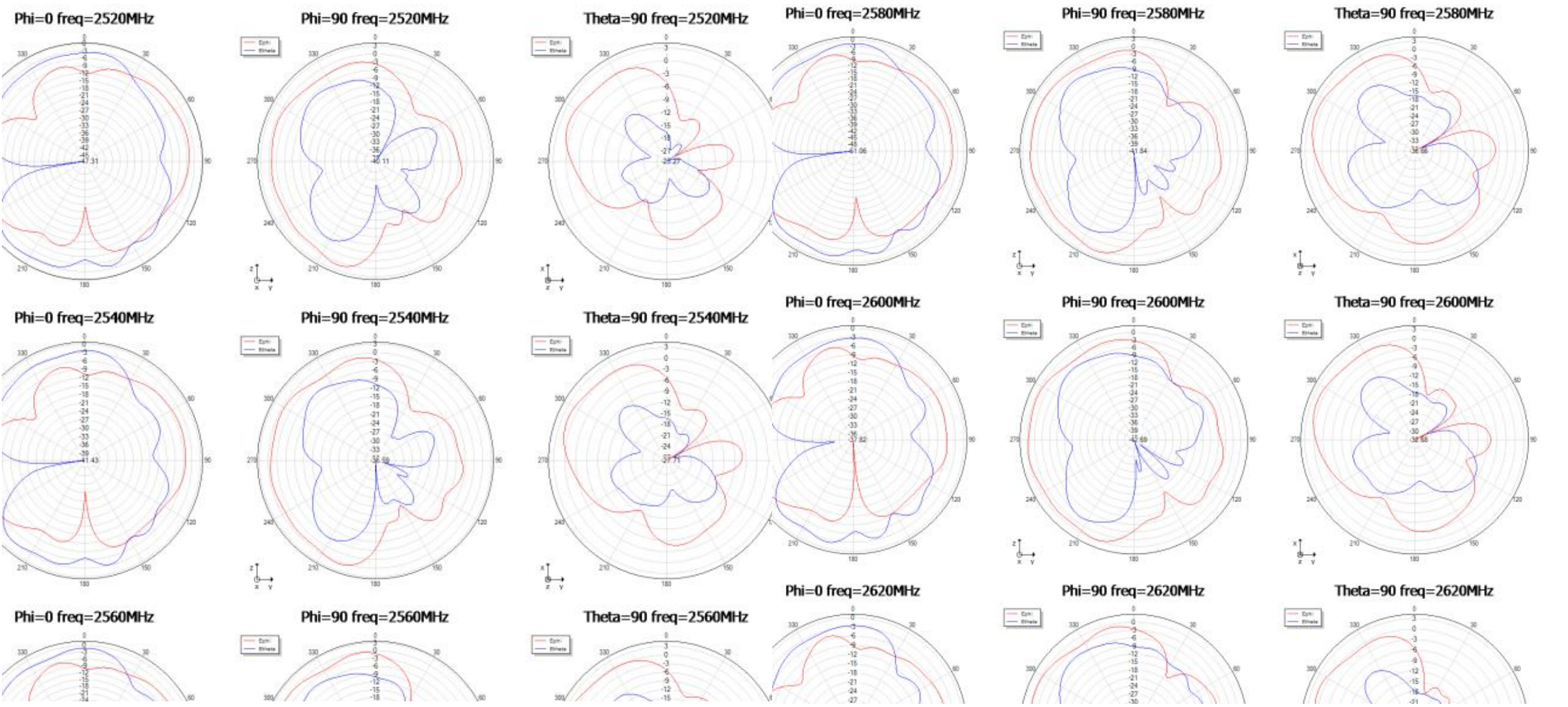
主天线2300MHZ苹果图与方向图Main antenna 2300MHz Apple diagram and directional diagram



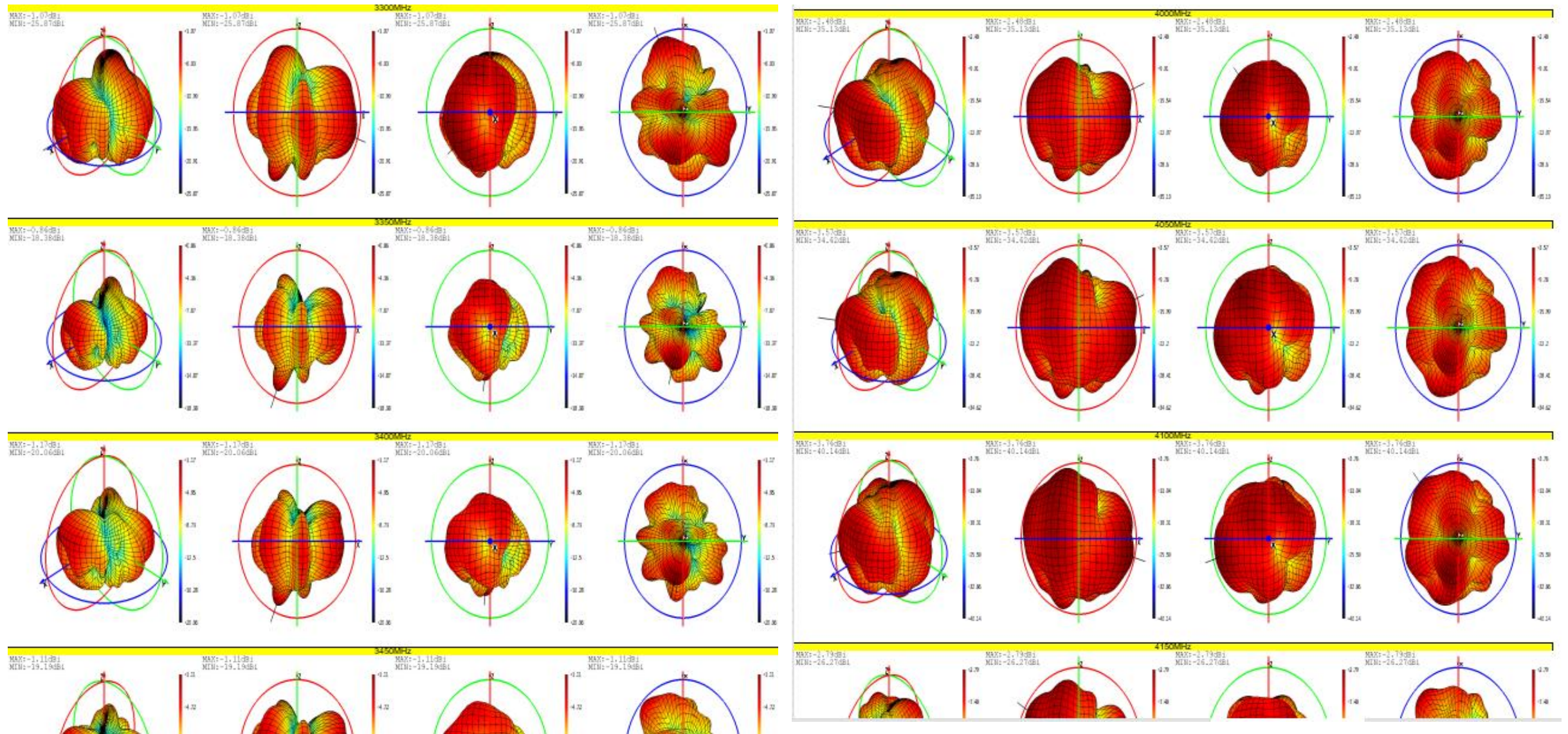
主天线2500MHZ苹果图与方向图Main antenna 2500MHZ
Apple diagram and directional diagram



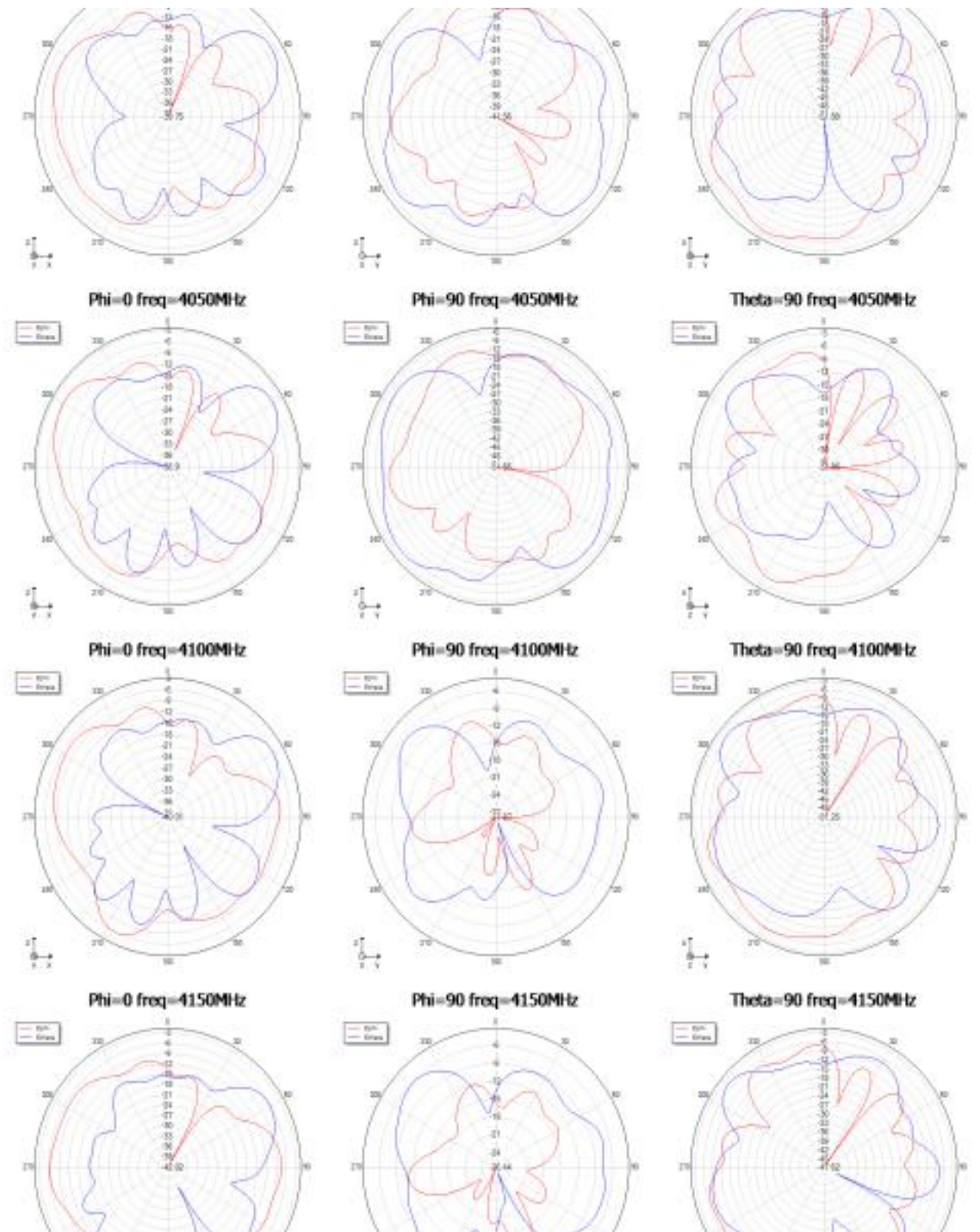
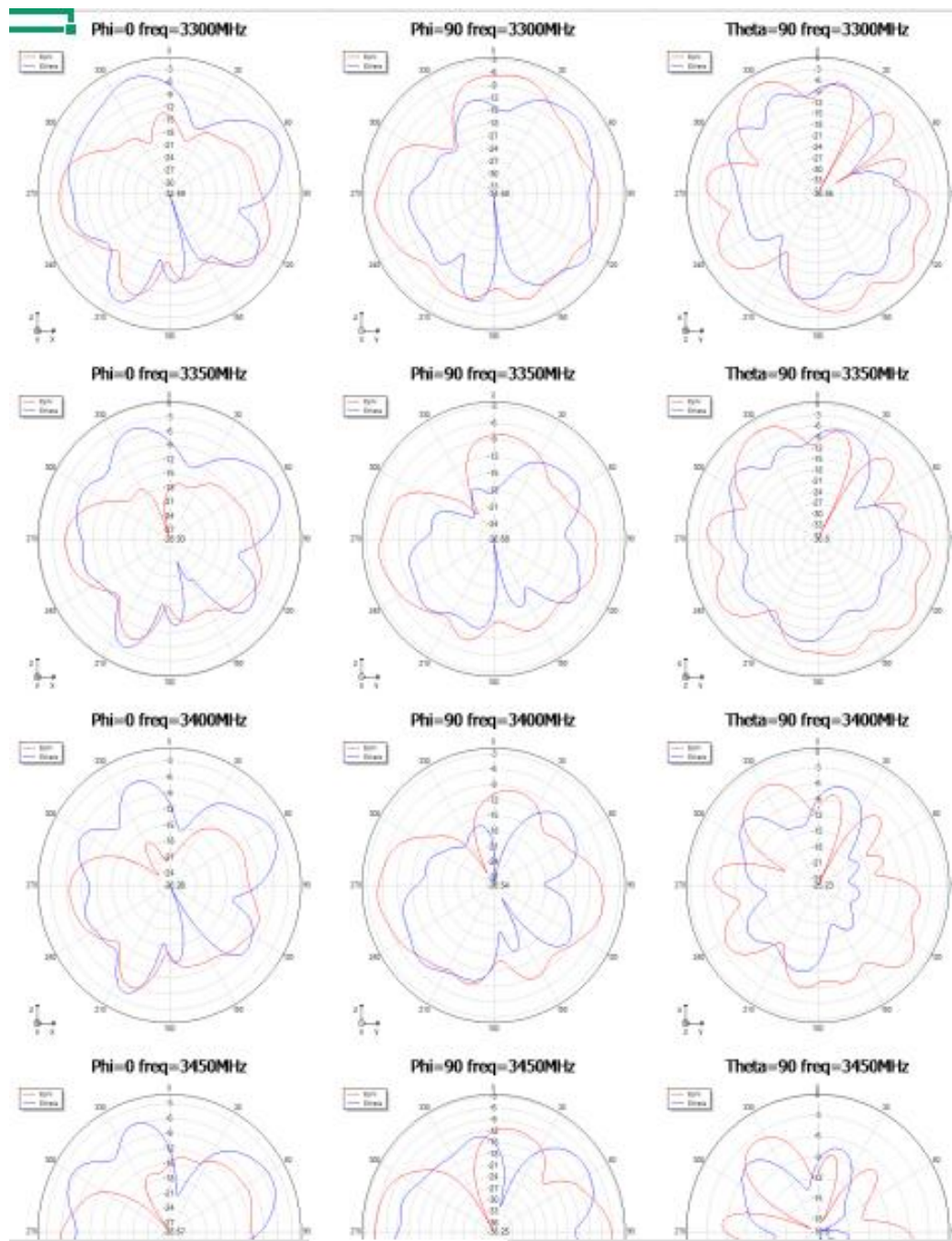
主天线2500MHZ苹果图与方向图Main antenna 2500MHz
Apple diagram and directional diagram



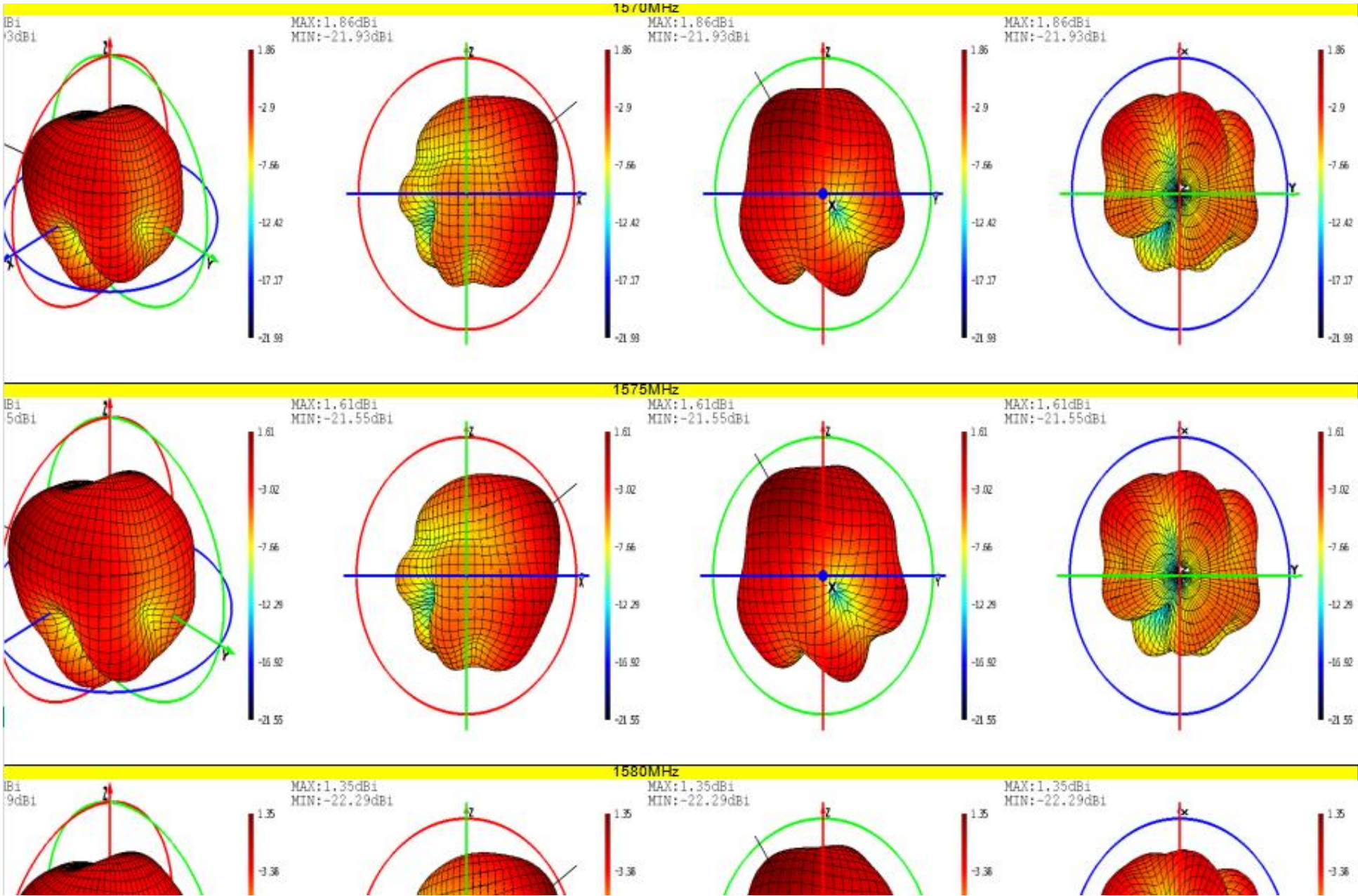
主天线3300-4200MHz苹果图与方向图Main antenna 3300-4200MHz Apple diagram and directional diagram



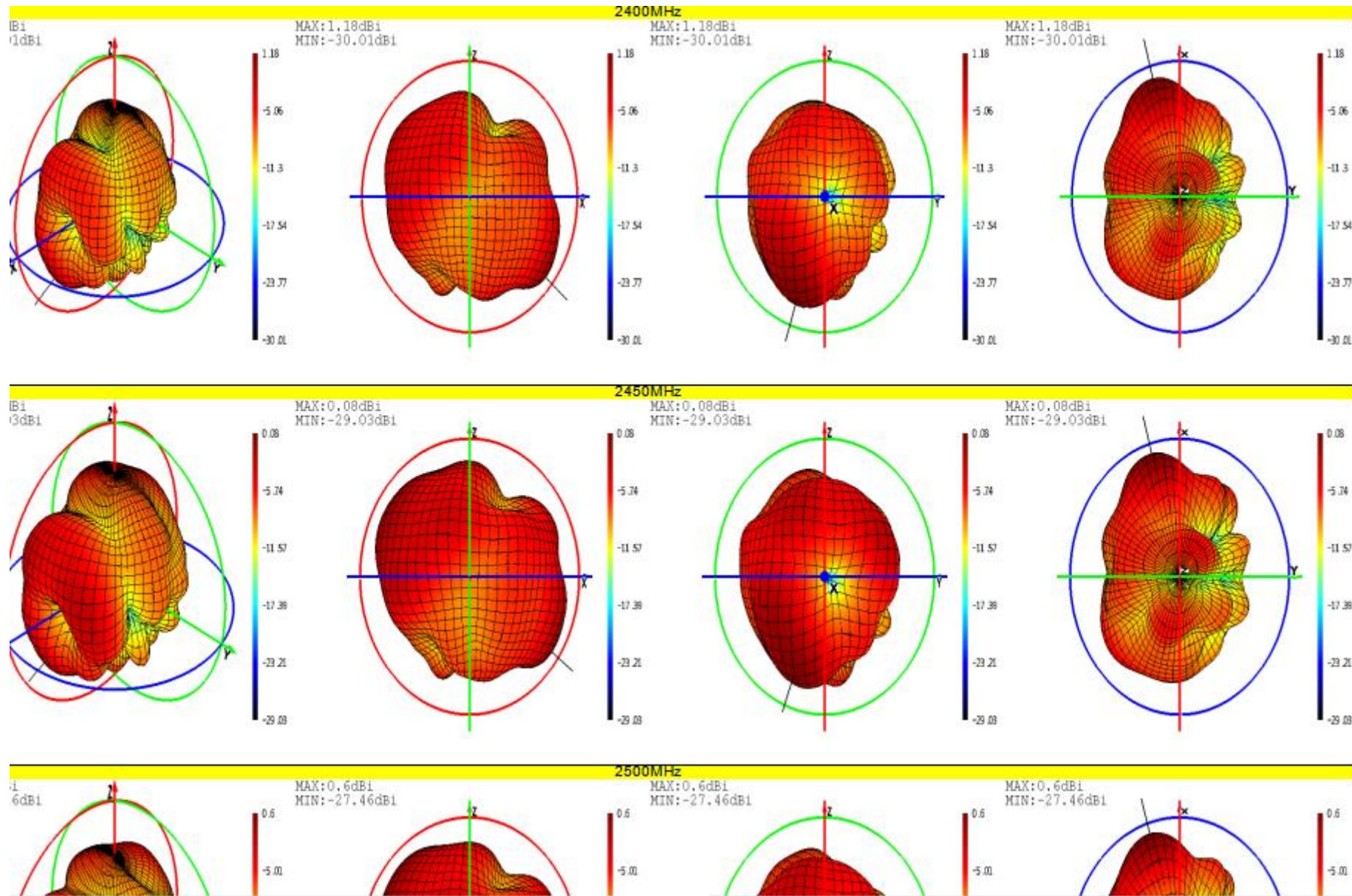
主天线3300-4200MHz苹果图与方向图Main antenna 3300-4200MHz Apple diagram and directional diagram



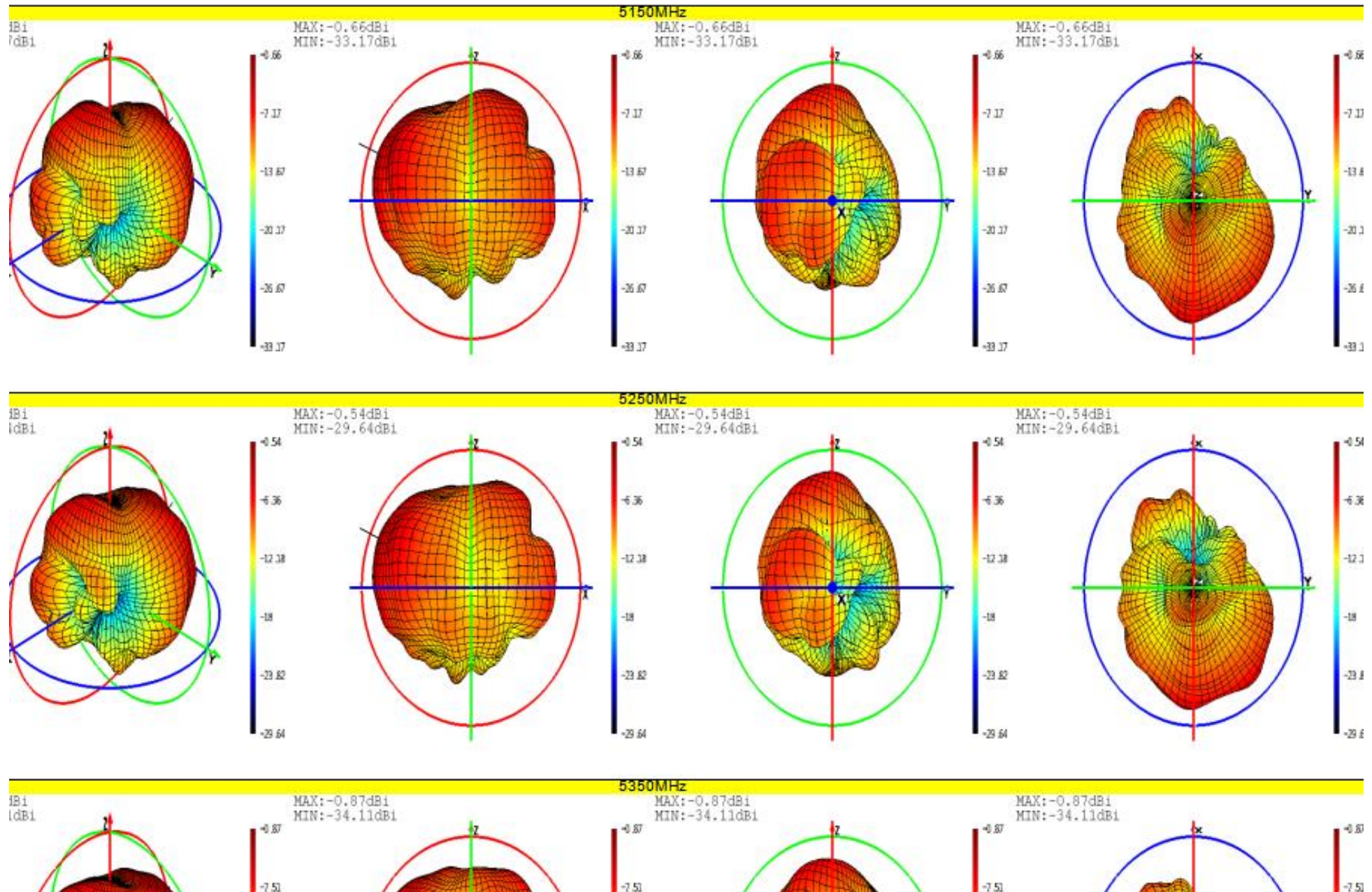
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



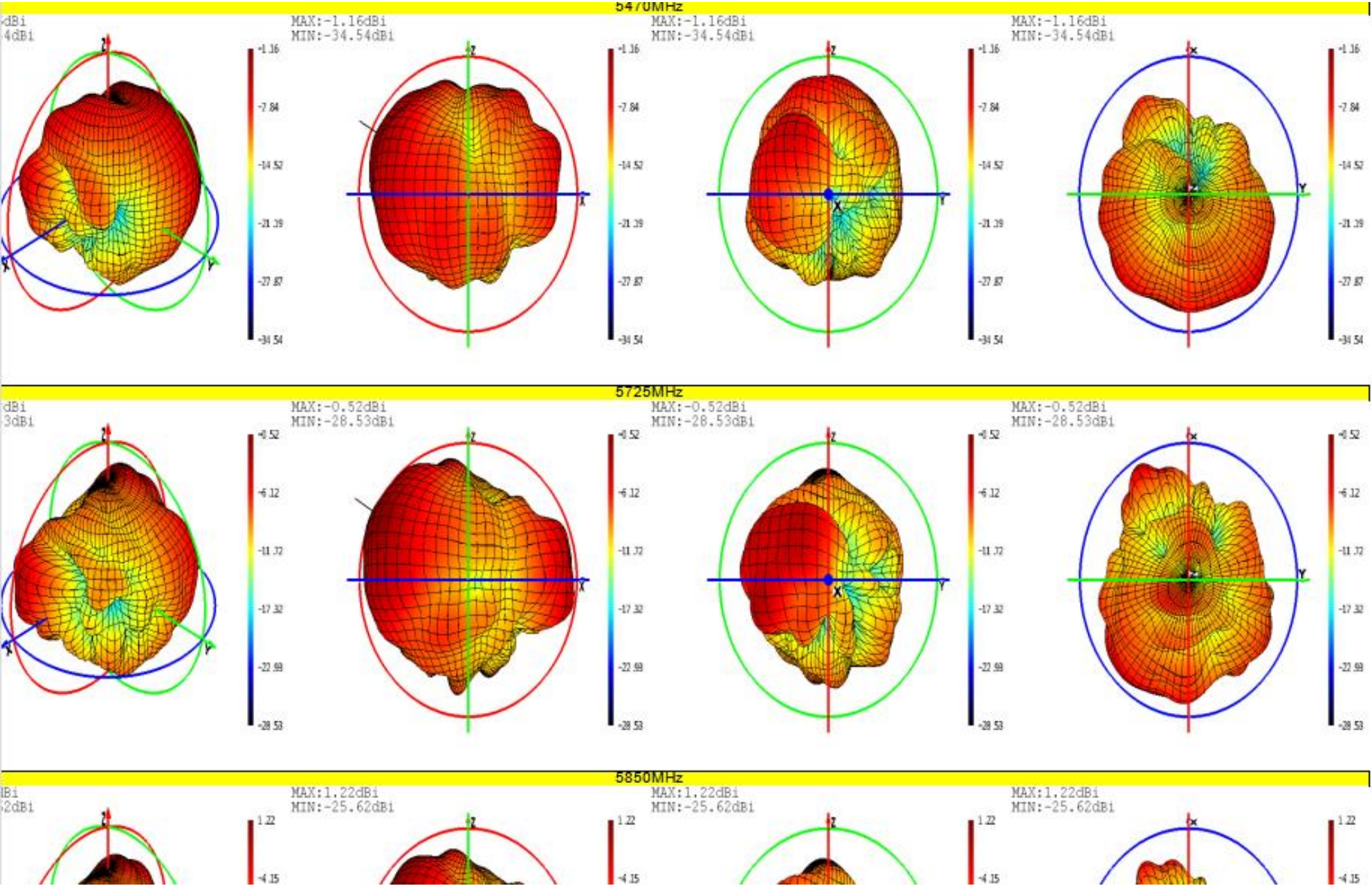
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



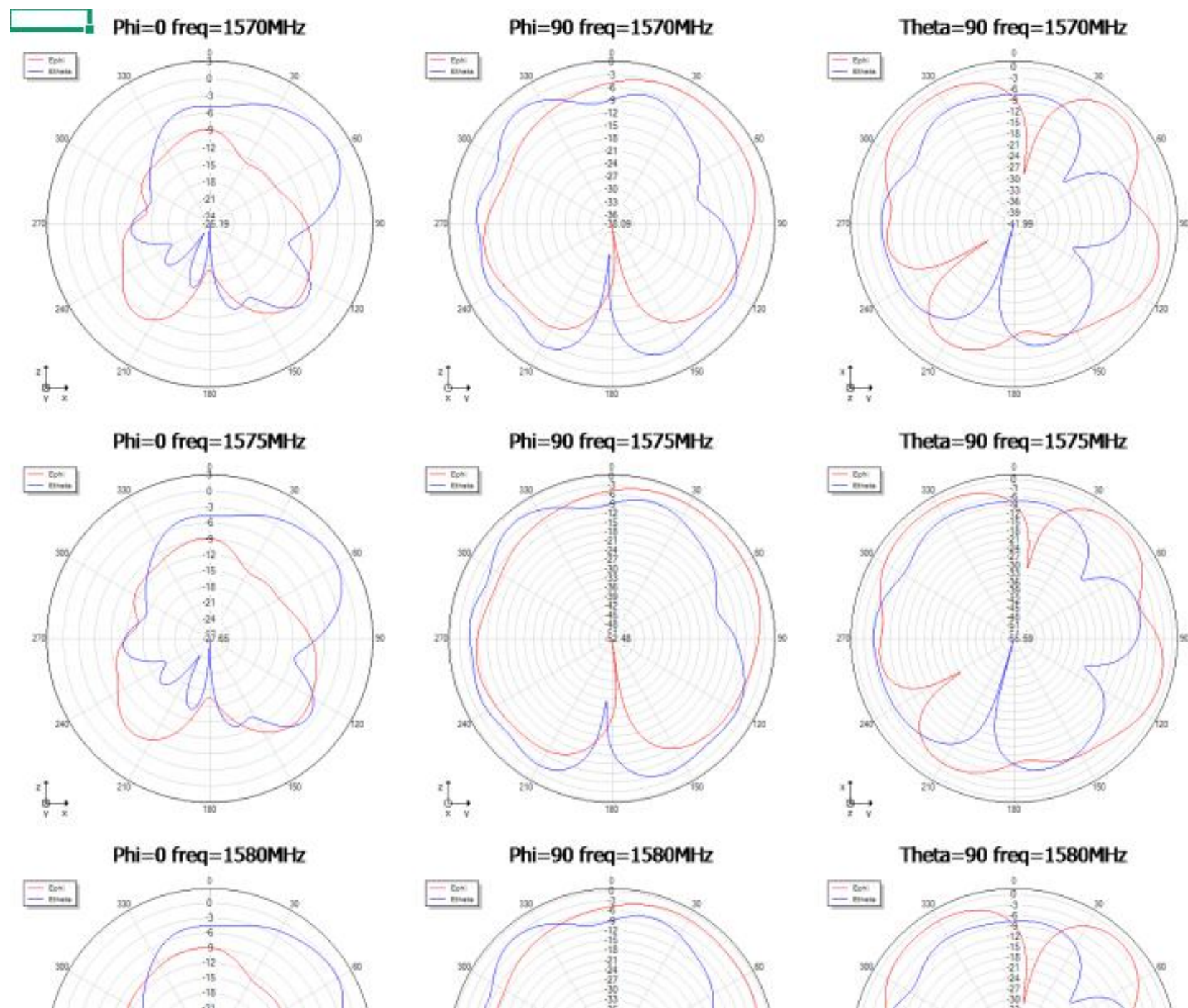
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



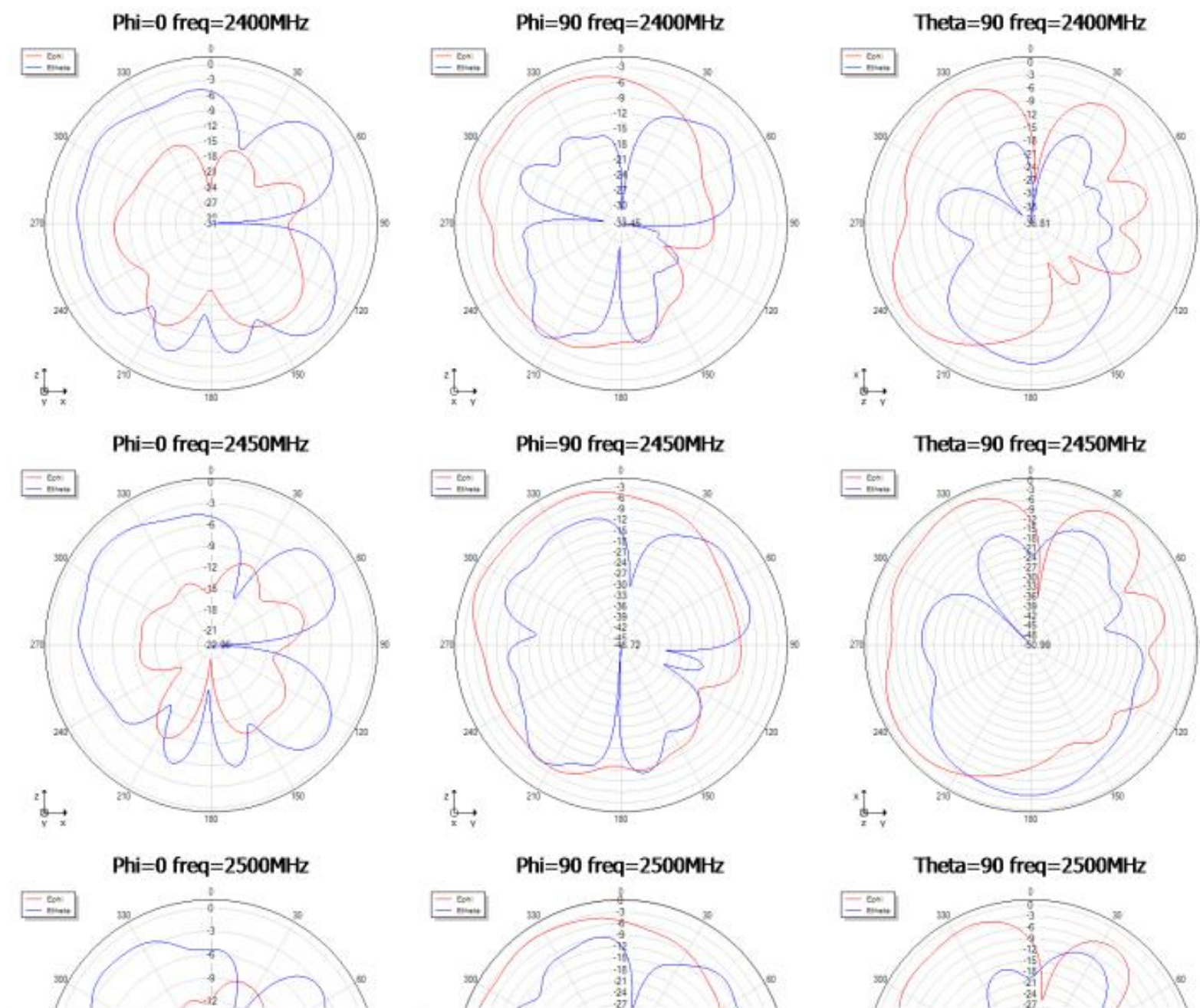
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



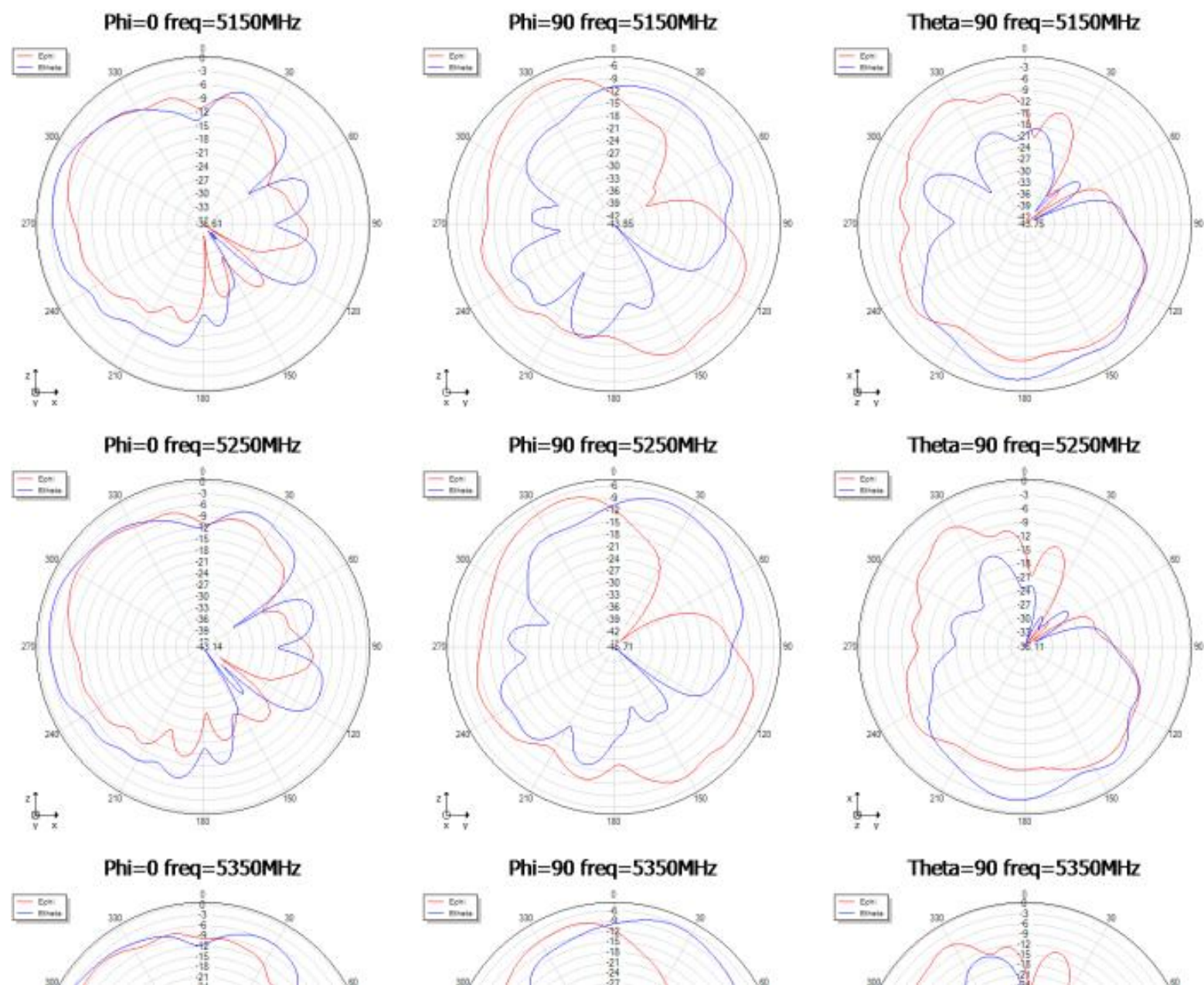
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



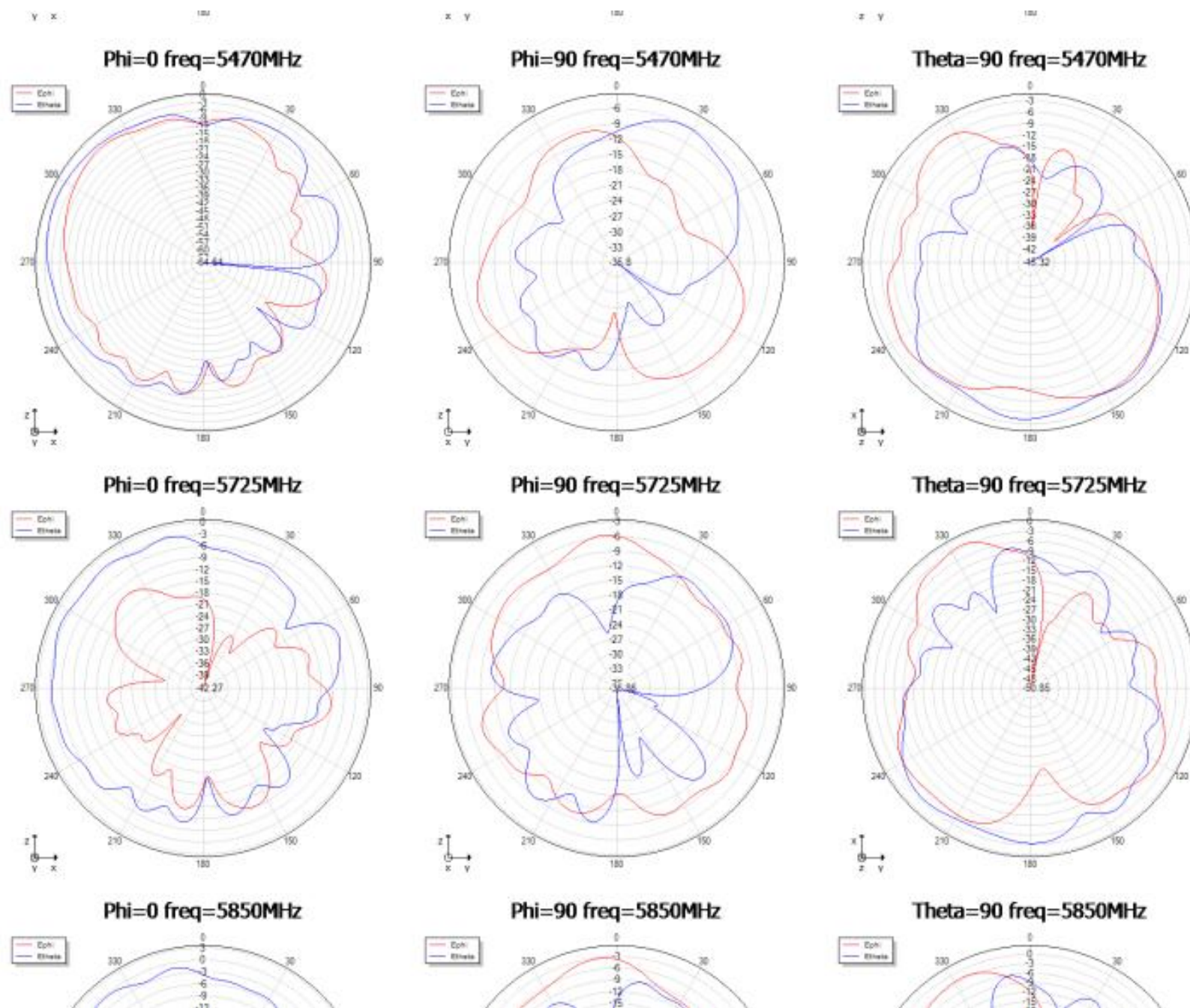
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



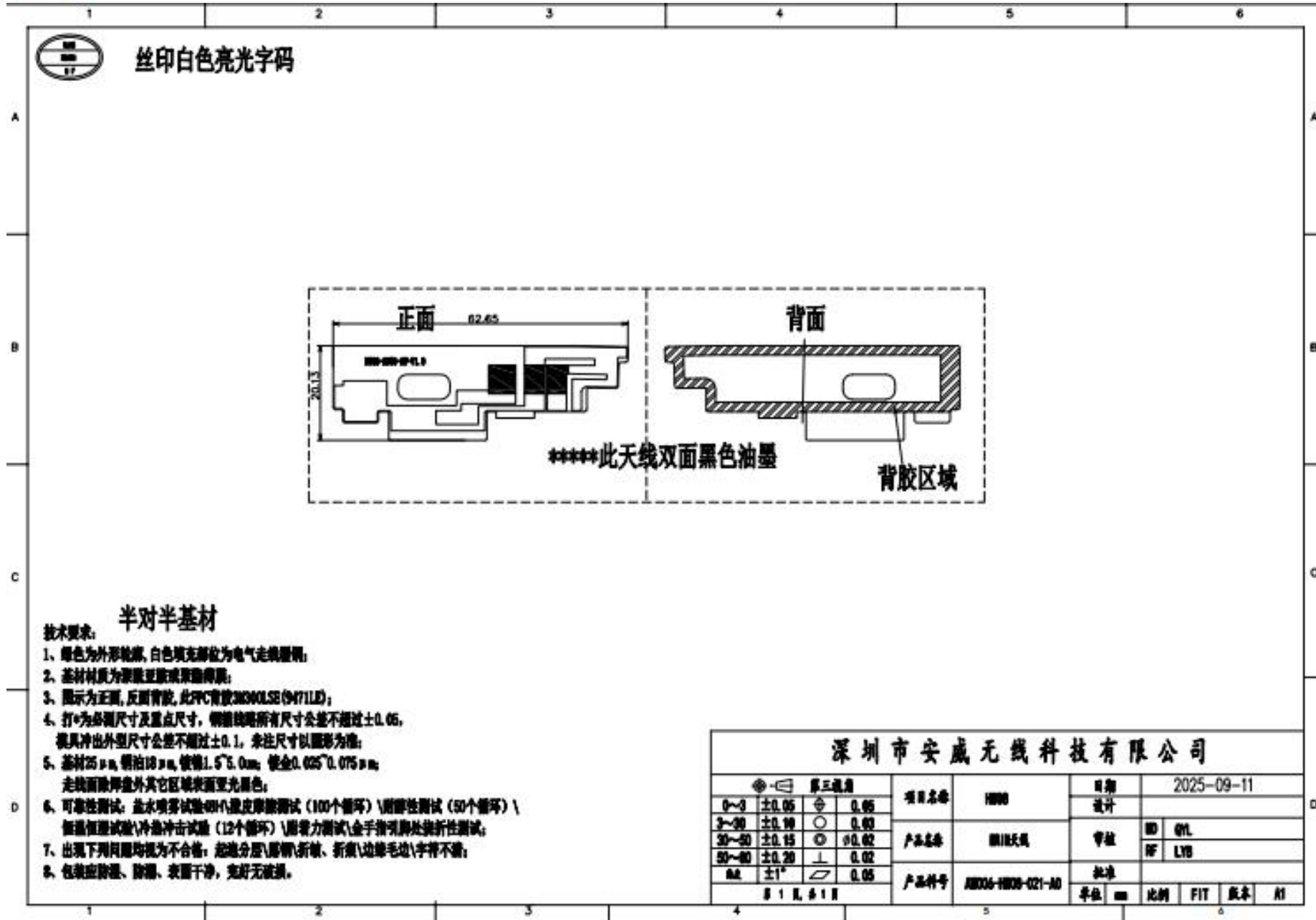
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



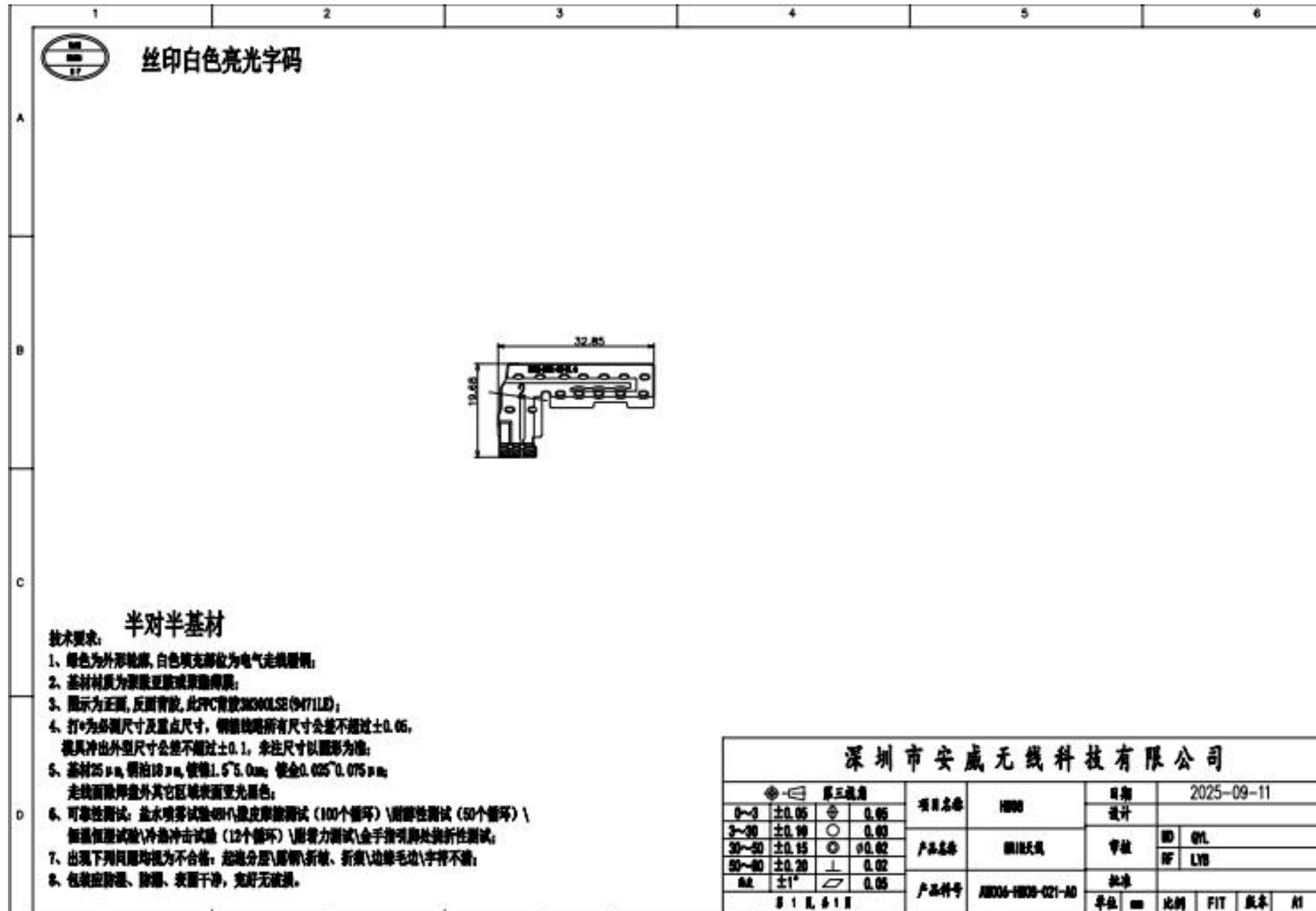
3合1苹果图与方向图three-in-one Apple diagram and directional diagram



ANT0 天线尺寸 antenna size



ANT1 天线尺寸 antenna size



ANT2 天线尺寸 antenna size

丝印白色亮光字码

半对半基材

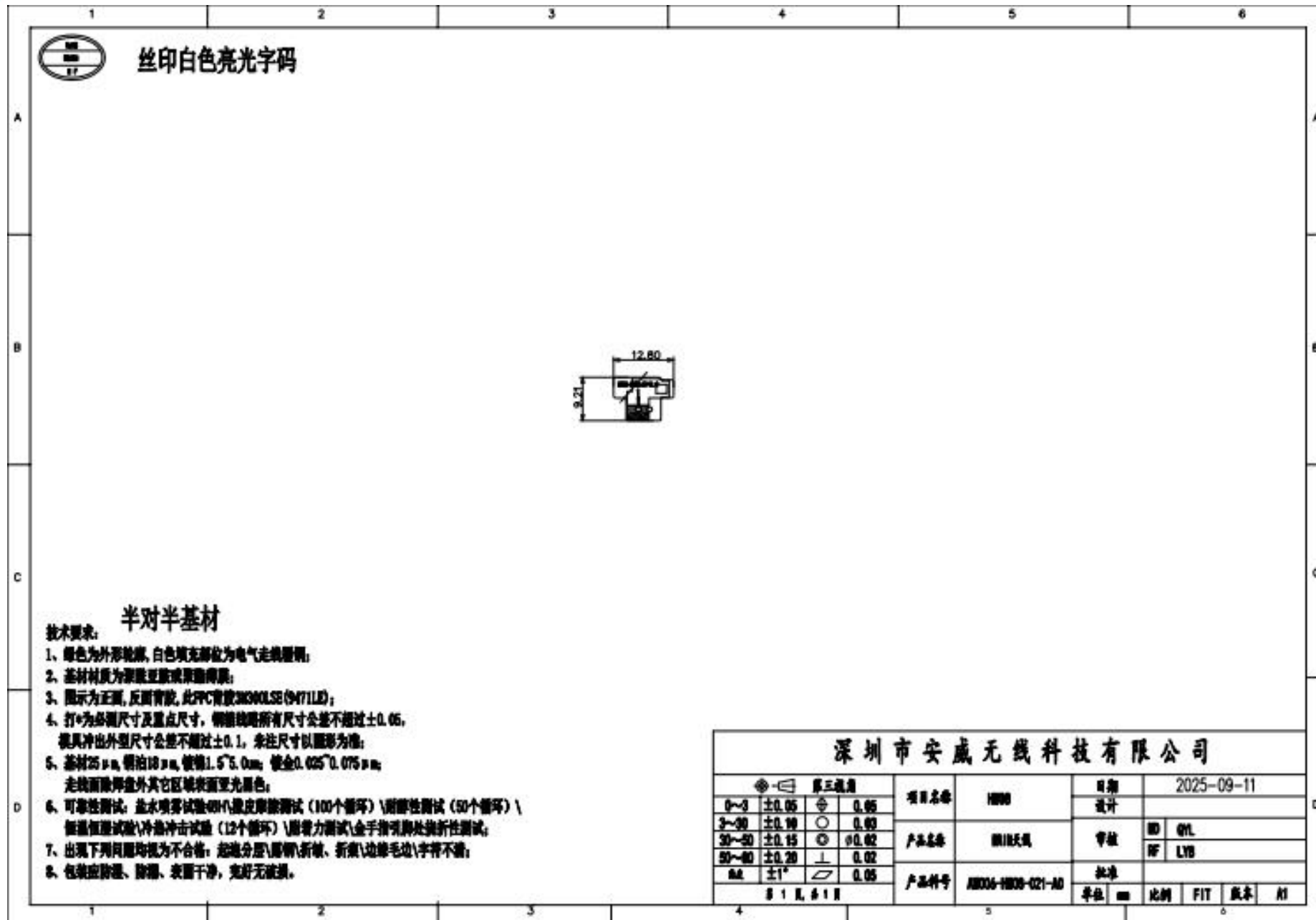
技术要求:

- 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四氟乙烯;
- 图示为正面,反面背胶,此FPC背胶3M900LSB(9471LE);
- 打*为关键尺寸及重点尺寸,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 $25\mu m$,铜箔 $18\mu m$,镀锡 $1.5\sim 3.0um$,镀金 $0.025\sim 0.075\mu m$;
走线面除焊盘外其它区域表面亚光黑色;
- 可靠性测试:盐雾喷雾试验(48h)\胶带摩擦测试(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\金手指引脚处疲劳折性测试;
- 出现下列问题均视为不合格:起翘分层\露铜\折痕、折裂\边缘毛边\字符不清;
- 包装应防潮、防霉、表面干净,完好无破损。

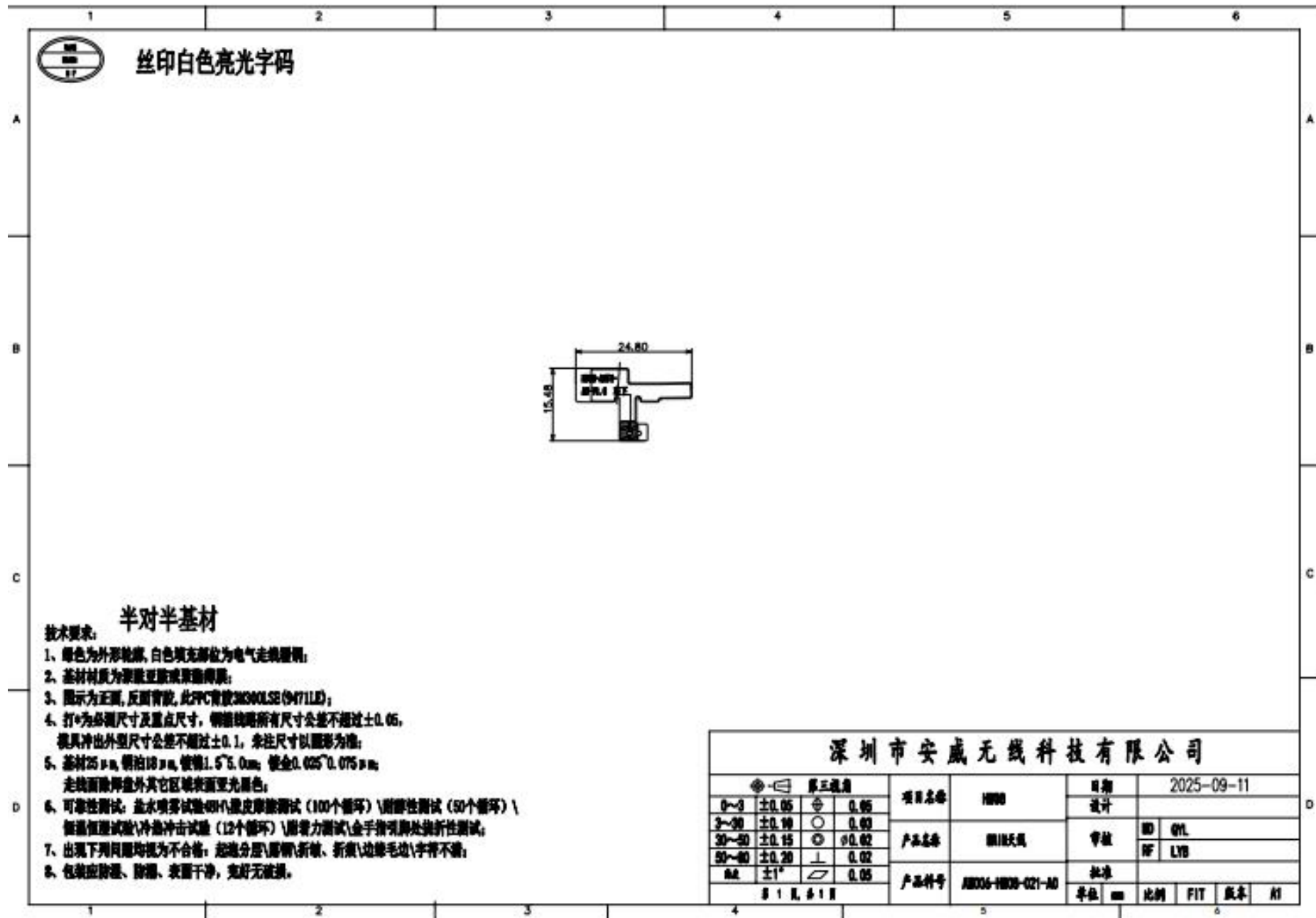
深圳市安威无线科技有限公司

第三视角		项目名称	HW00	日期	2025-09-11	
0~3	± 0.05		0.05	设计		
3~30	± 0.10		0.03			
30~50	± 0.15		0.02	审核	RD	QYL
50~80	± 0.20		0.02		RF	LYB
80	$\pm 1^*$		0.05	批准		
第 1 页, 共 1 页		产品序号	AW006-HW00-021-A0	单位	mm	
		比例	FIT	版本	A1	

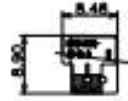
ANT3 天线尺寸 antenna size



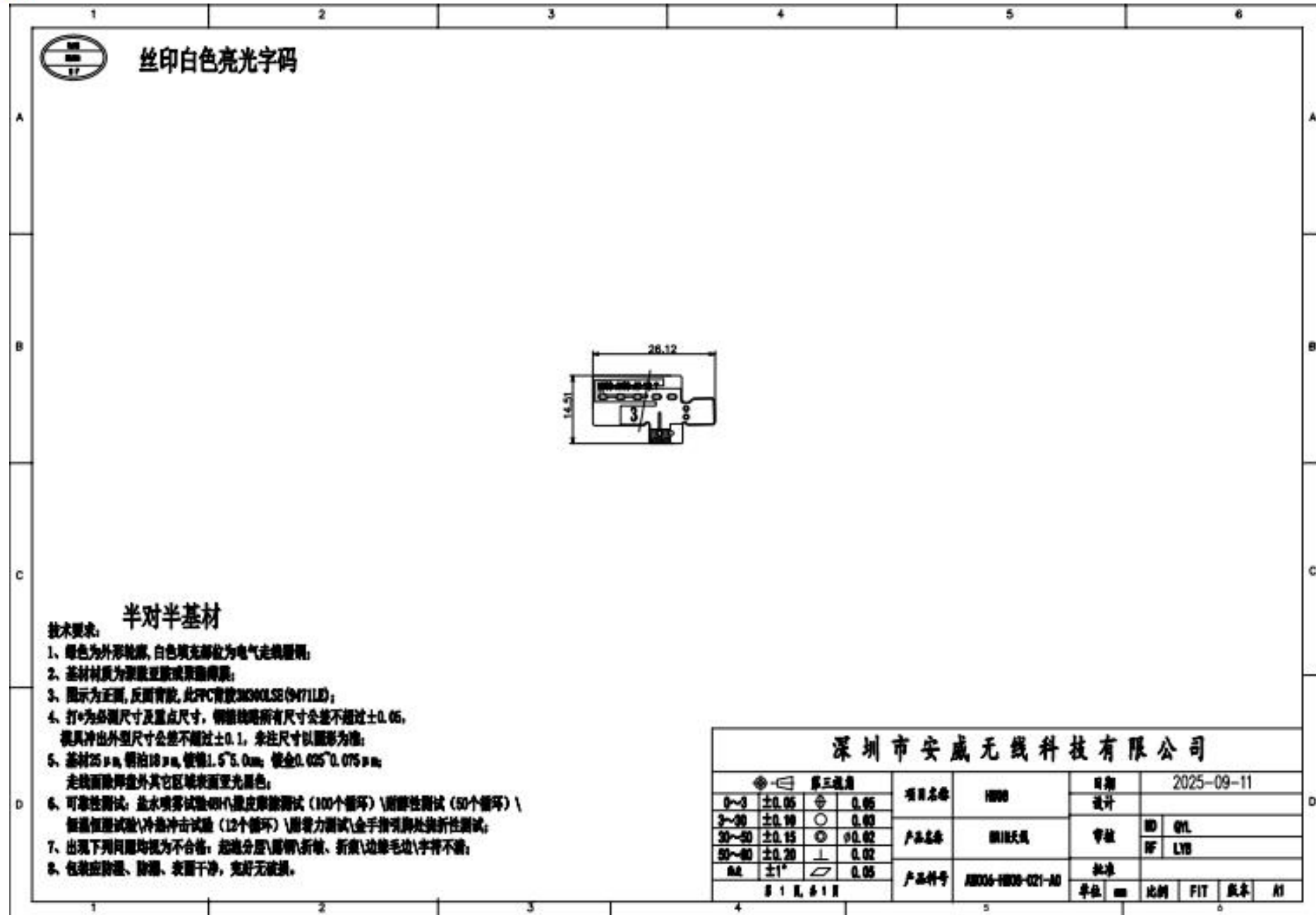
ANT4 天线尺寸 antenna size



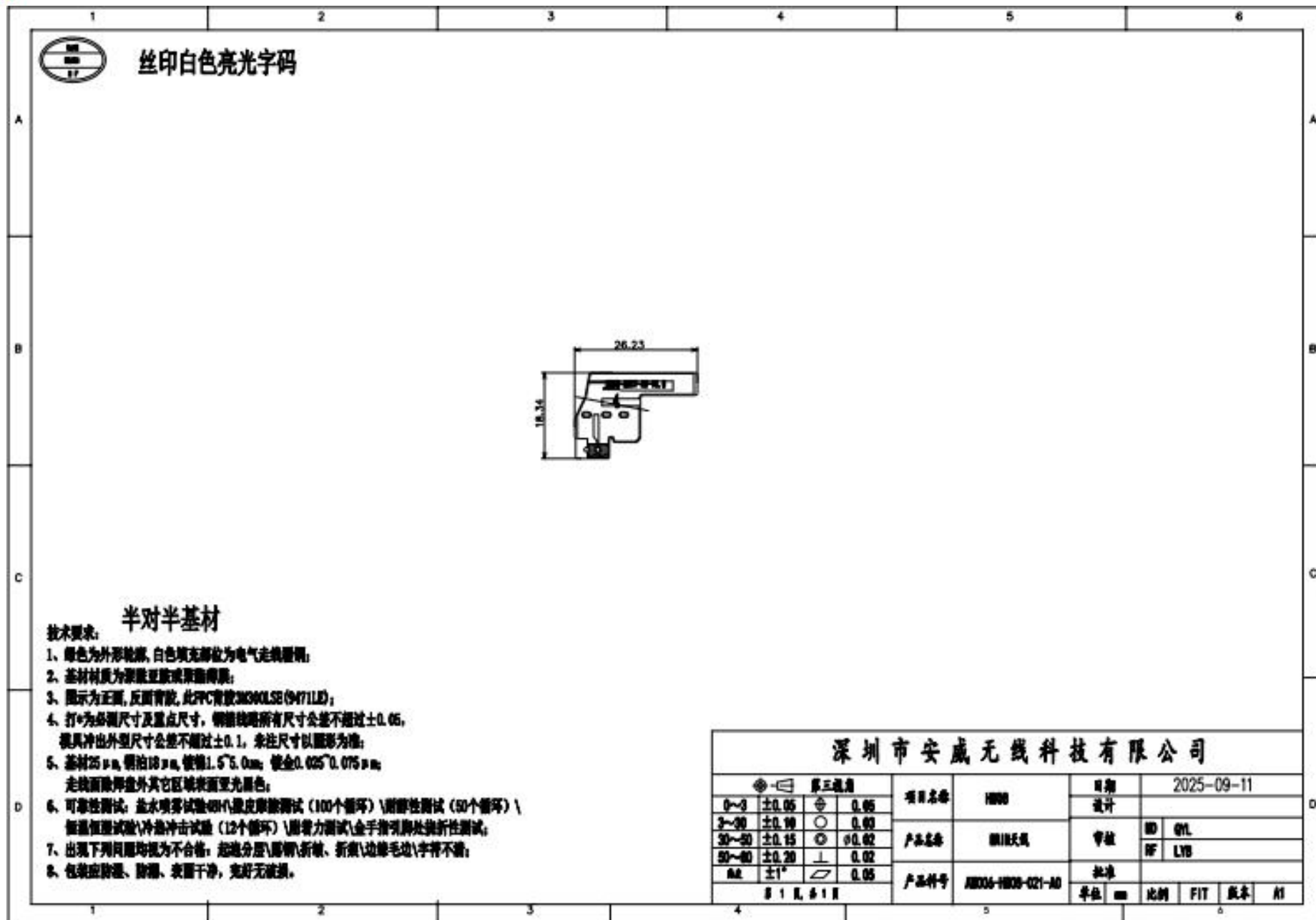
ANT5 天线尺寸 antenna size

1	2	3	4	5	6																																																																			
 丝印白色亮光字码  半对半基材 技术要求: - 绿色为外形轮廓, 白色填充部位为电气走线覆膜; - 基材材质为聚酰亚胺或聚醚醚酮; - 图示为正面, 反面背胶, 此PPC背胶3M300LSB (9471LE); - 打*为必须尺寸及重点尺寸, 铜蚀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, 未注尺寸以圆形为准; - 基材25 μm, 铜箔18 μm, 镀锡1.5~5.0um; 镀金0.025~0.075 μm; 走线面除焊盘外其它区域表面更亮黑色; - 可靠性测试: 盐雾喷雾试验48h\湿度摩擦测试(100个循环)\耐磨性测试(50个循环)\恒湿恒湿试验\冷热冲击试验(12个循环)\附着力测试\金手指引脚处折弯测试; - 出现下列问题均视为不合格: 起翘分层\露铜\折皱、折痕\边缘毛边\字码不清; - 包装应防震、防潮、表面干净, 完好无破损。 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="8">深圳市安威无线科技有限公司</th> </tr> <tr> <td colspan="2" rowspan="2">  第三版用 </td> <td rowspan="2">项目名称</td> <td rowspan="2">H000</td> <td colspan="4">日期</td> </tr> <tr> <td colspan="4">2025-09-11</td> </tr> <tr> <td colspan="2">0~3 ±0.05</td> <td rowspan="2">  0.05 </td> <td rowspan="2">产品名称</td> <td rowspan="2">天线天线</td> <td rowspan="2">审核</td> <td colspan="2">设计</td> </tr> <tr> <td colspan="2">3~30 ±0.10</td> <td colspan="2">WD QYL</td> </tr> <tr> <td colspan="2">30~50 ±0.15</td> <td>  0.02 </td> <td rowspan="2">产品料号</td> <td rowspan="2">AW006-H000-021-A0</td> <td rowspan="2">批准</td> <td colspan="2">RF LYB</td> </tr> <tr> <td colspan="2">50~80 ±0.20</td> <td>  0.02 </td> <td colspan="2"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>单位</td> <td>mm</td> <td>比例</td> <td>FIT</td> <td>版本</td> <td>A1</td> </tr> </table> </td> </tr> <tr> <td colspan="2">80 ±1*</td> <td>  0.05 </td> <td colspan="5"></td> </tr> <tr> <td colspan="8" style="text-align: center;">S I E S I E</td> </tr> </table>						深圳市安威无线科技有限公司								 第三版用		项目名称	H000	日期				2025-09-11				0~3 ±0.05		 0.05	产品名称	天线天线	审核	设计		3~30 ±0.10		WD QYL		30~50 ±0.15		 0.02	产品料号	AW006-H000-021-A0	批准	RF LYB		50~80 ±0.20		 0.02	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>单位</td> <td>mm</td> <td>比例</td> <td>FIT</td> <td>版本</td> <td>A1</td> </tr> </table>		单位	mm	比例	FIT	版本	A1	80 ±1*		 0.05						S I E S I E							
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ANT6 天线尺寸 antenna size



ANT7 天线尺寸 antenna size





深圳市安威无线科技有限公司

行业领先的一站式通信射频天线解决方案制造商

The End

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