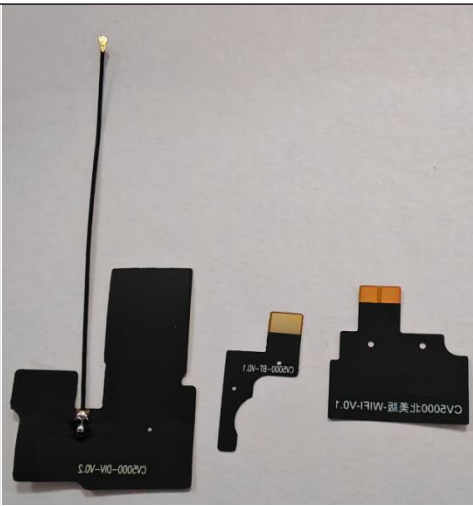


维力谷无线技术股份有限公司送样天线 承认书

VLG承认书专用章
受控文件

CAT1 机械表	CV5000北美版		频段	DIV 824-960/1710-2690 WIFI2.4/5.8G/BT2400-2500MHZ			
VLG 料号	V2212-015-A-02		版本	A			
射频	游燕丽	确认		品质	余洪	确认	
结构	何发荣			PM	李昆		
日期	2025-11-14						
客户项目 名称料号	客户项目名称: CV5000北美 分集天线组件						
	客户项目编号:						
客户确认							
射频				品质			
结构				PM			
日期							
研发项目客户满意度调查 (客户请针对我们的研发或 PM 管理人员工作进行一个评述, 督促我们更好服务于你)							
RF 技术人员	☐ 满意		☐ 基本满意		☐ 不满意		
结构技术人员	☐ 满意		☐ 基本满意		☐ 不满意		
项目管理 (PM 管理人员)	☐ 满意		☐ 基本满意		☐ 不满意		
建议项说明:							
天线图片:							

表单编号: VLG/QRF-008-01

版本: A1

保存期限: 长期

生效日期: 2025-11-14

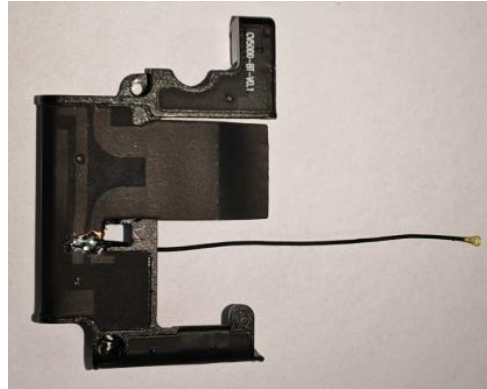
1

www.vlg.com.cn

VLG has possession of proprietary information provided in this report and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of VLG Communication Technology.

1、天线组装图

报告主要提供 CV5000 北美版天线的各项电性能参数的测试状况。CV5000 北美版天线为多频天线，天线图如下所示。



组装图

2、天线测试设备

天线输入特性测试使用 Agilent E5071C 矢量网络分析仪；天线辐射特性测试使用 Satimo Starlab 3D 近场微波暗室，使用仪器 CMW 500 综测仪。暗室测试坐标如下：

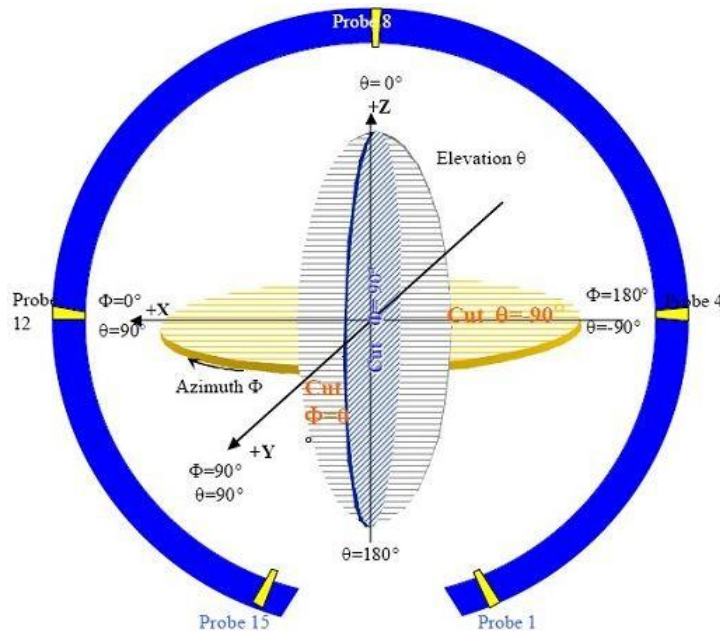


图 4 3D 微波暗室测试坐标系(back view)

1、天线的匹配电路

CV5000 北美版副天线是由支架贴 FPC 组成，此项目匹配电路

如下。客户原匹配未修改。



2、电气性能

2.1 无源数据（WIFI 双频天线）

Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi
2400	45%	-3.43	1.95
2410	46%	-3.35	2.15
2420	44%	-3.53	1.99
2430	43%	-3.63	1.44
2440	43%	-3.64	1.54
2450	45%	-3.51	1.49
2460	45%	-3.42	1.20
2470	42%	-3.80	0.93
2480	40%	-3.98	0.76
2490	42%	-3.75	1.05
2500	41%	-3.84	0.83

Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi
5150	33%	-4.87	0.97
5170	35%	-4.51	1.14
5190	33%	-4.78	1.07
5210	37%	-4.26	1.30
5230	36%	-4.45	1.62
5250	40%	-3.99	1.82
5270	41%	-3.91	2.32
5290	43%	-3.62	2.35
5310	43%	-3.68	2.60
5330	44%	-3.56	2.39
5350	43%	-3.68	2.83
5370	44%	-3.58	2.58
5390	43%	-3.67	2.94
5410	43%	-3.70	2.66
5430	41%	-3.85	2.69
5450	41%	-3.86	3.08
5470	40%	-3.99	2.50
5490	41%	-3.90	3.18

Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi
5510	40%	-4.00	2.62
5530	41%	-3.91	3.18
5550	39%	-4.05	2.72
5570	39%	-4.13	3.10
5590	38%	-4.20	2.70
5610	39%	-4.08	3.10
5630	38%	-4.15	2.64
5650	39%	-4.10	2.85
5670	38%	-4.23	2.45
5690	38%	-4.16	2.70
5710	37%	-4.35	1.98
5730	38%	-4.24	2.27
5750	34%	-4.64	1.41
5770	35%	-4.60	2.15
5790	31%	-5.09	1.29
5810	32%	-5.00	2.16
5830	31%	-5.13	1.30
5850	32%	-4.88	2.24

2.2 无源数据 (BT 天线)

Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi
2400	44%	-3.58	2.89
2405	46%	-3.38	3.07
2410	48%	-3.21	3.23
2415	47%	-3.25	3.16
2420	47%	-3.25	3.16
2425	46%	-3.41	2.94
2430	43%	-3.64	2.63
2435	43%	-3.63	2.51
2440	44%	-3.61	2.38
2445	45%	-3.48	2.44
2450	47%	-3.31	2.62
2455	46%	-3.36	2.50
2460	46%	-3.41	2.43
2465	43%	-3.63	2.21
2470	41%	-3.84	2.05
2475	41%	-3.87	2.10
2480	41%	-3.91	2.14
2485	42%	-3.74	2.36
2490	44%	-3.54	2.58
2495	45%	-3.44	2.75
2500	46%	-3.40	2.93

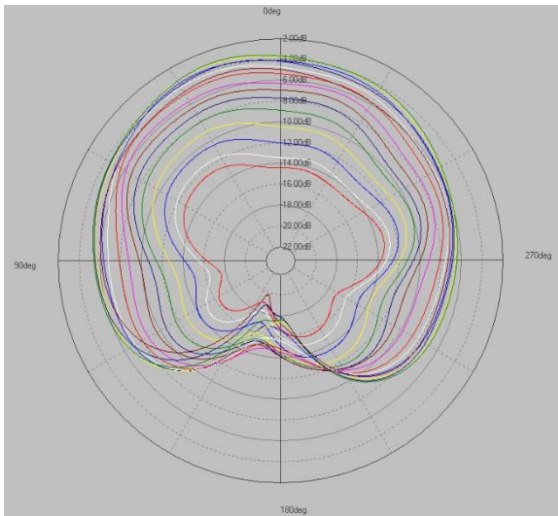


2.3 无源数据 (DIV 天线)

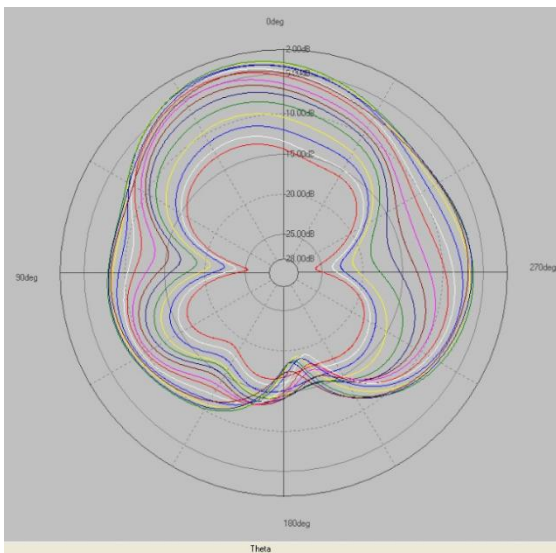
Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi	Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi	Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi
820	9%	-10.29	-10.23	1710	10%	-10.13	-7.08	2210	10%	-9.93	-8.20
830	10%	-10.11	-9.08	1730	11%	-9.78	-6.36	2230	10%	-10.17	-9.40
840	10%	-9.98	-8.43	1750	12%	-9.39	-6.73	2250	10%	-10.20	-9.15
850	10%	-9.85	-8.70	1770	13%	-8.78	-5.67	2270	11%	-9.48	-9.97
860	11%	-9.63	-8.17	1790	14%	-8.42	-4.98	2290	11%	-9.42	-9.80
870	12%	-9.33	-7.28	1810	17%	-7.58	-3.59	2310	11%	-9.49	-9.53
880	12%	-9.08	-6.87	1830	18%	-7.40	-3.21	2330	10%	-10.15	-9.27
890	13%	-8.70	-7.82	1850	22%	-6.57	-1.87	2350	10%	-10.15	-9.61
900	15%	-8.33	-6.82	1870	21%	-6.68	-2.02	2370	10%	-9.87	-8.20
910	16%	-8.07	-6.06	1890	19%	-7.17	-1.31	2390	10%	-9.80	-8.02
920	16%	-7.89	-5.26	1910	15%	-8.10	-2.44	2410	12%	-9.29	-9.26
930	17%	-7.73	-4.53	1930	21%	-6.84	-2.73	2430	12%	-9.14	-8.83
940	18%	-7.54	-3.86	1950	24%	-6.23	-1.97	2450	11%	-9.63	-7.29
950	18%	-7.55	-3.80	1970	32%	-4.97	-0.57	2470	11%	-9.55	-7.23
960	17%	-7.64	-3.95	1990	26%	-5.78	-1.31	2490	13%	-9.03	-5.98
				2010	23%	-6.35	-1.98	2510	12%	-9.30	-5.54
				2030	18%	-7.42	-3.94	2530	12%	-9.18	-5.44
				2050	14%	-8.54	-5.59	2550	11%	-9.55	-6.32
				2070	15%	-8.19	-7.55	2570	12%	-9.29	-6.22
				2090	13%	-8.80	-7.17	2590	12%	-9.27	-6.07
				2110	12%	-9.27	-7.57	2610	15%	-8.38	-4.36
				2130	11%	-9.42	-7.16	2630	16%	-7.92	-1.25
				2150	11%	-9.54	-8.05	2650	28%	-5.49	1.11
				2170	11%	-9.59	-8.01	2670	34%	-4.66	1.73
				2190	10%	-9.81	-9.51	2690	29%	-5.45	0.36

3.1 DIV天线 824-960天线方向图

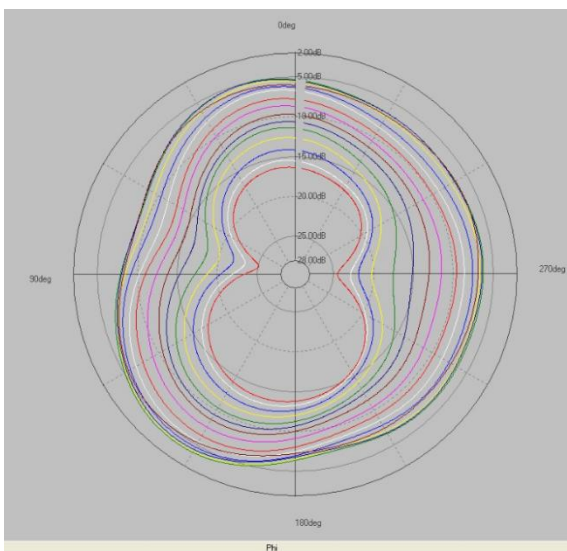
Phi=0



Phi=90

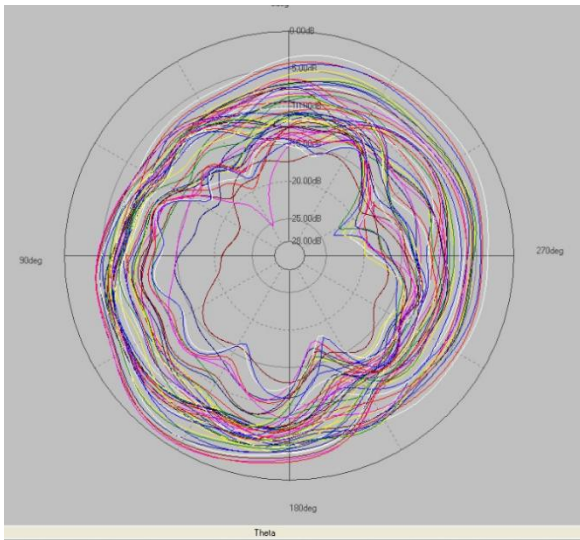


Theta=90

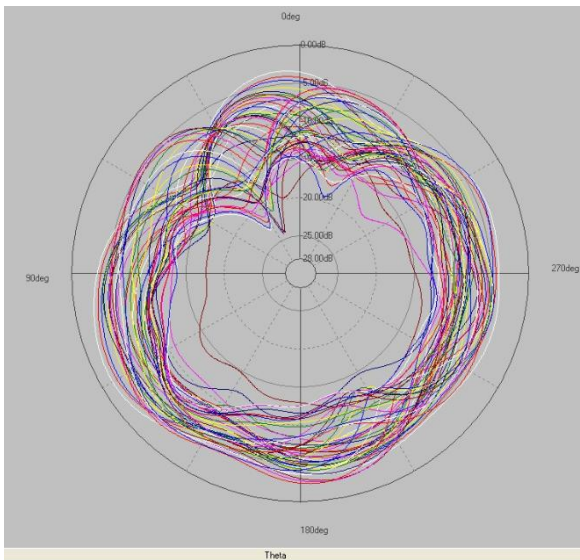


3.2 DIV天线 1710-2690天线方向图

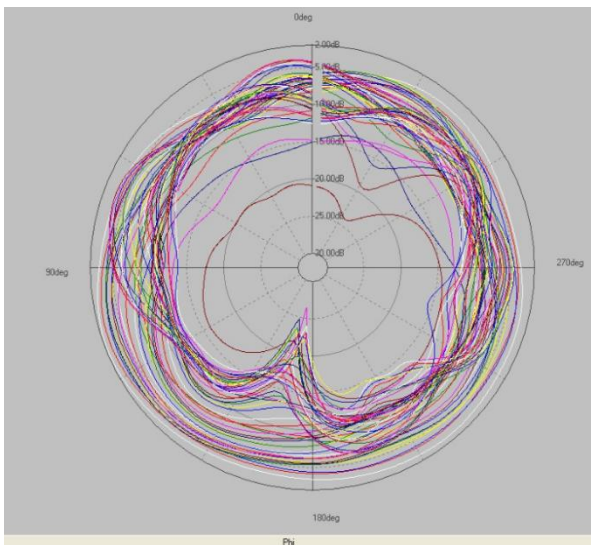
Phi=0



Phi=90

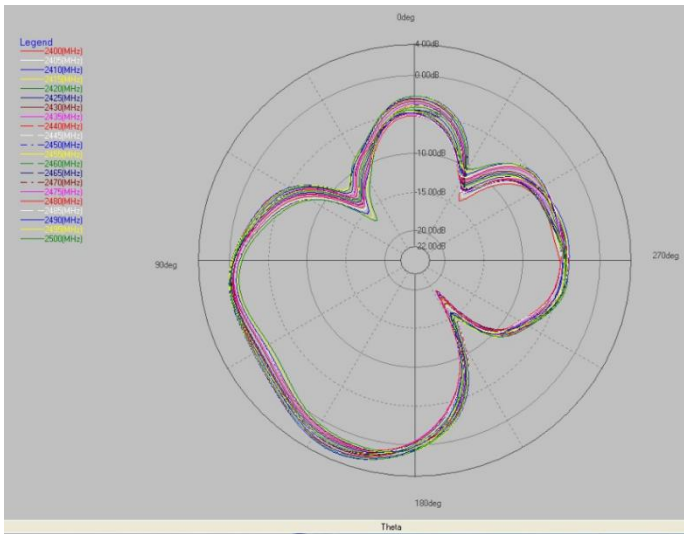


Theta=90

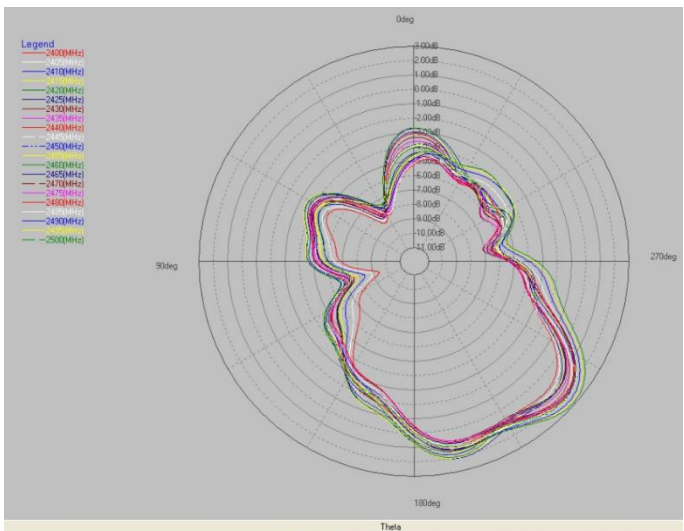


3.3 BT天线 2400-2500MHZ天线方向图

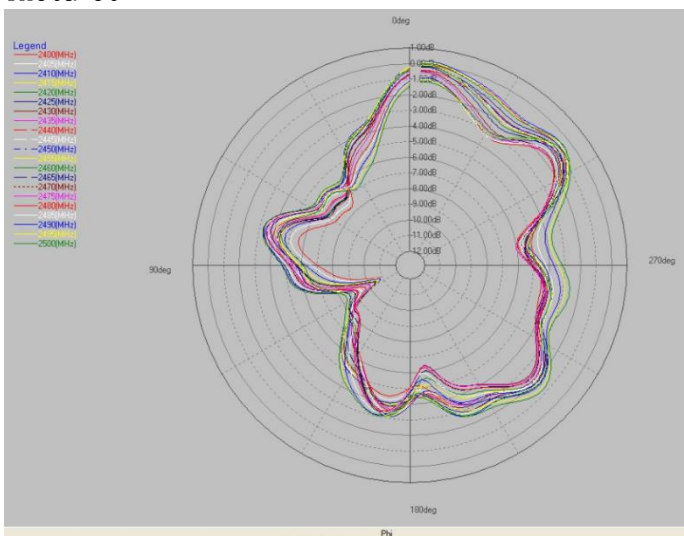
Phi=0



Phi=90

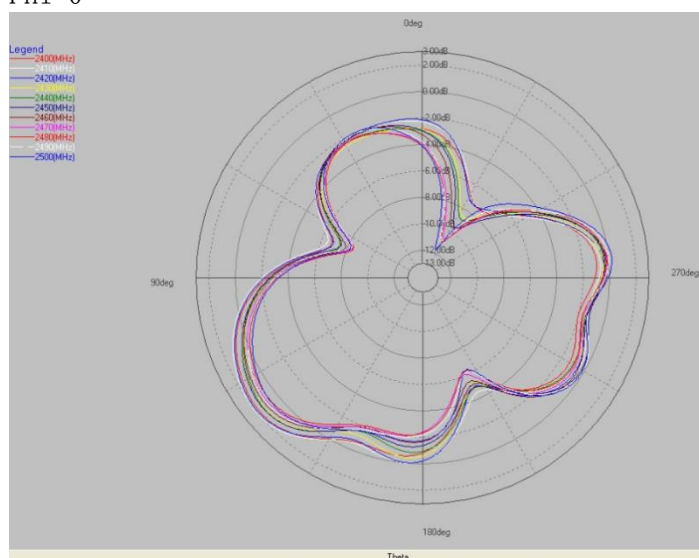


Theta=90

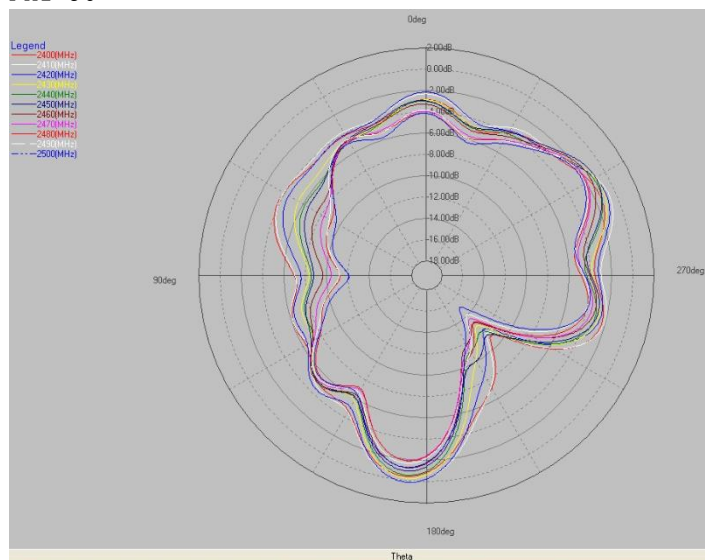


3.4 WIFI天线 2400-2500MHZ天线方向图

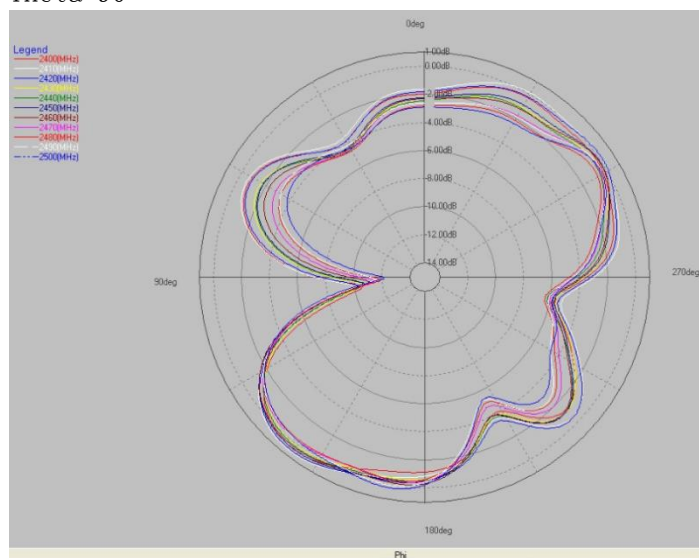
Phi=0



Phi=90

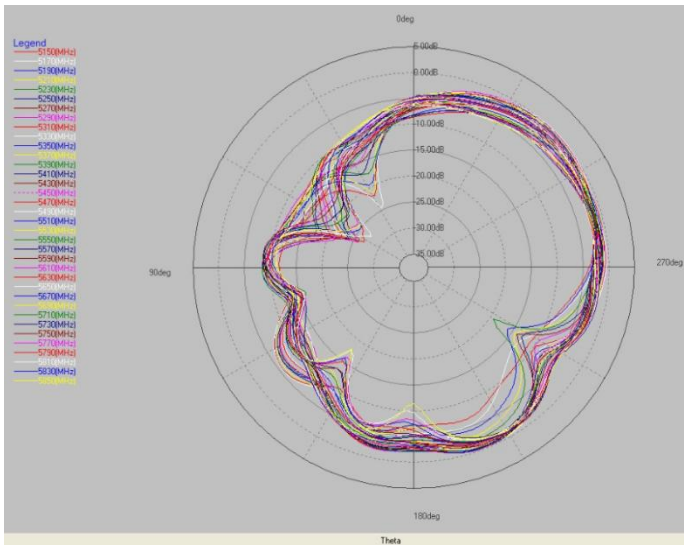


Theta=90

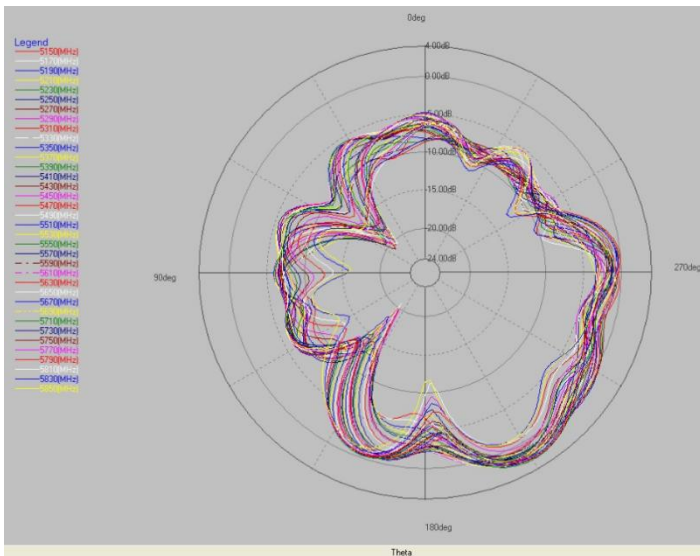


3.5 WIFI天线 5150-5850MHZ天线方向图

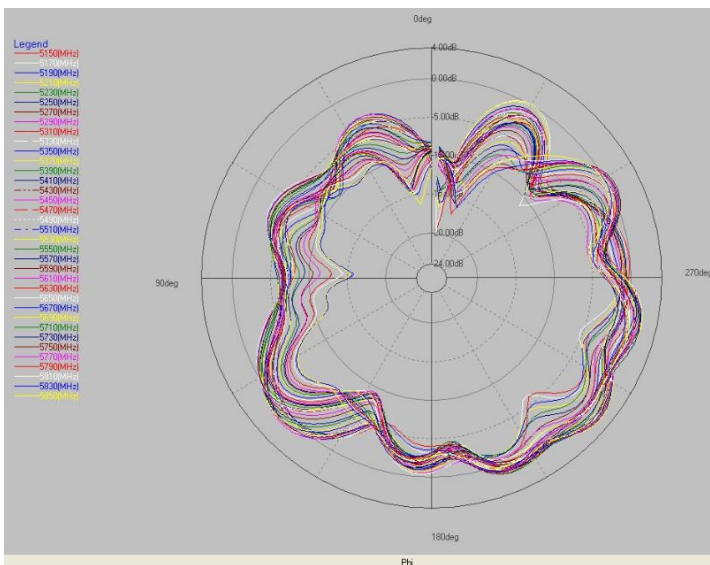
Phi=0



Phi=90

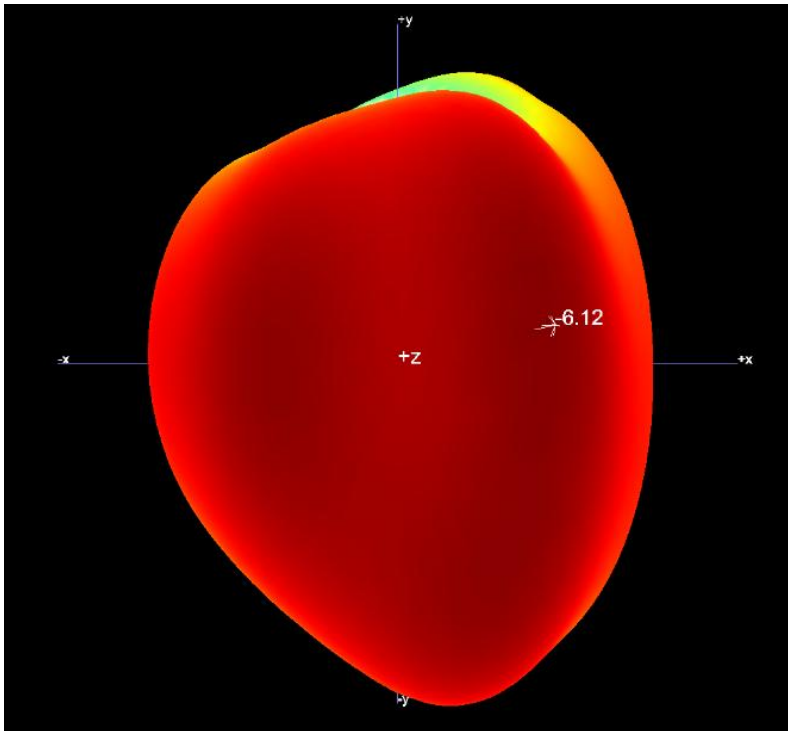


Theta=90

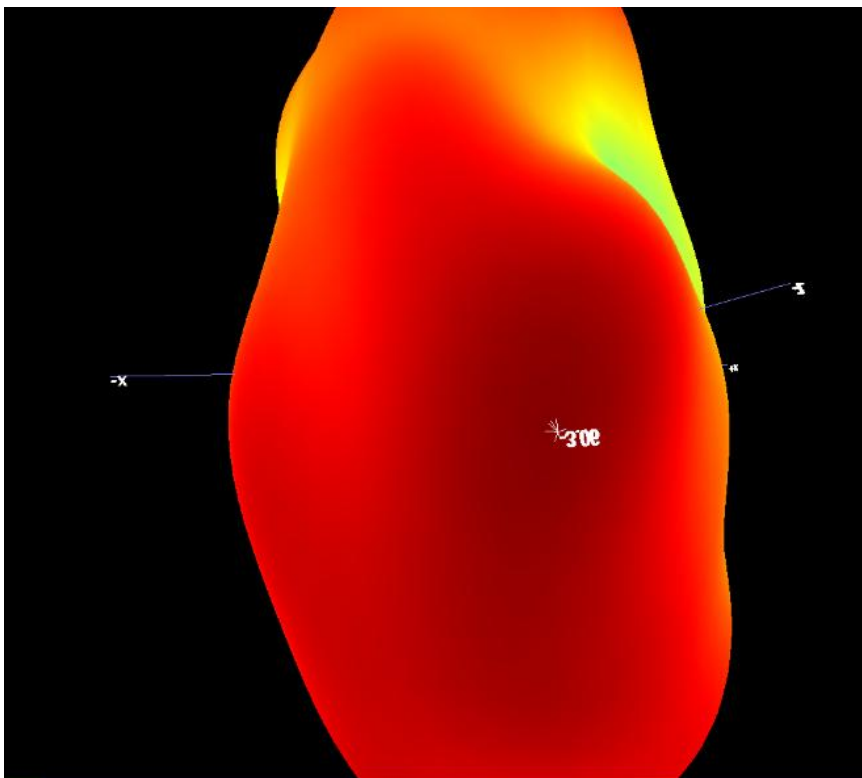


4.1 DIV 3D图

890MHZ

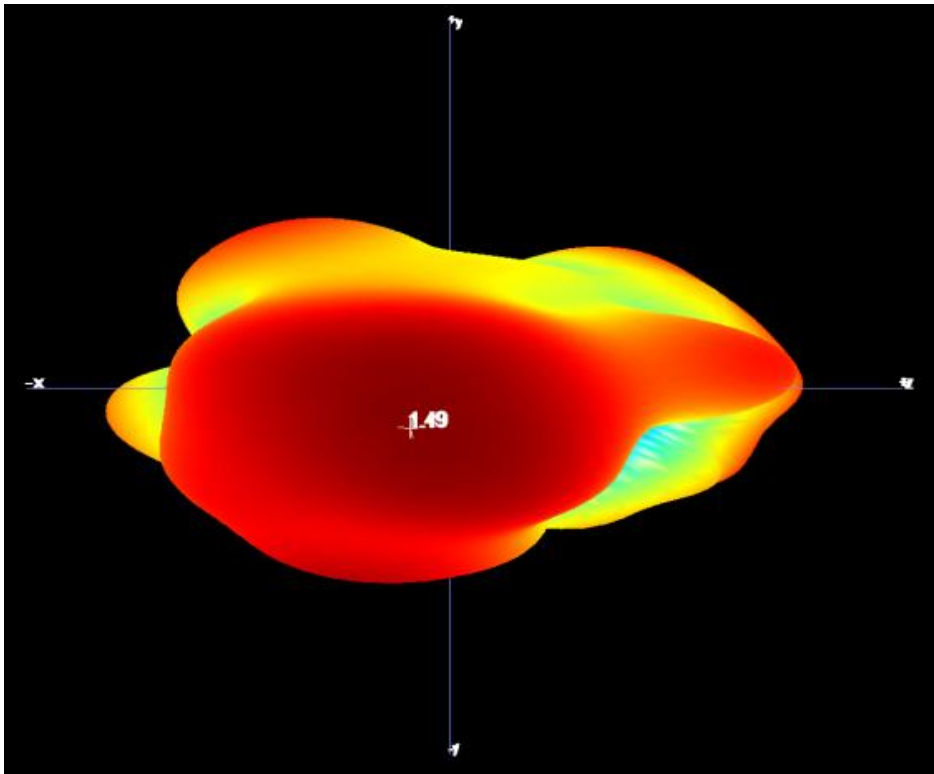


2210MHZ

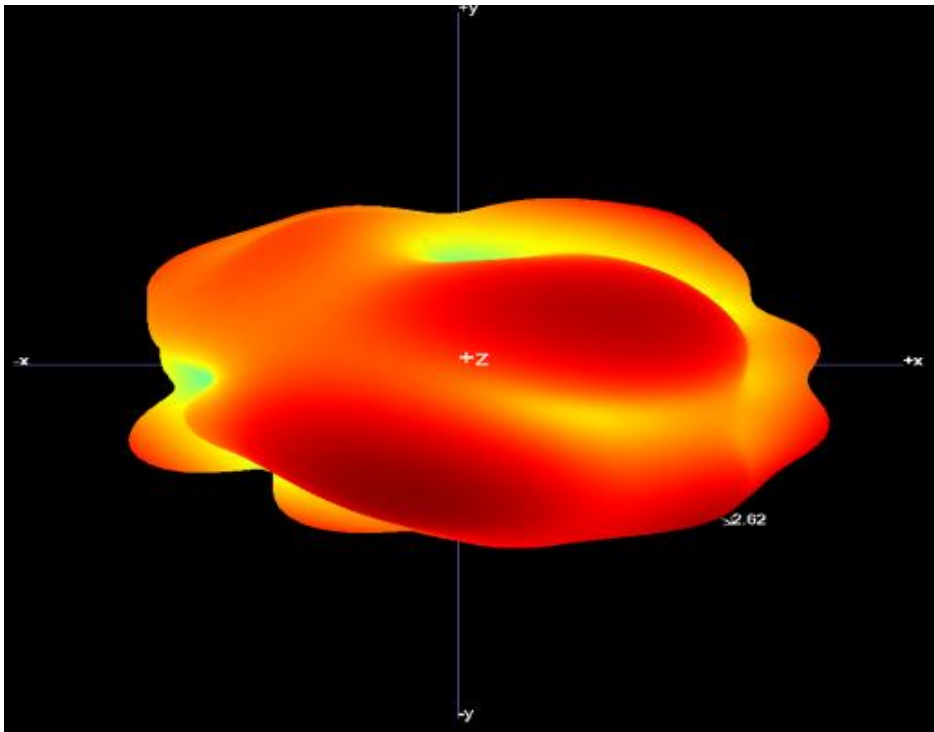


4.2 WIFI 3D图

2450MHZ



5510MHZ



4.3 BT 3D图

