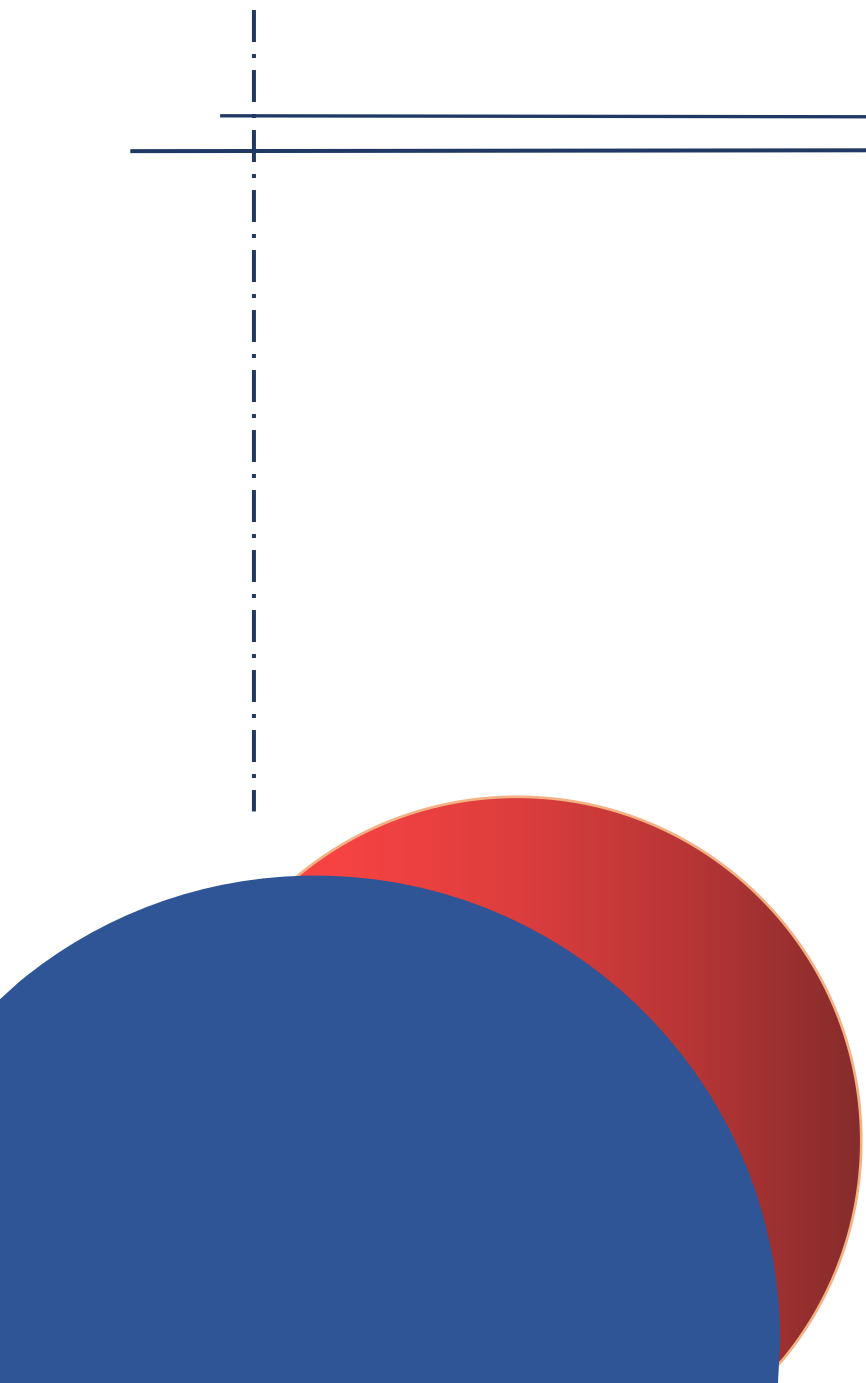




Antenna Test Report V1.0

RF: Dingzhiqiang

电话（Mobile phone）：**18503056186**

邮箱（Email）：**mark.ding@szzdwx.com**

日期（Date）：**2023.11.27**

@深圳市大泽无线技术有限公司
Shenzhen Daze Wireless Technology Co., Ltd

历史版本 (Revision History)

Version:	Date:	Summary of content:
V1.0	2023. 11. 27	

目录 (Catalogue)

01 项目概况 (Project Overview)

02 测试环境 (Test Environment)

03 天线图片和位置 (Antenna picture and position)

04 天线环境处理 (Antenna environment processing)

05 无源测试 (Passive test)

06 有源测试 (Active test)

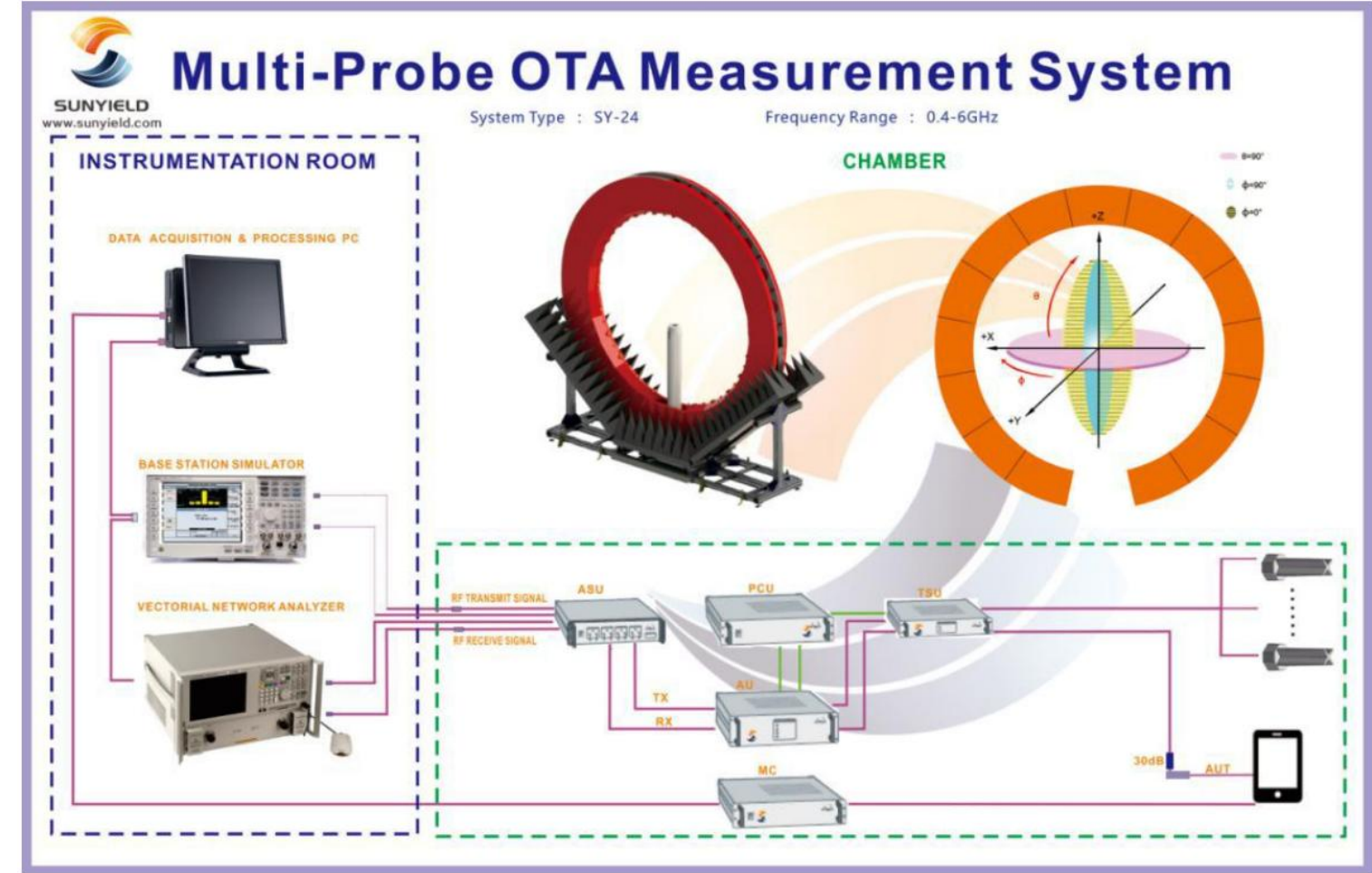
07 建议和总结: (Recommendations and Summary:)

项目概况 (Project Overview)

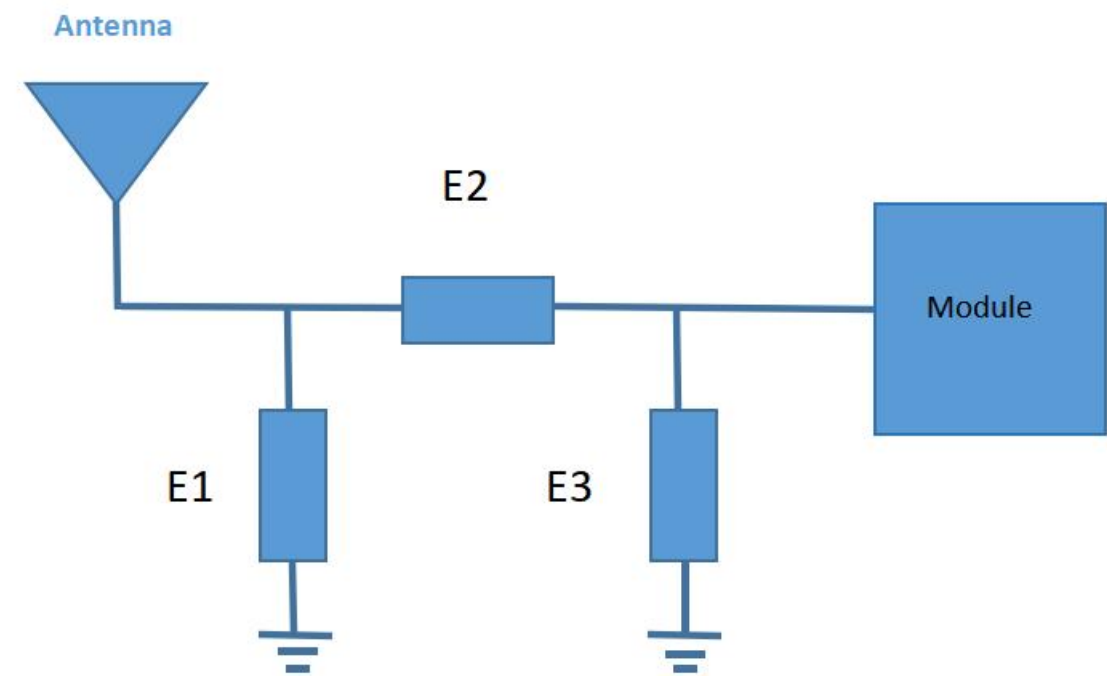
客户名称 Customer Name		项目名 Project Name	天线数目 Antenna Number	天线类型 Antenna Type
		话	1	Paddle Antenna
天线频段 Frequency Bands				
WIFI				
BT				
GNSS				
NB				
2G	✓	GSM850/900/DCS1800/PCS1900		
3G	✓	WCDMA Band1/2/5/8		
4G				
5G				

测试环境 (Test Environment)

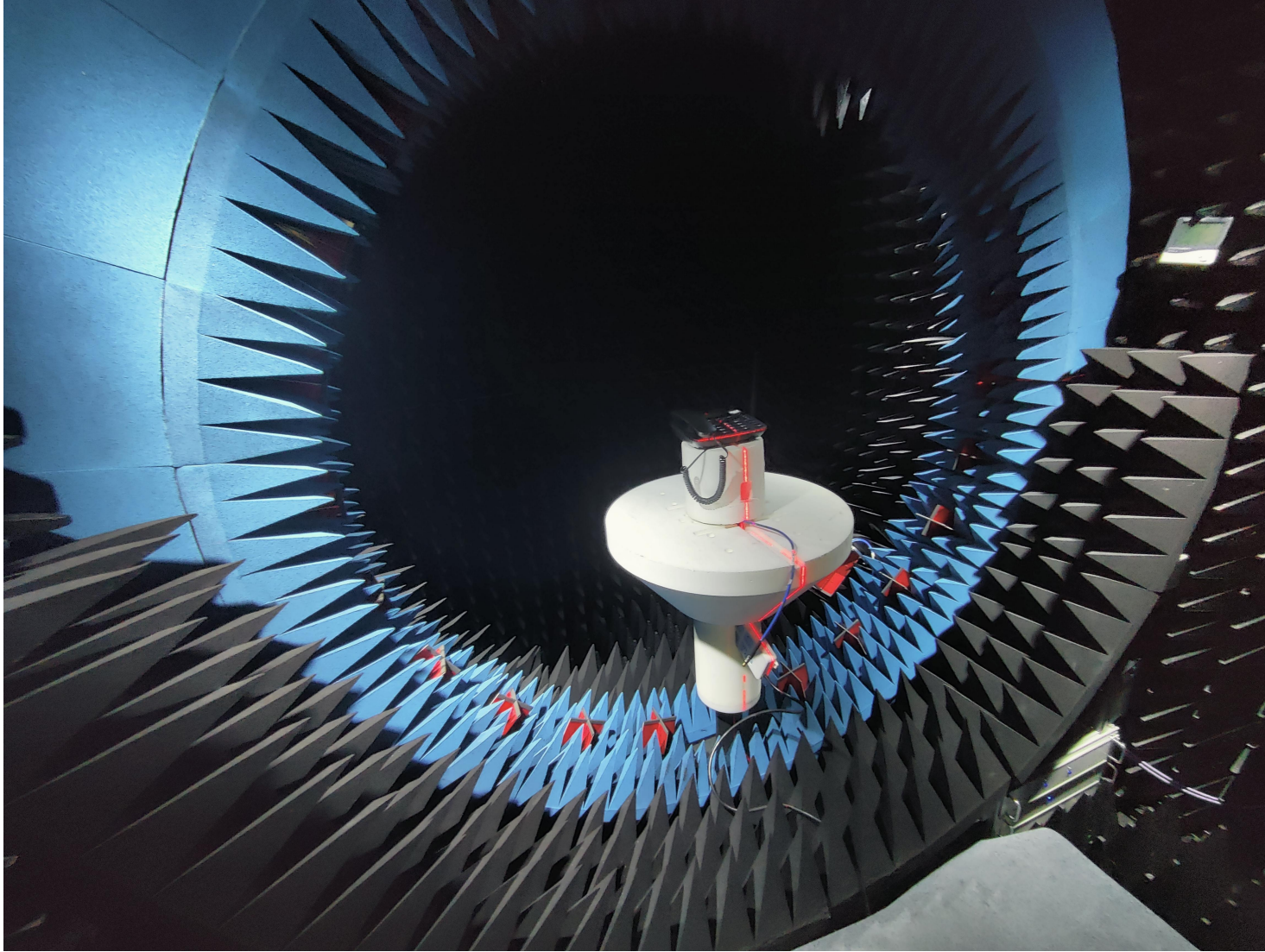
Test Equipment	Agilent E5071B 300 kHz - 8.5 GHz /ROHDE&SCHWARZ CMW500/ Anritsu MT8000A
Test System	SY-24M SISO/MIMO, 400 - 8500MHz



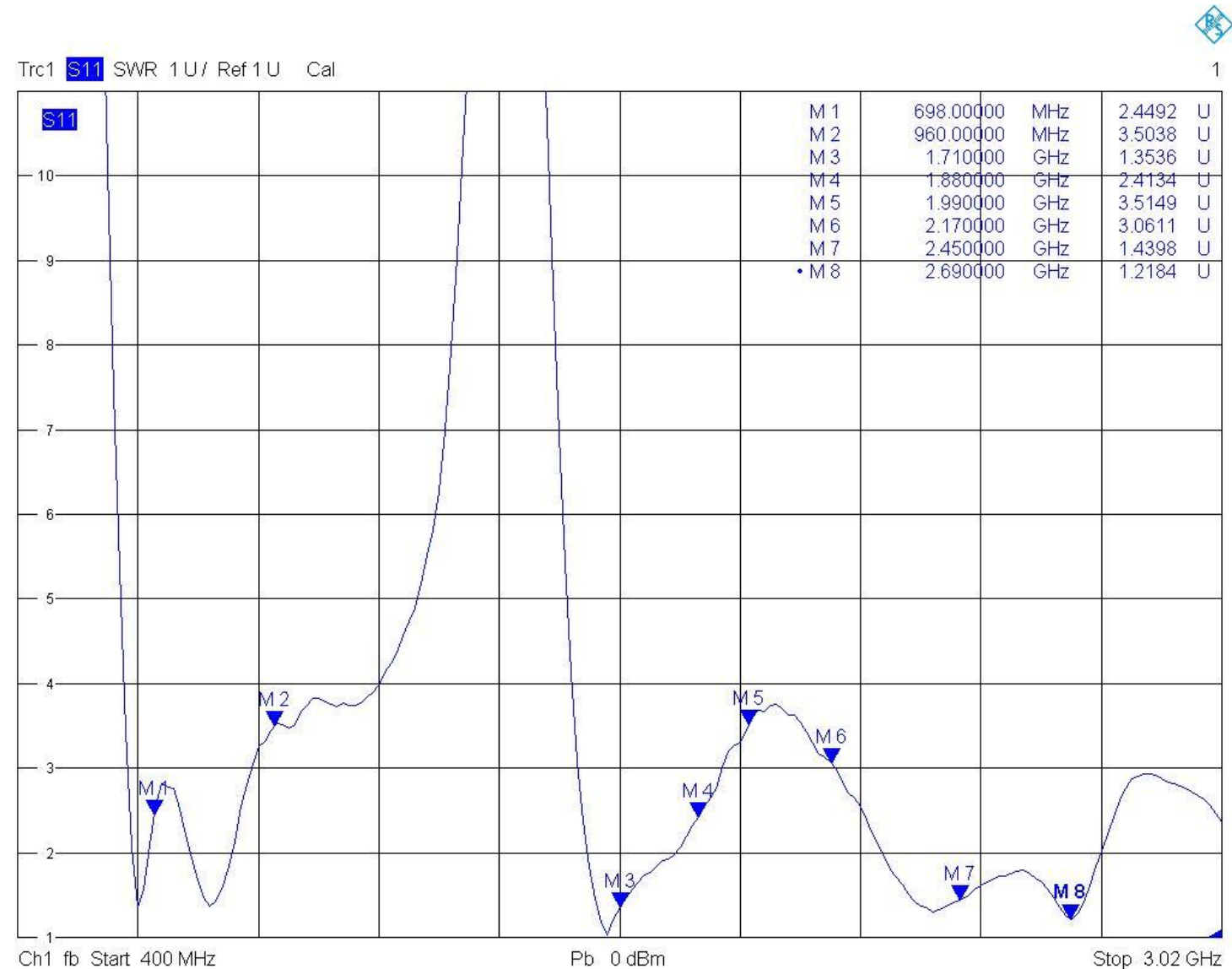
匹配电路 (Matching circuit)



E1	E2	E3
NC	0 Ω	NC



无源测试：驻波比 (Passive test: VSWR)



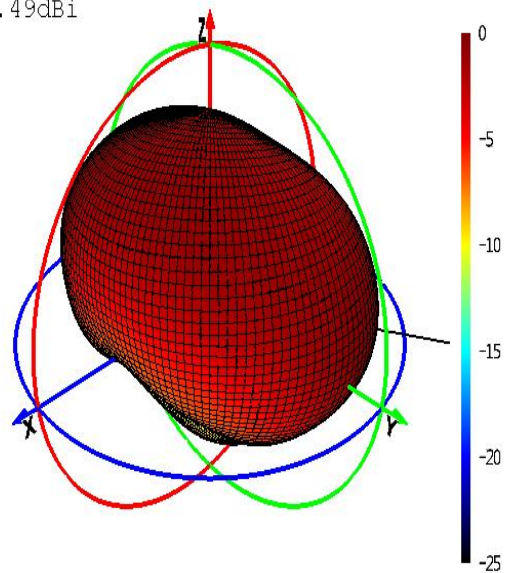
无源测试：效率和增益 (Passive test: Efficiency&Gain)

Gain&Efficiency 增益、效率				Gain&Efficiency&PhaseCenter 增益、效率和相位中心			
frequency 频率 (MHz)	gain 增益 (dBi)	efficiency 效率 (dB)	efficiency 效率 (%)	frequency 频率 (MHz)	gain 增益 (dBi)	efficiency 效率 (dB)	efficiency 效率 (%)
700	-0.47	-3.32	46.57	1700	1.77	-2.66	54.16
710	-0.3	-2.81	52.38				
720	-0.03	-3.3	46.79				
730	-0.47	-3.83	41.37				
740	-0.06	-3.35	46.19	1750	1.84	-3.02	49.84
750	0.16	-3.14	48.58	1800	0.57	-3.7	42.62
760	-0.04	-3.4	45.75	1850	1.29	-3.41	45.6
770	-0.15	-3.11	48.81	1900	1.6	-3.12	48.77
780	-0.81	-3.13	48.63	1950	2.32	-2.78	52.74
790	-1.33	-3.79	41.8	2000	2.55	-2.44	56.96
800	-1.31	-3.85	41.22	2050	3.02	-2.37	57.97
810	-0.46	-3.88	40.92	2100	2.93	-2.46	56.81
820	-0.56	-3.63	43.33	2150	2.15	-2.48	56.53
830	-0.53	-4.19	38.07	2200	1.84	-2.81	52.35
840	-0.8	-4.56	35.03	2250	1.78	-2.64	54.43
850	-0.98	-4.75	33.52	2300	2.81	-2.42	57.22
860	-0.94	-4.58	34.81	2350	2.46	-1.77	66.5
870	-0.91	-4.54	35.16	2400	2.94	-1.43	71.88
880	-0.54	-4.21	37.89	2450	3.36	-1.65	68.39
890	-0.54	-4.17	38.25	2500	3.01	-2	63.11
900	-0.48	-4.2	38	2550	2.74	-2.27	59.25
910	-0.31	-4.24	37.68	2600	2.83	-2.48	56.54
920	-0.33	-4.28	37.33	2650	2.23	-3.02	49.88
930	-0.26	-4.29	37.22	2700	0.76	-4.11	38.86
940	0.11	-4.21	37.93				
950	1.25	-3.25	47.34				
960	0.41	-4.23	37.75				
970	0.99	-3.9	40.74				
980	1.14	-3.79	41.82				
990	1.08	-3.64	43.25				
1000	1.79	-2.93	50.93				

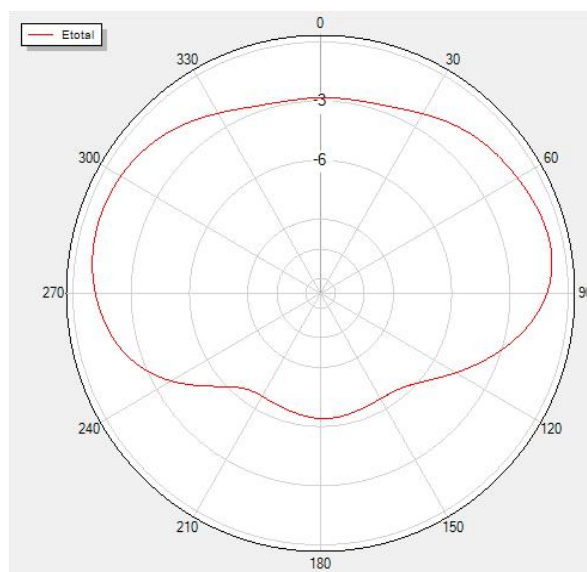
方向图 (Directional diagram)

700MHz

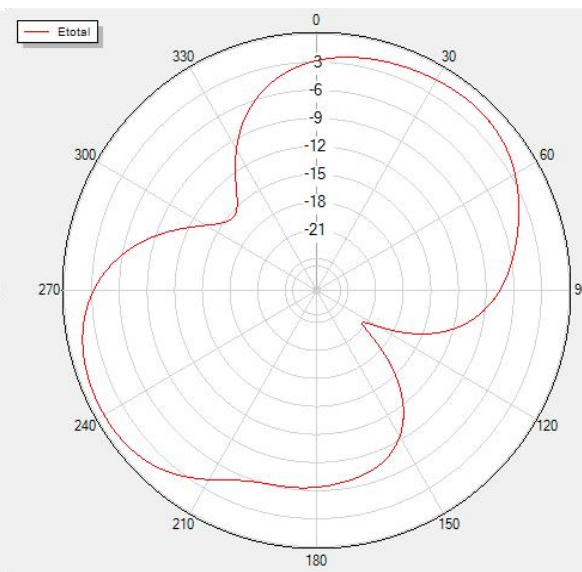
MAX:-0.47dBi
MIN:-25.49dBi



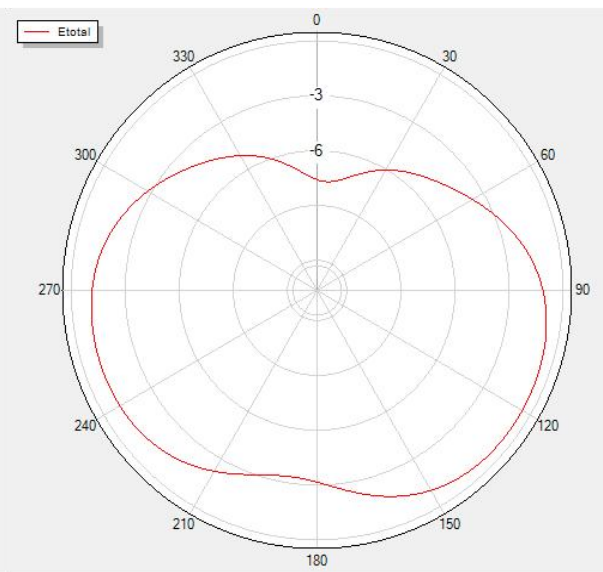
Phi=90 Freq=700MHz



Phi=0 Freq=700MHz



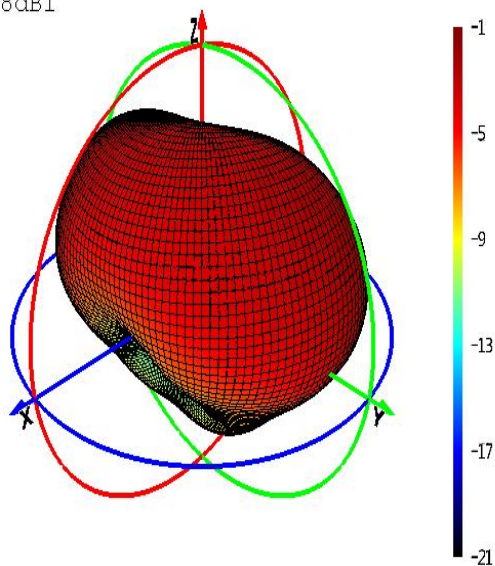
Theta=90 Freq=700MHz



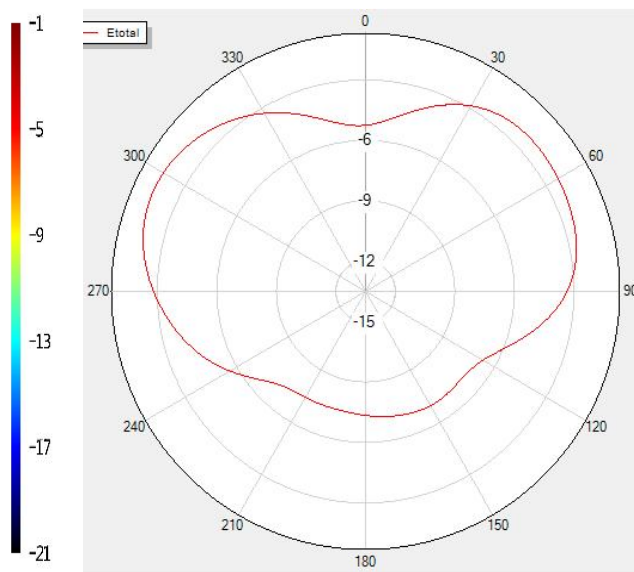
方向图 (Directional diagram)

800MHz

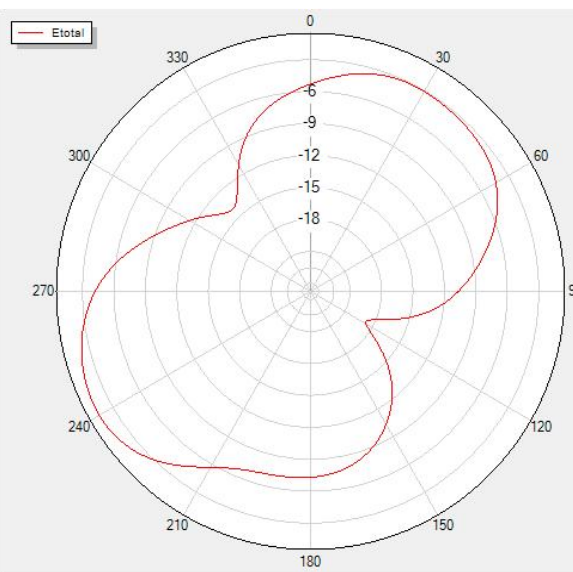
MAX:-1.31dBi
MIN:-21.8dBi



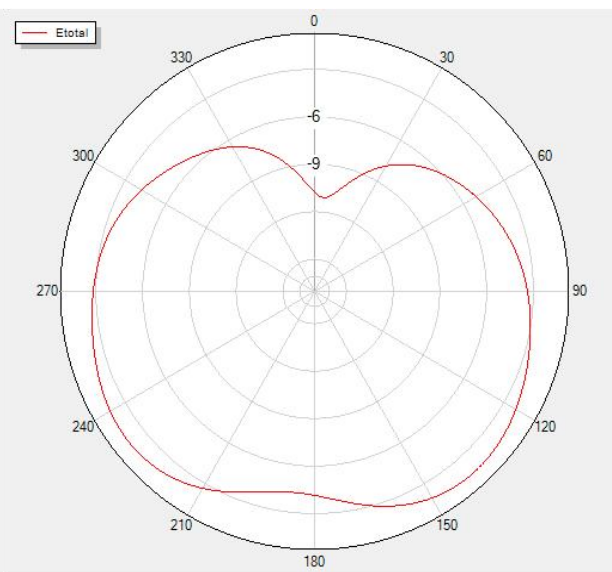
Phi=90 Freq=800MHz



Phi=0 Freq=800MHz



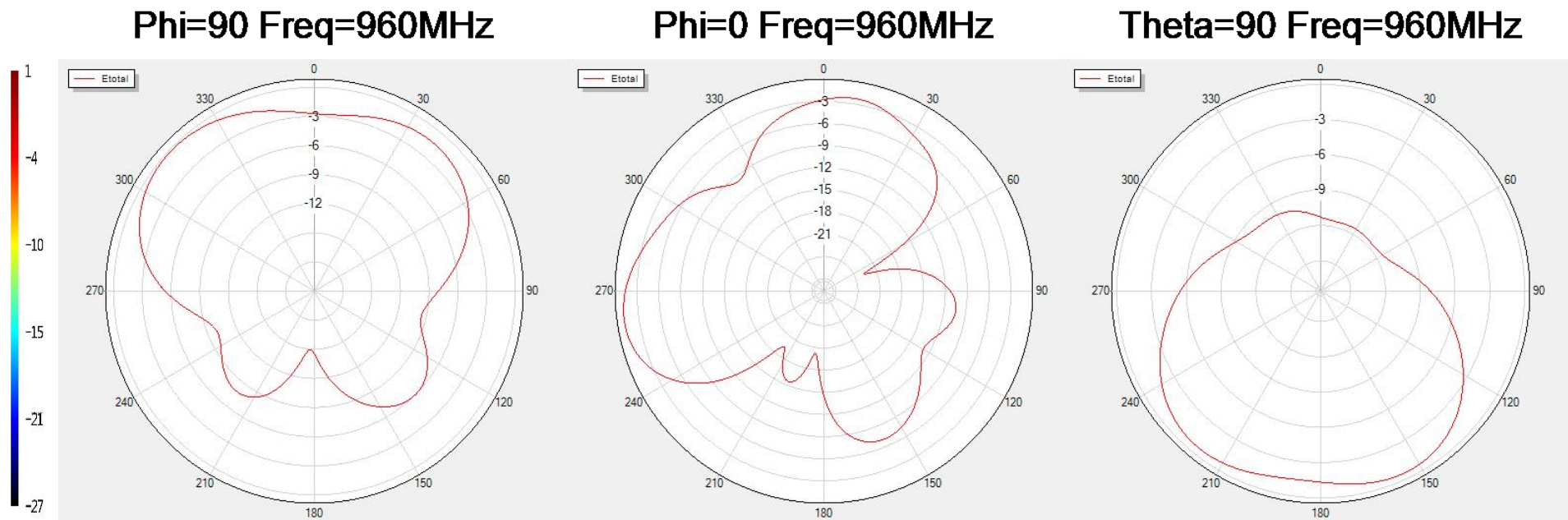
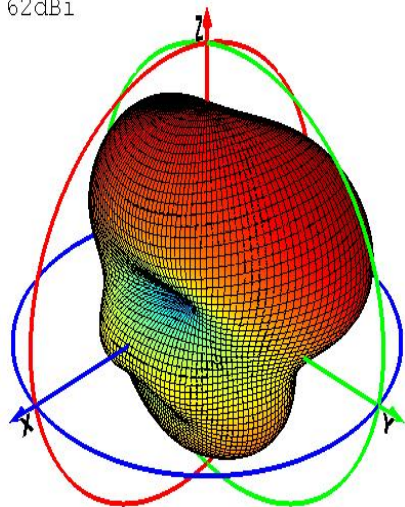
Theta=90 Freq=800MHz



方向图 (Directional diagram)

960MHz

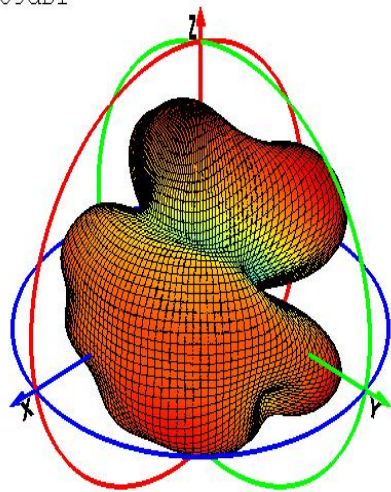
MAX:0.41dBi
MIN:-27.62dBi



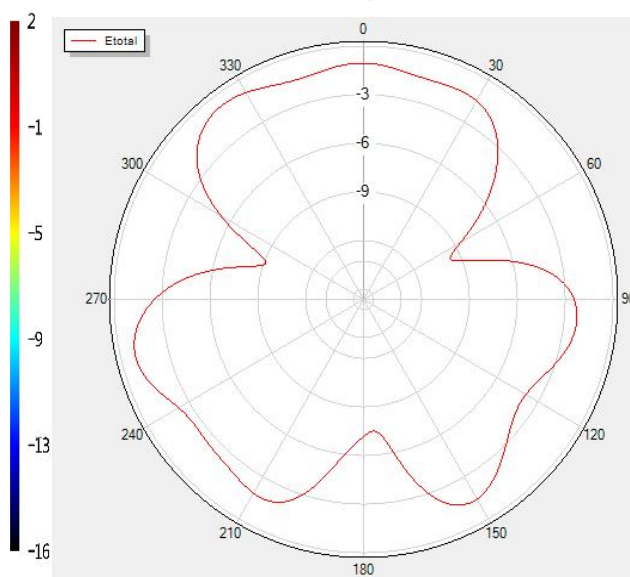
方向图 (Directional diagram)

1710MHz

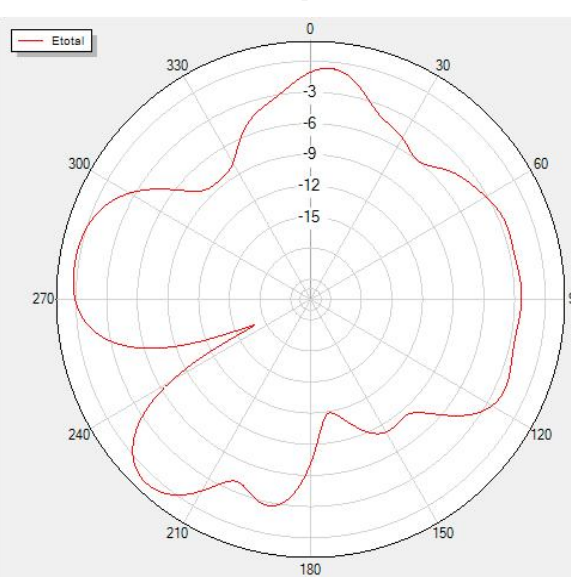
MAX:1.77dBi
MIN:-17.09dBi



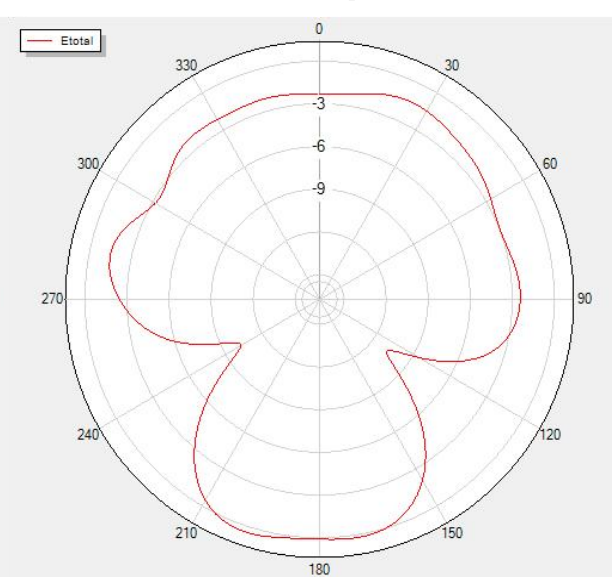
Phi=90 Freq=1700MHz



Phi=0 Freq=1700MHz



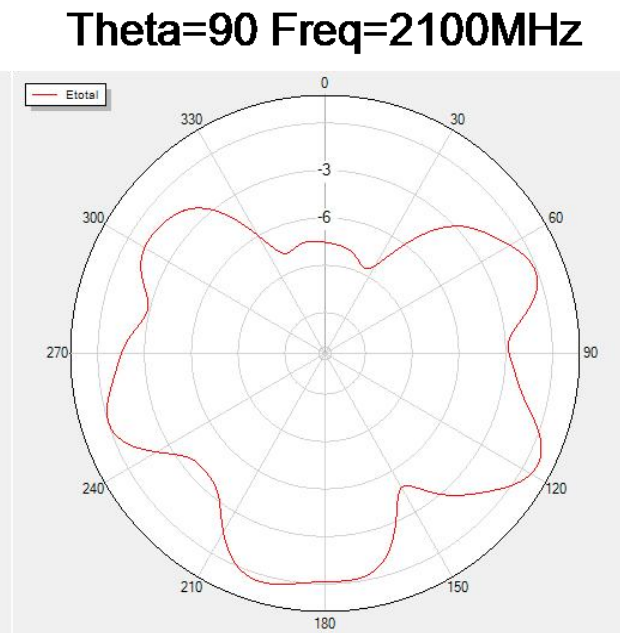
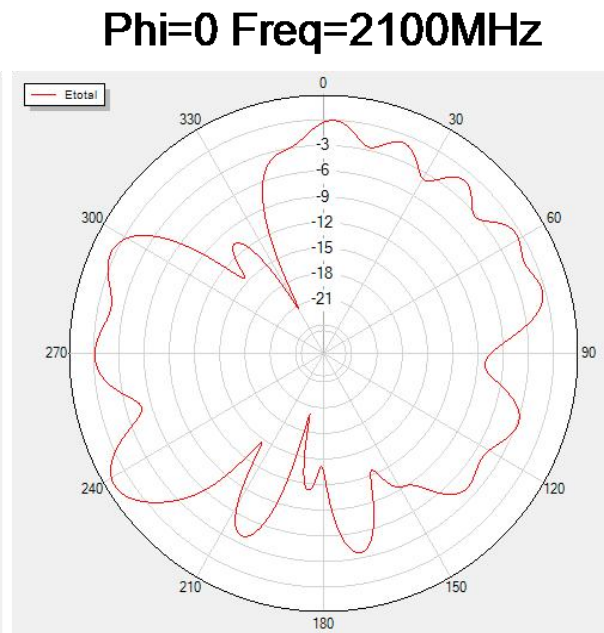
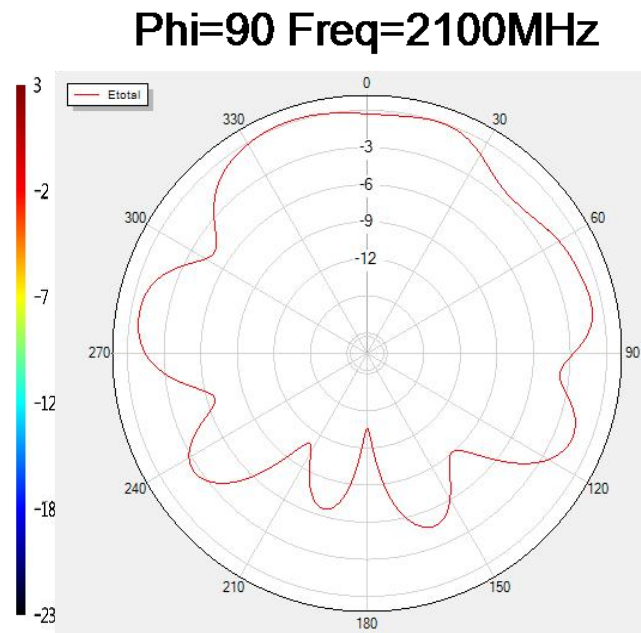
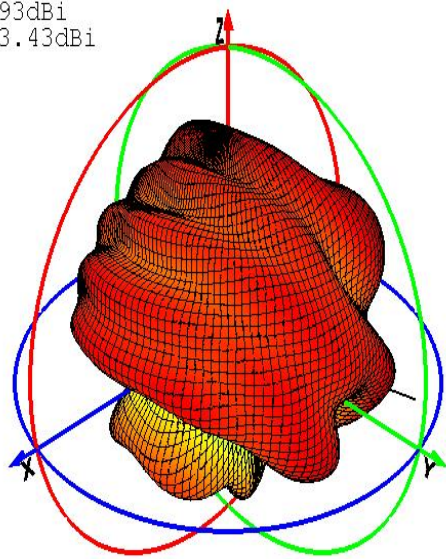
Theta=90 Freq=1700MHz



方向图 (Directional diagram)

2100MHz

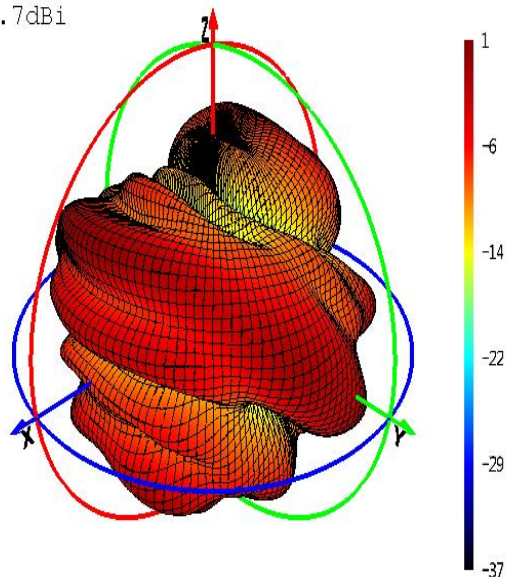
MAX: 2.93dBi
MIN: -23.43dBi



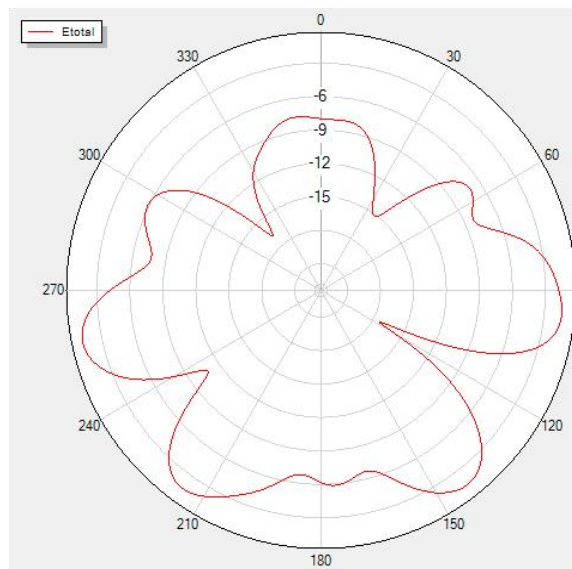
方向图 (Directional diagram)

2700MHz

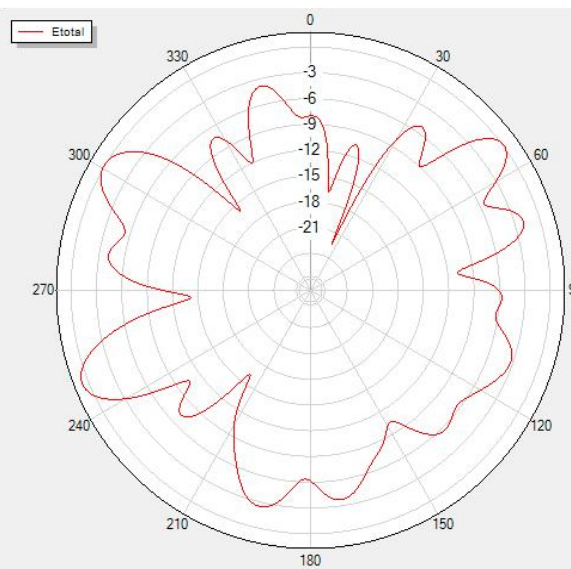
MAX:0.76dBi
MIN:-37.7dBi



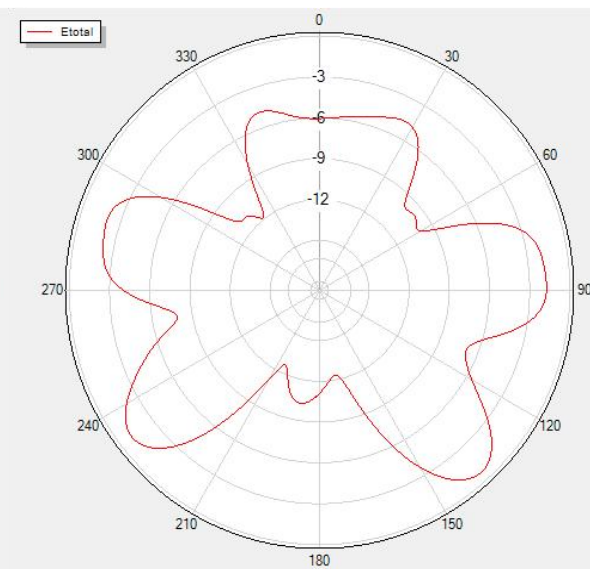
Phi=90 Freq=2700MHz



Phi=0 Freq=2700MHz



Theta=90 Freq=2700MHz



有源测试：功率和灵敏度 (Active test: TRP/TIS)

GSM					WCDMA				
Band	Channel	Frequency	TRP	TIS	Band	Channel	Frequency	TRP	TIS
GSM_B5	128	824.2	27.73	-102.97	WCDMA_B1	9612	1922.4	20.68	-108.56
	190	836.6	27.74			9750	1950	20.1	
	251	848.8	29.06	-103.22		9888	1977.6	19.21	-108.97
GSM_B8	975	880.2	31.47	-100.4	WCDMA_B2	9262	1852.4	20.36	-106.32
	38	897.6	31.69			9400	1880	21.17	
	124	914.8	30.95	-104.08		9538	1907.6	20.77	-107.12
GSM_B3	512	1710.2	26.31	-104.95	WCDMA_B5	4132	826.4	20.35	-106.07
	699	1747.6	26.1			4183	836.6	20.49	
	885	1784.8	26.19	-104.6		4233	846.6	20.77	-108.67
GSM_B2	512	1850.2	28.22	-106.21	WCDMA_B8	2712	882.4	20.49	-108.33
	661	1880	28.32			2787	897.4	20.37	
	810	1909.8	28.2	-105.46		2863	912.6	20.6	-110.33

