



福州中天迅通信技术有限公司

Fuzhou ZHONGTIANXUN Communication Technology Co., Ltd

Fuzhou Address: Building 45, Unit SC02, 2nd Floor, Jinshan Industrial Zone,
Cangshan District, Fuzhou City, Fujian Province

项目名称(Project Name): DX8-Primary

天线型号(Antenna model): DX8-Primary Ant1

A

物料编码(Item number): E.03.01146

MPN 码 (MPN) : B0680368D

日期 (Date) : 2026-1-7

设计公司: 福州中天迅通信技术有限公司

Design company: Fuzhou zhongtianxxun communication technology Co., Ltd

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版本 version	日期 date	状态 status
A1	2025-6-3	初版。 First issue.
A2	2025-11-19	项目名称变更为 DX8，丝印更新。 The project name has been changed to DX8. screen printing update.
A3	2026-1-7	性能数据，结构图纸更新。 Performance data and structural drawing updates.





目 录 (Catalog)

1. 名词解释 (Explanation of Nouns)	4
2. 测试设备 (Test equipment)	4
3. 适用频段 (Applied frequency band)	4
4. 测试指标和数据图表 (Test project)	5~18
4.1 驻波图 (VSWR)	5
4.2 无源效率 (Antenna passive test)	6~10
4.3 有源数据 (Active test data)	11~14
4.4 2D 方向图 (2D pattern)	15~16
4.5 3D 方向图 (3D pattern)	17
5. 阻抗匹配要求 (Matching circuit)	18
6. 天线外形图 (Mechanical Specification)	19





1 名词解释 (Explanation of Nouns)

dBi	Decibel relative isotropic antenna
Tx	Transmit frequency
Rx	Receive frequency
TRP	Total Radiated Power
TIS	Total Isotropic Sensitivity
VSWR	Voltage Standing Wave Ratio
GSM	Global Service for Mobile communication
DCS	Digital Communication System
CDMA	Code Division Multiple Access
WCDMA	Wideband Code Division Multiple Access

2 测试设备 (Test equipment)

矢量网络分析仪 (Vector network analyzer)	安捷伦 8753E (Agilent 8753E)	频
谱分析仪 (Frequency analyzer)		
综合测试仪 (General-purpose tester)	安捷伦 8960 E5515C	
标准高性能无反射屏蔽暗室 (High performance no-reflection shielding darkroom)		ETS
8m*4m*4m		

3 适用频段 (Applied frequency band)

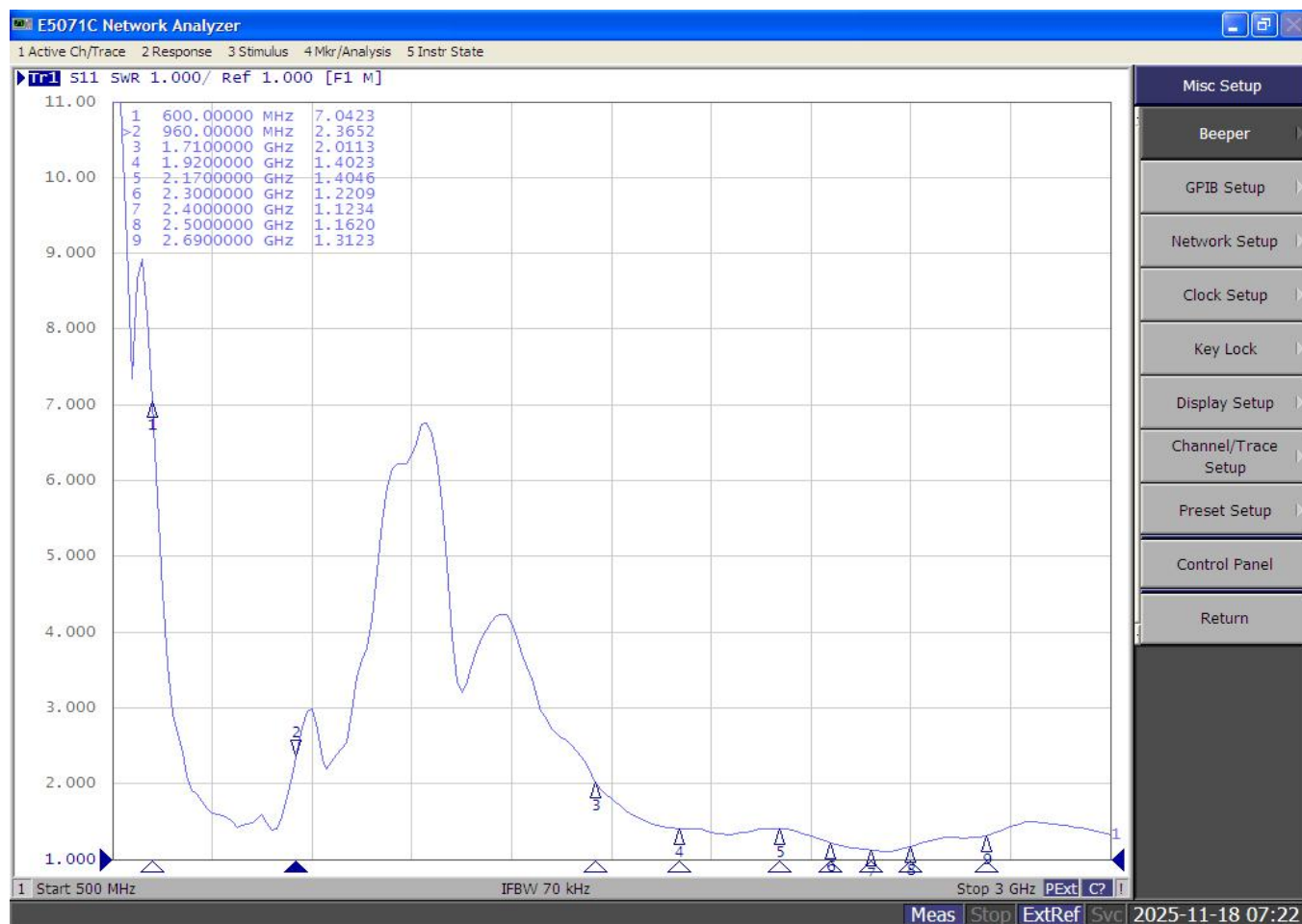
频段	频率
Frequency Band	Frequency
Primary	600-960MHz, 1710-2690MHz。





4. 测试指标和数据图表 (Test project)

4.1 驻波图 (VSWR)





4.2 无源效率 (Antenna passive test)

chNo	Freq (MHz)	Gain (dBi)	Efficiency_Pcent (%)
1	600	-9.605864594	4.493042256
2	610	-7.290522872	6.984569641
3	620	-6.180003731	10.1442416
4	630	-5.167710485	13.92738063
5	640	-4.034333625	17.56179958
6	650	-3.091916284	20.50477235
7	660	-2.867448459	21.94168924
8	670	-2.406487172	24.61258032
9	680	-2.165596425	25.04344906
10	690	-1.983688967	24.25818279
11	700	-2.127247318	22.86354806
12	710	-1.984307968	23.03617676
13	720	-1.963491112	22.22411843
14	730	-2.049508397	21.66264883
15	740	-1.822010946	22.73464659
16	750	-1.589004789	24.43910863
17	760	-1.7810737	24.63932906
18	770	-1.206907579	29.33051361





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19	780	-0.741708491	32.20910532
20	790	-0.467953608	32.87068021
21	800	-0.103619495	34.95481711
22	810	-0.145406669	35.04656089
23	820	-0.014836187	36.51891222
24	830	0.006171677	36.5660681
25	840	0.074964717	37.57827779
26	850	-0.162975442	37.83537567
27	860	-0.589385792	37.19646154
28	870	-0.642754434	33.28707366
29	880	-0.490079264	33.24908346
30	890	-0.405309088	36.33987129
31	900	-0.85848013	34.99816641
32	910	-1.803352448	30.41563774
33	920	-1.916501795	25.84083162
34	930	-0.99581893	28.29728904
35	940	0.397909328	33.01190897
36	950	0.143780864	33.86584863
37	960	-1.093883655	31.64834401
38	1710	1.267421779	48.90233451



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39	1730	1.258739572	47.12821998
40	1750	1.287610717	48.66215615
41	1770	1.833325738	53.75803688
42	1790	2.128204117	56.64719477
43	1810	2.27994862	61.98188947
44	1830	1.80440706	69.32732689
45	1850	1.256098549	64.72380809
46	1870	1.200459144	63.08092883
47	1890	1.102451515	62.96207707
48	1910	1.0844885	58.05510659
49	1930	1.864236573	58.49662072
50	1950	2.646204432	61.86225612
51	1970	2.894708186	66.93969612
52	1990	3.222572839	71.73638587
53	2010	3.034994172	69.58740305
54	2030	3.032032092	70.73060041
55	2050	2.657805538	67.50311994
56	2070	2.68538832	64.75779697
57	2090	2.668436278	61.9761112
58	2110	2.232251608	59.68835379



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59	2130	2.132673959	60.47142379
60	2150	1.894054292	59.42234588
61	2170	1.949711243	60.99458116
62	2190	1.965746315	63.95676686
63	2300	0.747561039	50.36848859
64	2320	1.263150219	53.29437303
65	2340	1.148990632	50.5535392
66	2360	1.203719609	51.00015663
67	2380	1.269496141	51.93749688
68	2400	1.539314534	54.10554003
69	2500	0.504859951	47.55102982
70	2520	0.798537524	47.66495012
71	2540	0.618419632	45.90984823
72	2560	0.336337628	44.97181223
73	2580	0.168288443	42.36494502
74	2600	0.457913503	42.29433806
75	2620	0.24698456	41.49386211
76	2640	-0.073925273	42.12308462
77	2660	0.279870762	42.56690643
78	2680	-0.189716199	40.84500097



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79	2690	0.08874509	43.39857057
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4.3 有源数据 (Active test data)

频段 Frequency band	参数\信道 Parameter \ Channel	128	190	251
GSM850	TRP (dBi)	29.35	29.39	29.41
	TIS (dBi)			-106.98
频段 Frequency band	参数\信道 Parameter \ Channel	1	62	124
GSM900	TRP (dBi)	27.84	27.62	26.43
	TIS (dBi)			-107.24
频段 Frequency band	参数\信道 Parameter \ Channel	512	661	885
PCS900	TRP (dBi)	26.95	27.14	27.11
	TIS (dBi)			-107.29
频段 Frequency band	参数\信道 Parameter \ Channel	10562	10700	10838
W1	TRP (dBi)	20.27	20.63	20.54
	TIS (dBi)			-107.85
频段 Frequency band	参数\信道 Parameter \ Channel	9662	9800	9938
W2	TRP (dBi)	20.23	20.47	20.41
	TIS (dBi)			-109.58
频段 Frequency band	参数\信道 Parameter \ Channel	1537	1638	1738
W4	TRP (dBi)	19.41	20.52	20.24
	TIS (dBi)			-109.19





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频段 Frequency band	参数\信道 Parameter \ Channel	4357	4408	4458
W5	TRP (dBi)	20.12	20.19	20.22
	TIS (dBi)			-107.86
频段 Frequency band	参数\信道 Parameter \ Channel	2937	3013	3088
W8	TRP (dBi)	19.85	19.64	19.12
	TIS (dBi)			-107.25
频段 Frequency band	参数\信道 Parameter \ Channel	650	900	1150
band2	TRP (dBi)	20.27	20.32	19.73
	TIS (dBi)			-96.89
频段 Frequency band	参数\信道 Parameter \ Channel	2000	2175	2350
band4	TRP (dBi)	18.67	20.26	20.35
	TIS (dBi)			-95.94
频段 Frequency band	参数\信道 Parameter \ Channel	2450	2525	2600
band5	TRP (dBi)	19.42	19.38	19.35
	TIS (dBi)			-95.88
频段 Frequency band	参数\信道 Parameter \ Channel	2850	3100	3350
band7	TRP (dBi)	19.43	19.57	18.84
	TIS (dBi)			-94.21
频段 Frequency band	参数\信道 Parameter \ Channel	5060	5095	5125



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band12	TRP (dBi)	18.27	18.98	18.42
	TIS (dBi)			-97.85
频段 Frequency band	参数\信道 Parameter \ Channel		5230	
band13	TRP (dBi)		19.47	
	TIS (dBi)		-94.73	
频段 Frequency band	参数\信道 Parameter \ Channel	5780	5790	5800
band17	TRP (dBi)	18.31	18.99	18.26
	TIS (dBi)			-94.65
频段 Frequency band	参数\信道 Parameter \ Channel	8100	8365	8600
band25	TRP (dBi)	20.31	20.42	19.92
	TIS (dBi)			-96.79
频段 Frequency band	参数\信道 Parameter \ Channel	8740	8865	8990
band26	TRP (dBi)	19.98	19.76	19.62
	TIS (dBi)			-96.38
频段 Frequency band	参数\信道 Parameter \ Channel	40450	40740	40940
band41	TRP (dBi)	19.43	19.48	18.93
	TIS (dBi)			-91.59
频段 Frequency band	参数\信道 Parameter \ Channel	132022	132322	132622
band66	TRP (dBi)	18.28	20.15	20.54





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	TIS (dBi)			-95.61
频段 Frequency band	参数\信道 Parameter \ Channel	68636	68761	68886
band71	TRP (dBi)	17.62	18.35	19.29
	TIS (dBi)			-93.84



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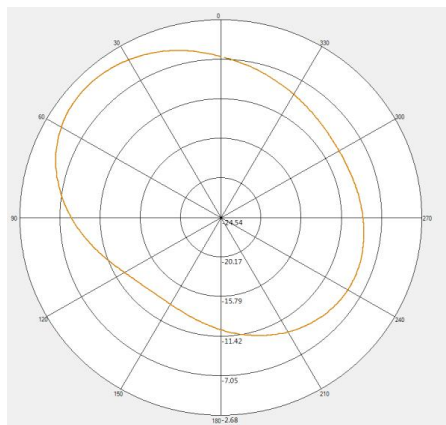
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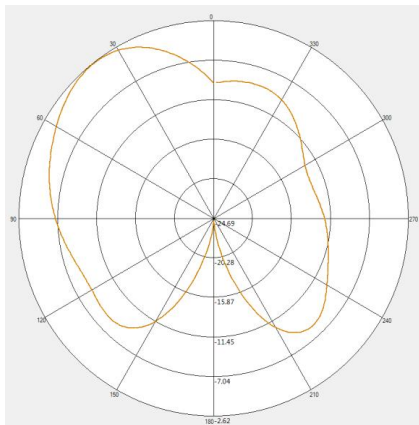
4.4 2D 方向图 (2D pattern)

660MHz

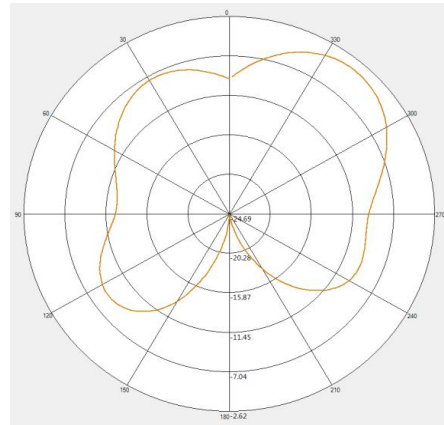
XOY



XOZ

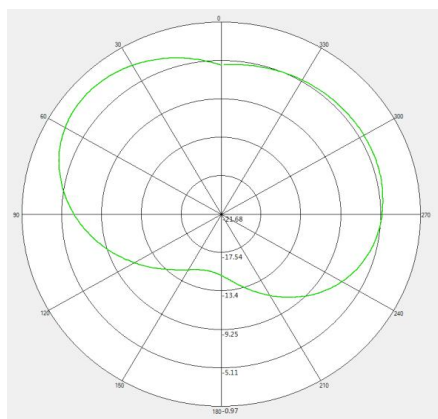


YOZ

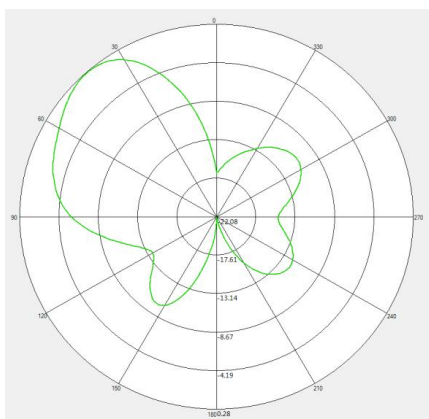


880MHz

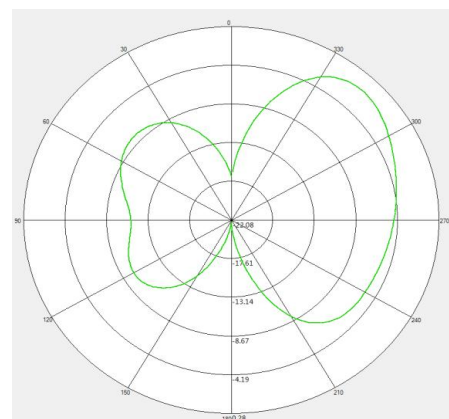
XOY



XOZ



YOZ

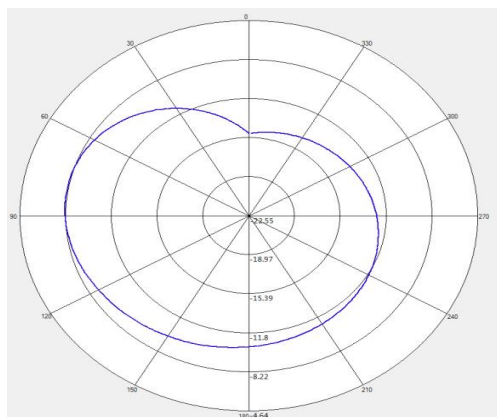




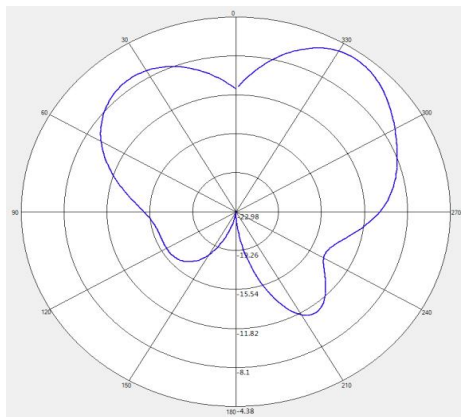
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1950MHz

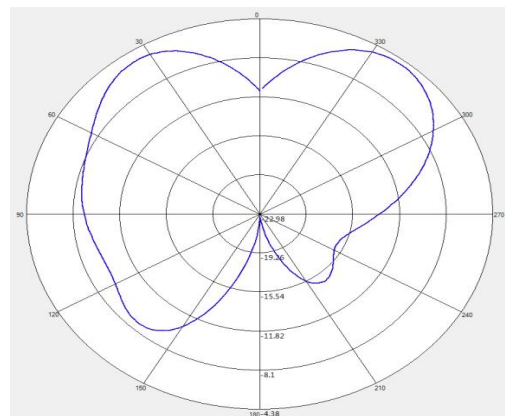
XOY



XOZ

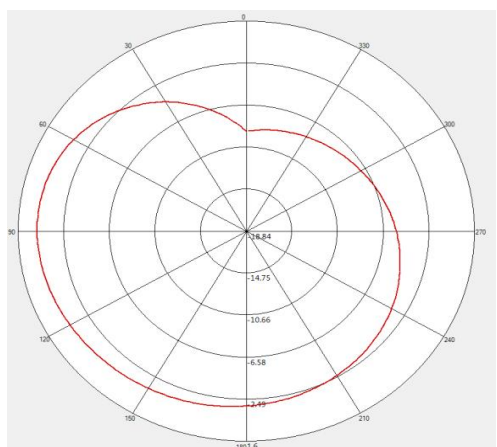


YOZ

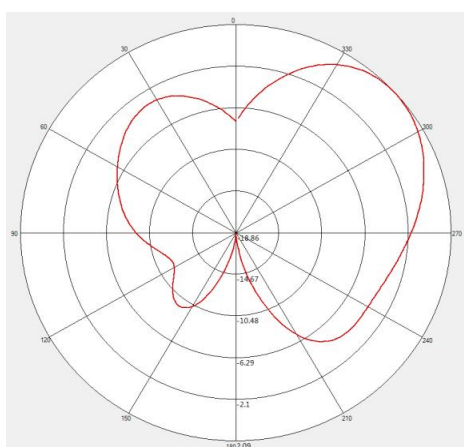


2500MHz

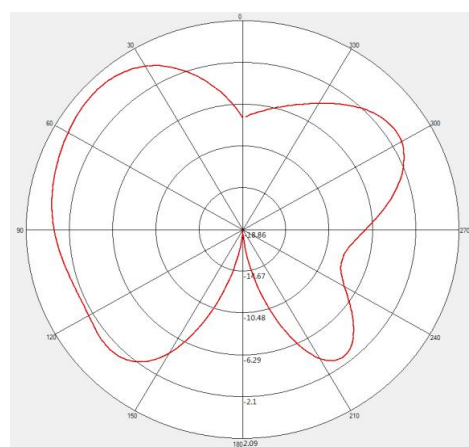
XOY



XOZ



YOZ

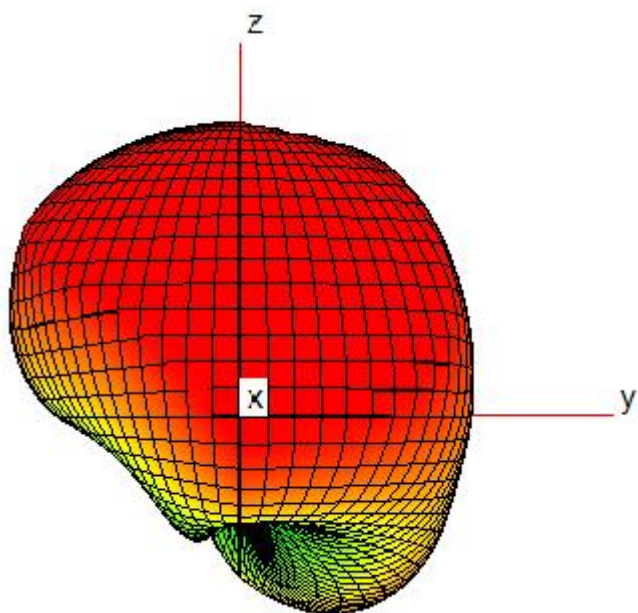


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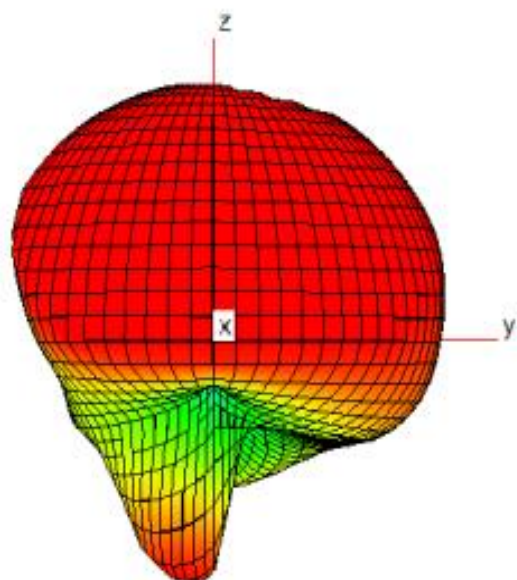


4.5 3D 方向图 (3D pattern)

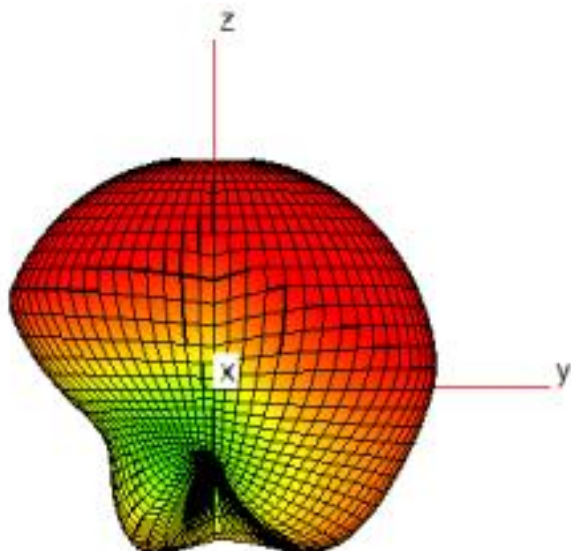
660MHz



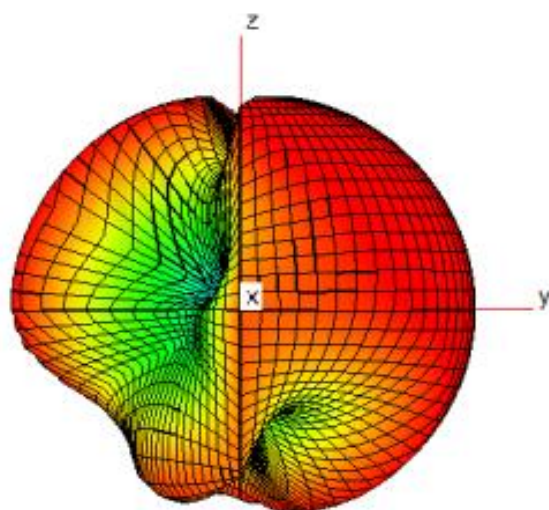
880MHz



1950MHz

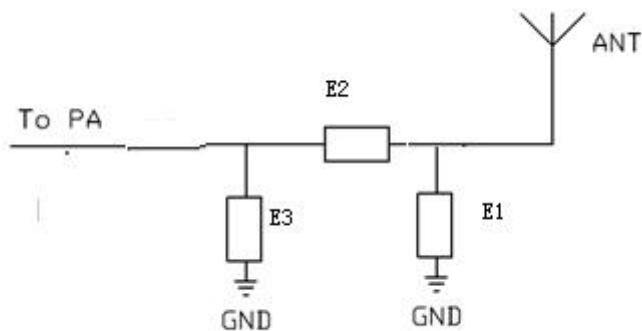


2500MHz





5. 匹配说明 (Matching circuit)



匹配说明 Matching structure	Primary
E1	NC
E2	6.8pF
E3	NC





6. 天线外形图 (Mechanical Specification)

