



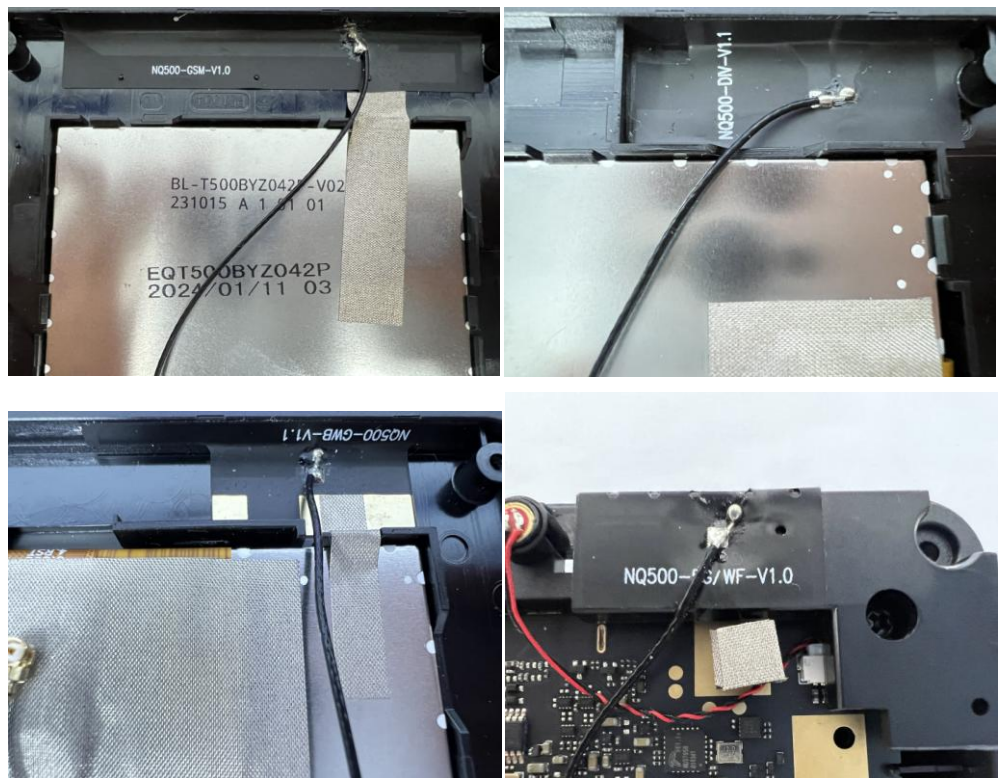
Shenzhen Doskin Technology Co., Ltd

Room 403, West, Building 2, Pingshan Private Enterprise Science and Technology Park, No. 65, Lishan

Road, Pingshan Community, Taoyuan Sub-district, Nanshan District, Shenzhen City

深圳市德仕勤科技有限公司

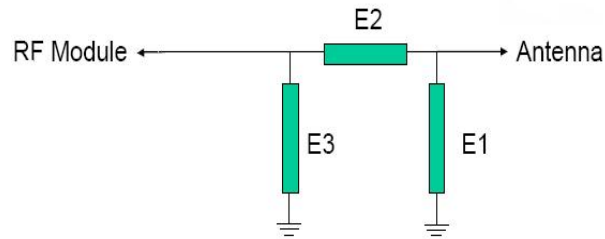
DOSKING Antenna Test Report



1.The Equipment of Active Test

1. ETS Chamber 7×4×3(m)/3*3*3 (m)
2. 矢量网络分析仪(无源测试仪) Vector network analyzer (Passive Tester)
3. Network analyzer-5071E/B/Comprehensive measuring instrument-8960/LTE-RS-CMW500/MT8820C support 2G、3G、4G/BT、WIFI、NB

2.Matching Circuit

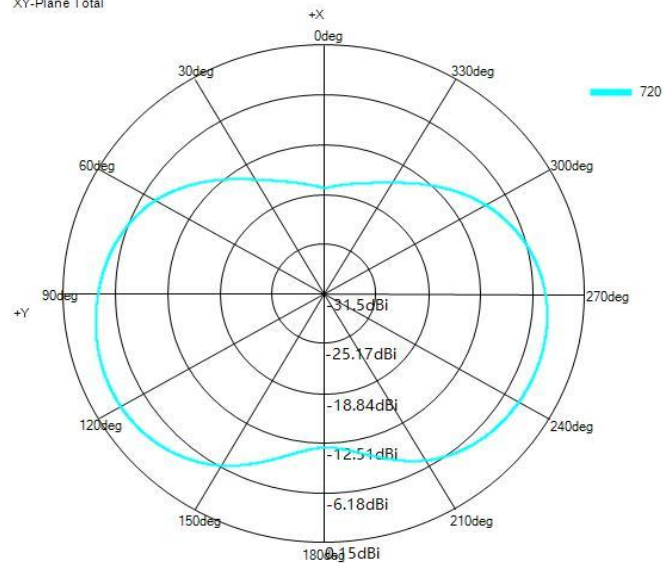


Element	Matching value
E1	
E2	
E3	

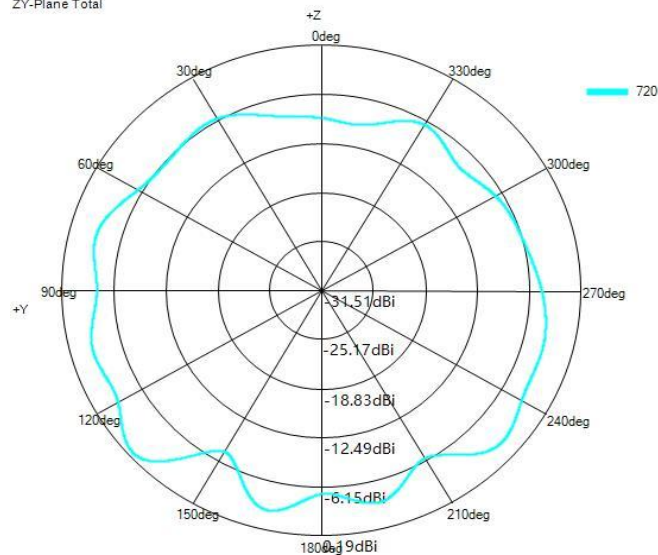
3:Passive antenna testing

Freq (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)
700	-5.73	-0.88	26.73
720	-5.82	0.08	26.16
740	-5.67	-0.46	27.09
760	-6.33	-1.67	23.29
780	-7.44	-2.71	18.05
800	-8.5	-3.8	14.13
820	-8.22	-2.75	15.05
840	-6.6	-0.79	21.86
860	-6.41	-1.21	22.85
880	-7.69	-2.85	17.02
900	-6.98	-2.07	20.06
920	-7.02	-1.56	19.85
940	-6.79	-1.12	20.96
960	-6.56	-0.94	22.1

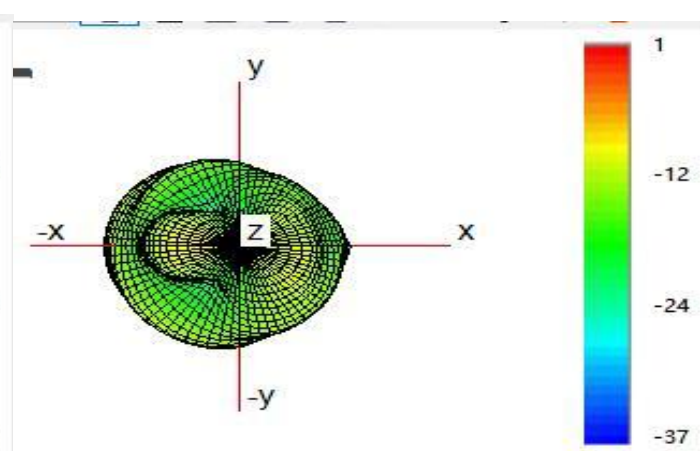
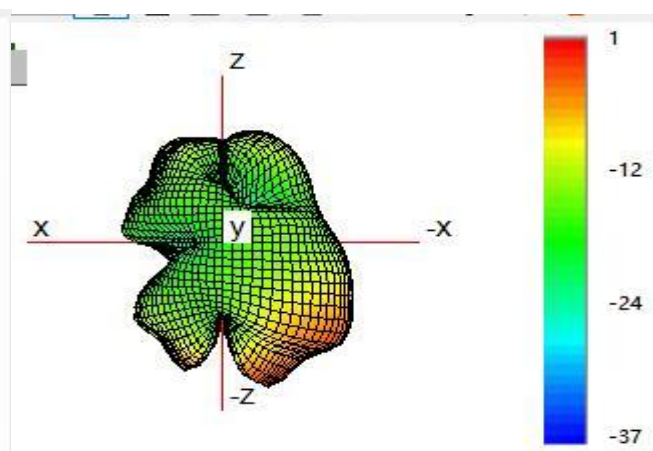
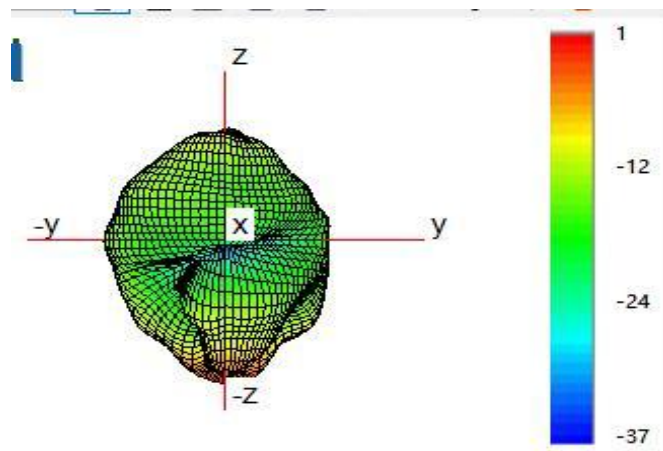
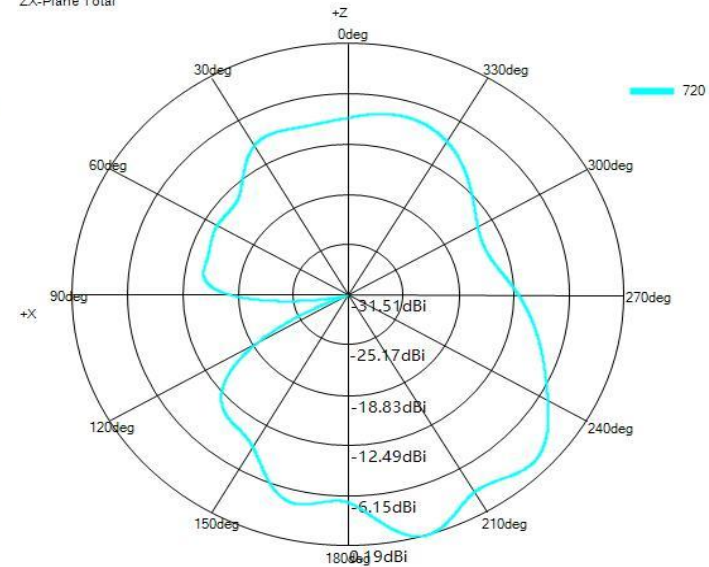
XY-Plane Total



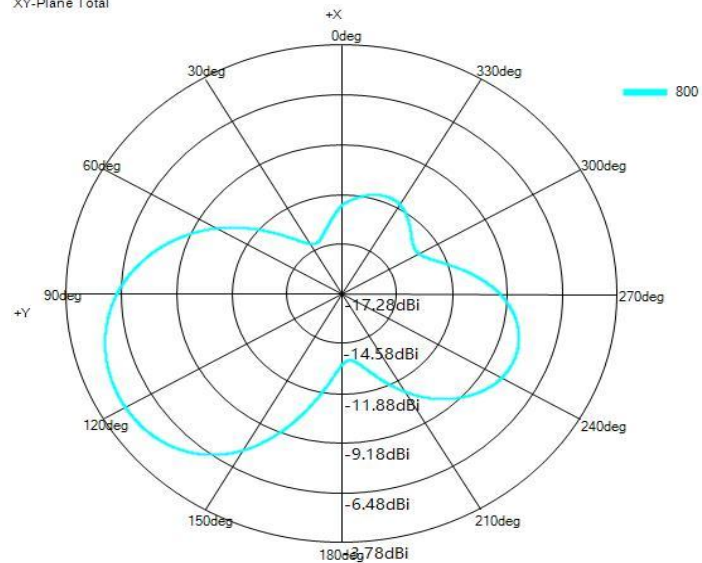
ZY-Plane Total



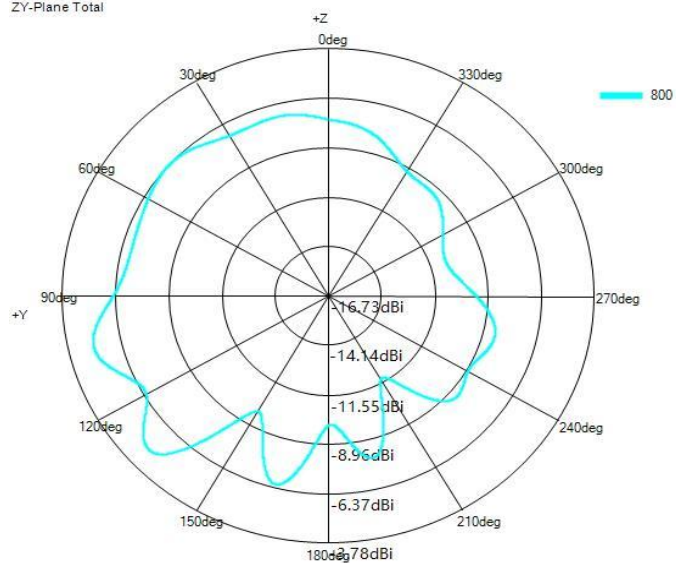
ZX-Plane Total



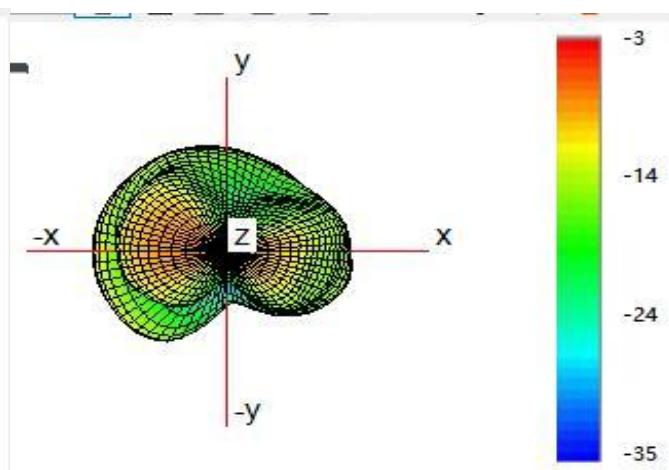
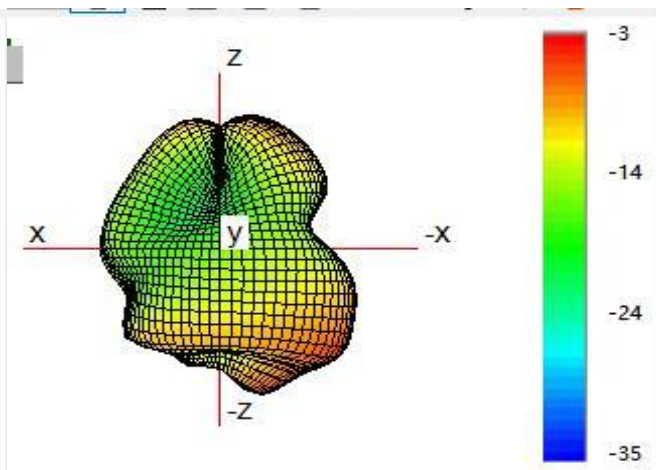
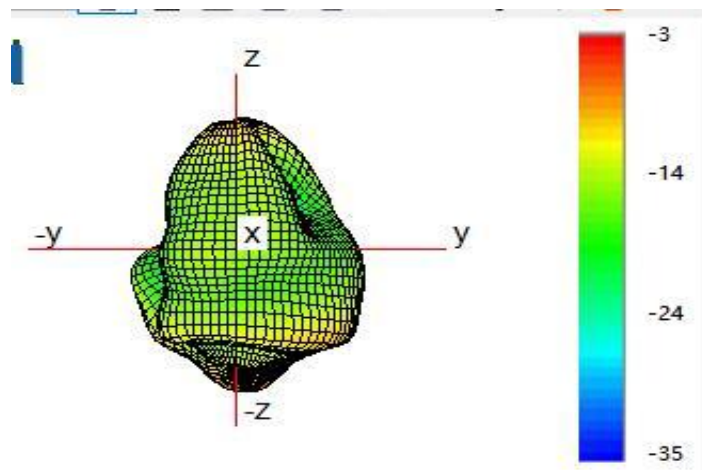
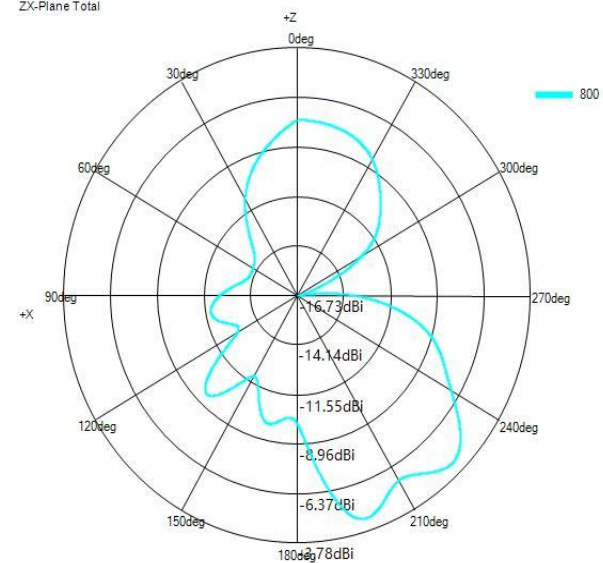
XY-Plane Total



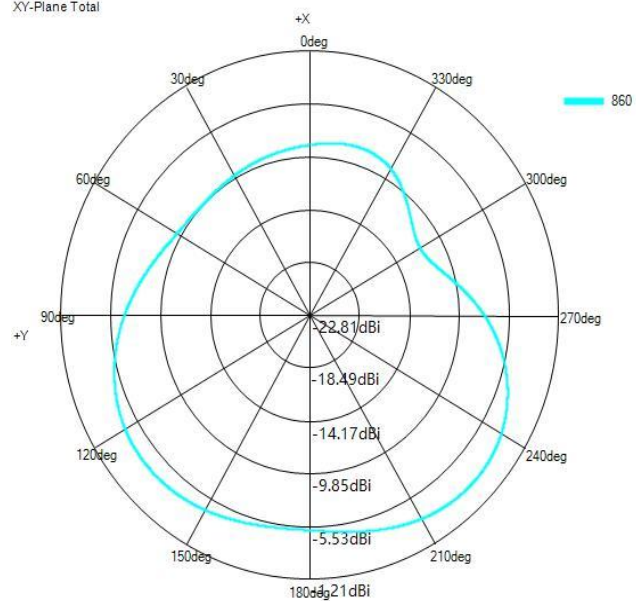
ZY-Plane Total



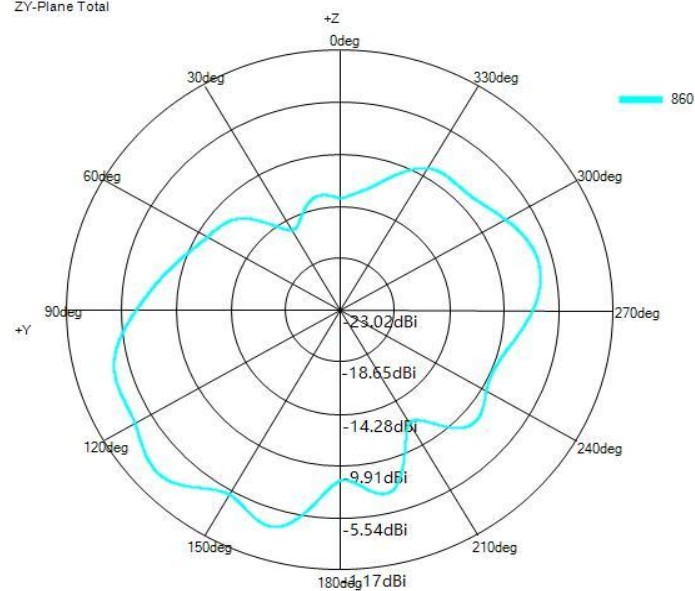
ZX-Plane Total



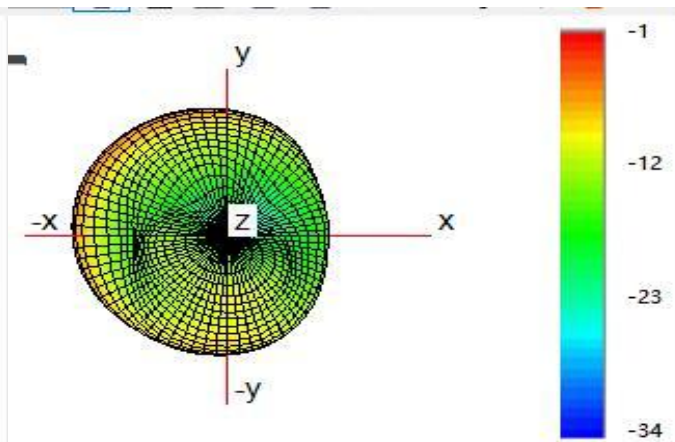
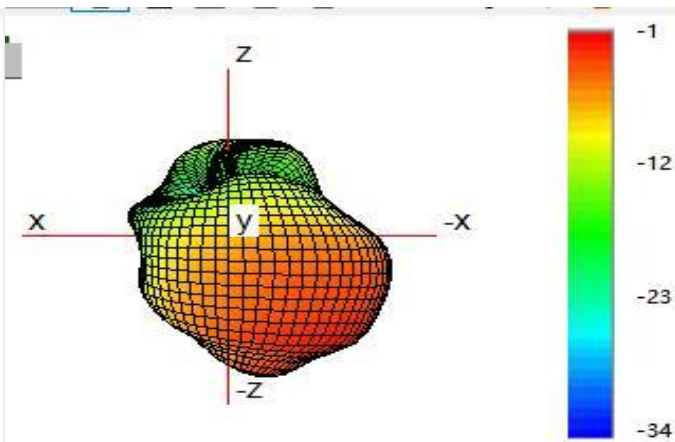
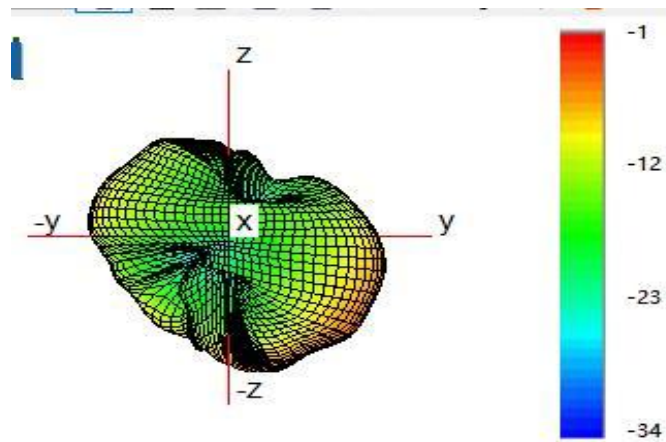
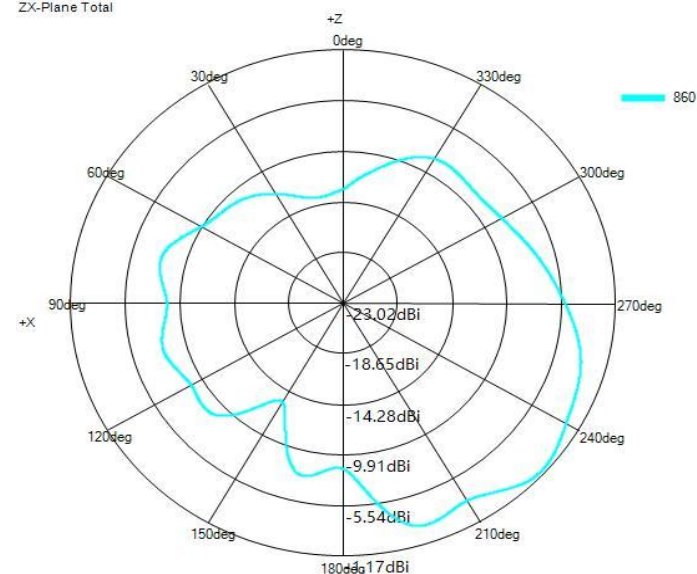
XY-Plane Total



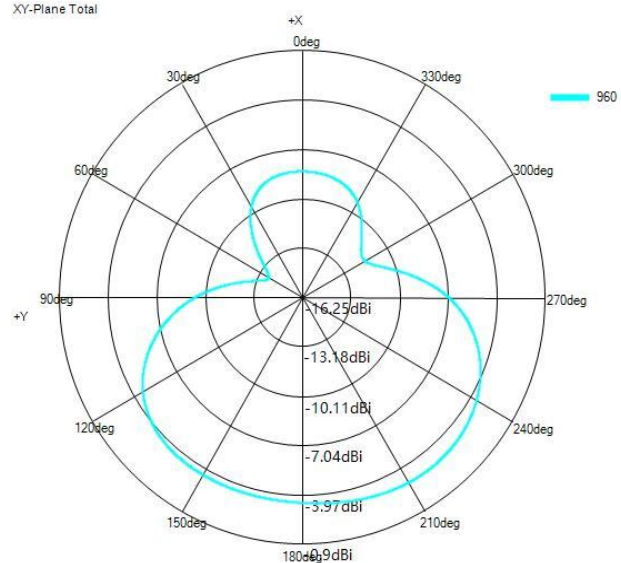
ZY-Plane Total



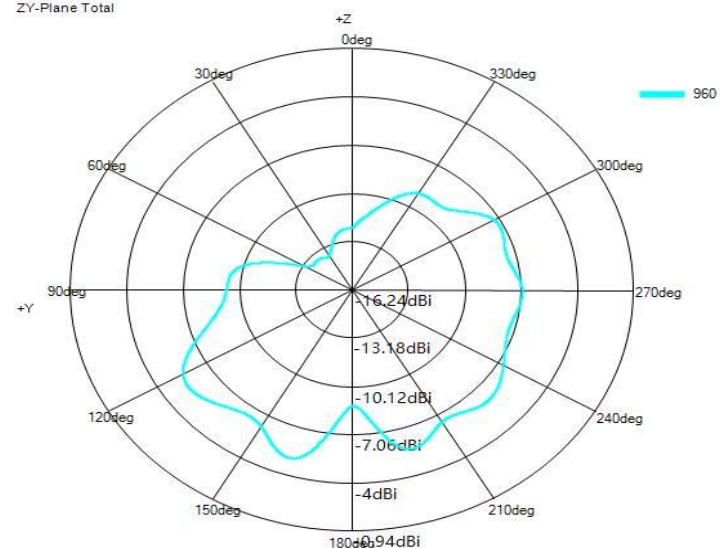
ZX-Plane Total



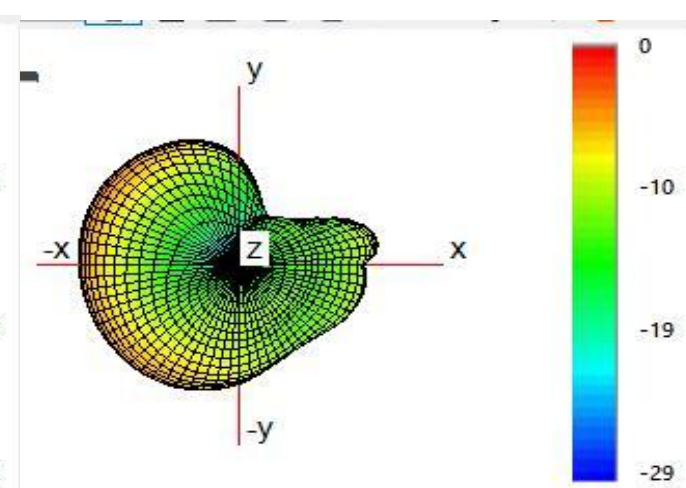
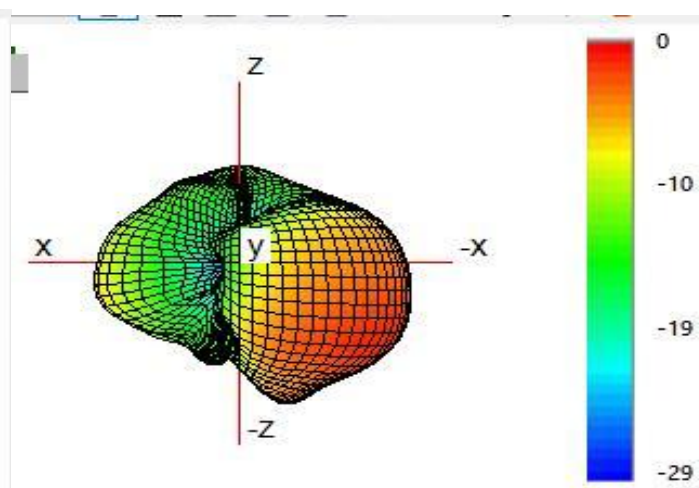
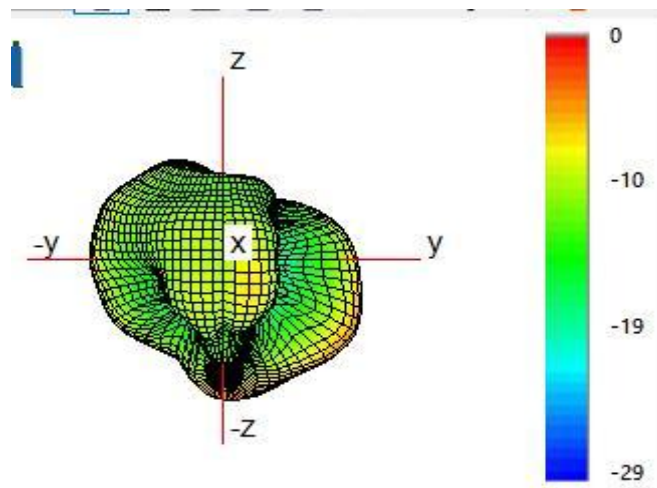
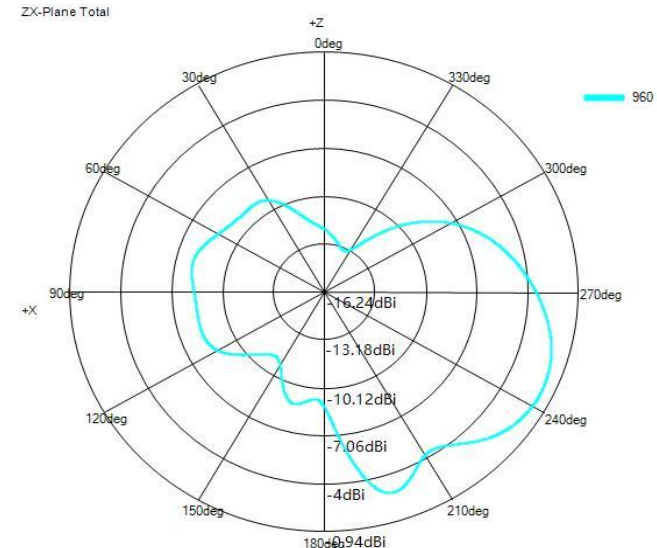
XY-Plane Total



ZY-Plane Total

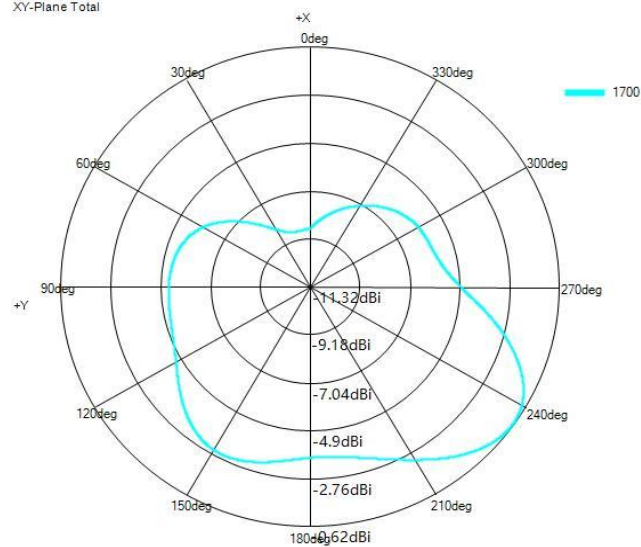


ZX-Plane Total

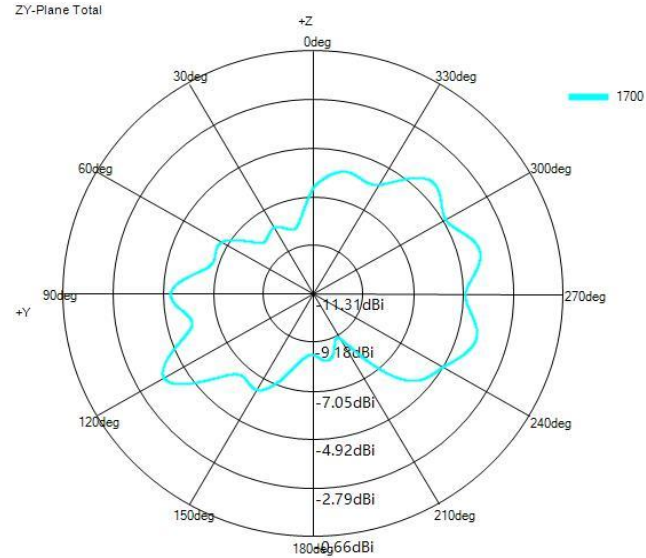


Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)				
1700	-0.71	-4.95	32.00	2220	1.56	-2.97	50.45
1720	-1.07	-5.03	31.42	2240	1.79	-2.86	51.75
1740	-0.89	-4.67	34.16	2260	1.85	-2.93	50.96
1760	-0.55	-4.41	36.22	2280	1.57	-3.09	49.05
1780	-0.25	-4.33	36.94	2300	0.99	-3.52	44.43
1800	0.15	-4.10	38.89	2320	0.33	-3.97	40.12
1820	0.36	-4.07	39.18	2340	0.37	-4.19	38.12
1840	0.42	-4.15	38.46	2360	0.53	-4.18	38.17
1860	0.57	-4.21	37.91	2380	0.24	-4.38	36.50
1880	0.44	-4.44	35.98	2400	0.63	-4.30	37.13
1900	0.38	-4.34	36.79	2420	0.88	-4.29	37.23
1920	0.46	-4.31	37.03	2440	0.88	-4.44	35.97
1940	0.92	-4.27	37.44	2460	0.90	-4.65	34.25
1960	1.23	-4.15	38.47	2480	0.66	-4.96	31.94
1980	1.23	-4.15	38.42	2500	0.49	-4.97	31.88
2000	1.34	-4.03	39.54	2520	0.31	-4.82	32.93
2020	1.36	-3.70	42.65	2540	0.05	-4.70	33.90
2040	1.32	-3.43	45.44	2560	-0.14	-4.55	35.08
2060	1.22	-3.22	47.62	2580	-0.11	-4.33	36.86
2080	0.85	-3.28	46.96	2600	-0.01	-4.18	38.23
2100	0.77	-3.29	46.91	2620	-0.25	-4.20	37.99
2120	0.83	-3.15	48.47	2640	-0.57	-4.44	36.00
2140	0.65	-3.27	47.15	2660	-0.88	-4.67	34.14
2160	0.68	-3.34	46.31	2680	-1.08	-4.73	33.67
2180	0.97	-3.28	46.96	2700	-0.85	-4.64	34.38

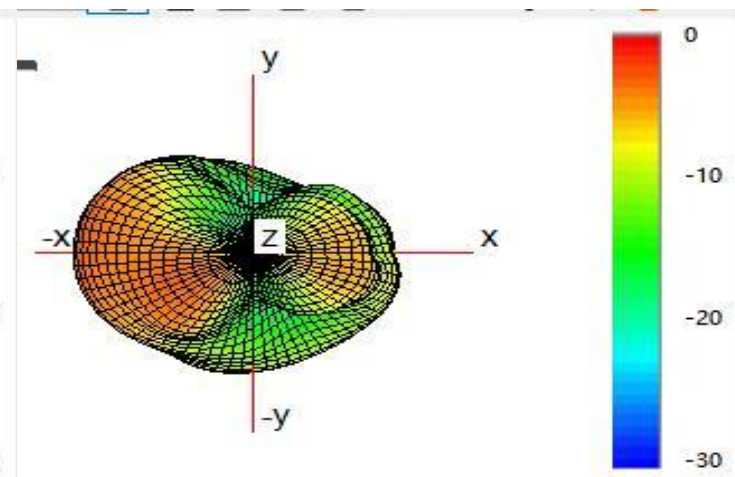
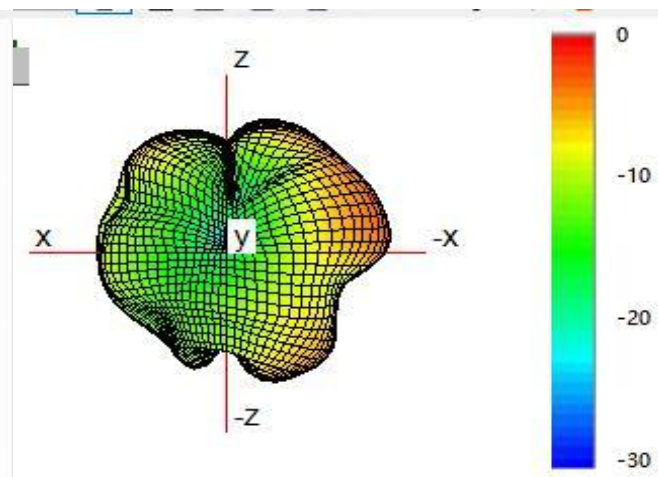
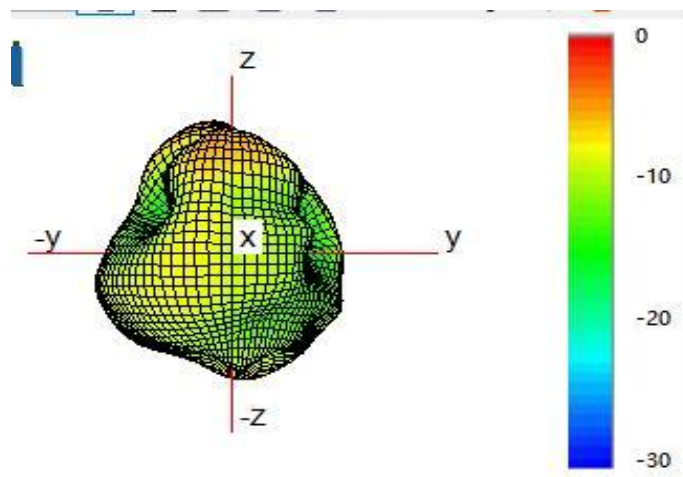
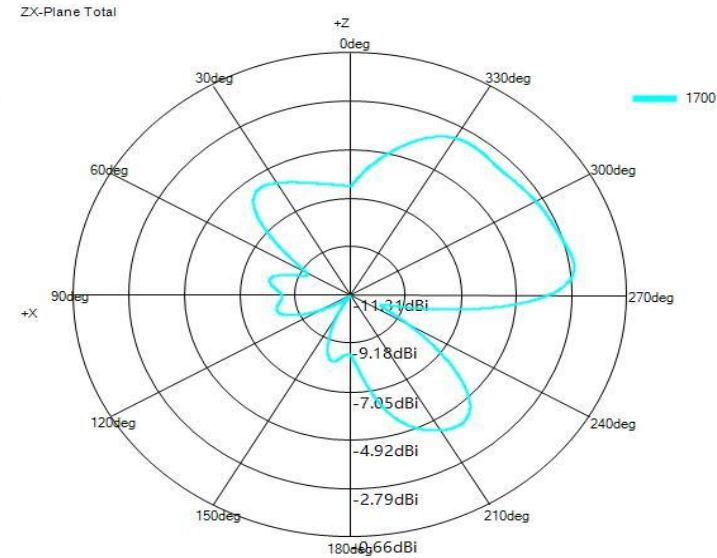
XY-Plane Total



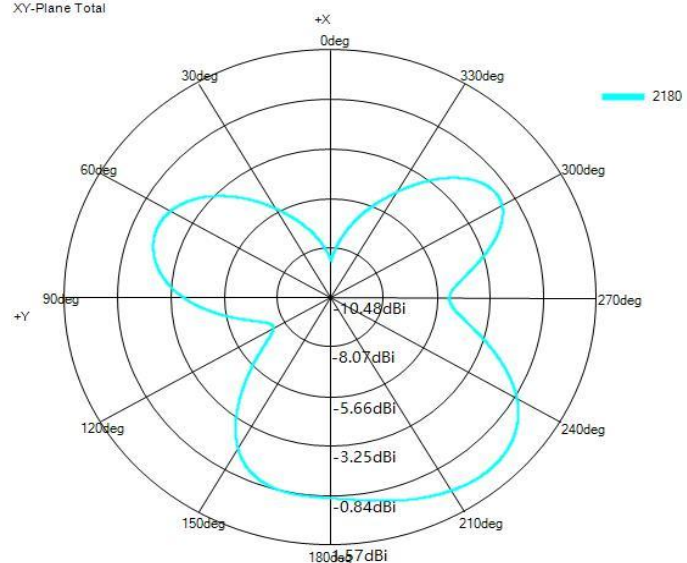
ZY-Plane Total



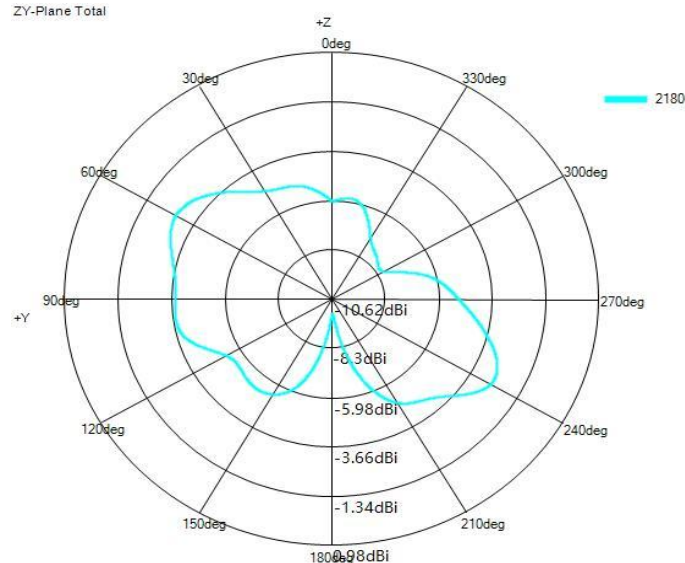
ZX-Plane Total



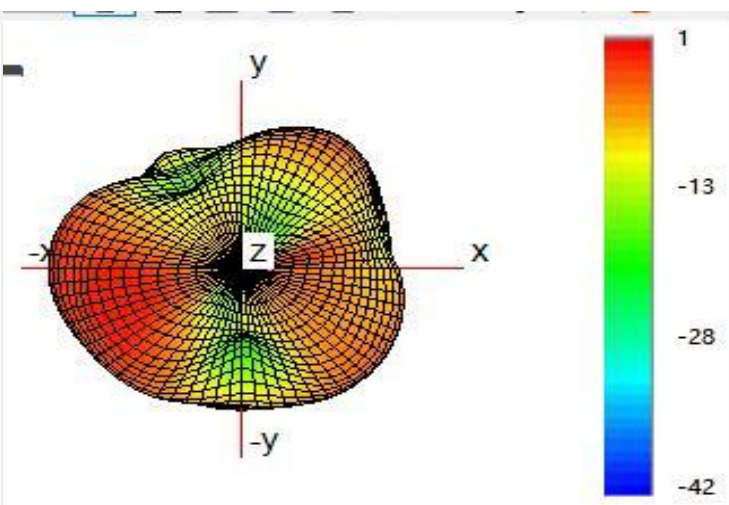
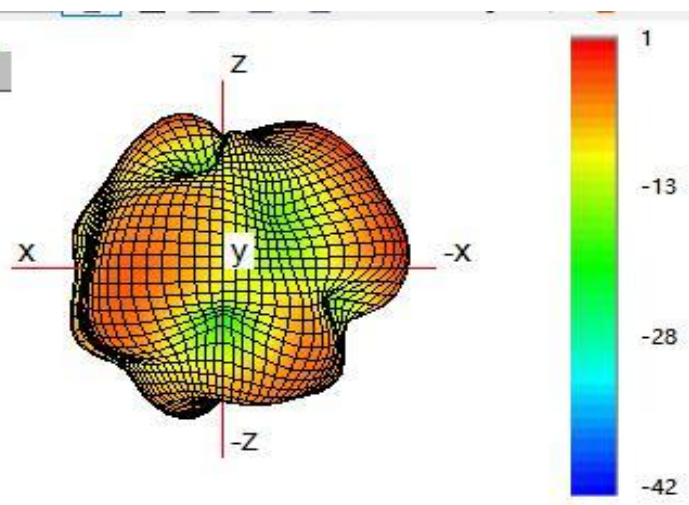
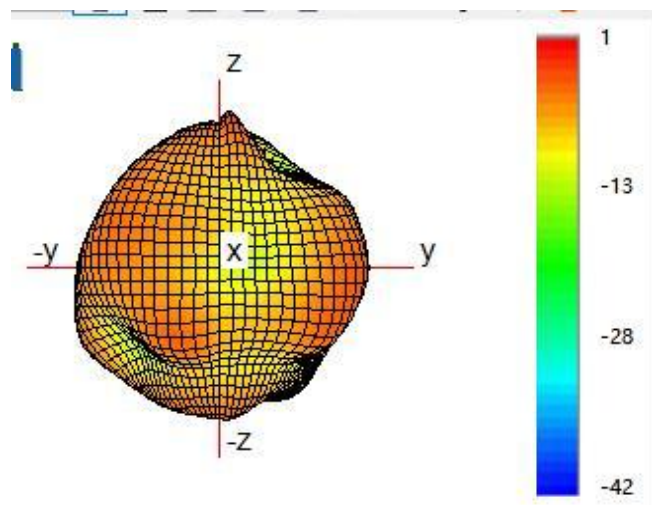
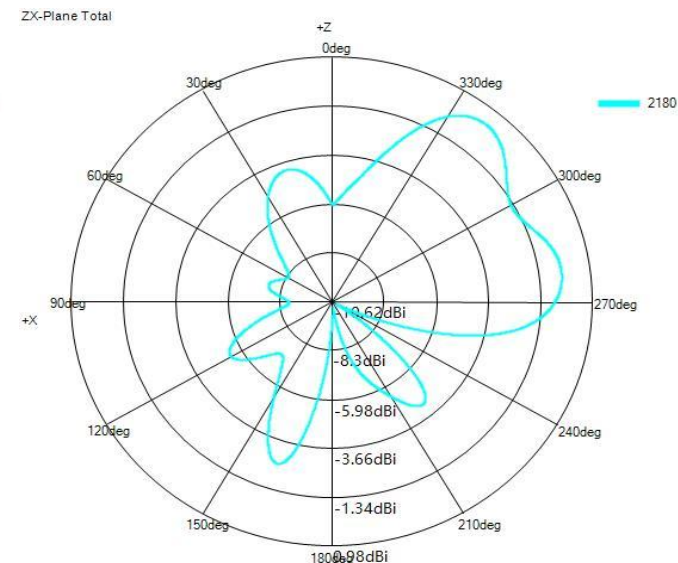
XY-Plane Total



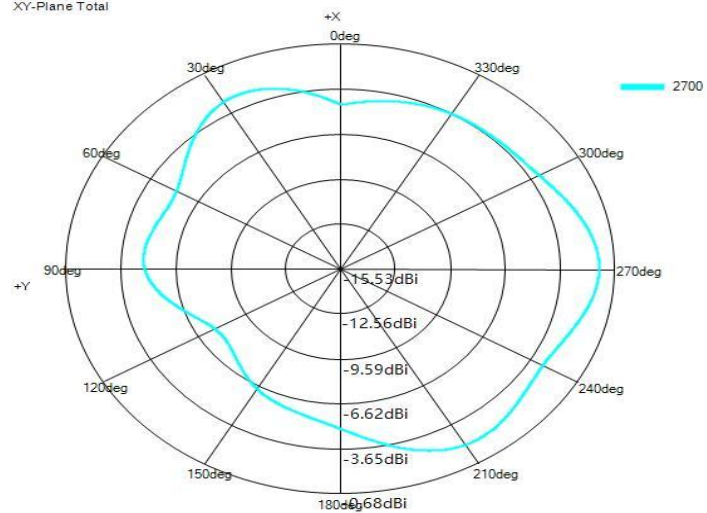
ZY-Plane Total



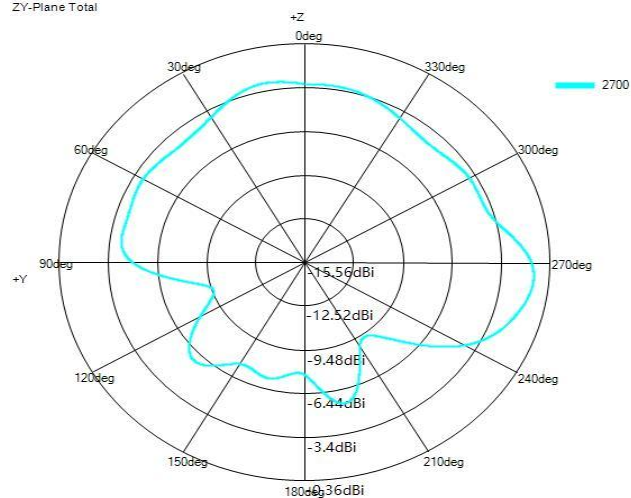
ZX-Plane Total



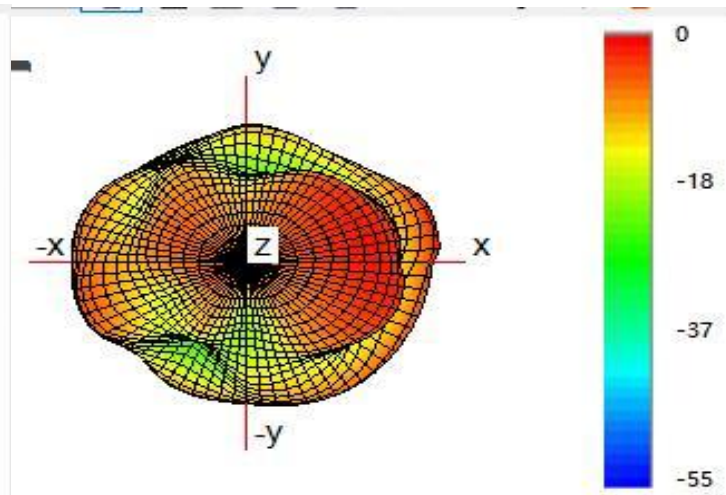
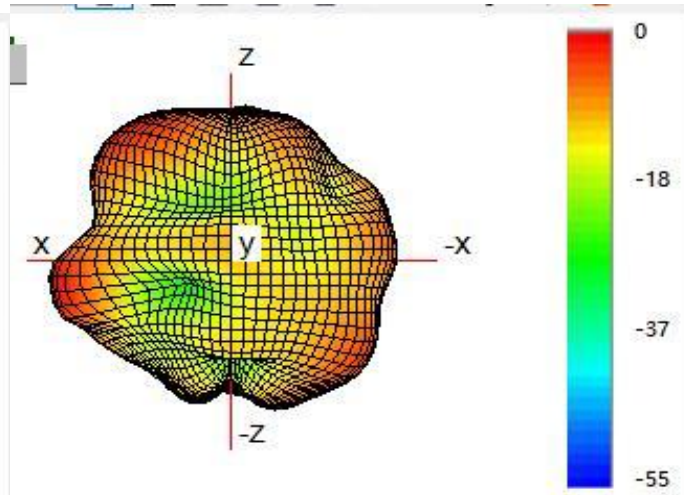
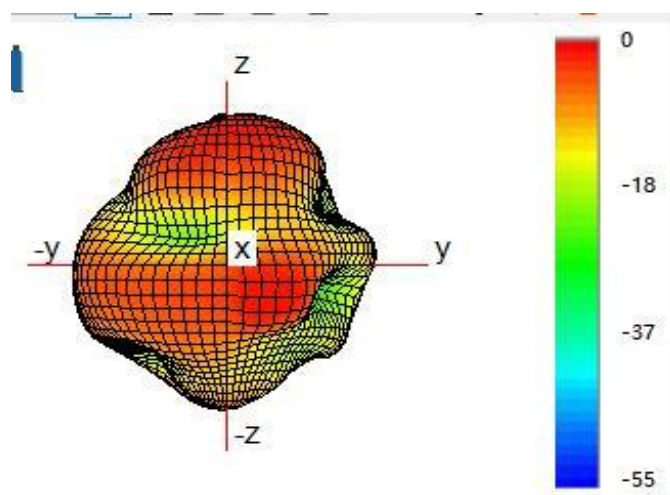
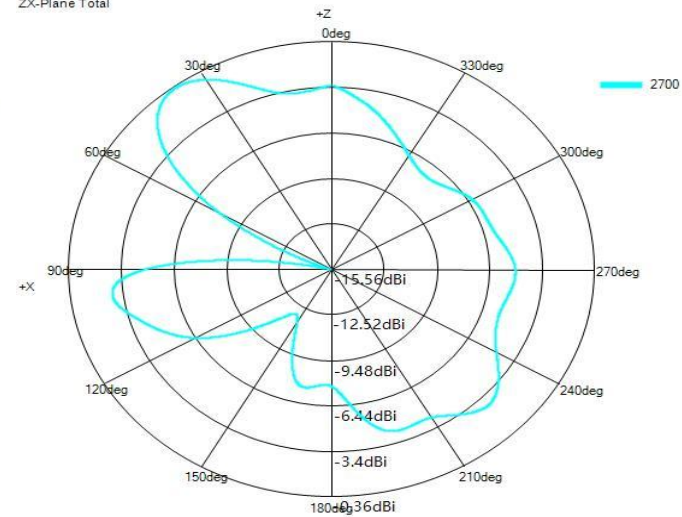
XY-Plane Total



ZY-Plane Total



ZX-Plane Total

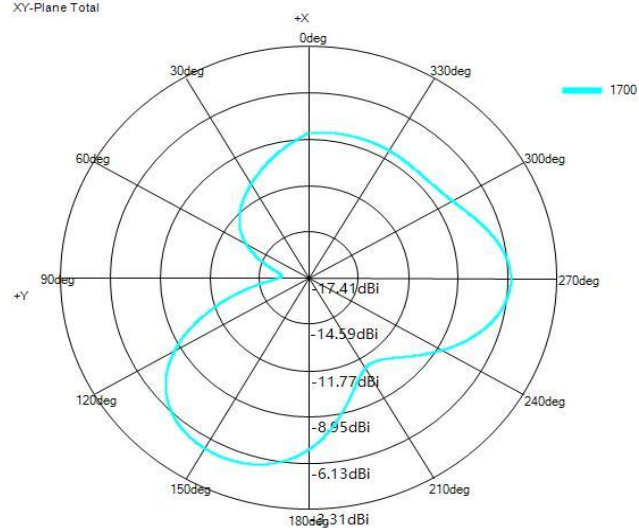




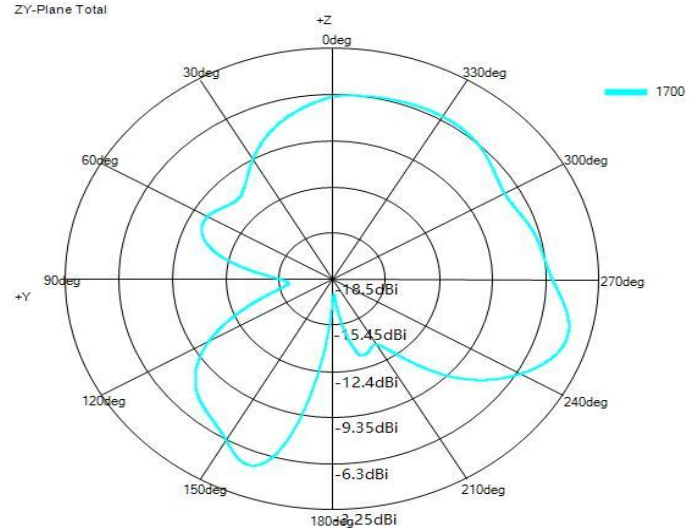
diversity antenna

Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)				
1700	-3.31	-7.80	16.59	2220	0.87	-4.05	39.33
1720	-3.27	-7.81	16.56	2240	0.96	-3.77	41.99
1740	-3.51	-7.90	16.21	2260	0.86	-3.51	44.56
1760	-4.23	-8.32	14.71	2280	0.63	-3.30	46.82
1780	-4.61	-8.39	14.50	2300	0.30	-3.26	47.24
1800	-4.31	-8.05	15.67	2320	0.02	-3.20	47.83
1820	-3.75	-7.58	17.46	2340	0.98	-3.03	49.75
1840	-3.22	-7.33	18.49	2360	1.83	-2.79	52.57
1860	-2.61	-7.14	19.34	2380	2.14	-2.80	52.47
1880	-2.04	-6.99	19.99	2400	2.60	-2.59	55.07
1900	-1.52	-6.72	21.31	2420	2.83	-2.47	56.64
1920	-1.24	-6.64	21.66	2440	2.85	-2.53	55.81
1940	-1.10	-6.42	22.82	2460	2.85	-2.67	54.02
1960	-0.87	-6.17	24.14	2480	2.68	-2.98	50.36
1980	-0.82	-6.20	24.01	2500	2.75	-3.08	49.18
2020	-0.36	-5.81	26.25	2540	2.84	-2.96	50.57
2040	0.03	-5.50	28.20	2560	2.56	-2.96	50.54
2060	0.30	-5.27	29.73	2580	2.45	-2.89	51.39
2080	0.50	-5.15	30.55	2600	2.21	-2.81	52.41
2100	0.69	-4.95	32.01	2620	2.27	-2.78	52.69
2120	0.97	-4.65	34.31	2640	2.28	-2.93	50.93
2140	0.93	-4.63	34.42	2660	2.06	-3.08	49.18
2160	0.78	-4.60	34.68	2680	1.92	-3.08	49.19
2180	0.67	-4.47	35.71	2700	1.85	-2.97	50.45

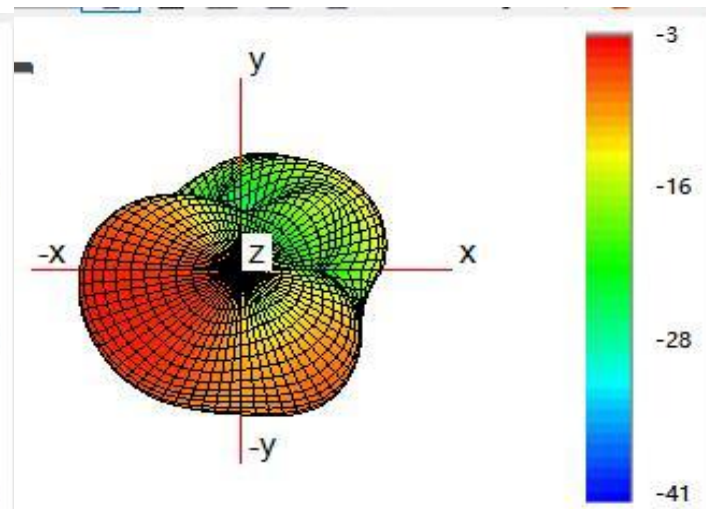
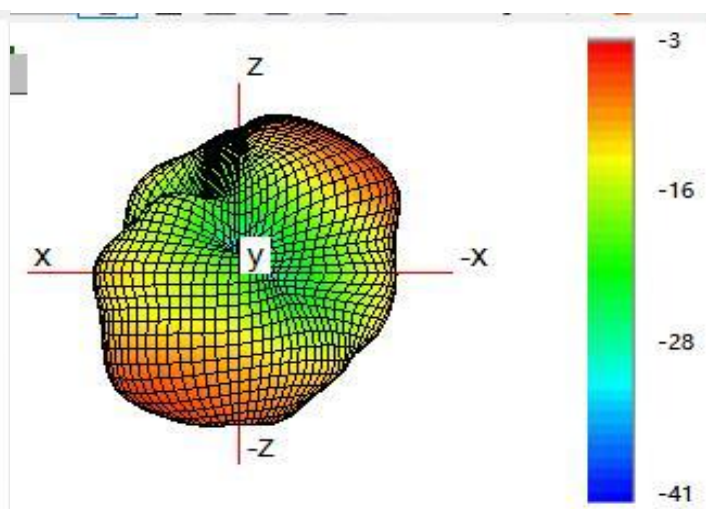
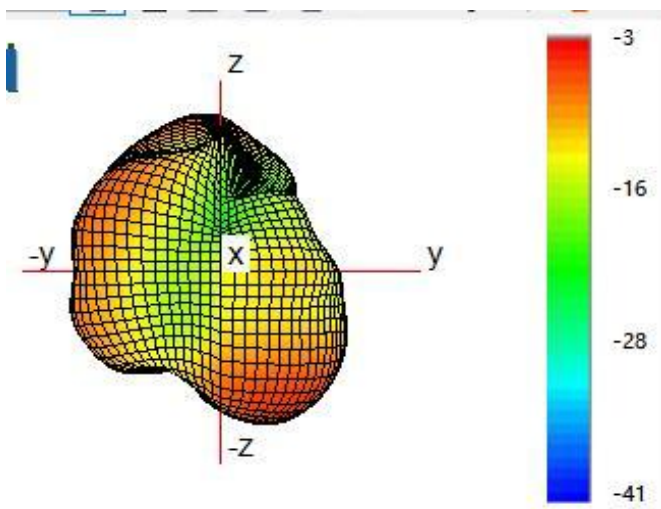
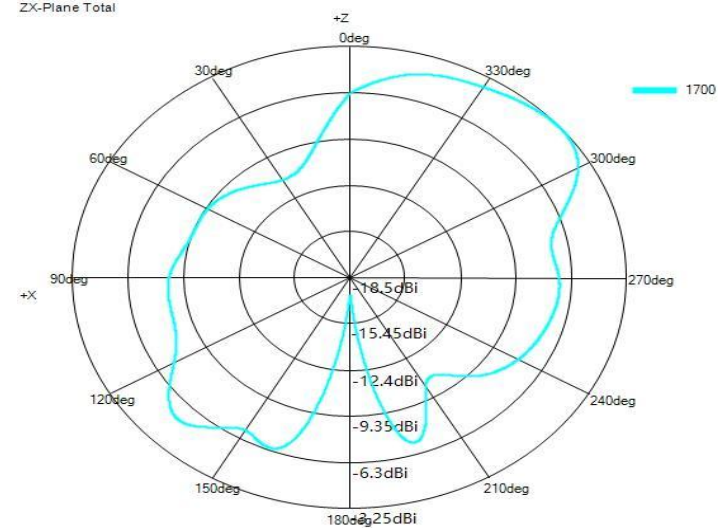
XY-Plane Total



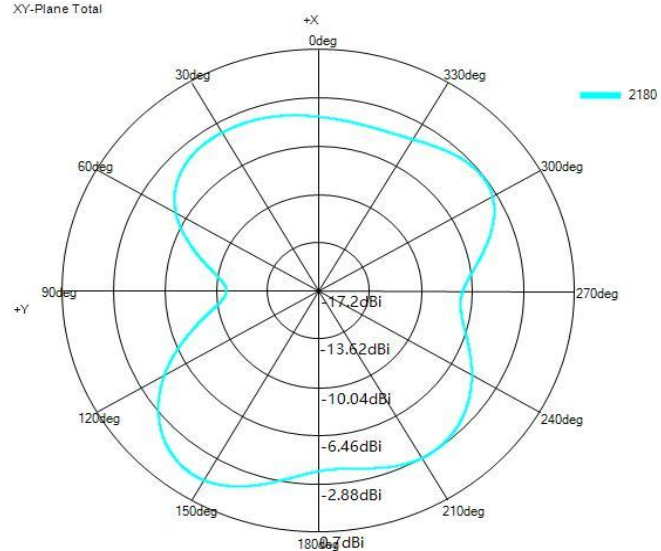
ZY-Plane Total



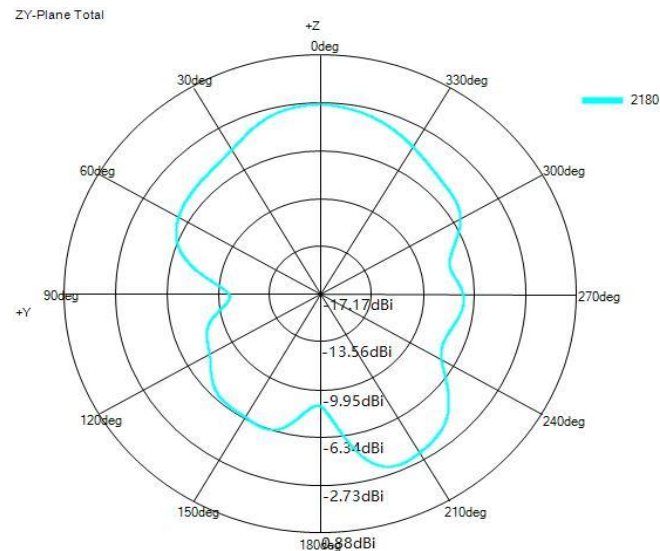
ZX-Plane Total



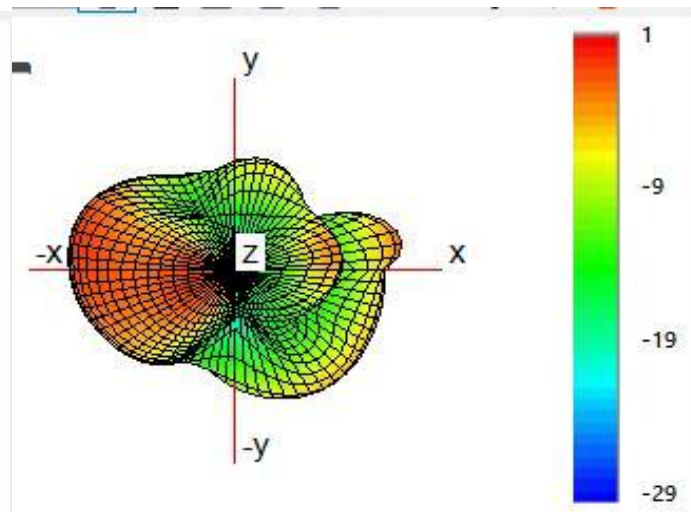
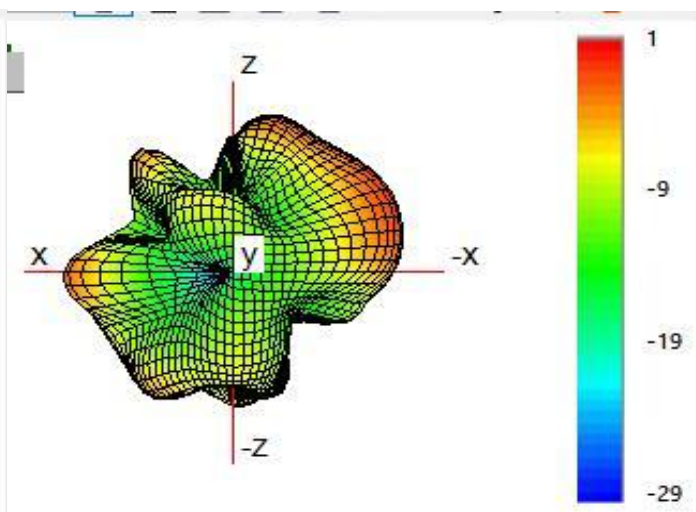
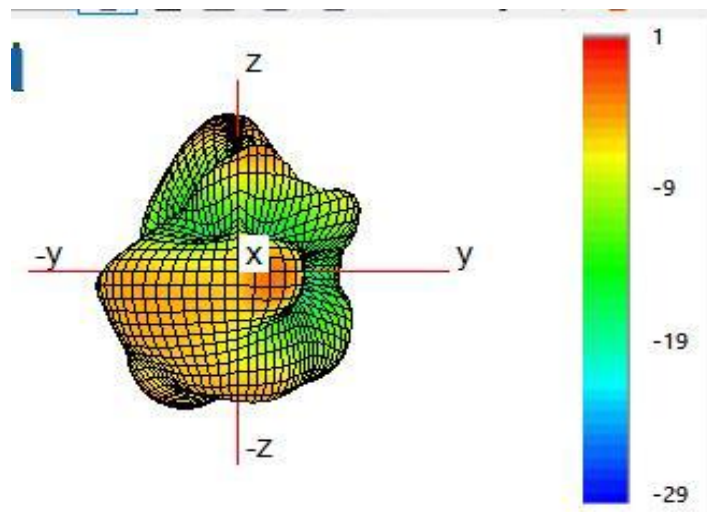
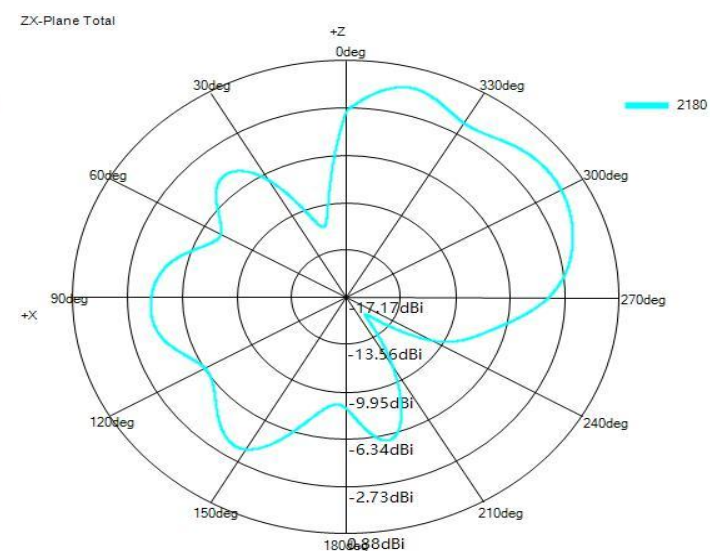
XY-Plane Total



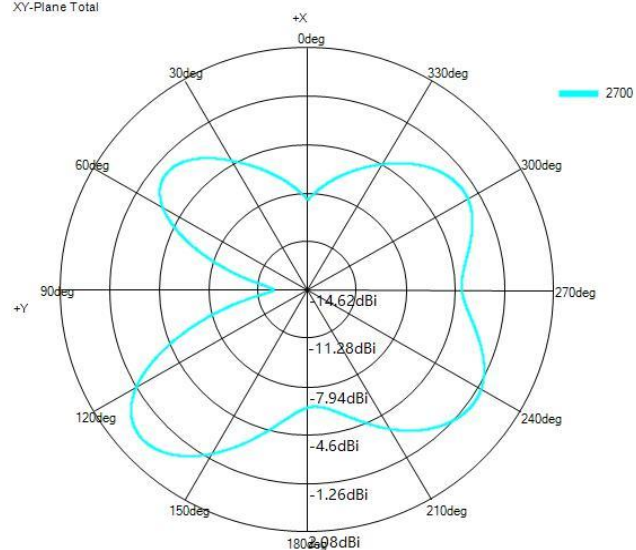
ZY-Plane Total



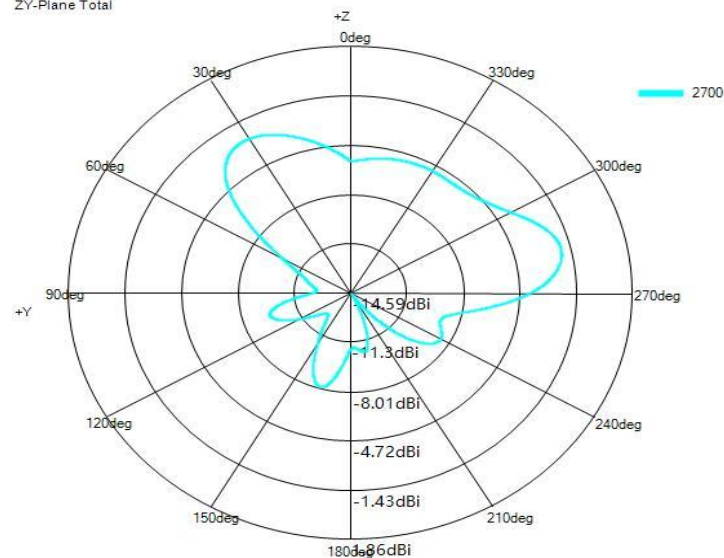
ZX-Plane Total



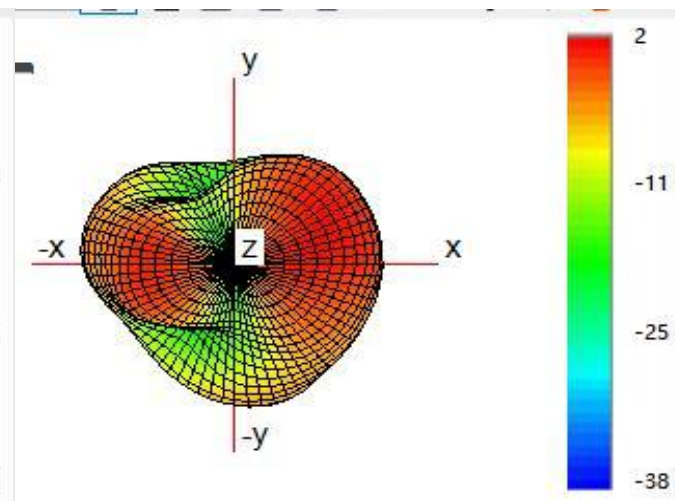
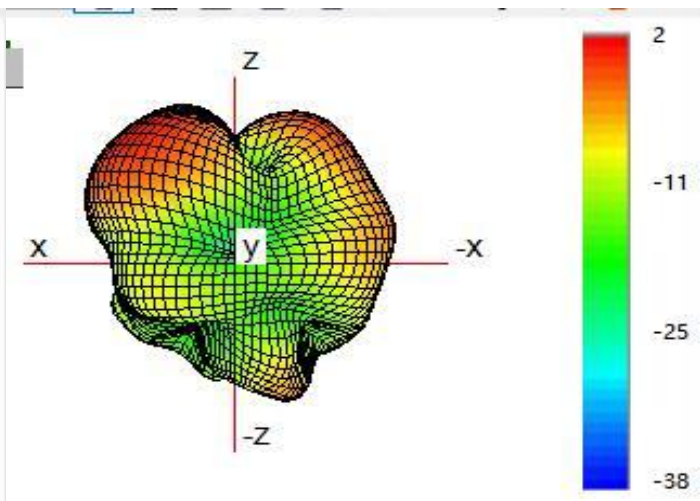
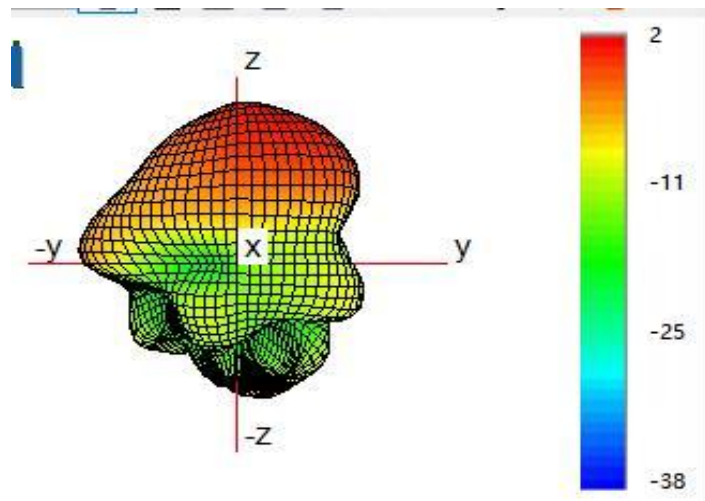
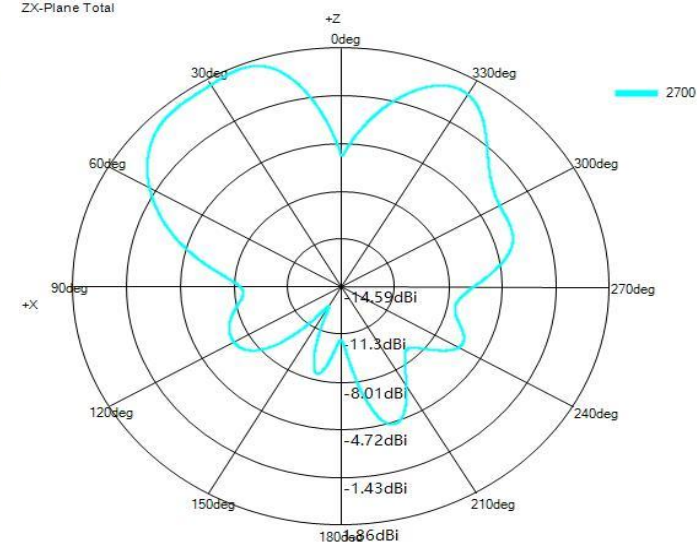
XY-Plane Total



ZY-Plane Total



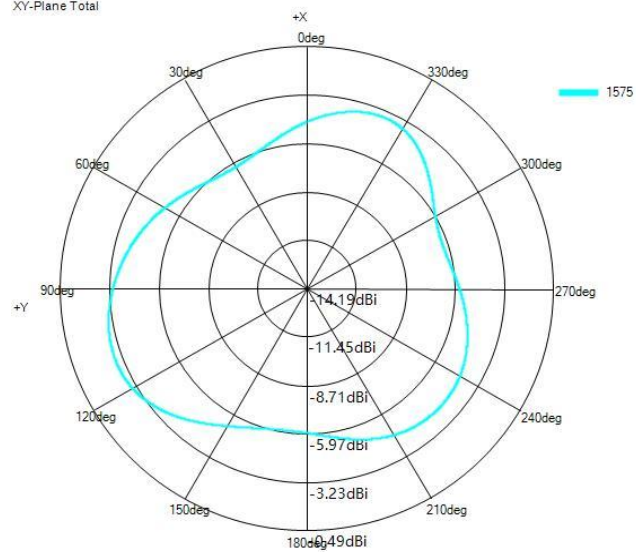
ZX-Plane Total



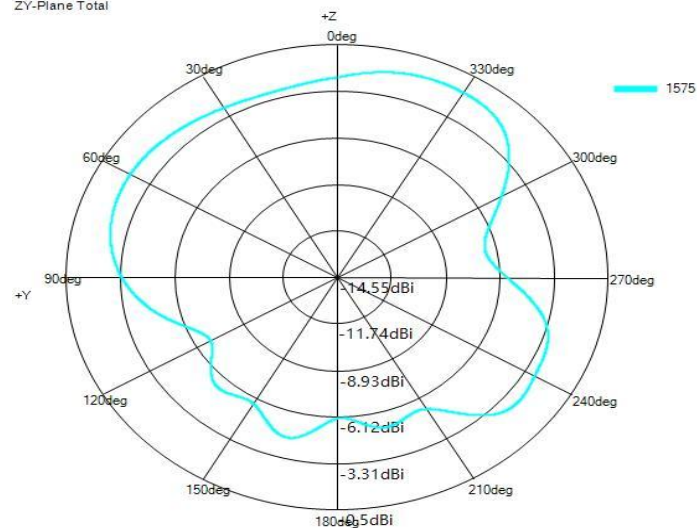
GPS/2.4GWIFI/BT:

Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)	Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
1500	-1.11	-4.36	36.64	2400	2.93	-3.41	45.61
1505	-1.16	-4.39	36.42	2410	3.33	-3.26	47.18
1510	-1.19	-4.37	36.54	2420	3.48	-3.22	47.60
1515	-1.06	-4.26	37.51	2430	3.63	-3.27	47.07
1520	-1.03	-4.10	38.89	2440	3.74	-3.24	47.46
1525	-0.95	-4.02	39.59	2450	3.80	-3.27	47.11
1530	-0.78	-3.94	40.35	2460	3.80	-3.37	46.00
1535	-0.64	-3.87	41.03	2470	3.71	-3.52	44.47
1540	-0.57	-3.80	41.66	2480	3.61	-3.64	43.25
1545	-0.65	-3.82	41.52	2490	3.62	-3.64	43.27
1550	-0.74	-3.85	41.20	2500	3.60	-3.63	43.37
1555	-0.69	-3.86	41.08				
1560	-0.50	-3.86	41.07				
1565	-0.46	-3.84	41.31				
1570	-0.60	-3.79	41.79				
1575	-0.52	-3.75	42.13				
1580	-0.44	-3.81	41.63				
1585	-0.51	-3.88	40.92				
1590	-0.54	-3.92	40.56				
1595	-0.58	-3.96	40.18				
1600	-0.78	-4.02	39.66				

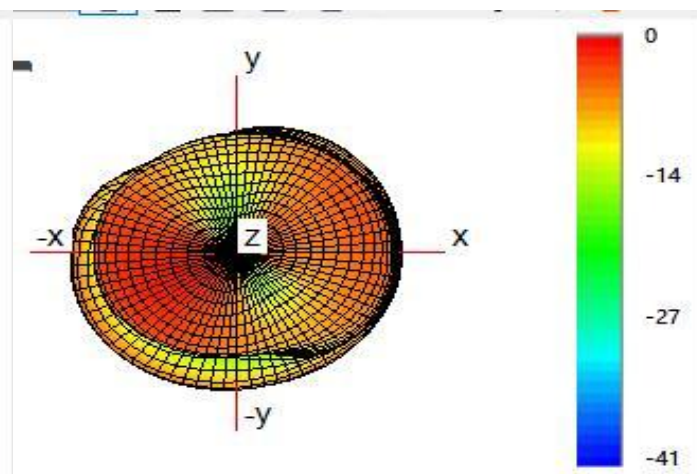
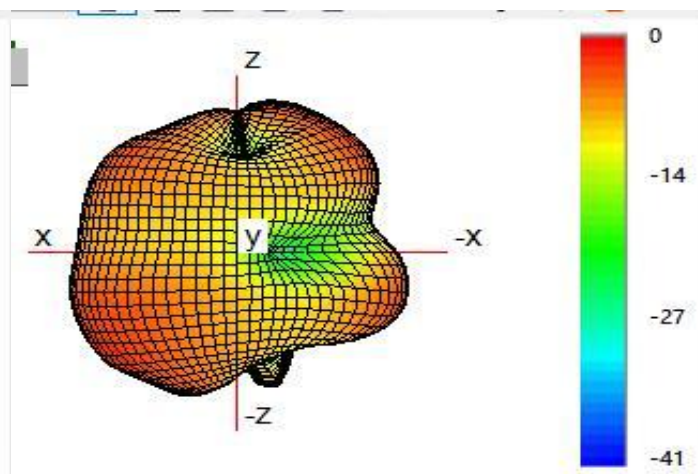
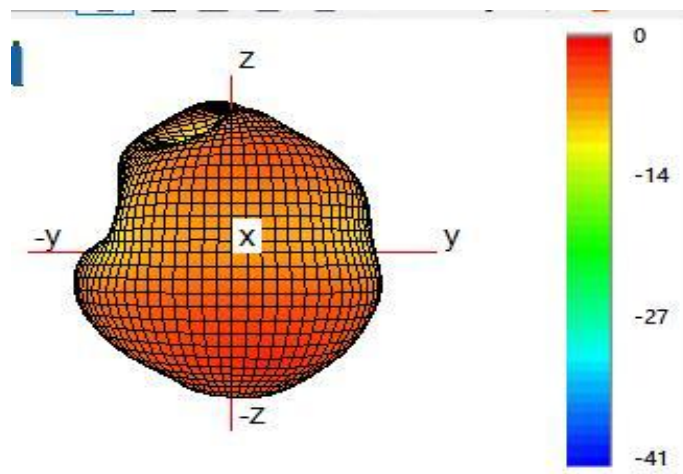
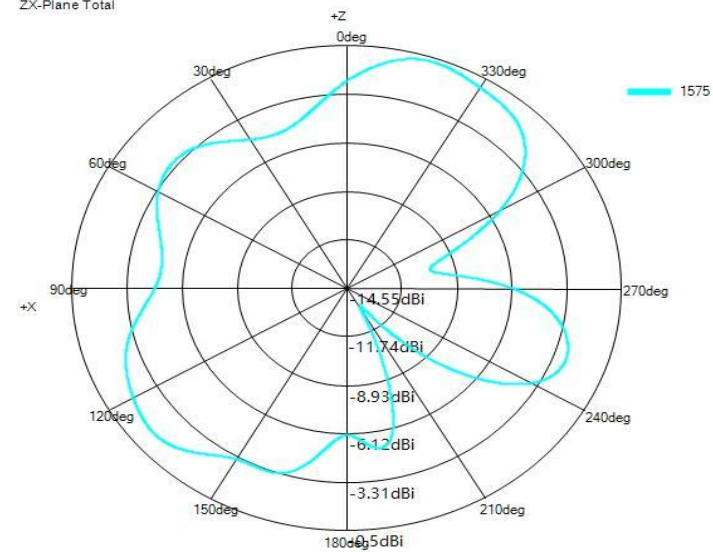
XY-Plane Total



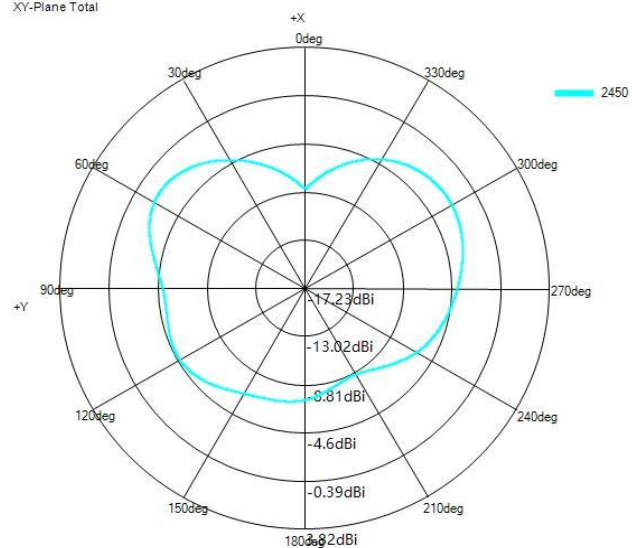
ZY-Plane Total



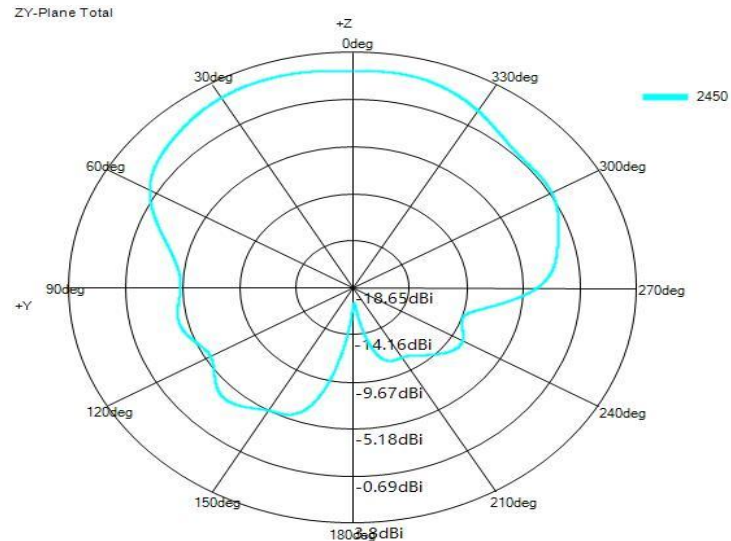
ZX-Plane Total



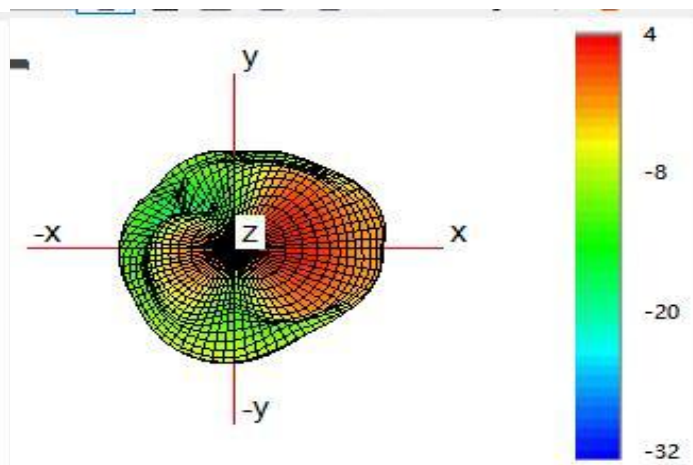
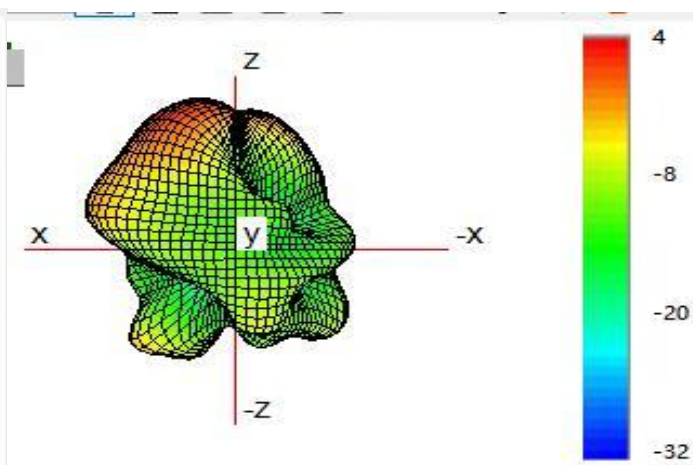
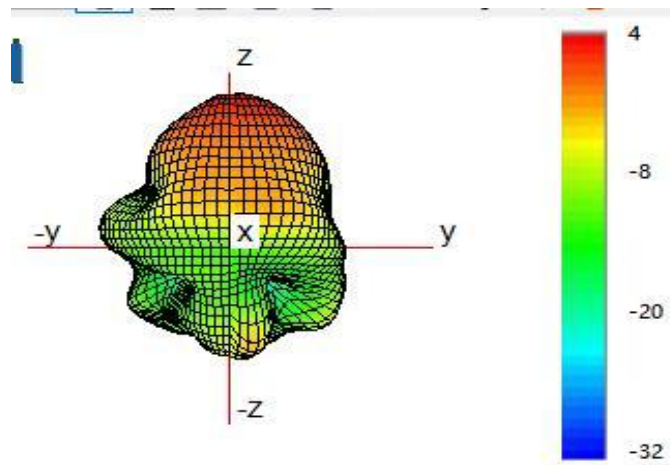
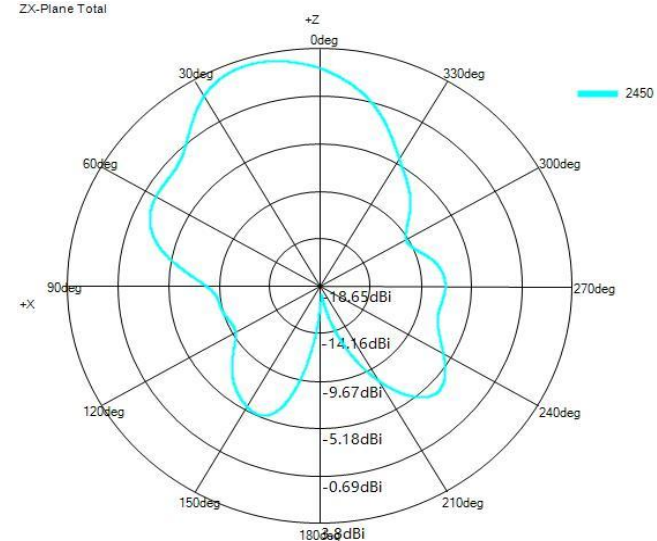
XY-Plane Total



ZY-Plane Total



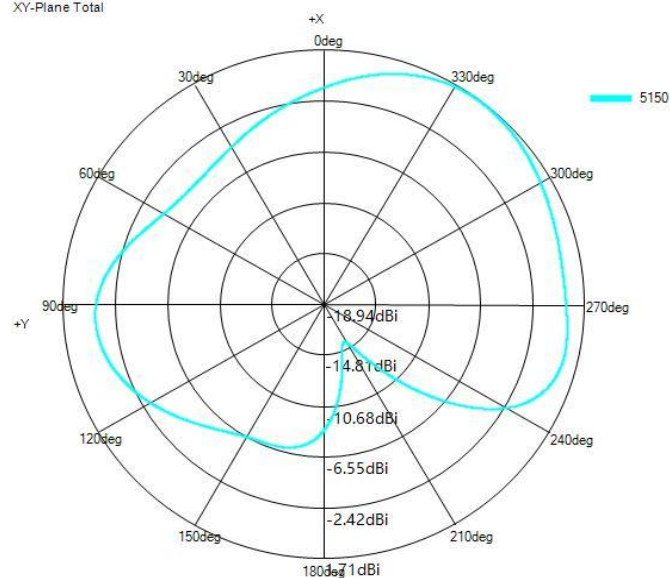
ZX-Plane Total



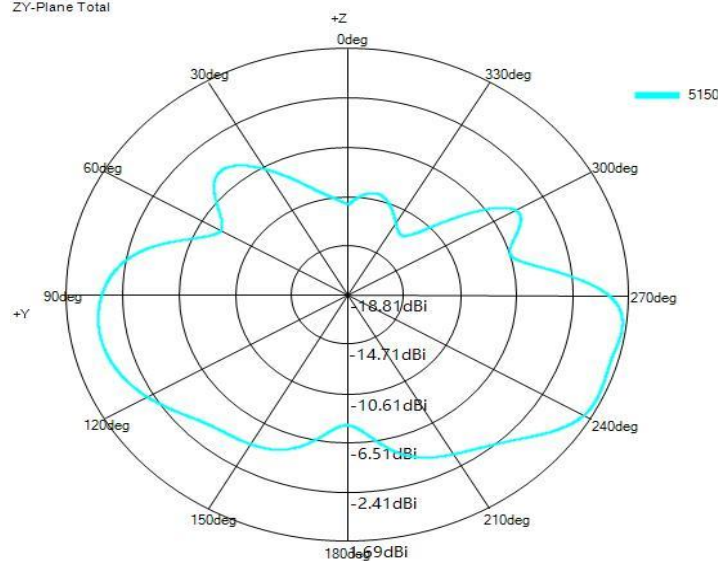
5G WIFI :

Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
5150	1.61	-3.88	40.95
5200	2.98	-2.58	55.23
5250	3.10	-2.40	57.55
5300	1.60	-3.56	44.04
5350	1.94	-3.26	47.21
5400	3.67	-1.69	67.77
5450	3.33	-2.41	57.43
5500	2.15	-3.73	42.34
5550	2.61	-3.35	46.25
5600	3.63	-2.49	56.33
5650	3.09	-3.21	47.78
5700	2.03	-4.38	36.44
5750	2.99	-3.77	42.01
5800	3.82	-3.37	45.99
5850	2.69	-4.12	38.69

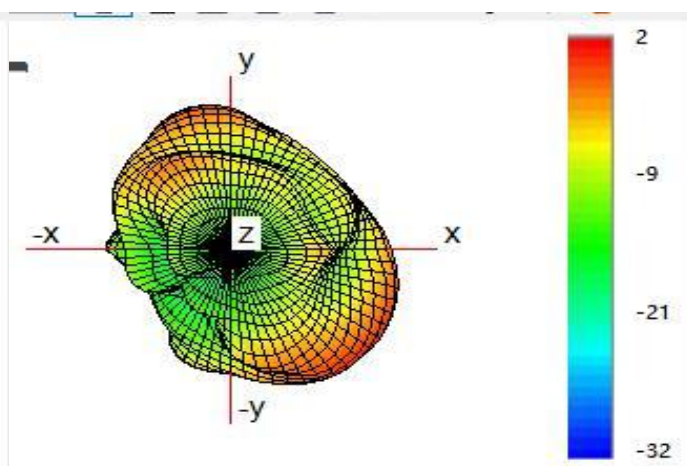
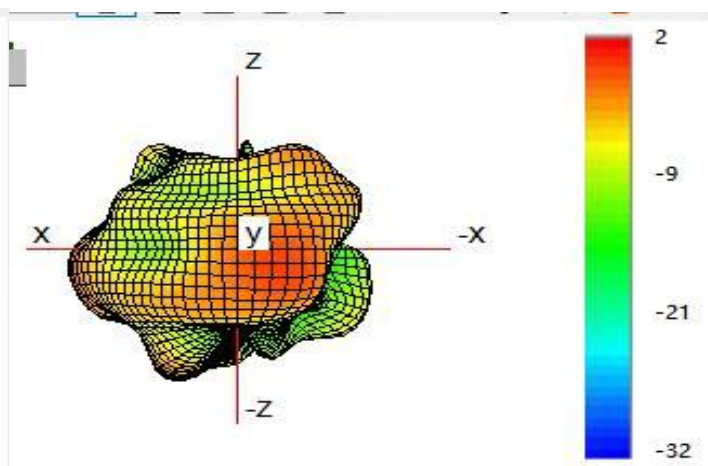
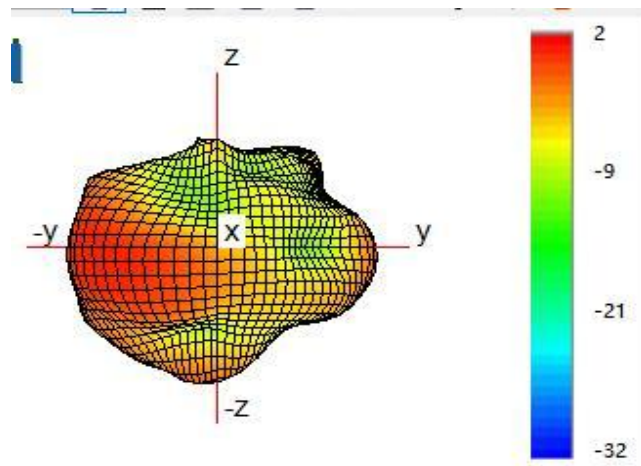
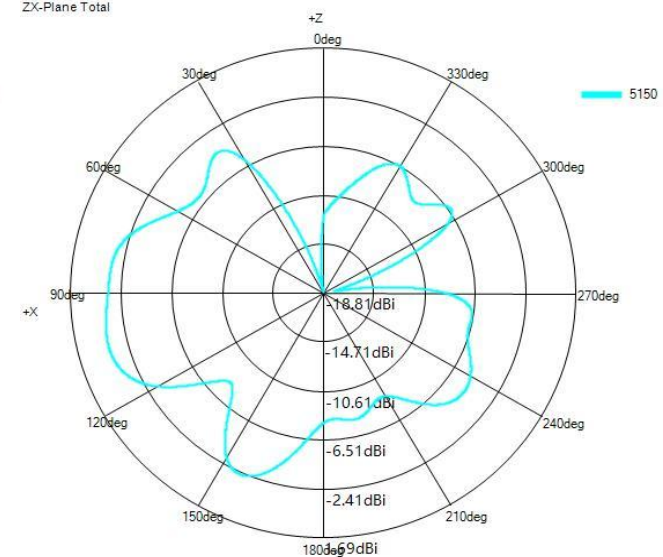
XY-Plane Total



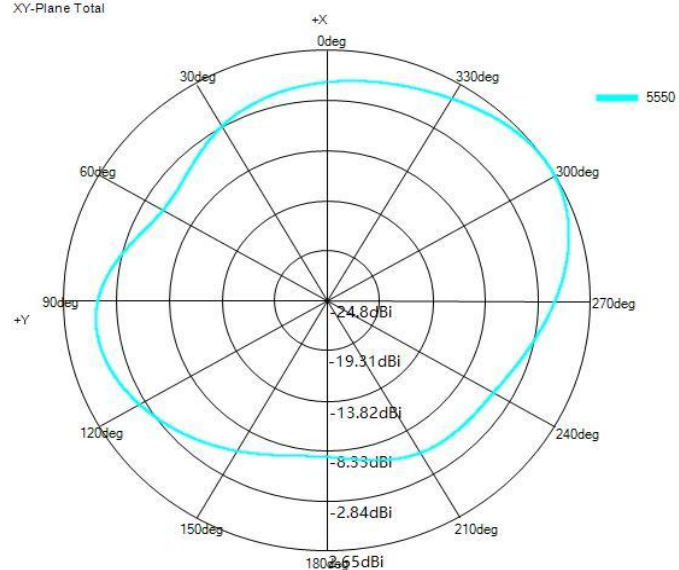
ZY-Plane Total



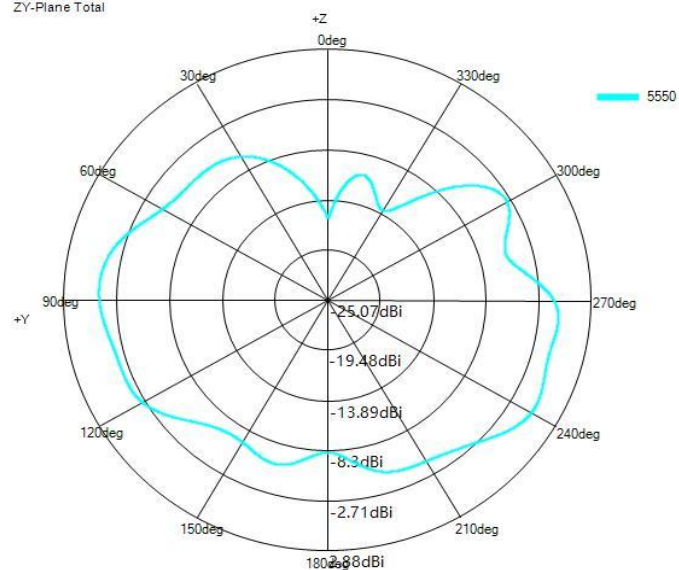
ZX-Plane Total



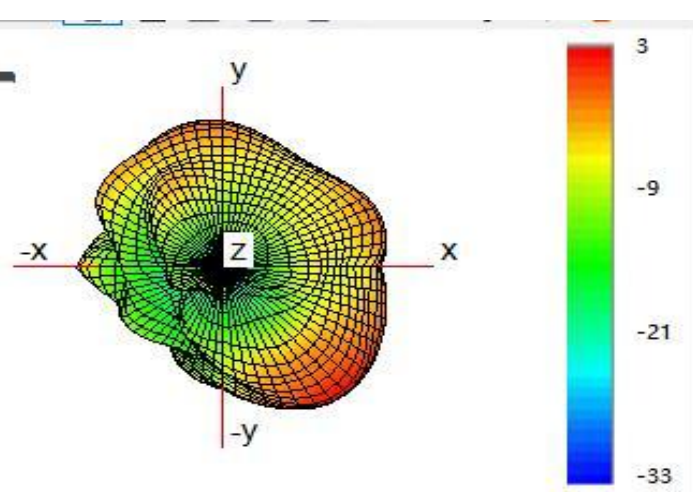
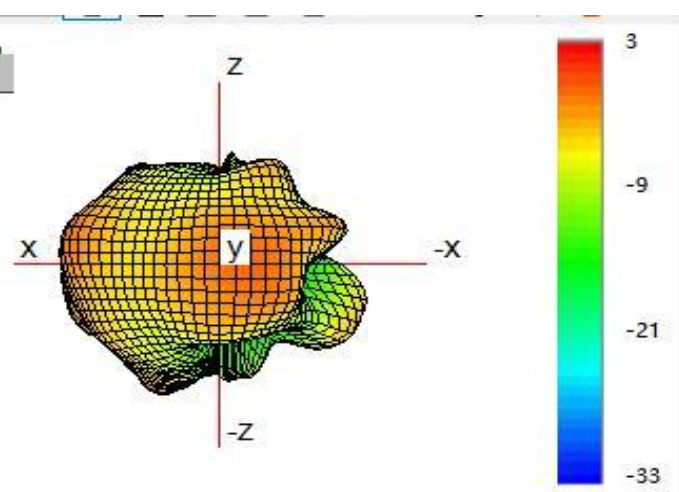
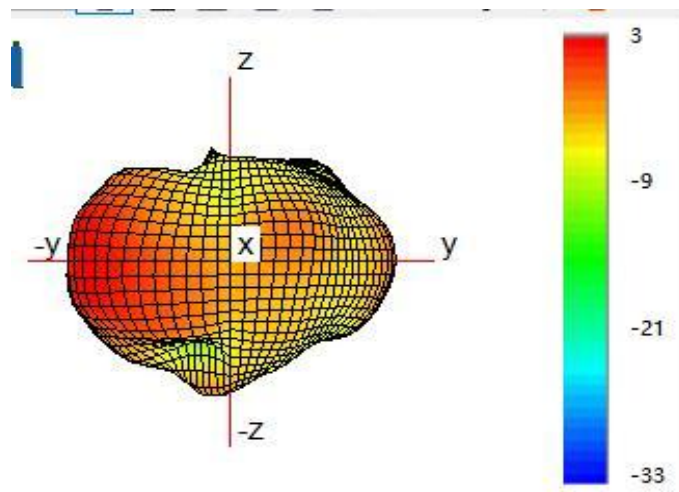
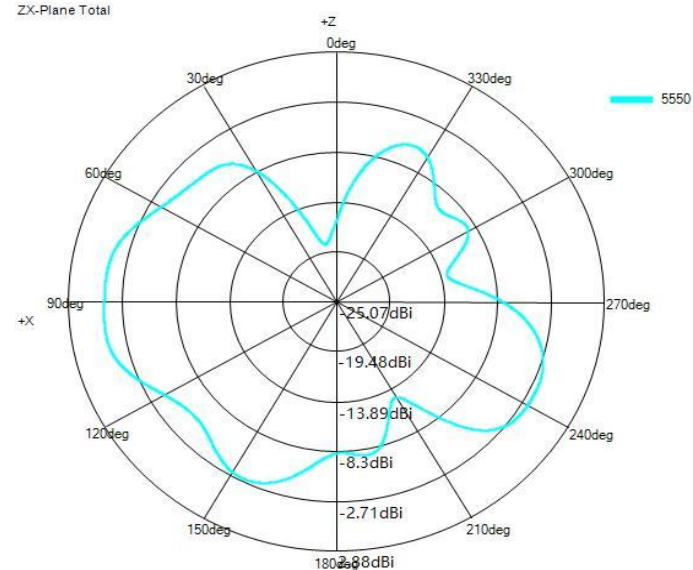
XY-Plane Total



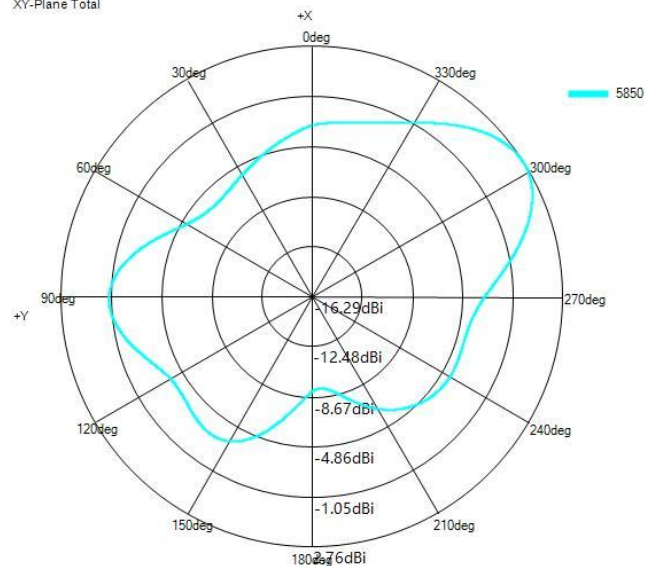
ZY-Plane Total



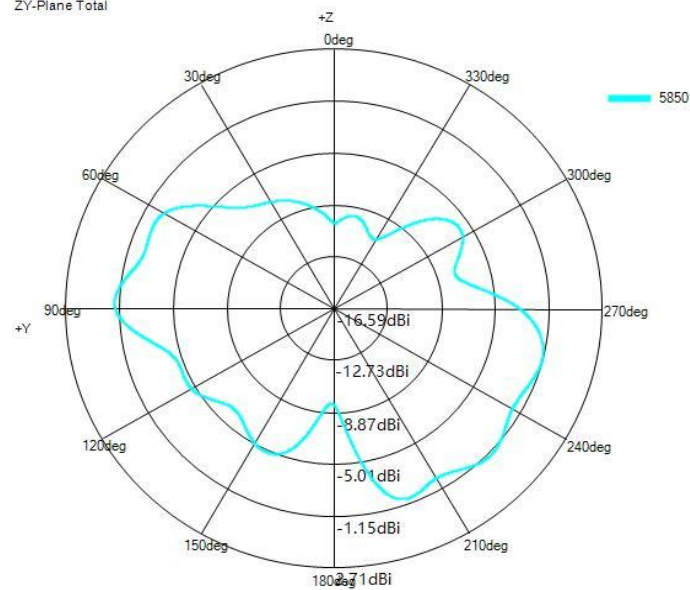
ZX-Plane Total



XY-Plane Total



ZY-Plane Total



ZX-Plane Total

