

Antenna Test Report

Equipment: GNSS and Communication Antenna

Model name: SK8645

Applicant: Shanghai Siki information technology Co., Ltd

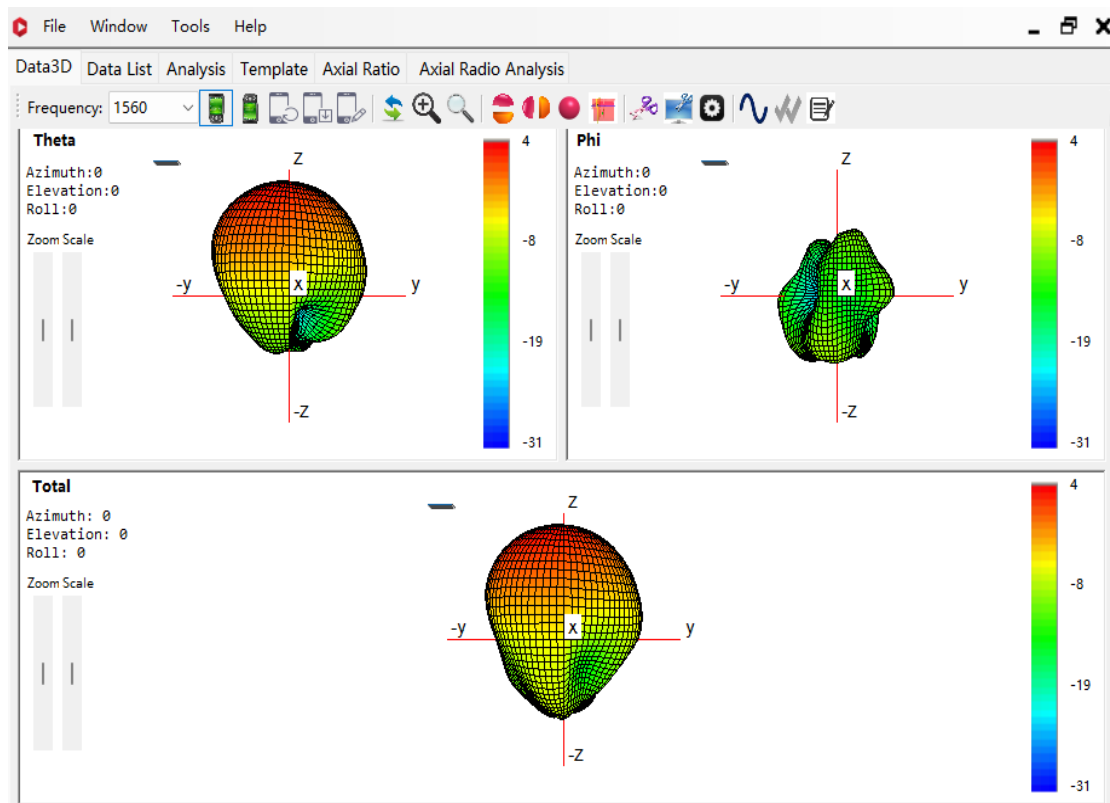
Address: Room 309, building 1, NO. 99, Lane 215, Gaoguang road, Qingpu district, Shanghai

Test date: July 24,2024

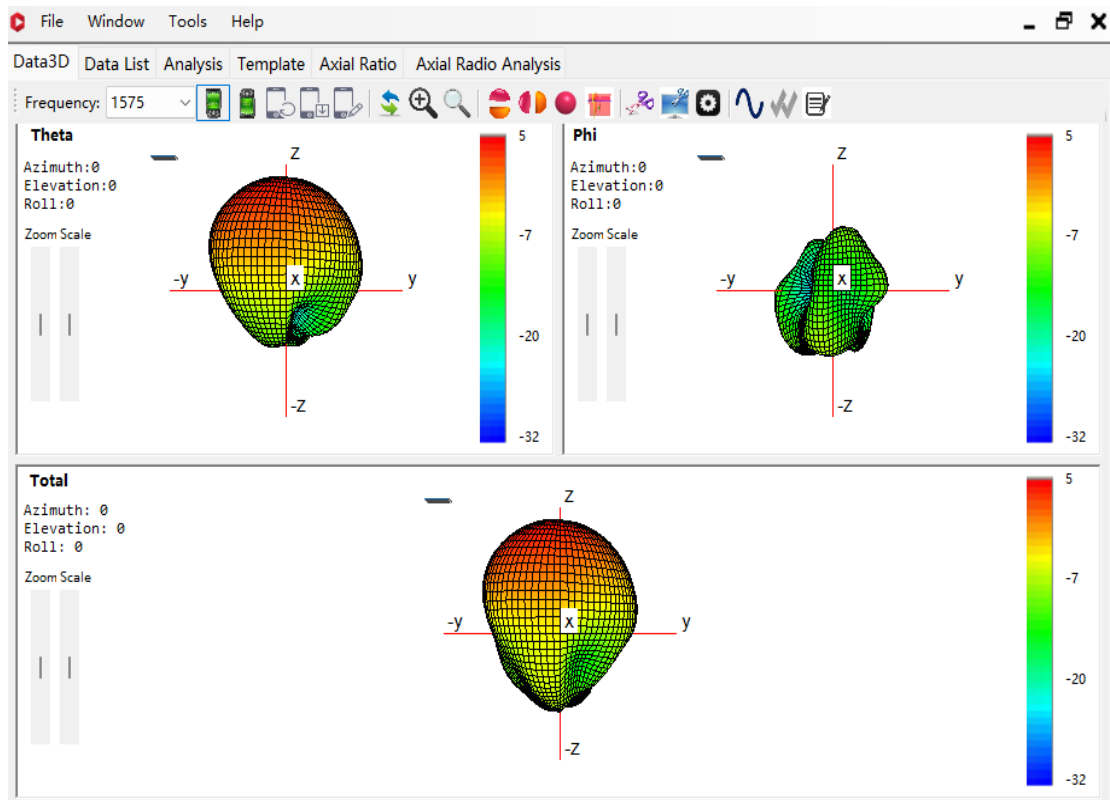
(1) GNSS antenna gain

Frequency MHz	Efficiency dB	Gain dBi	Efficiency
1540	-3.93	2.53	40.5
1545	-3.65	2.79	43.14
1550	-3.47	3	44.96
1555	-3.22	3.38	47.6
1560	-3.03	3.71	49.8
1565	-2.82	4	52.27
1570	-2.66	4.24	54.21
1575	-2.56	4.42	55.49
1580	-2.47	4.59	56.66
1585	-2.41	4.7	57.38
1590	-2.44	4.72	56.99
1595	-2.41	4.8	57.43
1600	-2.43	4.87	57.2
1605	-2.51	4.83	56.14
1610	-2.61	4.69	54.87
1615	-2.74	4.72	53.19
1620	-2.81	4.63	52.34

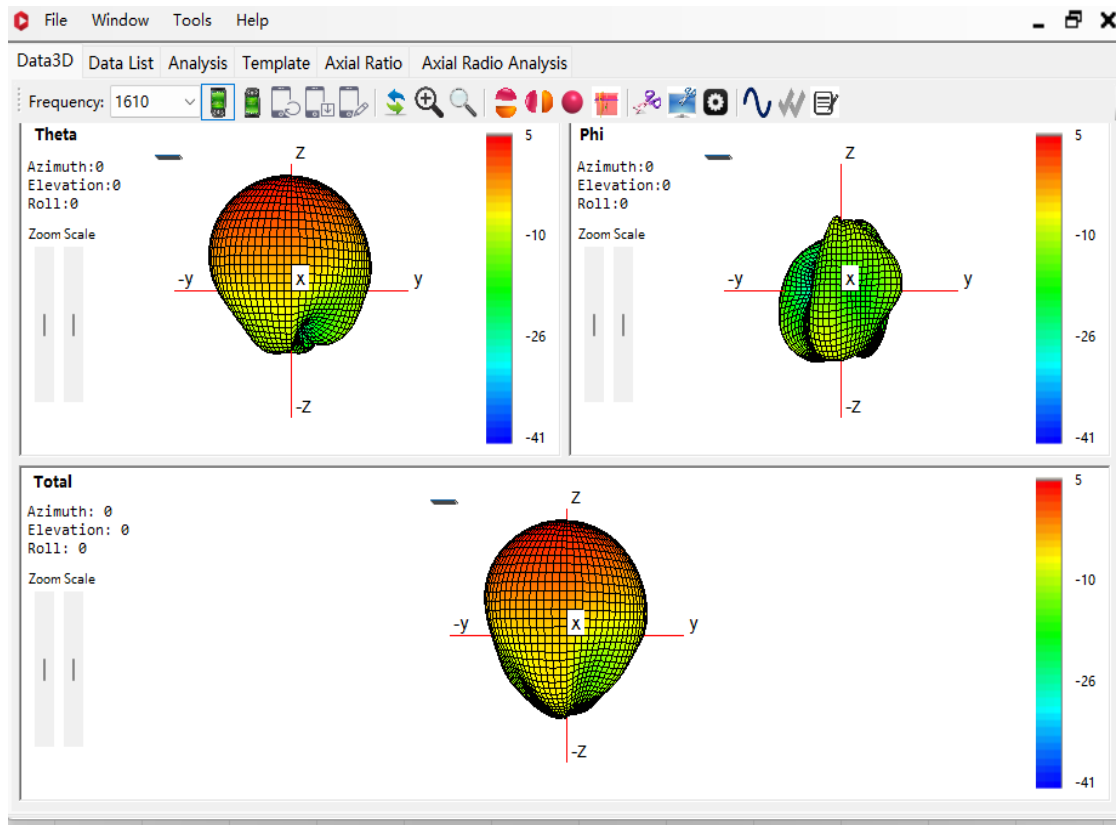
1560MHz radiation pattern



1575MHz radiation pattern



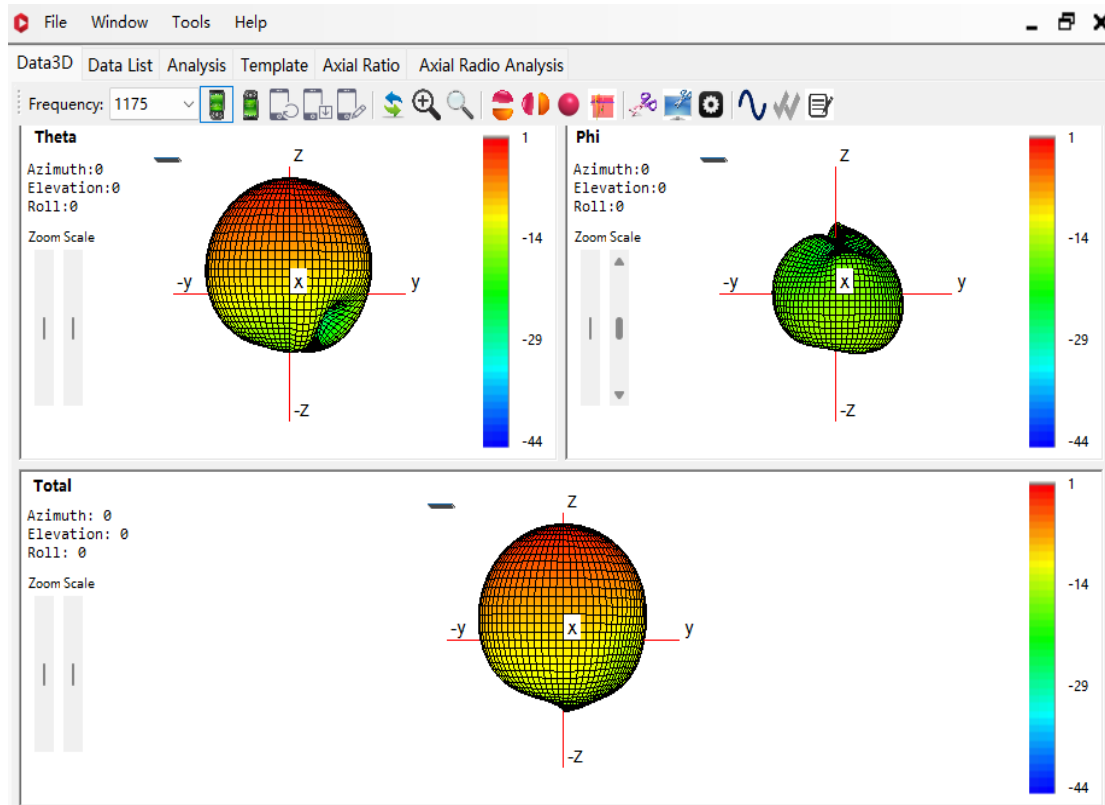
1610MHz radiation pattern



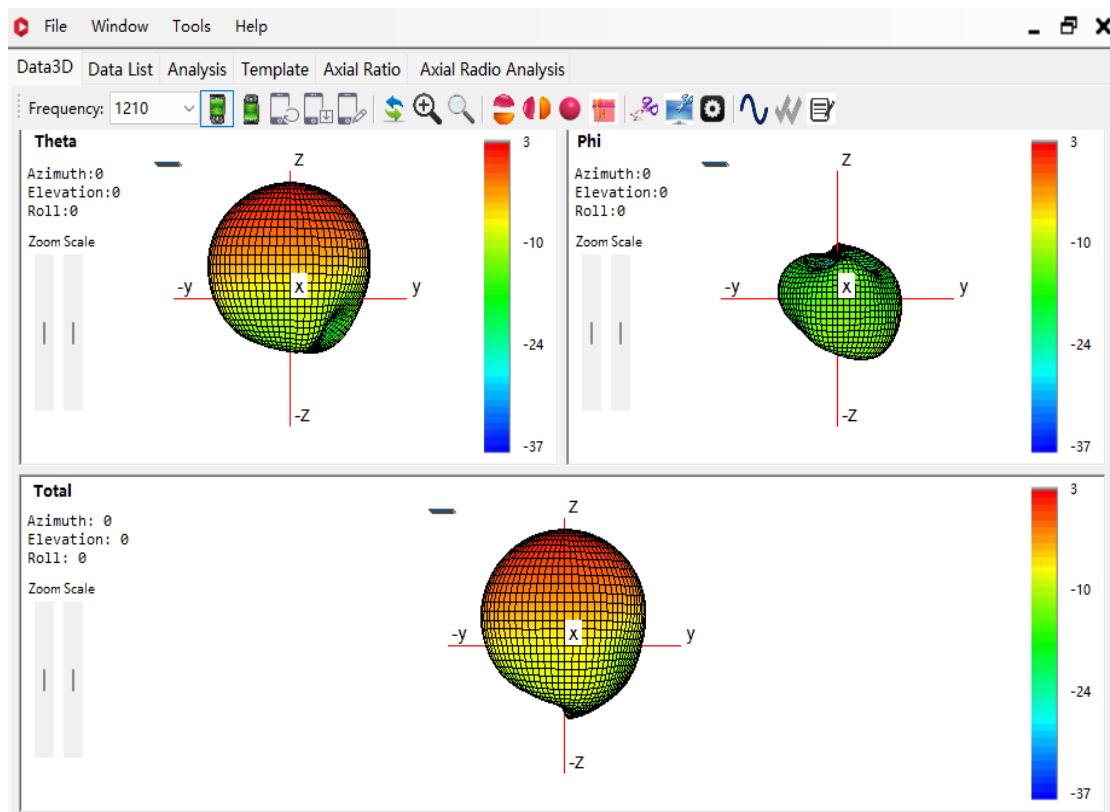
Frequency MHz	Efficiency dB	Gain dBi	Efficiency
1160	-7.38	-0.06	18.28
1165	-7.13	0.14	19.35
1170	-6.77	0.54	21.02
1175	-6.42	0.86	22.82
1180	-6.06	1.13	24.75
1185	-5.74	1.42	26.68
1190	-5.4	1.72	28.85
1195	-5.05	2.07	31.29
1200	-4.79	2.3	33.19
1205	-4.4	2.69	36.3
1210	-4.14	2.84	38.53
1215	-3.81	3.16	41.6
1220	-3.58	3.35	43.87
1225	-3.37	3.62	46.02
1230	-3.27	3.71	47.06
1235	-3.12	3.8	48.75
1240	-3.1	3.79	49.03
1245	-3.12	3.68	48.78
1250	-3.24	3.54	47.47
1255	-3.42	3.42	45.5
1260	-3.61	3.33	43.57
1265	-3.82	3.25	41.45

1270	-3.88	3.24	40.9
1275	-3.91	3.31	40.69
1280	-3.86	3.2	41.08

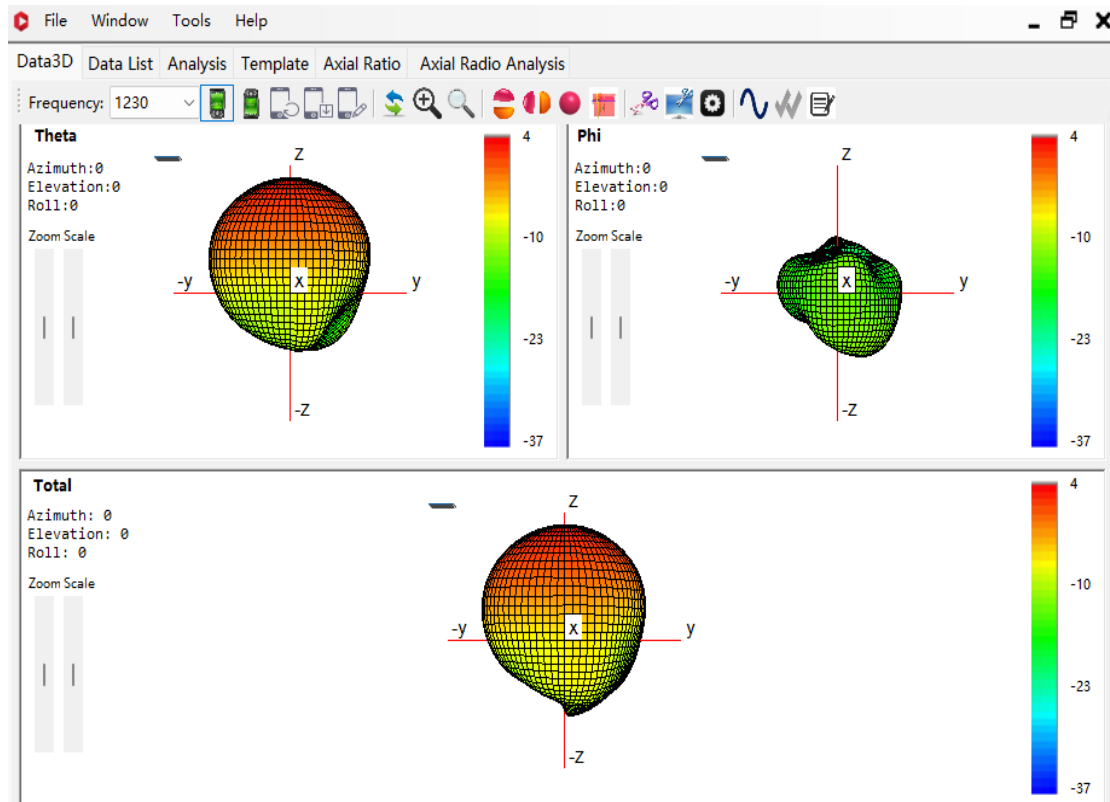
1175MHz radiation pattern



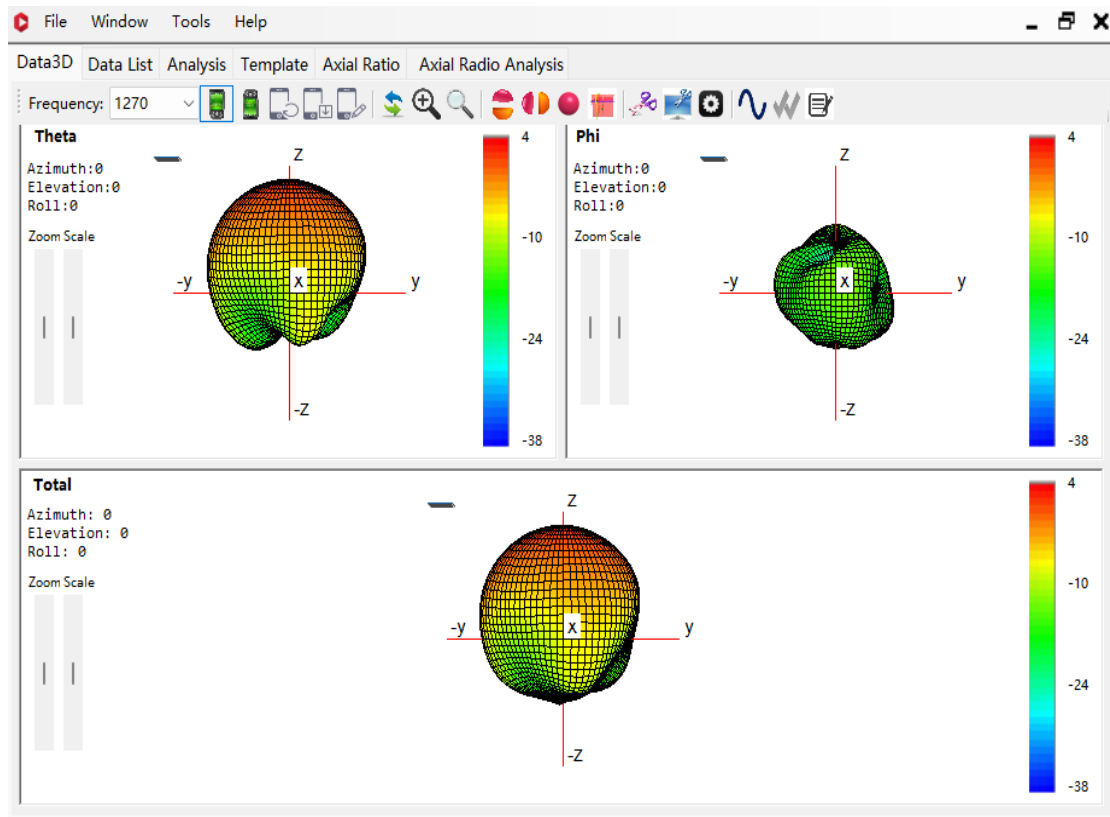
1210MHz radiation pattern



1230MHz radiation pattern



1270MHz radiation pattern



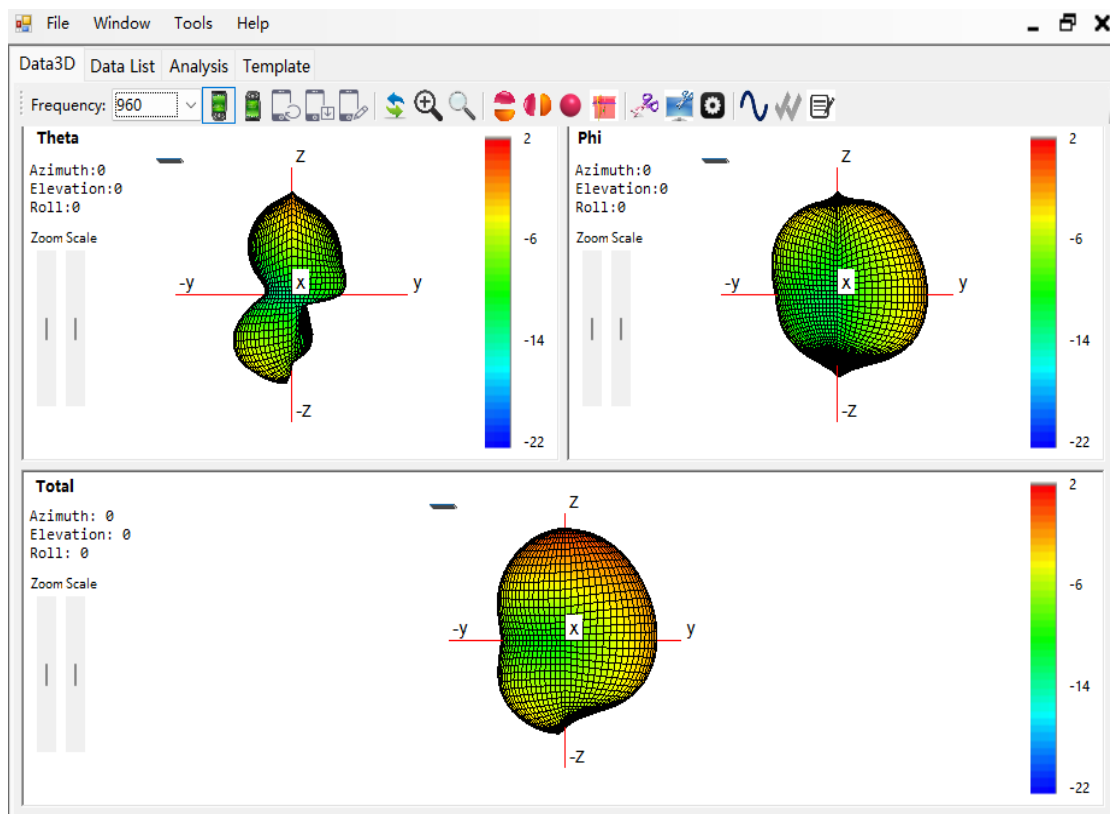
(2) 4G antenna gain

Frequency MHz	Efficiency dB	Gain dBi	Efficiency
700	-19.87	-17.09	1.03
710	-19.27	-16.39	1.18
720	-18.33	-15.37	1.47
730	-17.82	-14.76	1.65
740	-17.4	-14.1	1.82
750	-16.52	-13.06	2.23
760	-16	-12.49	2.51
770	-15.32	-11.77	2.94
780	-14.62	-10.93	3.45
790	-13.88	-10.27	4.09
800	-13.08	-9.67	4.92
810	-12.43	-9.02	5.71
820	-11.75	-8.37	6.68
830	-11.05	-7.69	7.85
840	-10.52	-7	8.88
850	-9.73	-6.24	10.65
860	-8.88	-5.4	12.94
870	-8.24	-4.49	14.99
880	-7.22	-3.53	18.99
890	-6.27	-2.42	23.62

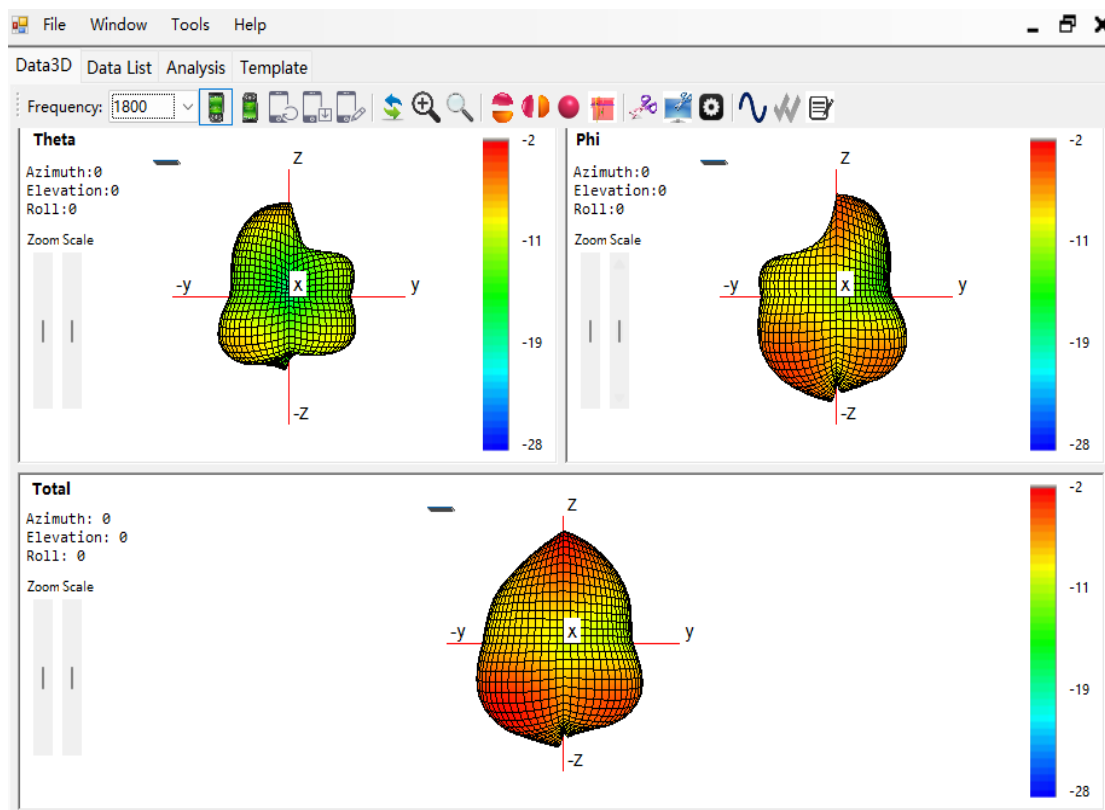
900	-5.52	-1.45	28.08
910	-4.82	-0.77	32.95
920	-4.14	-0.1	38.57
930	-3.52	0.48	44.48
940	-3.18	0.75	48.04
950	-2.94	1.22	50.78
960	-2.81	1.2	52.41
1700	-14.48	-10.55	3.56
1720	-13.53	-9.19	4.43
1740	-12.47	-7.62	5.66
1760	-10.87	-5.48	8.18
1780	-9.18	-3.53	12.06
1800	-8.02	-2.22	15.76
1820	-7.85	-2.05	16.4
1840	-8.76	-2.95	13.3
1860	-10.04	-4.15	9.91
1880	-10.81	-4.98	8.3
1900	-11.09	-5.54	7.77
1920	-10.76	-4.59	8.4
1940	-10.01	-3.49	9.98
1960	-8.68	-2.01	13.55
1980	-6.94	-0.55	20.24
2000	-4.9	0.9	32.33
2020	-3.64	1.46	43.21
2040	-3.51	0.66	44.55
2060	-4.57	-0.76	34.95
2080	-5.6	-1.92	27.52
2100	-5.86	-2.69	25.96
2120	-4.88	-1.86	32.51
2140	-3.24	0.79	47.45
2160	-2.83	1.81	52.09
2180	-3.92	0.72	40.52
2200	-4.2	-1.66	38.04
2220	-4.43	-1.01	36.08
2240	-4.91	-0.97	32.32
2260	-5.08	-0.73	31.04
2280	-5.22	-0.42	30.03
2300	-5.17	0.24	30.38
2320	-4.9	1.04	32.34
2340	-4.16	1.75	38.37
2360	-3.43	2.2	45.4
2380	-3.03	2.96	49.73

2400	-3.17	2.87	48.16
2420	-4.23	1.35	37.79
2440	-5.64	-0.73	27.31
2460	-6.93	-2.18	20.28
2480	-8.1	-3.36	15.49
2500	-9.44	-4.89	11.38
2520	-10.12	-5.89	9.72
2540	-10.6	-6.56	8.71
2560	-10.76	-6.8	8.39
2580	-10.4	-6.81	9.12
2600	-10.79	-6.4	8.34
2620	-11.07	-6.71	7.82
2640	-10.88	-6.89	8.17
2660	-10.03	-6.15	9.93
2680	-8.71	-4.53	13.45
2700	-6.89	-2.62	20.45

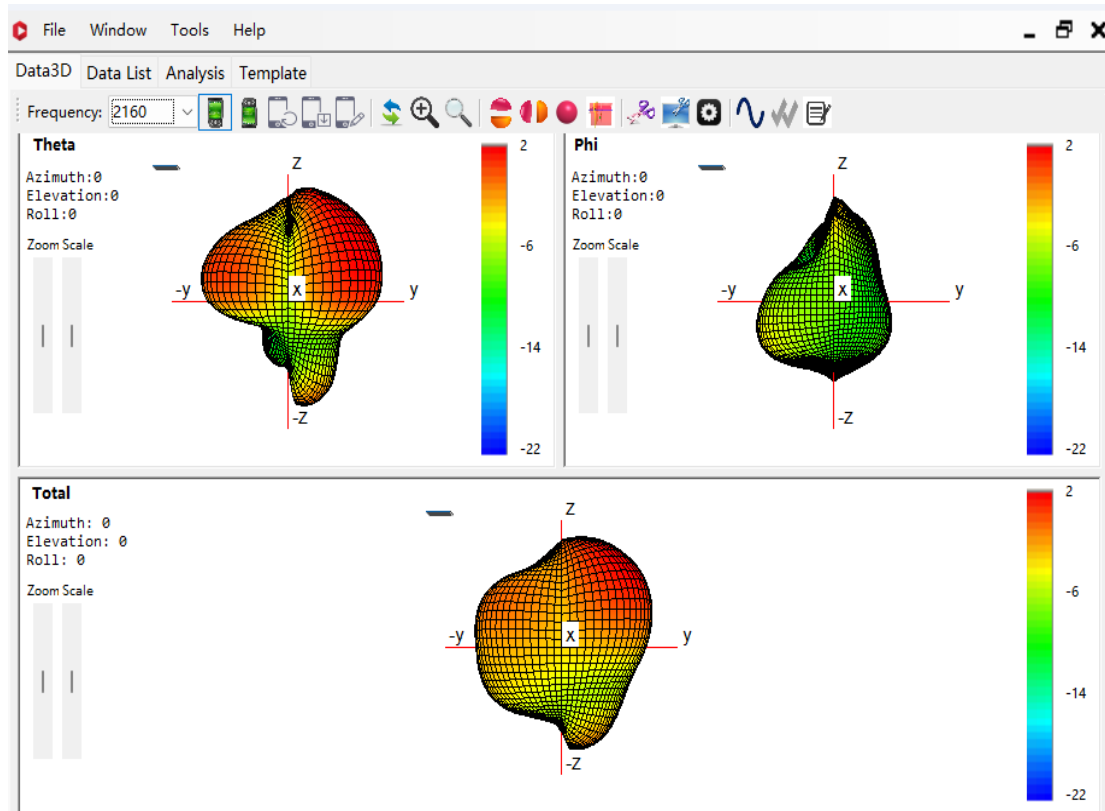
960MHz radiation pattern



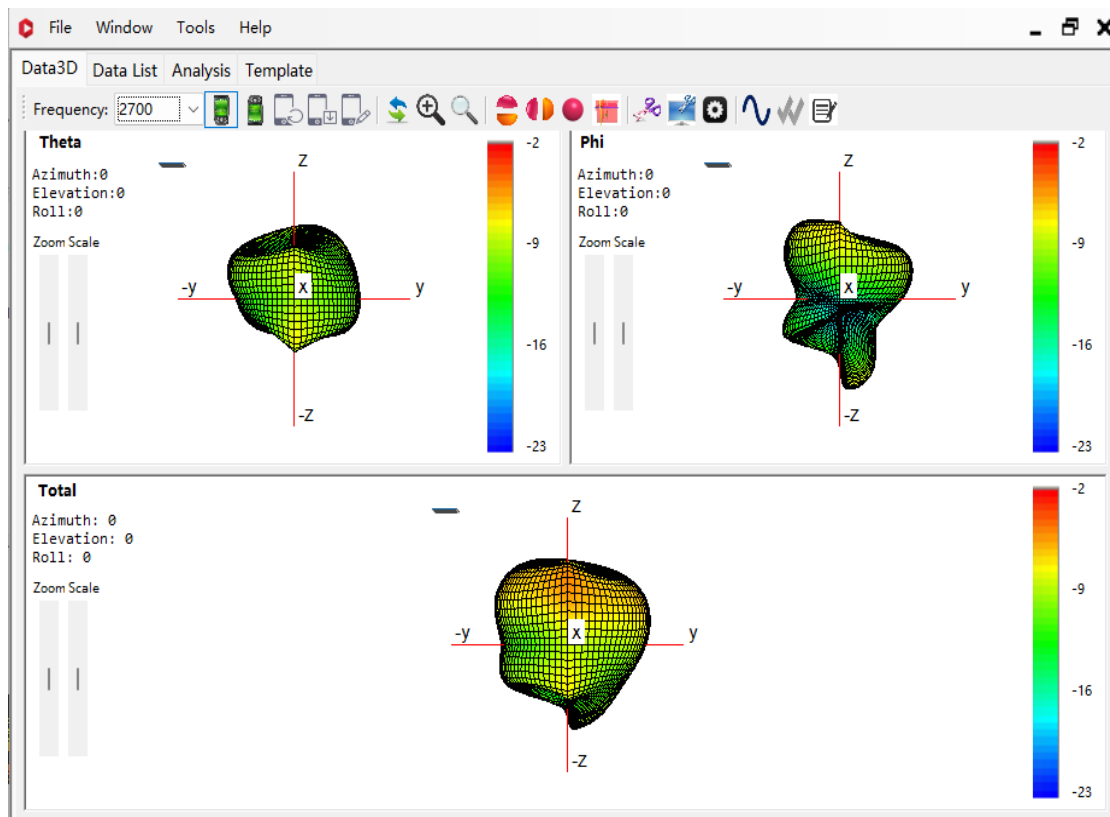
1800MHz radiation pattern



2160MHz radiation pattern



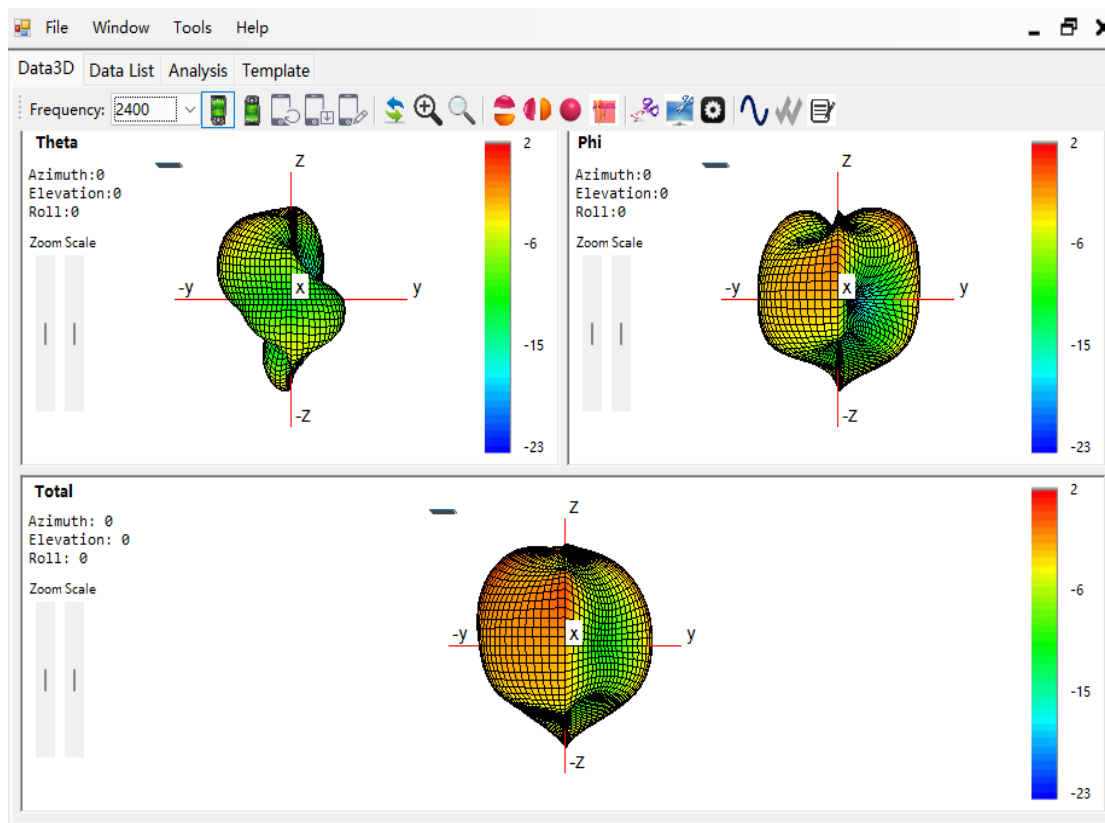
2700MHz radiation pattern



(3) Wifi antenna gain

Frequency MHz	Efficiency dB	Gain dBi	Efficiency
2350	-3.32	0.23	46.55
2360	-2.86	0.73	51.76
2370	-2.51	1.14	56.07
2380	-2.38	1.35	57.84
2390	-2.29	1.51	59.06
2400	-2.38	1.34	57.81
2410	-2.66	0.84	54.2
2420	-3.12	0.11	48.71
2430	-3.84	0.01	41.3
2440	-4.27	-0.07	37.42
2450	-4.51	-0.01	35.38
2460	-4.55	0.01	35.05
2470	-4.43	0.01	36.03
2480	-4.41	-0.16	36.19
2490	-4.56	-0.62	34.99
2500	-4.62	-0.92	34.55

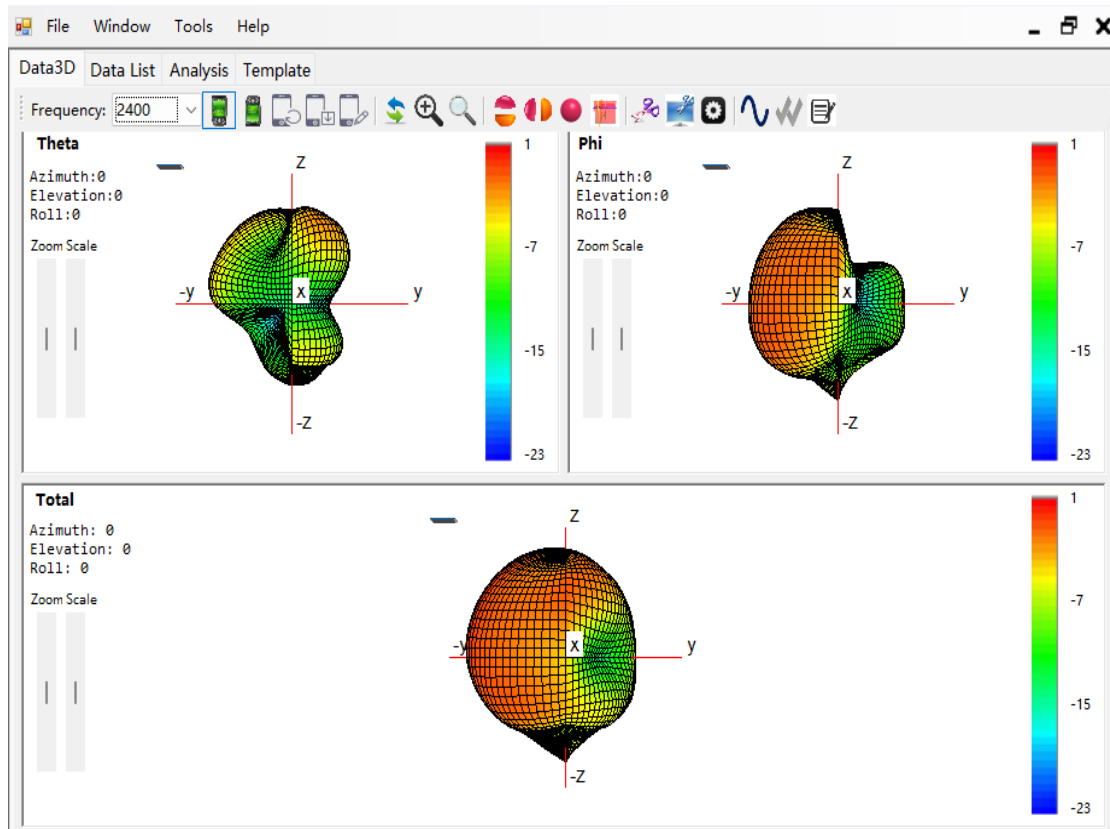
2400MHz radiation pattern



(4) BT antenna gain

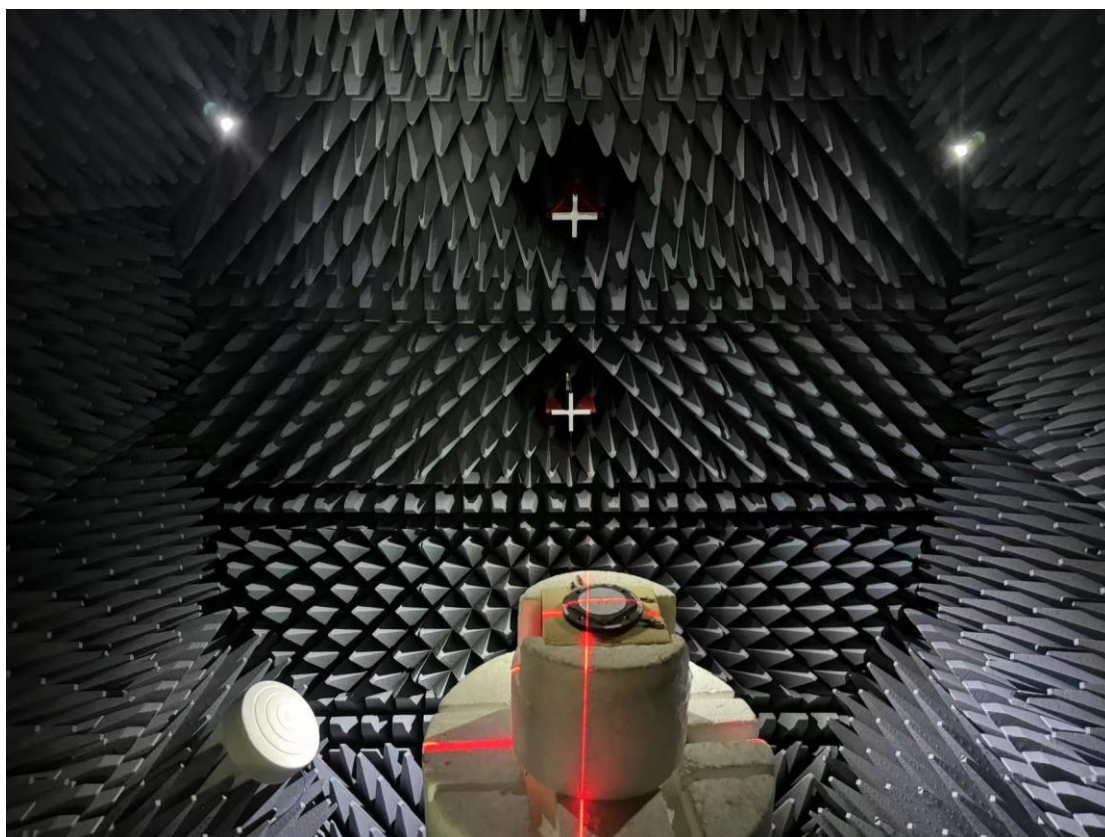
Frequency MHz	Efficiency dB	Gain dBi	Efficiency
2350	-4.13	-0.32	38.65
2360	-3.88	-0.61	40.88
2370	-3.57	-0.24	43.98
2380	-3.44	0.19	45.31
2390	-3.43	0.29	45.4
2400	-3.64	0.1	43.24
2410	-4.01	-0.15	39.68
2420	-4.37	-0.31	36.58
2430	-4.49	-0.76	35.53
2440	-4	-0.26	39.78
2450	-3.81	0.08	41.56
2460	-3.92	-0.51	40.57
2470	-4.11	-0.59	38.78
2480	-4.44	-0.56	35.98
2490	-4.9	-0.9	32.36
2500	-5.25	-1.05	29.84

2400MHz radiation pattern



(5) Test photograph





(6) Antenna Structure

