

一、 Overview

This report contains the basic parameters and performance of the Kai cheng 2500 project antenna (version v0.1)

Shenzhen Kaicheng Technology Co., Ltd

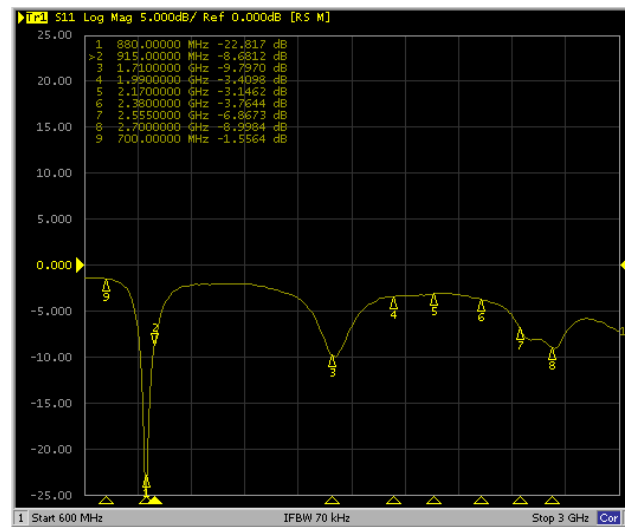
20 Gaoxin South 7th Road, Gaoxin Community, Gaoxin District,
Yuehai Street, Nanshan District, Shenzhen, China

WIFI&BT&GPS ANT: 2500F

AUX ANT: 2500A

Main ANT: 2500M

二、low frequency antenna Test Data (main antenna)



2.1 low frequency Passive Efficiency Data & Gain (main antenna)

Passive Test For 700-880				Passive Test For 710-960			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	32.77	-4.85	-2.65	735	22.92	-2.89	-0.14
718	32	-4.95	-2.84	760	18.21	-4.86	-2.01
736	26.41	-5.78	-3.44	785	21.71	-3.32	-0.14
754	13.25	-8.78	-6.22				

Passive Test For 800-960			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
800	16.8	-10.09	-6.44
810	17.96	-9.6	-5.78
820	18.48	-9.4	-5.83
830	19.46	-9.05	-5.69
840	19.55	-9.01	-6.18
850	19.42	-9.06	-6.23
860	17.57	-9.76	-6.8
870	16.48	-10.23	-7
880	8.69	-10.61	-7.48

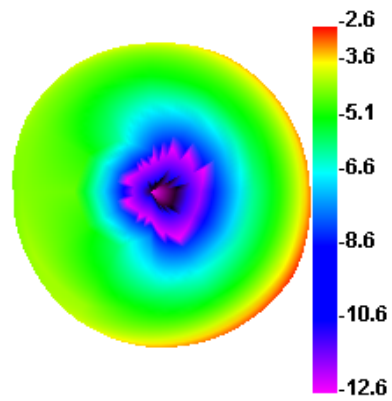
Passive Test For 880-960

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
880	22.87	-7.24	-4.4
885	23.84	-7.02	-4.16
890	23.86	-7.02	-4.17
895	23.09	-7.19	-4.49
900	23.23	-7.16	-4.44
905	22.05	-7.43	-4.63
910	21.46	-7.58	-4.74
915	20.99	-7.7	-4.69
920	21.79	-7.5	-4.19
925	20.98	-7.7	-4.21
930	19.68	-8.05	-4.64
935	19.8	-8.01	-4.81
940	17.62	-8.66	-5.48
945	17.78	-8.61	-5.48
950	17.41	-8.73	-5.74
955	17.07	-8.84	-6.04
960	16.67	-8.97	-6.12

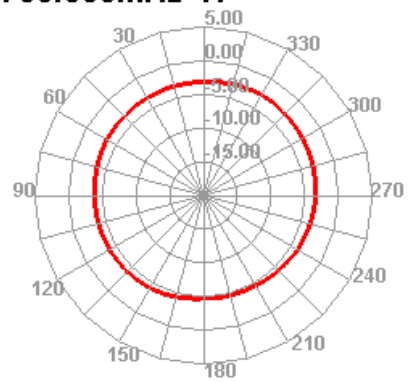
Passive Test For 1700-2700

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1700	17.98	-7.45	-0.3
1710	20.07	-6.97	0.07
1720	18.56	-7.31	-0.38
1730	20.97	-6.78	0.03
1740	21.37	-6.7	0.02
1750	22.96	-6.39	0.31
1760	21.88	-6.6	0.23
1770	21.66	-6.64	0.31
1780	26.45	-5.77	1.26
1790	24.81	-6.05	0.99
1800	26.52	-5.76	1.28
1810	30.79	-5.12	1.72
1820	32.73	-4.85	1.75
1830	30.86	-5.11	1.42
1840	26.96	-5.69	0.67
1850	29.16	-5.35	0.93
1860	26.59	-5.75	0.62
1870	21.28	-6.72	-0.47
1880	21.62	-6.65	-0.57
1890	22.5	-6.48	-0.64
1900	24.33	-6.14	-0.53
1910	23.24	-6.34	-1.08
1920	23.66	-6.26	-1.27
1930	29.13	-5.36	-0.48
1940	24.99	-6.02	-1.21
1950	23.28	-6.33	-1.66
1960	20.89	-6.8	-2.03
1970	21.03	-6.77	-1.8
1980	18.7	-7.28	-2.38
1990	14.08	-8.51	-3.78
2000	15.94	-7.98	-3.02
2030	12.29	-9.11	-3.5
2040	10.26	-9.89	-4.24
2050	11.07	-9.56	-4.33
2060	10.25	-9.89	-4.71
2070	10.51	-9.78	-4.25
2080	8.94	-10.49	-4.82
2090	11.16	-9.52	-3.99
2100	10.57	-9.76	-4.19
2110	8.37	-10.77	-4.76
2120	8.31	-10.8	-4.7
2130	8.06	-10.93	-4.95
2140	7.94	-11	-4.83
2150	6.62	-11.79	-5.38
2160	5.97	-12.24	-5.84
2170	6.46	-11.9	-5.7
2180	5.76	-12.39	-6.1
2190	5.41	-12.67	-6.08
2200	4.83	-13.16	-6.73
2210	5.14	-12.89	-6.48
2220	4.64	-13.34	-6.79
2230	4.39	-13.58	-6.52
2240	4.53	-13.44	-6.5
2250	4.55	-13.42	-6.61
2260	4.91	-13.09	-6.28
2270	4.25	-13.72	-6.77
2280	4.38	-13.59	-6.79
2290	4.51	-13.46	-6.92
2300	5.15	-12.88	-6.29
2310	5.68	-12.46	-5.55
2320	5.82	-12.35	-5.67
2330	6.38	-11.95	-5.24
2340	5.81	-12.36	-5.65
2350	6.3	-12.01	-5.17
2360	5.49	-12.61	-5.92
2390	4.54	-13.43	-6.79
2400	4.74	-13.24	-6.71
2410	3.86	-14.13	-7.55
2420	4.07	-13.91	-7.37
2430	4.07	-13.91	-7.41
2440	3.97	-14.02	-7.82
2450	4.16	-13.81	-7.43
2460	3.74	-14.27	-8.12
2470	4.57	-13.4	-7.4
2480	4.52	-13.45	-7.42
2490	5.35	-12.72	-6.61
2500	5.35	-12.71	-6.92
2510	5.34	-12.73	-6.82
2520	5.42	-12.66	-6.97
2530	4.84	-13.15	-7.38
2540	5.69	-12.45	-6.77
2550	5.41	-12.67	-6.93
2560	5.72	-12.43	-6.57
2570	5.53	-12.57	-6.82
2580	5.16	-12.87	-7.22
2590	5.65	-12.48	-6.72
2600	4.78	-13.2	-7.41
2610	4.88	-13.12	-7.23
2620	4.12	-13.85	-8.08
2630	4.56	-13.41	-7.47
2640	4.64	-13.33	-7.21
2650	4.66	-13.32	-7.12
2660	5.34	-12.73	-6.65
2670	5.14	-12.89	-6.74
2680	5.86	-12.32	-6.23
2690	5.79	-12.38	-6.39
2700	6.01	-12.21	-6.52

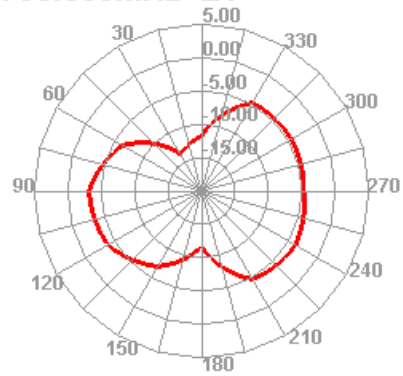
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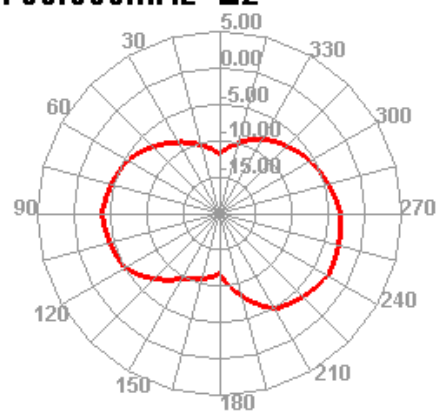
700.000MHz H



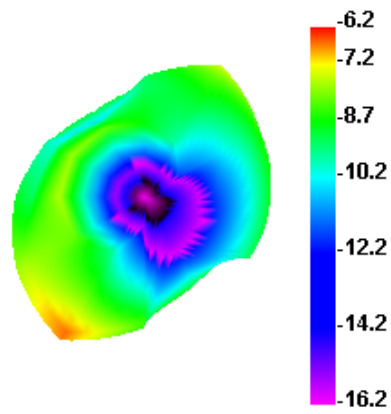
700.000MHz E1



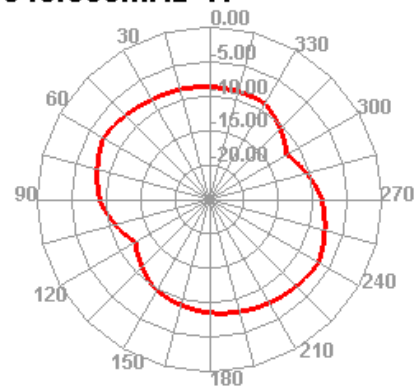
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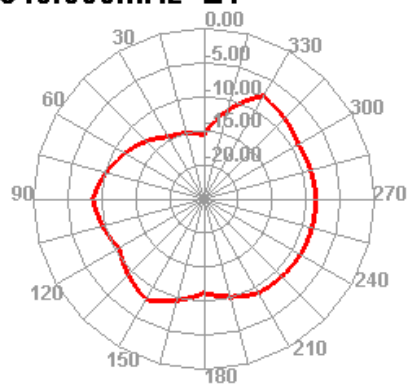
840.000MHz



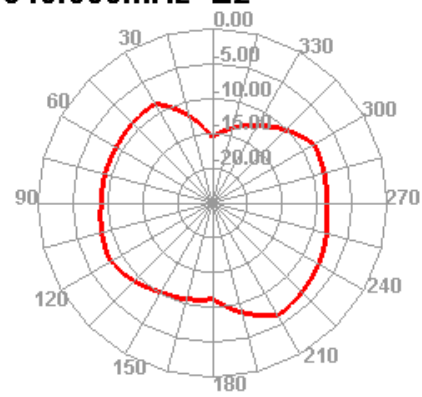
840.000MHz H



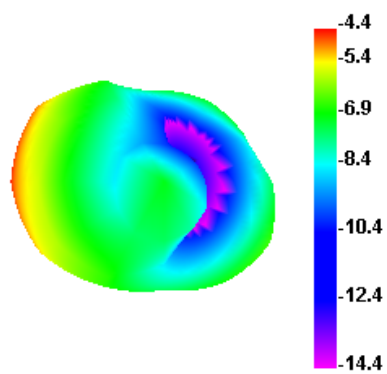
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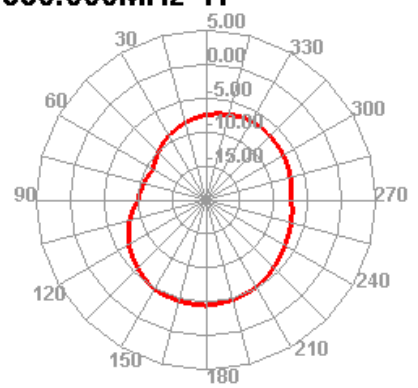
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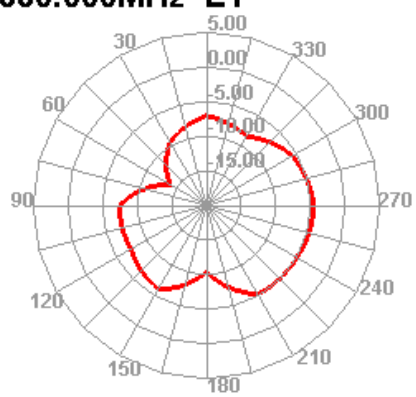
880.000MHz



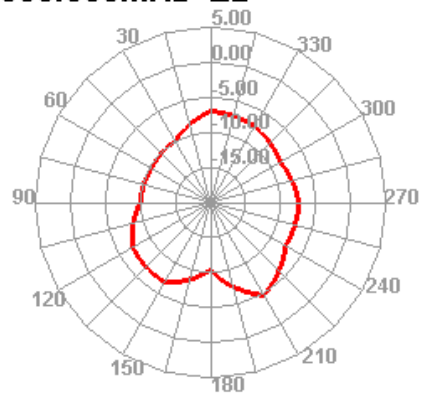
880.000MHz H



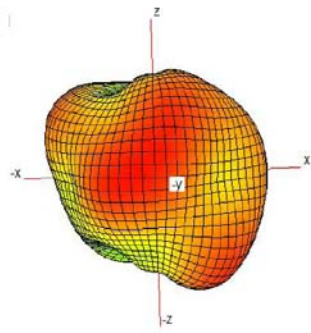
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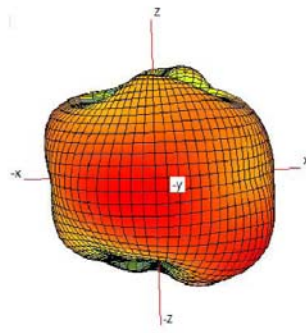
880.000MHz E2



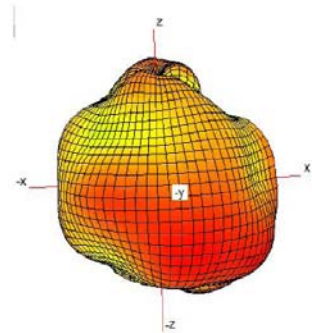
1700MHz



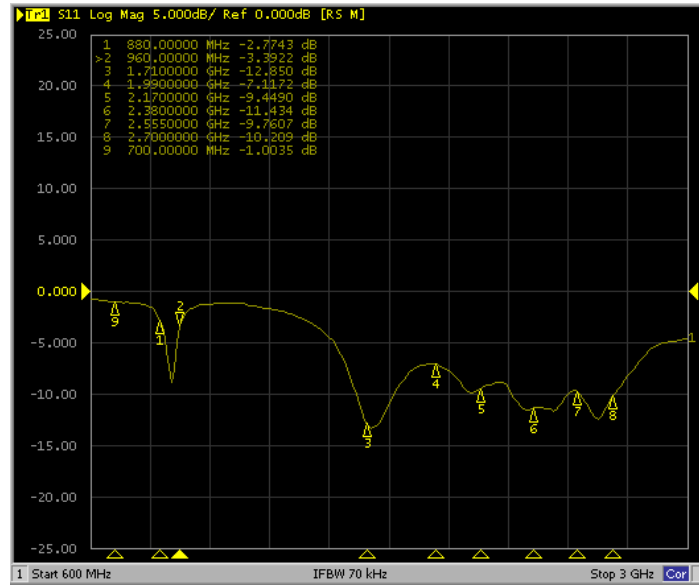
2200MHz



2700MHz



三、 Medium and high frequency antenna Test Data (sub antenna)



3.1 'Medium and high frequency Passive Efficiency Data & Gain (sub antenna)

Passive Test For 1700-2700							
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)				
1700	38.2	-4.18	1.01	1990	46.95	-3.28	1.11
1710	39.87	-3.99	1	2000	51.29	-2.9	1.43
1720	40.14	-3.96	0.94	2010	51.82	-2.86	1.46
1730	43.9	-3.58	1.4	2020	56.39	-2.49	1.82
1740	40.18	-3.96	0.9	2030	51.16	-2.91	1.32
1750	36.42	-4.39	0.61	2040	47.4	-3.24	0.98
1760	37.08	-4.31	0.66	2050	45.22	-3.45	0.84
1770	36.26	-4.41	0.56	2060	44.52	-3.51	0.83
1780	39.45	-4.04	0.9	2070	44.88	-3.48	0.86
1790	38.24	-4.17	0.86	2080	39.72	-4.01	0.25
1800	40.84	-3.89	1.11	2090	40.74	-3.9	0.37
1810	45.09	-3.46	1.54	2100	35.4	-4.51	-0.16
1820	45.62	-3.41	1.49	2110	33.74	-4.72	-0.53
1830	45.72	-3.4	1.51	2120	31.38	-5.03	-0.91
1840	45.07	-3.46	1.32	2130	30.17	-5.2	-0.92
1850	46.13	-3.36	1.41	2140	26.68	-5.74	-1.25
1860	44.92	-3.48	1.3	2150	27.84	-5.55	-0.9
1870	41.13	-3.86	0.97	2160	28.76	-5.41	-0.59
1880	43.49	-3.62	1.12	2170	28.33	-5.48	-0.53
1890	44.55	-3.51	1.17	2180	29.7	-5.27	-0.24
1900	46.65	-3.31	1.27	2190	30.44	-5.17	-0.07
1910	48.62	-3.13	1.35	2200	35.01	-4.56	0.64
1920	50.9	-2.93	1.46	2210	36.72	-4.35	0.8
1930	58.1	-2.36	1.99	2220	37.35	-4.28	0.92
1940	54.14	-2.66	1.67	2230	41.11	-3.86	1.35
1950	53.22	-2.74	1.55	2240	39.1	-4.08	1.15
1960	51.43	-2.89	1.4	2250	39.96	-3.98	1.17
1970	51.9	-2.85	1.46	2260	38.75	-4.12	0.99
1980	50.88	-2.93	1.51	2270	41.59	-3.81	1.21
				2280	41.07	-3.86	1.09

2280	41.07	-3.86	1.09				
2290	41.84	-3.78	1.12				
2300	44.39	-3.53	1.44				
2310	45.12	-3.46	1.26				
2320	48.82	-3.11	1.59				
2330	48.18	-3.17	1.2				
2340	48.4	-3.15	1.24				
2350	45.67	-3.4	0.97				
2360	45.57	-3.41	1.19				
2370	43.5	-3.61	0.94				
2380	43.68	-3.6	1.18				
2390	42.5	-3.72	0.97				
2400	41.1	-3.86	0.94				
2410	41.91	-3.78	0.97				
2420	38.41	-4.16	0.69				
2430	37.25	-4.29	0.4				
2440	39.24	-4.06	0.65				
2450	39.92	-3.99	0.57				
2460	40.61	-3.91	0.68				
2470	34.78	-4.59	0.23				
2480	35.94	-4.44	0.48				
2490	32.47	-4.89	0.39				
2500	28.74	-5.42	0.23	2600	35.5	-4.5	1.49
2510	26.47	-5.77	0.08	2610	34.9	-4.57	1.57
2520	23.38	-6.31	-0.31	2620	30.46	-5.16	1.09
2530	26.15	-5.83	0.39	2630	31.2	-5.06	1.32
2540	23.43	-6.3	0.06	2640	31.42	-5.03	1.48
2550	25.96	-5.86	0.58	2650	29.81	-5.26	1.34
2560	29	-5.38	1.03	2660	30.99	-5.09	1.56
2570	32.99	-4.82	1.53	2670	28.58	-5.44	1.37
2580	35.21	-4.53	1.68	2680	30.79	-5.12	1.92
				2690	27.16	-5.66	1.5
				2700	27.38	-5.63	1.64

Passive Test For 880-960

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
880	5.6	-12.52	-9.24
885	6.5	-11.87	-8.29
890	6.73	-11.72	-8.02
895	7.53	-11.23	-7.57
900	8.81	-10.55	-6.82
905	8.97	-10.47	-6.5
910	10.38	-9.84	-5.8
915	11.68	-9.32	-5.14
920	13.44	-8.71	-4.33
925	13.69	-8.64	-4.06
930	14.71	-8.32	-3.69
935	15.36	-8.14	-3.54
940	15.53	-8.09	-3.44
945	15.82	-8.01	-3.27
950	15.41	-8.12	-3.48
955	14.37	-8.43	-4.11
960	12.77	-8.94	-5.03

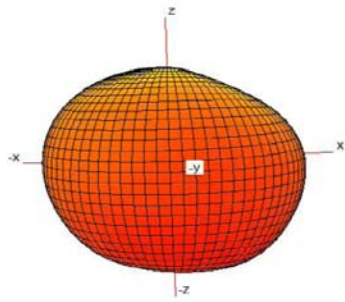
Passive Test For 800-960

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
820	10.17	-9.93	-6.84
830	10.71	-9.7	-6.37
840	12.35	-9.08	-5.62
850	13.69	-8.63	-4.85
860	13.87	-8.58	-4.7
870	13.57	-8.67	-4.8
880	13.17	-8.8	-5.1
890	11.37	-9.44	-6.02
900	9.31	-10.31	-7.01

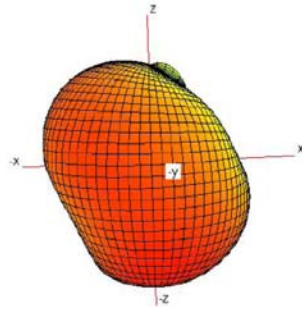
Passive Test For 700-880

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	3.14	-15.02	-13.22
718	3.7	-14.32	-12.25
736	4.06	-13.92	-11.6
754	3.63	-14.4	-11.48
772	4.91	-13.09	-10.35
790	7.28	-11.38	-8.14
808	7.69	-11.14	-7.53
826	7.18	-11.44	-7.98
844	8.45	-10.73	-7.29
862	7.91	-11.02	-7.87
880	11.06	-9.56	-6.17

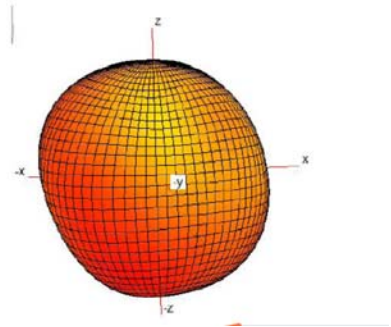
1700MHz



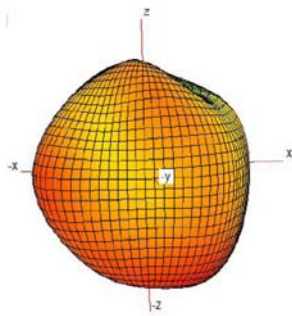
2200MHz



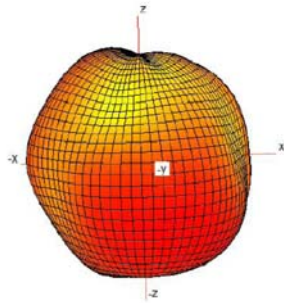
2700MHz



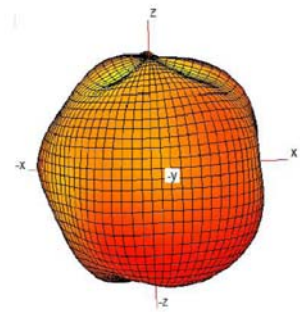
700MHz



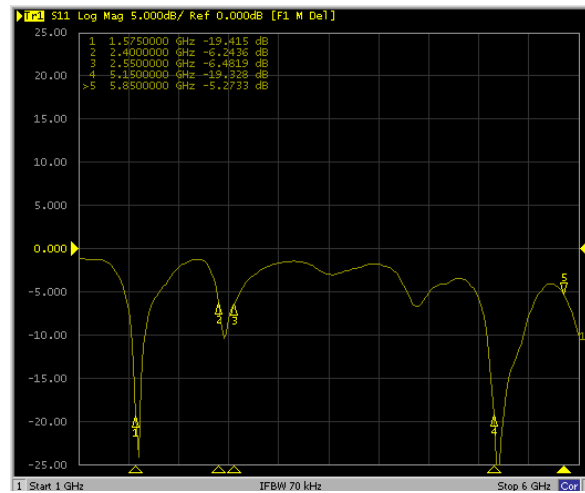
830MHz



960MHz



四、 WiFi BT GPS antenna Test Data

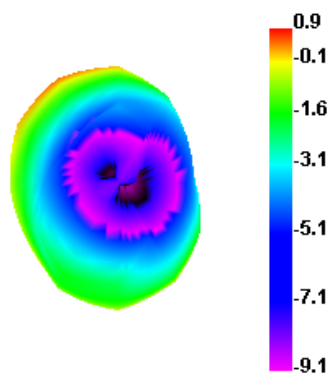


4.1 three in one antenna Passive Efficiency Data & Gain

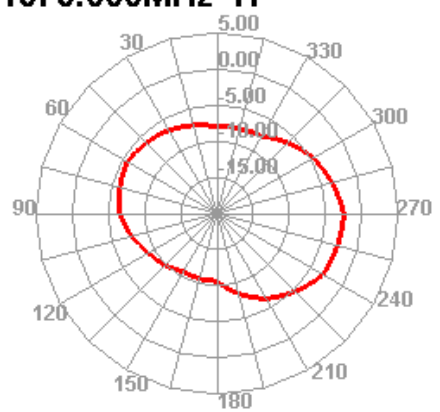
Passive Test For GPS				Passive Test For 2400-2500			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1550	36.24	-4.41	0.8	2400	28.36	-5.47	-0.35
1555	36.1	-4.42	0.72	2410	29.95	-5.24	-0.23
1560	35.49	-4.5	0.63	2420	29.4	-5.32	-0.47
1565	36.14	-4.42	0.74	2430	29.9	-5.24	-0.44
1570	37.08	-4.31	0.84	2440	33.04	-4.81	-0.3
1575	37.65	-4.24	0.86	2450	34.91	-4.57	-0.11
1580	38.26	-4.17	0.97	2460	37.4	-4.27	-0.1
1585	39.11	-4.08	1.1	2470	34.77	-4.59	-0.36
1590	40.23	-3.95	1.2	2480	38.59	-4.13	0.1
1595	41.27	-3.84	1.26	2490	36.44	-4.38	-0.38
1600	43.56	-3.61	1.47	2500	36.03	-4.43	-0.79

Passive Test For WIFI5.8			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	29.92	-6.21	-0.58
5200	29.23	-6.34	-1.06
5250	30.7	-6.07	-0.89
5300	29.42	-6.3	-1.03
5350	30.51	-6.11	-1.13
5400	31.48	-5.94	-1.01
5450	28.25	-6.53	-1.64
5500	27.27	-6.72	-2.05
5550	25.45	-7.11	-3.01
5600	28.76	-7.76	-3.54
5650	25.37	-8.74	-4.15
5700	23.14	-9.53	-5.34
5750	24	-9.21	-4.28
5800	23.01	-9.58	-5.41
5850	24.8	-8.93	-3.84

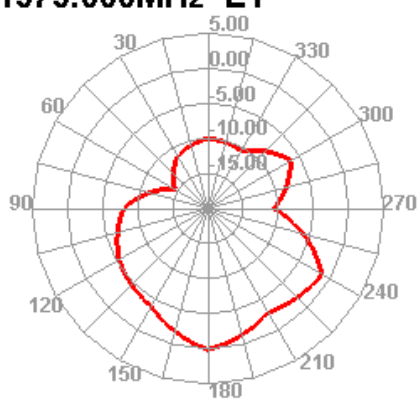
1575.000MHz



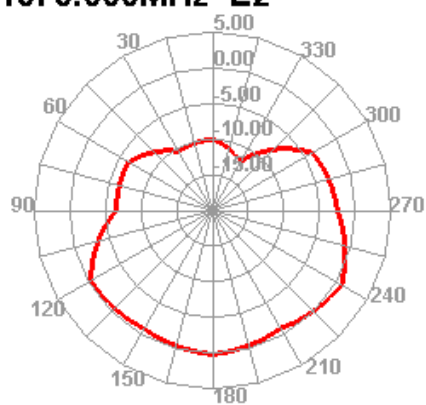
1575.000MHz H



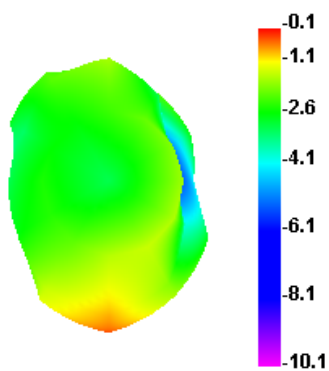
1575.000MHz E1



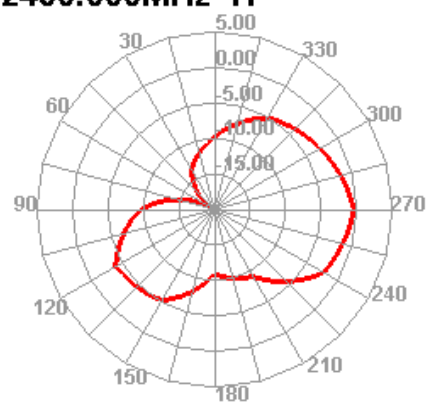
1575.000MHz E2



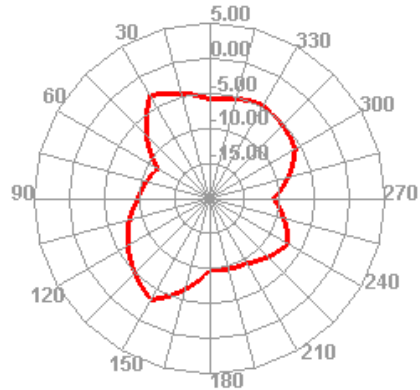
2450.000MHz



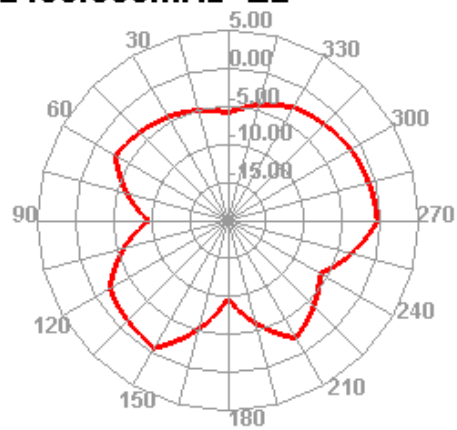
2450.000MHz H



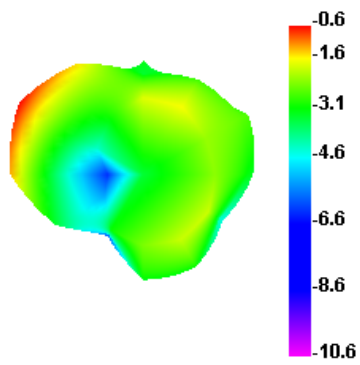
2450.000MHz E1



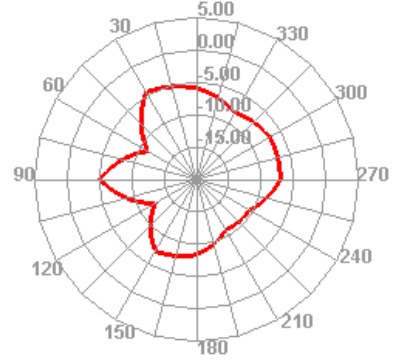
2450.000MHz E2



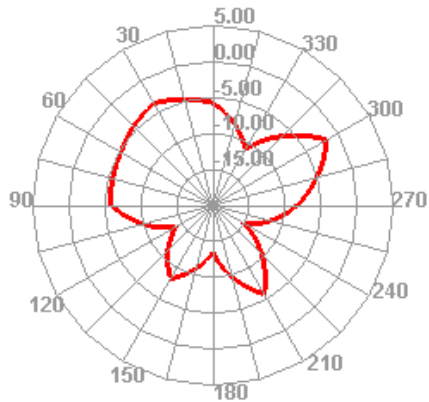
5150.000MHz



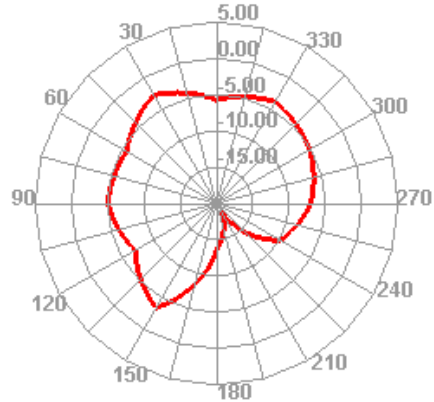
5150.000MHz H



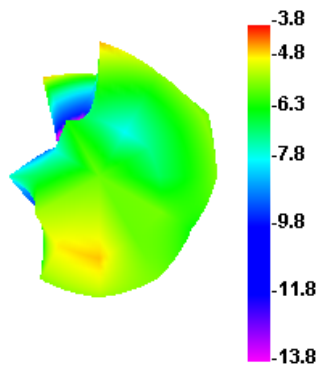
5150.000MHz E1



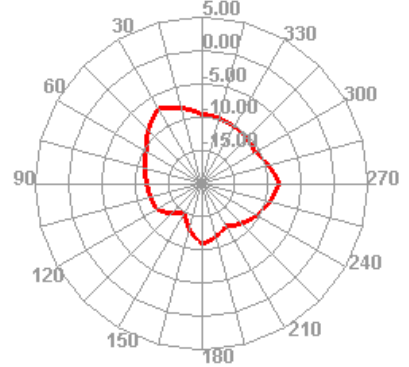
5150.000MHz E2



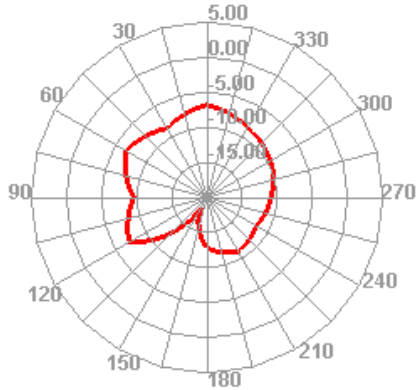
5850.000MHz



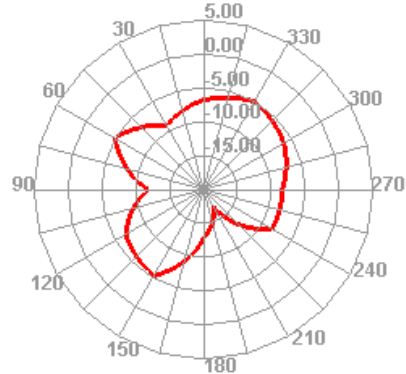
5850.000MHz H



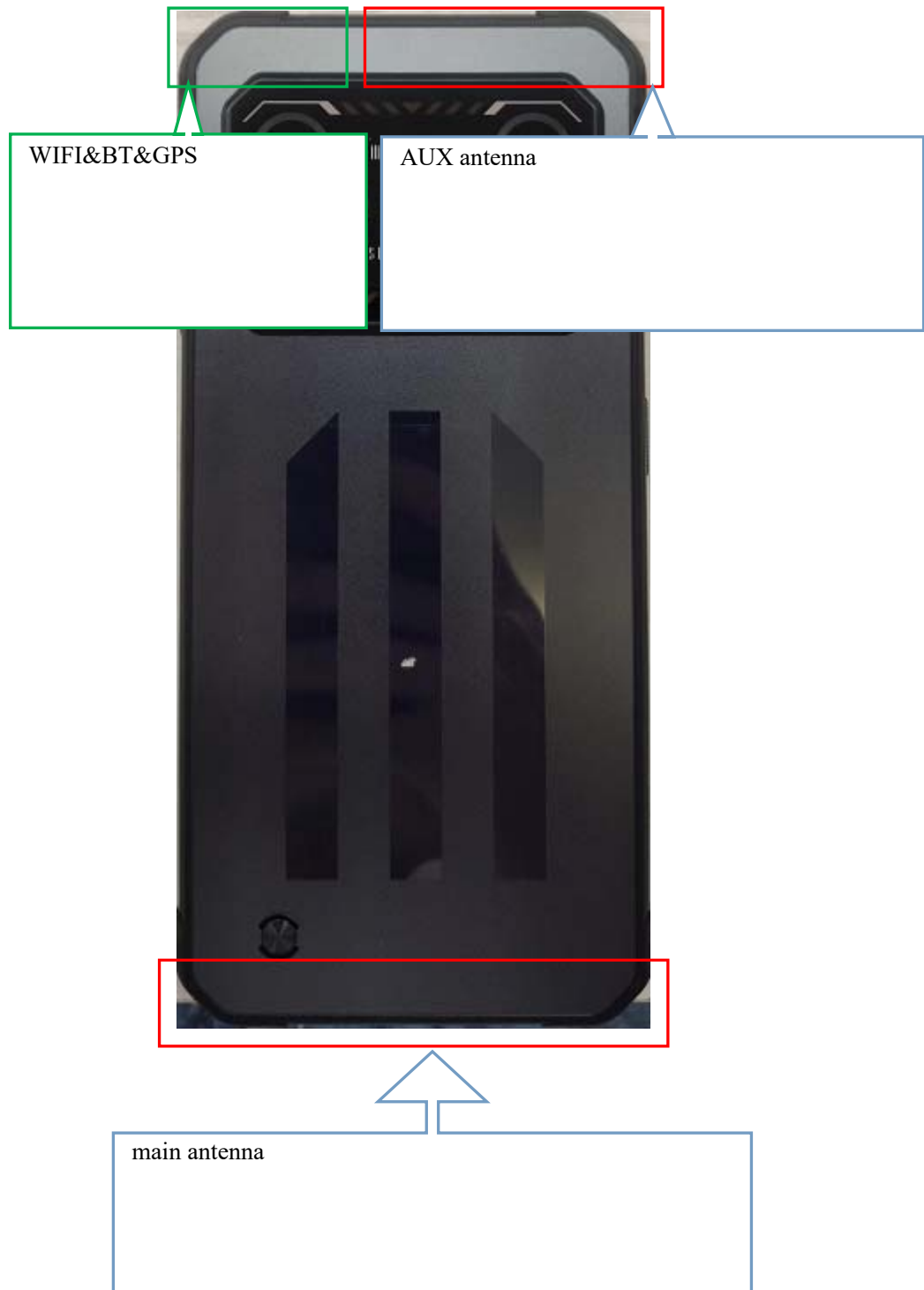
5850.000MHz E1



5850.000MHz E2



5 Antenna distribution map



Note:

PCS1900/WCDMA B4/LTE B2/4/7/25/38/40/41/66 transmit on AUX antenna

GSM850/CDMA BC0/WCDMA B2/5 /LTE B5/12/13/17/26 transmit on main antenna