

一、 Overview

This report contains the basic parameters and performance of the Kai cheng 2300pro project antenna (version v0.1)

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PIFA Antenna

Name

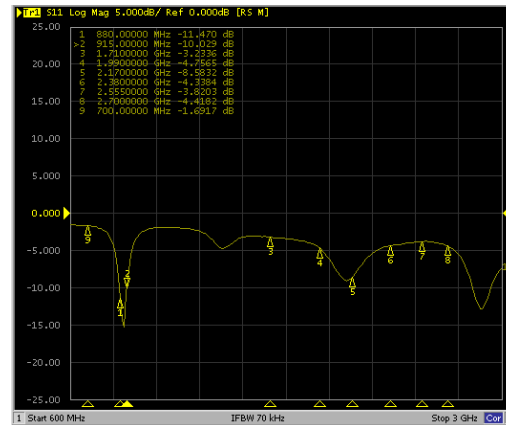
2G/3G/4G Main ANT: 2300P

DIV ANT: 2300D

BT&WiFi&GPS ANT: 2300

二、low frequency antenna Test Data (Main Antenna)

S11 low frequency Enter reflection coefficient

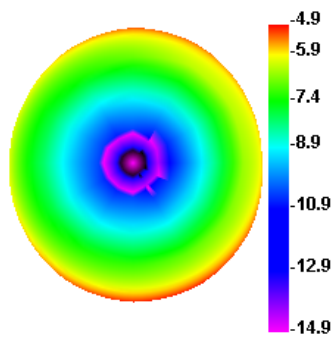


2.1 low frequency Passive Efficiency Data & Gain (Main Antenna)

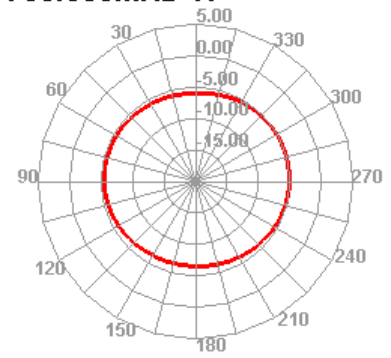
Passive Test For 700-808				Passive Test For 860-930			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	19.64	-7.07	-4.94	860	17.19	-9.92	-5.08
718	26.41	-5.78	-3.55	867	18.23	-9.5	-4.62
736	30.12	-5.21	-2.24	874	19.49	-9.04	-4.15
754	22.6	-6.46	-2.99	881	20.01	-8.86	-3.96
772	18.14	-7.41	-3.81	888	20.19	-8.8	-3.83
790	16.46	-7.84	-4.46	895	20.36	-8.74	-3.58
808	11.71	-9.31	-5.62	902	20.11	-8.83	-3.45
				909	19.03	-9.2	-3.56
				916	17.85	-9.65	-3.78
				923	17.55	-9.77	-3.96
				930	15.66	-10.62	-4.8

Passive Test For 800-850			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
800	18.51	-9.39	-6.67
810	19.58	-9	-6.01
820	20.38	-8.74	-5.72
830	21.73	-8.32	-4.96
840	21.57	-8.37	-4.84
850	20.72	-8.63	-4.64

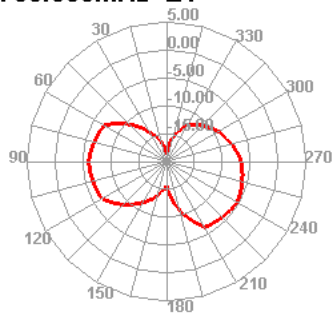
700.000MHz



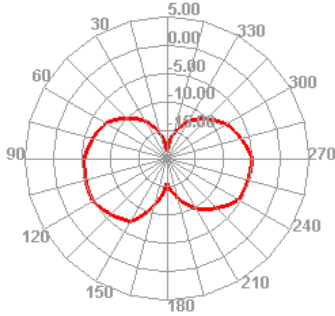
700.000MHz H



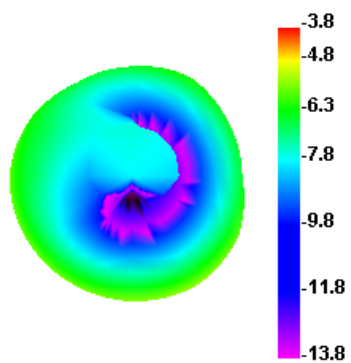
700.000MHz E1



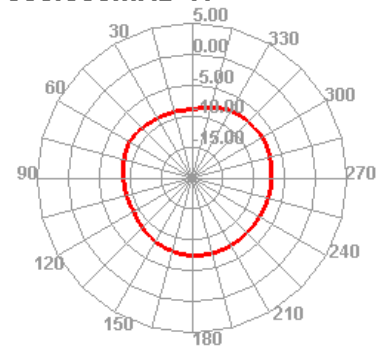
700.000MHz E2



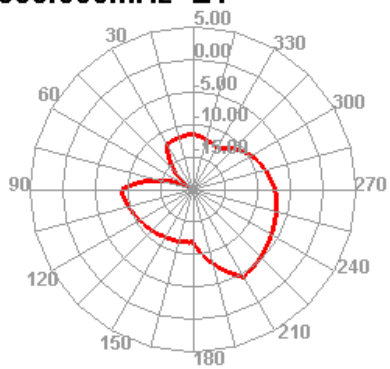
888.000MHz



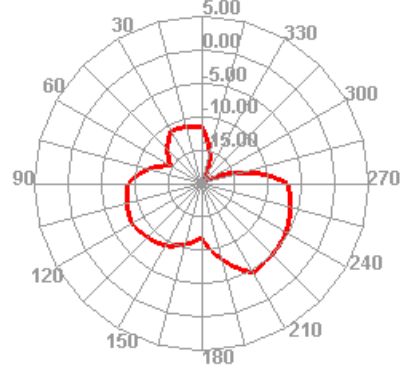
888.000MHz H



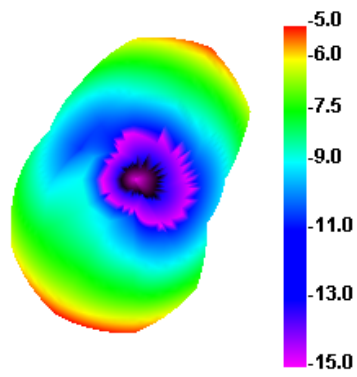
888.000MHz E1



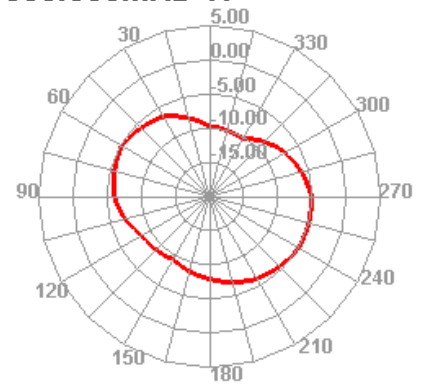
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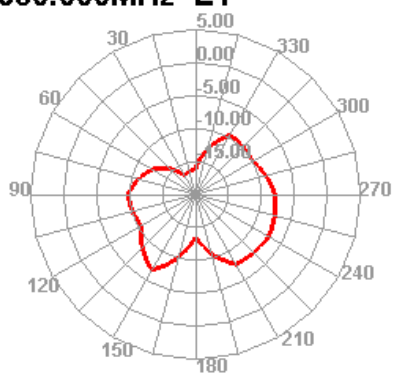
830.000MHz



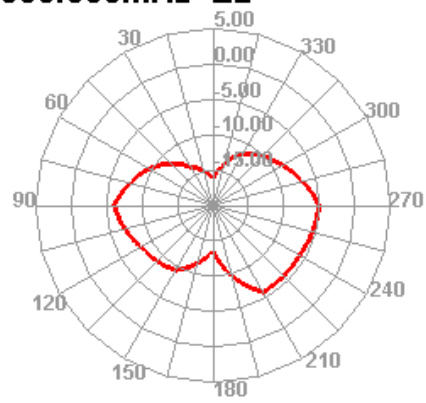
830.000MHz H



830.000MHz E1



830.000MHz E2



Passive Test For 1700-2700

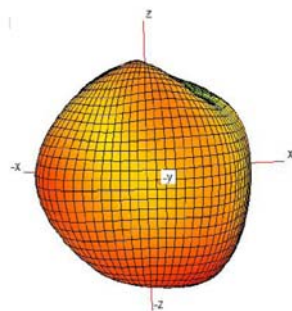
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1700	23.71	-6.25	1.37
1710	25.11	-6	1.58
1720	25.66	-5.91	1.43
1730	30.87	-5.1	1.98
1740	29.57	-5.29	1.79
1750	26.14	-5.83	1.08
1760	27.53	-5.6	1.11
1770	26.95	-5.69	0.8
1780	28.57	-5.44	0.86
1790	25.09	-6	0.14
1800	25.59	-5.92	0.28
1810	29.47	-5.31	1.11
1820	26.17	-5.82	0.72
1830	24.1	-6.18	0.28
1840	22.62	-6.46	-0.06
1850	23.45	-6.3	0.2
1860	21.41	-6.69	-0.12
1870	16.91	-7.72	-1.25
1880	18.37	-7.36	-0.77
1890	18.99	-7.22	-0.52
1900	19.13	-7.18	-0.49
1910	18.57	-7.31	-0.7
1920	19.03	-7.2	-0.54
1930	24.07	-6.19	0.54
1940	19.82	-7.03	-0.15
1950	18.64	-7.3	-0.41
1960	17.91	-7.47	-0.41
1970	18.26	-7.39	-0.28
1980	16.07	-7.94	-0.91
1990	11.83	-9.27	-2.53
2000	14.02	-8.53	-1.75

2010	14.26	-8.46	-1.6
2020	13.25	-8.78	-2.09
2030	9.79	-10.09	-3.48
2040	8.41	-10.75	-4.07
2050	9.48	-10.23	-3.43
2060	8.26	-10.83	-4.29
2070	7.9	-11.03	-4.84
2080	7.06	-11.51	-4.96
2090	8.93	-10.49	-3.8
2100	7.6	-11.19	-4.74
2110	6.03	-12.2	-5.87
2120	6.41	-11.93	-5.34
2130	6.28	-12.02	-5.3
2140	6.07	-12.17	-5.63
2150	5.25	-12.8	-6.26
2160	4.98	-13.03	-6.49
2170	5.24	-12.81	-6.6
2180	4.54	-13.43	-7.41
2190	4.54	-13.43	-7.3
2200	4.14	-13.83	-7.55
2210	4.1	-13.87	-7.76
2220	3.71	-14.31	-8.33
2230	3.7	-14.32	-8.19
2240	3.83	-14.16	-7.93
2250	3.72	-14.29	-7.82
2260	4.09	-13.89	-7.7
2270	3.54	-14.51	-8.22
2280	3.58	-14.46	-8.21
2290	3.48	-14.59	-8.12
2300	3.93	-14.06	-7.77
2310	4.29	-13.68	-7.26
2320	4.35	-13.62	-6.98
2330	4.76	-13.22	-6.45

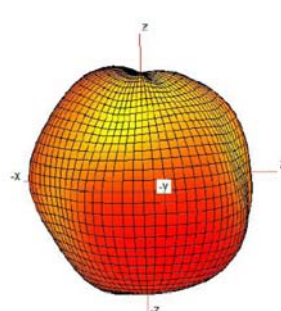
2340	5.81	-12.36	-5.65
2350	6.3	-12.01	-5.17
2360	5.49	-12.61	-5.92

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

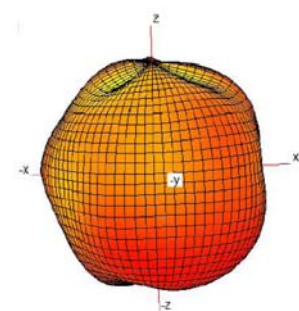
1700MHz



2200MHz

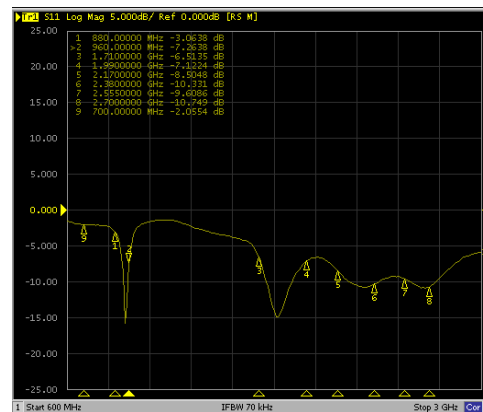


2600MHz



三、 Medium and high frequency antenna Test Data (DIV Antenna)

S11 Medium and high frequency Enter reflection coefficient



3.1 'Medium and high frequency Passive Efficiency Data & Gain (DIV Antenna)

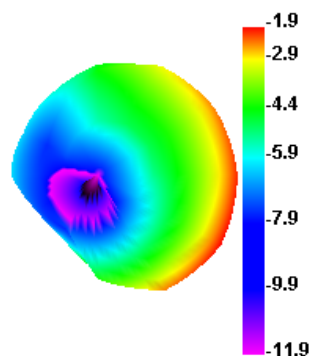
Passive Test For 1700-2700							
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)				
1700	26.57	-5.76	-2.25	1970	39.24	-4.06	-0.75
1710	28.67	-5.43	-1.93	1980	38.04	-4.2	-1.06
1720	27.12	-5.67	-1.94	1990	41.34	-3.84	-0.44
1730	29.7	-5.27	-1.49	2000	36.59	-4.37	-1.18
1740	29.38	-5.32	-1.69	2010	36.4	-4.39	-1.03
1750	30.62	-5.14	-1.48	2020	41.27	-3.84	-0.74
1760	29.07	-5.37	-1.91	2030	42.89	-3.68	-0.29
1770	27.93	-5.54	-2.17	2040	40.74	-3.9	-0.39
1780	32.65	-4.86	-1.44	2050	34.63	-4.61	-0.98
1790	32.65	-4.86	-1.39	2060	35.62	-4.48	-0.94
1800	35.74	-4.47	-1.11	2070	35.19	-4.54	-0.94
1810	37.37	-4.27	-1.12	2080	30.97	-5.09	-1.68
1820	43.4	-3.62	-0.4	2090	29.31	-5.33	-2.18
1830	46.75	-3.3	-0.06	2100	24.28	-6.15	-2.76
1840	42.34	-3.73	-0.4	2110	25.95	-5.86	-2.78
1850	45.32	-3.44	-0.33	2120	33.93	-6.21	-3.01
1860	41.42	-3.83	-0.91	2130	34.09	-6.18	-3.04
1870	42.15	-3.75	-1.28	2140	28.69	-7.28	-4.09
1880	35.92	-4.45	-1.74	2150	31.27	-6.72	-3.48
1890	36.59	-4.37	-1.66	2160	30.65	-6.85	-3.42
1900	38.14	-4.19	-1.03	2170	29.73	-7.05	-3.6
1910	40.78	-3.9	-0.96	2180	28.55	-7.32	-3.73
1920	39.53	-4.03	-1.04	2190	27.88	-7.48	-3.81
1930	41.49	-3.82	-1.19	2200	33.36	-6.32	-2.45
1940	42.29	-3.74	-0.85	2210	31.89	-6.6	-2.72
1950	45.22	-3.45	-0.52	2220	32.83	-6.41	-2.44
1960	37.13	-4.3	-1.46	2230	32.2	-6.54	-2.58
1970	39.24	-4.06	-0.75	2240	31.66	-6.64	-2.68
				2250	30.54	-6.87	-3.01
				2260	26.18	-7.91	-4.17
				2270	28.13	-7.42	-3.62
				2280	27.89	-7.47	-3.51

2290	29.27	-5.15	-1.06
2300	26.98	-6.7	-1.44
2310	24.53	-7.38	-2.73
2320	27.14	-7.66	-2.9
2330	25.32	-6.15	-3.22
2340	27.4	-6.59	-2.67
2350	24.46	-7.4	-3.43
2360	27.42	-7.59	-2.71
2370	27.19	-7.65	-2.58
2380	27.65	-7.53	-2.4
2390	27.7	-7.52	-1.86
2400	28.74	-7.27	-1.69
2410	31.24	-6.73	-0.87
2420	30.72	-6.84	-0.97
2430	31.84	-6.61	-0.84
2440	25.98	-5.85	-0.13
2450	29.24	-5.34	0.21
2460	30.98	-5.09	0.58
2470	28.51	-5.45	0.24
2480	30.76	-5.12	0.65
2490	31.38	-5.03	0.6
2500	30.25	-5.19	0.36
2510	31.92	-4.96	0.18
2520	31.3	-5.04	0.06
2530	35.4	-4.51	0.47
2540	34.37	-4.64	0.22
2550	36.2	-4.41	0.5
2560	38.3	-4.17	1.01
2570	39.15	-4.07	1.35
2580	37.36	-4.28	1.35
2590	37.37	-4.27	1.55
2600	35.5	-4.5	1.49
2610	34.9	-4.57	1.57
2620	30.46	-5.16	1.09
2630	31.2	-5.06	1.32
2640	31.42	-5.03	1.48
2650	29.81	-5.26	1.34
2660	30.99	-5.09	1.56
2670	28.58	-5.44	1.37
2680	30.79	-5.12	1.92
2690	27.16	-5.66	1.5
2700	27.38	-5.63	1.64

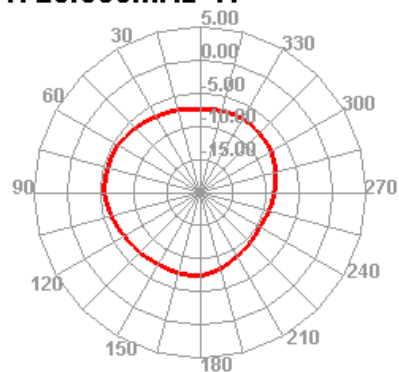
Passive Test For 800-960			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
800	1.24	-19.08	-14.18
810	1.36	-18.66	-13.95
820	1.58	-18.01	-13.72
830	1.72	-17.64	-13.12
840	2.26	-16.46	-12.24
850	2.77	-15.58	-11.38
860	3.15	-15.02	-11.4
870	3.42	-14.67	-11.24
880	4	-13.98	-10.78
890	5.13	-12.9	-9.83
900	6.29	-12.01	-8.97
910	6.93	-11.59	-8.83
920	8.49	-10.71	-8.12
930	9.79	-10.09	-7.15
940	12.66	-8.98	-6.08
950	13.9	-8.57	-5.53
960	15.05	-8.22	-5.24

Passive Test For 710-785			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
710	8.29	-10.81	-8
735	12.92	-8.89	-6.14
760	8.21	-10.86	-8.01
785	11.71	-9.32	-6.14

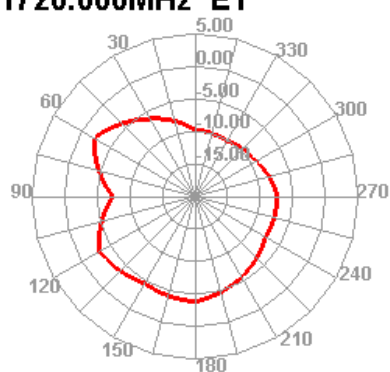
1720.000MHz



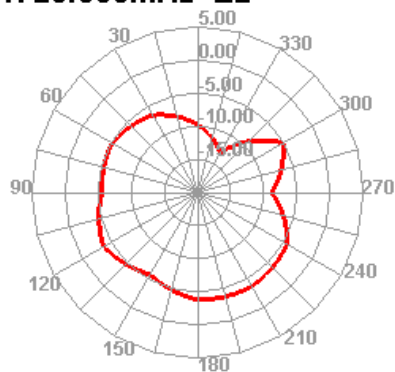
1720.000MHz H



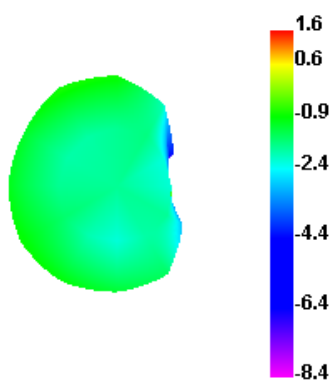
1720.000MHz E1



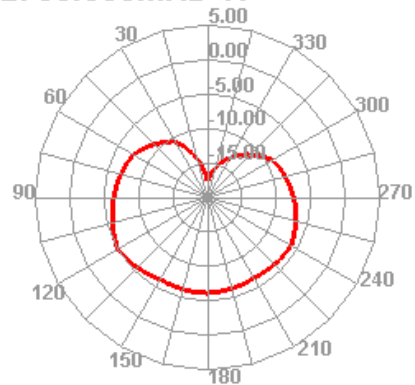
1720.000MHz E2



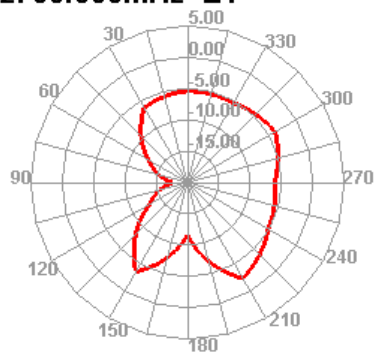
2700.000MHz



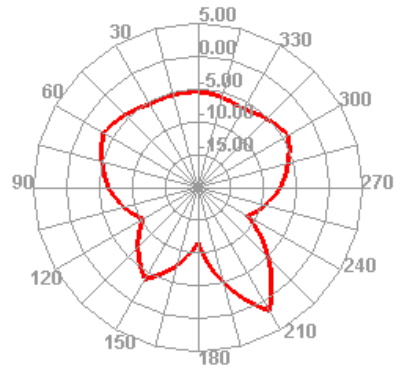
2700.000MHz H



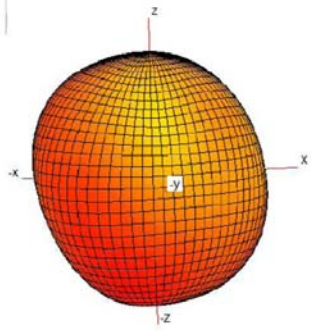
2700.000MHz E1



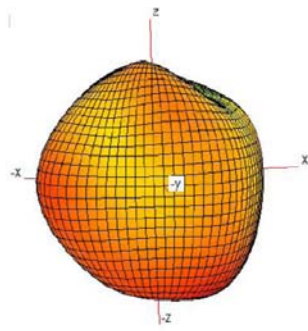
2700.000MHz E2



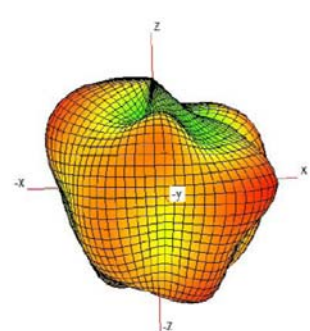
710MHz



840MHz

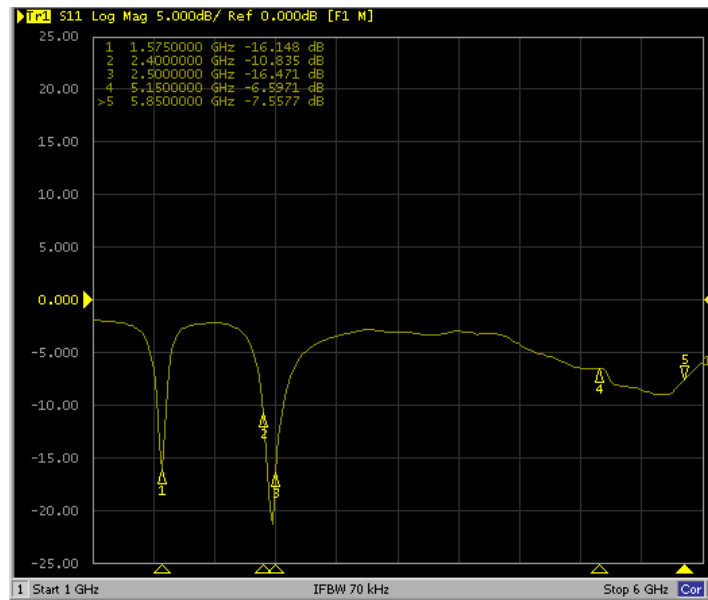


960MHz



四、 WiFi BT GPS antenna Test Data

S11 three in one antenna Enter reflection coefficient

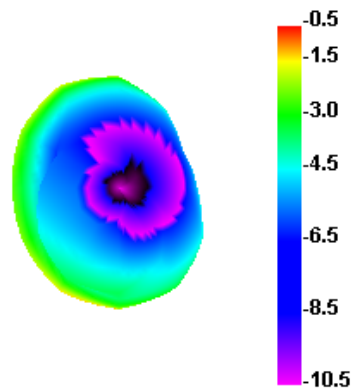


4.1 three in one antenna Passive Efficiency Data & Gain

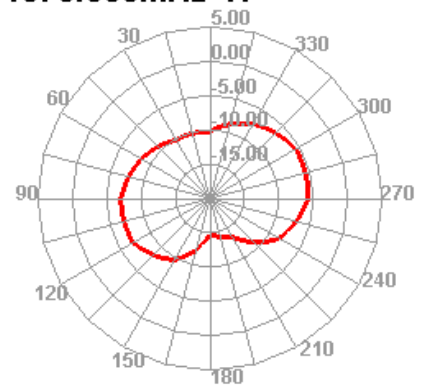
Passive Test For GPS				Passive Test For WIFI			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1550	34.96	-6.03	-0.25	2400	30.39	-5.17	1.38
1555	33.3	-6.33	-0.55	2410	28.83	-5.4	1.17
1560	32.7	-6.44	-0.64	2420	33.46	-4.75	1.65
1565	33.89	-6.22	-0.38	2430	35.51	-4.5	2.03
1570	33.96	-6.2	-0.31	2440	38.6	-4.13	2.39
1575	32.84	-6.41	-0.47	2450	42.7	-3.7	2.99
1580	33.03	-6.38	-0.38	2460	44.45	-3.52	3.1
1585	34.43	-6.12	-0.06	2470	48.29	-3.16	3.55
1590	35.14	-6	0.12	2480	52.35	-2.81	3.86
1595	35.28	-5.97	0.18	2490	54.32	-2.65	4.03
1600	39.63	-5.28	0.94	2500	55.33	-2.57	4.02

Passive Test For WIFI5.8			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	36.13	-4.42	-0.48
5200	34.76	-4.59	-0.08
5250	38.19	-4.18	0.34
5300	36.02	-4.44	0.38
5350	42.26	-3.74	1.17
5400	46.56	-3.32	1.84
5450	39.29	-4.06	1.2
5500	39.26	-4.06	1.03
5550	39.46	-4.04	1.18
5600	42.86	-3.68	1.71
5650	45.1	-3.46	2.05
5700	42.99	-3.67	1.18
5750	45.95	-3.38	1.85
5800	39.94	-3.99	0.56
5850	44.04	-3.56	1.23

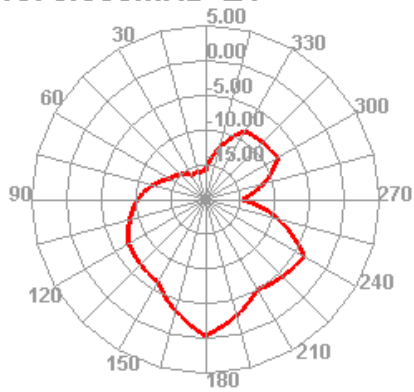
1575.000MHz



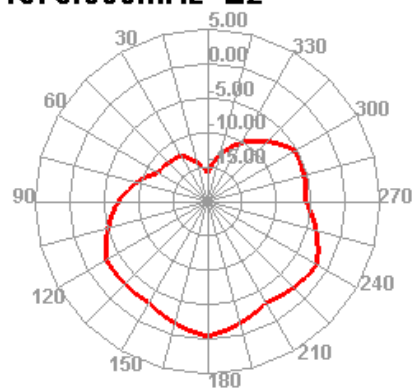
1575.000MHz H



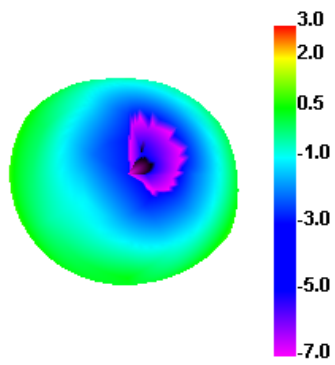
1575.000MHz E1



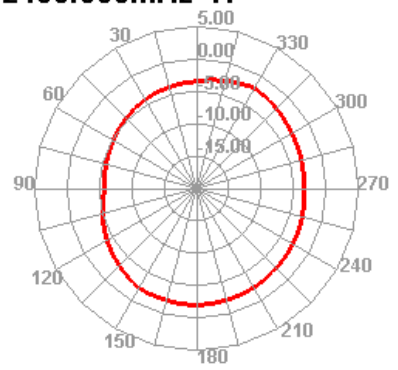
1575.000MHz E2



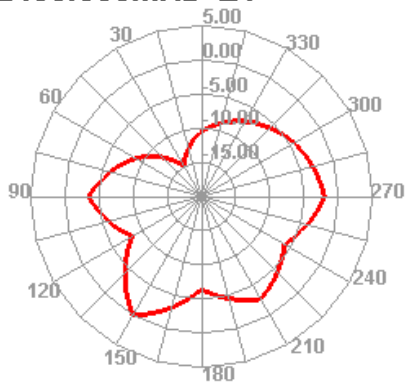
2450.000MHz



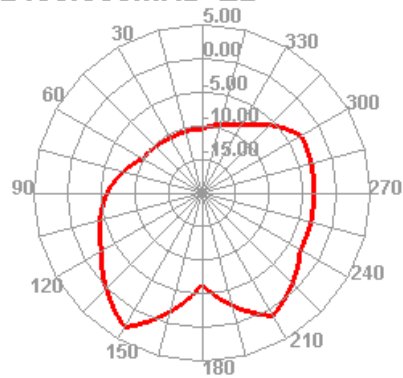
2450.000MHz H



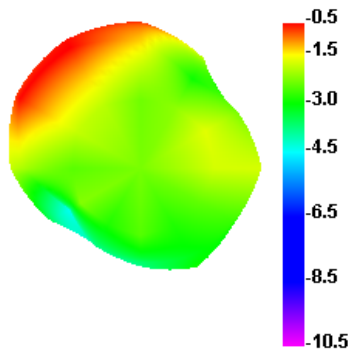
2450.000MHz E1



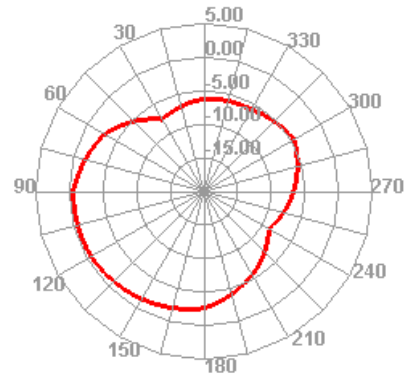
2450.000MHz E2



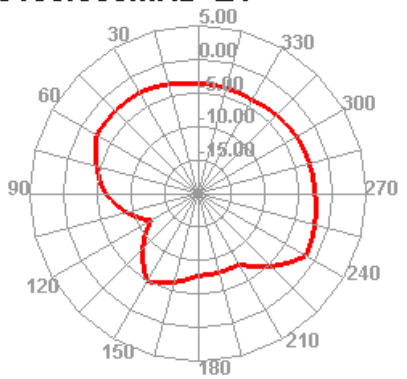
5150.000MHz



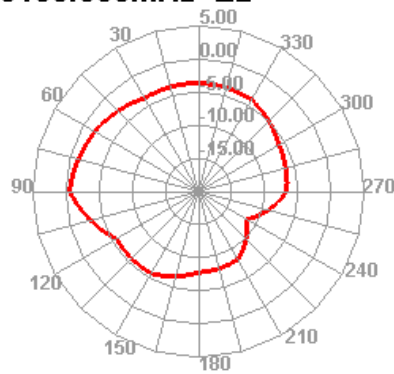
5150.000MHz H



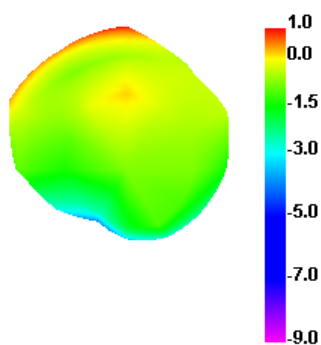
5150.000MHz E1



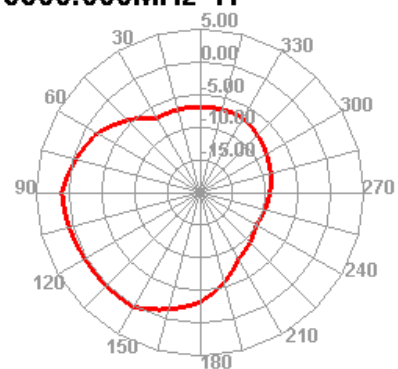
5150.000MHz E2



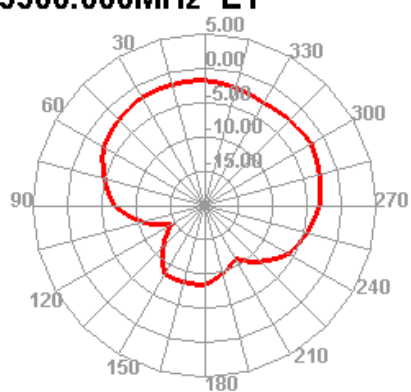
5500.000MHz



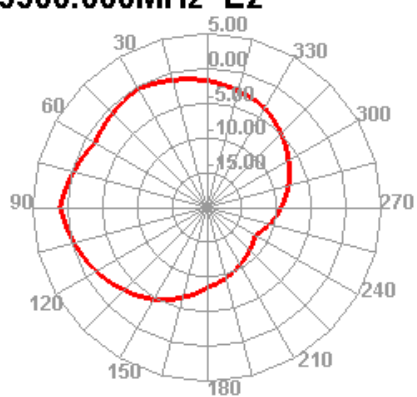
5500.000MHz H



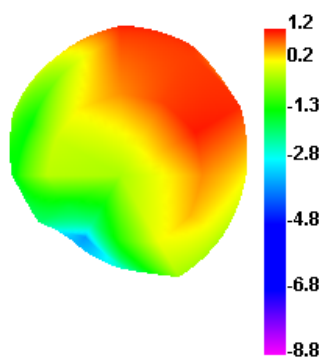
5500.000MHz E1



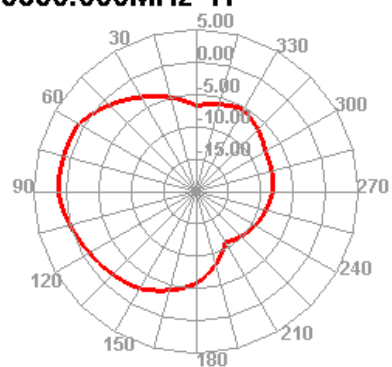
5500.000MHz E2



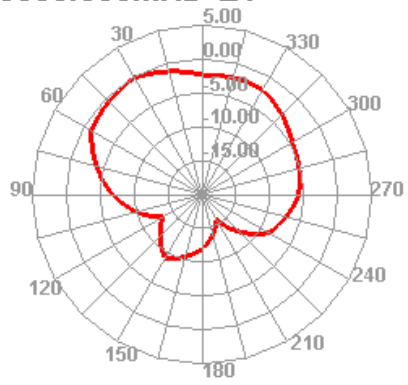
5850.000MHz



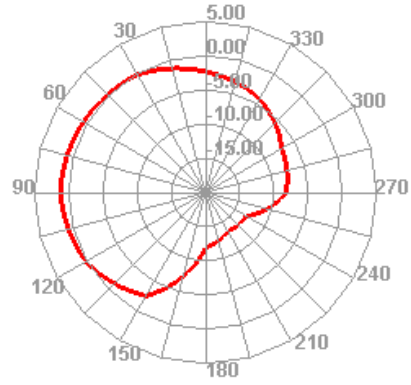
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



5 Antenna distribution map

