1. Project overview:

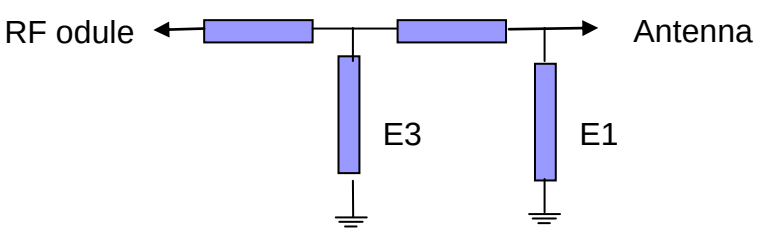
Manufacture	Shenzhen DESHIQIN Technology Co., LTD 403, West Building 2, Private Enterprise Science and Technology Park, Xili University Town, Nanshan District, Shenzhen	**Name**	2300
Complete machine type	Smart phone		
Antenna type and frequency band information		**Antenna form**	**Match Changes**
Main Antenna	2G:850/900/1800/1900,3G:B1/B2/B4/B5/B8 CDMA:BCO FDD:B1 B2 B3 B4 B7 B8 B25 B66 B38 B40 B41 B12 B17 B28(A/B) B5 B18 B19 B20 B26 B13	PIFA	no
Sub Antenna	WIFI+GPS+BT+NFC	PIFA	no
AUX Antenna	yes	PIFA	no
Antenna material	FPC		

2. Main test equipment

1. ETS Chamber　7×4×3(m)(3D silence room)　/ 5×3×3(m)(3D silence room)，Vector network analyzer (passive tester)

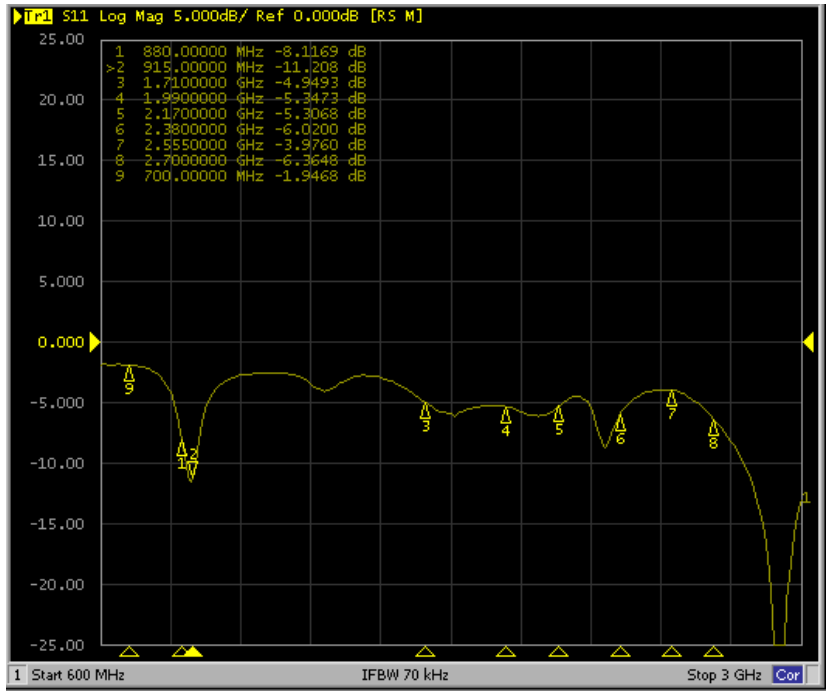
2. Network analyzer-8960/LTE CMW500/8820 Support 2G, 3G and 4G networks (Active tester)

3.Matching Circuit　Main Antenna



Element	Match value	
E1(0402)		
E2(0402)		
E3(0402)		
E3(0402)		

4: Passive test of antenna

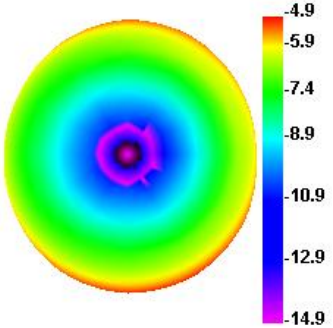


Passive Test For 800-960			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
870	18.77	-7.75	-4.79
880	20.72	-7.28	-4.27
890	21.48	-7.11	-4.05
900	20.66	-7.29	-3.73
910	18.56	-7.81	-3.69
920	15.81	-8.6	-3.97
930	12.2	-9.92	-4.92
940	9.5	-11.25	-6.1
950	7.93	-12.27	-7.27
960	6.72	-13.26	-8.62

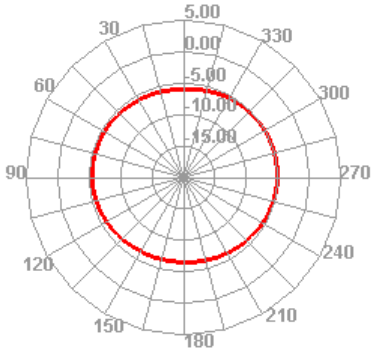
Passive Test For 800-960			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
800	18.5	-7.33	-4.69
810	18.49	-7.33	-4.3
820	17.95	-7.46	-3.83
830	17.8	-7.5	-3.47
840	16.24	-7.9	-3.62
850	15.11	-8.21	-3.78
860	12.55	-9.01	-4.69
870	10.26	-9.89	-5.49

Passive Test For 700-880			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	19.64	-7.07	-4.94
718	26.41	-5.78	-3.55
736	30.12	-5.21	-2.24
754	22.6	-6.46	-2.99
772	18.14	-7.41	-3.81
790	16.46	-7.84	-4.46
808	11.71	-9.31	-5.62
826	7.89	-11.03	-6.48
844	6.07	-12.16	-7.31
862	3.75	-14.26	-9.37
880	3.02	-15.2	-10.45

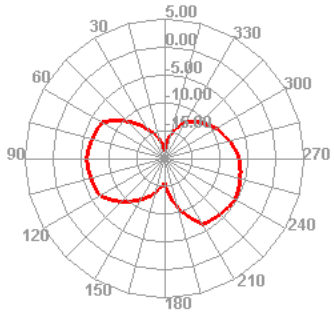
700.000MHz



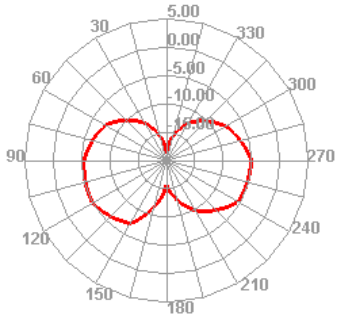
700.000MHz H



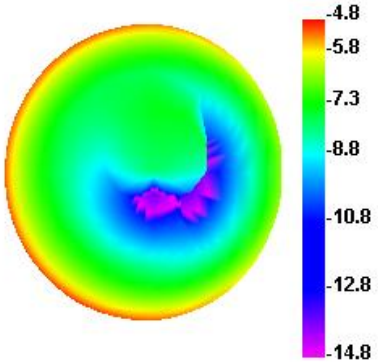
700.000MHz E1



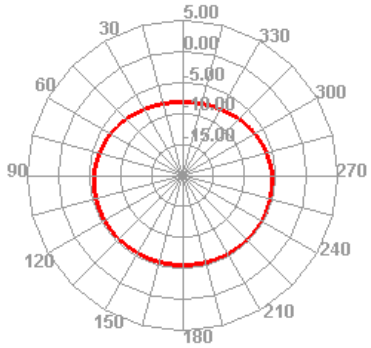
700.000MHz E2



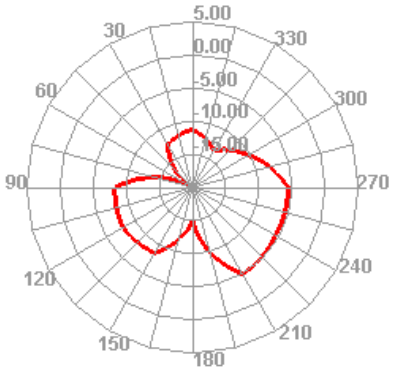
890.000MHz



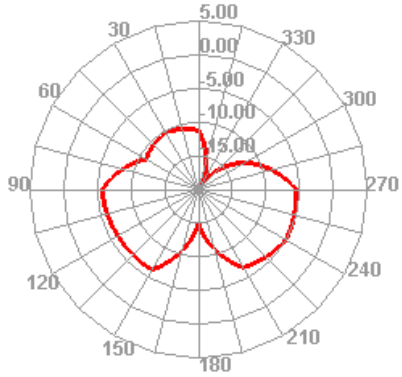
890.000MHz H



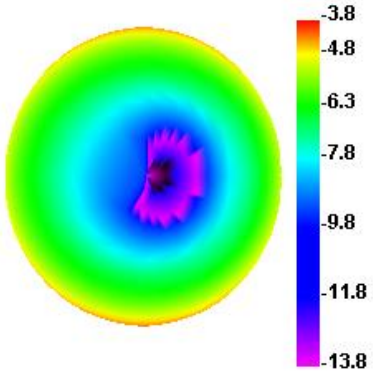
890.000MHz E1



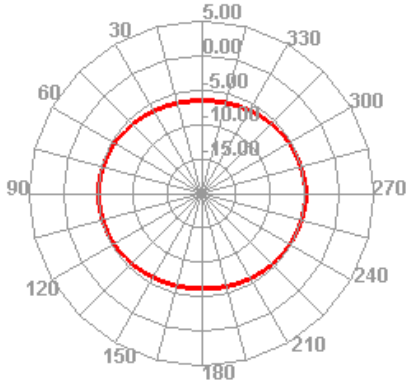
890.000MHz E2



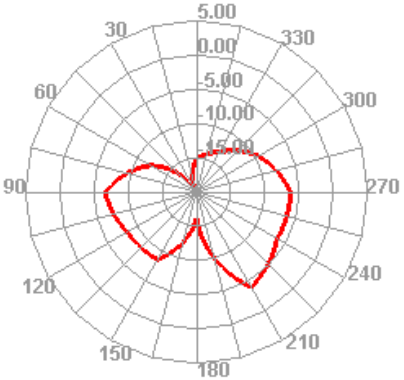
820.000MHz



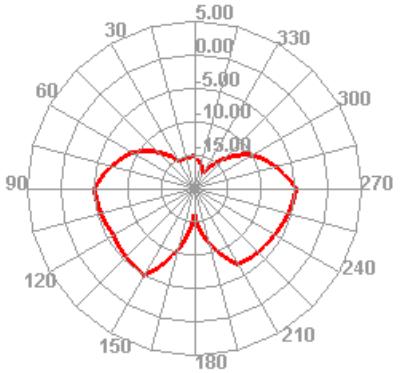
820.000MHz H

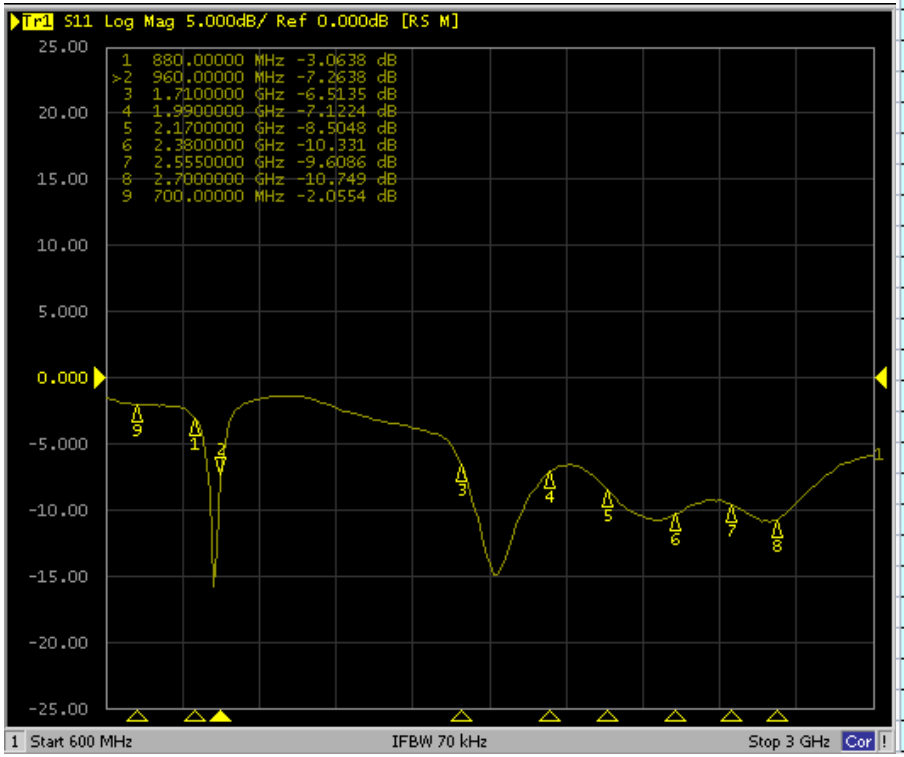


820.000MHz E1

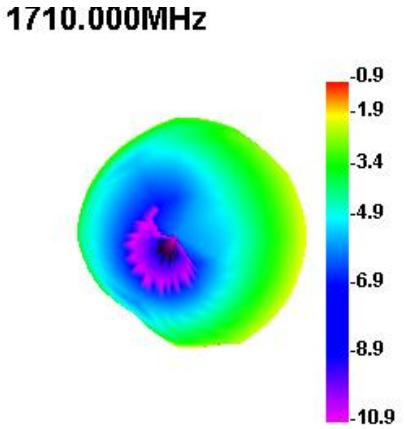


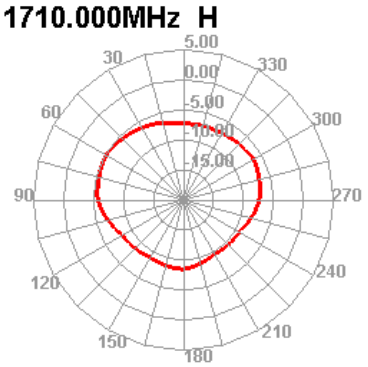
820.000MHz E2

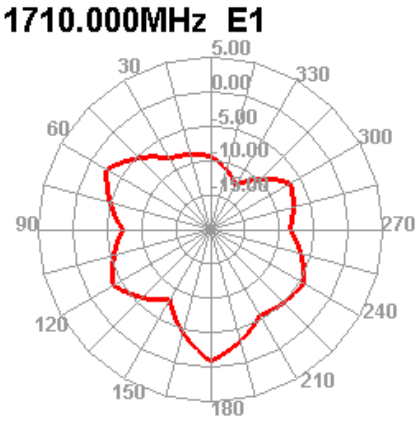


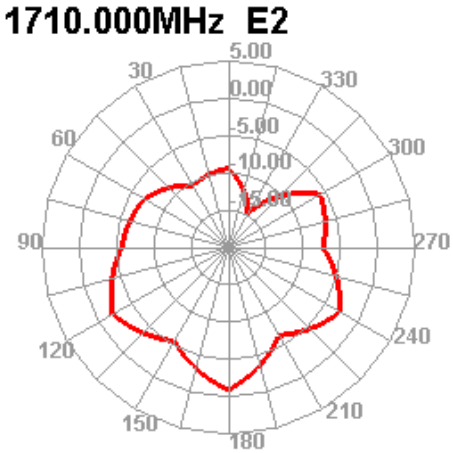


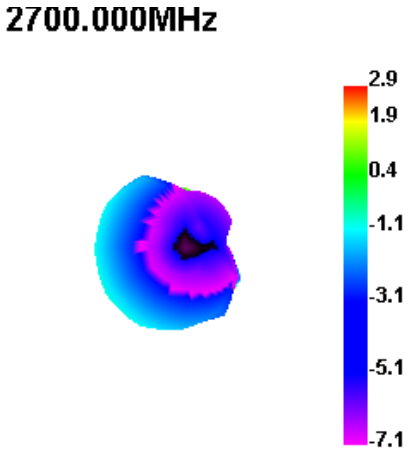
Passive Test For 1700-2700				2370	32.41	-6.5	-0.25
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	2380	36.06	-5.84	0.54
1710	26.85	-5.71	-0.93	2390	33.54	-6.28	0.13
1720	27.11	-5.67	-1.1	2400	34.21	-6.16	0.25
1730	33.38	-4.77	-0.39	2410	33.27	-6.33	0.08
1740	33.09	-4.8	-0.5	2420	34.99	-6.02	0.42
1750	30.12	-5.21	-0.8	2430	36	-5.85	0.66
1760	31.39	-5.03	-0.56	2440	34	-6.2	0.35
1770	31.41	-5.03	-0.46	2450	37.79	-5.56	1.16
1780	37.21	-4.29	0.27	2460	38.39	-5.47	1.29
1790	34.52	-4.62	-0.09	2470	32.36	-4.9	1.96
1800	37.84	-4.22	0.15	2480	33.36	-4.77	2.14
1810	42.88	-3.68	0.38	2490	35.84	-4.46	2.48
1820	45.55	-3.42	0.19	2500	39.68	-4.01	2.96
1830	45.42	-3.43	-0.2	2510	36.78	-4.34	2.75
1840	42.08	-3.76	-0.92	2520	36.52	-4.37	2.7
1850	43.27	-3.64	-0.99	2530	34.27	-4.65	2.54
1860	40.82	-3.89	-1.29	2540	37.56	-4.25	3
1870	35.36	-4.52	-1.82	2550	38.14	-4.19	3.18
1880	35.2	-4.54	-1.69	2560	36.24	-4.41	2.98
1890	35.33	-4.52	-1.58	2570	37.56	-4.25	3.23
1900	37.67	-4.24	-1.21	2580	34.95	-4.57	2.96
1910	38.44	-4.15	-1.2	2590	37.17	-4.3	3.29
1920	39.44	-4.04	-1.04	2600	33.19	-4.79	2.79
1930	45.8	-3.39	-0.3	2610	31.92	-4.96	2.68
1940	43.13	-3.65	-0.39	2620	29.82	-5.25	2.5
1950	42.92	-3.67	-0.16	2630	30.1	-5.21	2.58
1960	38.71	-4.12	-0.46	2640	32.66	-4.86	3
1970	40.24	-3.95	-0.19	2650	29.99	-5.23	2.66
1980	39.75	-4.01	-0.12	2660	32.75	-4.85	3.08
1990	33.41	-4.76	-0.86	2670	32.31	-4.91	3.04
2000	35.59	-4.49	-0.6	2680	33.91	-4.7	3.29
2010	36.45	-4.38	-0.59	2690	33.16	-4.79	3.19
				2700	30	-5.23	2.87

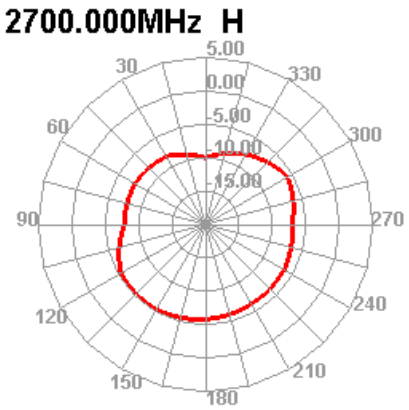

1710.000MHz
-0.9
-1.9
-3.4
-4.9
-6.9
-8.9
-10.9

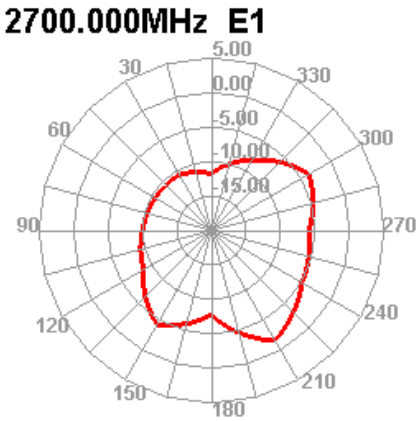

1710.000MHz H

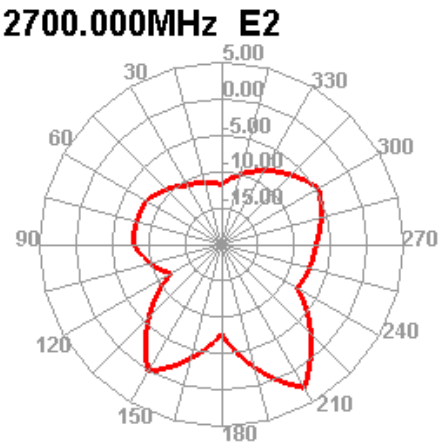

1710.000MHz E1

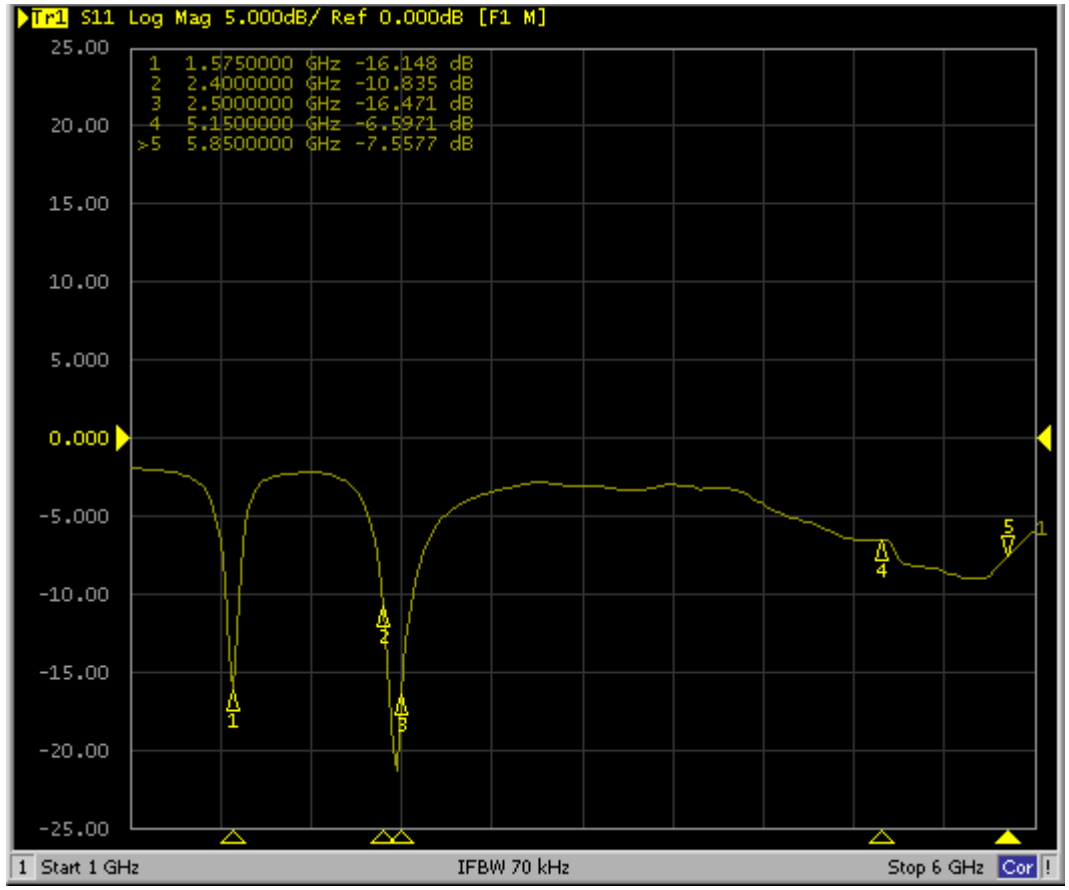

1710.000MHz E2


2700.000MHz
2.9
1.9
0.4
-1.1
-3.1
-5.1
-7.1


2700.000MHz H


2700.000MHz E1


2700.000MHz E2



Passive Test For 2400-2500			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	30.32	-5.18	1.72
2410	28.99	-5.38	1.58
2420	30.93	-5.1	1.74
2430	31.88	-4.96	2.05
2440	33.34	-4.77	2.08
2450	35.99	-4.44	2.56
2460	36.71	-4.35	2.6
2470	39.65	-4.02	3.08
2480	36.54	-3.82	3.23
2490	32.98	-3.67	3.47
2500	35.99	-3.37	3.63

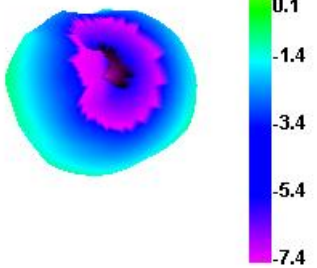
Passive Test For GPS

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1550	31.75	-6.63	-1.05
1555	31.71	-6.63	-1.06
1560	31.08	-6.76	-1.23
1565	30.94	-6.79	-1.19
1570	31.04	-6.77	-1.17
1575	30.75	-6.83	-1.23
1580	30.62	-6.86	-1.19
1585	30.87	-6.8	-1.08
1590	30.72	-6.84	-1.11
1595	30.68	-6.85	-1.1
1600	31.51	-6.67	-0.87

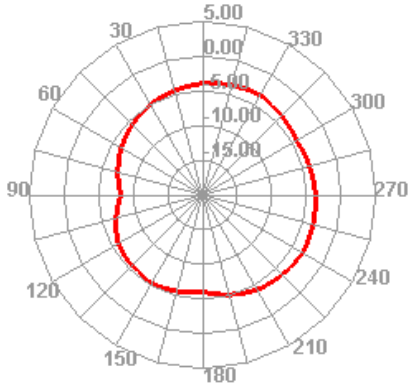
Passive Test For WIFI5.8

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	29.81	-10.08	-6.39
5200	26.88	-9.63	-4.71
5250	26.18	-7.91	-2.77
5300	30.21	-6.95	-1.98
5350	28.62	-5.43	-0.37
5400	33.8	-4.71	0.06
5450	31.45	-5.02	-0.01
5500	30.85	-5.11	-0.1
5550	30.87	-5.11	-0.12
5600	32.74	-4.85	0.04
5650	32.76	-4.85	0.23
5700	30.15	-5.21	0.16
5750	29.23	-5.34	-0.12
5800	33.94	-6.21	-0.3
5850	35.72	-5.9	0.1

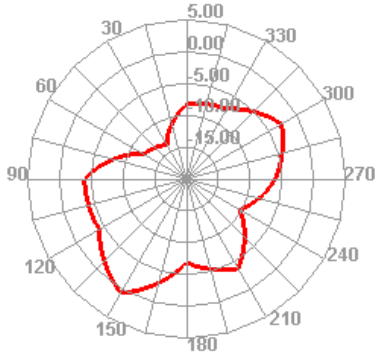
2450.000MHz



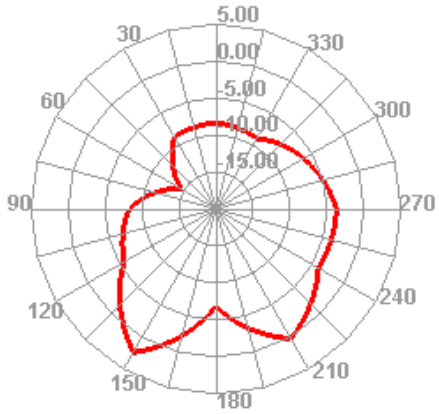
2450.000MHz H



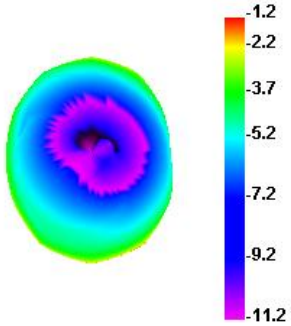
2450.000MHz E1



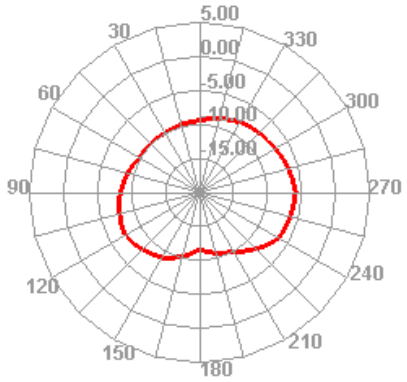
2450.000MHz E2



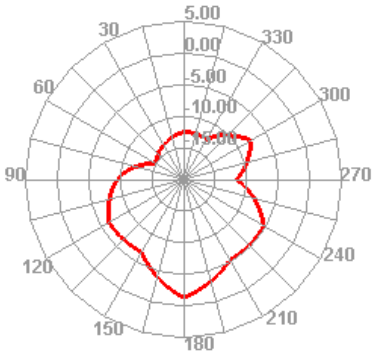
1575.000MHz



1575.000MHz H



1575.000MHz E1



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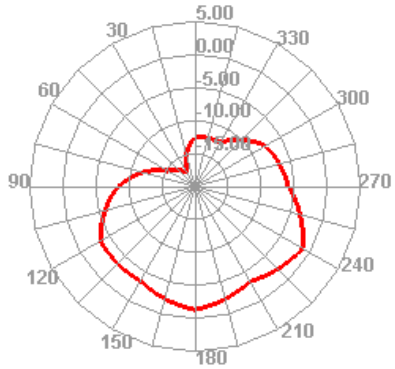
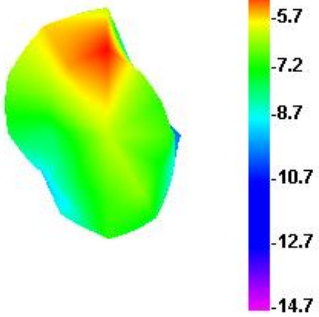
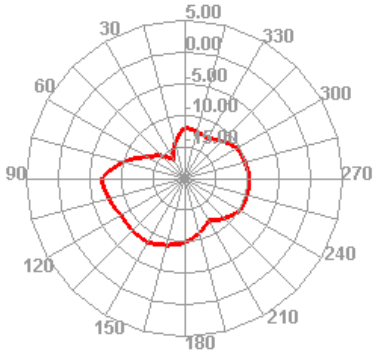


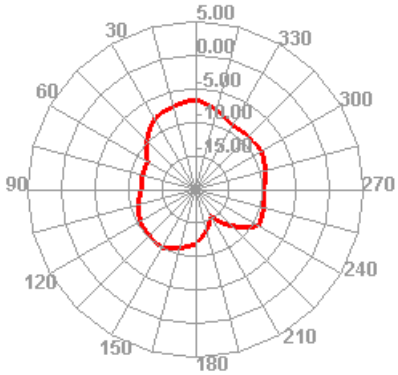
5200.000MHz



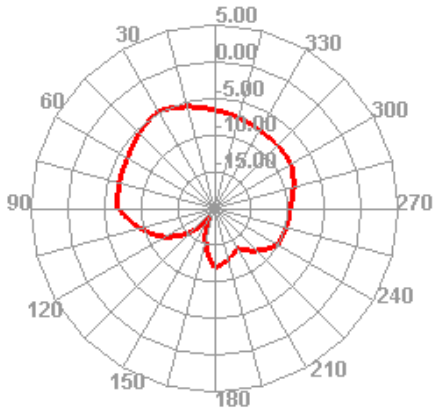
5200.000MHz H



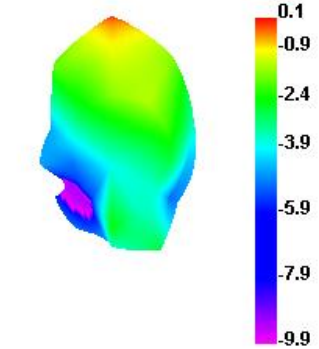
5200.000MHz E1



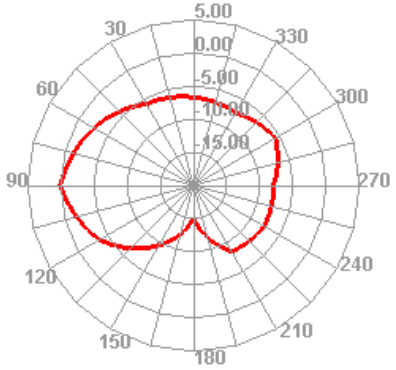
5200.000MHz E2



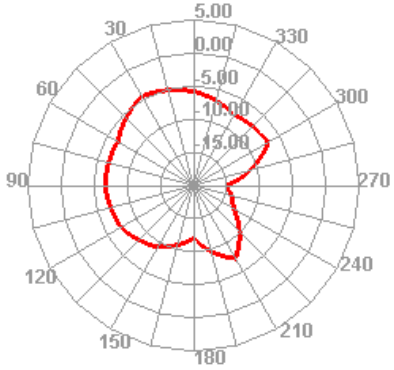
5850.000MHz



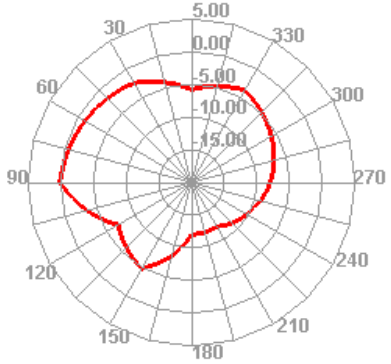
5850.000MHz H



5850.000MHz E1

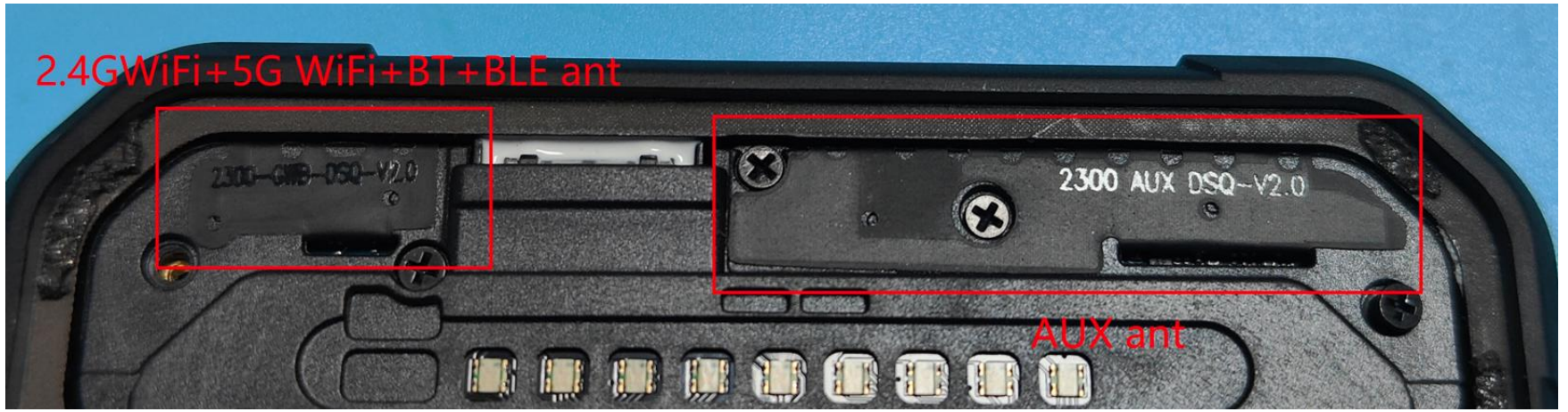


5850.000MHz E2



Antenna:


Main ANT
2300 MAIN DSQ-V2.0


2.4GWiFi+5G WiFi+BT+BLE ant
2300 AUX DSQ-V2.0
AUX ant


NFC ANT