

Antenna specification

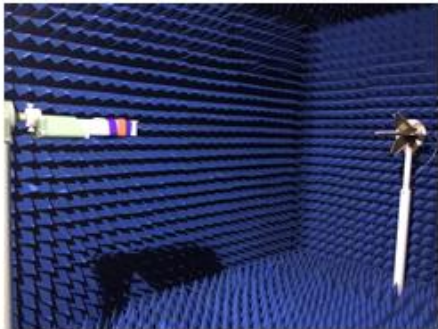
Customer name: Cyber Universe

Project name	W860	Antenna frequency band	2G:B3/B8 4G:B1, B3, B5, B7, B8, B20 , B38, B39, B40, B41 WIFI/GPS
Specification description	☐ support+shell fragment	☐ Single shrapnel	☐ support+FPC+thimble
	☒ LDS	☐ FM aerial	☐ GPS aerial
	☐ coaxial-line	☐ WIFI aerial: ☐ FPC+wire rod: ☐ PCB+wire rod:	
Customer confirmation			

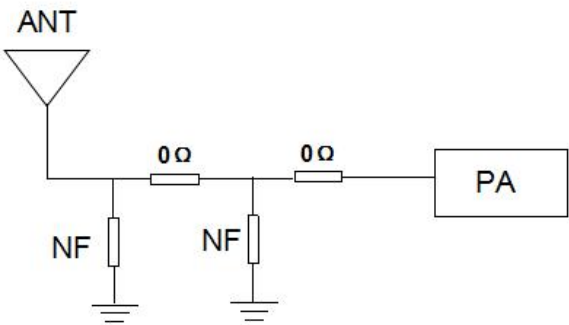
Supplier confirmation	Radio frequency confirmation	Structural confirmation	check
contacts	Wang pengchao	mobile phone	13480925226
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1.Test environment

	test project	equipment
1. (S-parameter)	1. (Return Loss) 2. (VSWR)	: Agilent E5071B HP 8753D
2. (Active)	1. (TRP) 2. (TIS)	1. ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2.: Agilent 8960 E5515B ×2 StarPoint SP6011
3. (Passive)	1. (Gain) 2. (Efficiency)	1.ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. Agilent E5071B HP 8753D



2.matching circuit-BT aerial:



Our company has not made any modification to the matching circuit

3 Active data

Frequency Band	GSM900			DCS1800		
channel	L	M	H	L	M	H
TRP	20.5		21.4	23.4		25.2
TIS			-92.6			-103.3

Frequency Band	B1			B3		
channel	L	M	H	L	M	H
TRP	18.8		18.4	17.6		17.7
TIS			-91.2			-91.6

Frequency Band	B5			B8		
channel	L	M	H	L	M	H
TRP	8.8		9.6	11.2		10.4
TIS			-83.2			-78.2

Frequency Band	B7			B20		
channel	L	M	H	L	M	H
TRP	18.4		18.5	8.5		9.3
TIS			-91.5			-81.0

Frequency Band	B38			B39		
channel	L	M	H	L	M	H
TRP	17.3		17.0	18.5		18.6
TIS			-91.4			-89.6

Frequency Band	B40			B41		
channel	L	M	H	L	M	H
TRP	17.0		18.4		17.5	
TIS			-91.8		-91.4	

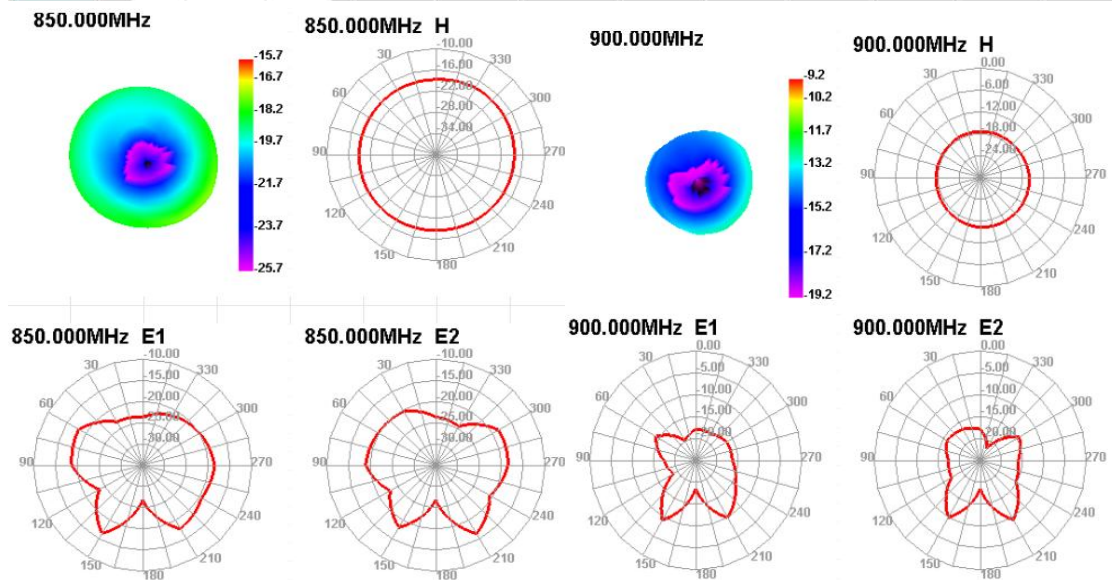
4 Efficiency and gain

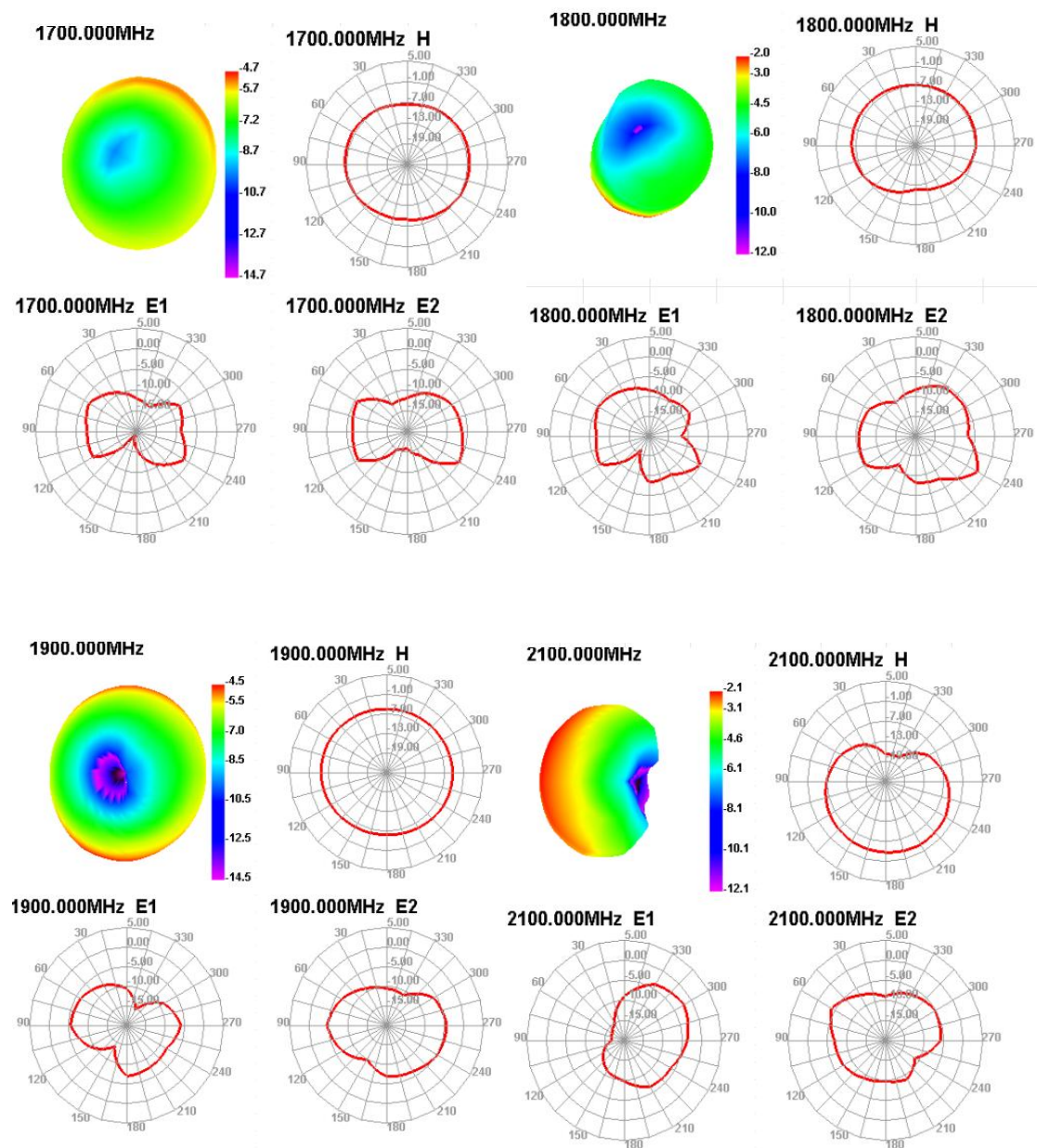
Passive Test For 700-1000(10M)												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivi (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
700	0.21	-26.7	-22.92	-25.07	0.108	0.106	-22.92	-33.1	3.78	0	44.3	44.38
710	0.24	-26.2	-22.56	-24.71	0.123	0.117	-22.56	-31.09	3.63	0	44.94	45.15
720	0.24	-26.18	-22.26	-24.41	0.128	0.114	-22.26	-32.46	3.92	0	44.58	44.28
730	0.26	-25.8	-22.29	-24.44	0.134	0.128	-22.29	-35.57	3.52	0	44.31	43.88
740	0.26	-25.82	-22.33	-24.48	0.134	0.128	-22.33	-39.43	3.49	30	43.96	43.28
750	0.29	-25.35	-22	-24.15	0.148	0.144	-22	-38.47	3.35	30	44.23	43.25
760	0.34	-24.7	-21.21	-23.36	0.17	0.169	-21.21	-33.53	3.49	60	44.36	43.47
770	0.33	-24.87	-21.34	-23.49	0.156	0.17	-21.34	-31.31	3.54	60	43.58	42.38
780	0.4	-24.03	-20.48	-22.63	0.19	0.206	-20.48	-29.78	3.55	0	43.38	42.22
790	0.52	-22.86	-20.12	-22.27	0.255	0.263	-20.12	-28.35	2.74	0	43.56	42.67
800	0.55	-22.57	-20.45	-22.6	0.28	0.274	-20.45	-27.53	2.12	0	42.72	42
810	0.63	-22	-19.47	-21.62	0.314	0.318	-19.47	-27.23	2.52	0	42.29	42.15
820	0.72	-21.42	-18.43	-20.58	0.352	0.369	-18.43	-26.53	2.99	0	42.18	42.13
830	0.84	-20.78	-17.58	-19.73	0.406	0.43	-17.58	-25.77	3.2	0	42.39	42.41
840	0.93	-20.3	-16.9	-19.05	0.449	0.485	-16.9	-25.9	3.4	0	42.51	42.62
850	1.16	-19.36	-15.7	-17.85	0.548	0.61	-15.7	-26.81	3.67	0	42.68	42.77
860	1.44	-18.43	-14.74	-16.89	0.67	0.766	-14.74	-26.33	3.69	0	42.82	43.1
870	1.77	-17.52	-13.64	-15.79	0.806	0.964	-13.64	-24.81	3.88	0	42.96	43.1
880	2.24	-16.49	-12.22	-14.37	0.958	1.287	-12.22	-23.94	4.27	0	43.16	43.39
890	2.78	-15.56	-10.76	-12.91	1.078	1.698	-10.76	-23.83	4.8	0	43.4	43.29
900	3.41	-14.67	-9.2	-11.35	1.146	2.263	-9.2	-23.08	5.48	0	43.53	43.46
910	4.11	-13.86	-7.72	-9.87	1.203	2.907	-7.72	-22.12	6.14	0	43.77	44.11
920	5.18	-12.86	-6.12	-8.27	1.244	3.935	-6.12	-21.15	6.74	0	44.16	44.23
930	5.78	-12.38	-5.48	-7.63	1.196	4.584	-5.48	-20.24	6.9	0	44.17	44.49
940	6.12	-12.13	-5.28	-7.43	1.131	4.987	-5.28	-21.07	6.85	0	44.31	44.56
950	6.91	-11.61	-4.83	-6.98	1.185	5.721	-4.83	-20.86	6.78	0	44.46	44.73
960	7.05	-11.52	-4.87	-7.02	1.073	5.974	-4.87	-19.64	6.65	0	44.12	44.24
970	7.54	-11.23	-4.59	-6.74	1.055	6.481	-4.59	-21.31	6.64	0	44.09	44.2
980	7.29	-11.37	-4.59	-6.74	0.987	6.305	-4.59	-24.64	6.78	0	44.13	43.98
990	7.34	-11.34	-4.74	-6.89	1.134	6.206	-4.74	-23.59	6.61	0	44.03	44.39
1000	11.63	-9.34	-2.86	-5.01	2.022	9.611	-2.86	-21.57	6.49	0	45.83	46.03

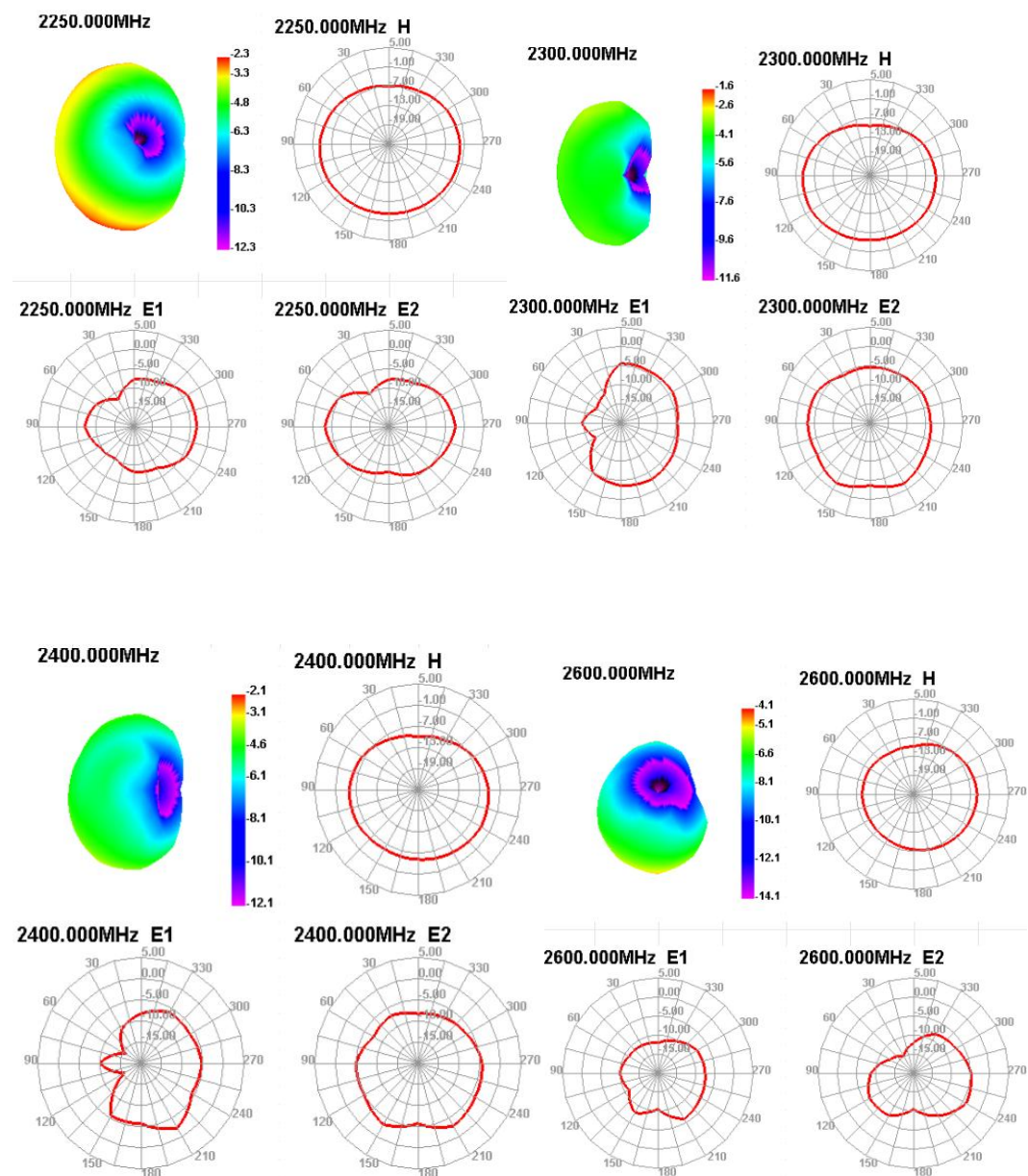
Passive Test For 1600-3000(10m)												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivi (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
1500	4.22	-13.75	-9.98	-12.13	2.434	1.784	-9.98	-27.56	3.76	60	49.5	49.38
1510	4.86	-13.13	-8.98	-11.13	2.725	2.137	-8.98	-27.82	4.15	60	49.43	49.57
1520	5.43	-12.65	-8.3	-10.45	2.96	2.473	-8.3	-29.38	4.34	60	49.53	49.32
1530	5.9	-12.29	-8.01	-10.16	3.133	2.771	-8.01	-28.76	4.28	60	49.53	49.67
1540	5.74	-12.41	-8.02	-10.17	3.003	2.737	-8.02	-28.42	4.39	60	49.53	49.51
1550	6.55	-11.84	-7.61	-9.76	3.347	3.198	-7.61	-26.09	4.23	60	49.57	49.58
1560	6.81	-11.67	-7.71	-9.86	3.455	3.352	-7.71	-24.49	3.96	30	49.45	49.18
1570	6.22	-12.06	-8.03	-10.18	3.049	3.173	-8.03	-22.25	4.03	60	49.65	49.54
1580	6.36	-11.96	-8.1	-10.25	3.086	3.275	-8.1	-21.26	3.86	60	49.59	49.63
1590	6.74	-11.71	-8.17	-10.32	3.267	3.473	-8.17	-20.93	3.54	60	49.69	49.62
1600	6.81	-11.67	-8.26	-10.41	3.275	3.535	-8.26	-20.88	3.4	60	49.88	49.81
1610	7.08	-11.5	-7.86	-10.01	3.429	3.65	-7.86	-20.29	3.64	60	50.04	50.09
1620	7.5	-11.25	-8.04	-10.19	3.701	3.802	-8.04	-20.46	3.2	90	50.22	50.06
1630	8.77	-10.57	-7.37	-9.52	4.24	4.53	-7.37	-19.7	3.2	60	50.24	50.47
1640	9.67	-10.15	-6.69	-8.84	4.493	5.173	-6.69	-19.2	3.45	60	49.98	50.09
1650	9.84	-10.07	-6.71	-8.86	4.482	5.358	-6.71	-20.6	3.36	60	49.83	49.69
1660	10.94	-9.61	-6.44	-8.59	5.026	5.914	-6.44	-21.41	3.17	60	49.91	49.86
1670	12.79	-8.93	-6	-8.15	6.086	6.703	-6	-21.36	2.93	60	50.2	50.43
1680	17.26	-7.63	-4.81	-6.96	8.479	8.777	-4.81	-20.74	2.82	60	50.96	51.17
1690	19.9	-7.01	-4.24	-6.39	9.946	9.958	-4.24	-20.73	2.77	60	51.31	51.44
1700	17.07	-7.68	-4.71	-6.86	8.462	8.61	-4.71	-23.31	2.97	60	50.56	50.76
1710	18.57	-7.31	-4	-6.15	8.914	9.657	-4	-26.27	3.32	0	50.68	50.58
1720	18.93	-7.23	-3.68	-5.83	8.99	9.936	-3.68	-24.47	3.55	0	50.66	50.74
1730	17.71	-7.52	-3.79	-5.94	8.431	9.276	-3.79	-23.77	3.73	0	50.63	50.79
1740	17.89	-7.47	-3.69	-5.84	8.611	9.281	-3.69	-22.29	3.78	0	50.93	50.48
1750	19.32	-7.14	-3.17	-5.32	9.242	10.073	-3.17	-21.57	3.97	0	51.18	51.06
1760	21.99	-6.58	-2.49	-4.64	10.367	11.622	-2.49	-20.78	4.09	0	51.44	50.93
1770	20.96	-6.79	-2.45	-4.6	9.639	11.321	-2.45	-19.77	4.34	0	51.35	51.44
1780	20.56	-6.87	-2.4	-4.55	9.31	11.248	-2.4	-18.02	4.47	0	51.41	51.39
1790	22.67	-6.45	-1.96	-4.11	10.205	12.467	-1.96	-16.32	4.49	0	51.42	51.58
1800	22.16	-6.55	-2	-4.15	9.963	12.192	-2	-15.98	4.55	0	51.3	51.49
1810	21.43	-6.69	-1.97	-4.12	9.456	11.978	-1.97	-15.14	4.72	0	51.51	51.58
1820	21.15	-6.75	-1.94	-4.09	9.12	12.031	-1.94	-14.13	4.81	60	51.55	51.83

1830	24.27	-6.15	-1.22	-3.37	10.235	14.032	-1.22	-13.3	4.93	120	51.89	52.62
1840	24.7	-6.07	-1.67	-3.82	10.876	13.825	-1.67	-12.89	4.4	120	51.93	52.2
1850	23.08	-6.37	-2.53	-4.68	10.604	12.48	-2.53	-13.3	3.83	120	51.96	52.02
1860	22.38	-6.5	-2.99	-5.14	10.586	11.793	-2.99	-13.95	3.51	120	51.72	52.31
1870	20.77	-6.83	-3.88	-6.03	10.03	10.74	-3.88	-14.51	2.94	90	51.56	51.35
1880	22.19	-6.54	-3.64	-5.79	10.584	11.604	-3.64	-14.41	2.9	90	51.54	52.32
1890	20.01	-6.99	-4.63	-6.78	9.666	10.348	-4.63	-16.61	2.36	60	51.56	51.7
1900	20.17	-6.95	-4.47	-6.62	9.846	10.327	-4.47	-15.76	2.48	60	51.87	51.96
1910	21.84	-6.61	-3.9	-6.05	10.766	11.077	-3.9	-15.35	2.7	60	51.92	52.75
1920	20.19	-6.95	-4.23	-6.38	10.136	10.055	-4.23	-15.8	2.72	60	52.13	52.95
1930	17.14	-7.66	-5	-7.15	8.749	8.391	-5	-17.23	2.66	60	52.26	52.74
1940	17.27	-7.63	-4.82	-6.97	8.839	8.43	-4.82	-17.39	2.81	60	52.26	52.72
1950	17.49	-7.57	-4.89	-7.04	8.928	8.558	-4.89	-17.13	2.69	60	52.33	52.41
1960	15.14	-8.2	-5.49	-7.64	7.731	7.41	-5.49	-17.1	2.71	60	52.2	52.13
1970	13.57	-8.68	-6.14	-8.29	6.96	6.606	-6.14	-16.51	2.54	60	52.38	52.63
1980	14.17	-8.49	-6.32	-8.47	7.366	6.807	-6.32	-15.87	2.17	60	52.69	53.26
1990	15.32	-8.15	-6.22	-8.37	8.049	7.272	-6.22	-14.21	1.93	90	52.96	53.07
2000	14.91	-8.26	-6.45	-8.6	8.014	6.901	-6.45	-13.79	1.81	90	52.96	53.44
2010	14.42	-8.41	-6.72	-8.87	8.027	6.398	-6.72	-15.31	1.69	90	52.95	53.45
2020	15.12	-8.2	-5.98	-8.13	8.728	6.397	-5.98	-15.38	2.22	270	52.89	53.62
2030	15.22	-8.18	-5.47	-7.62	9.165	6.056	-5.47	-15.35	2.7	240	52.97	53.36
2040	15.39	-8.13	-4.93	-7.08	9.566	5.822	-4.93	-15.32	3.2	150	53.17	53.74
2050	15.64	-8.06	-4.34	-6.49	9.863	5.778	-4.34	-15.07	3.72	60	53.45	53.99
2060	18.35	-7.36	-3.2	-5.35	11.72	6.631	-3.2	-14.3	4.16	60	53.75	54.01
2070	21.06	-6.76	-2.39	-4.54	13.56	7.503	-2.39	-14.49	4.37	60	53.78	54.53
2080	20.76	-6.83	-2.3	-4.45	13.307	7.453	-2.3	-16.46	4.53	60	53.61	54.52
2090	19.28	-7.15	-2.37	-4.52	12.174	7.101	-2.37	-18.43	4.78	60	53.39	52.95
2100	21.19	-6.74	-2.15	-4.3	13.263	7.932	-2.15	-18.99	4.59	60	53.21	53.74
2110	20.54	-6.87	-2.35	-4.5	12.723	7.816	-2.35	-19.74	4.53	60	52.81	53.4
2120	22.99	-6.38	-1.96	-4.11	14.131	8.862	-1.96	-19.34	4.42	60	53.09	54.12
2130	23.26	-6.33	-2.08	-4.23	14.083	9.176	-2.08	-19.94	4.26	60	53.4	53.93
2140	22.08	-6.56	-2.45	-4.6	13.185	8.895	-2.45	-20.64	4.11	60	53.42	53.81
2150	21.87	-6.6	-2.79	-4.94	12.931	8.937	-2.79	-20.74	3.81	90	53.14	53.74
2160	24.39	-6.13	-2.5	-4.65	14.285	10.103	-2.5	-20.83	3.63	90	53.36	54.43
2170	23.44	-6.3	-2.53	-4.68	13.572	9.872	-2.53	-23.13	3.77	90	53.24	54.18
2180	21.48	-6.68	-2.77	-4.92	12.201	9.279	-2.77	-22.17	3.91	90	53.12	53.45
2190	21.44	-6.69	-2.82	-4.97	11.958	9.478	-2.82	-21.12	3.87	90	53.06	53.71
2200	25.67	-5.91	-2.23	-4.38	14.144	11.527	-2.23	-19.39	3.68	90	53.52	54.5
2210	27.51	-5.6	-2.05	-4.2	15.061	12.454	-2.05	-18.66	3.55	60	53.71	54.72
2220	26.93	-5.7	-2.12	-4.27	14.585	12.344	-2.12	-18.3	3.58	60	53.67	54.38
2230	26.73	-5.73	-2.21	-4.36	14.171	12.562	-2.21	-17.05	3.52	60	53.53	54.57
2240	28.03	-5.52	-2.41	-4.56	14.352	13.675	-2.41	-14.89	3.12	60	53.59	54.86
2250	29.25	-5.34	-2.31	-4.46	14.56	14.687	-2.31	-13.86	3.03	60	53.72	55.1
2260	30.1	-5.21	-2.3	-4.45	14.462	15.635	-2.3	-12.65	2.91	60	53.84	55.61
2270	28.21	-5.5	-2.87	-5.02	13.235	14.978	-2.87	-12.42	2.63	180	53.94	55.12
2280	29.3	-5.33	-3.23	-5.38	13.388	15.911	-3.23	-11.54	2.1	180	54.09	55.43
2290	31.75	-4.98	-2.53	-4.68	14.029	17.722	-2.53	-11.7	2.45	210	54.85	56.01
2300	33.87	-4.7	-1.59	-3.74	14.642	19.228	-1.59	-12.65	3.12	210	55.12	56.6
2310	33.39	-4.76	-1.19	-3.34	14.014	19.377	-1.19	-14.04	3.57	210	54.91	56.5
2320	32.4	-4.89	-1.24	-3.39	13.45	18.95	-1.24	-15.51	3.66	90	54.8	56.13
2330	33.32	-4.77	-0.86	-3.01	13.833	19.486	-0.86	-17.67	3.91	90	55.05	56.33
2340	33.87	-4.7	-0.62	-2.77	14.019	19.848	-0.62	-19.46	4.08	90	55.41	57.9
2350	29.33	-5.33	-1.35	-3.5	12.434	16.896	-1.35	-23.75	3.98	30	55.72	57.75
2360	30.97	-5.09	-1.05	-3.2	13.091	17.877	-1.05	-21.22	4.04	30	55.95	57.79
2370	28.57	-5.44	-1.62	-3.77	12.005	16.562	-1.62	-17.02	3.82	30	55.79	57.25
2380	26.82	-5.72	-1.92	-4.07	10.965	15.85	-1.92	-16.12	3.8	0	55.95	57.45
2390	26.18	-5.82	-1.89	-4.04	10.282	15.899	-1.89	-15.9	3.93	0	55.8	57.98
2400	24.15	-6.17	-2.12	-4.27	9.415	14.734	-2.12	-15.71	4.05	0	55.76	57.21
2410	26.76	-5.72	-1.65	-3.8	10.176	16.589	-1.65	-14.96	4.07	0	55.83	58.53
2420	23.59	-6.27	-2.28	-4.43	8.968	14.62	-2.28	-15.27	4	0	56.07	58.09
2430	23.23	-6.34	-2.25	-4.4	8.737	14.488	-2.25	-14.25	4.09	0	56.25	58.05
2440	27.51	-5.61	-1.6	-3.75	10.13	17.376	-1.6	-12.7	4	0	56.61	58.56
2450	27.22	-5.65	-1.8	-3.95	9.959	17.266	-1.8	-11.84	3.85	0	56.87	58.64
2460	22.58	-6.46	-2.42	-4.57	8.287	14.295	-2.42	-12.18	4.05	0	56.54	57.97
2470	20.68	-6.84	-3.12	-5.27	7.552	13.129	-3.12	-12.33	3.72	0	56.17	58.01
2480	21.81	-6.61	-2.78	-4.93	8.062	13.745	-2.78	-12.34	3.84	0	56.4	57.83
2490	23.1	-6.36	-2.31	-4.46	8.499	14.598	-2.31	-11.83	4.05	30	56.48	57.83
2500	20.05	-6.98	-3.24	-5.39	7.313	12.739	-3.24	-12.32	3.74	30	56.61	58.07
2510	19.16	-7.18	-3.46	-5.61	7.073	12.084	-3.46	-12.78	3.72	30	56.67	57.71
2520	20.34	-6.92	-3.23	-5.38	7.482	12.862	-3.23	-12.4	3.69	30	56.43	57.53
2530	20.08	-6.97	-3.04	-5.19	7.324	12.752	-3.04	-12.85	3.94	30	56.01	57.64
2540	17.48	-7.57	-3.82	-5.97	6.484	10.995	-3.82	-12.98	3.75	30	55.93	56.88

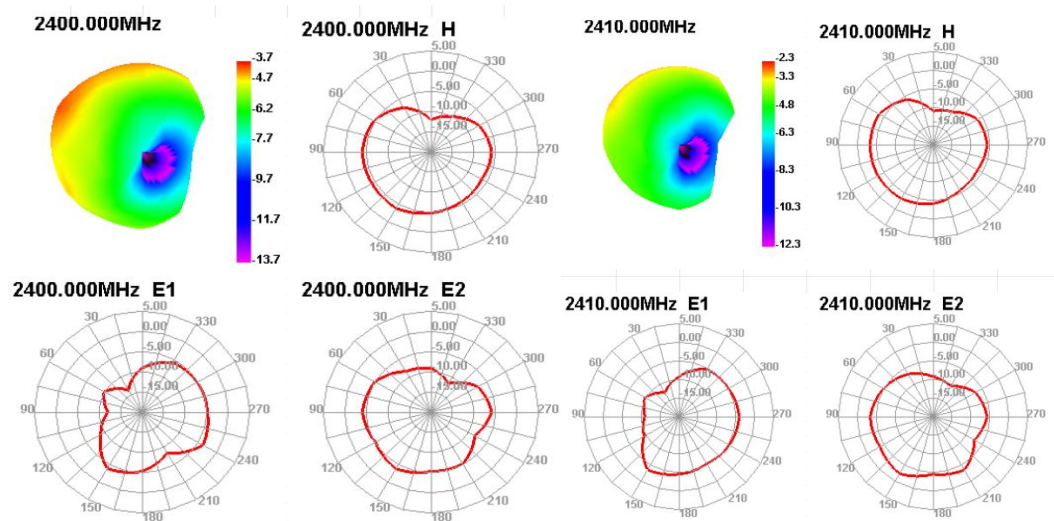
2550	16.53	-7.82	-4.06	-6.21	6.074	10.458	-4.06	-13.57	3.76	30	56.13	56.87
2560	18.29	-7.38	-3.25	-5.4	6.745	11.546	-3.25	-12.58	4.13	90	56.34	57.38
2570	21.71	-6.63	-2.61	-4.76	8.143	13.569	-2.61	-11.66	4.02	90	56.6	58.31
2580	16.2	-7.9	-4.1	-6.25	6.357	9.844	-4.1	-14.68	3.8	90	56.27	56.52
2590	15.51	-8.09	-4.3	-6.45	6.05	9.457	-4.3	-15.12	3.79	90	56.34	56.49
2600	16.16	-7.92	-4.07	-6.22	6.215	9.942	-4.07	-14.81	3.85	90	56.36	56.49
2610	16.13	-7.92	-3.91	-6.06	6.135	9.997	-3.91	-14.66	4.01	90	56.44	57
2620	13.23	-8.78	-4.85	-7	5.114	8.117	-4.85	-15.87	3.93	90	56.28	56.17
2630	12.64	-8.98	-4.91	-7.06	4.75	7.89	-4.91	-15.82	4.08	90	56.47	56.78
2640	14.83	-8.29	-4.21	-6.36	5.553	9.275	-4.21	-15.81	4.08	90	56.79	57.41
2650	14.64	-8.35	-4.52	-6.67	5.645	8.991	-4.52	-16.29	3.83	90	57.31	57.11
2660	13.07	-8.84	-4.93	-7.08	4.977	8.097	-4.93	-16.92	3.91	90	57.71	58.3
2670	12.97	-8.87	-4.63	-6.78	4.846	8.12	-4.63	-17.77	4.24	90	57.8	58.5
2680	12.8	-8.93	-5.01	-7.16	4.831	7.968	-5.01	-18.19	3.91	90	57.75	58.3
2690	11.65	-9.34	-5.12	-7.27	4.309	7.341	-5.12	-19.08	4.22	90	57.63	57.85
2700	9.06	-10.43	-6.25	-8.4	3.351	5.71	-6.25	-20.34	4.18	90	57.44	57.44
2710	8.22	-10.85	-6.51	-8.66	2.958	5.259	-6.51	-20.67	4.35	90	57.88	58.15
2720	9.72	-10.12	-5.77	-7.92	3.587	6.137	-5.77	-19.84	4.35	90	58.5	58.3
2730	10.35	-9.85	-5.46	-7.61	3.747	6.603	-5.46	-20.4	4.39	90	58.49	58.98
2740	9.31	-10.31	-6.13	-8.28	3.47	5.845	-6.13	-21.35	4.18	90	58.67	59.01
2750	9.02	-10.45	-6.16	-8.31	3.307	5.717	-6.16	-20.63	4.28	90	58.87	58.56
2760	10.59	-9.75	-5.34	-7.49	3.967	6.62	-5.34	-18.23	4.41	60	59.85	59.09
2770	10.3	-9.87	-5.68	-7.83	3.792	6.511	-5.68	-17.79	4.19	90	59.59	59.36
2780	11.33	-9.46	-4.94	-7.09	4.248	7.082	-4.94	-16.97	4.51	0	59.68	60.73
2790	10.83	-9.65	-5.01	-7.16	4.085	6.748	-5.01	-16.87	4.64	0	60.44	59.51
2800	8.86	-10.52	-6.24	-8.39	3.416	5.447	-6.24	-17.2	4.28	0	59.26	59.51
2810	10.04	-9.98	-5.68	-7.83	3.806	6.236	-5.68	-17.33	4.3	0	59.38	60.33
2820	9.84	-10.07	-5.87	-8.02	3.856	5.986	-5.87	-18.33	4.2	0	59.54	60.19
2830	9.63	-10.16	-5.86	-8.01	3.855	5.774	-5.86	-17.85	4.3	0	60.18	59.88
2840	8.14	-10.89	-6.45	-8.6	3.109	5.036	-6.45	-19.45	4.44	0	59.47	60.28
2850	9.02	-10.45	-6.34	-8.49	3.725	5.296	-6.34	-18.24	4.11	0	60.19	59.17
2860	10.78	-9.67	-5.38	-7.53	4.485	6.297	-5.38	-17.54	4.29	0	61.22	60.3
2870	8.75	-10.58	-6.52	-8.67	3.701	5.049	-6.52	-18.74	4.06	0	61.03	60.21
2880	8.67	-10.62	-6.41	-8.56	3.681	4.988	-6.41	-19.2	4.21	0	60.47	59.81
2890	10.08	-9.97	-6.16	-8.31	4.259	5.819	-6.16	-19.06	3.81	0	60.35	61.1
2900	11.98	-9.22	-5.12	-7.27	5.42	6.557	-5.12	-19.32	4.1	0	61.9	60.1







Passive Test For WIFI2.4												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	23.17	-6.35	-3.69	-5.84	10.362	12.81	-3.69	-18.02	2.66	90	55.76	57.21
2410	26.77	-5.72	-2.35	-4.5	11.577	15.193	-2.35	-16.95	3.38	180	55.83	58.53
2420	26.84	-5.71	-2.67	-4.82	11.673	15.172	-2.67	-28.57	3.04	180	56.07	58.09
2430	29.44	-5.31	-1.87	-4.02	12.832	16.605	-1.87	-18.57	3.44	150	56.25	58.05
2440	32.8	-4.84	-1.33	-3.48	14.106	18.69	-1.33	-19.72	3.51	180	56.61	58.56
2450	34.76	-4.59	-1.63	-3.78	15.37	19.388	-1.63	-18.93	2.96	180	56.87	58.64
2460	32.91	-4.83	-1.62	-3.77	14.249	18.663	-1.62	-16.72	3.21	180	56.54	57.97
2470	31.57	-5.01	-1.85	-4	13.616	17.953	-1.85	-17.11	3.15	180	56.17	58.01
2480	31.26	-5.05	-2.09	-4.24	13.504	17.753	-2.09	-17.37	2.96	180	56.4	57.83
2490	31.98	-4.95	-1.64	-3.79	13.503	18.472	-1.64	-17.33	3.31	180	56.48	57.83
2500	32.63	-4.86	-1.79	-3.94	14.02	18.615	-1.79	-15.82	3.07	150	56.61	58.07



5. GPS Actual measurement

