

SPECIFICATION

6703Antenna

Product approval sheet

Customer		Band	LTE:2/4/5/12/13/17/25/26/41/66/71
Project	N6504L	Colour	Black

Customer check:

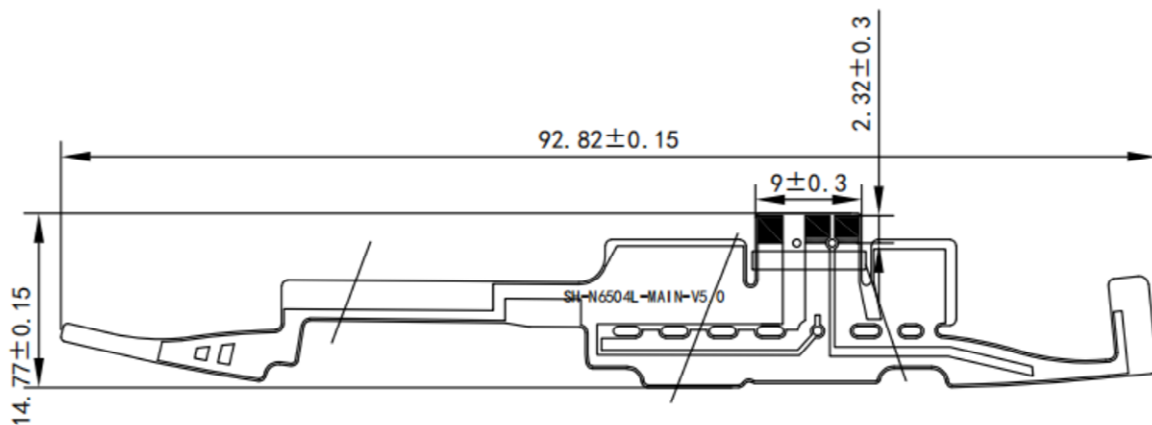
Reach requirement of customer: ☒OK ☐NG

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1 General description

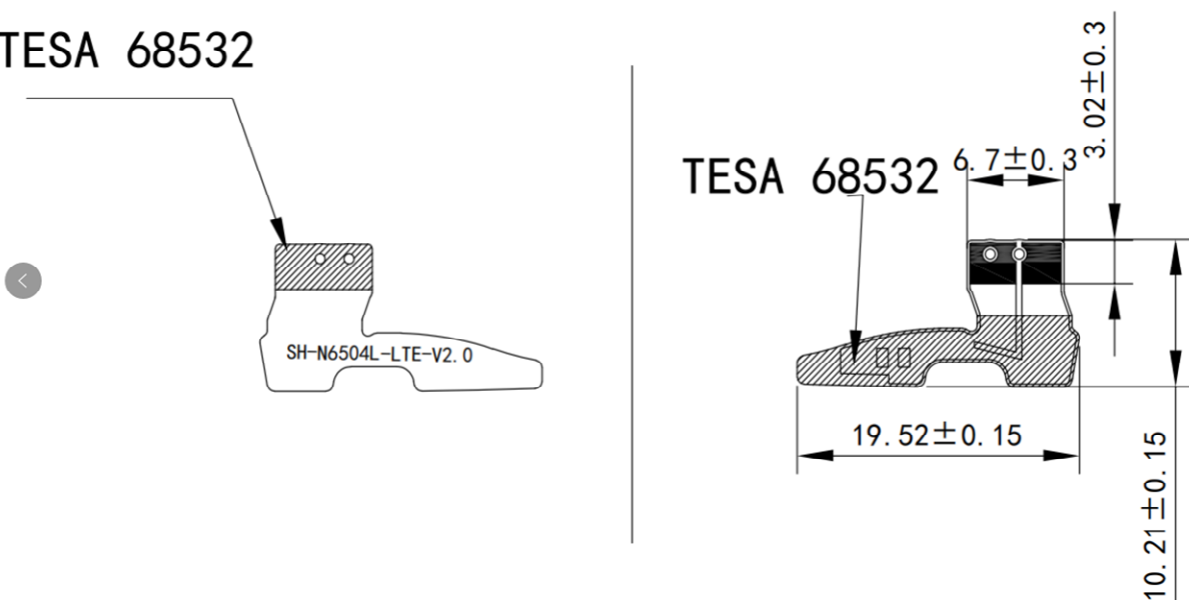
1.1 Antenna appearing diagram

Main antenna

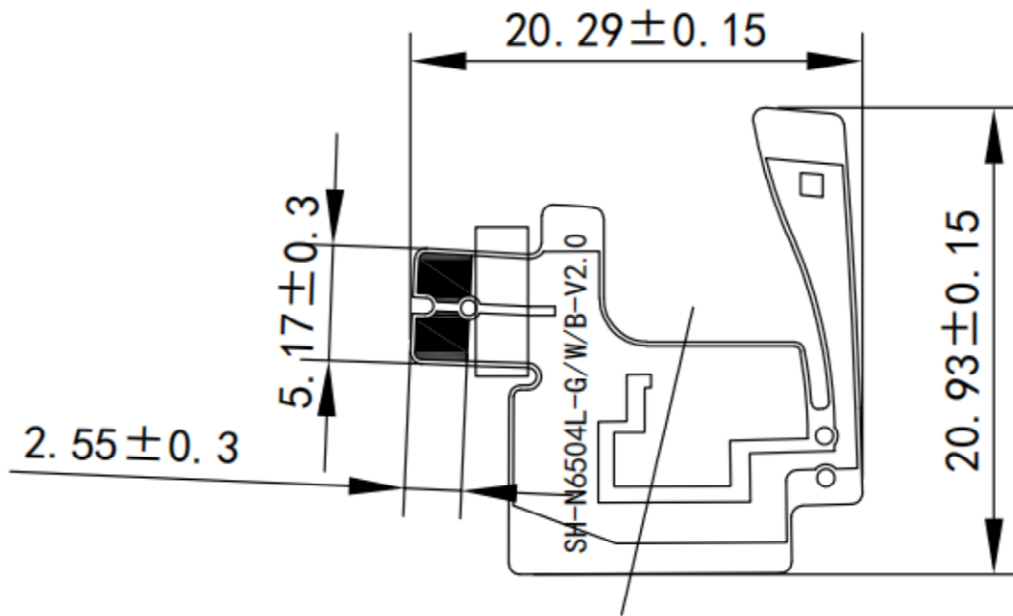


Diversity antenna

TESA 68532

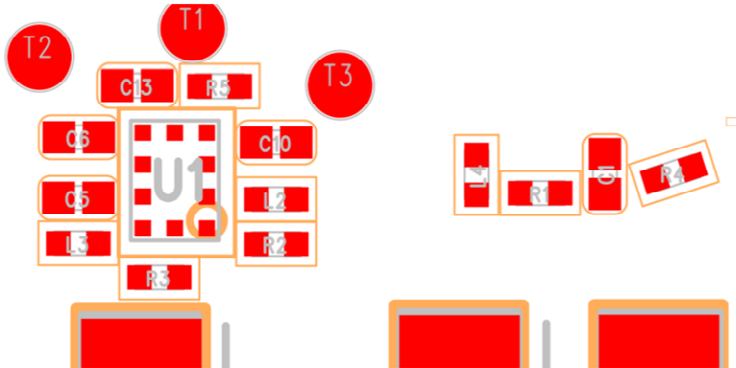


Three-in-one antenna



1.2 Antenna Matching circuits

Main antenna



主路匹配	
L4	22NH
R1	3.9PF
C1	N/C
R4	0欧姆

开关匹配	
R3	N/C
R2	0欧姆
L2	5.1NH
L3	15NH
C5	27NH

ANTO开关配置如下:
 RF1路: GSM900/1800/1900+W 1/2/4+B2/4/25/66/41
 RF2路: GSM850+W5+B5/26
 RF3路: LTE B12/13/17
 RF4路: LTE B71

Diversity antenna



分集匹配	
C1427	1PF
R1408	5.6NH
C1426	N/C



Three-in-one antenna
NC

1.3 Antenna PORT

1.4 Antenna location

1.5 RF port

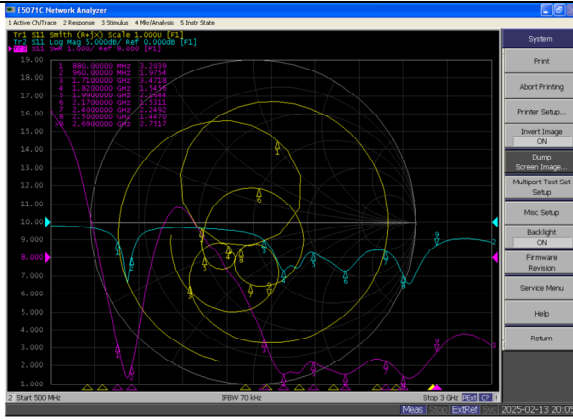
2 Electrical performance

2.1 VSWR

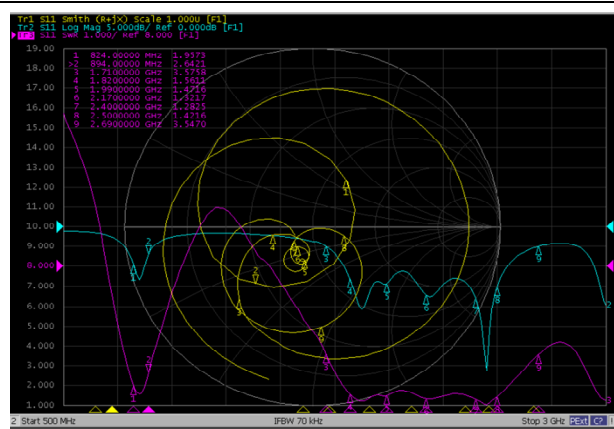
Main antenna

B8

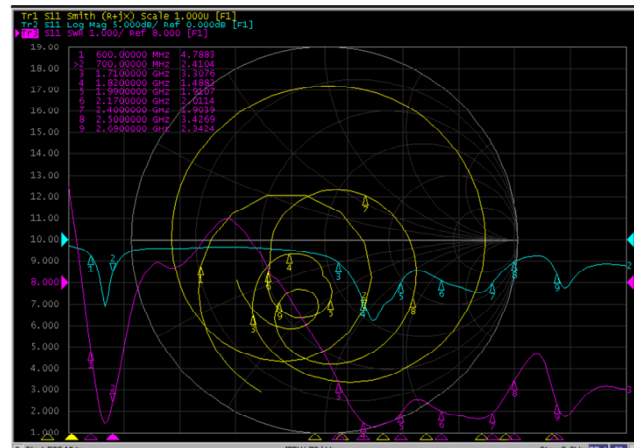
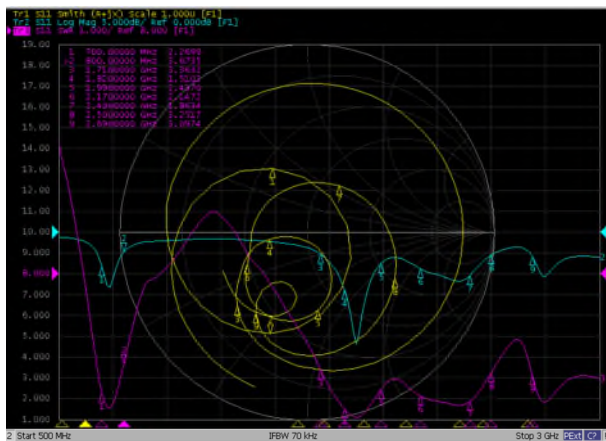
B5



B12



B71



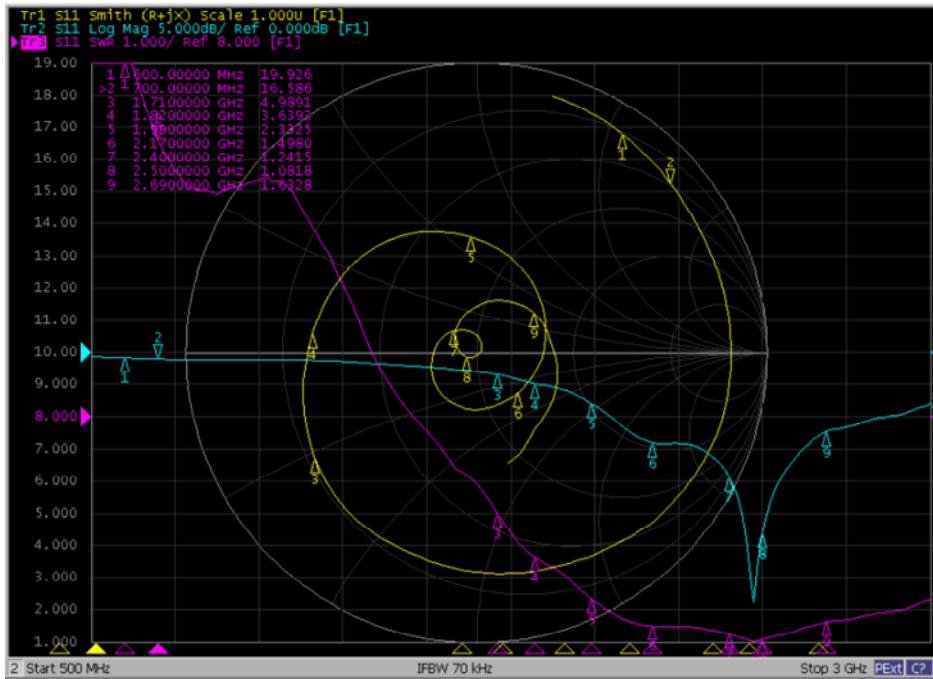
2.2 Efficiency & Gain

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
B71 600-700							
600	7.01	-11.54	-8.38	1910	32.43	-4.89	1.13
610	11.43	-9.42	-6.55	1930	31.33	-5.04	0.96
620	19.19	-7.17	-4.14	1950	25.23	-5.98	-0.01
630	25.12	-6	-2.37	1970	21.38	-6.7	-0.78
640	27.99	-5.53	-1.43	1990	16.41	-7.85	-2.07
650	32.28	-4.91	0.37	2010	12.11	-9.17	-3.88
660	35.73	-4.47	1.57	2030	10.67	-9.72	-5.01
670	35.32	-4.52	1.57	2050	10.12	-9.95	-5.27
680	33.04	-4.81	0.96	2070	9.68	-10.14	-5.78
690	29.58	-5.29	1.32	2090	9.4	-10.27	-6.26
700	26.24	-5.81	1.21	2110	9.02	-10.45	-5.94

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B28 703-803				2130	9.08	-10.42	-5.66
700	18.84	-7.25	-0.24	2150	9.29	-10.32	-5.49
710	21.18	-6.74	0.04	2170	9.75	-10.11	-5.33
720	23.28	-6.33	-0.25	2190	10.62	-9.74	-4.93
730	25	-6.02	-0.78	2210	9.55	-10.2	-5.54
740	28.31	-5.48	-0.04	2230	8.93	-10.49	-5.87
750	28.18	-5.5	0.43	2250	8	-10.97	-6.21
760	27.35	-5.63	0.62	2270	7.98	-10.98	-6.58
770	26.49	-5.77	0.29	2290	8.57	-10.67	-6.3
780	24.89	-6.04	-0.07	2310	7.76	-11.1	-7.08
790	23.07	-6.37	-0.63	2330	7.62	-11.18	-7.11
800	18.92	-7.23	-3.43	2350	7.33	-11.35	-7.31
B5 824-894				2370	6.81	-11.67	-7.89
820	26.42	-5.78	-2.39	2390	7.03	-11.53	-7.81
830	27.61	-5.59	-2.2	2410	7.14	-11.46	-7.56
840	27.93	-5.54	-1.99	2430	8.38	-10.77	-6.89
850	27.8	-5.56	-1.68	2450	9.93	-10.03	-6.39
860	28.64	-5.43	-1.13	2470	11.46	-9.41	-5.58
870	29.31	-5.33	-0.73	2490	14.76	-8.31	-4.3
880	28.58	-5.44	-0.71	2510	18.03	-7.44	-3.57
890	26.12	-5.83	-1	2530	19.95	-7	-3.36
B8 880-960				2550	21.83	-6.61	-2.96
880	28.58	-5.44	-0.71	2570	23.71	-6.25	-2.43
890	26.12	-5.83	-1	2590	25.88	-5.87	-2.06
900	20.89	-6.8	-1.84	2610	28.31	-5.48	-1.73
910	23.33	-6.32	-1.29	2630	31.12	-5.07	-1.61
920	25	-6.02	-1.01	2650	26.85	-5.71	-2.43
930	27.04	-5.68	-0.36	2670	26.85	-5.71	-2.34
940	27.99	-5.53	-0.22	2690	24.95	-6.03	-2.6
950	27.29	-5.64	-0.42				
960	25.64	-5.91	-0.72				
1710	23.6	-6.27	0.01				
1730	26.61	-5.75	0.45				
1750	27.29	-5.64	0.49				
1770	25.35	-5.96	-0.07				

Diversity antenna

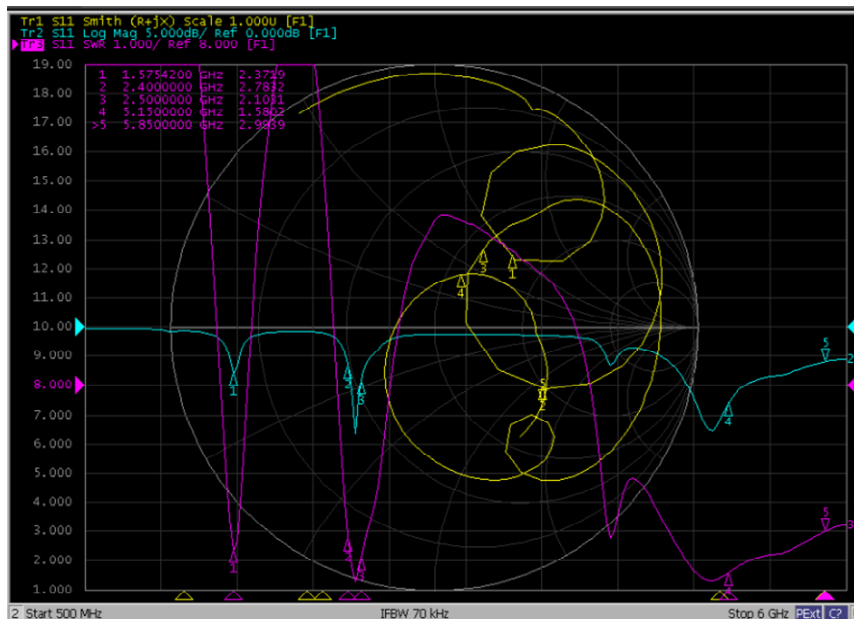


Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1710	9.08	-10.42	-5.33	2470	9.84	-10.07	-4.41
1730	10	-10	-4.45	2490	10.89	-9.63	-3.62
1750	9.18	-10.37	-4.62	2510	11.97	-9.22	-3
1770	7.62	-11.18	-5.61	2530	12.33	-9.09	-2.82
1790	8.89	-10.51	-4.96	2550	12.88	-8.9	-2.62
1810	9.12	-10.4	-4.46	2570	12.94	-8.88	-2.64
1830	10.02	-9.99	-3.6	2590	13.52	-8.69	-2.22
1850	12.13	-9.16	-2.74	2610	13.61	-8.66	-1.86
1870	14.13	-8.5	-2.22	2630	12.94	-8.88	-1.84
1890	15.1	-8.21	-2.05	2650	12.85	-8.91	-1.71

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1910	15.07	-8.22	-2.24	2670	12.56	-9.01	-1.63
1930	16.22	-7.9	-2.01	2690	12.02	-9.2	-1.51
1950	18.66	-7.29	-1.46				
1970	18.97	-7.22	-1.25				
1990	21.38	-6.7	-0.52				
2010	25.88	-5.87	-0.19				
2030	24.32	-6.14	-0.32				
2050	26.24	-5.81	-0.04				
2070	25.53	-5.93	-0.45				
2090	22.65	-6.45	-1.1				
2110	23.28	-6.33	-0.83				
2130	22.23	-6.53	-1.05				
2150	23.71	-6.25	-0.75				
2170	26.98	-5.69	-0.13				
2190	27.23	-5.65	-0.06				
2210	24.38	-6.13	-0.68				
2230	22.75	-6.43	-1.02				
2250	21.68	-6.64	-1.05				
2270	21.93	-6.59	-1.23				
2290	21.43	-6.69	-1.39				
2310	20.42	-6.9	-1.64				
2330	18.58	-7.31	-1.76				
2350	17.58	-7.55	-1.85				
2370	16.07	-7.94	-2.15				
2390	14.42	-8.41	-2.78				
2410	12.74	-8.95	-3.58				
2430	11.14	-9.53	-4.4				
2450	9.77	-10.1	-4.88				

Three-in-one antenna

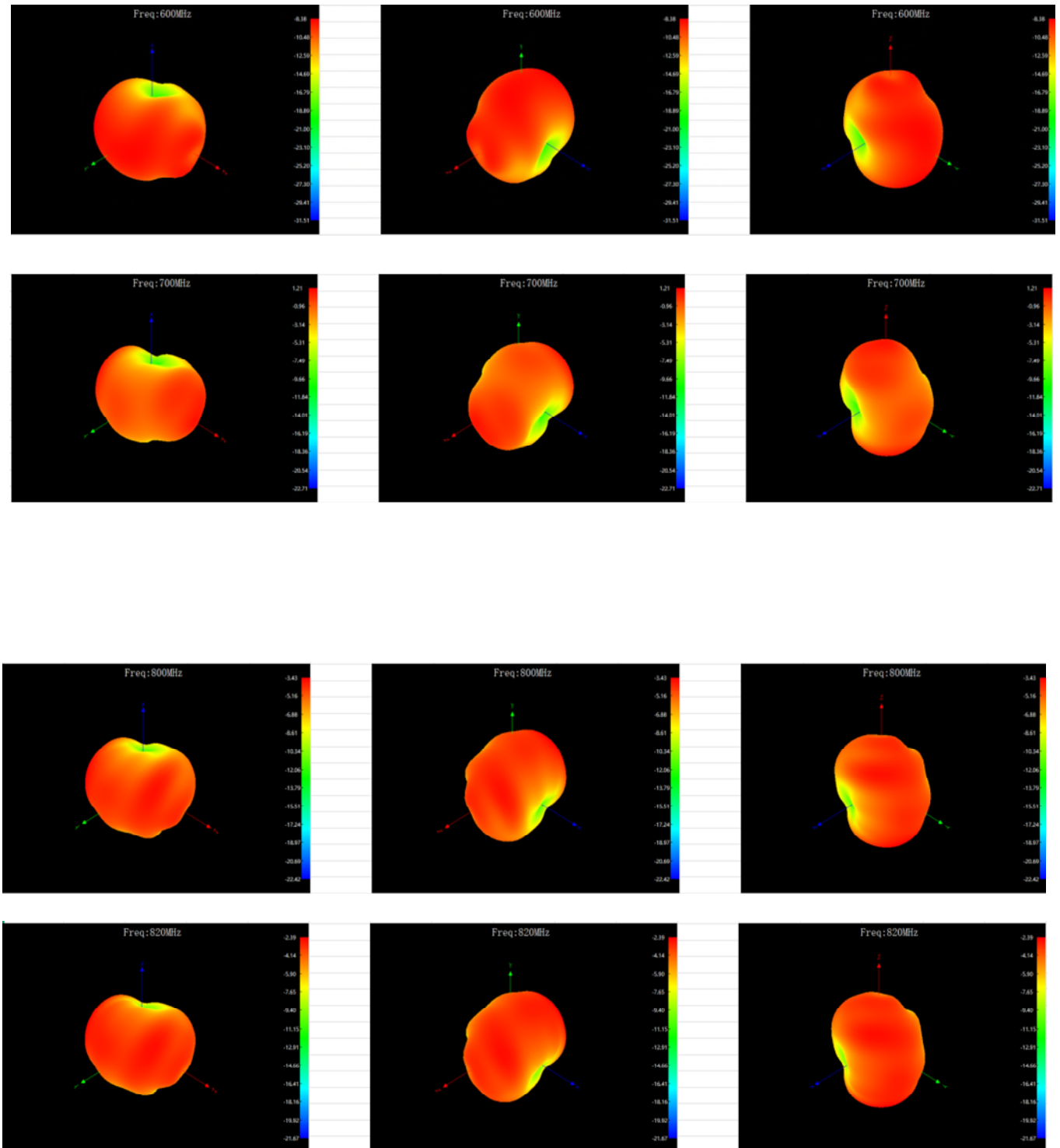


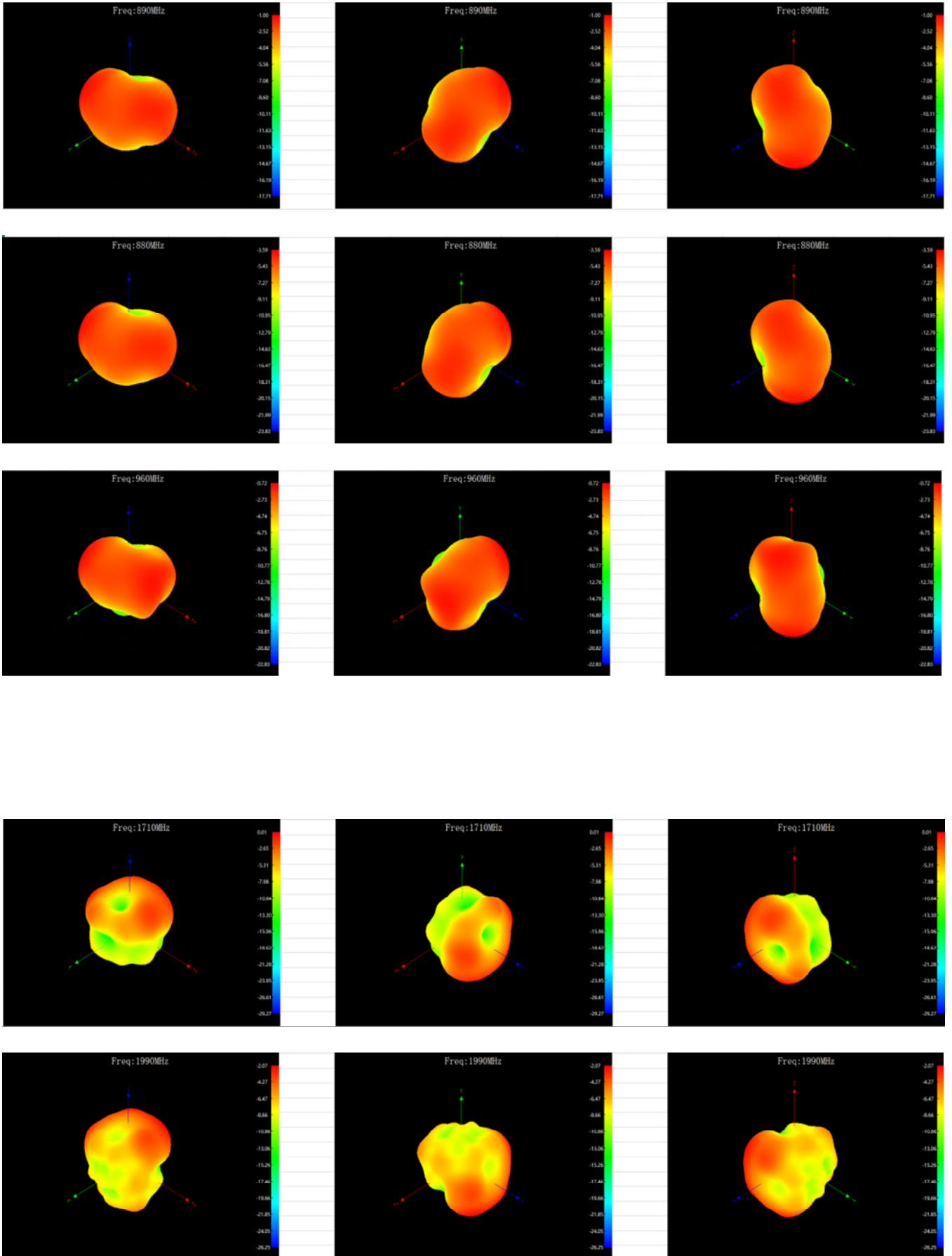
Efficiency & Gain

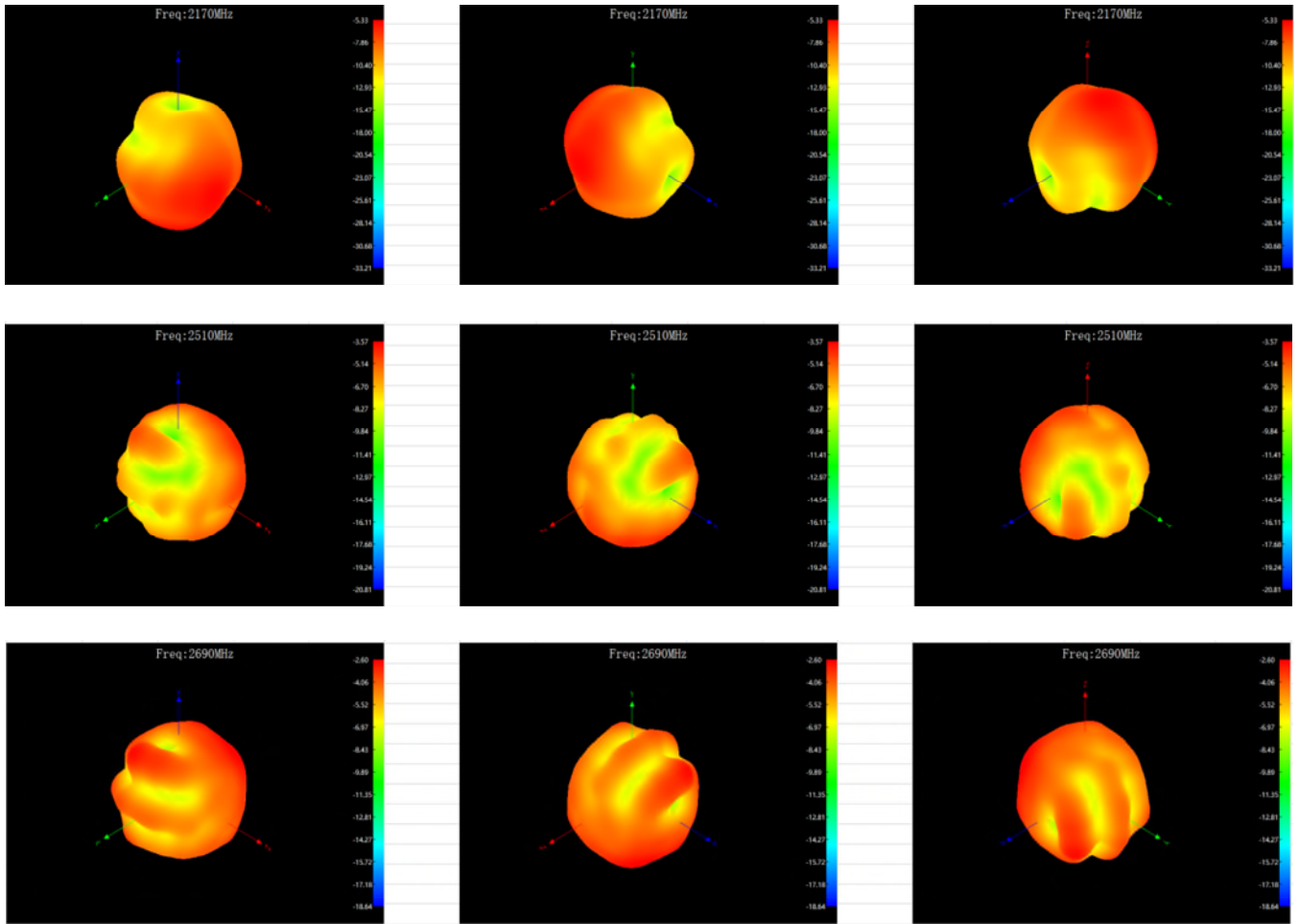
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1565	34.91	-4.57	1.19	5490	22.44	-6.49	2.81
1570	40.27	-3.95	1.74	5510	21.28	-6.72	2.64
1575	38.37	-4.16	1.55	5530	22.08	-6.56	2.83
1580	39.99	-3.98	1.54	5550	20.75	-6.83	2.59
1585	40.27	-3.95	1.61	5570	21.78	-6.62	2.84
2400	21.78	-6.62	-1.45	5590	23.93	-6.21	3.22
2410	23.82	-6.23	-1.12	5610	23.12	-6.36	3.02
2420	25	-6.02	-0.95	5630	21.98	-6.58	2.79
2430	26.98	-5.69	-0.62	5650	22.34	-6.51	2.89
2440	28.51	-5.45	-0.39	5670	20.8	-6.82	2.48
2450	27.99	-5.53	-0.45	5690	20.46	-6.89	2.4
2460	26.85	-5.71	-0.6	5710	19.77	-7.04	2.28
2470	25.59	-5.92	-0.78	5730	20.65	-6.85	2.45
2480	24.55	-6.1	-0.94	5750	22.28	-6.52	2.77
2490	23.39	-6.31	-1	5770	23.71	-6.25	3.03
2500	21.53	-6.67	-1.27	5790	21.38	-6.7	2.63
5150	31.41	-5.03	3.71	5810	21.13	-6.75	2.67
5170	29.72	-5.27	3.52	5830	21.68	-6.64	2.82
5190	29.17	-5.35	3.44	5850	21.68	-6.64	2.89
5210	29.58	-5.29	3.45				
5230	31.12	-5.07	3.56				
5250	29.11	-5.36	3.29				
5270	27.73	-5.57	3.12				
5290	25.94	-5.86	2.8				
5310	26	-5.85	2.83				
5330	25.76	-5.89	2.88				
5350	25.29	-5.97	2.91				
5370	24.83	-6.05	2.99				
5390	24.83	-6.05	3.05				
5410	25.7	-5.9	3.15				
5430	22.28	-6.52	2.58				
5450	22.18	-6.54	2.61				
5470	21.88	-6.6	2.66				

2.3 3D Pattern

Main antenna

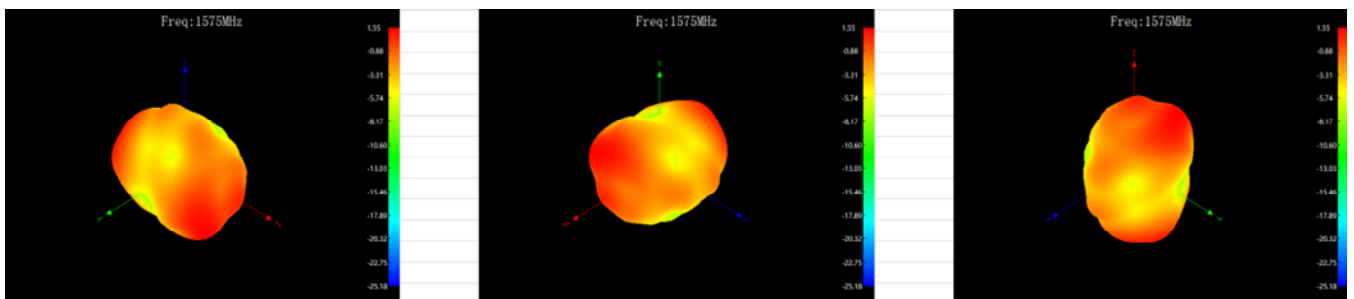






Three-in-one antenna

GPS

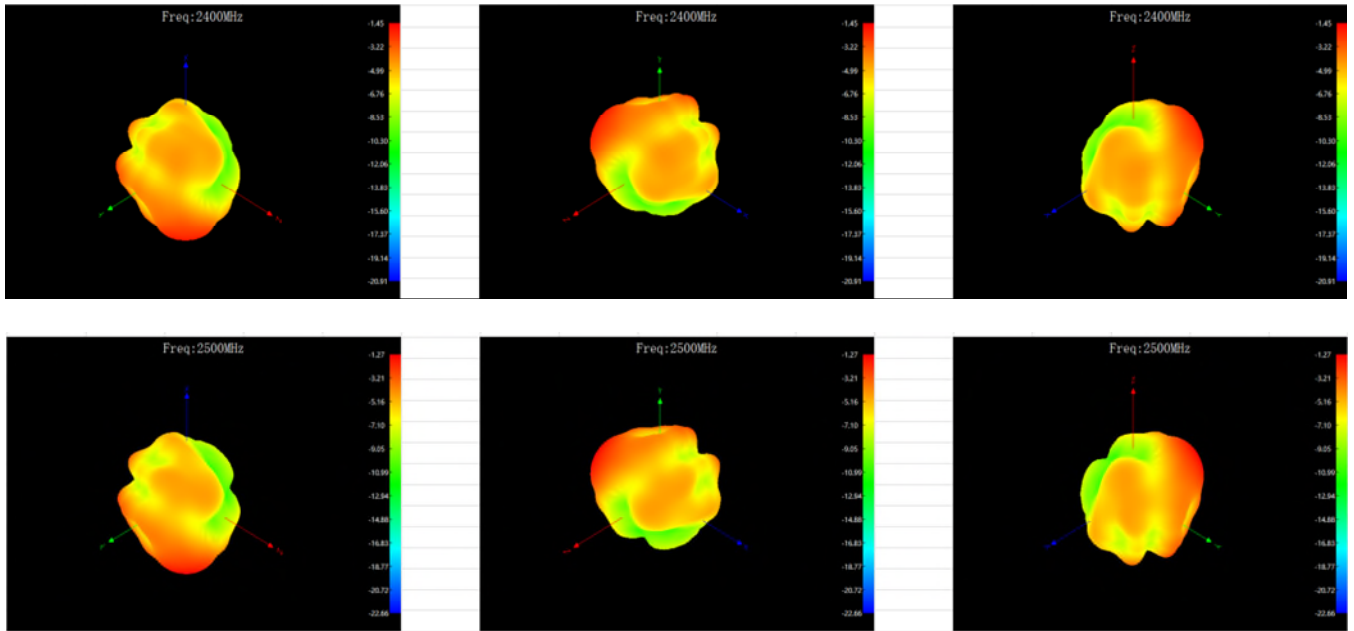


WiFi 2.4G

H plane

E1 plane

E2 plane

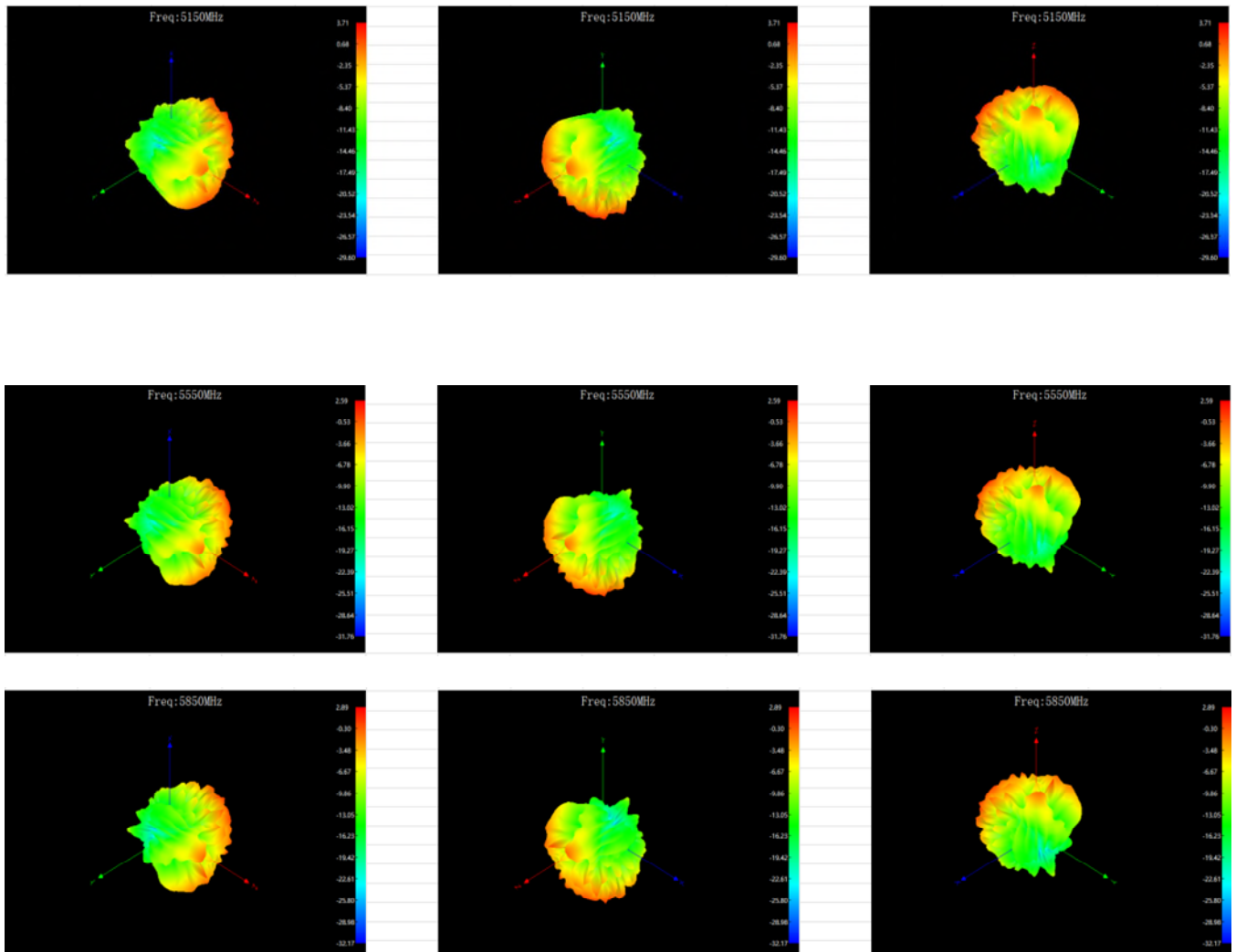


WiFi 5.8G

H plane

E1 plane

E2 plane



Diversity antenna

