

Shenzhen Etheta Communication
Technology Co., Ltd.

(Shenzhen R&D)

Customer: TCL Communication Ltd.

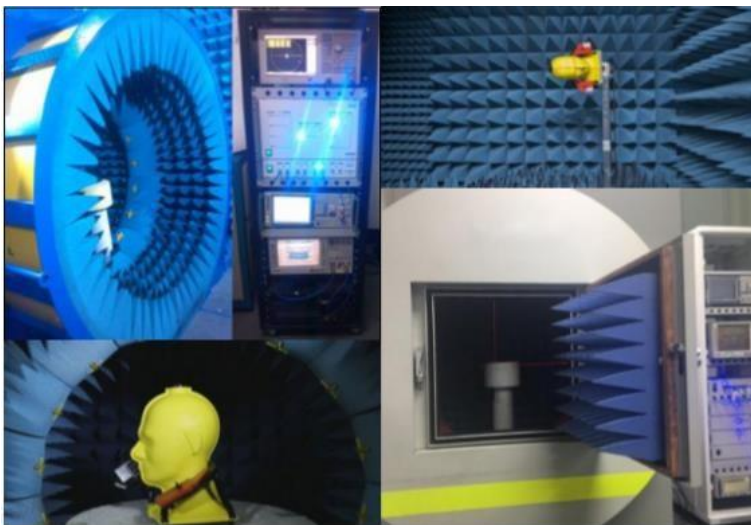
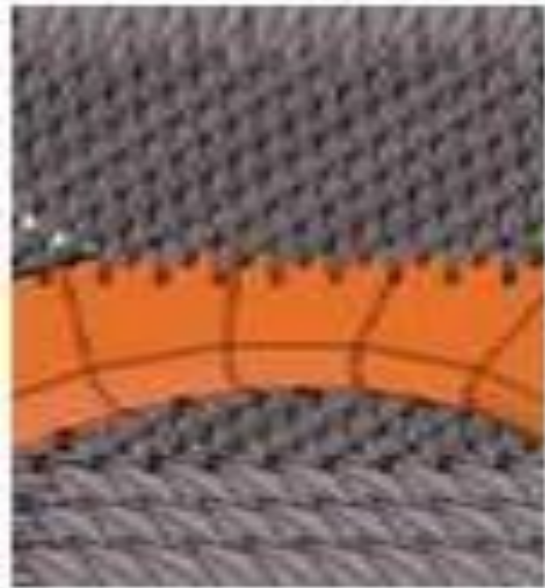
Project name: T771A

Product name: T771A- cellular &wifi antenna

Material: FPC

Date: 2022.10.10

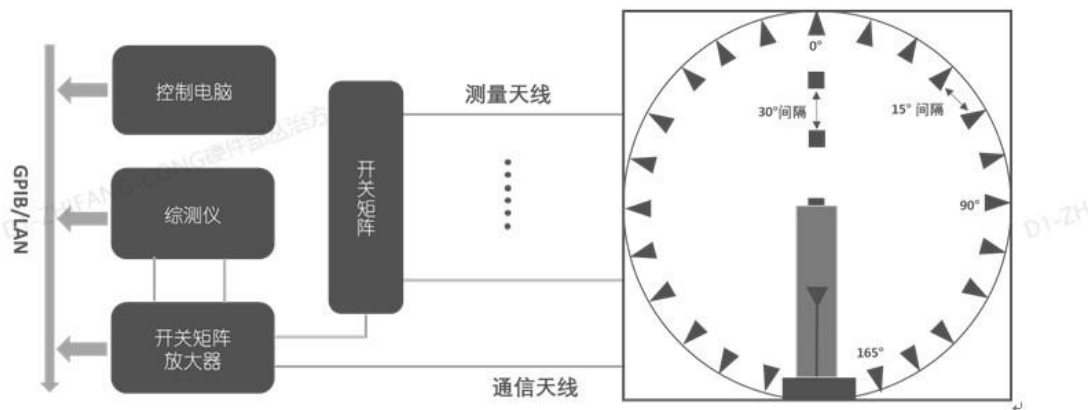
1: chamber room introduction and testing scope



Our company has a number of OTA test darkrooms, ranging from 400MHz to 8.5ghz, which can provide passive test and active test (including OTA overall 2G,3G,4G,5GFR test, WiFi multi-mode test, GPS active test, Bluetooth active test, which can provide antenna gain and efficiency. 2D orientation and apple chart analysis and upper and lower hemisphere efficiency values, mutual disturbance correlation coefficient test items

WIFI a/b/g/n/ac/ax

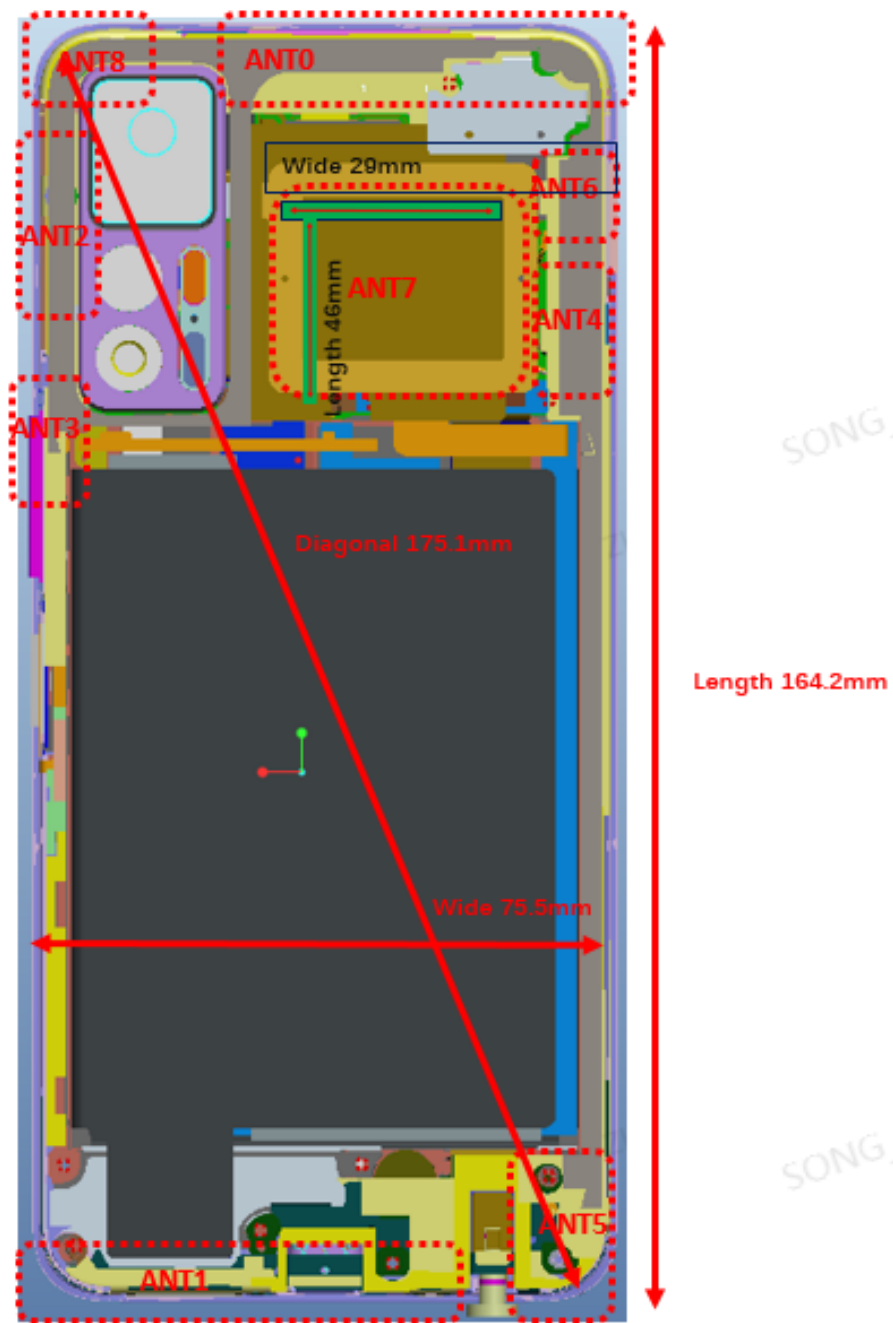
2: test system introduction:



The figure above shows the connection and control process between the darkroom of our company and the testing system and computer. The testing system has the characteristics of accurate, fast and simple testing
The operation interface is simple and humanized

3: Test result

Antenna placement:



ANT0_800M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
800	-6.26	23.67	-3.73
810	-5.60	27.56	-3.13
820	-4.90	32.35	-2.41
830	-4.32	36.97	-1.77
840	-3.99	39.90	-1.37

850	-3.82	41.49	-1.26
860	-3.74	42.30	-1.27
870	-3.85	41.18	-1.36
880	-3.93	40.45	-1.31
890	-4.11	38.85	-1.22
900	-4.37	36.53	-1.48
910	-4.55	35.05	-1.71
AVG	-4.45	36.36	-1.83

ANTO_700M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
700	-6.07	24.7	-3.11
710	-6.06	24.77	-2.95
720	-6.43	22.74	-3.21
730	-6.33	23.29	-3.36
740	-6.4	22.92	-3.44
750	-6.85	20.64	-3.55
760	-7.04	19.77	-3.91
770	-7.13	19.39	-3.86
780	-7.4	18.19	-3.81
790	-7.78	16.68	-4.62
800	-7.99	15.9	-4.26
AVG	-6.86	20.82	-3.64

ANTO_780M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
730	-7.94	16.08	-5.72
740	-7.25	18.82	-5.08
750	-7.16	19.24	-4.91
760	-6.99	20.01	-4.56
770	-6.72	21.3	-4.16
780	-6.8	20.89	-4.34
790	-6.95	20.18	-4.54
800	-6.94	20.24	-4.5
AVG	-7.09	19.59	-4.7

ANT2_1900M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
1880	-3.4	45.71	0.32

1890	-3.53	44.37	0.28
1900	-3.48	44.86	0.38
1910	-3.56	44.03	0.27
1920	-3.55	44.16	0.29
1930	-3.6	43.61	0.25
1940	-3.73	42.33	0.14
1950	-3.75	42.17	0.08
1960	-3.78	41.83	-0.08
1970	-3.86	41.08	-0.15
1980	-3.93	40.46	-0.39
1990	-4.02	39.63	-0.55
AVG	-3.68	42.85	0.07

ANT2_1700M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
1700	-3.93	40.5	-1.37
1710	-3.76	42.07	-1.23
1720	-3.74	42.28	-0.93
1730	-3.65	43.14	-0.7
1740	-3.61	43.6	-0.52
1750	-3.52	44.42	-0.14
1760	-3.57	43.92	-0.48
1770	-3.56	44.04	-0.37
1780	-3.51	44.52	-0.32
1790	-3.4	45.74	-0.24
1800	-3.46	45.07	-0.16
1810	-3.44	45.26	-0.07
1820	-3.47	44.99	0
1830	-3.48	44.85	0.01
1840	-3.39	45.83	0.23
1850	-3.49	44.77	-0.02
1860	-3.46	45.11	0.1
1870	-3.55	44.18	0.15
1880	-3.4	45.71	0.32
AVG	-3.55	44.21	-0.30

ANT4_2500M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
2500	-3.11	48.89	2.08
2510	-3.09	49.1	1.97
2520	-3.06	49.44	2.01
2530	-3.11	48.83	1.93
2540	-3.17	48.19	1.63
2550	-3.27	47.1	1.36
2560	-3.26	47.17	1.3
2570	-3.31	46.65	1.07
2580	-3.3	46.75	0.99
2590	-3.35	46.19	0.58
2600	-3.42	45.52	0.13
2610	-3.38	45.9	0.27
2620	-3.44	45.3	0.44
2630	-3.44	45.3	0.73
2640	-3.46	45.04	0.9
2650	-3.46	45.06	1.07
2660	-3.54	44.28	1.19
2670	-3.58	43.88	1.28
2680	-3.57	43.99	1.47
2690	-3.5	44.7	1.66
AVG	-3.341	46.36	1.203

ANTI_1900M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
1880	-5.99	25.19	-2.28
1890	-6.17	24.17	-2.37
1900	-6.21	23.96	-2.29
1910	-6.34	23.23	-2.25
1920	-6.41	22.87	-2.25
1930	-6.53	22.23	-2.23
1940	-6.68	21.46	-2.36
1950	-6.80	20.91	-2.45
1960	-6.79	20.93	-2.51
1970	-7.00	19.97	-2.68
1980	-7.15	19.28	-2.94
1990	-7.25	18.86	-3.10

2000	-7.27	18.76	-3.29
AVG	-6.66	21.68	-2.54

ANT1_1700M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
1700	-5.45	28.54	-2.05
1710	-5.45	28.48	-2.03
1720	-5.53	27.97	-2.45
1730	-5.48	28.31	-2.54
1740	-5.45	28.52	-2.43
1750	-5.38	28.96	-2.45
1760	-5.50	28.19	-2.76
1770	-5.54	27.95	-2.71
1780	-5.58	27.69	-2.70
1790	-5.36	29.13	-2.45
1800	-5.44	28.57	-2.54
1810	-5.51	28.12	-2.63
1820	-5.56	27.82	-2.71
1830	-5.64	27.30	-2.70
1840	-5.64	27.29	-2.41
1850	-5.87	25.87	-2.58
1860	-5.92	25.61	-2.43
1870	-6.03	24.97	-2.39
1880	-5.99	25.19	-2.28
AVG	-5.60	27.60	-2.49

ANT5_2500M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
2500	-7.61	17.35	-3.63
2520	-7.37	18.32	-2.99
2540	-7.32	18.55	-2.59
2560	-7.28	18.72	-2.51
2580	-7.13	19.38	-2.50
2600	-7.19	19.11	-2.85
2620	-7.08	19.60	-2.79
2640	-7.02	19.88	-2.79
2660	-7.06	19.66	-2.98
2680	-6.94	20.21	-3.06
2700	-6.63	21.72	-2.71
2720	-6.33	23.26	-1.95

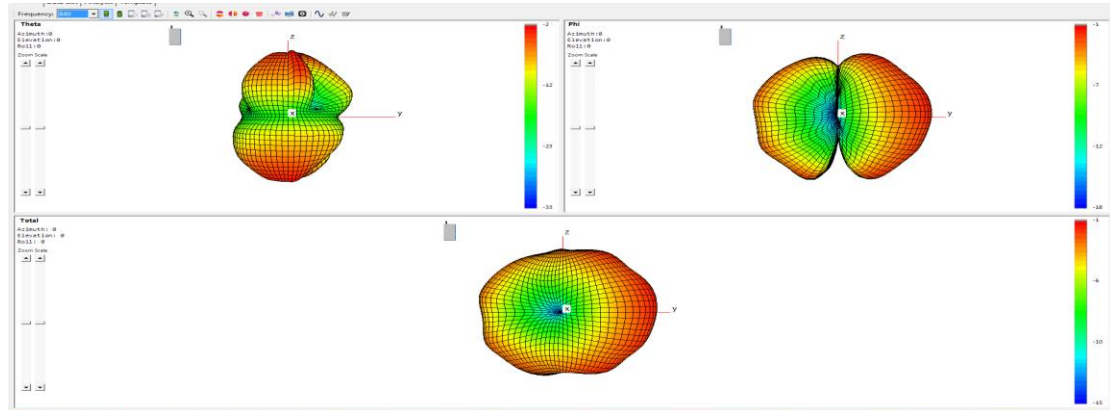
2740	-6.15	24.24	-1.41
2760	-5.82	26.16	-0.88
2780	-5.78	26.44	-0.79
2800	-5.68	27.06	-0.60
AVG	-6.77	21.23	-2.31

ANT8_2500M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
2400	-4.93	32.16	-2.51
2410	-5.04	31.33	-2.50
2420	-5.13	30.69	-2.55
2430	-5.19	30.26	-2.79
2440	-5.26	29.81	-2.79
2450	-5.26	29.77	-2.98
2460	-5.39	28.91	-3.06
2470	-5.4	28.87	-3.0
2480	-5.52	28.07	-2.98
2490	-5.59	27.63	-2.85
2500	-5.71	26.84	-2.71
AVG	-5.31	29.49	-2.79

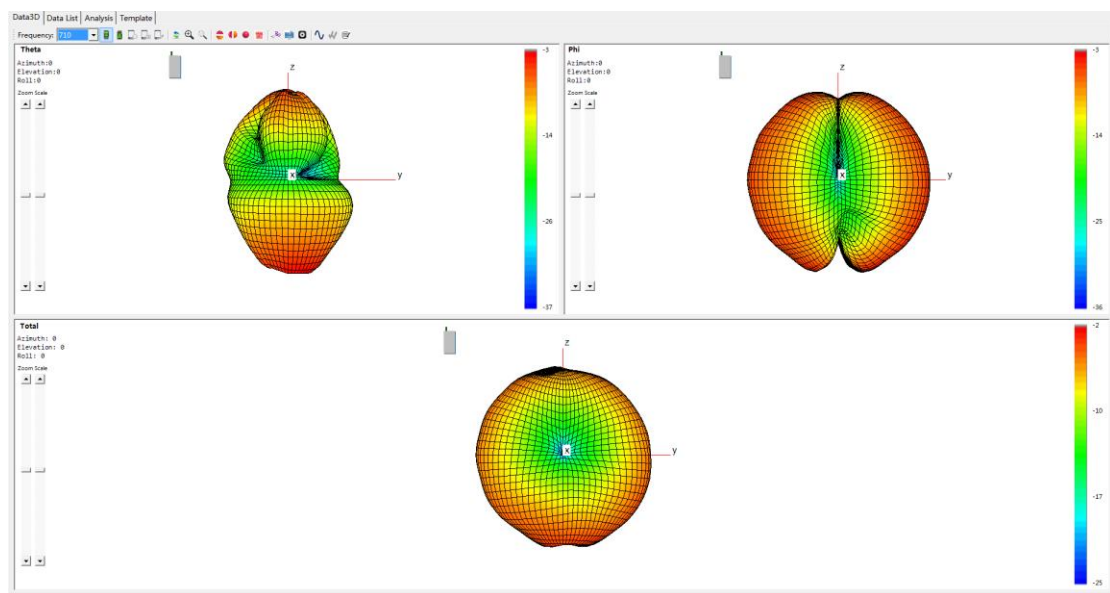
ANT8_5000M			
Frequency (MHz)	AVG Gain	efficiency (%)	Peak Gain
5150	-5.11	30.83	-5.15
5200	-5.02	31.45	-5.12
5250	-3.92	40.52	-4.78
5300	-3.78	41.91	-4.71
5350	-3.67	42.94	-4.55
5400	-3.65	43.19	-4.39
5450	-3.61	43.51	-4.28
5500	-3.73	42.37	-4.12
5550	-3.66	43.07	-3.89
5600	-3.65	43.17	-3.45
5650	-3.61	43.52	-3.34
5700	-3.59	43.74	-3.2
5750	-3.65	43.2	-3.25
5800	-3.59	43.73	-3.31
5850	-3.63	43.31	-3.55
AVG	-3.86	41.36	-4.07

3D Pattern

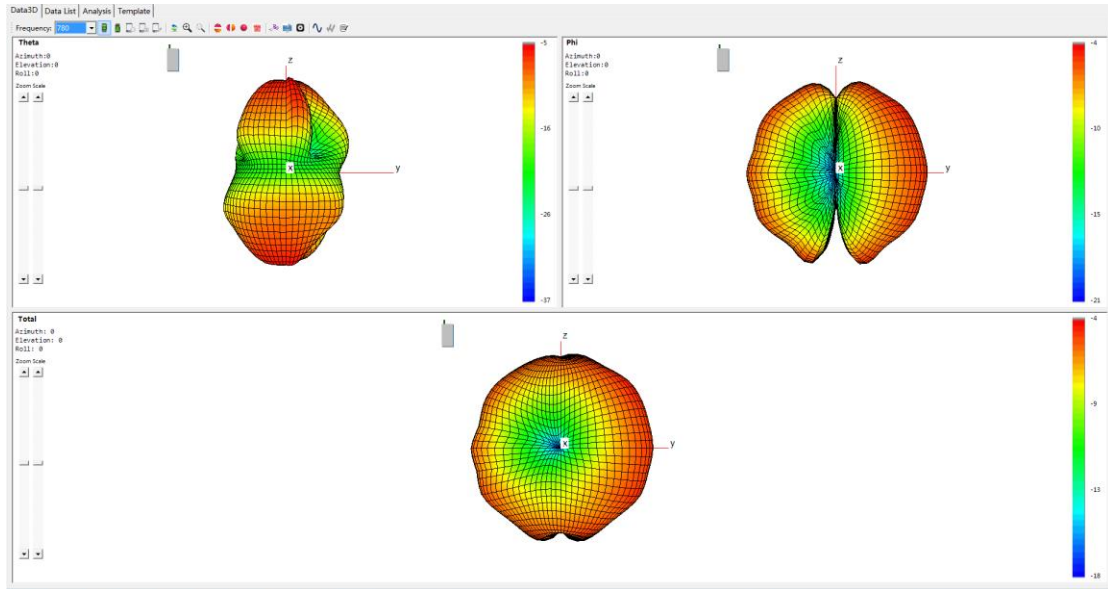
ANT 0_ 800M (Frequency=840MHz)



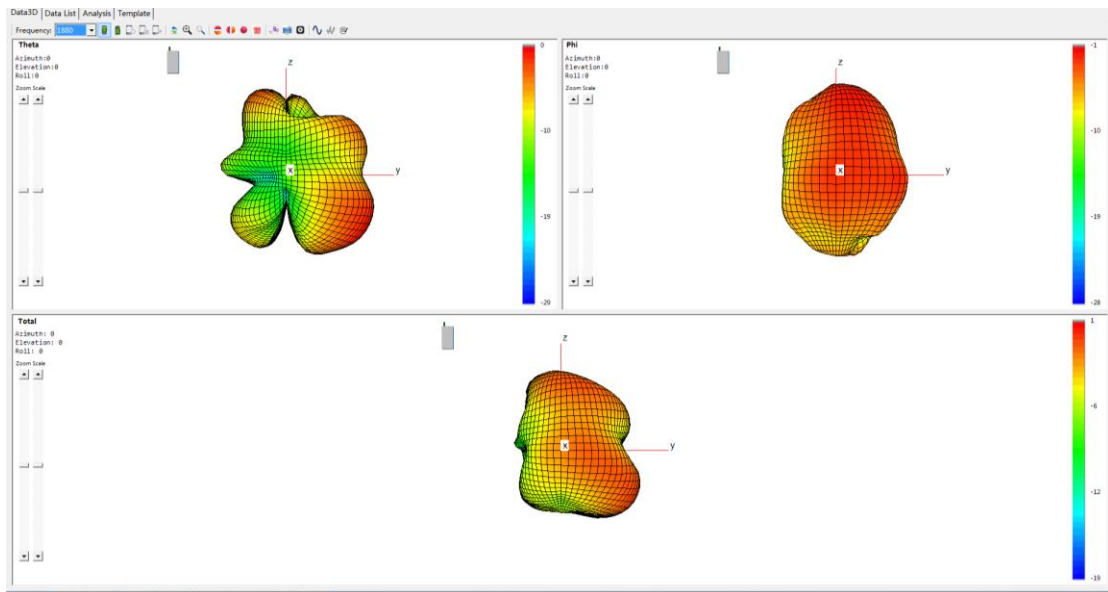
ANT 0_ 700M (Frequency=710MHz)



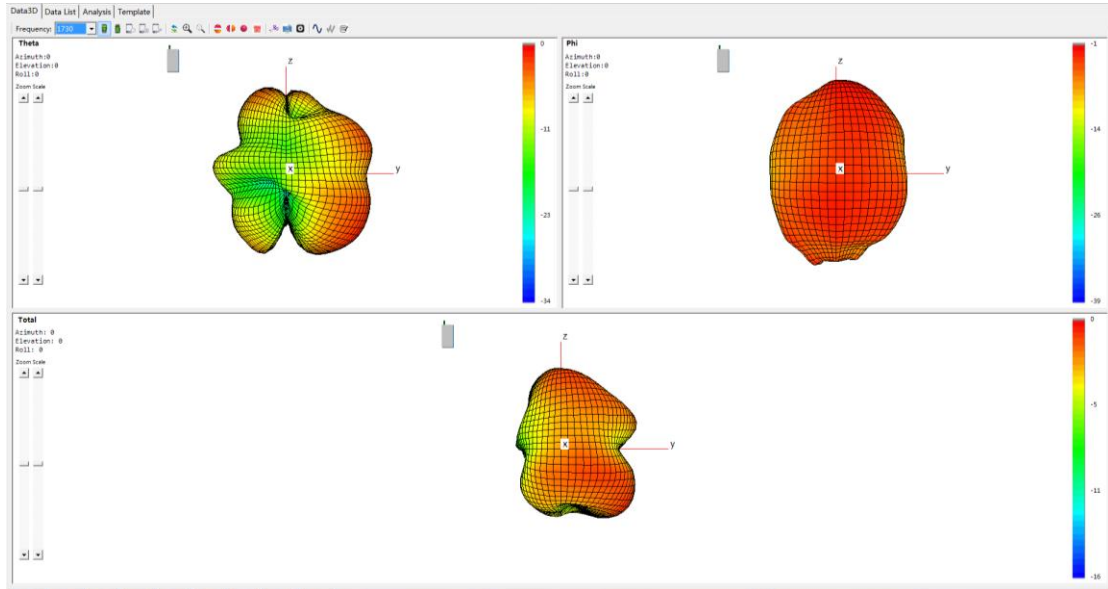
ANT 0_ 700M (Frequency=780MHz)



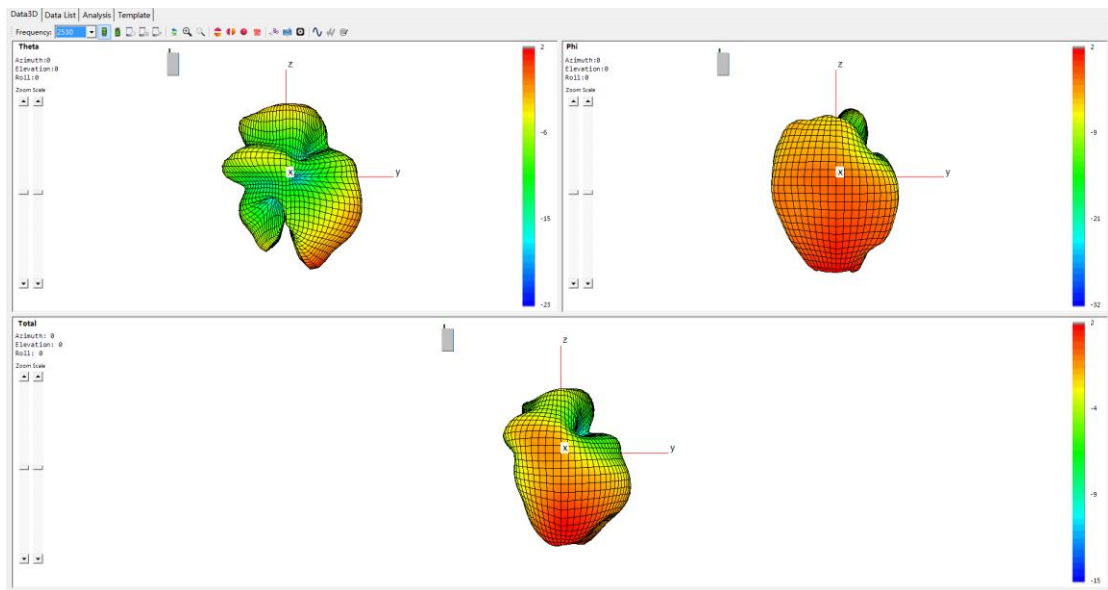
ANT 2_ 1900M (Frequency=1880MHz)



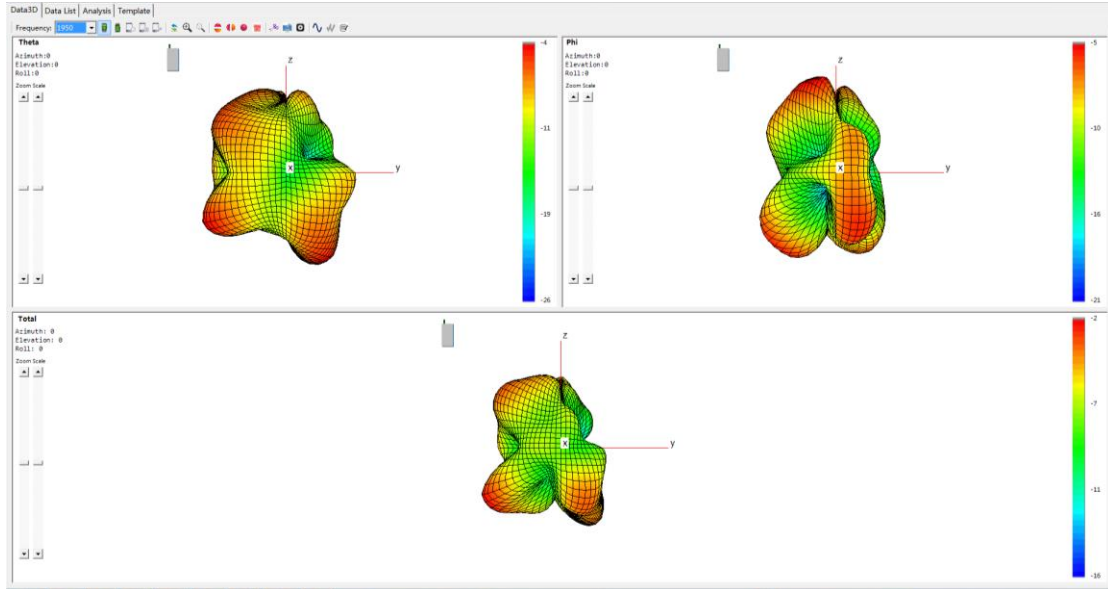
ANT 2_ 1700M (Frequency=1730MHz)



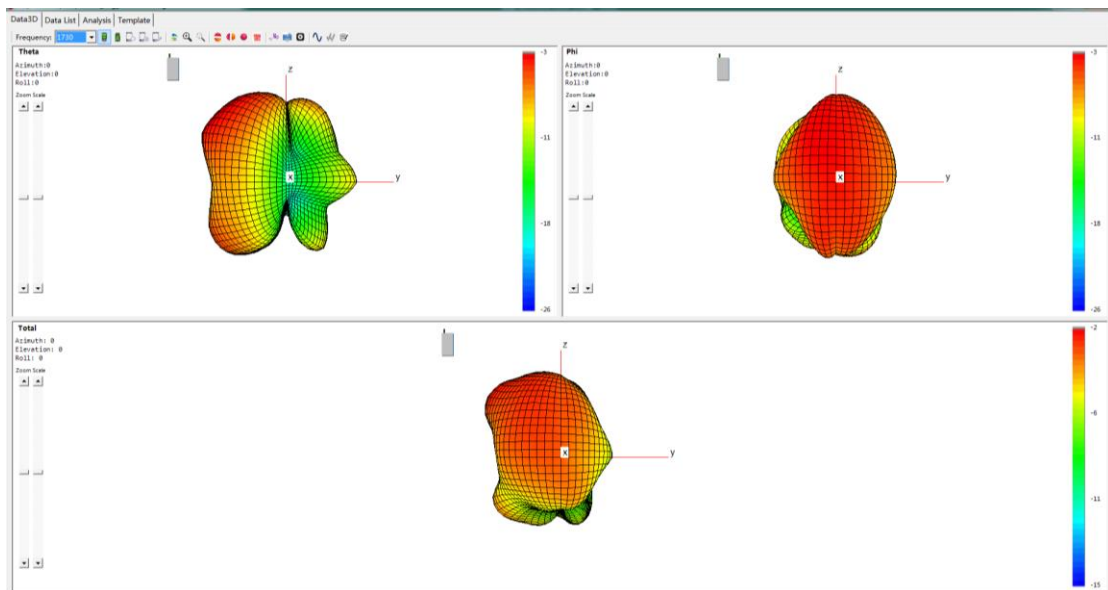
ANT 4_ 2500M (Frequency=2530MHz)



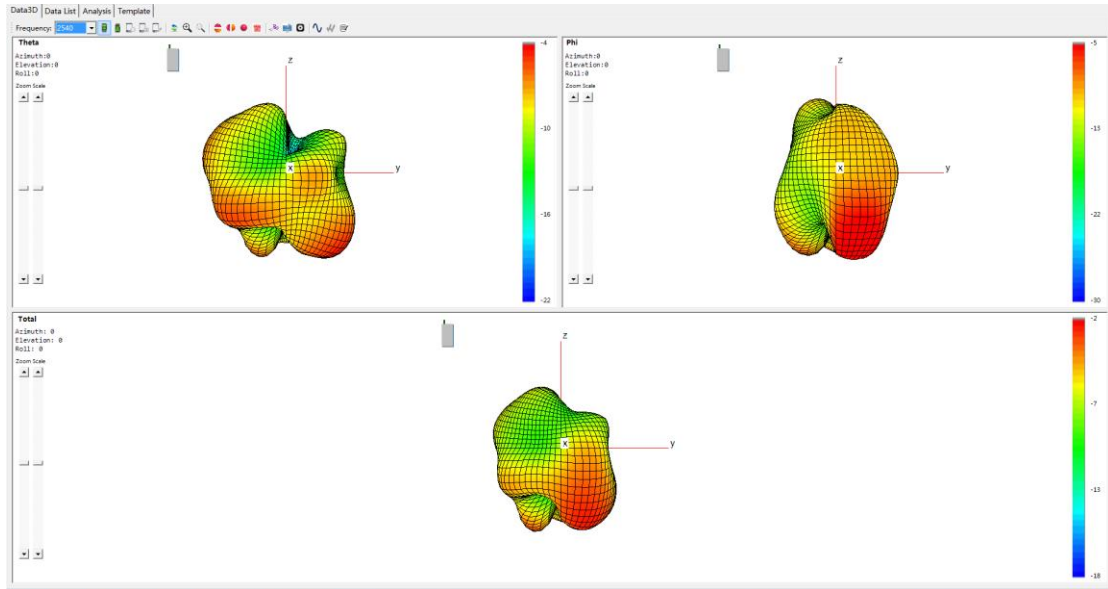
ANT 1_ 1900M (Frequency=1880MHz)



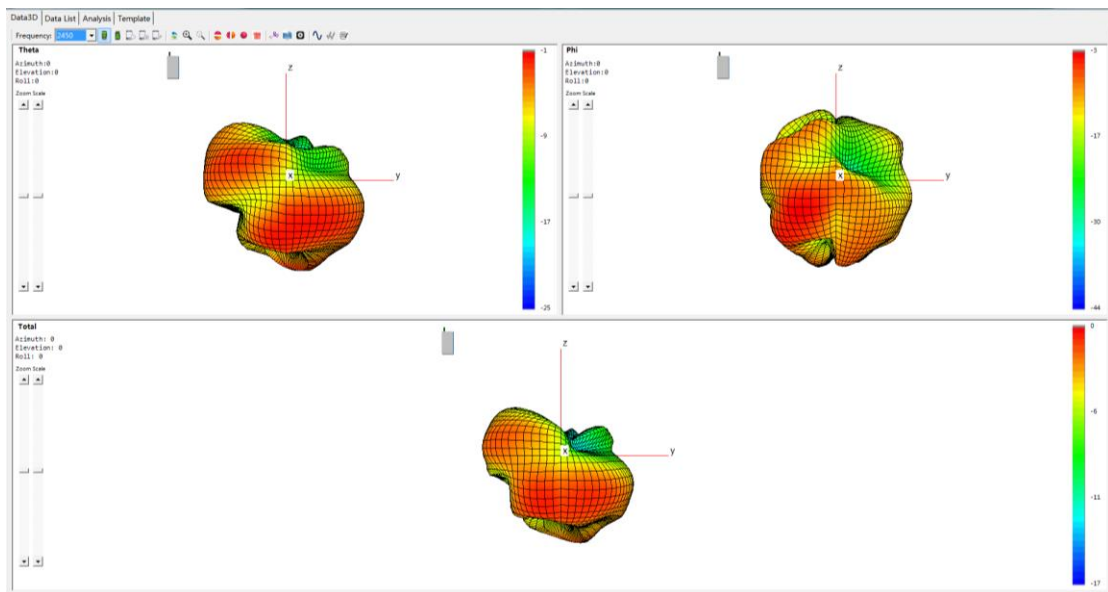
ANT 1_ 1700M (Frequency=1730MHz)



ANT 5_ 2500M (Frequency=2530MHz)



ANT 8_ 2400M (Frequency=2450MHz)



ANT 8_ 5000M (Frequency=5500MHz)

