

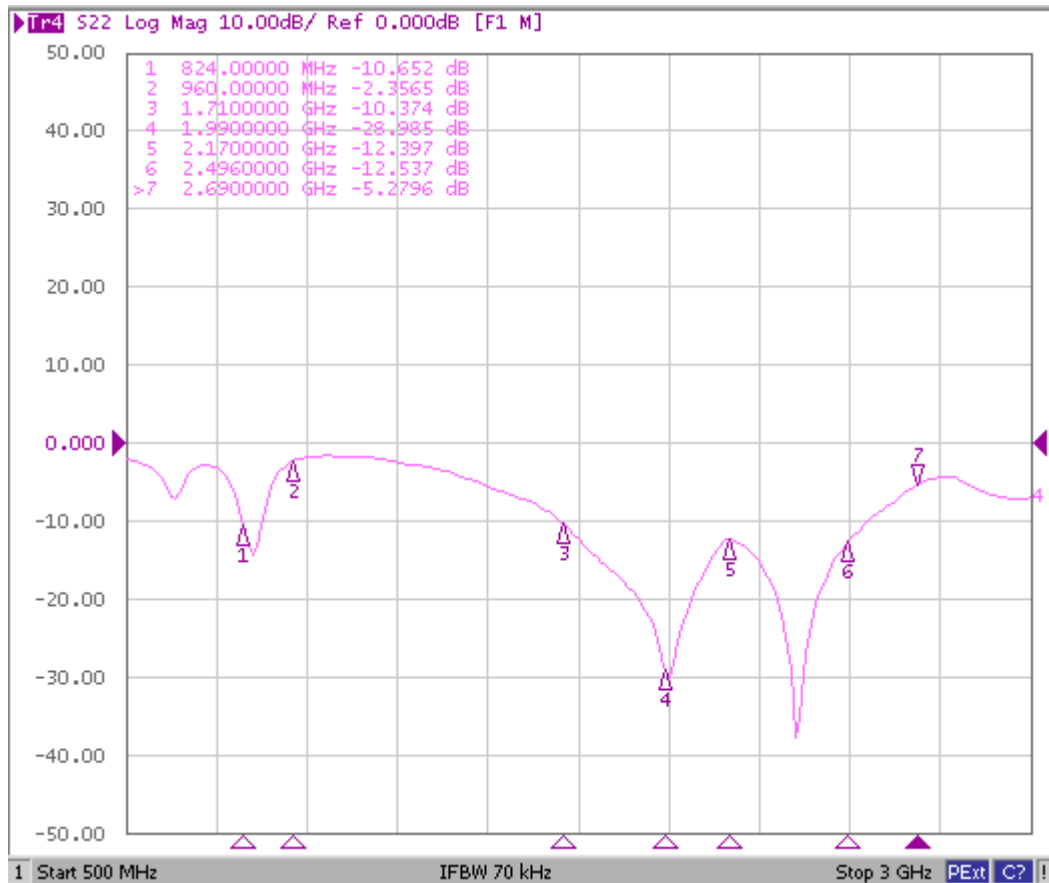
1. MAIN antenna

Manufacturer: sunnyway

Model: XGD-N6-4G-ANT



1、Passive performance test parameters



2、antenna passive data :

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
700	11.35	-9.45	1700	37.07	-4.31	1940	33.04	-4.81	2300	38.73	-4.12	2500	32.81	-4.84
710	14.06	-8.52	1710	36.56	-4.37	1950	33.27	-4.78	2310	38.64	-4.13	2510	31.33	-5.04
720	17.26	-7.63	1720	36.9	-4.33	1960	33.19	-4.79	2320	39.36	-4.05	2520	31.33	-5.04
730	21.98	-6.58	1730	37.24	-4.29	1970	33.34	-4.77	2330	37.67	-4.24	2530	30.76	-5.12
740	26.36	-5.79	1740	37.5	-4.26	1980	32.81	-4.84	2340	38.73	-4.12	2540	29.65	-5.28
750	31.26	-5.05	1750	38.02	-4.2	1990	31.84	-4.97	2350	39.54	-4.03	2550	29.17	-5.35
760	33.19	-4.79	1760	38.64	-4.13	2000	30.97	-5.09	2360	40.18	-3.96	2560	28.25	-5.49
770	33.65	-4.73	1770	38.28	-4.17	2010	31.19	-5.06	2370	38.46	-4.15	2570	26.85	-5.71
780	34.75	-4.59	1780	37.58	-4.25	2020	30.41	-5.17	2380	38.46	-4.15	2580	26.18	-5.82
790	30.06	-5.22	1790	38.11	-4.19	2030	30.2	-5.2	2390	38.28	-4.17	2590	24.89	-6.04
800	26.12	-5.83	1800	36.81	-4.34	2040	31.7	-4.99	2400	37.76	-4.23	2600	24.32	-6.14
810	26.12	-5.83	1810	37.07	-4.31	2050	31.48	-5.02				2610	24.04	-6.19
820	24.72	-6.07	1820	37.58	-4.25	2060	30.55	-5.15				2620	23.07	-6.37
830	22.96	-6.39	1830	37.67	-4.24	2070	30.83	-5.11				2630	22.03	-6.57
840	20	-6.99	1840	37.41	-4.27	2080	31.55	-5.01				2640	21.43	-6.69

850	18.45	-7.34	1850	37.84	-4.22	2090	31.12	-5.07
860	16.52	-7.82	1860	36.73	-4.35	2100	32.06	-4.94
870	14.42	-8.41	1870	35.73	-4.47	2110	32.51	-4.88
880	11.91	-9.24	1880	35.56	-4.49	2120	33.42	-4.76
890	10	-10	1890	34.59	-4.61	2130	33.11	-4.8
900	8.55	-10.68	1900	33.96	-4.69	2140	32.06	-4.94
910	7.4	-11.31	1910	33.04	-4.81	2150	32.21	-4.92
920	6.21	-12.07	1920	33.34	-4.77	2160	32.96	-4.82
930	5.04	-12.98				2170	33.5	-4.75
940	4.6	-13.37						
950	4.03	-13.95						
960	3.52	-14.53						

2650	21.63	-6.65
2660	21.23	-6.73
2670	21.88	-6.6
2680	21.63	-6.65
2690	21.09	-6.76

3、 Directional diagram

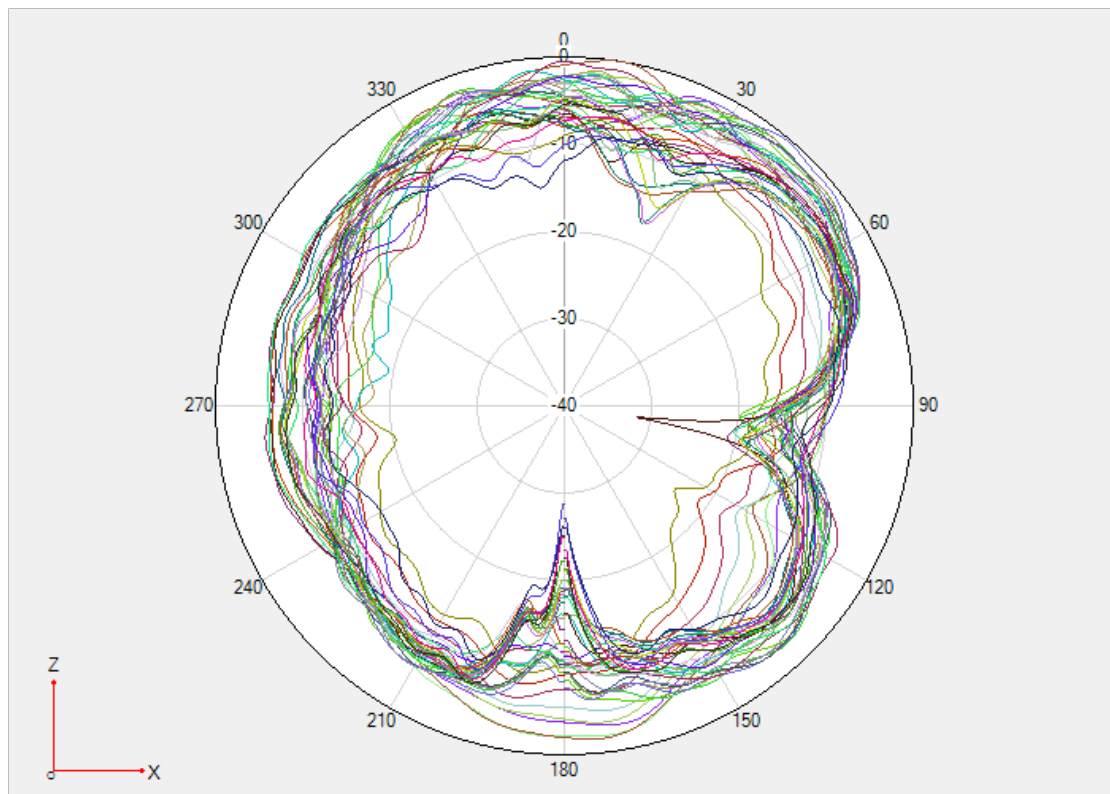


chart1Phi 0 2D

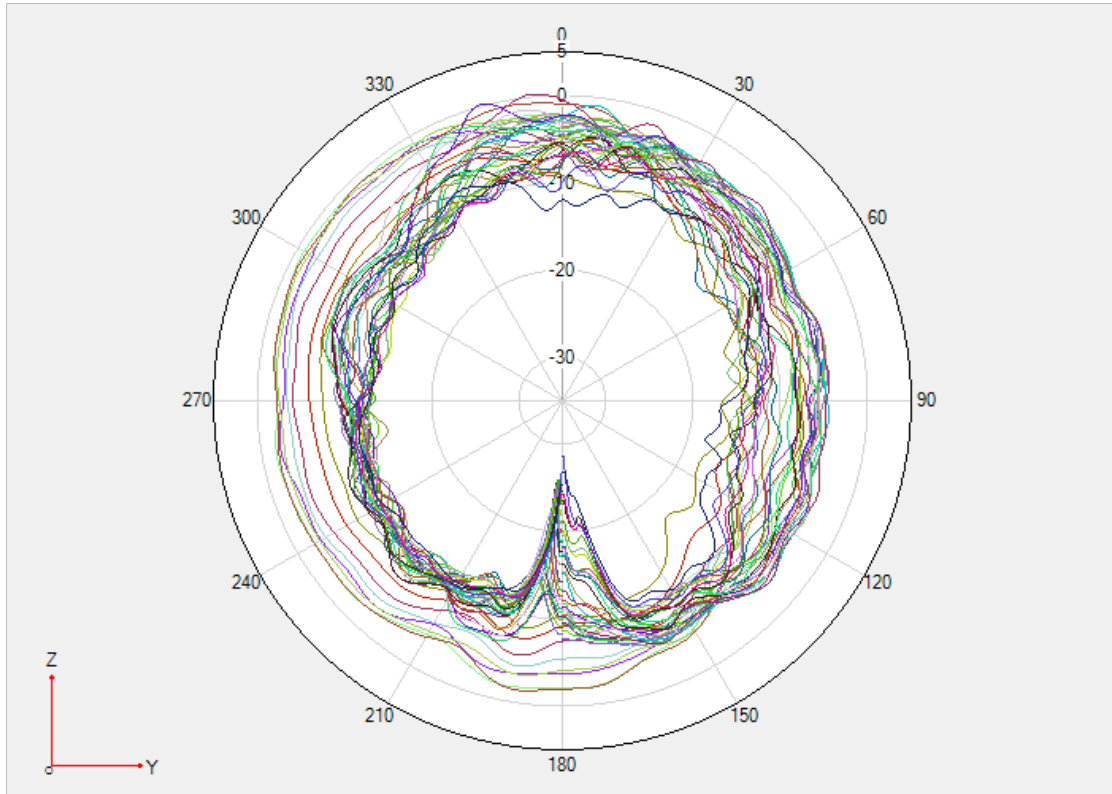


chart2Phi 90 2D

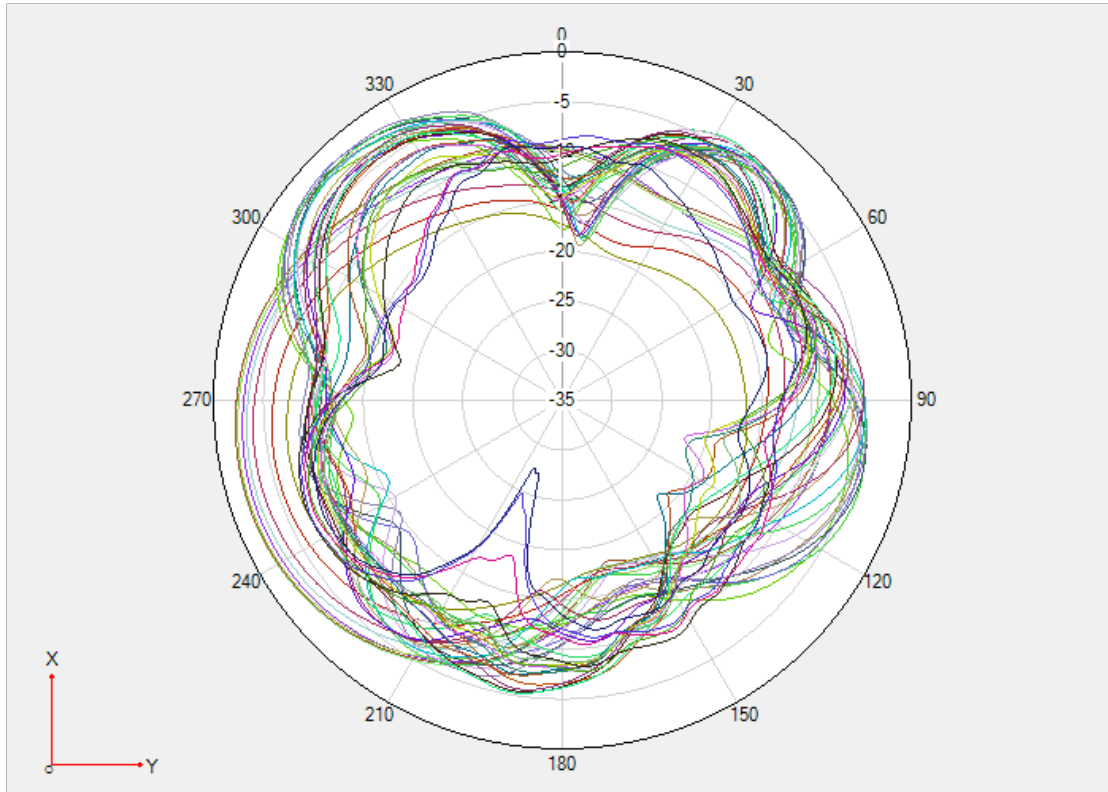


chart3Theta 90 2D

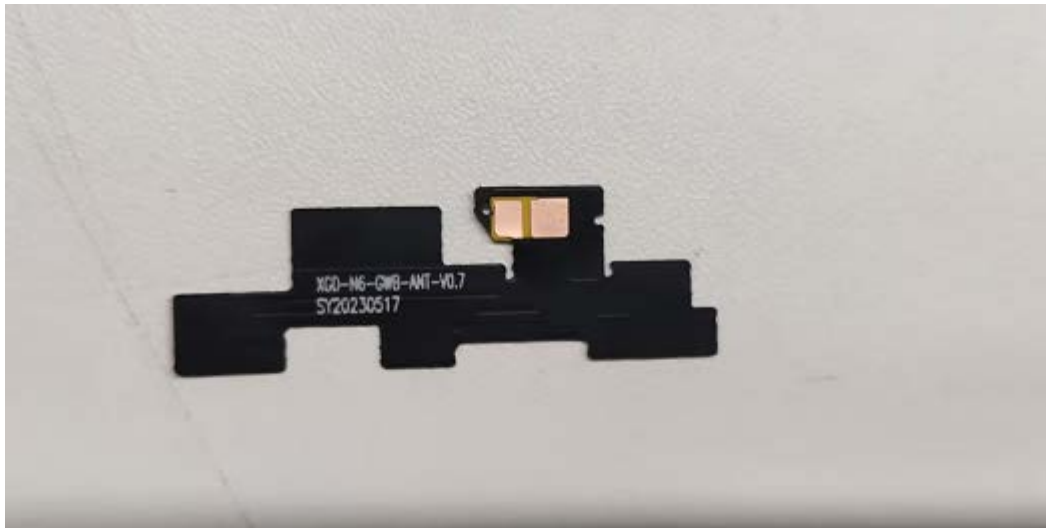
4、 antenna OTA data :

Item	Measurement	Band	Total(dBm)	Item	Measurement	Band	Total(dBm)
1	TRP	FDD_B1	21.02	21	TRP	FDD_B7	17.04
2	TRP	FDD_B1	21.12	22	TRP	FDD_B7	16.75
3	TRP	FDD_B1	21.13	23	TRP	FDD_B7	15.64
4	TIS	FDD_B1	-91.17	24	TIS	FDD_B7	-87.86
5	TRP	FDD_B2	20.12	25	TRP	FDD_B8	18.58
6	TRP	FDD_B2	20.69	26	TRP	FDD_B8	17.56
7	TRP	FDD_B2	21.06	27	TRP	FDD_B8	16.42

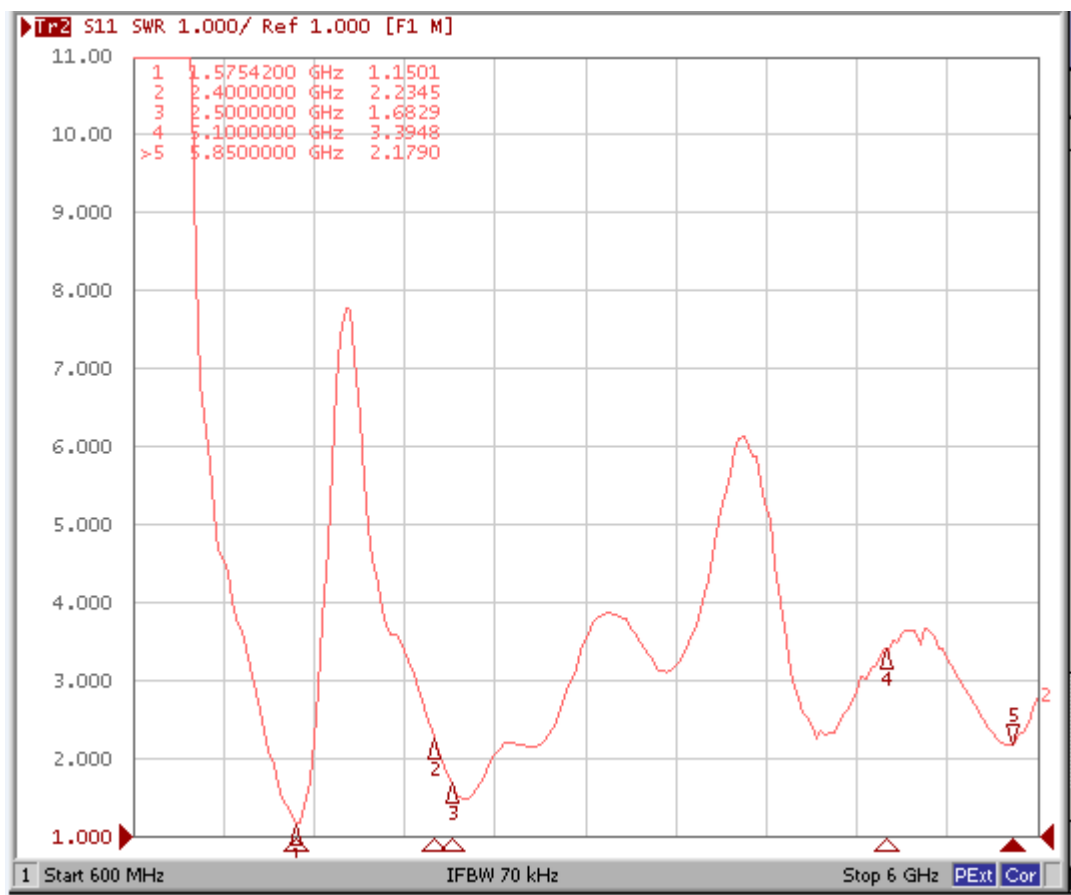
8	TIS	FDD_B2	-90.49		28	TIS	FDD_B8	-86.5
9	TRP	FDD_B3	17.84		29	TRP	FDD_B28	15.54
10	TRP	FDD_B3	18.08		30	TRP	FDD_B28	15.93
11	TRP	FDD_B3	18.53		31	TRP	FDD_B28	16.68
12	TIS	FDD_B3	-92.74		32	TIS	FDD_B28	-90.37
13	TRP	FDD_B4	18.11		33	TRP	TDD_B40	18.54
14	TRP	FDD_B4	17.9		34	TRP	TDD_B40	18.29
15	TRP	FDD_B4	17.85		35	TRP	TDD_B40	17.55
16	TIS	FDD_B4	-90.88		36	TIS	TDD_B40	-88.52
17	TRP	FDD_B5	18.72					
18	TRP	FDD_B5	18.85					
19	TRP	FDD_B5	18.97					
20	TIS	FDD_B5	-91.96					

2. BWG antenna

Manufacturer: sunnyway Model: XGD-N6-GWB-ANT



1、Passive performance test parameters



2、 antenna passive data :

Frequency/Mhz	Gain / dBi	Efficiency / %	Frequency/Mhz	Gain / dBi	Efficiency / %
1570	-4.82	32.17	5320	-6.43	22.75
1575	-4.62	34.16	5350	-6.4	22.91
1580	-4.91	31.71	5380	-6.55	22.13
2400	-4.8	33.11	5410	-6.38	23.01
2410	-5.2	30.2	5440	-6.4	22.91
2420	-5.33	29.31	5470	-6.26	23.66
2430	-5.37	29.04	5500	-6.19	24.04
2440	-5.18	30.34	5530	-6.9	20.42
2450	-4.95	31.99	5560	-6.41	22.86
2460	-4.95	31.99	5590	-6.23	23.82
2470	-4.61	34.59	5620	-5.91	25.64
2480	-4.62	34.51	5650	-6.06	24.77
2490	-4.62	34.51	5680	-5.77	26.49
2500	-4.79	33.19	5710	-6.22	23.88
5200	-6.85	20.65	5740	-6.51	22.34
5230	-6.92	20.32	5770	-6.26	23.66

5260	-6.56	22.08
5290	-6.4	22.91

5800	-7.08	19.59
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3、Directional diagram

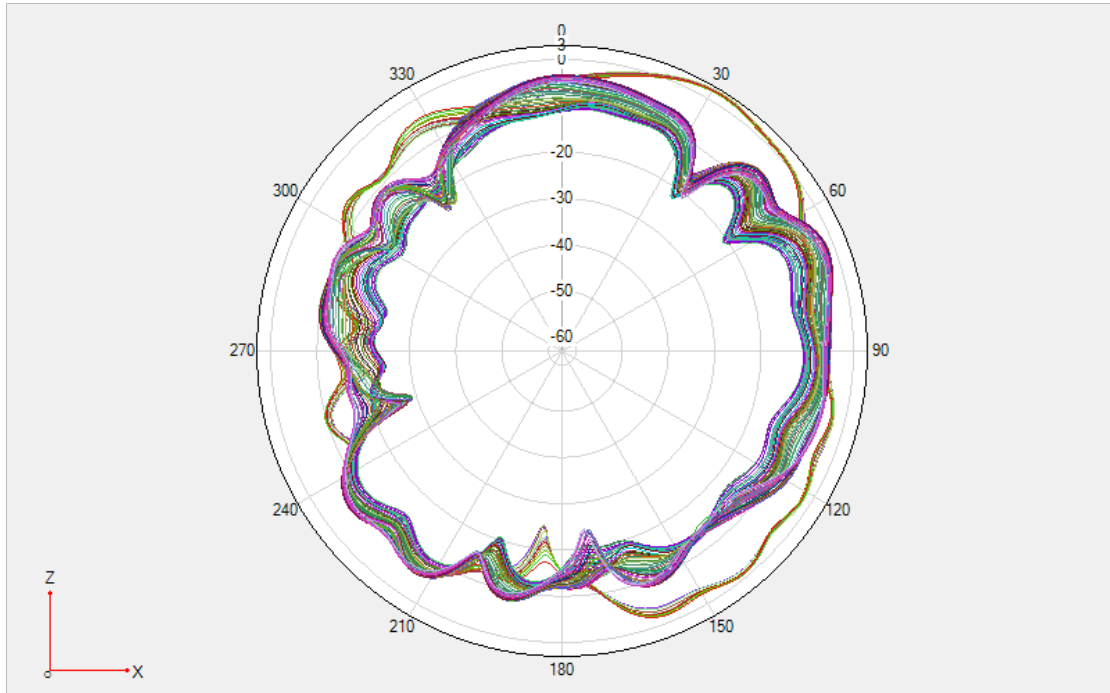


chart4Phi 0 2D

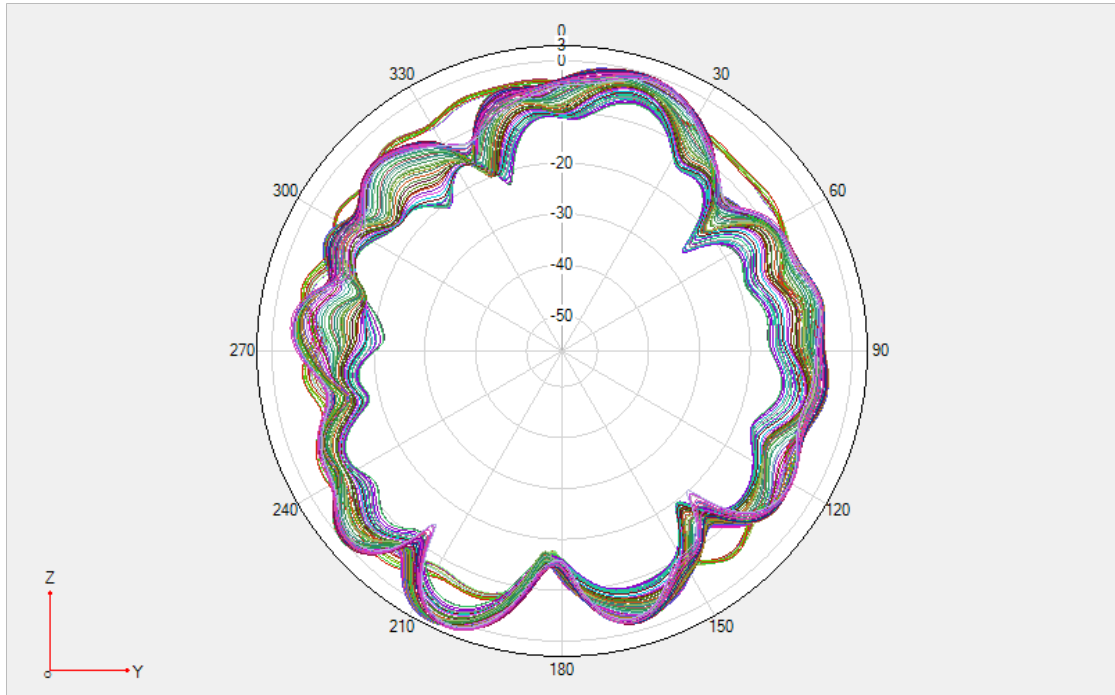


chart5Phi 90 2D

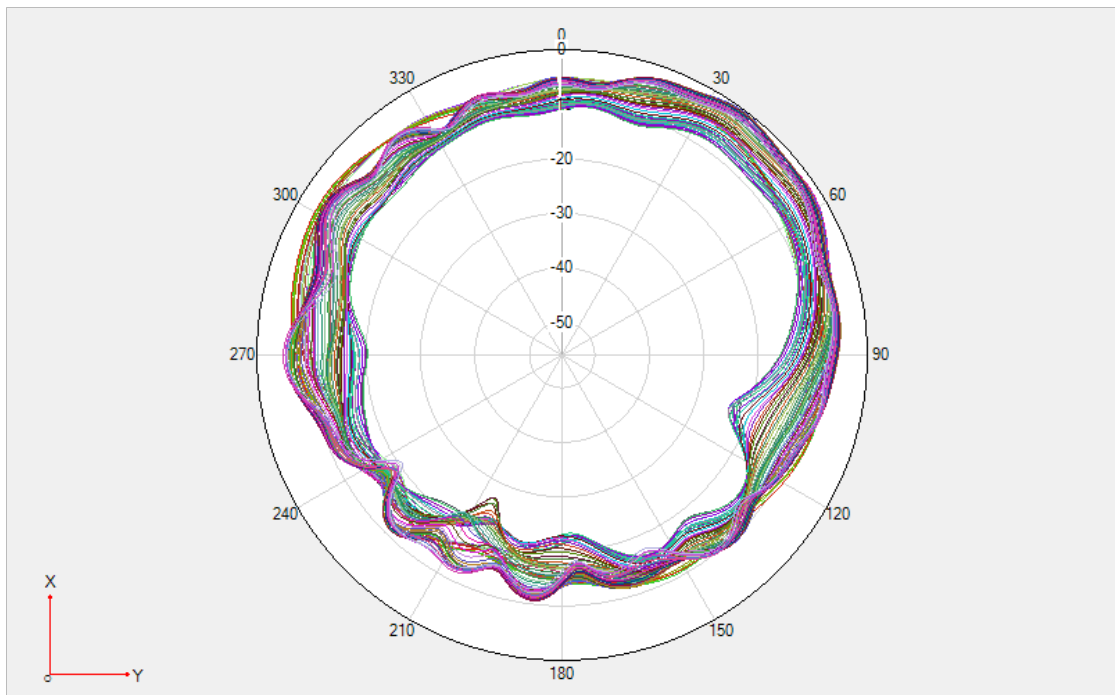


chart6Theta 90 2D

4、 antenna OTA data :

WIFI OTA

Item	Measurement	Band	Channel	Total(dBm)
1	TRP	WIFI_B (11M)	1	12.34
2	TRP	WIFI_B (11M)	6	12.15
3	TRP	WIFI_B (11M)	11	12
4	TIS(EIRP)	WIFI_B (11M)	11	-81.86
13	TRP	WIFI_A (54M)	36	10.61
14	TRP	WIFI_A (54M)	149	9.53
15	TRP	WIFI_A (54M)	165	9.99
16	TIS(EIRP)	WIFI_A (54M)	165	-71.35

GPS OTA

Item	Type	Measurement	UHS(dBm)	PIGS(dBm)	Tis(dBm)
1	Gps	EstimateSensMulSatellite	-138.54	-139.63	-140.38