

1、PERFORMANCE

Specification	Value
Gain (maximum)	GNSS: 5.5dBi
Axial Ratio	$\leq 3\text{dB}$
Impedance	50 ohms Nominal
Type	Dipole
Polarization	GNSS: RHCP LORA: Linear Vertical
Frequency	GNSS: 1.1-1.7G
Weight	$\leq 230\text{g}$
Size	$\Phi 150 \times 27.25\text{mm}$
Antenna Color	Green
Operating Temp	-40°C to +85°C
UL Rating	
Model	Monet_HX-R(NA)_Antenna
Manufacturer	HARXON CORPORATION
Address	Room 501, Han's Laser Technology Centre, Shennan Ave No. 9988 , Nanshan District, Shenzhen, Guangdong Province, China 518057

2、Antenna Picture

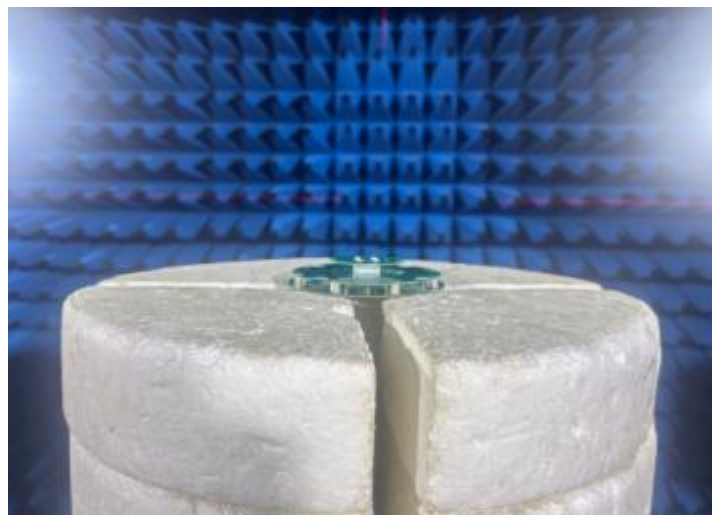


3、Test environment

3.1 Test method

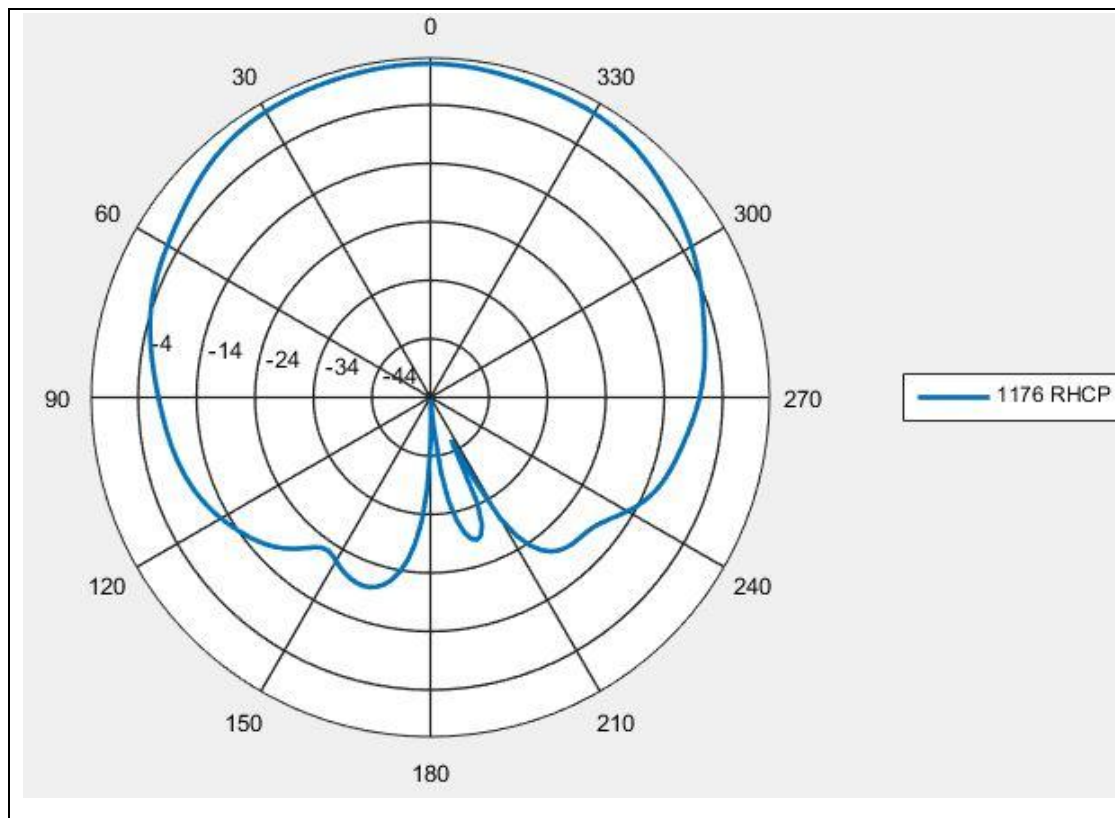
The multi-probe spherical test system utilizes a ring frame and a turntable in conjunction with multiple bipolar probes evenly distributed on the ring frame. This enables rapid acquisition of antenna spherical near-field amplitude and phase information, achieving measurements within an anechoic chamber.

3.2 Measurement Setup

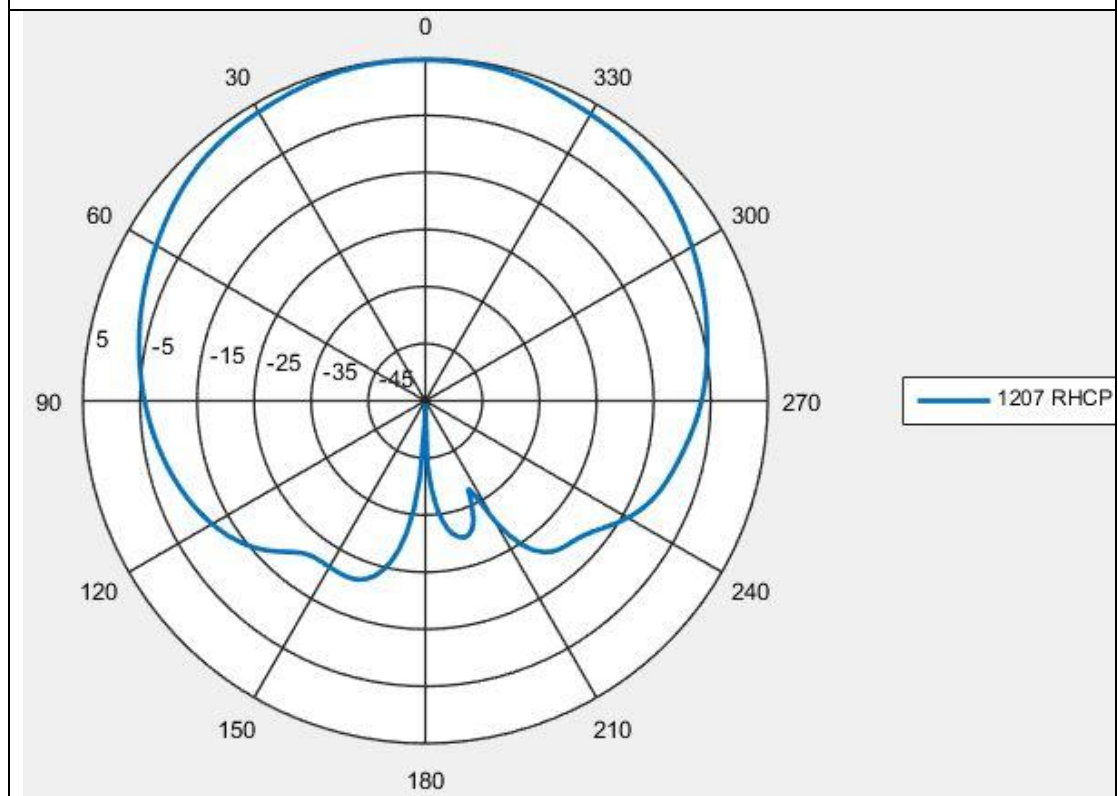


Frequency (MHz)	Gain (dBi)	Vertex axis ratio (dB)
1164	3.63	1.74
1176	5.16	1.37
1207	5.64	0.87
1227	5.50	0.51
1246	4.36	0.65
1258	2.12	2.00
1268	3.39	1.65
1278	4.72	0.99
1525	5.40	0.46
1561	5.20	0.12
1575	4.82	0.70
1602	4.17	0.97

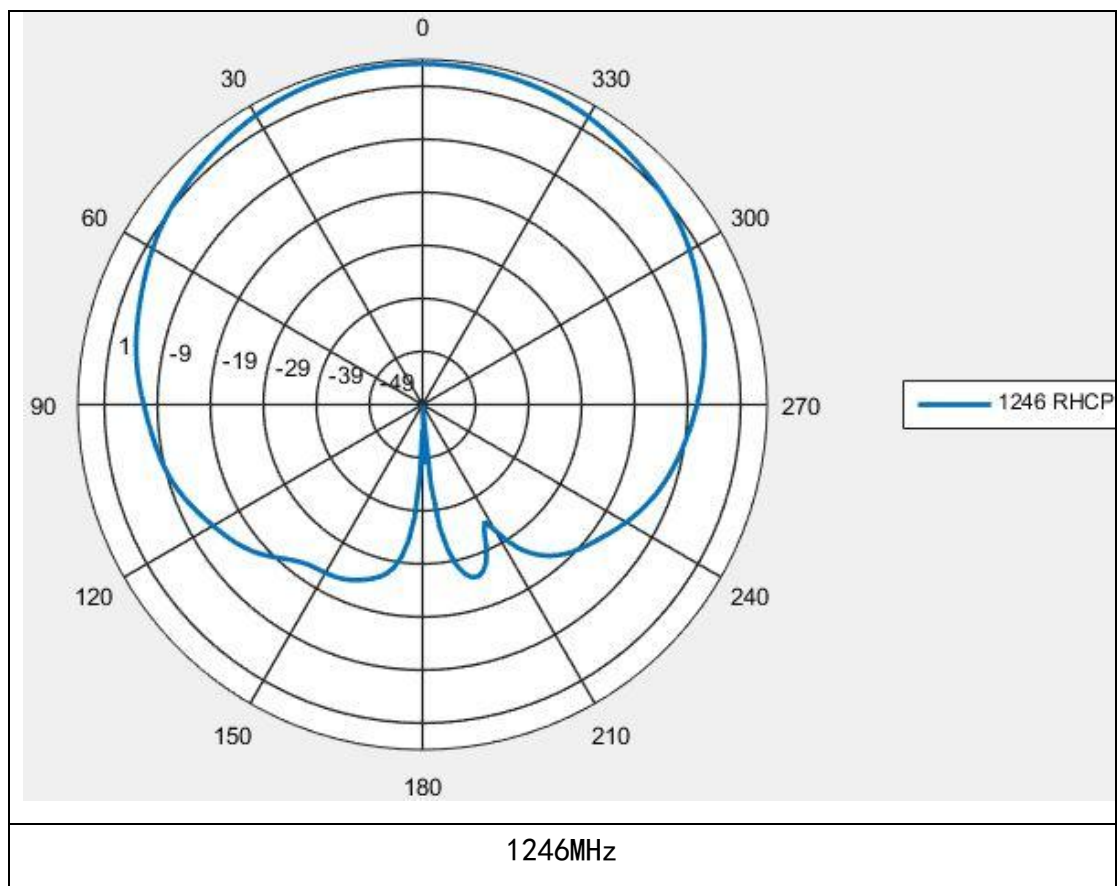
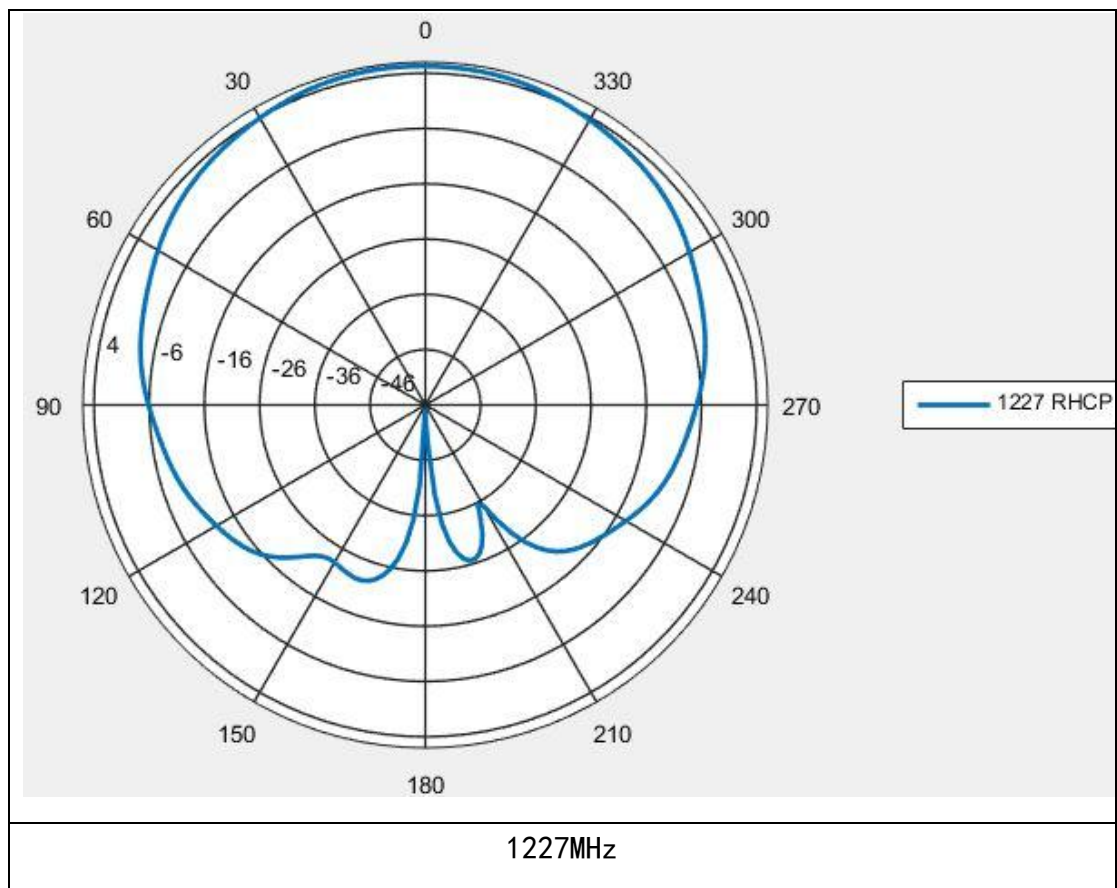
5.2 GNSS Radiation Characteristics

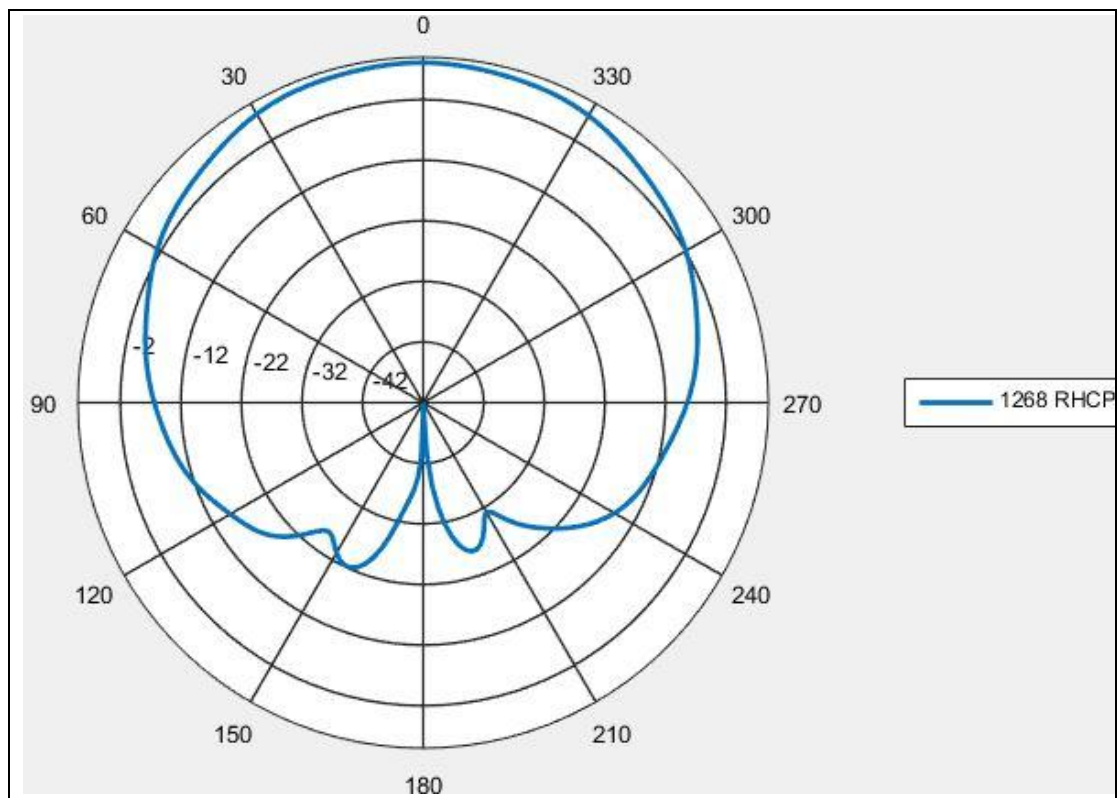


1176MHz

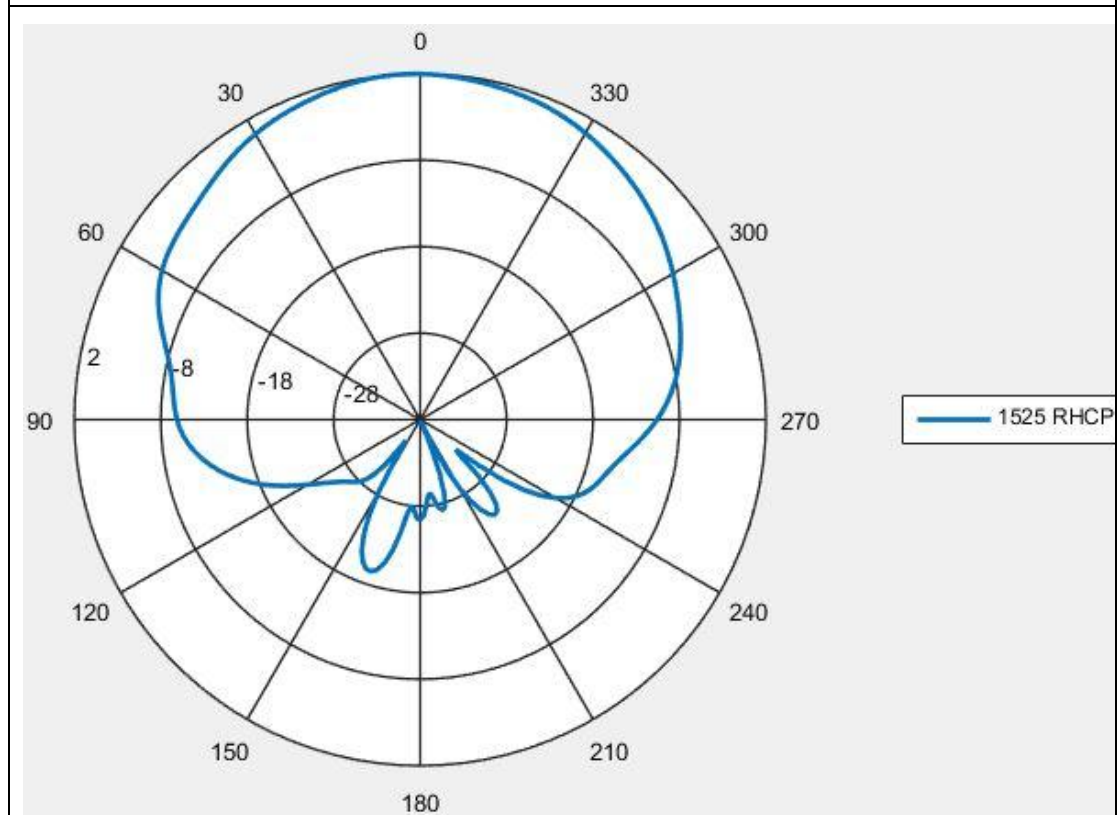


1207MHz

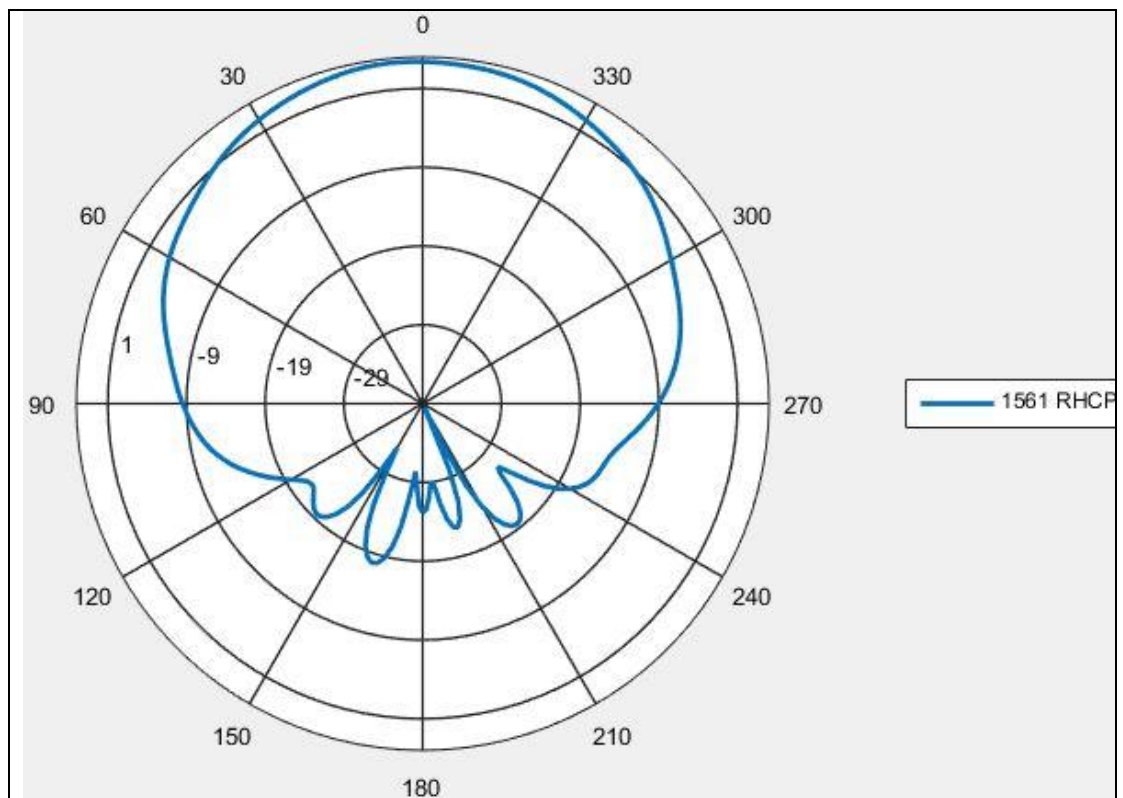




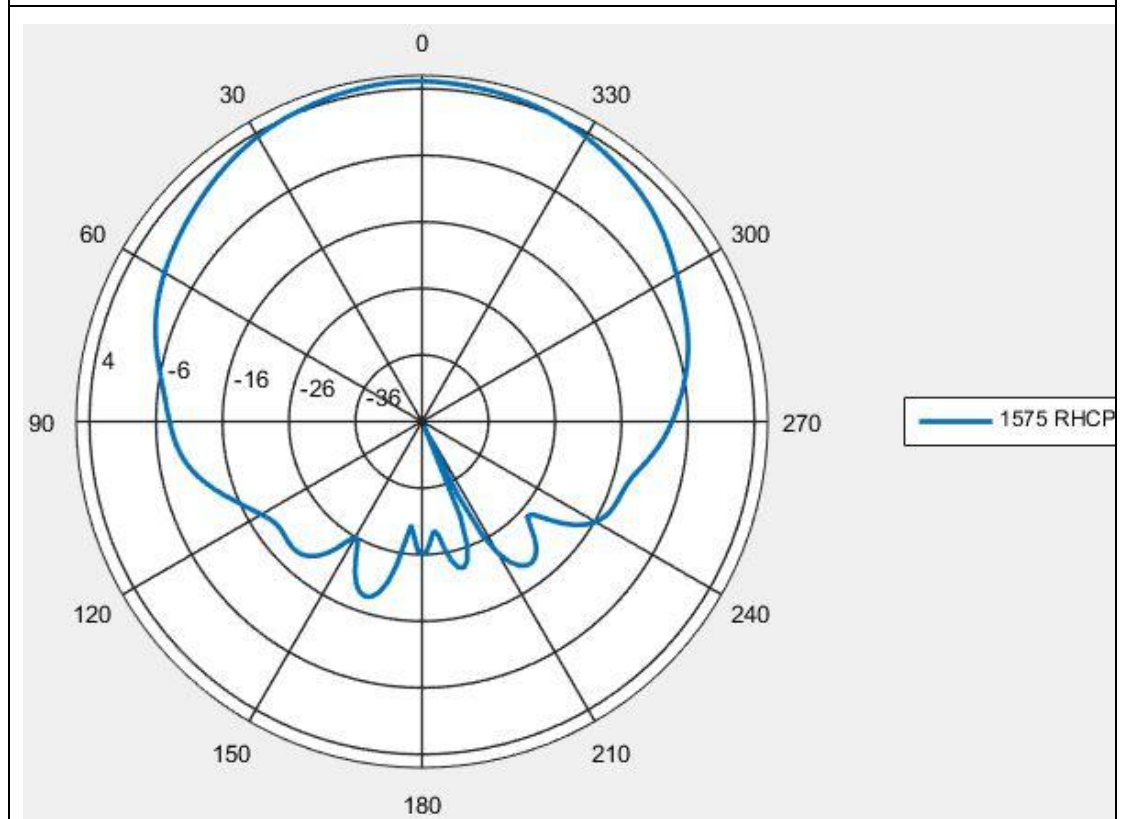
1268MHz



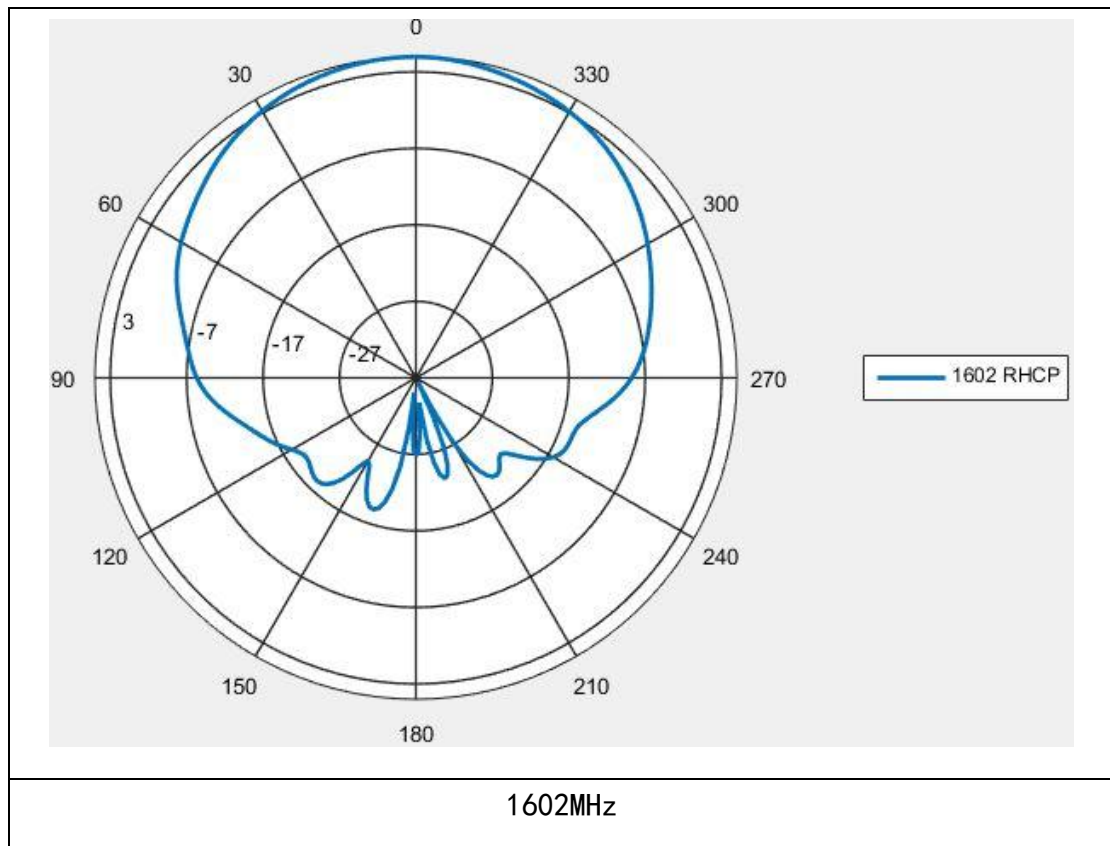
1525MHz



1561MHz



1575MHz

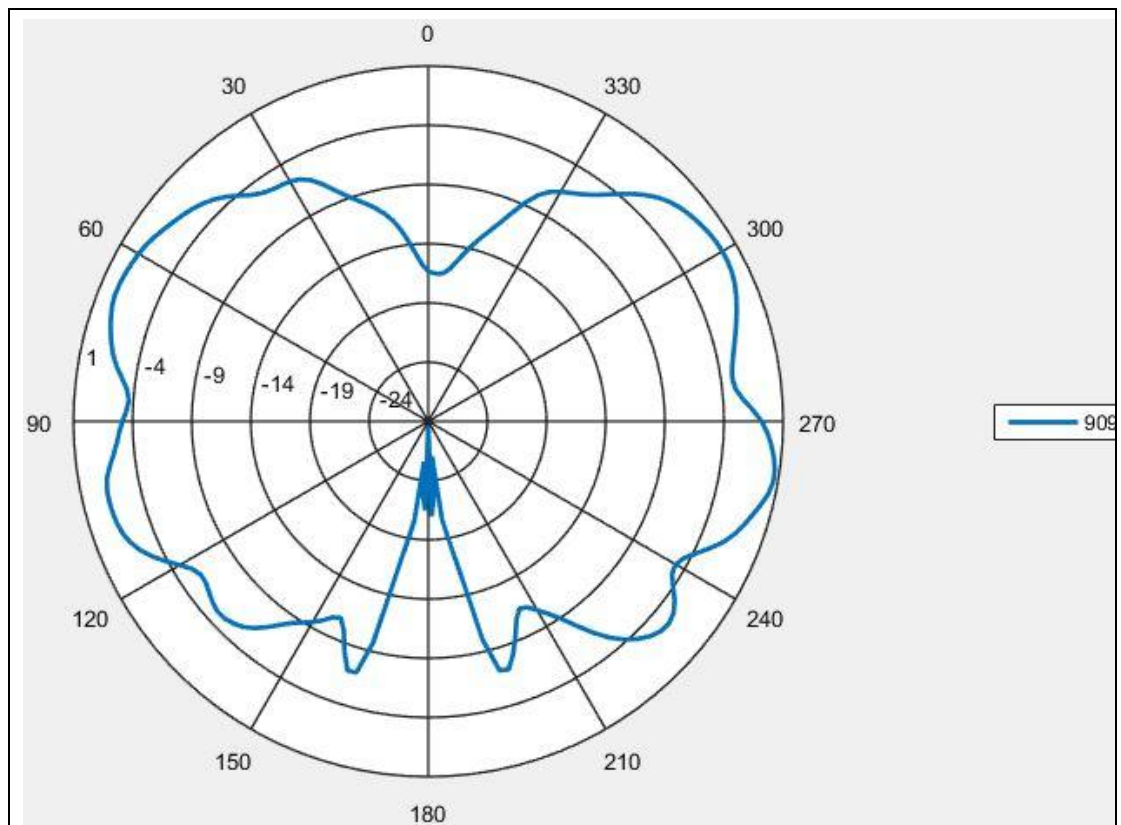


5.3 LORA Antenna characteristics

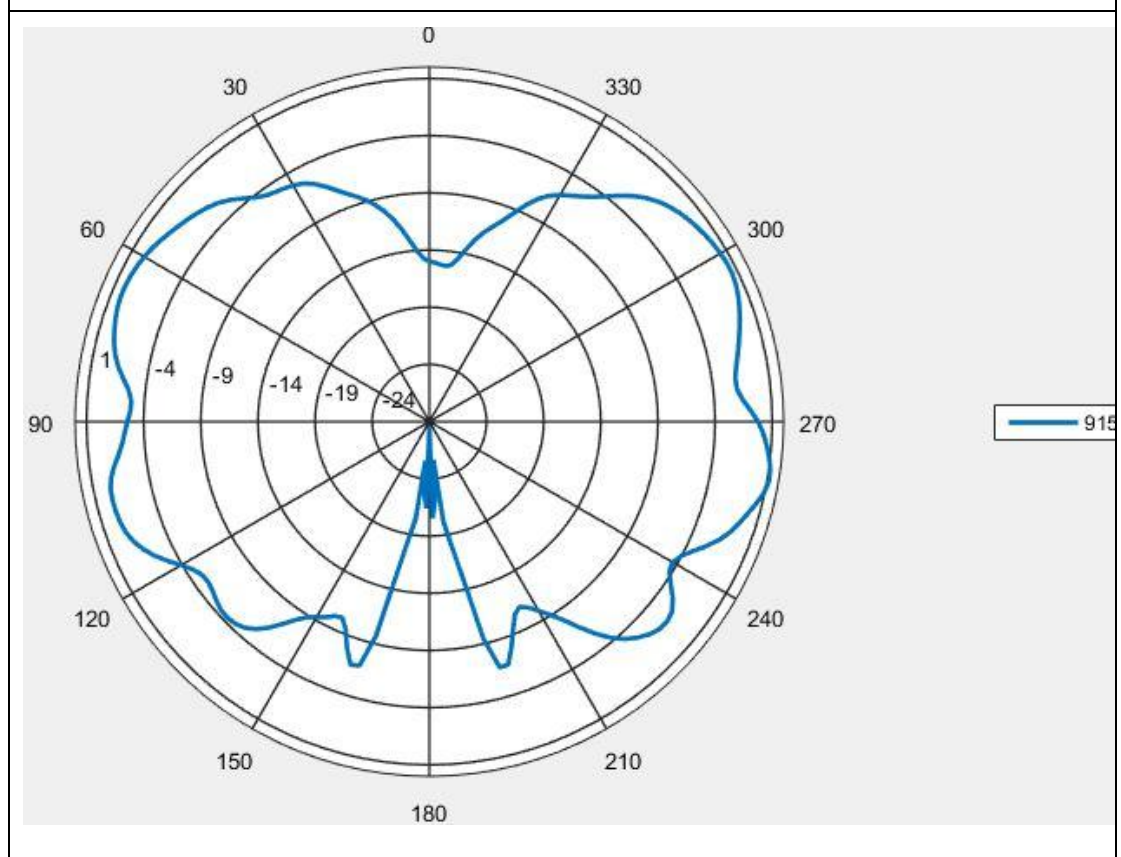
5.3.1 LORA Antenna radiation parameters:

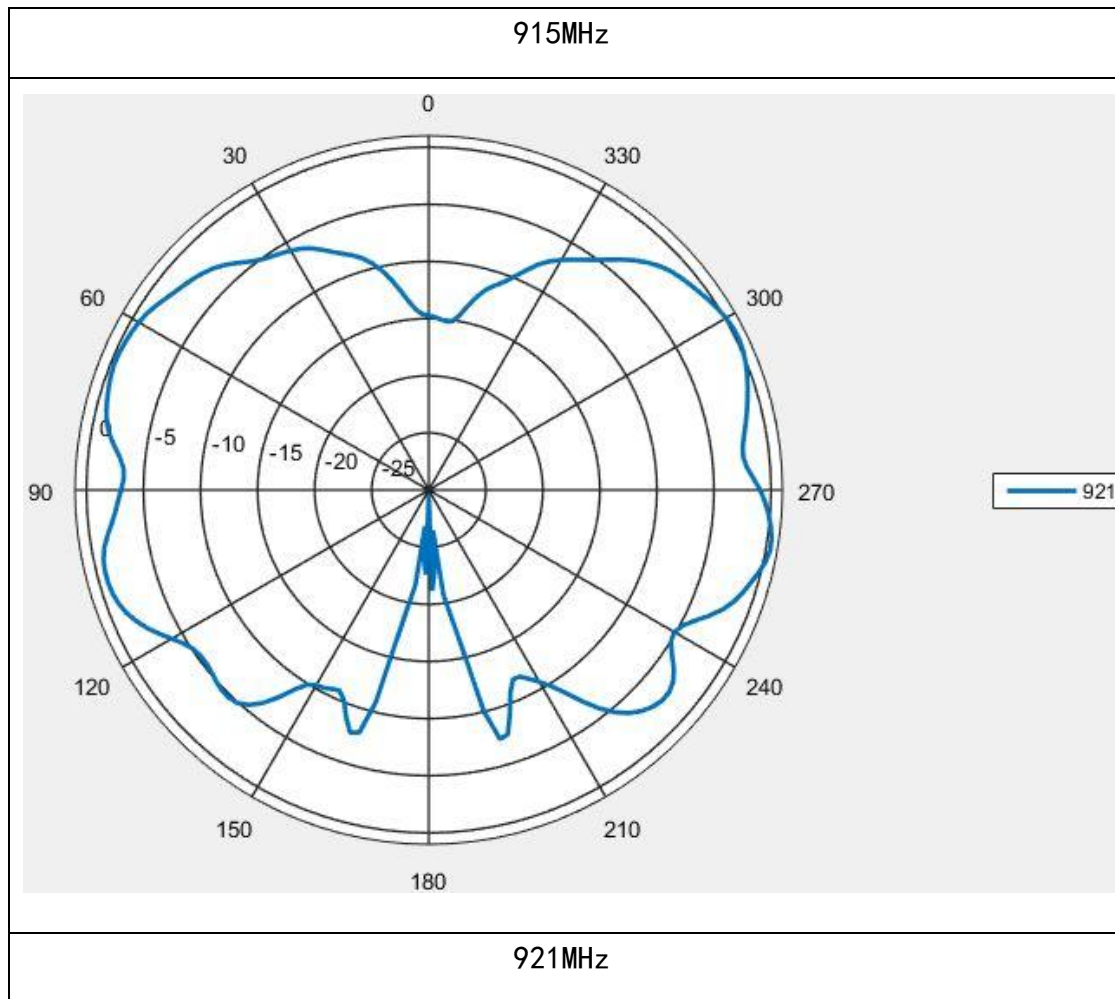
Frequency (MHz)	Gain (dBi)	Efficiency (%)
902	-0.21	46.41
904	0.04	49.11
906	0.36	52.64
908	0.57	55.34
910	0.72	57.17
912	0.77	57.74
914	0.78	57.70
916	0.80	57.63
918	0.64	55.45
920	0.37	52.28
922	0.09	49.10
924	-0.20	45.93
926	-0.56	42.72
928	-0.98	38.86

5.3.2 LORA Antenna pattern:



909MHz





5.4 4G Antenna characteristics

5.4.1 4G Main Antenna radiation parameters

Frequency (MHz)	Gain (dBi)	Efficiency (%)
700	-3.21	15.48
710	-3.16	17.42
720	-2.92	18.72
730	-2.50	19.67
740	-2.27	19.77
750	-1.78	21.05
760	-1.25	23.03
770	-0.77	26.99
780	-0.23	30.86
790	0.79	37.34
800	1.63	43.63
810	2.14	49.55

820	2.54	57.13
830	2.55	61.91
840	2.35	65.31
850	1.95	61.37
860	2.41	63.19
870	2.44	66.53
880	2.36	69.58
890	2.44	70.39
900	2.13	65.53
910	1.53	59.68
920	0.91	51.81
930	0.59	46.19
940	0.51	41.86
950	0.04	36.88
960	-0.83	32.04
1710	0.20	32.24
1730	0.78	35.25
1750	0.95	38.01
1770	0.96	38.71
1790	0.48	38.77
1810	0.88	41.04
1830	0.97	45.93
1850	1.23	47.92
1870	1.42	50.46
1890	0.81	42.64
1910	-0.28	35.65
1930	-0.73	33.47
1950	-1.20	29.62
1970	-1.88	22.45
1990	-2.21	21.06
2010	-2.01	22.21
2030	-0.51	26.81
2050	0.65	28.86
2070	0.71	30.17
2090	0.63	35.32
2110	-0.36	34.02
2130	-1.31	28.65

2150	-1.28	25.98
2170	-1.38	24.75
2190	-1.86	22.51
2210	-2.51	19.65
2230	-3.35	16.75
2250	-3.71	15.53
2270	-3.43	15.67
2290	-3.76	14.61
2310	-4.52	13.16
2330	-4.97	12.42
2350	-5.21	12.26
2370	-4.70	12.36
2390	-5.10	10.57
2410	-5.12	10.39
2430	-4.89	10.94
2450	-4.26	13.32
2470	-3.56	17.08
2490	-3.15	19.65
2510	-2.21	22.08
2530	-0.95	28.33
2550	0.44	37.65
2570	1.69	45.90
2590	2.26	47.95
2610	2.60	47.03
2630	2.60	46.15
2650	2.76	44.23
2670	2.48	40.76
2690	2.08	36.96

5.4.2 4G Sub Antenna radiation parameters

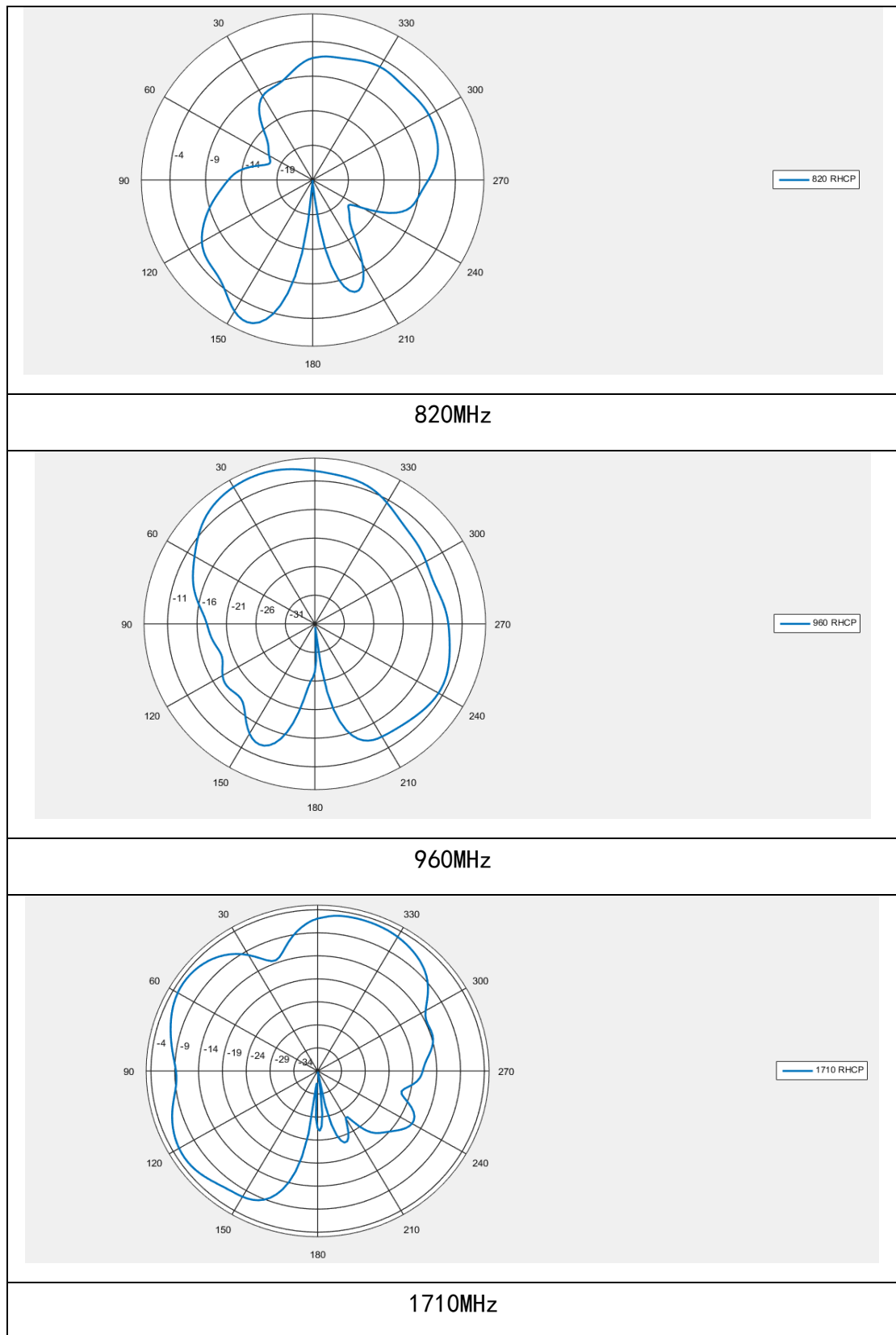
Frequency (MHz)	Gain (dBi)	Efficiency (%)
700	-4.23	13.23
710	-3.83	15.09
720	-3.66	15.70
730	-3.45	16.52
740	-3.40	17.53

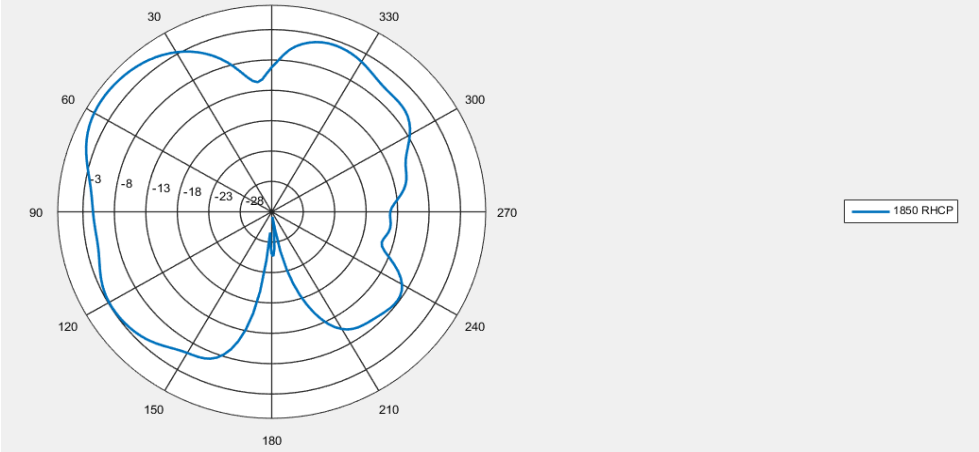
750	-3.83	16.87
760	-3.98	16.83
770	-4.37	17.22
780	-3.22	21.96
790	-1.27	26.93
800	0.51	35.30
810	1.50	43.24
820	2.34	54.65
830	2.71	61.91
840	2.69	65.22
850	2.31	65.35
860	2.45	65.94
870	2.84	69.66
880	2.92	72.01
890	2.86	73.35
900	2.68	70.98
910	2.25	63.01
920	1.90	56.24
930	1.30	47.32
940	1.12	45.88
950	0.50	41.79
960	-0.78	34.45
1710	-1.06	30.13
1730	-0.75	31.75
1750	-0.69	33.02
1770	-0.39	33.85
1790	0.91	38.25
1810	1.99	45.58
1830	2.58	47.91
1850	2.09	45.26
1870	1.33	45.96
1890	0.89	42.97
1910	0.51	41.81
1930	0.62	43.79
1950	0.17	40.89
1970	-0.58	33.28
1990	-0.70	29.64

2010	-0.88	25.76
2030	-0.30	28.78
2050	-0.34	30.64
2070	-1.74	27.91
2090	-1.05	27.26
2110	0.19	34.58
2130	0.85	40.46
2150	0.60	39.23
2170	0.48	38.16
2190	0.54	37.01
2210	-0.09	32.20
2230	-0.76	27.66
2250	-1.83	23.39
2270	-1.85	23.90
2290	-2.09	21.42
2310	-2.79	18.92
2330	-3.30	16.57
2350	-3.96	15.25
2370	-4.04	15.13
2390	-4.48	13.22
2410	-4.83	11.45
2430	-5.19	10.74
2450	-5.07	10.90
2470	-4.55	12.78
2490	-3.85	15.12
2510	-3.90	15.13
2530	-3.59	15.81
2550	-2.14	19.27
2570	-0.03	25.17
2590	1.83	32.94
2610	2.50	35.97
2630	2.04	32.77
2650	1.44	27.85
2670	0.93	24.16
2690	0.33	22.35

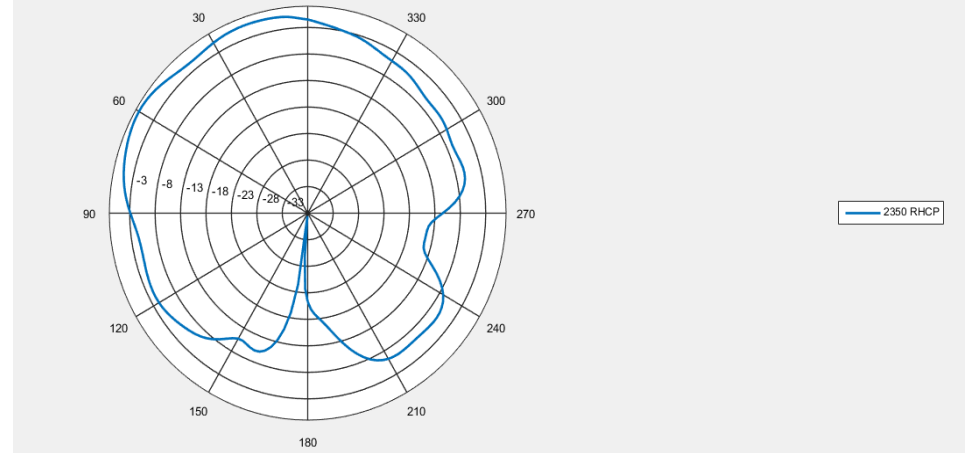
5.5 4G Antenna pattern

5.5.1 4G Main Antenna pattern:

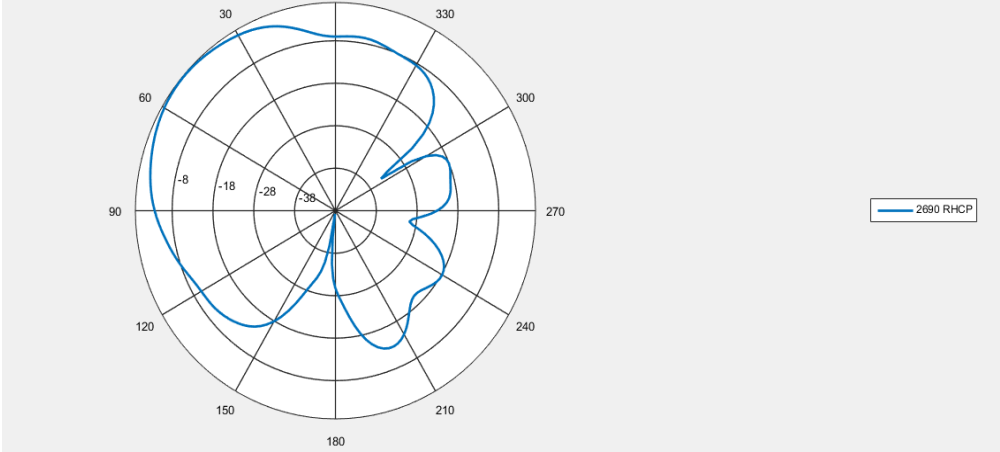




1850MHz

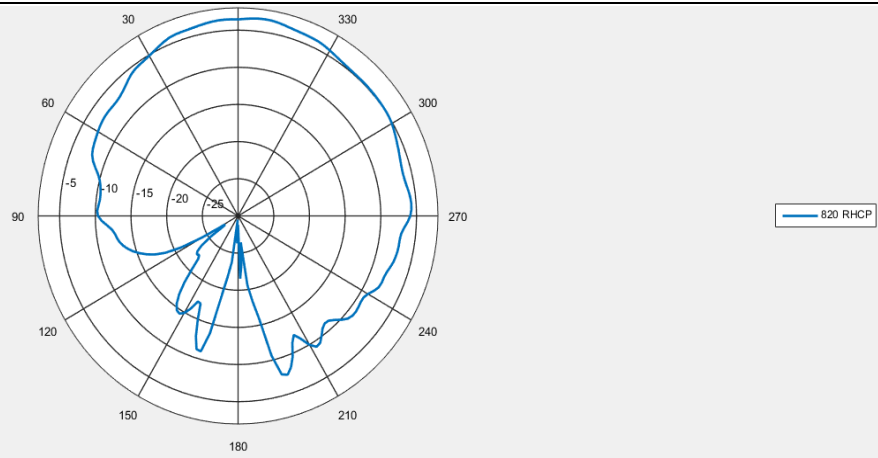


2350MHz

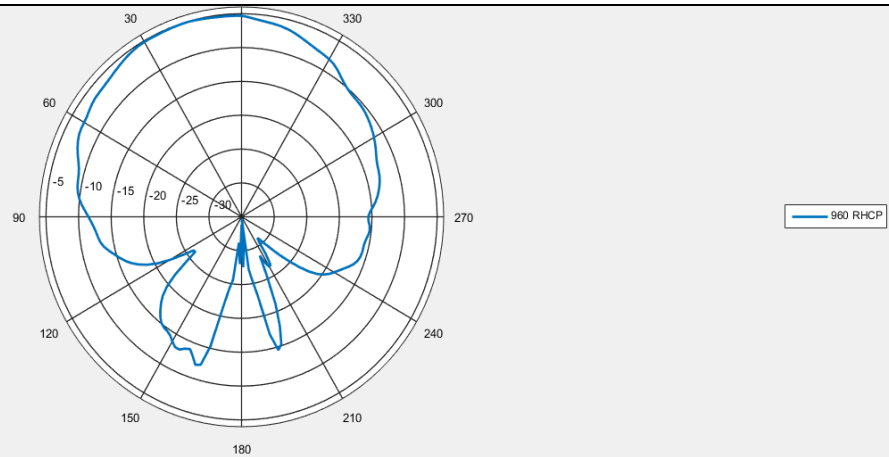


2690MHz

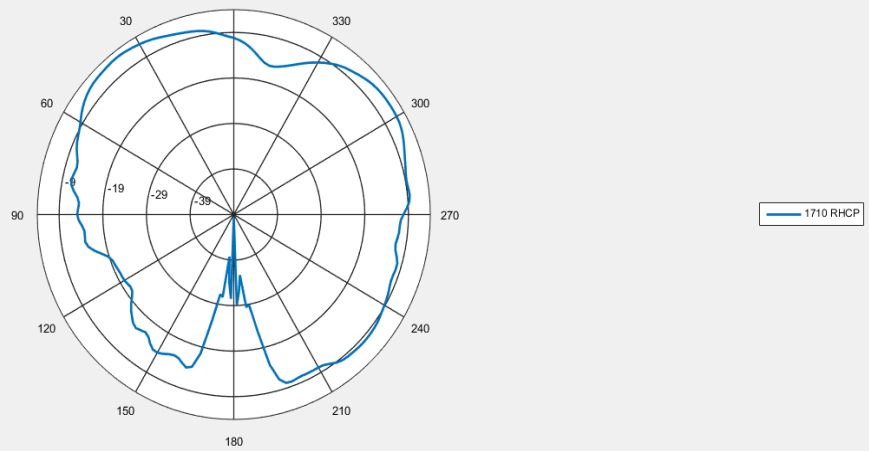
5.5.2 4G Sub Antenna pattern:



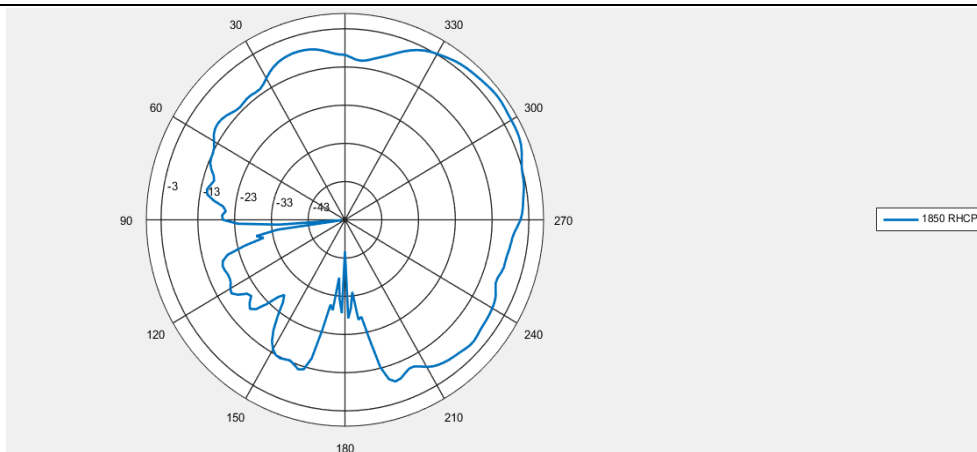
820MH



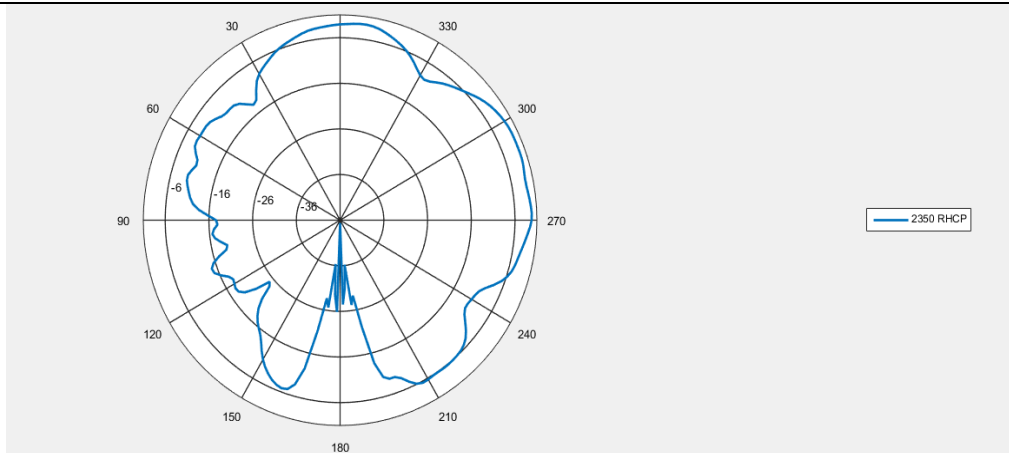
960MHz



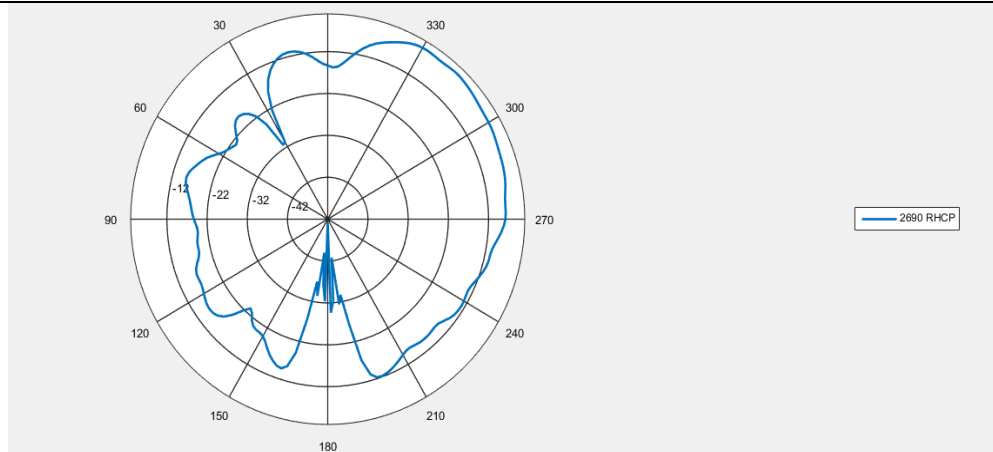
1710MHz



1850MHz



2350MHz



2690MHz