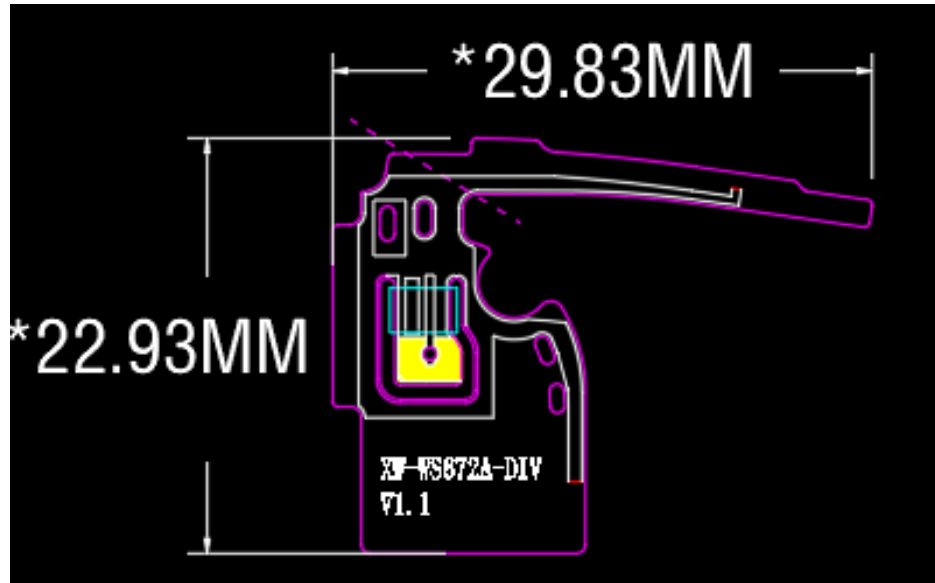
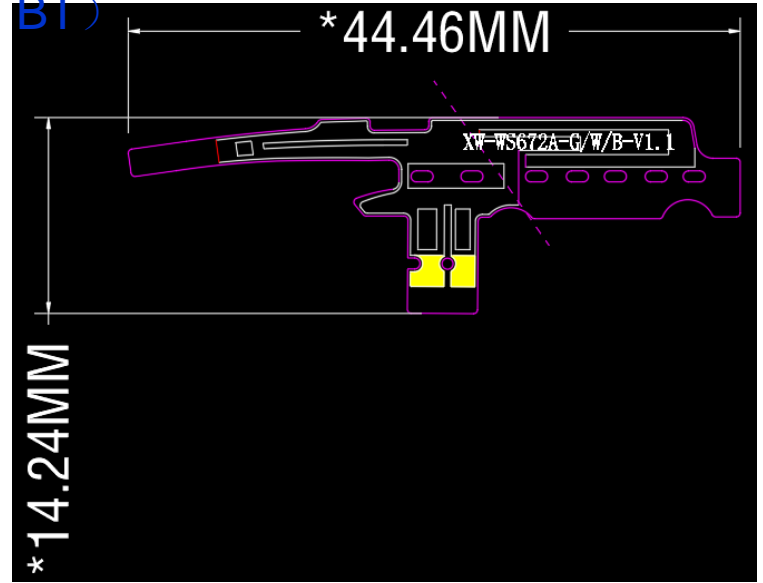


# Project: WS672A The beautiful version

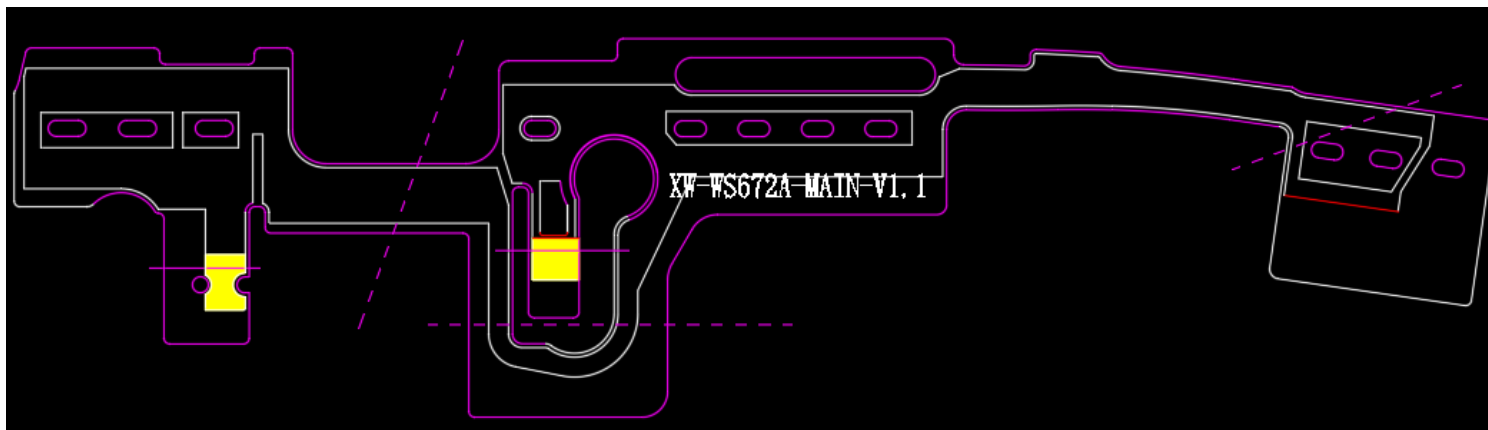
diversity antenna



three-in-one antenna (GPS/WIFI/BT)



main antenna



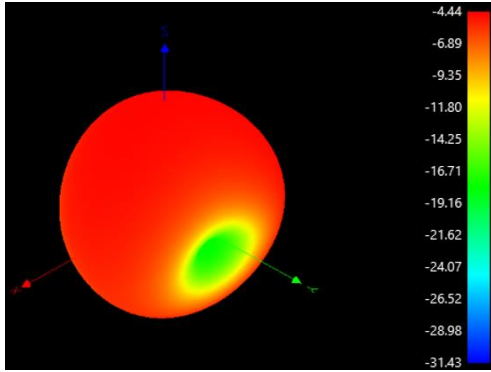
**Passive Test For 600-900MHZ (main antenna)**

<b>Freq (MHz)</b>	<b>Effi (%)</b>	<b>Effi (dB)</b>	<b>Gain (dBi)</b>	<b>Gain (dBd)</b>	<b>Max (dB)</b>	<b>Min (dB)</b>	<b>Directivity (dBi)</b>
650	14.07	-8.52	-4.01	-6.51	-4.96	-18.78	4.51
660	13.15	-8.81	-3.62	-6.12	-4.87	-17.95	5.19
670	12.23	-9.13	-4.44	-6.94	-5.43	-18.62	4.69
680	11.27	-9.48	-4.7	-7.2	-6.36	-19.6	4.78
690	14.92	-8.26	-2.62	-5.12	-4.43	-19.15	5.64
700	18.91	-7.23	-1.06	-3.56	-2.58	-18.4	6.17
710	18.82	-7.25	-1.97	-4.47	-3.11	-20.07	5.28
720	20.3	-6.92	-1.83	-4.33	-3.17	-20.04	5.09
730	24.15	-6.17	-1.3	-3.8	-2.5	-19.34	4.87
740	26.3	-5.8	-0.62	-3.12	-2.14	-17.98	5.18
750	21.87	-6.6	-1.13	-3.63	-2.33	-17.56	5.47
760	20.76	-6.83	-0.93	-3.43	-1.92	-17.43	5.9
770	19.4	-7.12	-1.43	-3.93	-2.49	-19.28	5.69
780	17.25	-7.63	-1.81	-4.31	-3.59	-19.3	5.82

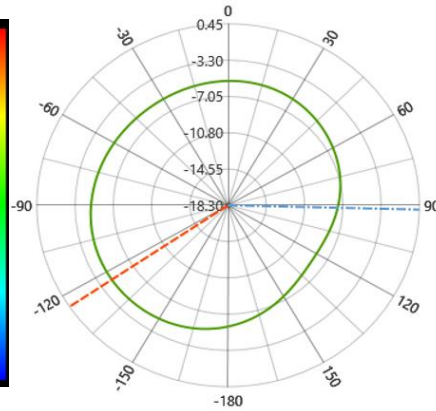
790	17.26	-7.63	-1.3	-3.8	-2.6	-16.85	6.33
810	16.23	-7.9	-3.73	-6.23	-4.52	-20.55	4.17
820	22.54	-6.47	-0.32	-2.82	-3.46	-24.2	6.15
830	20.96	-6.79	-2.28	-4.78	-3.07	-18.07	4.51
840	22.79	-6.42	-1.86	-4.36	-3.03	-17	4.56
850	23.36	-6.32	-0.87	-3.37	-2.47	-13.93	5.45
860	21.11	-6.75	-2.34	-4.84	-3.21	-17	4.41
870	18.73	-7.27	-2.74	-5.24	-3.56	-17.11	4.53
880	15.8	-8.01	-3.44	-5.94	-4.15	-16.73	4.57
890	17.75	-7.51	-3.11	-5.61	-3.18	-16.67	4.4
900	20.99	-6.78	-2.15	-4.65	-2.2	-15.7	4.63
910	24.33	-6.14	-1.81	-4.31	-2.09	-14.55	4.33
920	25.67	-5.91	-1.81	-4.31	-2.02	-14.62	4.1
930	23.61	-6.27	-2.34	-4.84	-2.38	-14.61	3.93
940	20.22	-6.94	-3.05	-5.55	-3.16	-15.54	3.89
950	16.09	-7.93	-4.11	-6.61	-4.61	-16.66	3.82
960	12.69	-8.97	-5.08	-7.58	-5.57	-18.3	3.89

# Main antenna 600-960MHz (3D/H/E1/E2) :

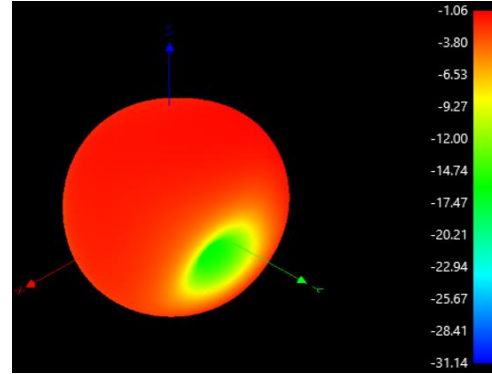
670.000Mhz



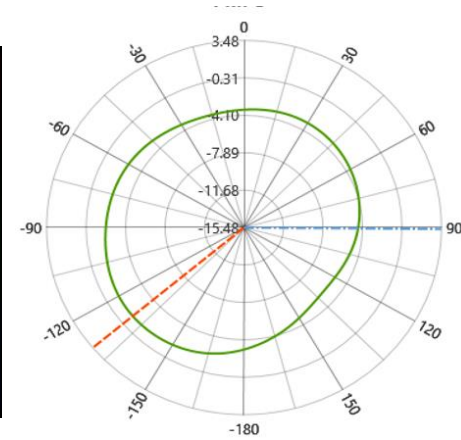
670.000Mhz H



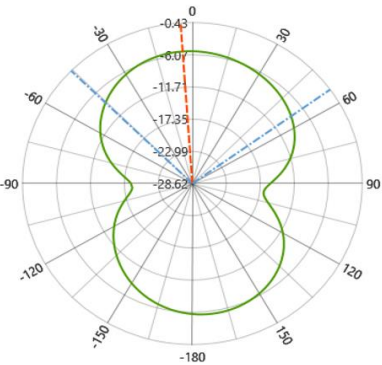
700.000Mhz



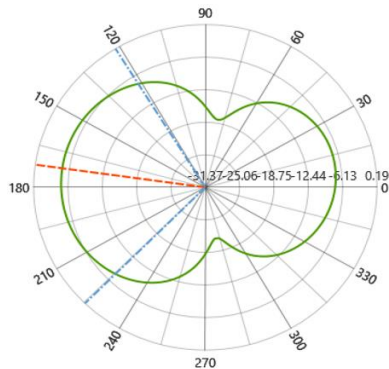
700.000Mhz H



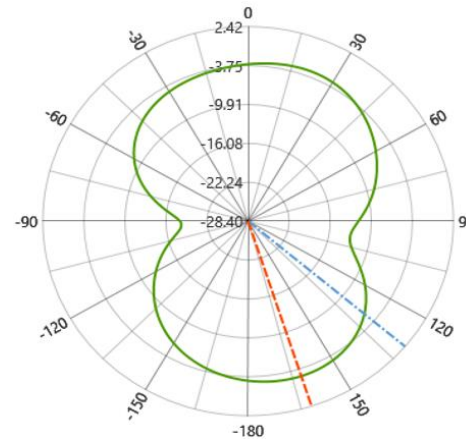
670.000Mhz E1



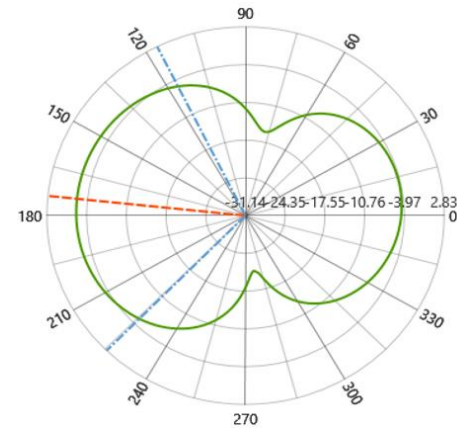
670.000Mhz E2



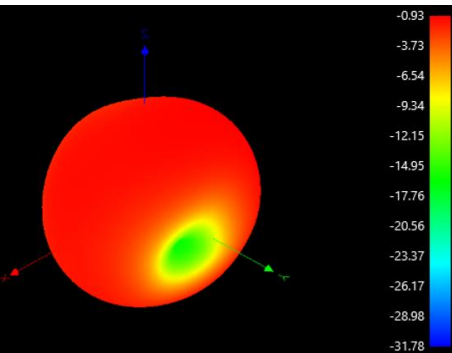
700.000Mhz E1



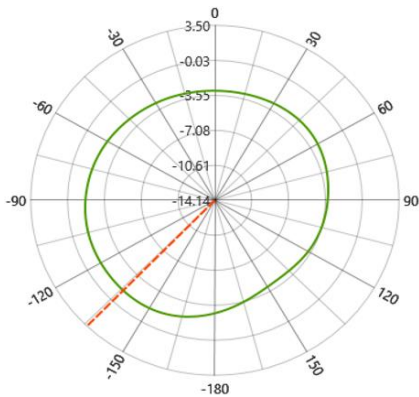
700.000Mhz E2



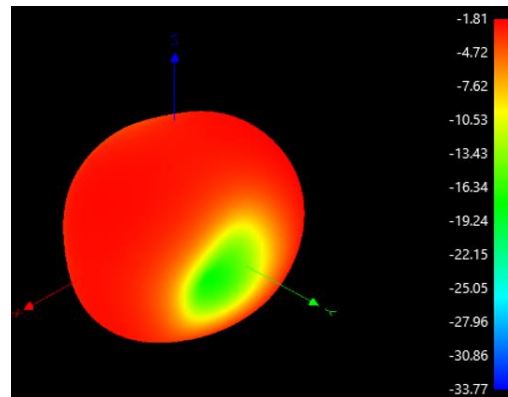
760.000Mhz



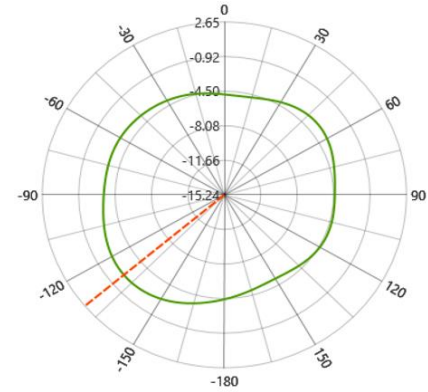
760.000Mhz H



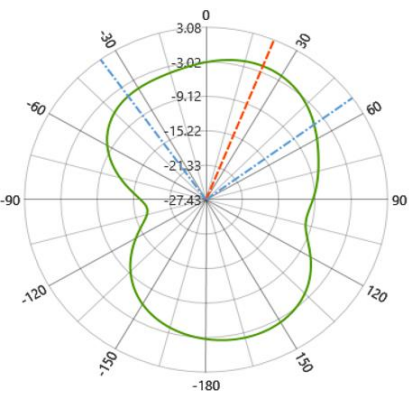
780.000Mhz



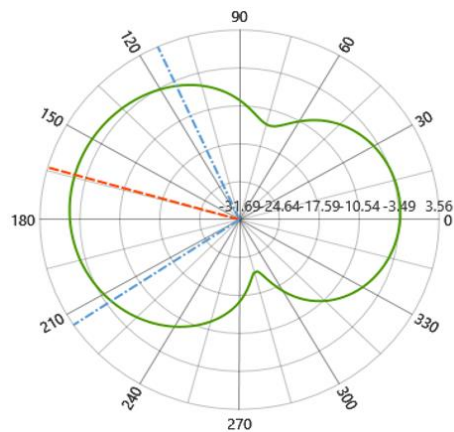
780.000Mhz H



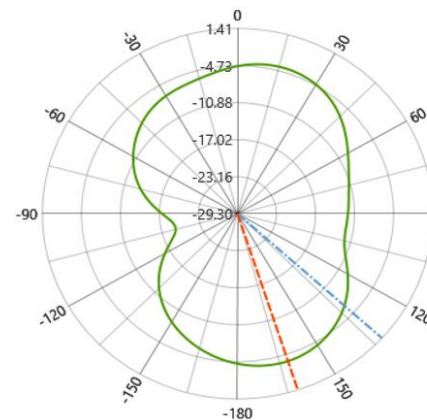
760.000Mhz E1



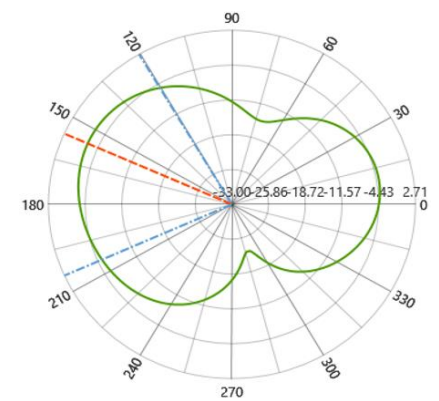
760.000Mhz E2



780.000Mhz E1

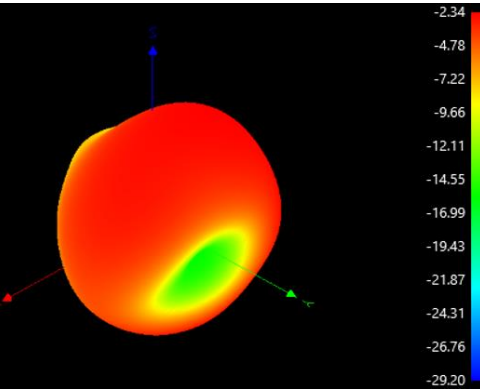


780.000Mhz E2

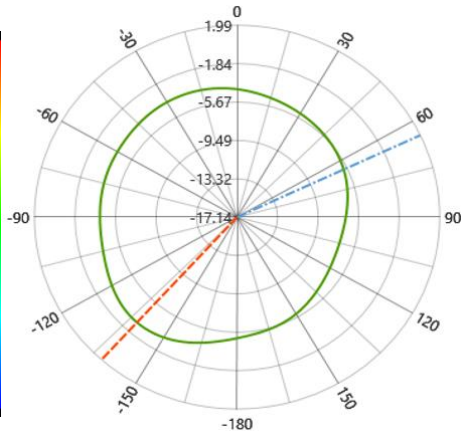




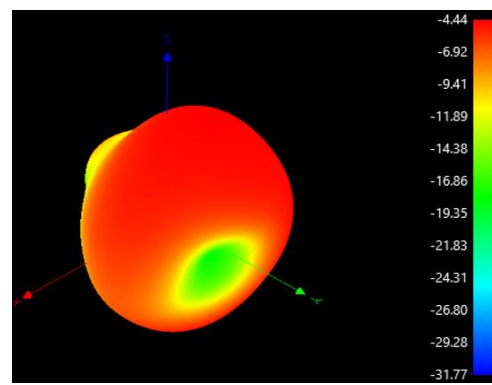
850.000Mhz



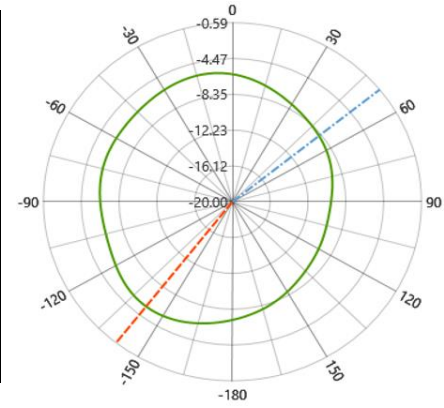
850.000Mhz H



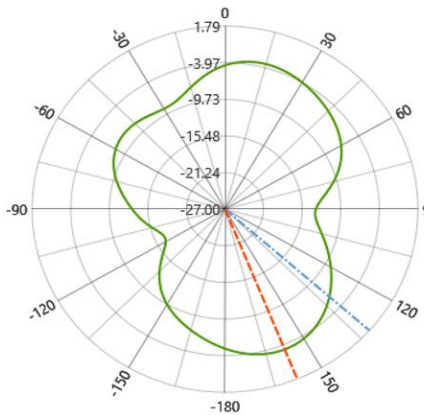
880.000Mhz



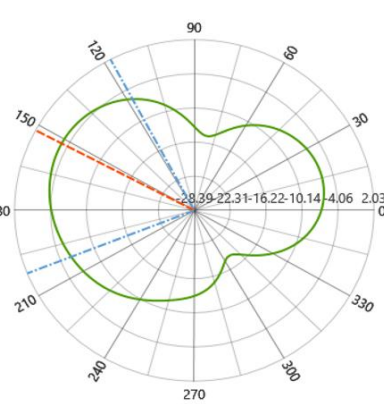
880.000Mhz H



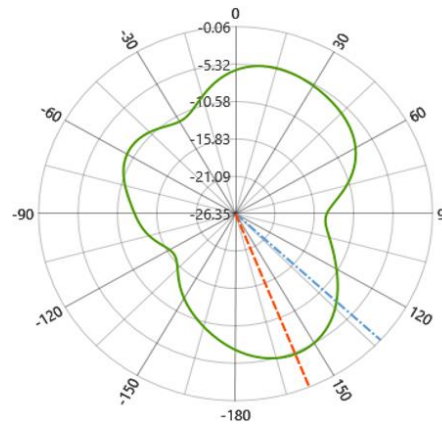
850.000Mhz E1



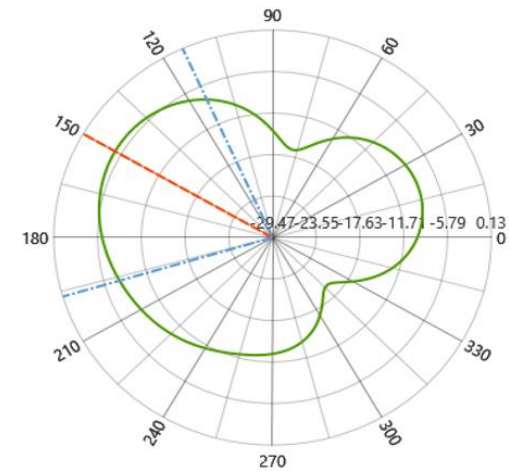
850.000Mhz E2



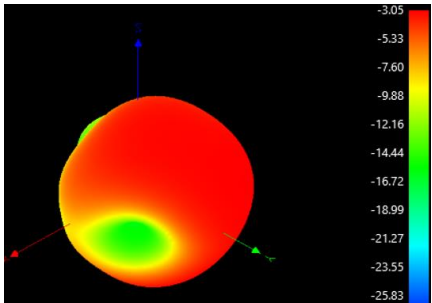
880.000Mhz E1



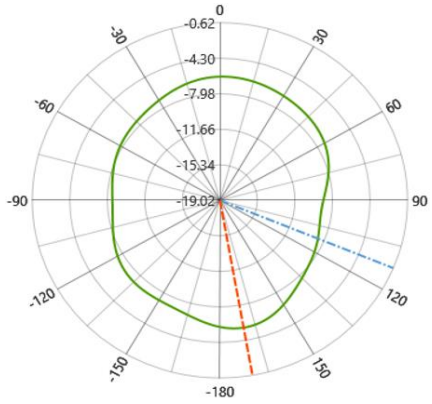
880.000Mhz E2



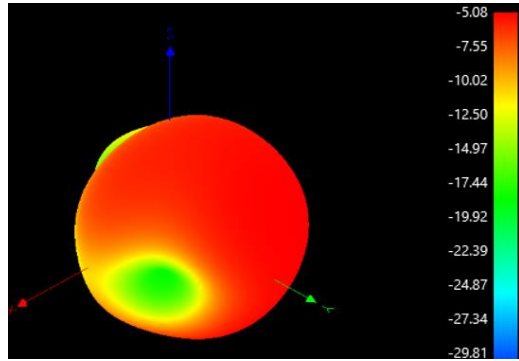
940.000Mhz



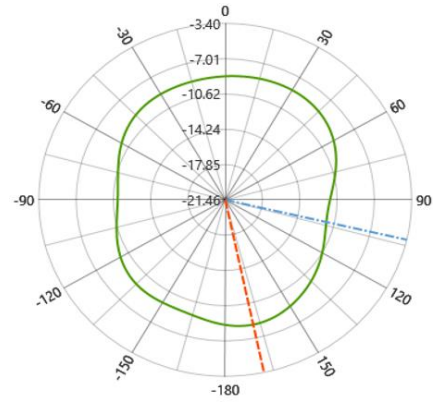
940.000Mhz H



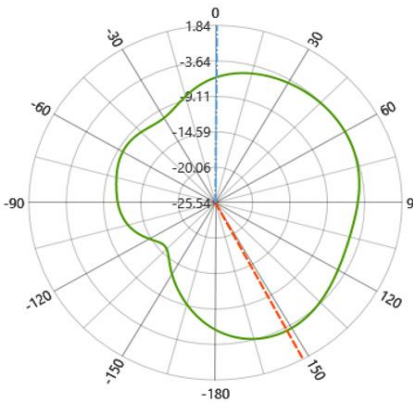
960.000Mhz



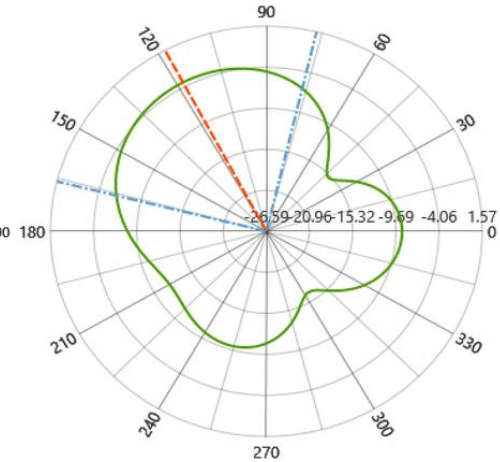
960.000Mhz H



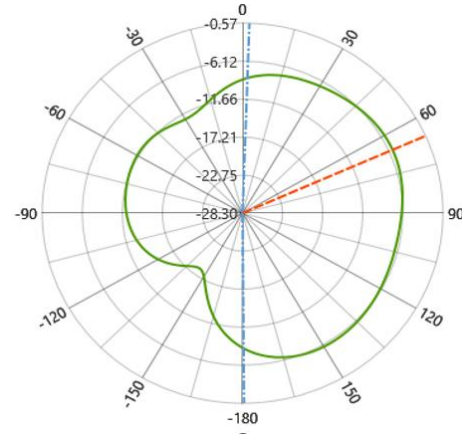
940.000Mhz E1



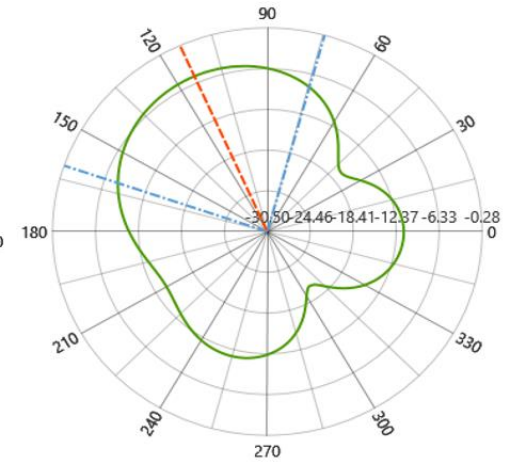
940.000Mhz E2



960.000Mhz E1



960.000Mhz E2



**Passive Test For 1710-2690 (diversity antenna)**

<b>Freq (MHz)</b>	<b>Effi (%)</b>	<b>Effi (dB)</b>	<b>Gain (dBi)</b>	<b>Gain (dBd)</b>	<b>Max (dB)</b>	<b>Min (dB)</b>	<b>Directivity (dBi)</b>
1710	27.2	-5.65	0.68	-1.82	-1.85	-10.74	6.33
1720	28.31	-5.48	0.92	-1.58	-1.61	-10.39	6.4
1730	27.84	-5.55	1.05	-1.45	-1.65	-10.76	6.6
1740	27.94	-5.54	0.8	-1.7	-1.38	-10.75	6.34
1750	28.11	-5.51	0.69	-1.81	-1.29	-10.86	6.2
1760	27.41	-5.62	0.22	-2.28	-1.31	-10.57	5.84
1770	27.61	-5.59	0.18	-2.32	-1.6	-10.68	5.77
1780	27.08	-5.67	0.2	-2.3	-1.89	-10.92	5.87
1790	25.44	-5.94	0.18	-2.32	-2.39	-11.11	6.12
1800	24.53	-6.1	-0.34	-2.84	-2.13	-10.77	5.76
1810	24.64	-6.08	-0.37	-2.87	-2.38	-10.48	5.71
1820	24.74	-6.07	-0.04	-2.54	-2.79	-10.31	6.03
1830	22.95	-6.39	-0.25	-2.75	-3.64	-10.47	6.14
1840	22.37	-6.5	-0.31	-2.81	-3.48	-11.1	6.19



1850	22.55	-6.47	-0.55	-3.05	-3.33	-11.39	5.92
1860	23.01	-6.38	-0.16	-2.66	-4.03	-11.5	6.22
1870	21.44	-6.69	-0.34	-2.84	-4.62	-12.33	6.35
1880	22.02	-6.57	-0.16	-2.66	-4.63	-12.68	6.41
1890	23.02	-6.38	0.23	-2.27	-4.6	-13.15	6.61
1900	22.41	-6.5	0.18	-2.32	-5.21	-13.58	6.68
1910	22.11	-6.55	-0.03	-2.53	-4.83	-13.66	6.52
1920	23.01	-6.38	0.37	-2.13	-4.88	-13.89	6.75
1930	22.46	-6.49	0.58	-1.92	-4.89	-14.2	7.07
1940	22.1	-6.56	0.54	-1.96	-5.02	-14.36	7.1
1950	22.69	-6.44	0.57	-1.93	-4.68	-13.91	7.01
1960	22.59	-6.46	0.71	-1.79	-4.78	-13.94	7.17
1970	22.03	-6.57	0.65	-1.85	-4.93	-13.78	7.22
1980	22.12	-6.55	0.74	-1.76	-4.82	-14.1	7.29
1990	22.48	-6.48	0.85	-1.65	-4.79	-14.04	7.33
2000	22.54	-6.47	0.66	-1.84	-4.03	-13.88	7.13
2010	23.31	-6.32	0.98	-1.52	-3.98	-13.46	7.3

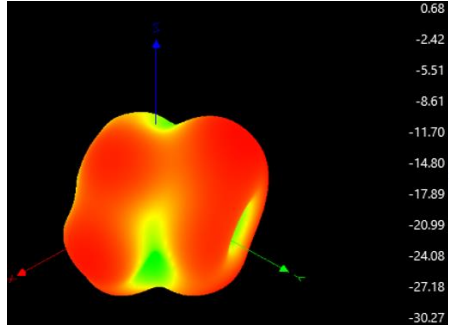
2020	23.05	-6.37	1.07	-1.43	-4.26	-12.68	7.44
2030	22.43	-6.49	0.9	-1.6	-4.8	-12.99	7.39
2040	22.44	-6.49	0.91	-1.59	-4.7	-12.77	7.4
2050	22.29	-6.52	0.75	-1.75	-4.47	-12.72	7.27
2060	22.62	-6.45	0.7	-1.8	-4.85	-11.95	7.15
2070	20.06	-6.98	-0.17	-2.67	-5.44	-12.42	6.81
2080	19.86	-7.02	-0.29	-2.79	-5.76	-12.71	6.73
2090	20.64	-6.85	-0.06	-2.56	-5.61	-12.75	6.79
2100	19.83	-7.03	-0.79	-3.29	-6.05	-12.8	6.24
2110	18.36	-7.36	-1.08	-3.58	-6.68	-13.37	6.28
2120	18.22	-7.39	-0.84	-3.34	-7.18	-13.66	6.55
2130	17.9	-7.47	-1.4	-3.9	-6.85	-13.54	6.07
2140	17.7	-7.52	-1.87	-4.37	-7	-13.55	5.65
2150	16.5	-7.83	-1.58	-4.08	-7.25	-13.88	6.25
2160	16.46	-7.84	-1.58	-4.08	-6.64	-14.18	6.26
2170	16.63	-7.79	-1.69	-4.19	-6.63	-14.15	6.1

2460	3.31	-14.8	-9.37	-11.87	-11.78	-20.79	5.43
2470	3.23	-14.91	-10.72	-13.22	-11.48	-20.14	4.19
2480	3.31	-14.8	-10.4	-12.9	-11.2	-19.43	4.4
2490	3.24	-14.9	-10.28	-12.78	-10.71	-18.62	4.62
2500	3.54	-14.52	-9.42	-11.92	-10.28	-18.36	5.1
2510	3.9	-14.09	-8.78	-11.28	-9.91	-20.5	5.31
2520	4.68	-13.3	-8.08	-10.58	-9.31	-21.99	5.22
2530	5.61	-12.51	-7.83	-10.33	-9.19	-21.46	4.68
2540	7.44	-11.29	-6.75	-9.25	-7.99	-17.82	4.54
2550	9.64	-10.16	-5.91	-8.41	-7.11	-15.05	4.25
2560	11.38	-9.44	-4.81	-7.31	-6.78	-13.22	4.63
2570	13.85	-8.59	-3.25	-5.75	-6.42	-12.23	5.34
2580	16.63	-7.79	-2.19	-4.69	-5.7	-12.2	5.6
2590	19.14	-7.18	-1.57	-4.07	-5.16	-12.23	5.61
2600	20.78	-6.82	-1.32	-3.82	-4.42	-12.21	5.5
2610	20.94	-6.79	-0.65	-3.15	-4.56	-12.48	6.14
2620	21.2	-6.74	-0.62	-3.12	-4.58	-12.85	6.12

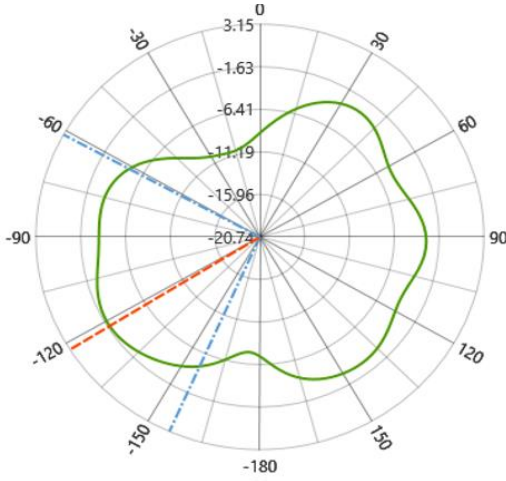
2630	21.44	-6.69	-0.87	-3.37	-4.08	-13.23	5.82
2640	19.72	-7.05	-0.78	-3.28	-4.62	-14.22	6.27
2650	18.68	-7.29	-0.99	-3.49	-4.57	-13.81	6.3
2660	18.24	-7.39	-0.99	-3.49	-4.81	-13.77	6.4
2670	17.62	-7.54	-1	-3.5	-4.88	-14.17	6.54
2680	16.8	-7.75	-0.98	-3.48	-5.31	-14.32	6.77
2690	16.08	-7.94	-1.15	-3.65	-5.54	-14.43	6.79

# diversity antenna 1710-2690MHz (3D/H/E1/E2) :

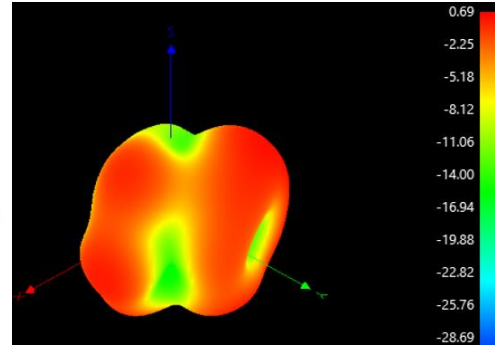
1710.000Mhz



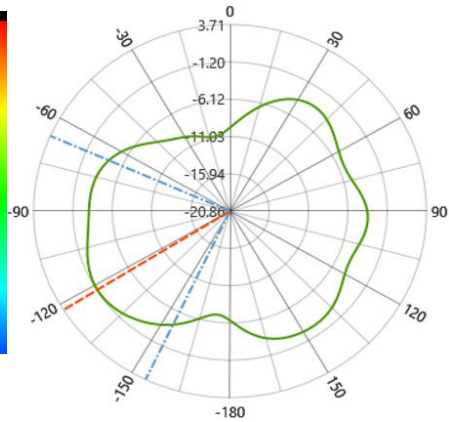
1710.000Mhz H



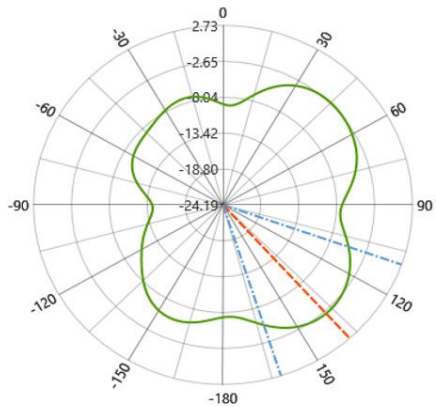
1750.000Mhz



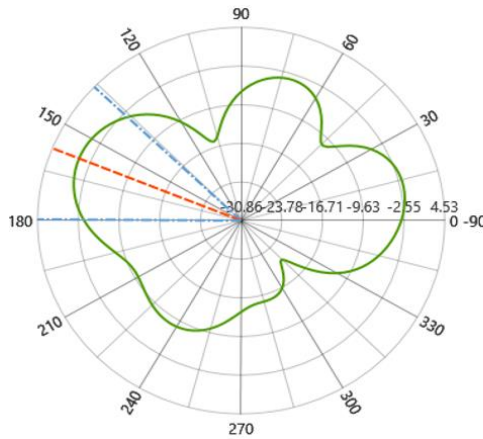
1750.000Mhz H



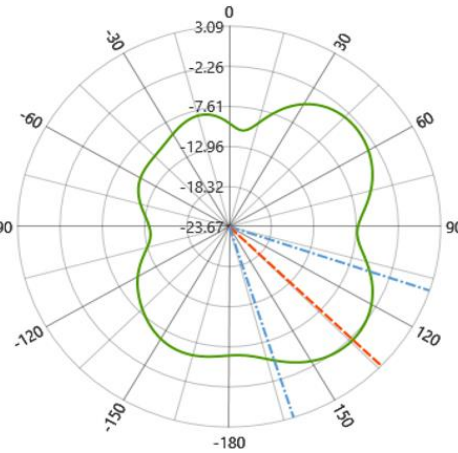
1710.000Mhz E1



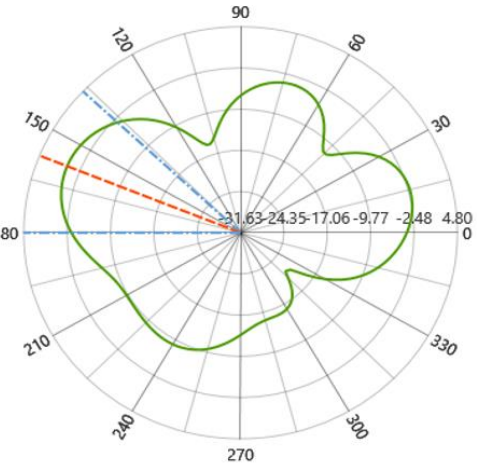
1710.000Mhz E2



1750.000Mhz E1

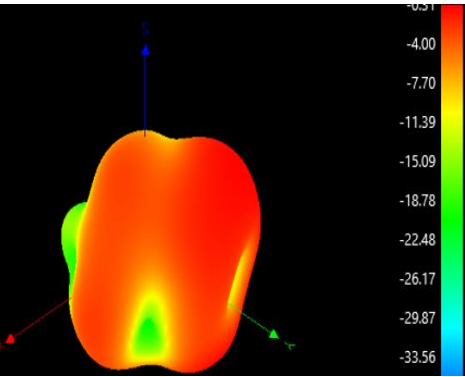


1750.000Mhz E2

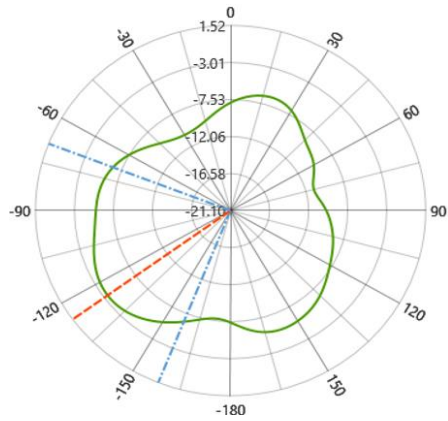




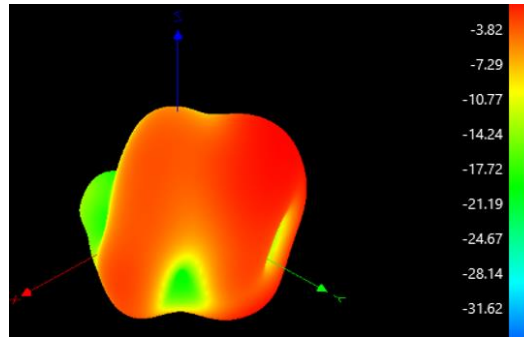
1840.000Mhz



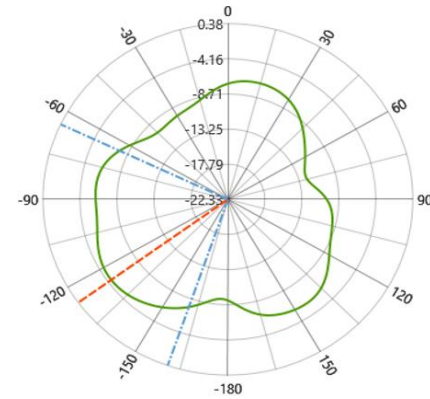
1840.000Mhz H



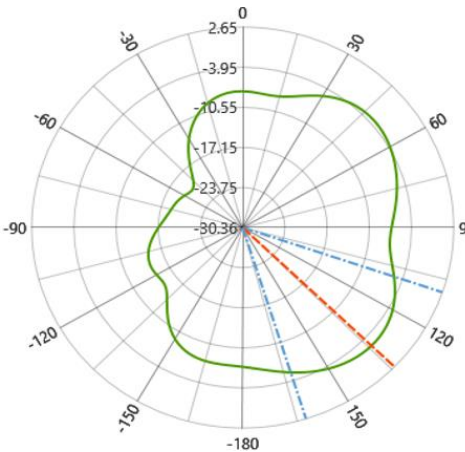
1870.000Mhz



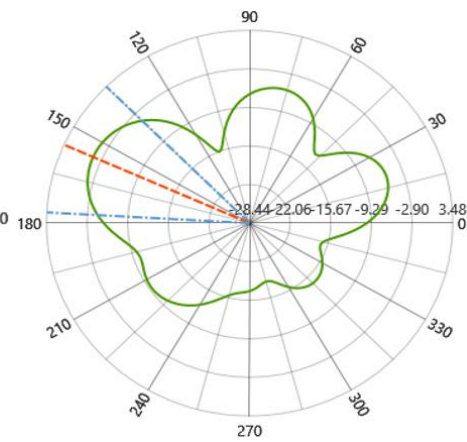
1870.000Mhz H



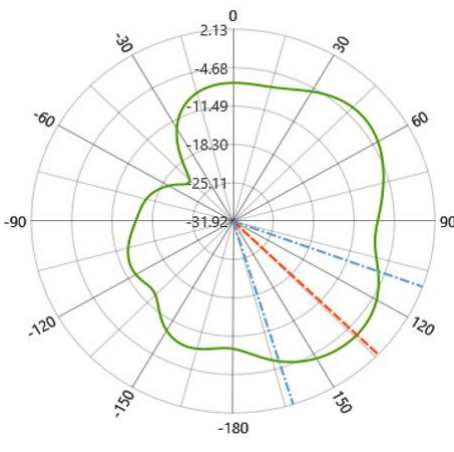
1840.000Mhz E1



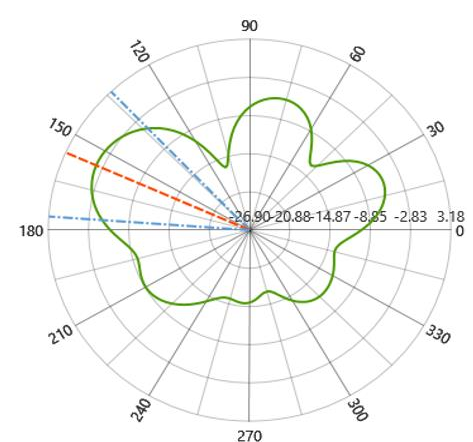
1840.000Mhz E2



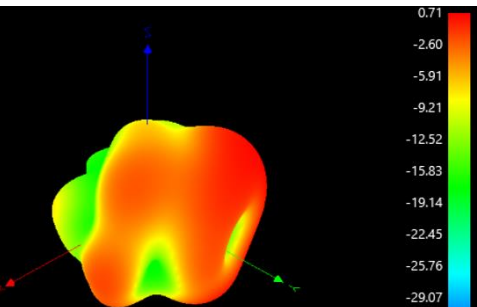
1870.000Mhz E1



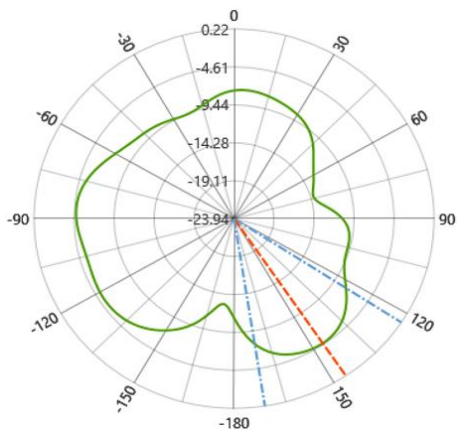
1870.000Mhz E2



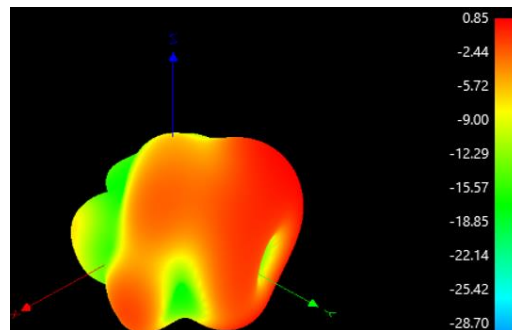
1960.000Mhz



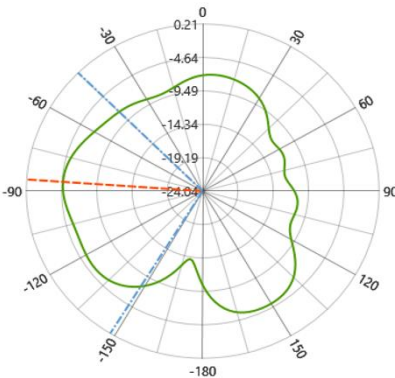
1960.000Mhz H



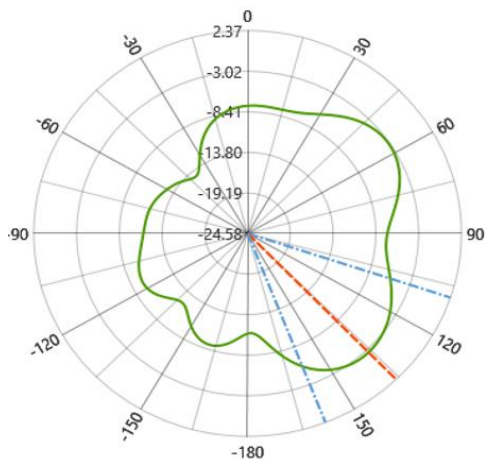
1990.000Mhz



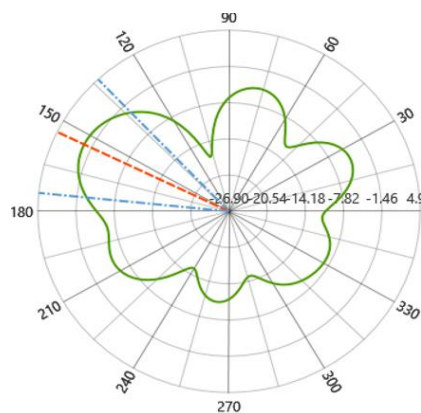
1990.000Mhz H



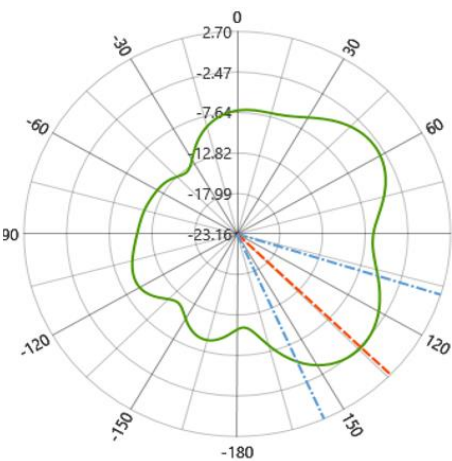
1960.000Mhz E1



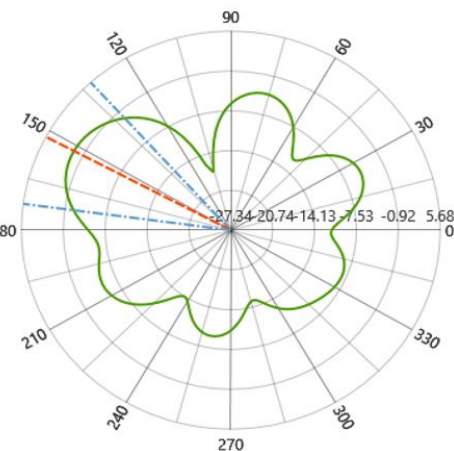
1960.000Mhz E2



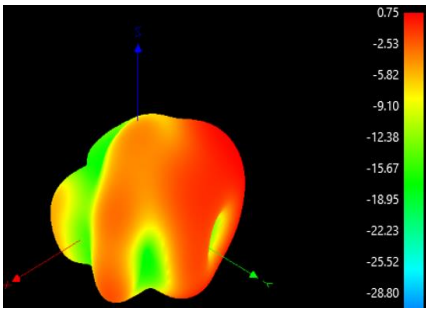
1990.000Mhz E1



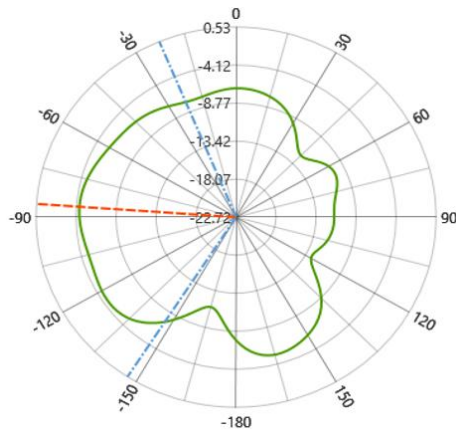
1990.000Mhz E2



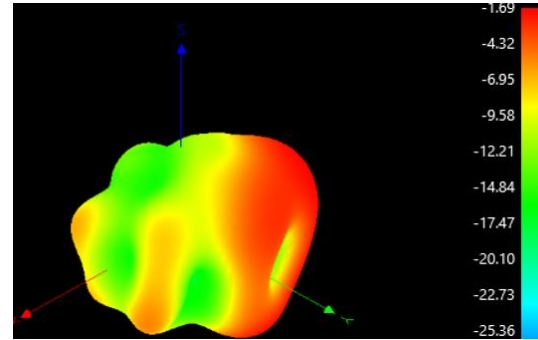
2050.000Mhz



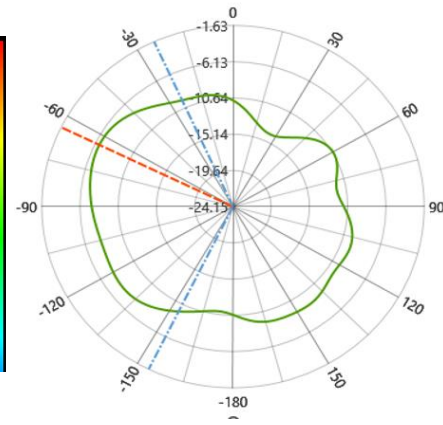
2050.000Mhz H



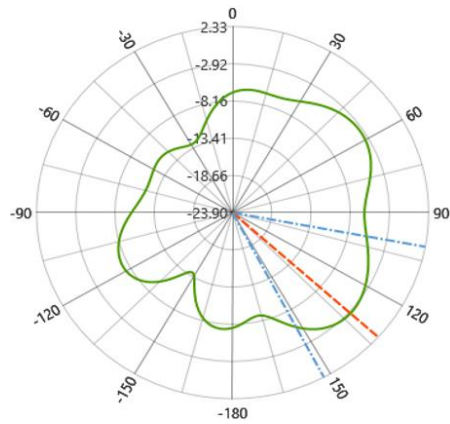
2170.000Mhz



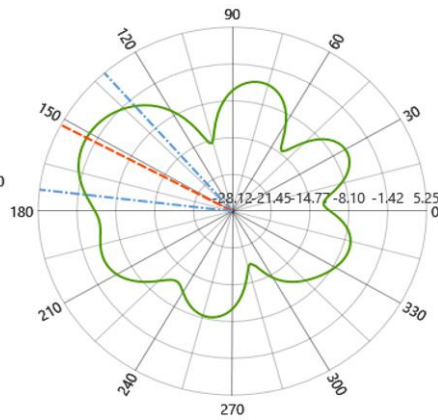
2170.000Mhz H



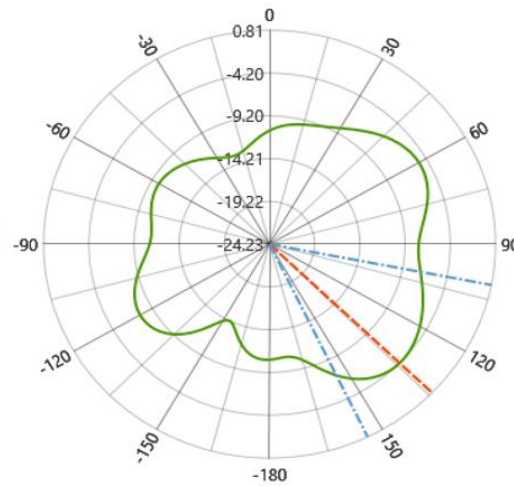
2050.000Mhz E1



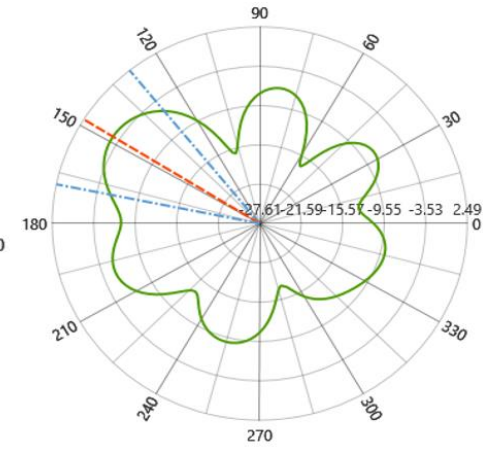
2050.000Mhz E2



2170.000Mhz E1

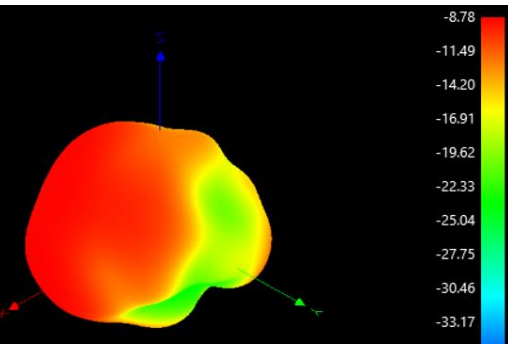


2170.000Mhz E2

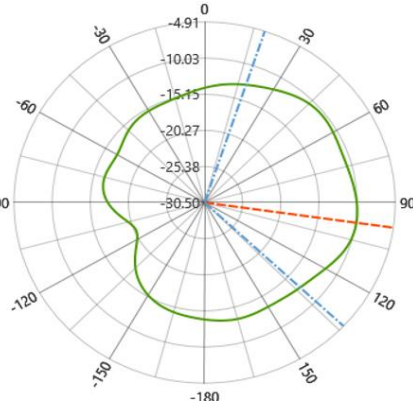




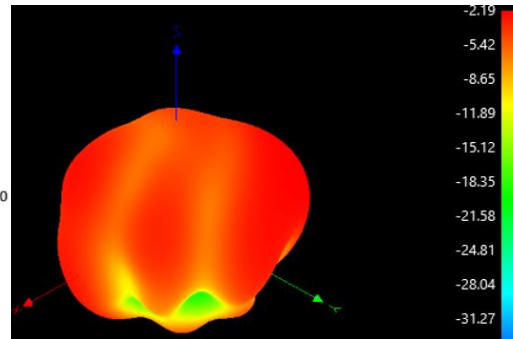
2510.000Mhz



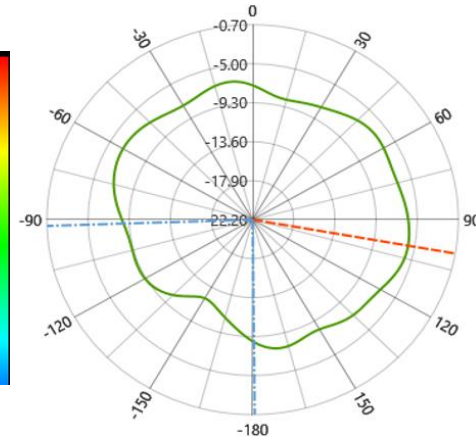
2510.000Mhz H



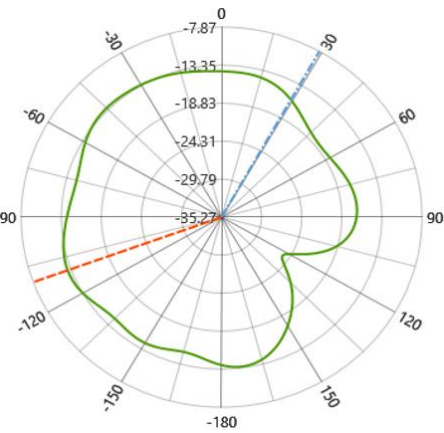
2580.000Mhz



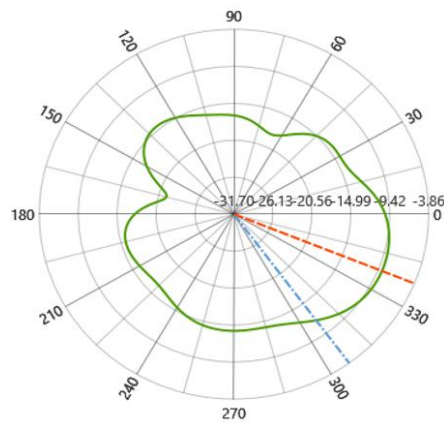
2580.000Mhz H



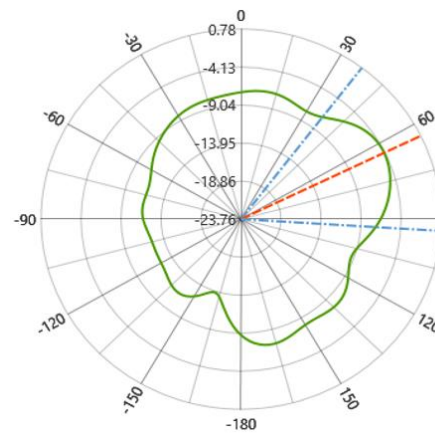
2510.000Mhz E1



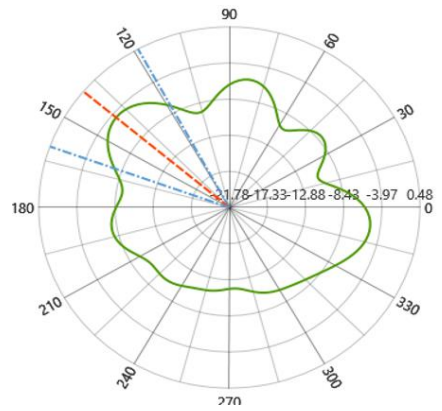
2510.000Mhz E2



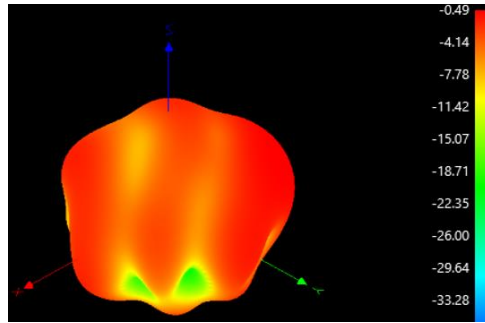
2580.000Mhz E1



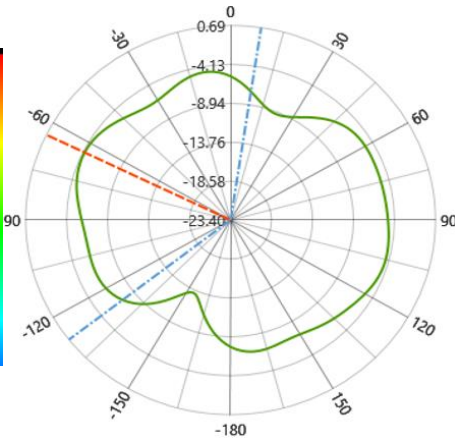
2580.000Mhz E2



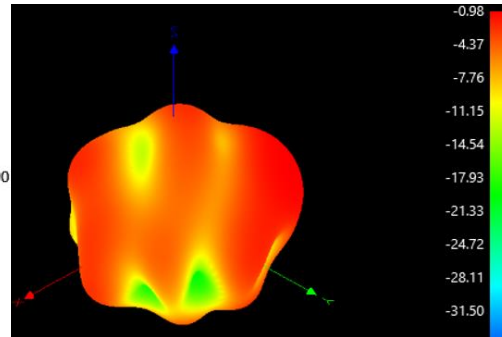
2640.000Mhz



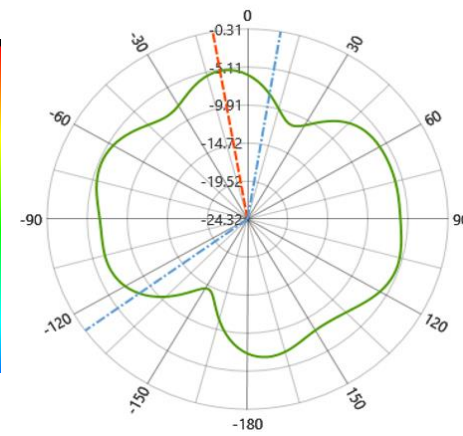
2640.000Mhz H



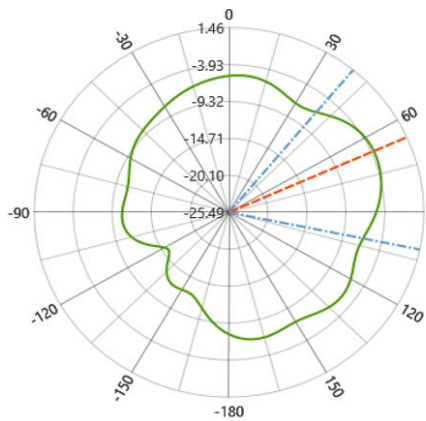
2690.000Mhz



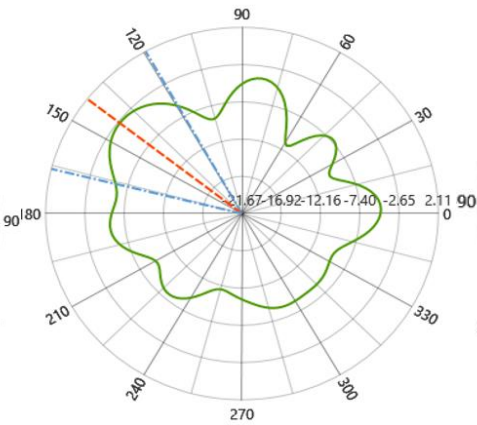
2690.000Mhz H



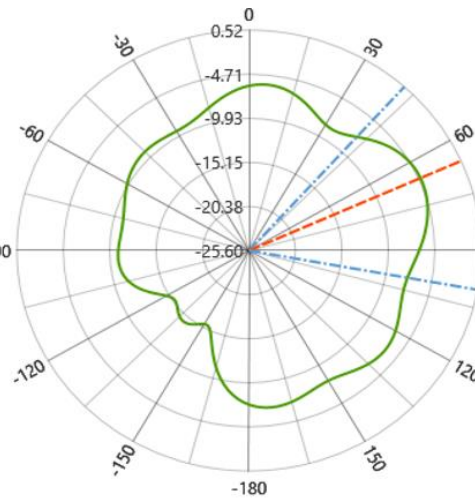
2640.000Mhz E1



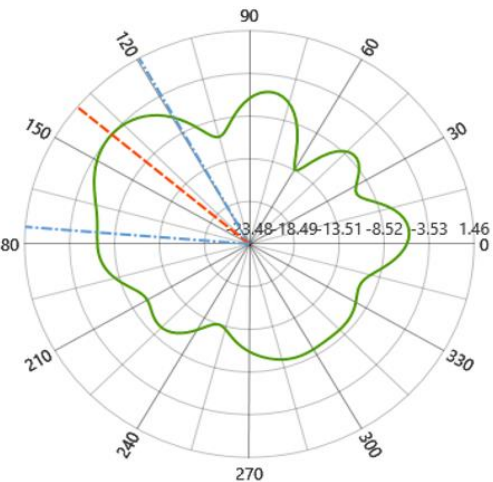
2640.000Mhz E2



2690.000Mhz E1



2690.000Mhz E2





**Passive Test For 1500-1620 (three-in-one antenna/GPS)**

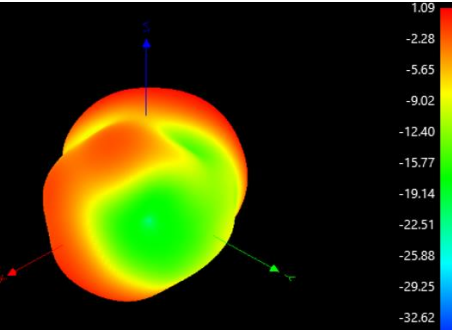
<b>Freq (MHz)</b>	<b>Effi (%)</b>	<b>Effi (dB)</b>	<b>Gain (dBi)</b>	<b>Gain (dBd)</b>	<b>Max (dB)</b>	<b>Min (dB)</b>	<b>Directivity (dBi)</b>
1500	23.4	-6.31	-1.41	-3.91	-4.49	-12.23	4.9
1510	27.22	-5.65	-0.51	-3.01	-3.8	-11.76	5.14
1520	27.97	-5.53	-0.29	-2.79	-3.17	-10.89	5.24
1530	28.93	-5.39	-0.18	-2.68	-2.92	-10.79	5.21
1540	32	-4.95	0.63	-1.87	-2.62	-10.82	5.58
1550	33.7	-4.72	1.09	-1.41	-2.43	-11.04	5.81
1560	33.09	-4.8	0.54	-1.96	-2.69	-11.09	5.34
1570	33.17	-4.79	0.74	-1.76	-2.67	-11.76	5.53
1580	33.62	-4.73	0.81	-1.69	-2.59	-11.87	5.54
1590	30.6	-5.14	0.34	-2.16	-3.1	-12.43	5.48
1600	27.85	-5.55	0.18	-2.32	-3.48	-12.88	5.73
1610	26.81	-5.72	0.2	-2.3	-3.58	-13.04	5.92
1620	24.41	-6.12	-0.52	-3.02	-4.09	-13.23	5.6

Passive Test For 2400-2580 (three-in-one antenna/WiFi 2.4G+BT)

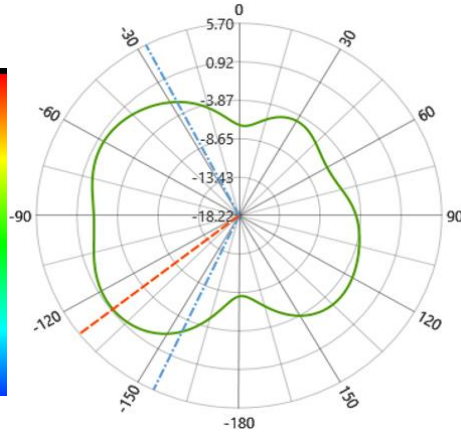
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)
2400	27.28	-5.64	1.87	-0.63	-3.39	-10.89	7.51
2420	28.31	-5.48	1.91	-0.59	-3.25	-10.58	7.39
2440	28.81	-5.4	1.9	-0.6	-3.16	-10.06	7.3
2460	28.26	-5.49	1.67	-0.83	-3.35	-9.76	7.16
2480	27.67	-5.58	1.59	-0.91	-3.33	-9.63	7.17
2500	28.85	-5.4	1.89	-0.61	-3.14	-9.9	7.29
2520	29.01	-5.38	1.89	-0.61	-3.33	-9.88	7.27
2540	27.32	-5.64	1.16	-1.34	-3.6	-9.84	6.8
2560	27.96	-5.54	1.55	-0.95	-3.3	-10.09	7.09
2580	27.4	-5.62	1.34	-1.16	-3.34	-10.16	6.96

# three-in-one antenna /GPS (3D/H/E1/E2) :

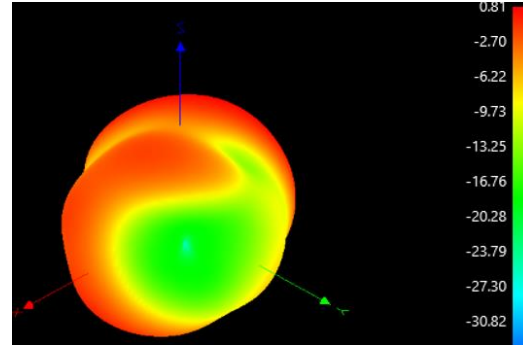
## 1550.000Mhz



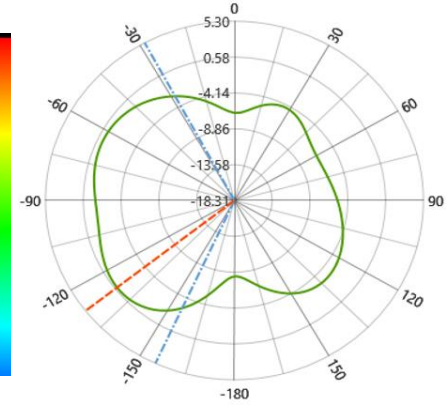
## 1550.000Mhz H



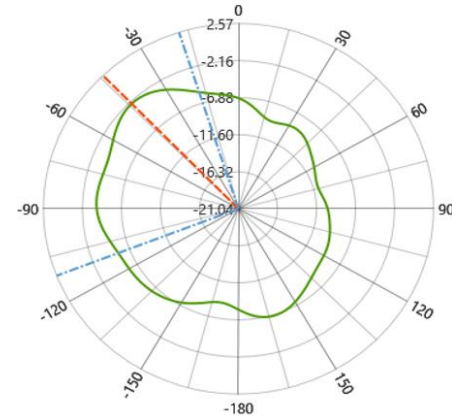
## 1580.000Mhz



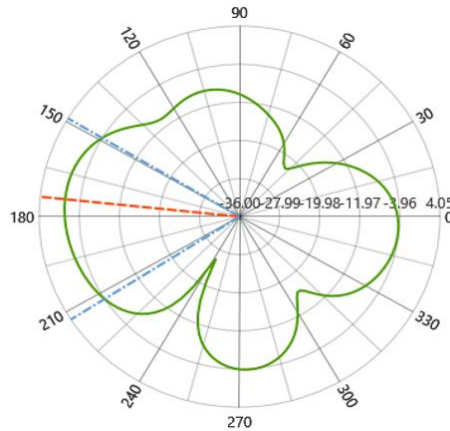
## 1580.000Mhz H



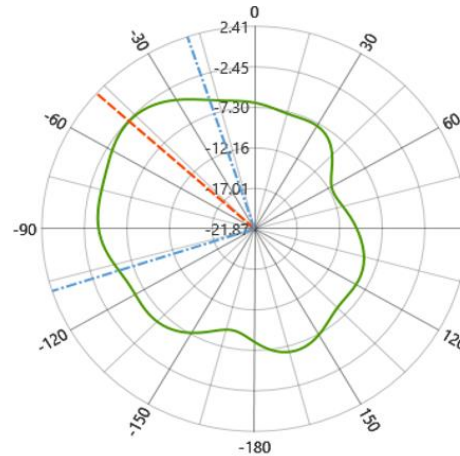
## 1550.000Mhz E1



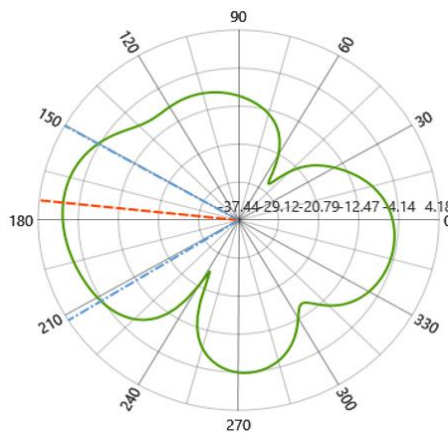
## 1550.000Mhz E2



## 1580.000Mhz E1

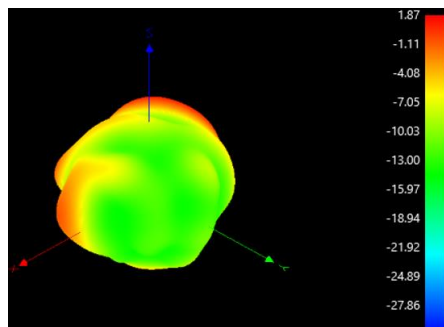


## 1580.000Mhz E2

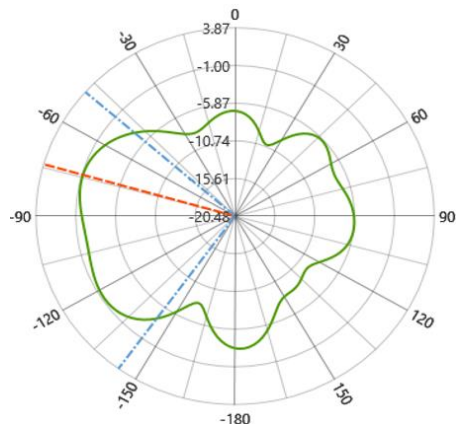


# three-in-one antenna /WiFi 2.4G+BT (3D/H/E1/E2) :

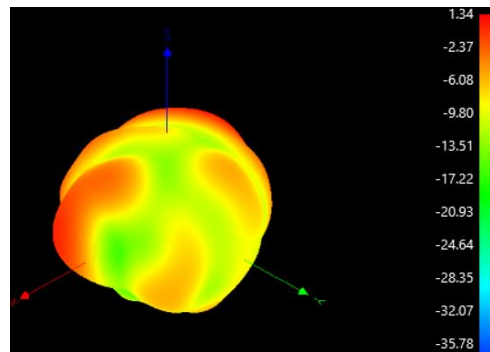
2420.000Mhz



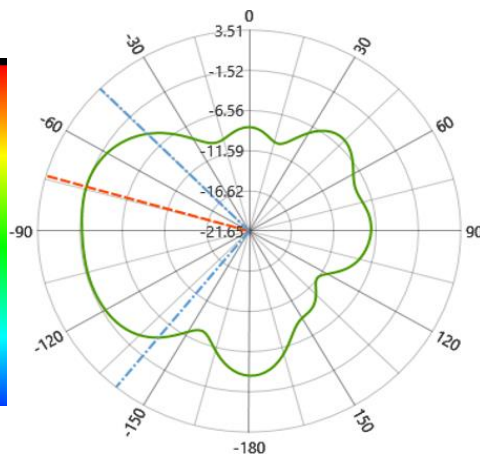
2420.000Mhz H



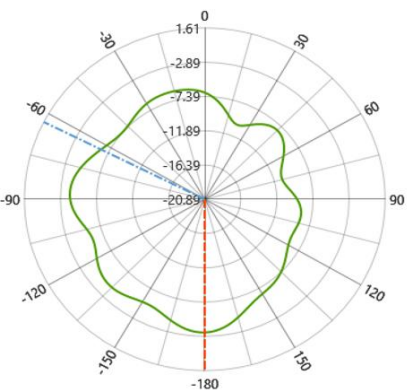
2560.000Mhz



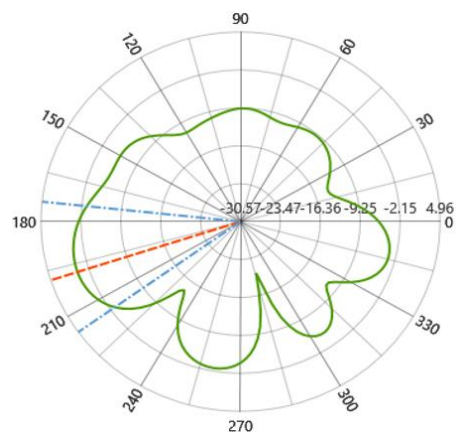
2560.000Mhz H



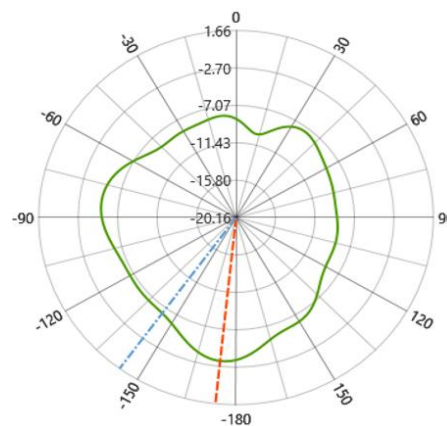
2420.000Mhz E1



2420.000Mhz E2



2560.000Mhz E1



2560.000Mhz E2

