

规格书

客户名称: _____
客户料号: _____
科信料号: _____
规格描述: 新款4GPCB/1.13线L=120MM(1代端子) _____
制作日期: 2023年06月05日 _____

出厂确认:

部 门	审 核	批 准
射频部	刘景雄	李斌
结构部	谢东展	李斌
品质部	王飞	李斌

客户确认:

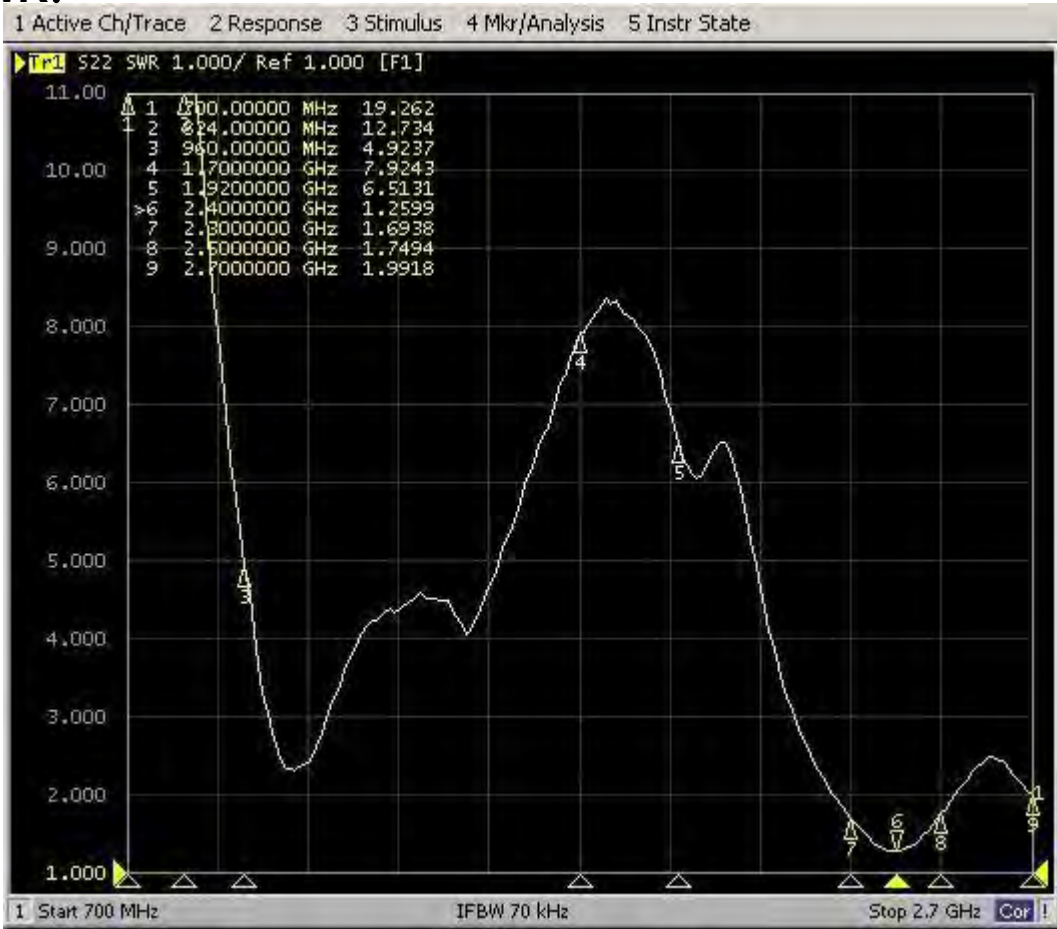
检 查	审 核	批 准

1. 产品图片:



2. 电气性能测试报告:

VSWR:



3. 产品性能参数:

电性能指标Electrical Specifications	
频率范围Frequency Range (MHz)	698-960/1700-2700
输入阻抗Input Impedence (Ω)	50
电压驻波比V.S.W.R	≤ 3.0 (未匹配设备, 仅供参考)
增益Gain (dBi)	2.0 ± 0.5 (未匹配设备, 仅供参考)
极化形式Polarization Type	垂直Vertical
最大功率Maximum power(W)	10W
垂直面波瓣角度Vertical lobe Angle (E)	$45 \sim 60^\circ$
水平面波瓣角度Water plane lobe Angle (H)	360°
机械指标Mechanical Specifications	
天线材质Material	PCB
连接器型号Connect Type	IPEX(1代)
天线尺寸Size	13*65*0.9MM
工作温度Operating Temp	$-20 \sim +65^\circ\text{C}$
储存温度Storage Temp	$-30 \sim +75^\circ\text{C}$

EFFICIENCY/GAIN TEST

Frequency ID	1	2	3	4	5	6	7	8	9
Frequency (MHz)	700.0	710.0	720.0	730.0	740.0	750.0	760.0	770.0	780.0
Efficiency (dBi)	- 17.91	- 17.95	- 18.09	- 18.12	- 17.88	- 17.77	- 17.83	- 17.70	- 17.71
Gain (dBi)	-13.20	-13.38	-13.43	-13.30	-12.56	-12.20	-12.31	-12.53	-12.59
Efficiency (%)	1.62	1.60	1.55	1.54	1.63	1.67	1.65	1.70	1.69
Directivity (dB)	4.71	4.57	4.66	4.81	5.32	5.57	5.52	5.17	5.12
Peak Gain Position (Theta)	136.00	134.00	134.00	137.00	137.00	137.00	137.00	136.00	133.00
Peak Gain Position (Phi)	251.00	319.00	62.00	52.00	52.00	52.00	52.00	56.00	187.00
Efficiency ThetaPol (%)	1.13	1.11	1.06	1.03	1.08	1.09	1.07	1.11	1.12
Efficiency PhiPol (%)	0.48	0.49	0.49	0.51	0.55	0.58	0.58	0.59	0.57
Upper Hem. Efficiency (%)	0.64	0.62	0.60	0.61	0.66	0.69	0.69	0.72	0.73
Lower Hem. Efficiency (%)	0.98	0.98	0.95	0.93	0.97	0.99	0.96	0.98	0.96

10	11	12	13	14	15	16	17	18	19	20	21
790.0	800.0	810.0	820.0	830.0	840.0	850.0	860.0	870.0	880.0	890.0	900.0
- 17.79	- 17.56	- 17.21	- 16.90	- 16.47	- 16.04	- 15.86	- 15.62	- 15.18	- 14.78	- 14.16	- 13.39
-12.95	-12.81	-12.26	-11.82	-11.53	-11.19	-10.96	-10.55	-10.17	-9.73	-9.32	-8.86
1.66	1.75	1.90	2.04	2.25	2.49	2.59	2.74	3.04	3.33	3.83	4.58
4.85	4.76	4.95	5.07	4.95	4.85	4.90	5.06	5.01	5.05	4.84	4.54
133.00	170.00	137.00	137.00	137.00	50.00	169.00	169.00	146.00	146.00	146.00	146.00
185.00	268.00	351.00	351.00	352.00	186.00	283.00	284.00	297.00	298.00	299.00	301.00
1.12	1.20	1.33	1.45	1.59	1.75	1.80	1.88	2.07	2.26	2.62	3.12
0.54	0.55	0.57	0.60	0.66	0.74	0.79	0.86	0.97	1.06	1.22	1.46
0.73	0.77	0.84	0.89	0.97	1.05	1.08	1.14	1.27	1.43	1.69	2.08

22	23	24	25	26	27	28	29	30	31	32	33
910.0	920.0	930.0	940.0	950.0	960.0	1700.0	1720.0	1740.0	1760.0	1780.0	1800.0
- 12.77	- 12.11	- 11.41	- 10.88	- 10.32	-9.63	-11.22	-11.08	-10.99	-10.90	-10.64	-9.82
-7.87	-7.02	-6.32	-5.82	-5.39	-4.73	-4.91	-4.67	-4.99	-5.44	-5.11	-4.29
5.28	6.15	7.22	8.17	9.28	10.88	7.56	7.79	7.97	8.13	8.62	10.42
4.90	5.09	5.10	5.06	4.94	4.91	6.31	6.41	5.99	5.46	5.54	5.53
70.00	70.00	71.00	72.00	73.00	144.00	120.00	121.00	121.00	122.00	123.00	123.00
187.00	183.00	178.00	173.00	166.00	311.00	199.00	190.00	186.00	179.00	173.00	171.00
3.58	4.15	4.89	5.59	6.46	7.71	5.29	5.76	6.20	6.63	7.31	9.09
1.70	2.00	2.34	2.58	2.82	3.17	2.27	2.03	1.77	1.50	1.31	1.33
2.46	2.88	3.40	3.90	4.46	5.22	2.82	3.27	3.93	4.44	4.81	5.82
2.83	3.27	3.82	4.27	4.82	5.66	4.73	4.53	4.04	3.69	3.82	4.60

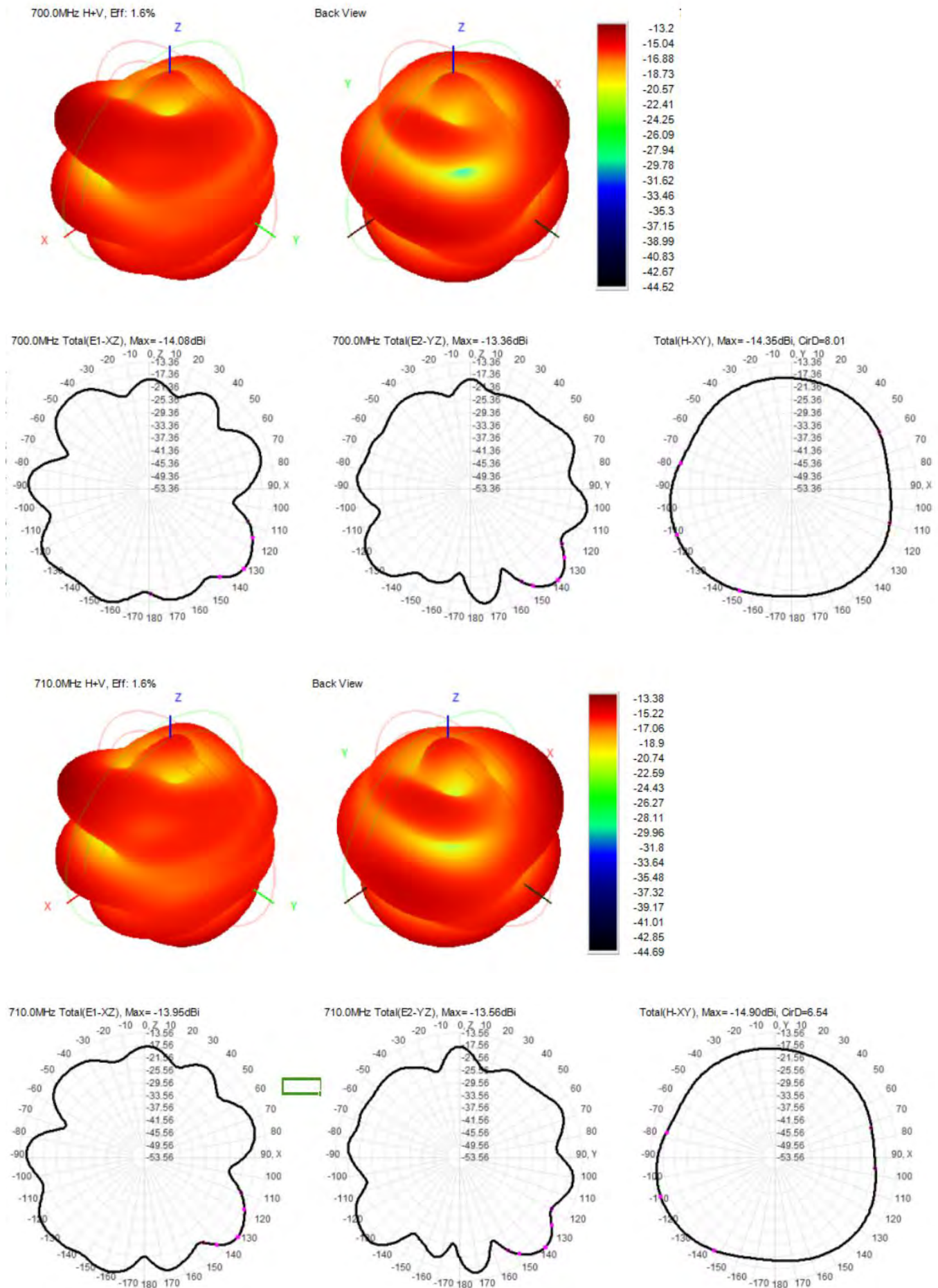
34	35	36	37	38	39	40	41	42	43	44
1820.0	1840.0	1860.0	1880.0	1900.0	1920.0	1940.0	1960.0	1980.0	2000.0	2020.0
-9.04	-8.62	-8.04	-7.47	-6.91	-6.35	-6.50	-7.00	-7.23	-7.51	-7.63
-3.74	-3.51	-3.07	-2.95	-1.79	-1.27	-2.39	-2.17	-1.84	-2.05	-2.66
12.48	13.74	15.72	17.92	20.39	23.19	22.40	19.96	18.91	17.75	17.25
5.30	5.12	4.97	4.51	5.11	5.07	4.11	4.83	5.40	5.46	4.98
123.00	122.00	123.00	63.00	63.00	62.00	61.00	77.00	76.00	78.00	89.00
171.00	167.00	167.00	350.00	346.00	344.00	344.00	322.00	329.00	144.00	171.00
11.01	12.12	13.81	15.70	17.85	20.20	19.31	17.03	16.12	15.34	15.37
1.47	1.61	1.91	2.22	2.54	2.99	3.09	2.93	2.79	2.41	1.88
6.86	7.39	8.49	10.40	12.87	15.32	14.80	13.08	12.55	11.91	11.33
5.62	6.34	7.23	7.52	7.52	7.87	7.61	6.88	6.36	5.83	5.92

45	46	47	48	49	50	51	52	53	54	55	56
2040.0	2060.0	2080.0	2100.0	2120.0	2140.0	2160.0	2180.0	2200.0	2220.0	2240.0	2260.0
-7.63	-7.30	-6.32	-5.53	-5.61	-6.00	-6.15	-5.97	-5.54	-4.86	-4.22	-3.97
-2.98	-3.06	-2.57	-2.27	-2.76	-3.68	-3.83	-3.51	-3.02	-2.28	-1.53	-0.86
17.25	18.62	23.35	27.98	27.49	25.11	24.28	25.28	27.94	32.63	37.81	40.09
4.65	4.24	3.75	3.26	2.85	2.32	2.31	2.47	2.52	2.59	2.70	3.11
93.00	94.00	82.00	77.00	87.00	84.00	86.00	89.00	91.00	93.00	87.00	80.00
168.00	170.00	350.00	110.00	226.00	128.00	70.00	69.00	69.00	73.00	64.00	179.00
15.99	17.83	22.77	27.52	27.15	24.84	23.95	24.83	27.31	31.71	36.51	38.39
1.26	0.79	0.58	0.46	0.34	0.27	0.32	0.45	0.63	0.92	1.30	1.70
10.77	11.24	14.07	16.56	15.44	13.53	13.10	13.70	15.05	17.58	20.42	21.41
6.48	7.38	9.28	11.42	12.05	11.59	11.17	11.58	12.88	15.05	17.39	18.68

57	58	59	60	61	62	63	64	65	66	67	68
2280.0	2300.0	2320.0	2340.0	2360.0	2380.0	2400.0	2420.0	2440.0	2460.0	2480.0	2500.0
-4.00	-4.00	-3.74	-3.07	-2.37	-1.97	-1.91	-2.16	-2.56	-2.87	-2.81	-2.53
-0.83	-0.93	-0.83	0.01	0.75	1.21	1.34	1.48	1.18	0.62	0.46	1.00
39.79	39.77	42.28	49.30	57.92	63.52	64.37	60.79	55.46	51.63	52.36	55.90
3.17	3.08	2.91	3.09	3.12	3.18	3.25	3.64	3.74	3.49	3.27	3.52
80.00	65.00	63.00	83.00	80.00	69.00	82.00	84.00	86.00	87.00	85.00	83.00
175.00	128.00	122.00	176.00	177.00	125.00	156.00	158.00	159.00	160.00	151.00	142.00
37.67	37.32	39.52	45.98	53.91	58.96	59.51	55.82	50.40	46.64	47.26	50.36
2.12	2.45	2.76	3.32	4.01	4.56	4.86	4.97	5.06	5.00	5.10	5.54
20.63	20.08	21.42	25.77	30.89	33.18	32.02	29.43	26.87	25.36	26.06	27.57
19.16	19.69	20.86	23.53	27.03	30.35	32.35	31.35	28.59	26.28	26.30	28.33

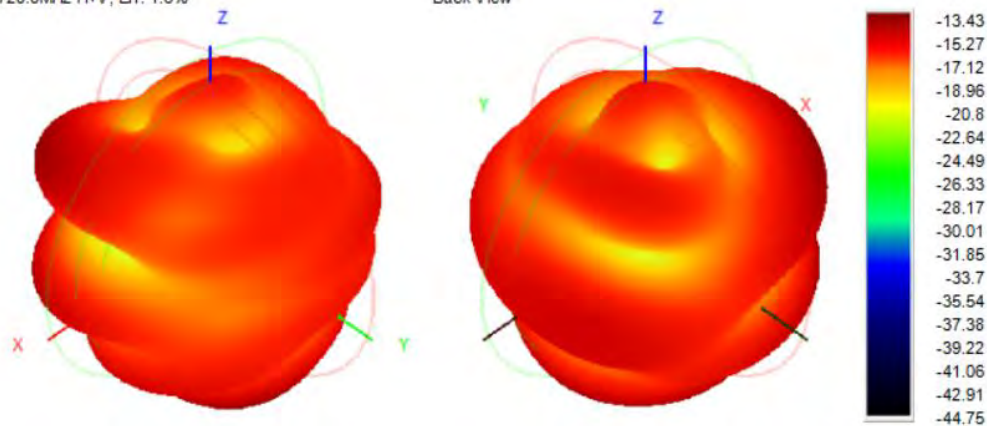
69	70	71	72	73	74	75	76	77	78
2520.0	2540.0	2560.0	2580.0	2600.0	2620.0	2640.0	2660.0	2680.0	2700.0
-2.52	-2.87	-3.32	-3.67	-3.67	-3.53	-3.25	-2.85	-2.68	-2.79
1.46	1.43	1.26	1.10	0.86	0.99	1.24	1.78	2.44	2.62
55.96	51.69	46.53	42.92	42.92	44.34	47.34	51.84	54.00	52.64
3.98	4.30	4.58	4.78	4.54	4.52	4.49	4.63	5.12	5.40
84.00	85.00	86.00	87.00	134.00	134.00	131.00	96.00	96.00	96.00
142.00	142.00	143.00	145.00	180.00	180.00	139.00	176.00	175.00	172.00
50.18	45.85	40.71	36.93	36.24	36.99	39.46	43.22	44.74	42.94
5.78	5.84	5.81	5.99	6.68	7.35	7.88	8.62	9.27	9.70
26.59	23.14	19.82	17.96	17.72	18.08	19.02	20.39	20.38	18.95
29.37	28.56	26.71	24.95	25.20	26.26	28.32	31.45	33.63	33.69

RADIATION PATTERN



720.0MHz H+V, Eff: 1.6%

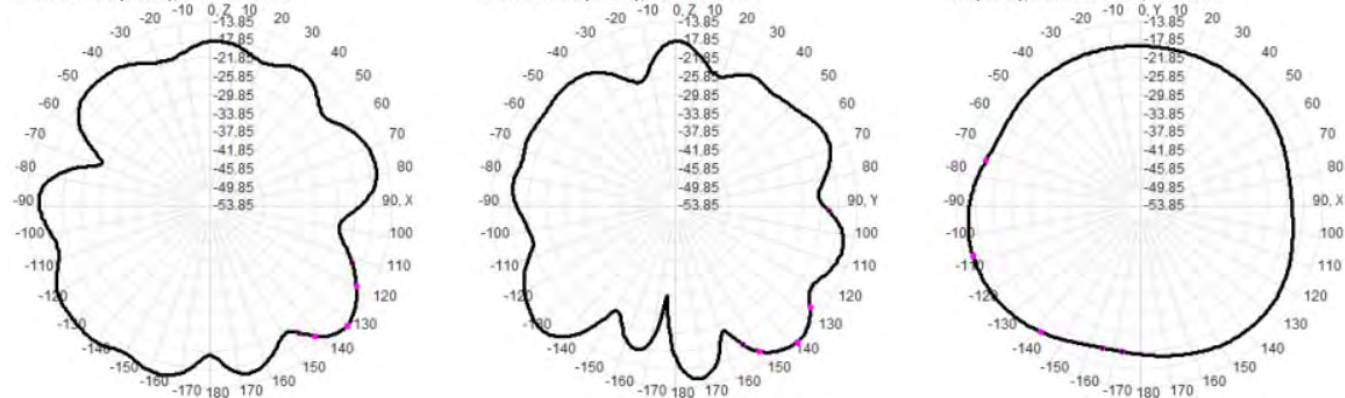
Back View



720.0MHz Total(E1-XZ), Max=-14.02dBi

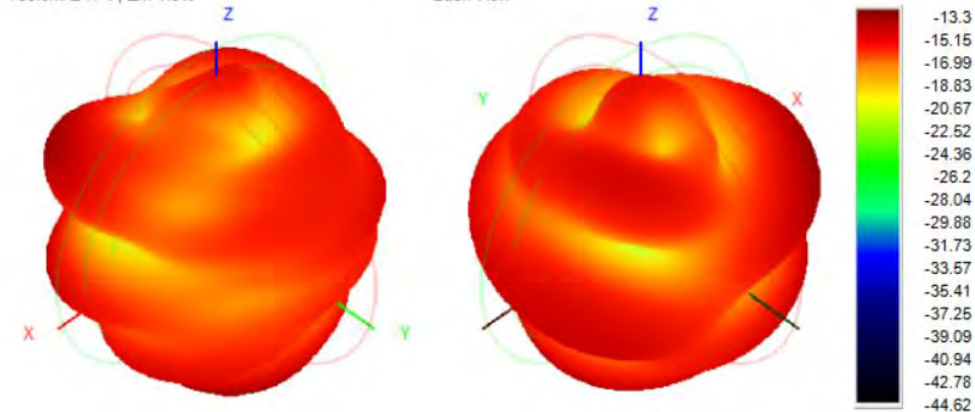
720.0MHz Total(E2-YZ), Max=-13.85dBi

Total(H-XY), Max=-15.76dBi, CirD=6.09



730.0MHz H+V, Eff: 1.5%

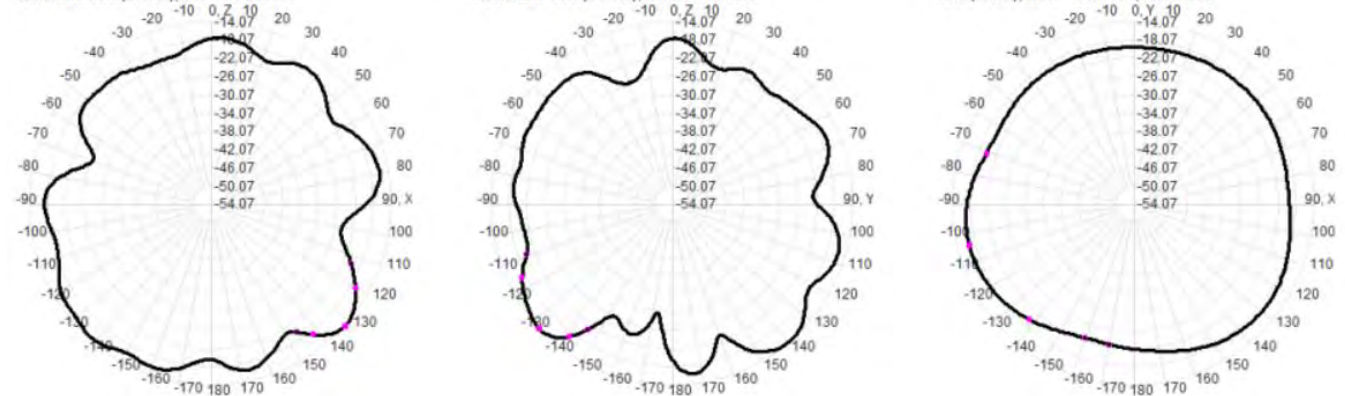
Back View

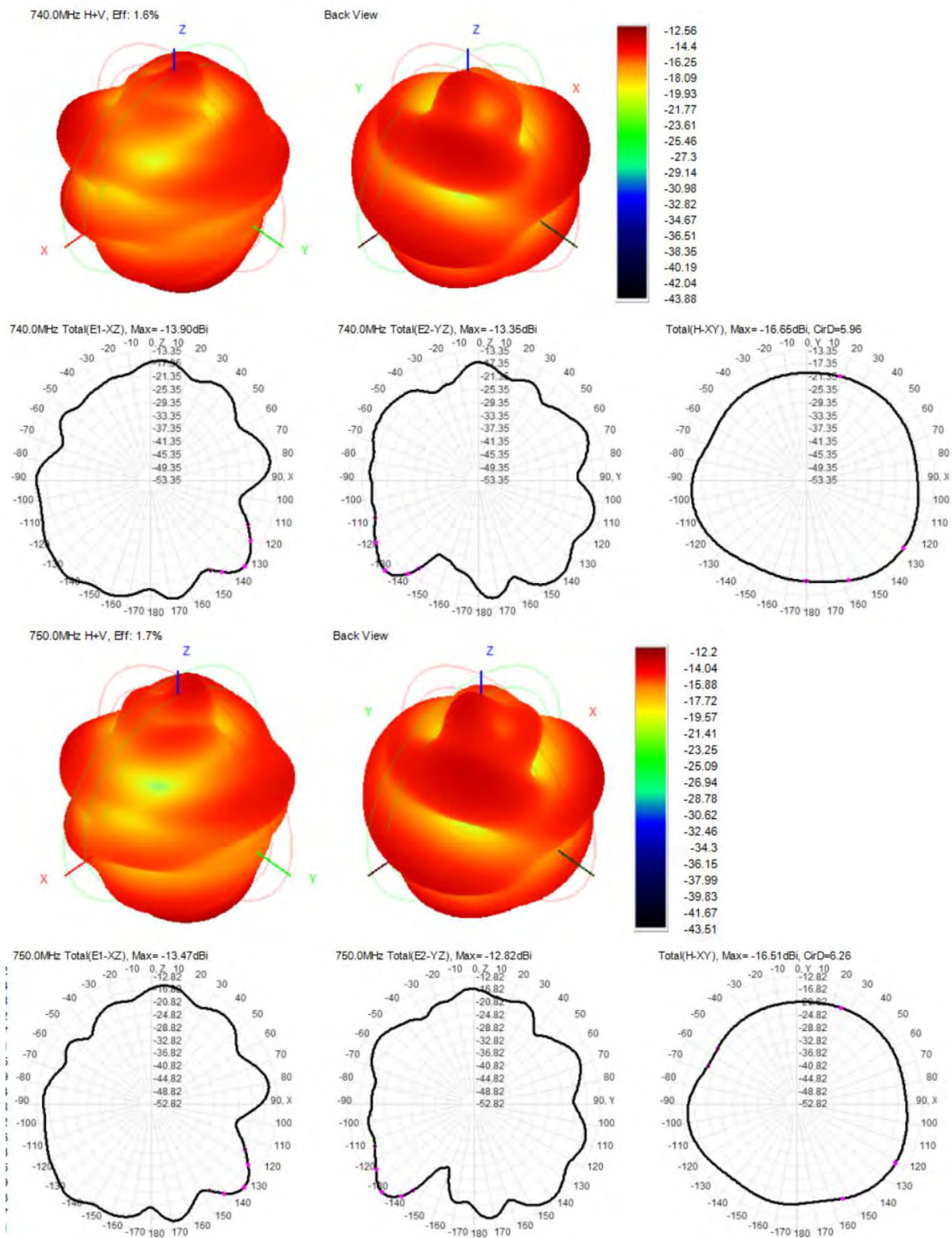


730.0MHz Total(E1-XZ), Max=-14.23dBi

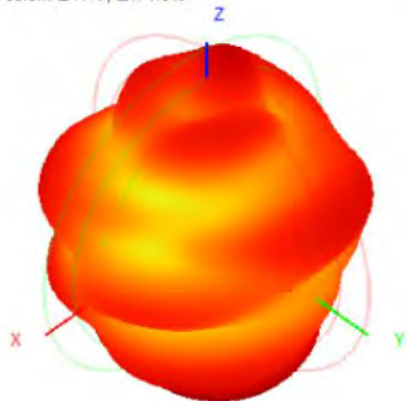
730.0MHz Total(E2-YZ), Max=-14.07dBi

Total(H-XY), Max=-16.81dBi, CirD=6.15

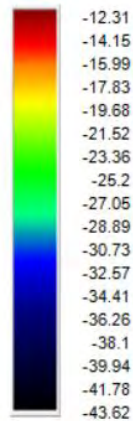
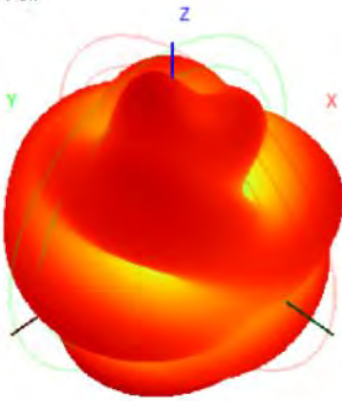




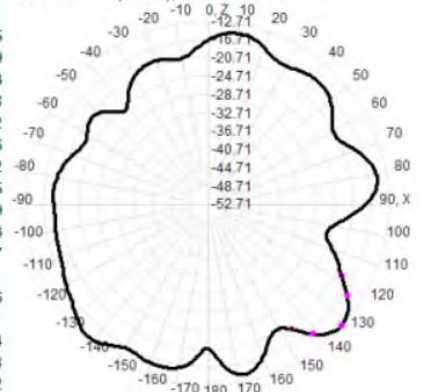
760.0MHz H+V, Eff: 1.6%



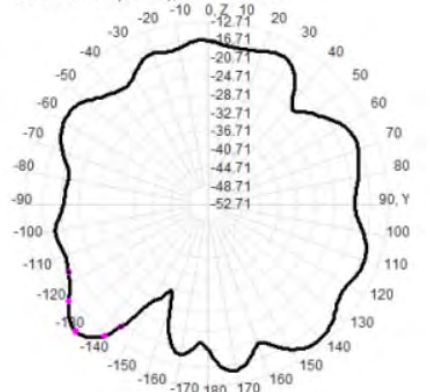
Back View



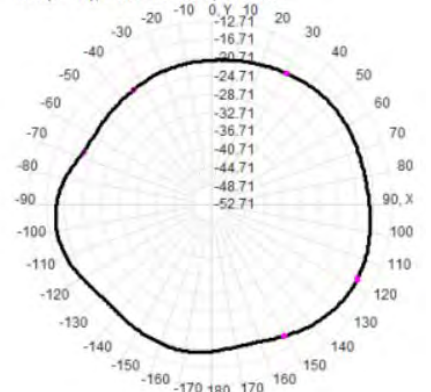
760.0MHz Total(E1-XZ), Max=-13.16dBi



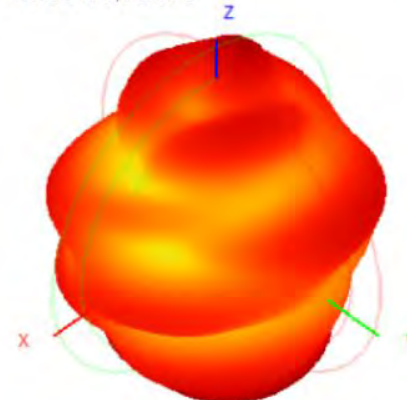
760.0MHz Total(E2-YZ), Max=-12.71dBi



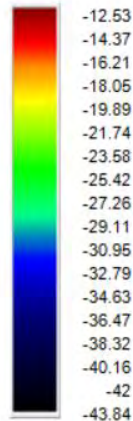
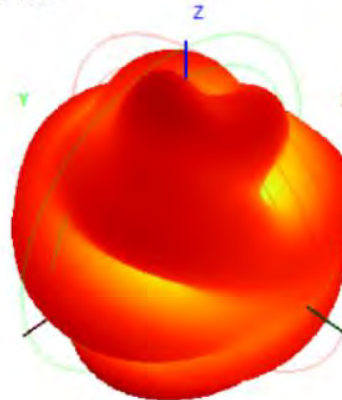
Total(H-XY), Max=-16.63dBi, CirD=6.57



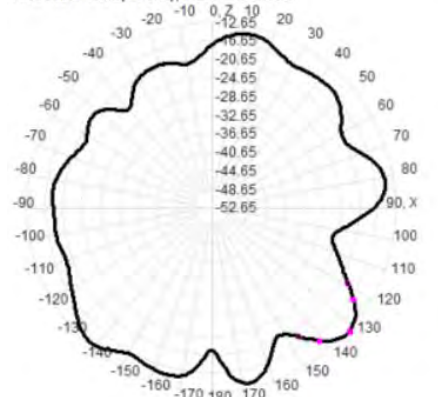
770.0MHz H+V, Eff: 1.7%



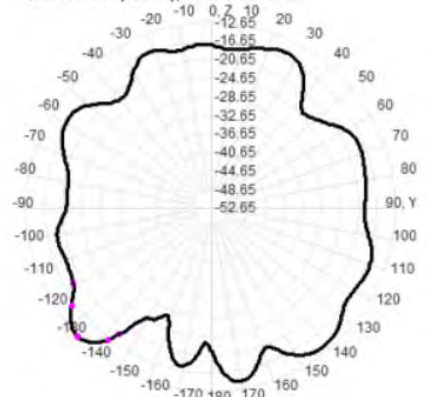
Back View



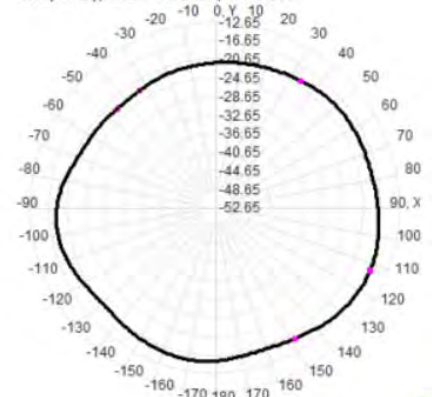
770.0MHz Total(E1-XZ), Max=-12.72dBi

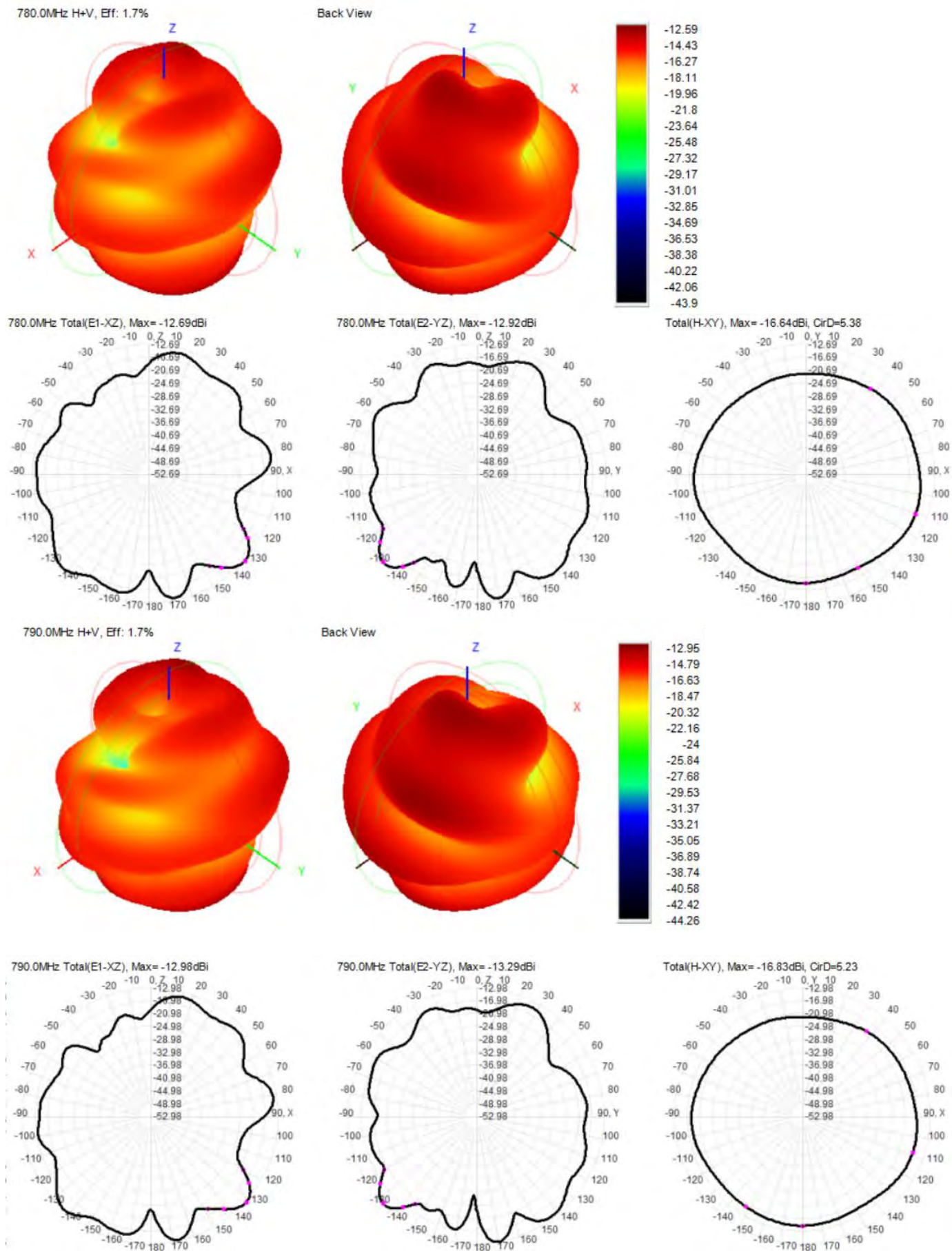


770.0MHz Total(E2-YZ), Max=-12.65dBi



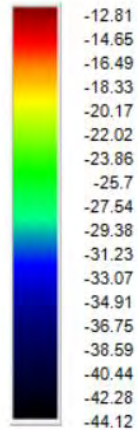
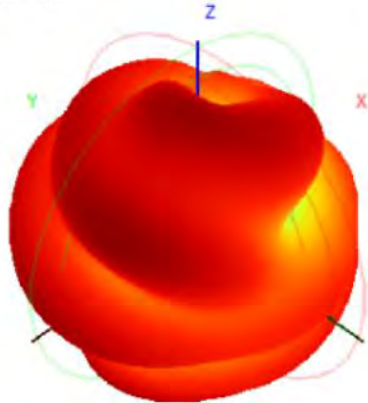
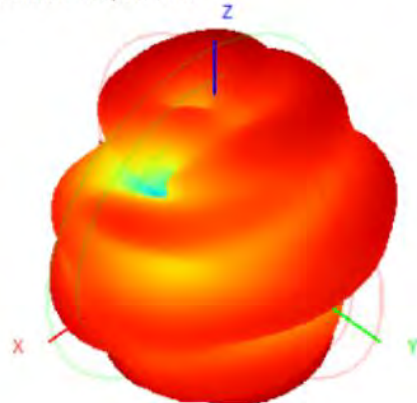
Total(H-XY), Max=-16.63dBi, CirD=6.13





800.0MHz H+V, Eff: 1.8%

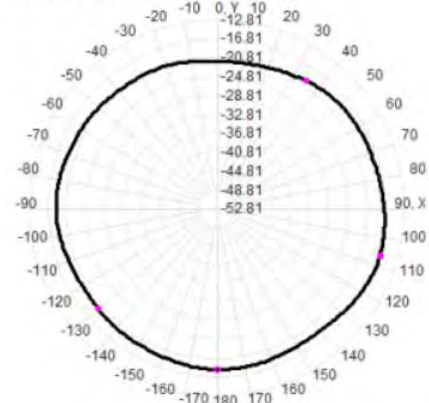
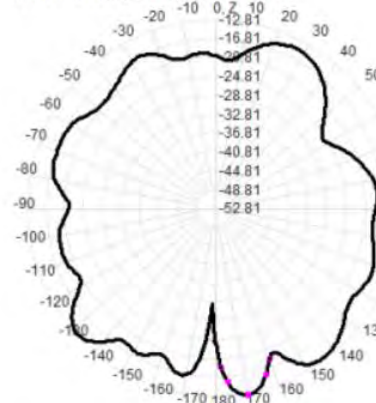
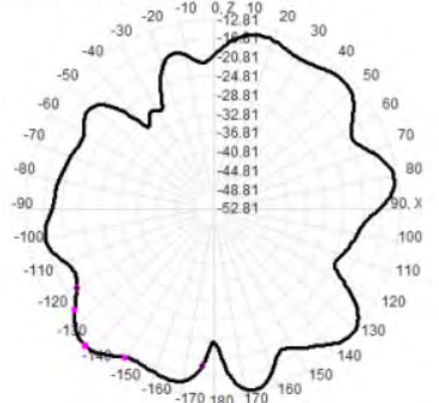
Back View



800.0MHz Total(E1-XZ), Max=-12.99dBi

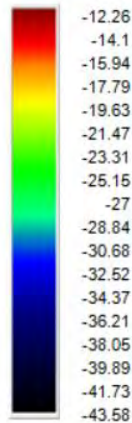
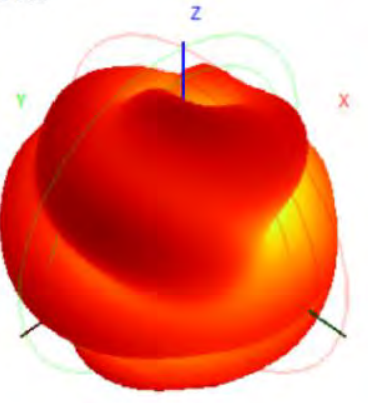
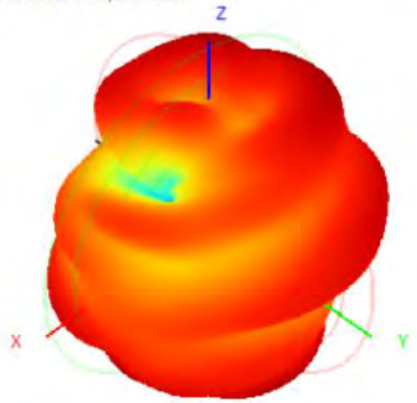
800.0MHz Total(E2-YZ), Max=-12.81dBi

Total(H-XY), Max=-16.85dBi, CirD=4.86



810.0MHz H+V, Eff: 1.9%

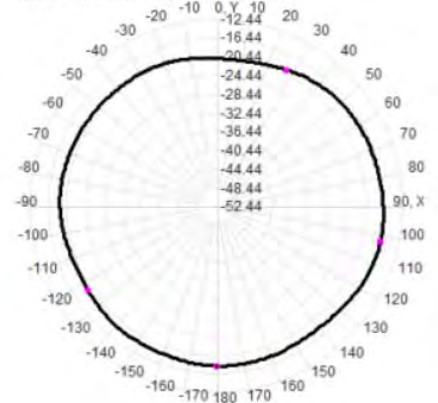
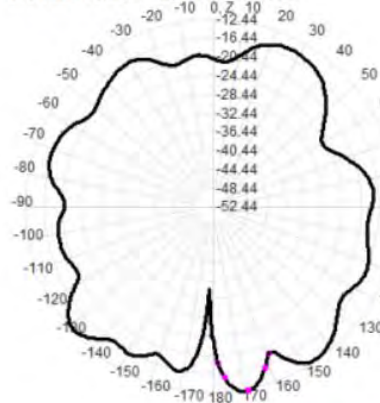
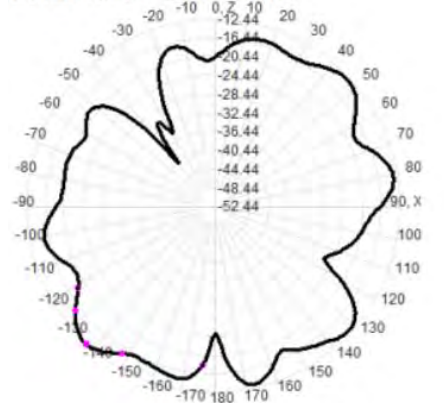
Back View



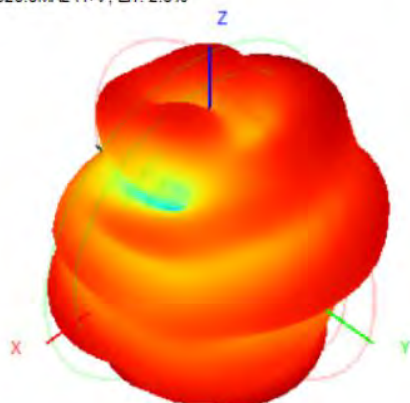
810.0MHz Total(E1-XZ), Max=-12.44dBi

810.0MHz Total(E2-YZ), Max=-12.45dBi

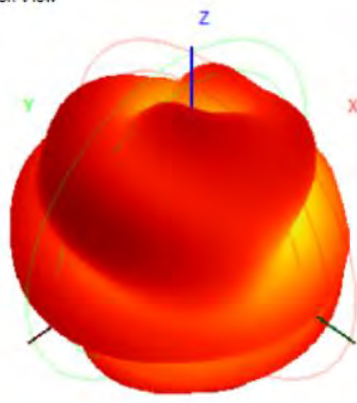
Total(H-XY), Max=-16.69dBi, CirD=4.29



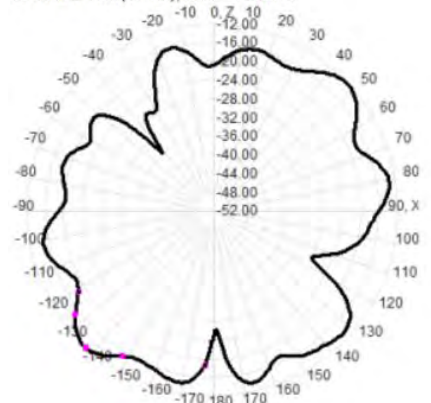
820.0MHz H+V, Eff: 2.0%



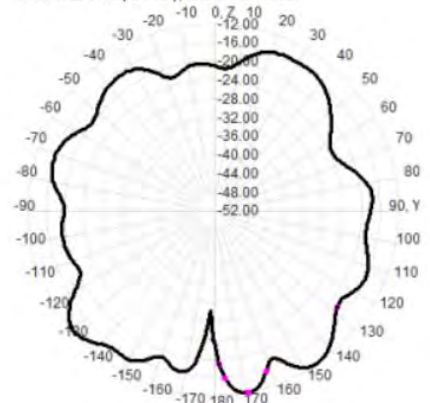
Back View



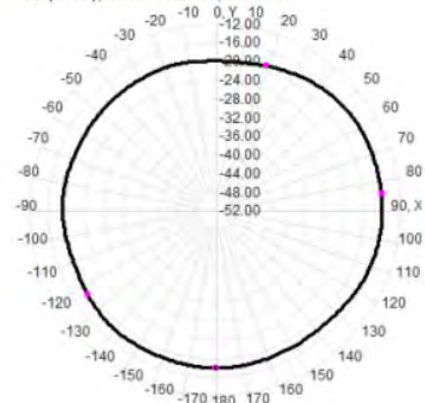
820.0MHz Total(E1-XZ), Max=-12.00dBi



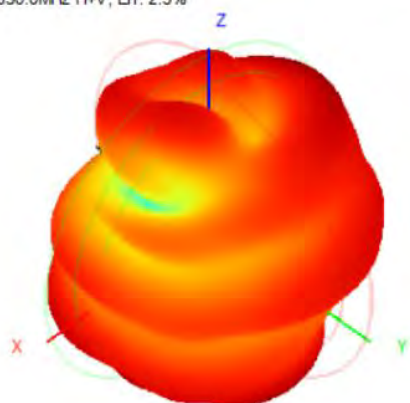
820.0MHz Total(E2-YZ), Max=-12.33dBi



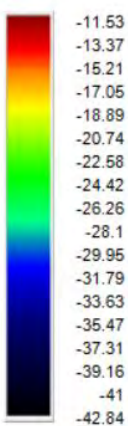
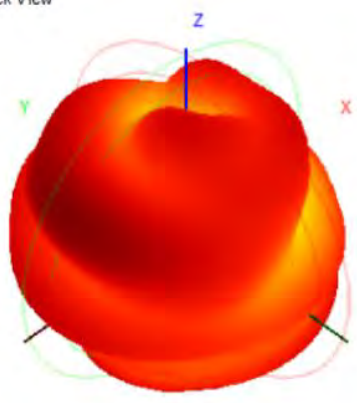
Total(H-XY), Max=-16.24dBi, CirD=3.79



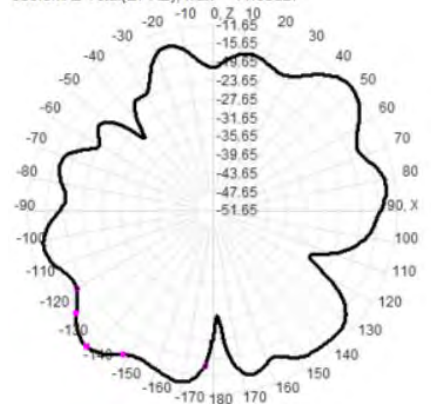
830.0MHz H+V, Eff: 2.3%



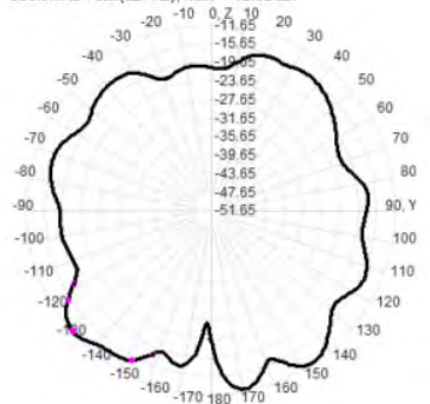
Back View



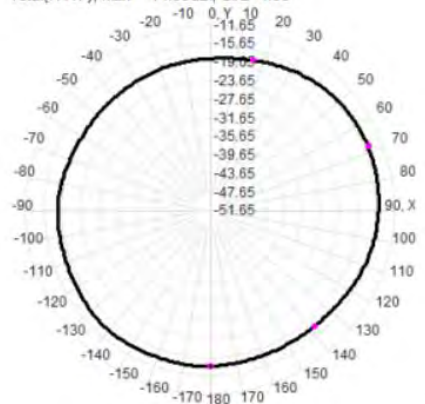
830.0MHz Total(E1-XZ), Max=-11.65dBi



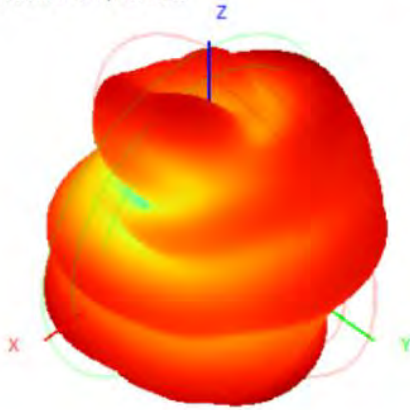
830.0MHz Total(E2-YZ), Max=-12.02dBi



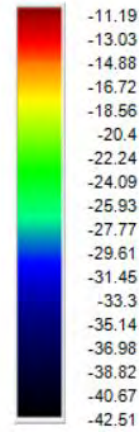
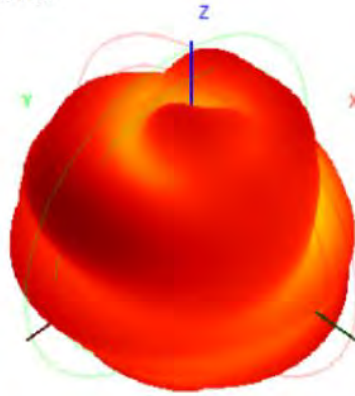
Total(H-XY), Max=-14.99dBi, CirD=4.90



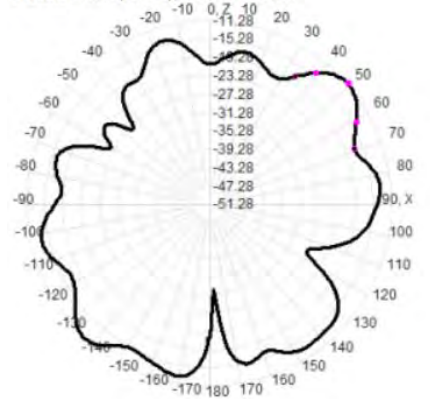
840.0MHz H+V, Eff: 2.5%



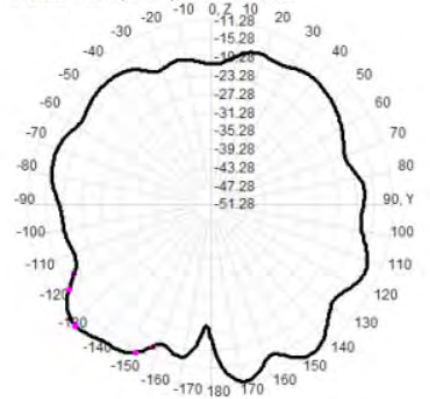
Back View



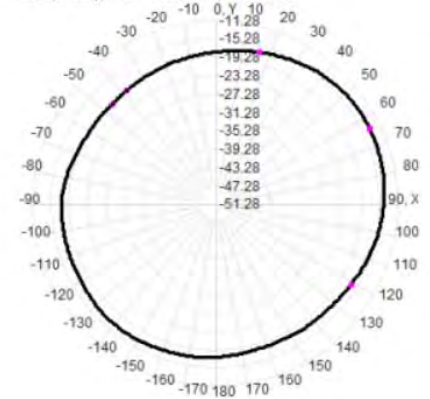
840.0MHz Total(E1-XZ), Max=-11.28dBi



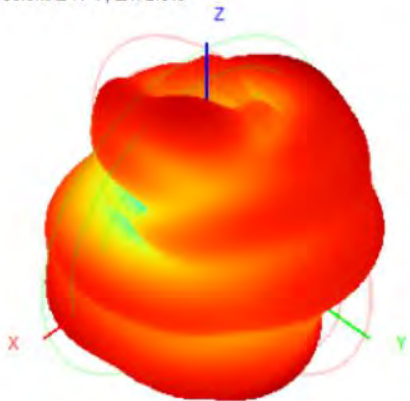
840.0MHz Total(E2-YZ), Max=-11.65dBi



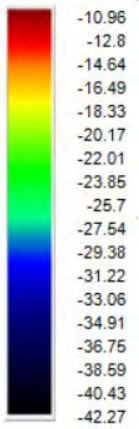
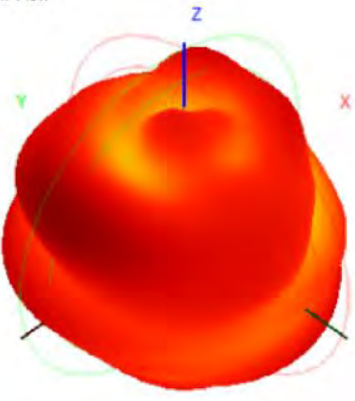
Total(H-XY), Max=-13.91dBi, CirD=6.03



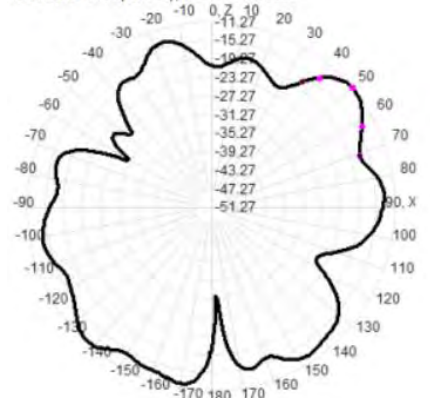
850.0MHz H+V, Eff: 2.6%



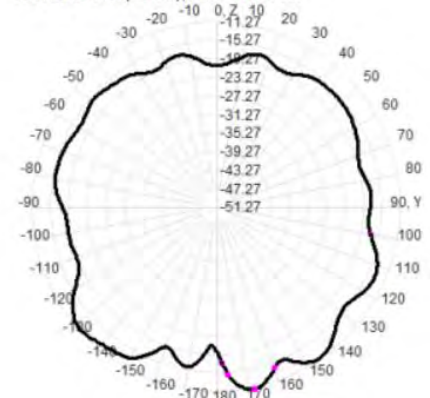
Back View



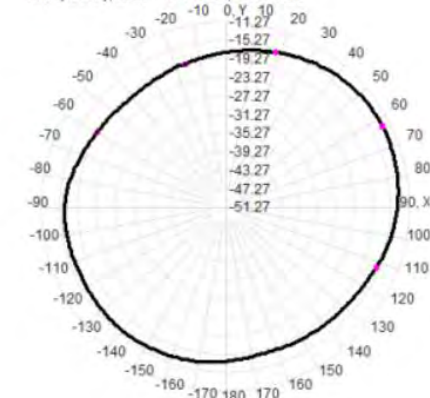
850.0MHz Total(E1-XZ), Max=-11.28dBi



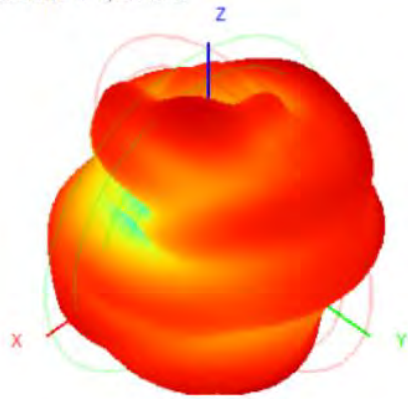
850.0MHz Total(E2-YZ), Max=-11.27dBi



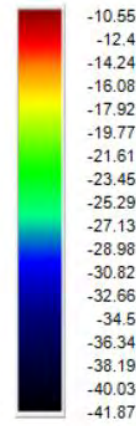
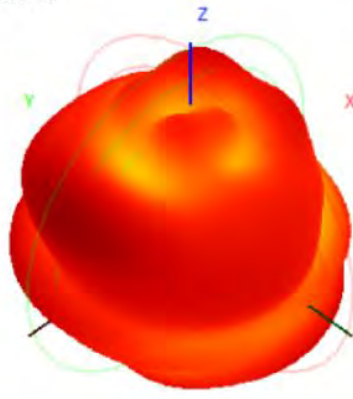
Total(H-XY), Max=-13.14dBi, CirD=6.98



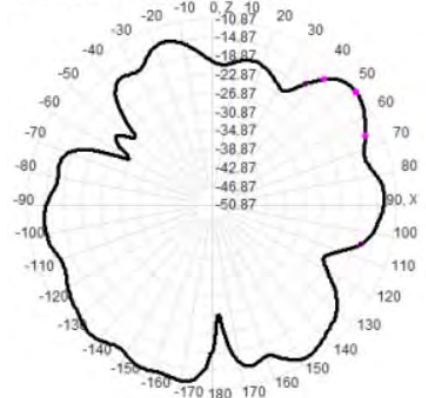
860.0MHz H+V, Eff: 2.7%



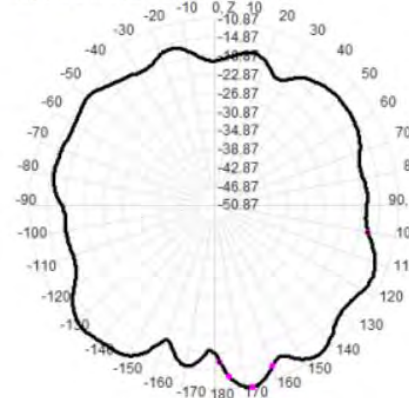
Back View



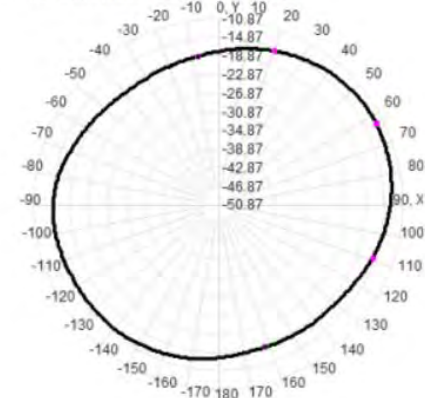
860.0MHz Total(E1-XZ), Max=-11.39dBi



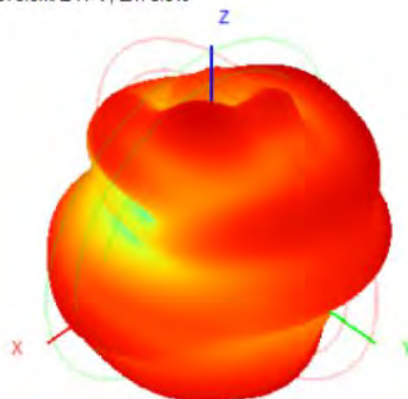
860.0MHz Total(E2-YZ), Max=-10.87dBi



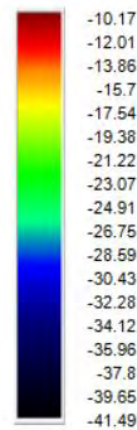
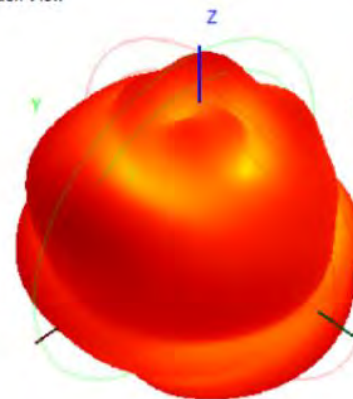
Total(H-XY), Max=-12.65dBi, CirD=6.99



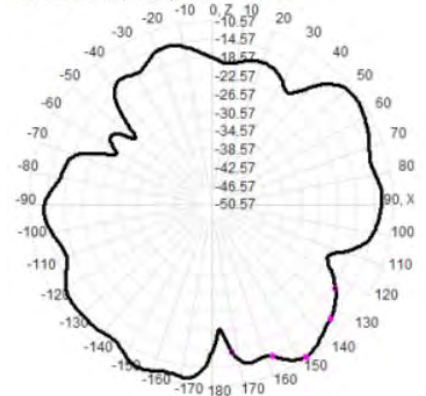
870.0MHz H+V, Eff: 3.0%



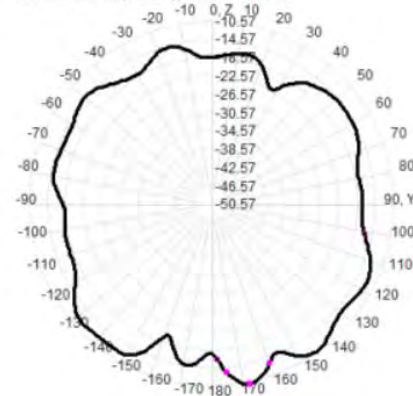
Back View



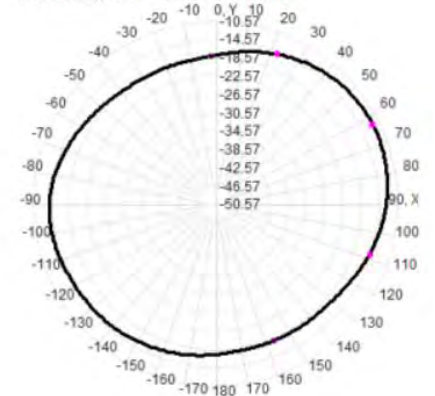
870.0MHz Total(E1-XZ), Max=-11.39dBi



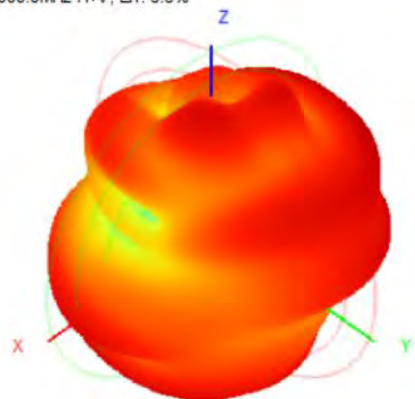
870.0MHz Total(E2-YZ), Max=-10.57dBi



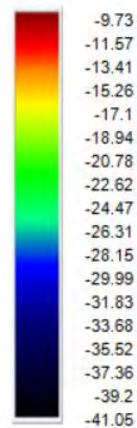
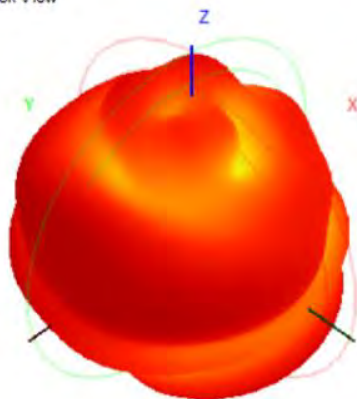
Total(H-XY), Max=-12.19dBi, CirD=6.60



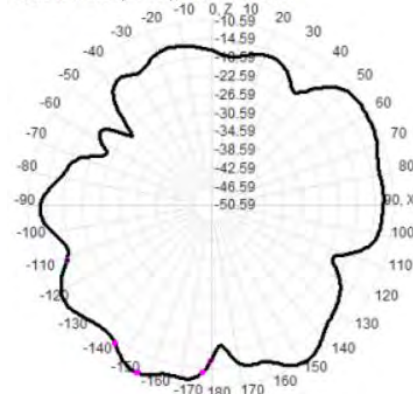
880.0MHz H+V, Eff: 3.3%



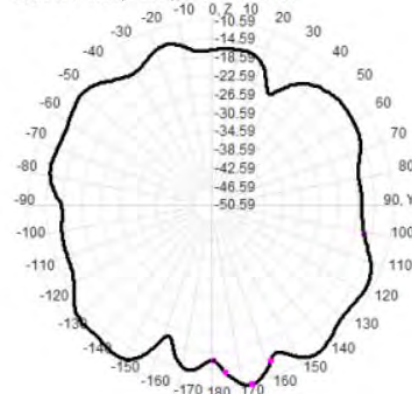
Back View



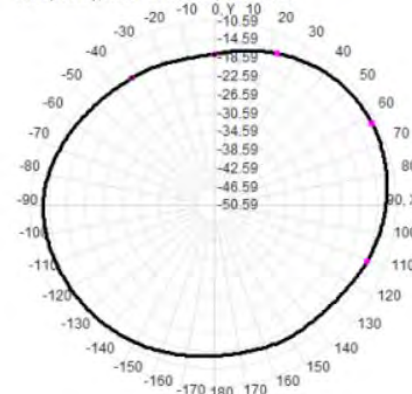
880.0MHz Total(E1-XZ), Max=-10.70dBi



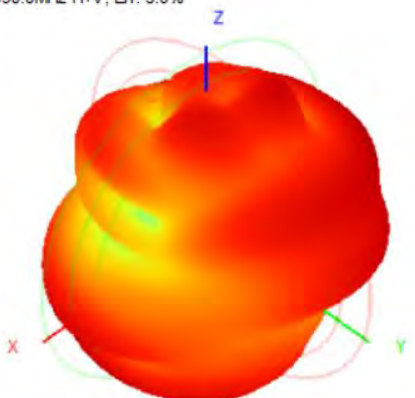
880.0MHz Total(E2-YZ), Max=-10.59dBi



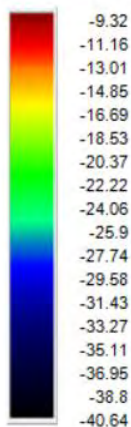
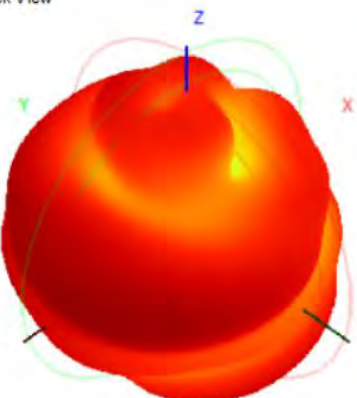
Total(H-XY), Max=-11.90dBi, CirD=6.46



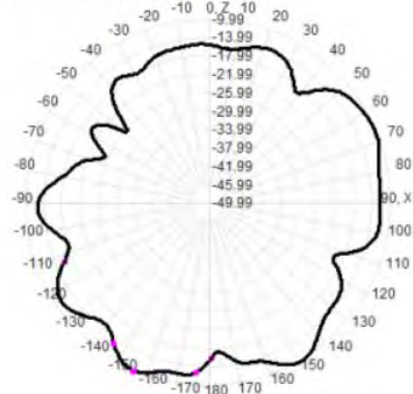
890.0MHz H+V, Eff: 3.8%



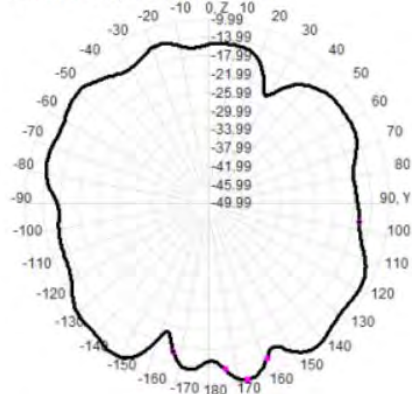
Back View



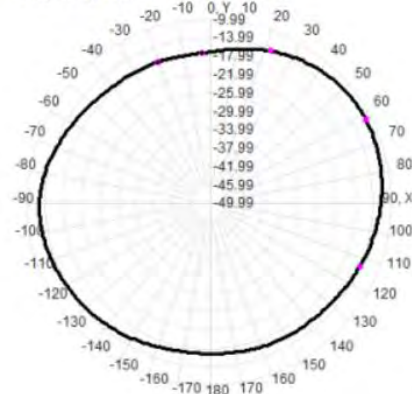
890.0MHz Total(E1-XZ), Max=-9.99dBi



890.0MHz Total(E2-YZ), Max=-10.54dBi

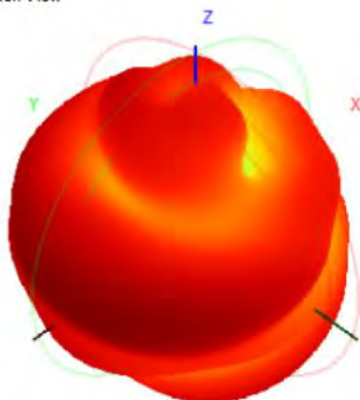
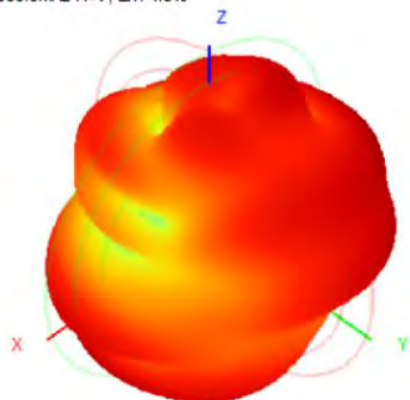


Total(H-XY), Max=-11.36dBi, CirD=6.20



900.0MHz H+V, Eff: 4.6%

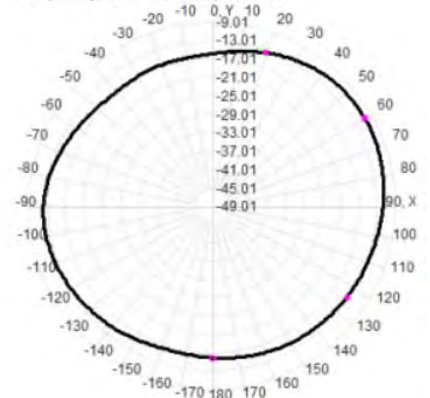
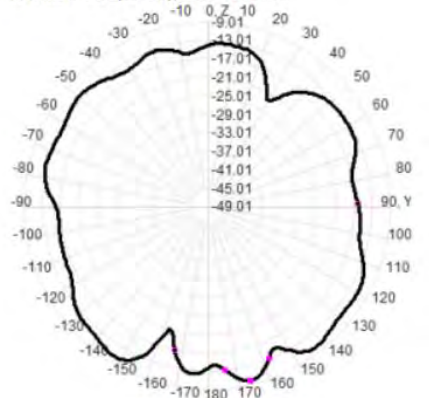
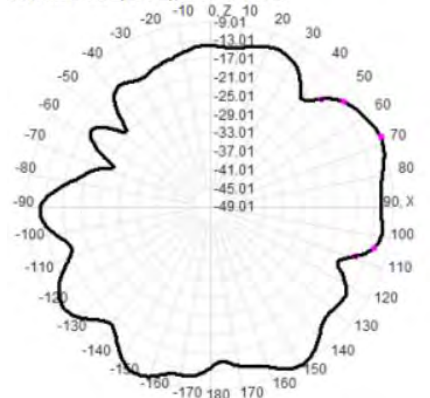
Back View



900.0MHz Total(E1-XZ), Max=-9.01dBi

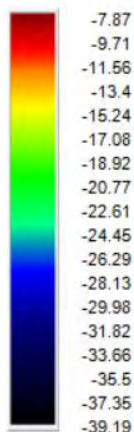
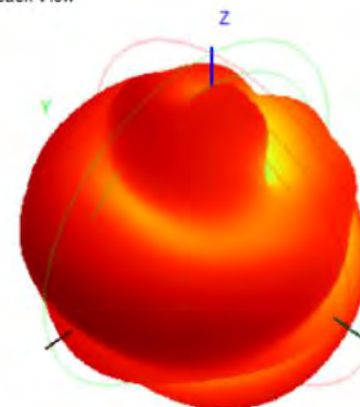
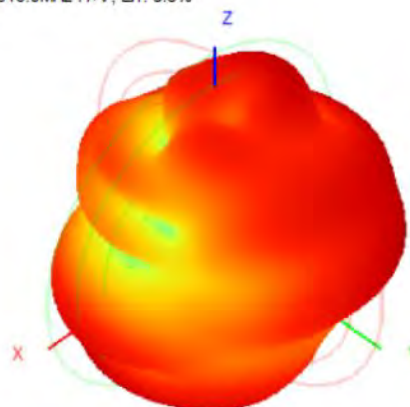
900.0MHz Total(E2-YZ), Max=-10.27dBi

Total(H-XY), Max=-10.75dBi, CirD=5.86



910.0MHz H+V, Eff: 5.3%

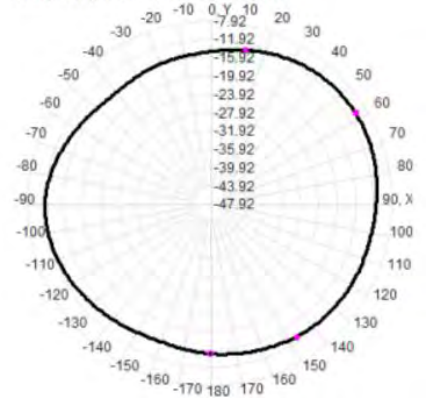
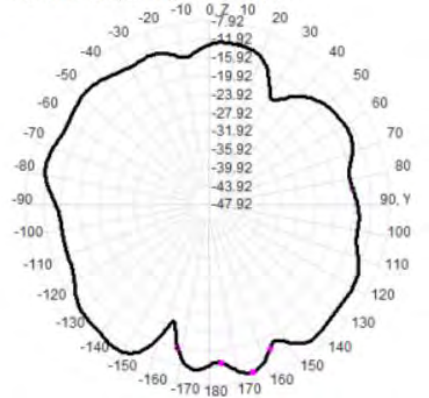
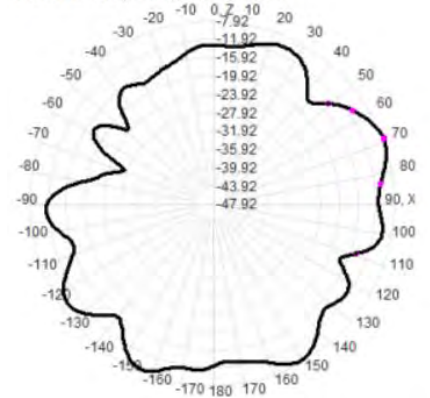
Back View



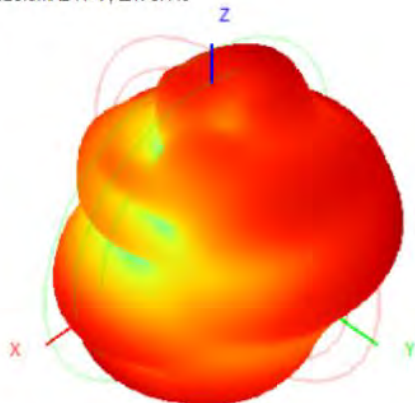
910.0MHz Total(E1-XZ), Max=-7.92dBi

910.0MHz Total(E2-YZ), Max=-10.00dBi

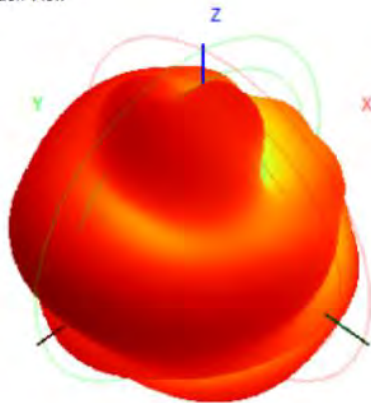
Total(H-XY), Max=-10.43dBi, CirD=5.67



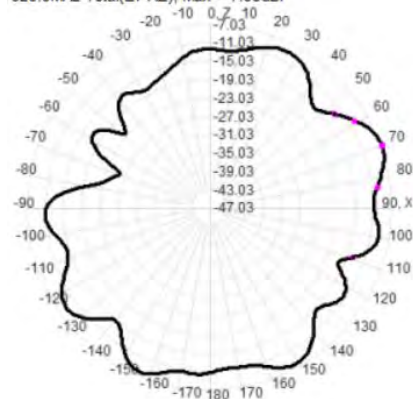
920.0MHz H+V, Eff: 6.1%



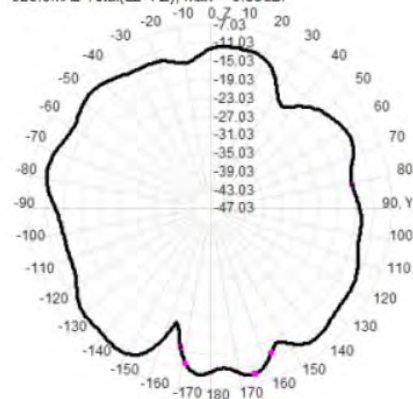
Back View



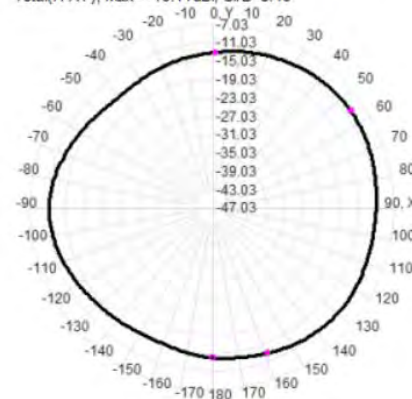
920.0MHz Total(E1-XZ), Max=-7.03dBi



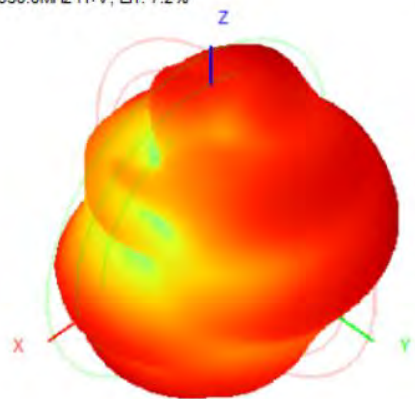
920.0MHz Total(E2-YZ), Max=-9.55dBi



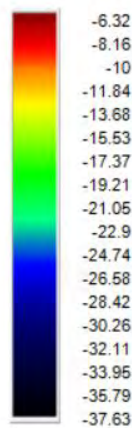
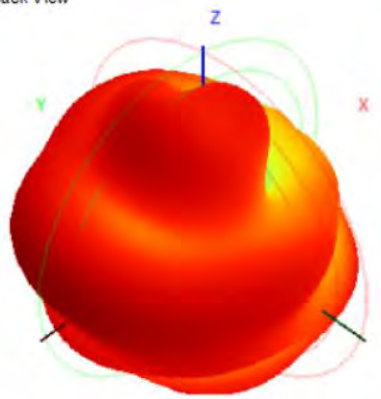
Total(H-XY), Max=-10.11dBi, CirD=5.46



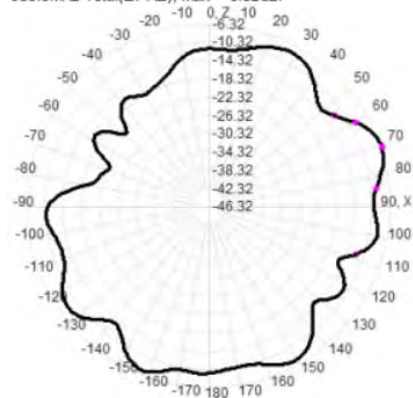
930.0MHz H+V, Eff: 7.2%



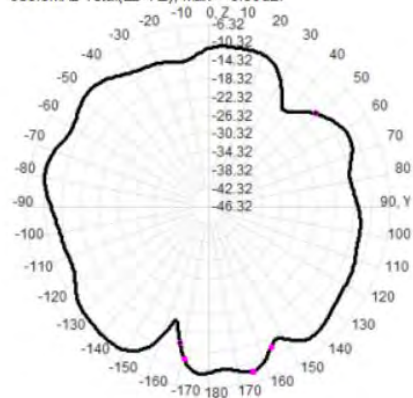
Back View



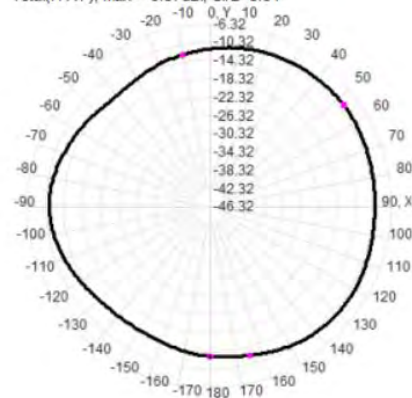
930.0MHz Total(E1-XZ), Max=-6.32dBi



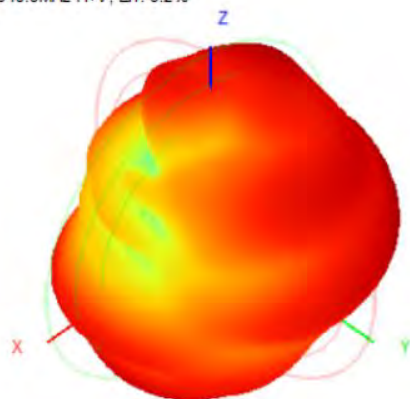
930.0MHz Total(E2-YZ), Max=-8.98dBi



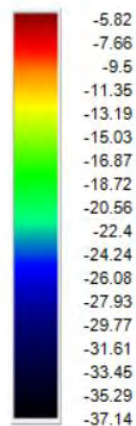
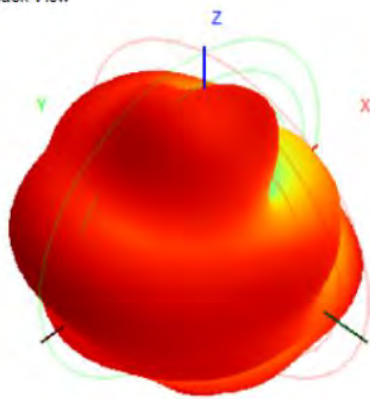
Total(H-XY), Max=-9.57dBi, CirD=5.64



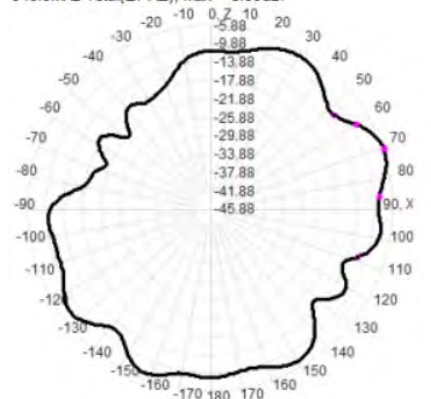
940.0MHz H+V, Eff: 8.2%



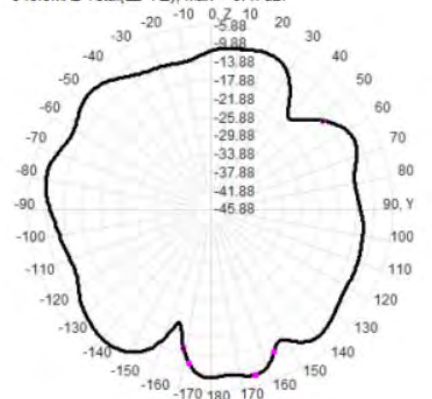
Back View



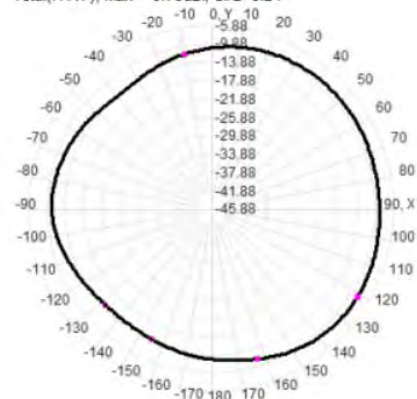
940.0MHz Total(E1-XZ), Max=-5.88dBi



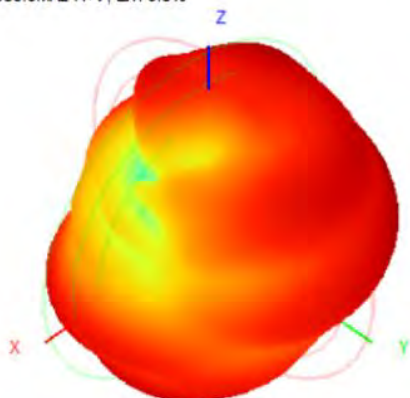
940.0MHz Total(E2-YZ), Max=-8.47dBi



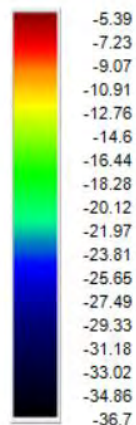
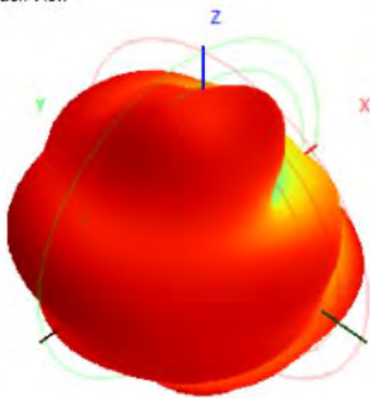
Total(H-XY), Max=-8.70dBi, CirD=6.24



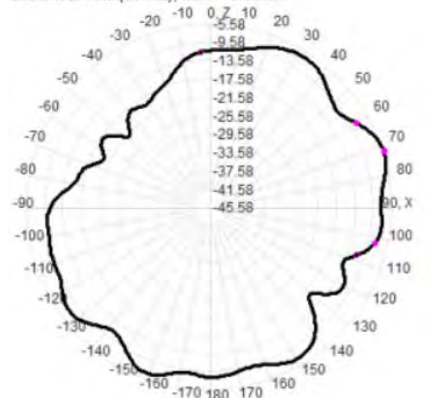
950.0MHz H+V, Eff: 9.3%



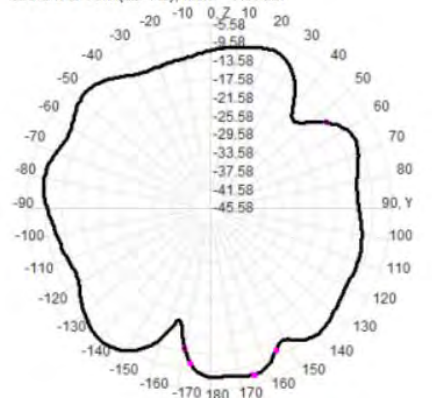
Back View



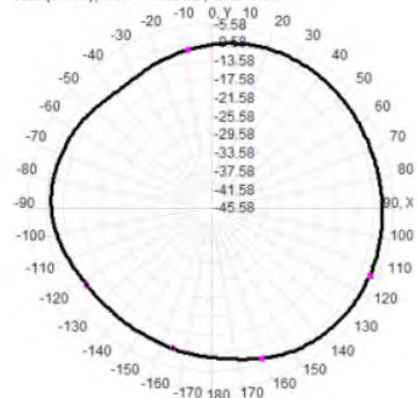
950.0MHz Total(E1-XZ), Max=-5.58dBi



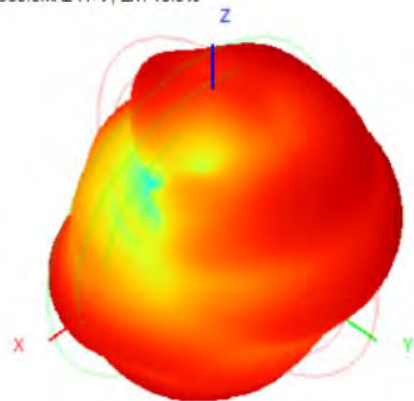
950.0MHz Total(E2-YZ), Max=-7.97dBi



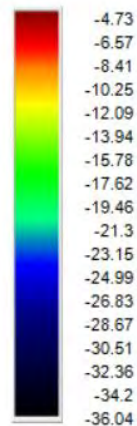
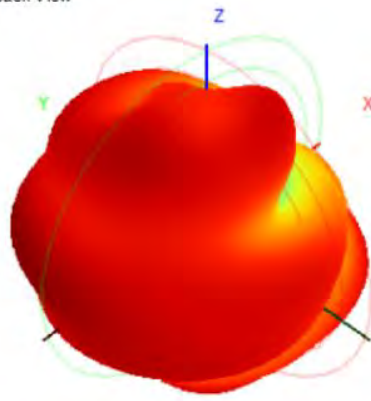
Total(H-XY), Max=-7.81dBi, CirD=6.63



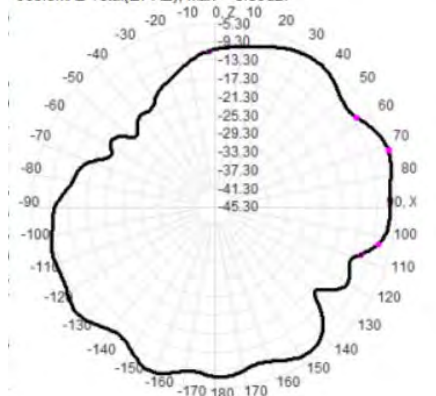
960.0MHz H+V, Eff: 10.9%



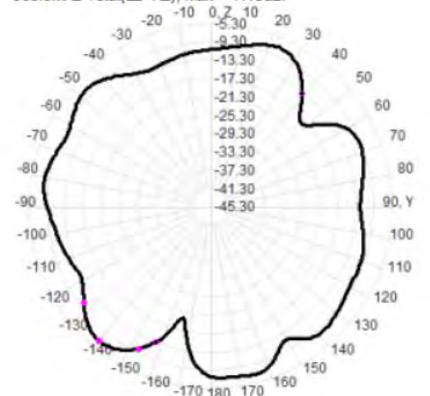
Back View



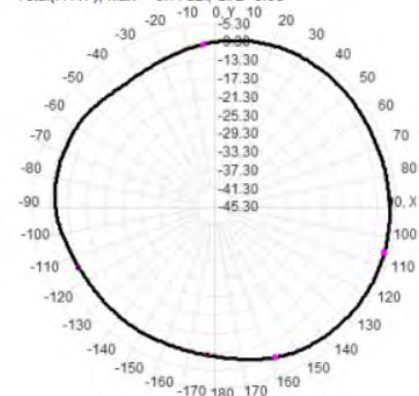
960.0MHz Total(E1-XZ), Max=-5.30dBi



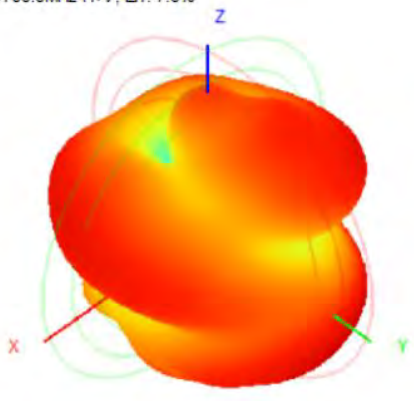
960.0MHz Total(E2-YZ), Max=-7.15dBi



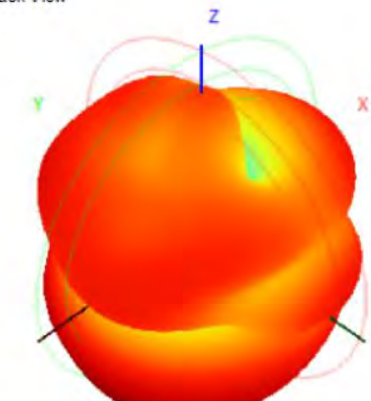
Total(H-XY), Max=-6.77dBi, CirD=6.85



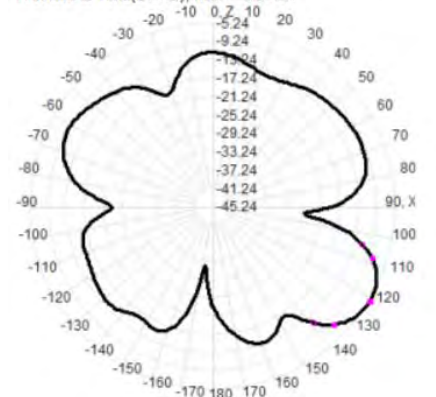
1700.0MHz H+V, Eff: 7.6%



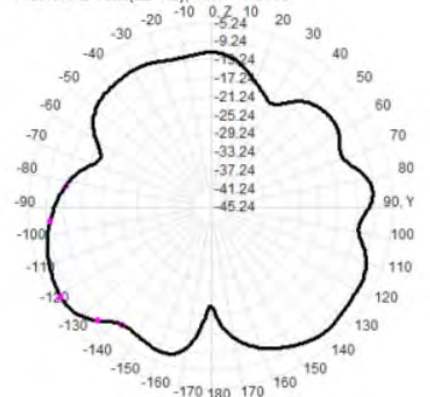
Back View



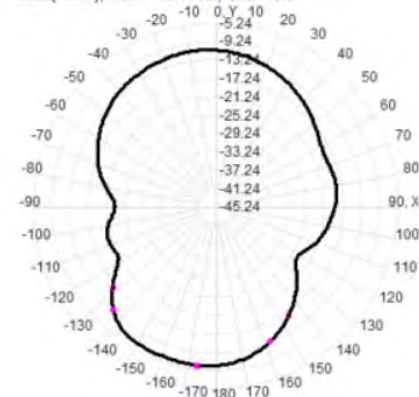
1700.0MHz Total(E1-XZ), Max=-5.24dBi



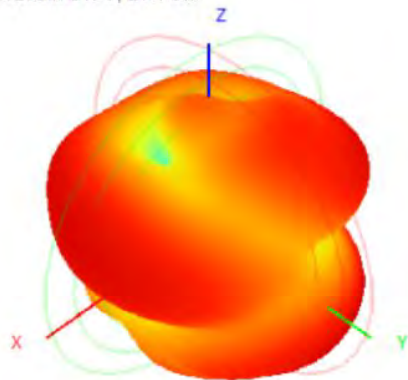
1700.0MHz Total(E2-YZ), Max=-7.05dBi



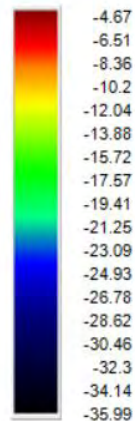
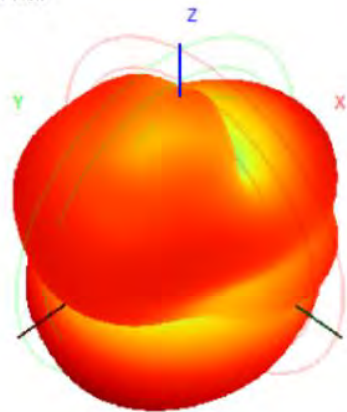
Total(H-XY), Max=-10.48dBi, CirD=13.87



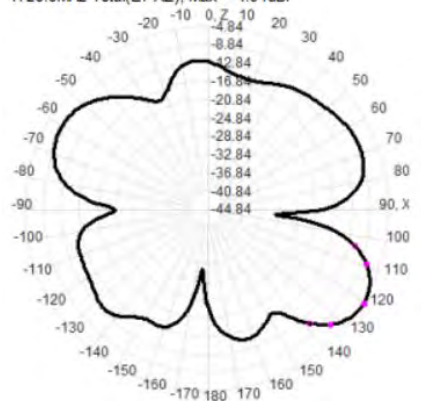
1720.0MHz H+V, Eff: 7.8%



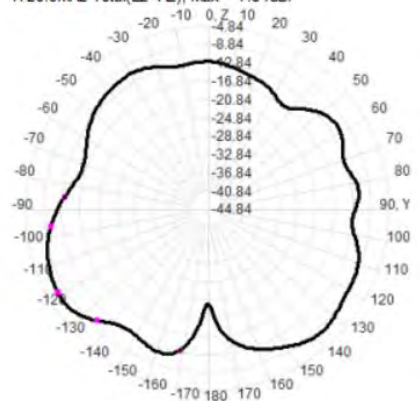
Back View



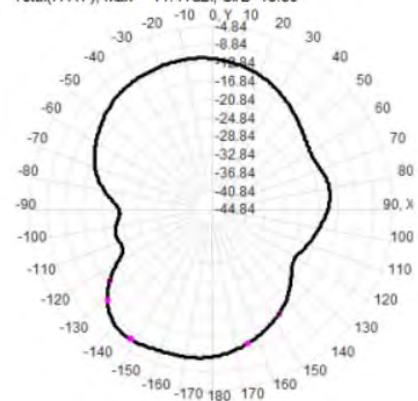
1720.0MHz Total(E1-XZ), Max=-4.84dBi



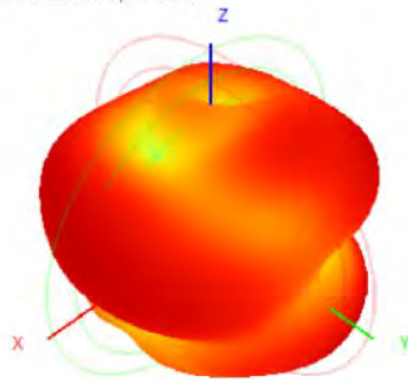
1720.0MHz Total(E2-YZ), Max=-7.34dBi



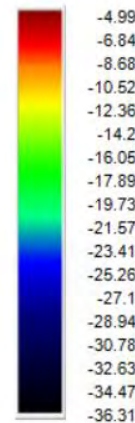
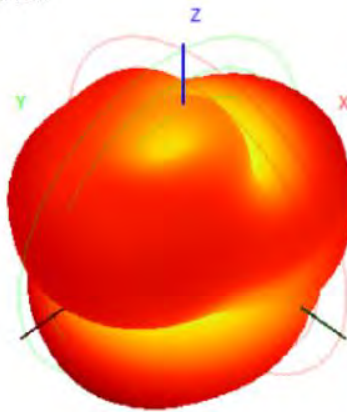
Total(H-XY), Max=-11.41dBi, CirD=13.39



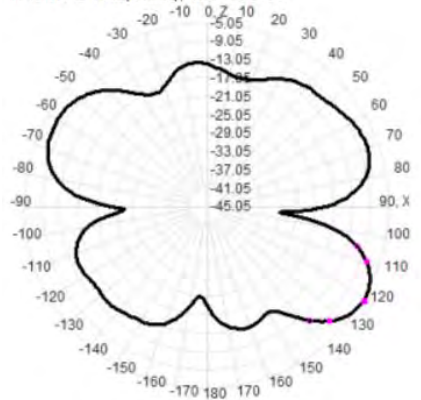
1740.0MHz H+V, Eff: 8.0%



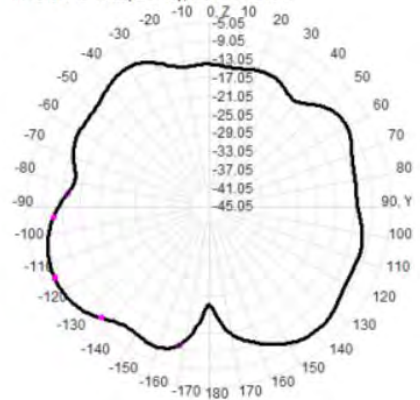
Back View



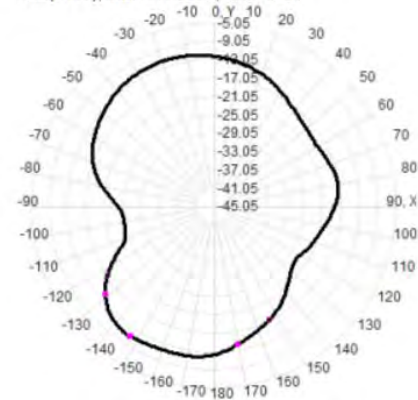
1740.0MHz Total(E1-XZ), Max=-5.05dBi



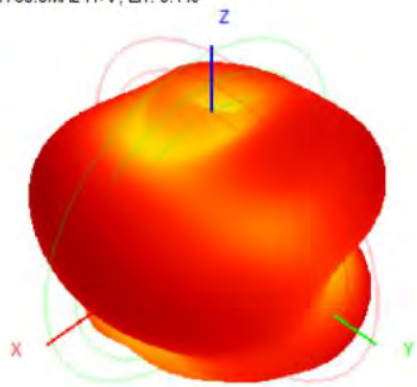
1740.0MHz Total(E2-YZ), Max=-7.94dBi



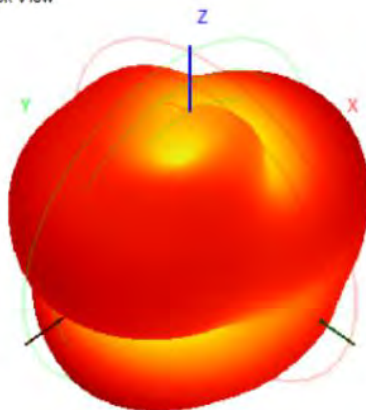
Total(H-XY), Max=-11.33dBi, CirD=13.84



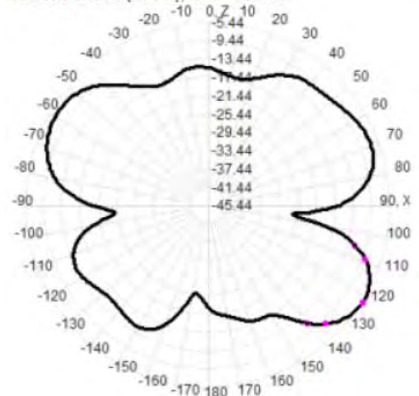
1760.0MHz H+V, Eff: 8.1%



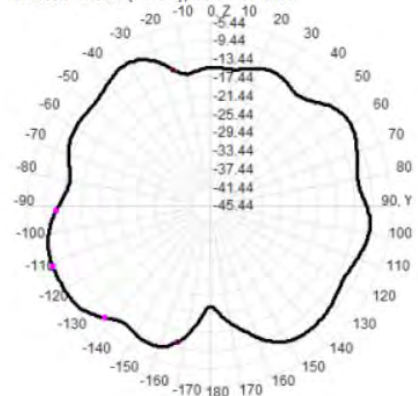
Back View



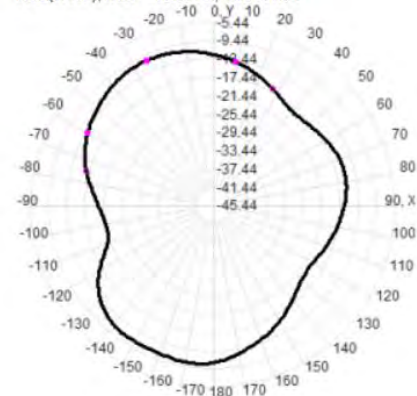
1760.0MHz Total(E1-XZ), Max=-5.44dBi



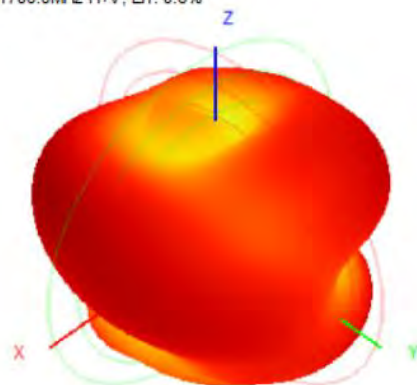
1760.0MHz Total(E2-YZ), Max=-8.61dBi



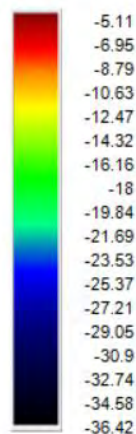
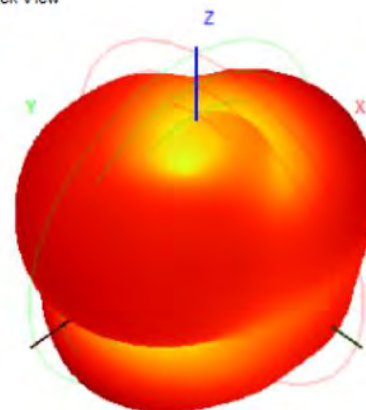
Total(H-XY), Max=-10.67dBi, CirD=11.04



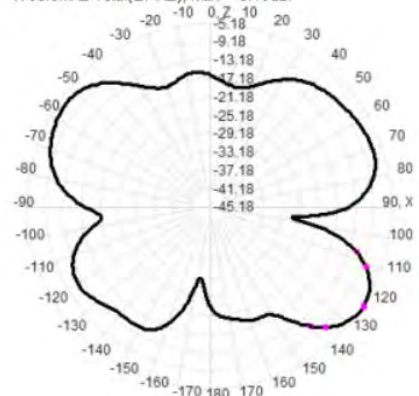
1780.0MHz H+V, Eff: 8.6%



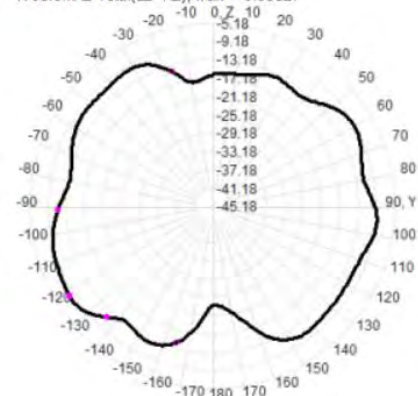
Back View



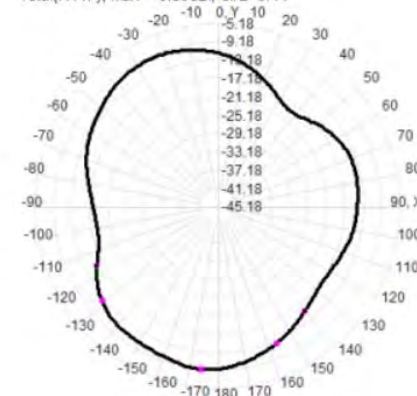
1780.0MHz Total(E1-XZ), Max=-5.18dBi



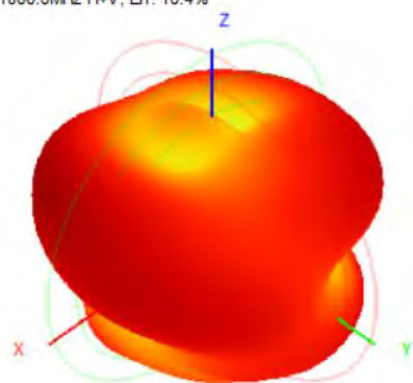
1780.0MHz Total(E2-YZ), Max=-8.35dBi



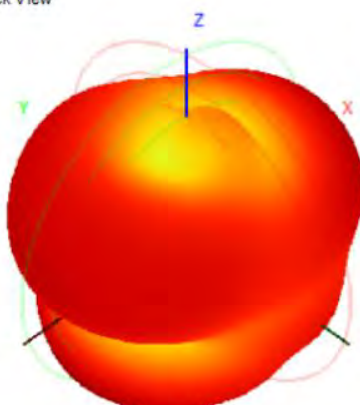
Total(H-XY), Max=-9.59dBi, CirD=9.44



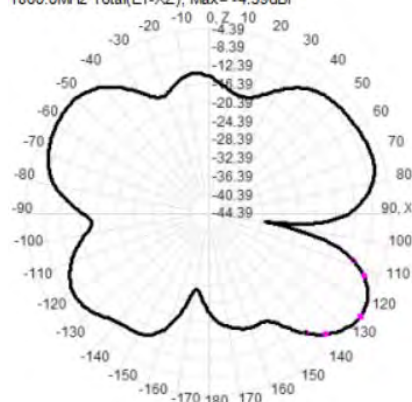
1800.0MHz H+V, Eff: 10.4%



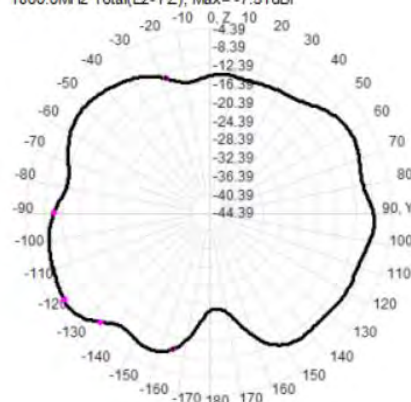
Back View



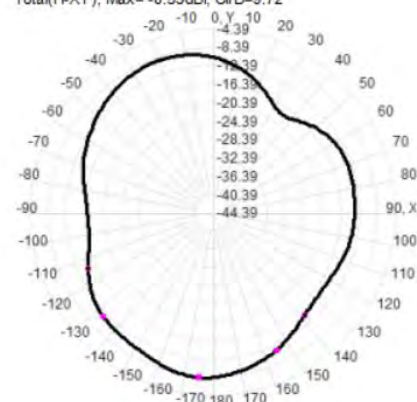
1800.0MHz Total(E1-XZ), Max=-4.39dBi



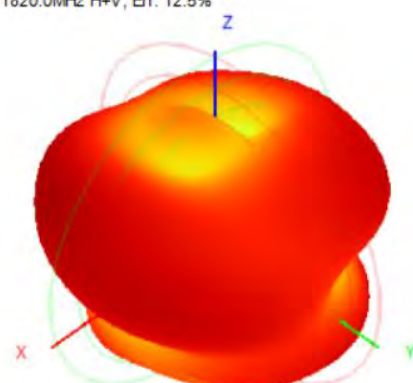
1800.0MHz Total(E2-YZ), Max=-7.51dBi



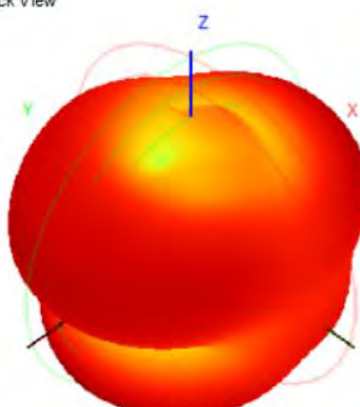
Total(H-XY), Max=-8.53dBi, CirD=9.72



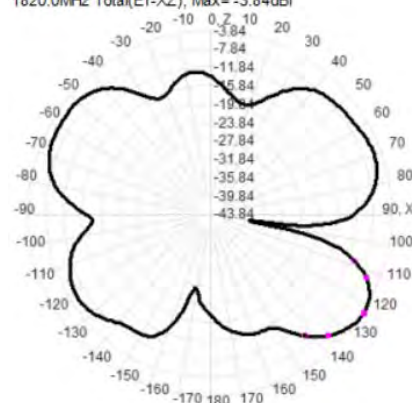
1820.0MHz H+V, Eff: 12.5%



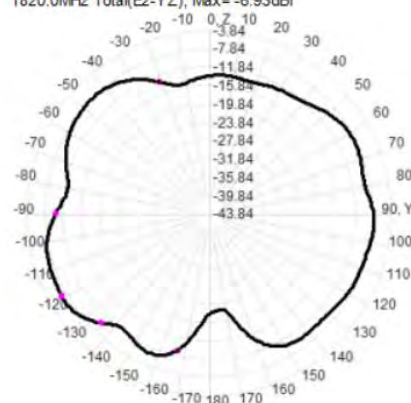
Back View



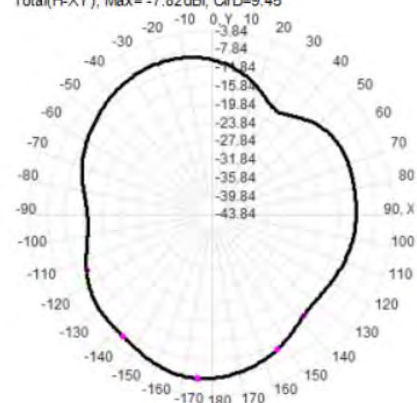
1820.0MHz Total(E1-XZ), Max=-3.84dBi



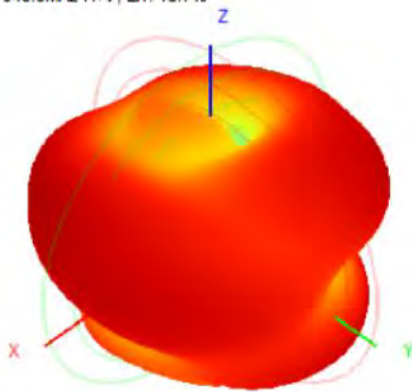
1820.0MHz Total(E2-YZ), Max=-6.93dBi



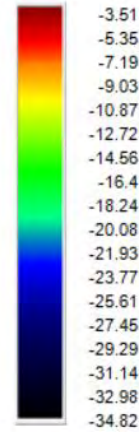
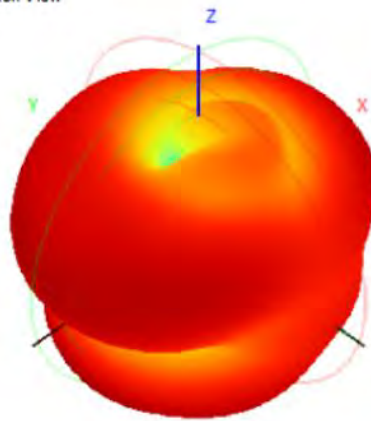
Total(H-XY), Max=-7.82dBi, CirD=9.45



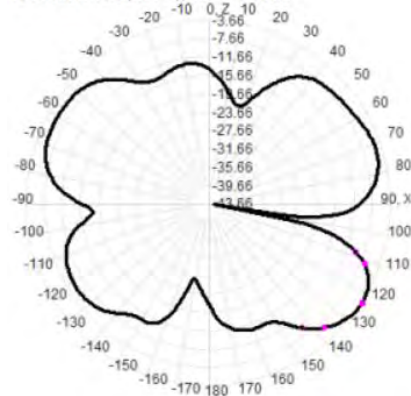
1840.0MHz H+V, Eff: 13.7%



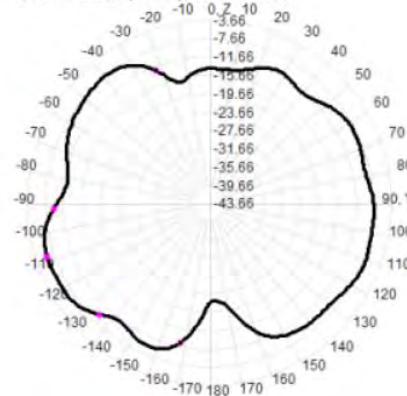
Back View



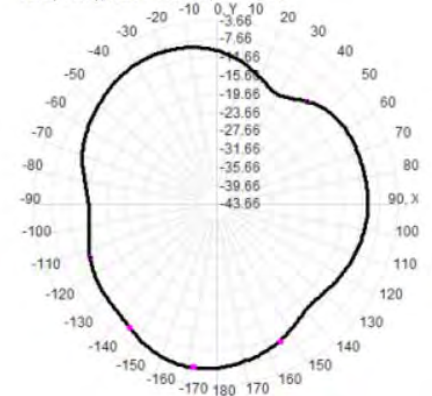
1840.0MHz Total(E1-XZ), Max=-3.66dBi



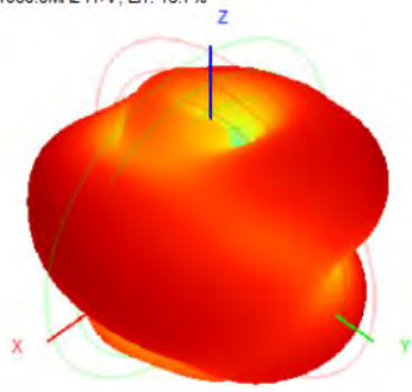
1840.0MHz Total(E2-YZ), Max=-6.29dBi



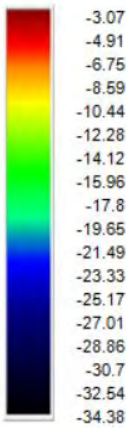
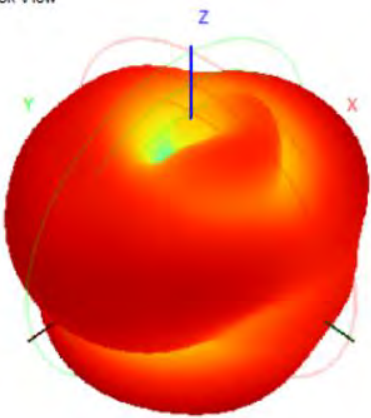
Total(H-XY), Max=-7.58dBi, CirD=8.70



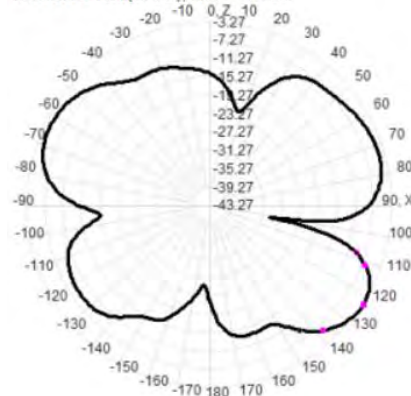
1860.0MHz H+V, Eff: 15.7%



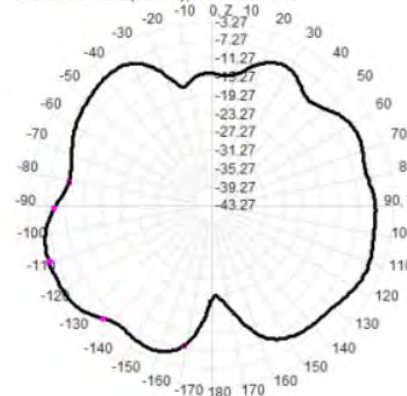
Back View



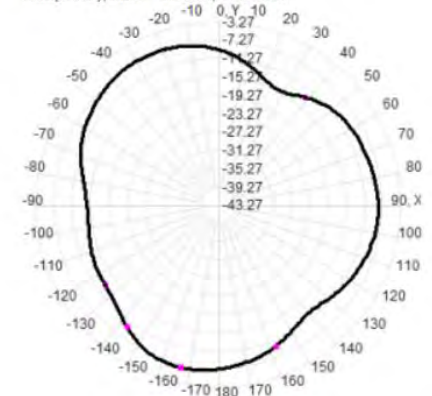
1860.0MHz Total(E1-XZ), Max=-3.27dBi



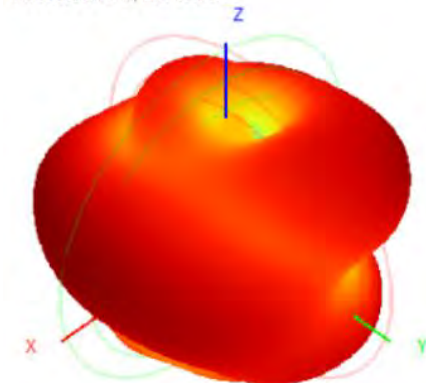
1860.0MHz Total(E2-YZ), Max=-5.73dBi



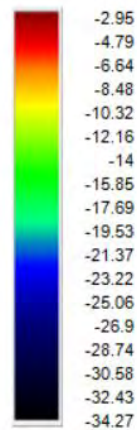
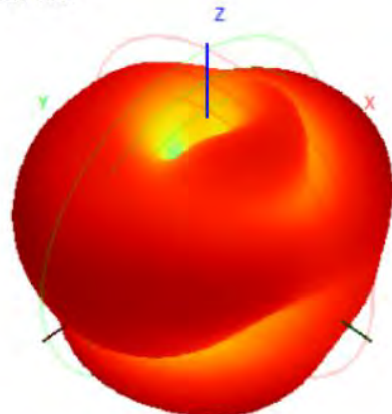
Total(H-XY), Max=-6.95dBi, CirD=8.03



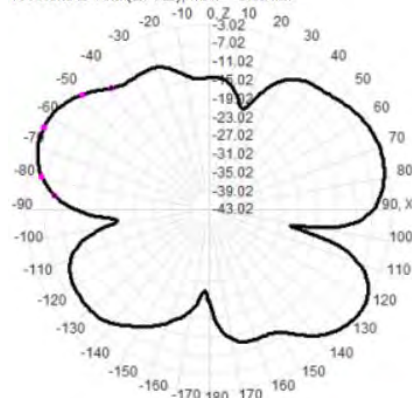
1880.0MHz H+V, Eff: 17.9%



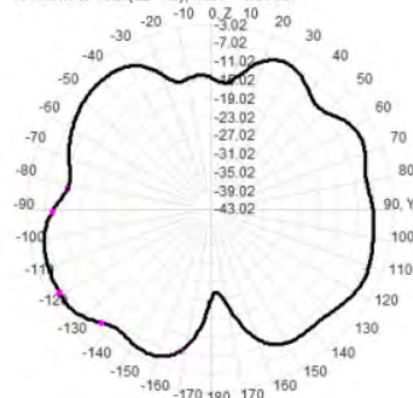
Back View



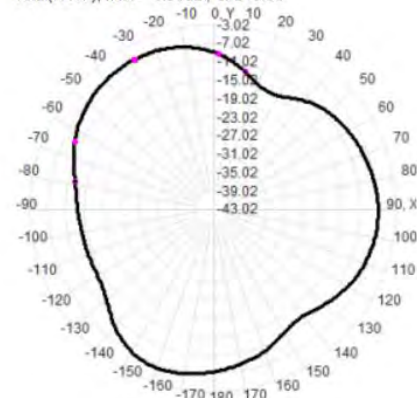
1880.0MHz Total(E1-XZ), Max=-3.02dBi



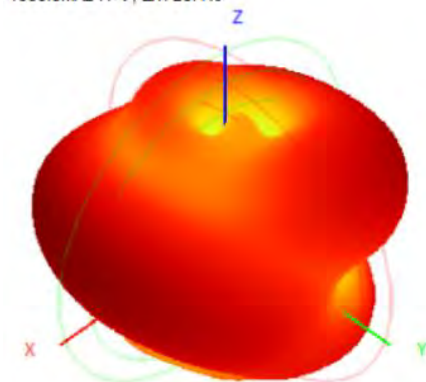
1880.0MHz Total(E2-YZ), Max=-5.50dBi



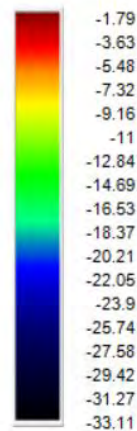
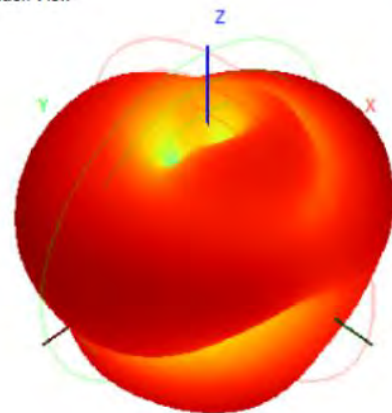
Total(H-XY), Max=-6.38dBi, CirD=8.63



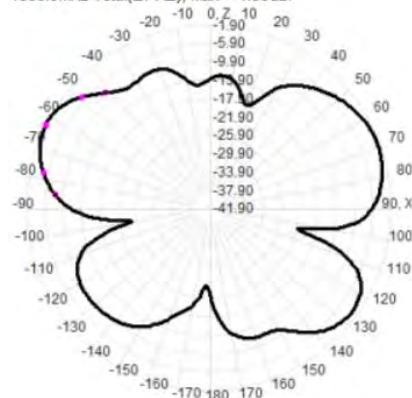
1900.0MHz H+V, Eff: 20.4%



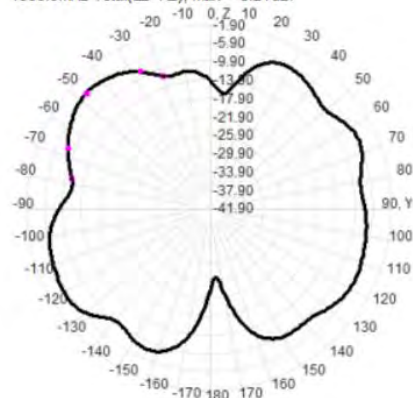
Back View



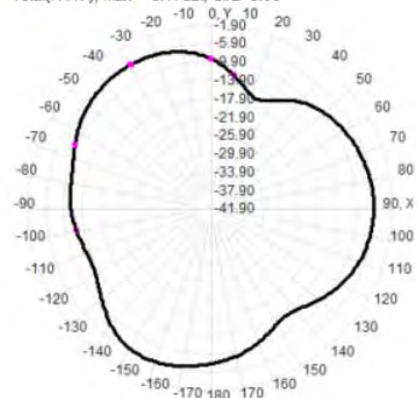
1900.0MHz Total(E1-XZ), Max=-1.90dBi



1900.0MHz Total(E2-YZ), Max=-5.21dBi

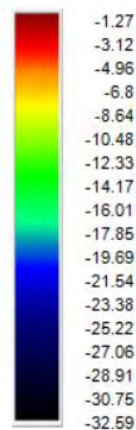
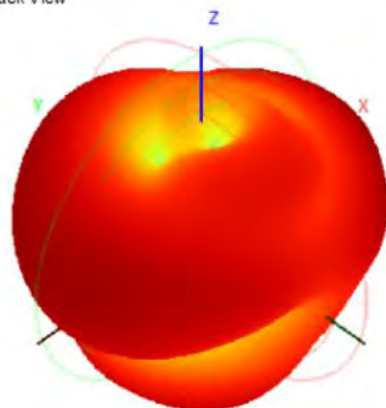
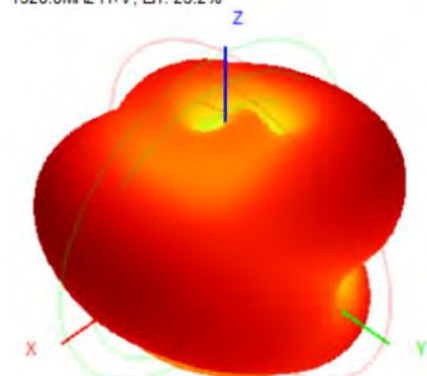


Total(H-XY), Max=-6.17dBi, CirD=9.86



1920.0MHz H+V, Eff: 23.2%

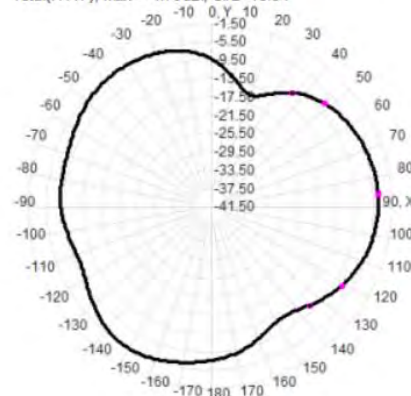
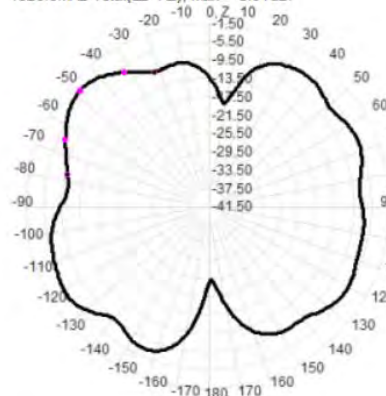
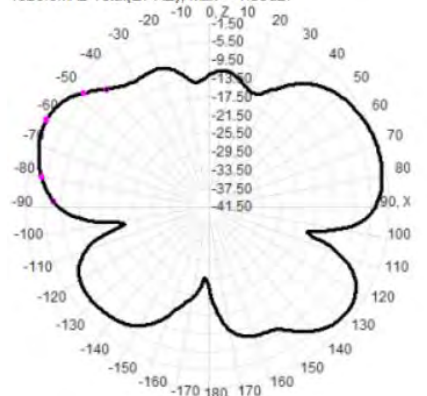
Back View



1920.0MHz Total(E1-XZ), Max=-1.50dBi

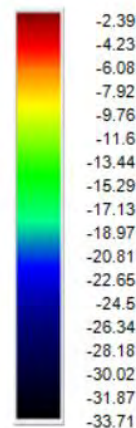
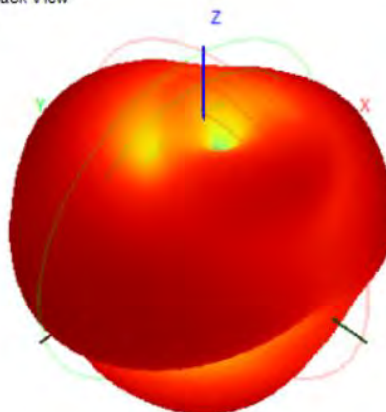
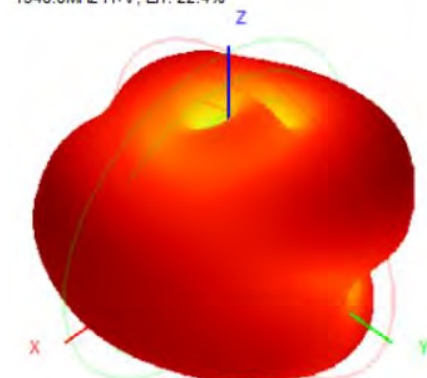
1920.0MHz Total(E2-YZ), Max=-3.81dBi

Total(H-XY), Max=-4.78dBi, CirD=10.94



1940.0MHz H+V, Eff: 22.4%

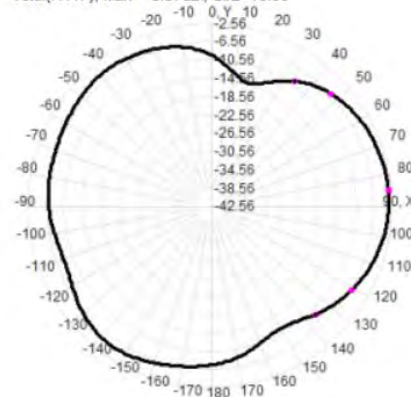
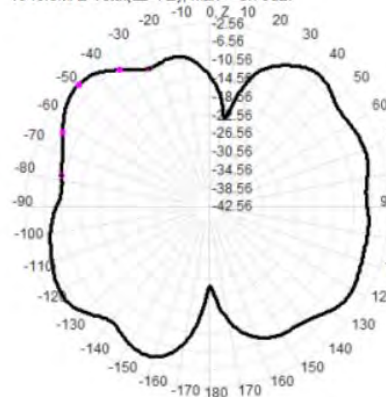
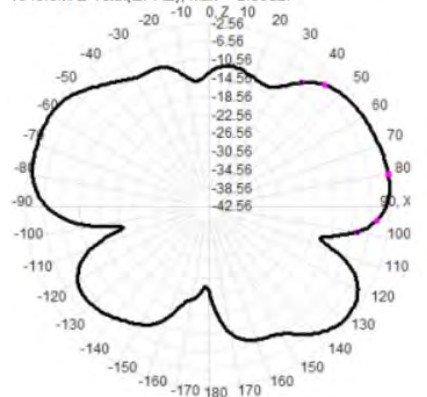
Back View



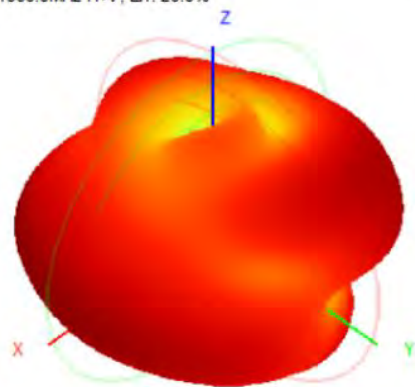
1940.0MHz Total(E1-XZ), Max=-2.56dBi

1940.0MHz Total(E2-YZ), Max=-3.76dBi

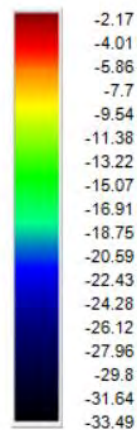
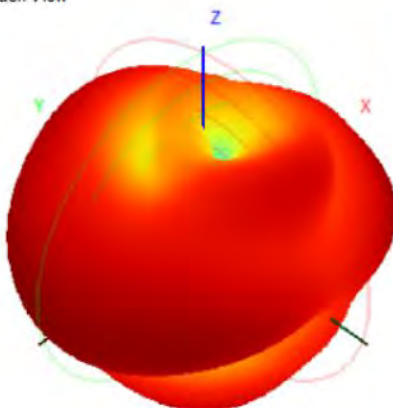
Total(H-XY), Max=-3.57dBi, CirD=10.89



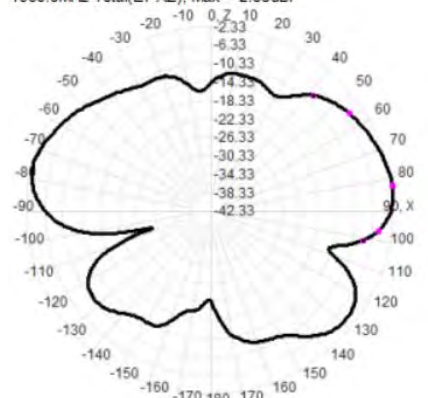
1960.0MHz H+V, Eff: 20.0%



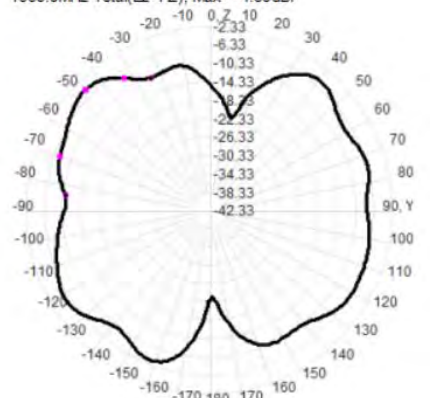
Back View



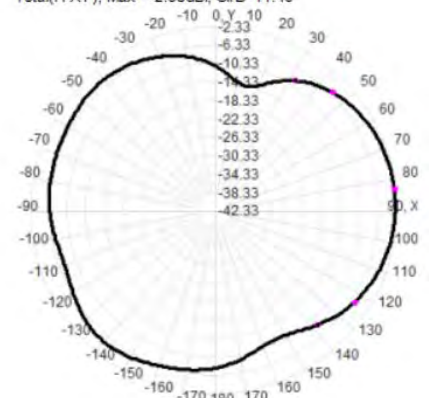
1960.0MHz Total(E1-XZ), Max=-2.33dBi



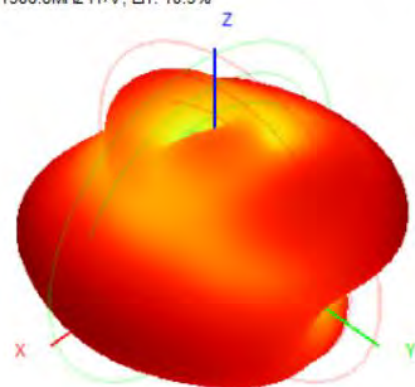
1960.0MHz Total(E2-YZ), Max=-4.69dBi



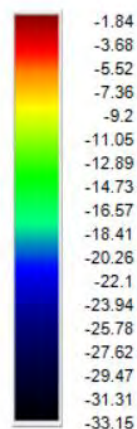
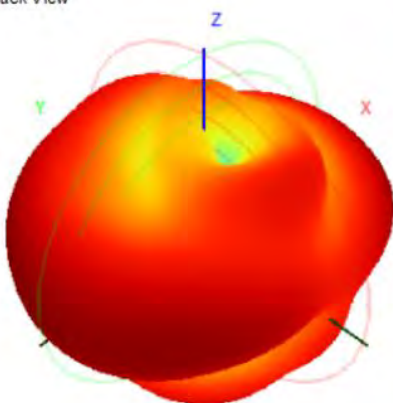
Total(H-XY), Max=-2.93dBi, CirD=11.48



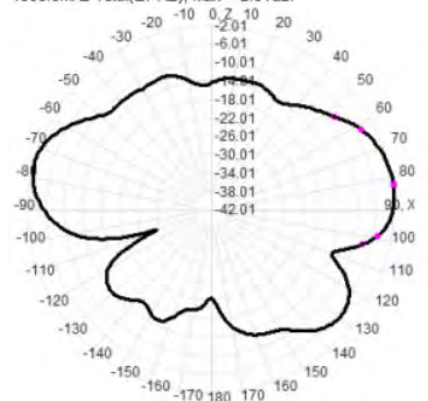
1980.0MHz H+V, Eff: 18.9%



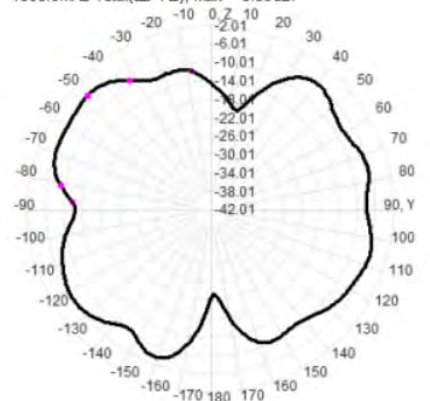
Back View



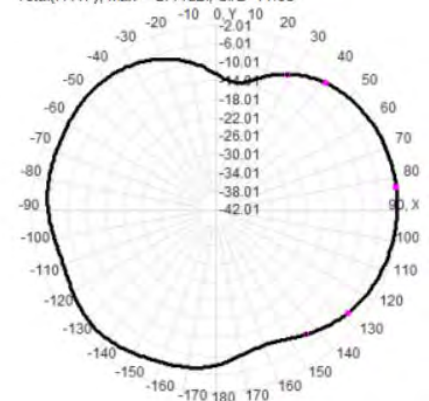
1980.0MHz Total(E1-XZ), Max=-2.01dBi



1980.0MHz Total(E2-YZ), Max=-5.58dBi

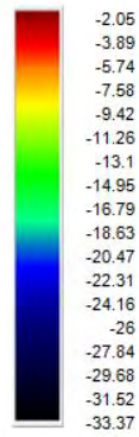
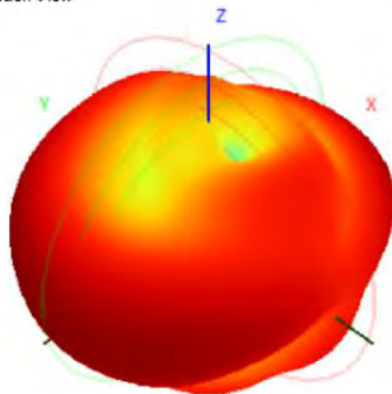
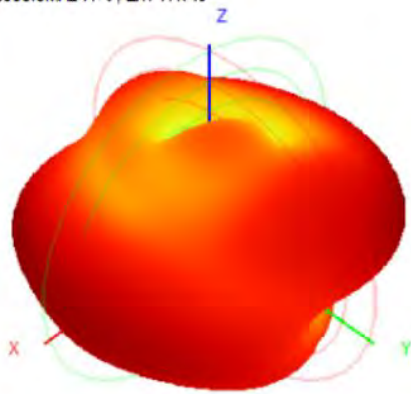


Total(H-XY), Max=-2.44dBi, CirD=11.65



2000.0MHz H+V, Eff: 17.7%

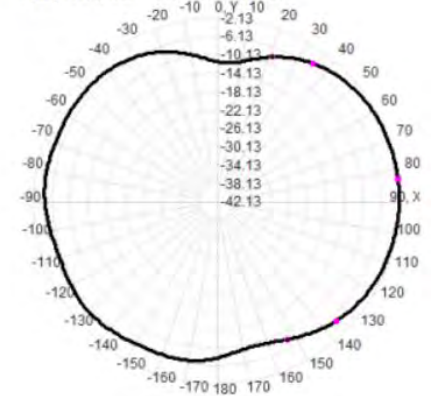
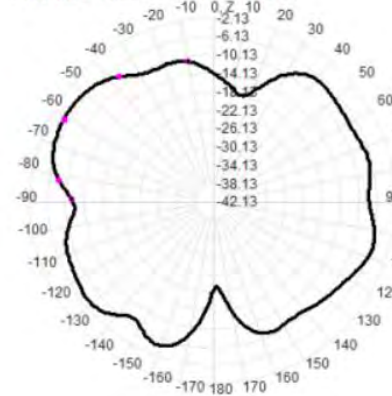
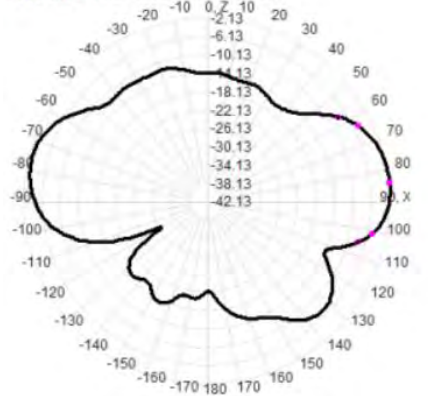
Back View



2000.0MHz Total(E1-XZ), Max=-2.13dBi

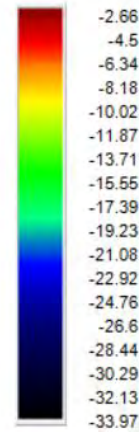
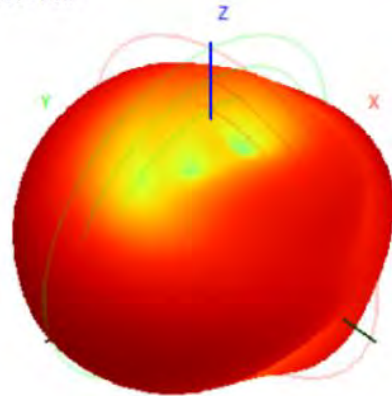
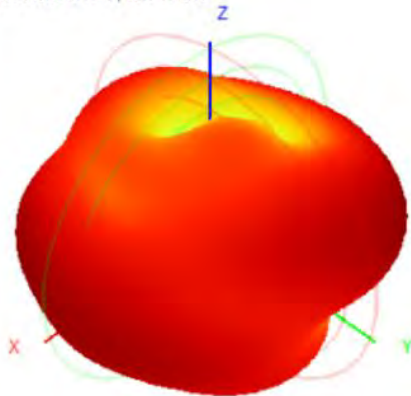
2000.0MHz Total(E2-YZ), Max=-5.10dBi

Total(H-XY), Max=-2.35dBi, CirD=9.53



2020.0MHz H+V, Eff: 17.2%

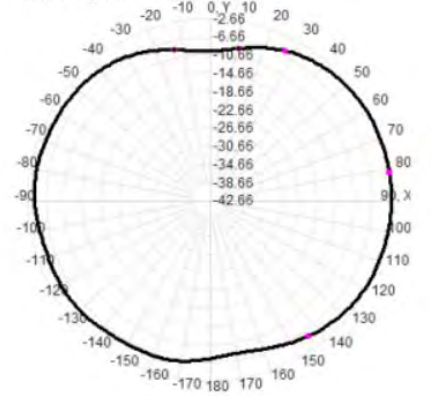
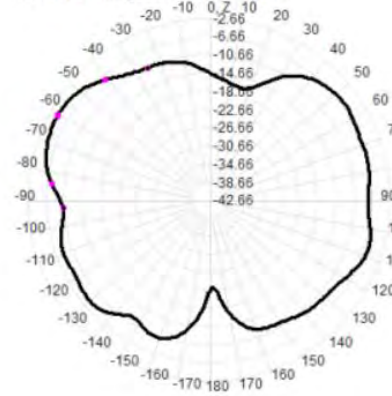
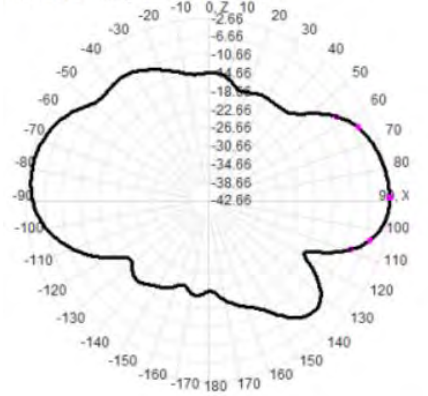
Back View



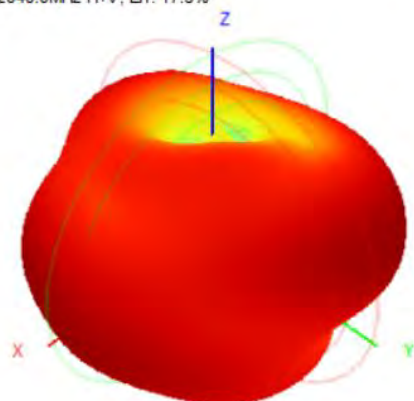
2020.0MHz Total(E1-XZ), Max=-2.69dBi

2020.0MHz Total(E2-YZ), Max=-4.46dBi

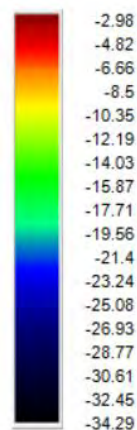
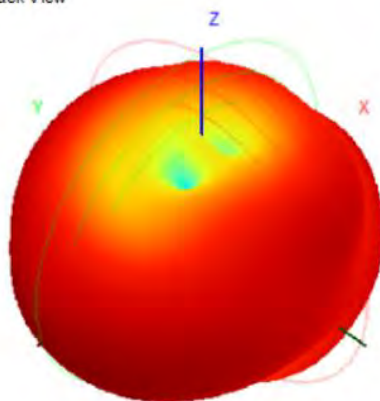
Total(H-XY), Max=-2.66dBi, CirD=7.24



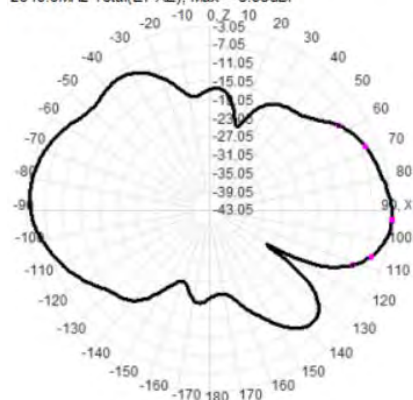
2040.0MHz H+V, Eff: 17.3%



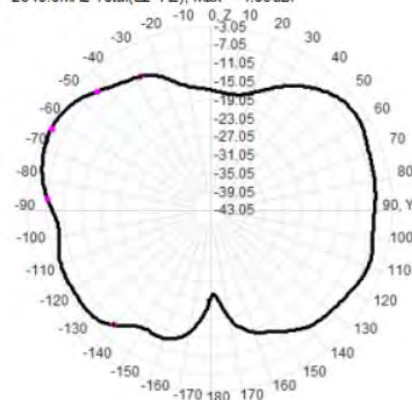
Back View



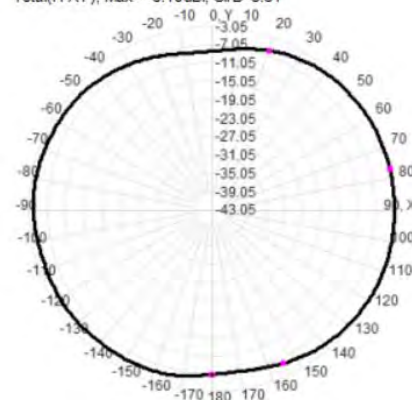
2040.0MHz Total(E1-XZ), Max=-3.05dBi



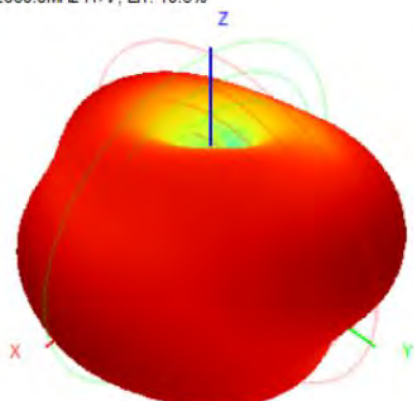
2040.0MHz Total(E2-YZ), Max=-4.08dBi



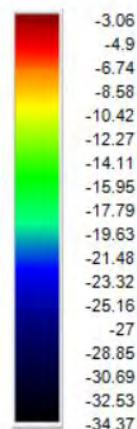
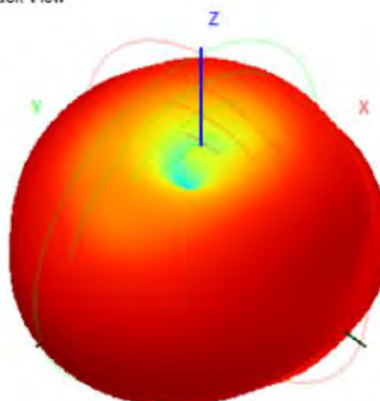
Total(H-XY), Max=-3.10dBi, CirD=5.51



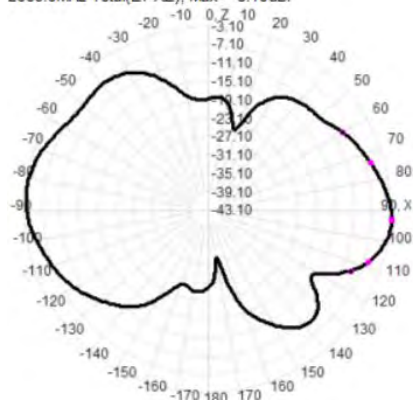
2060.0MHz H+V, Eff: 18.6%



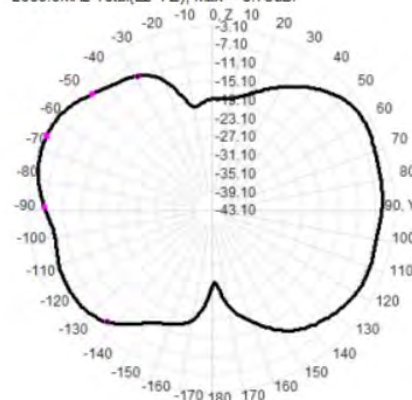
Back View



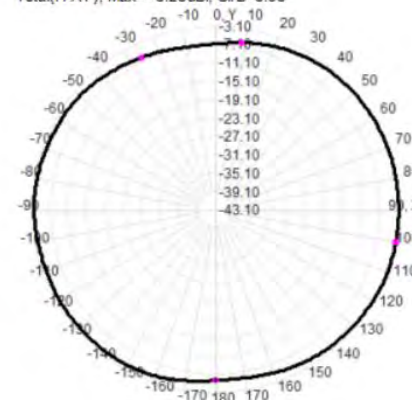
2060.0MHz Total(E1-XZ), Max=-3.10dBi



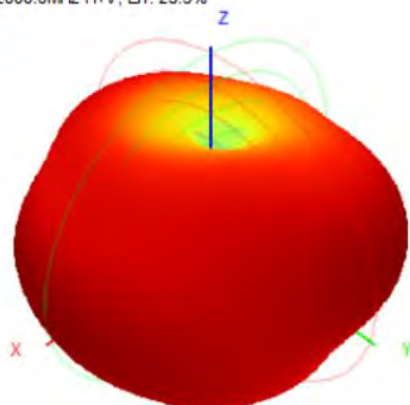
2060.0MHz Total(E2-YZ), Max=-3.75dBi



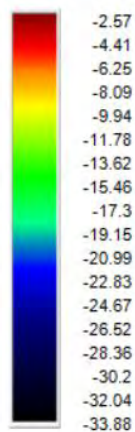
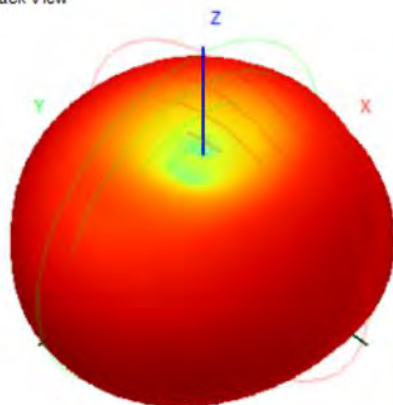
Total(H-XY), Max=-3.25dBi, CirD=3.95



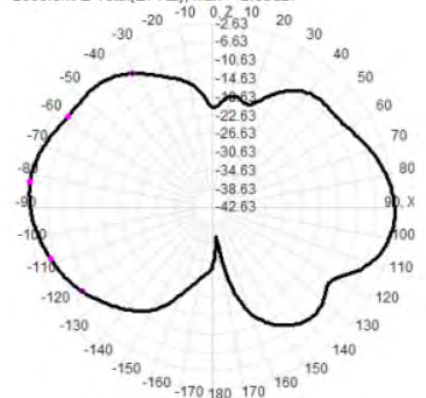
2080.0MHz H+V, Eff: 23.3%



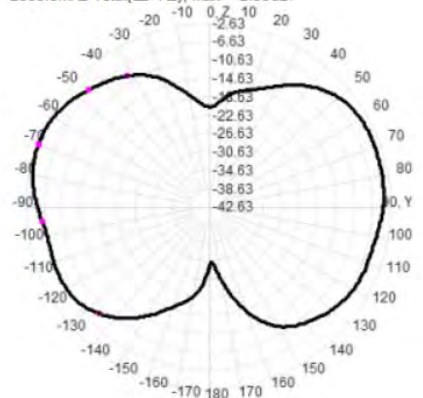
Back View



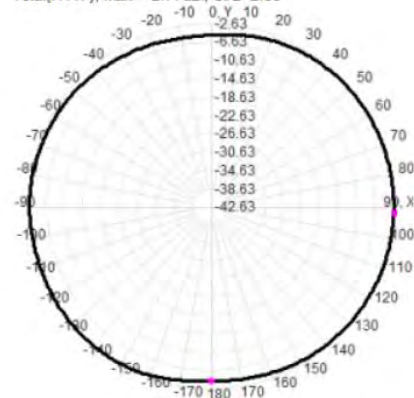
2080.0MHz Total(E1-XZ), Max=-2.63dBi



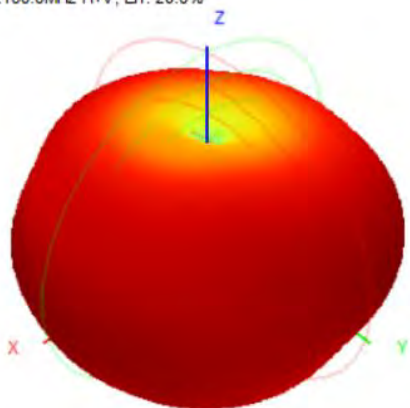
2080.0MHz Total(E2-YZ), Max=-2.98dBi



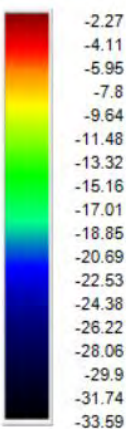
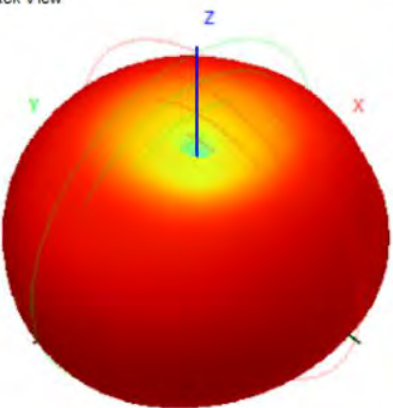
Total(H-XY), Max=-2.77dBi, CirD=2.60



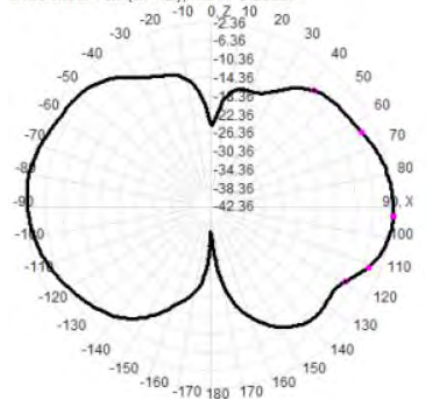
2100.0MHz H+V, Eff: 28.0%



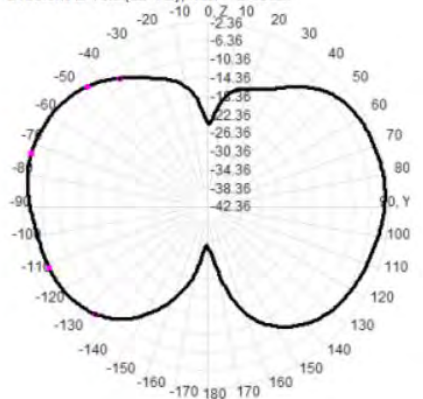
Back View



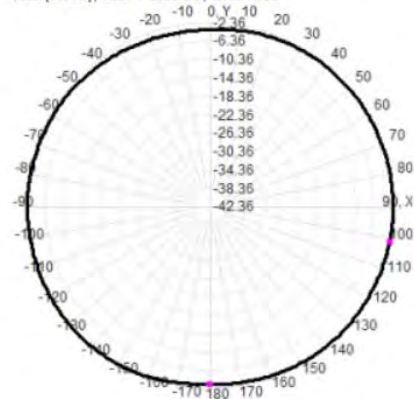
2100.0MHz Total(E1-XZ), Max=-2.36dBi



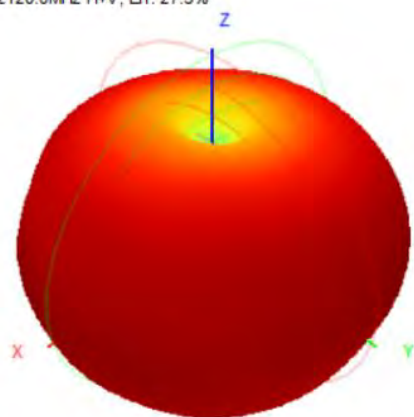
2100.0MHz Total(E2-YZ), Max=-2.50dBi



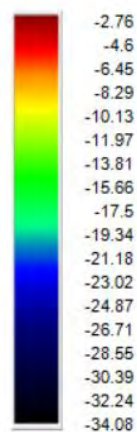
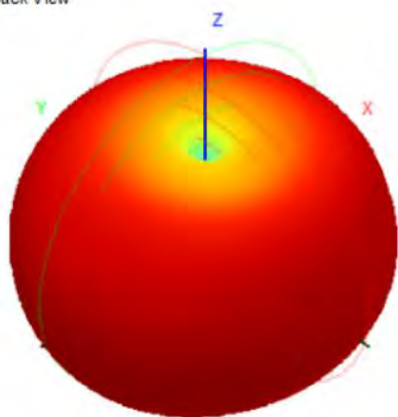
Total(H-XY), Max=-2.38dBi, CirD=1.66



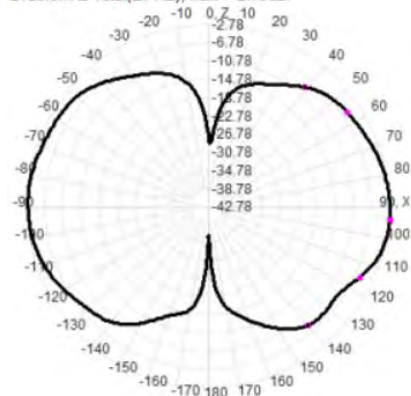
2120.0MHz H+V, Eff: 27.5%



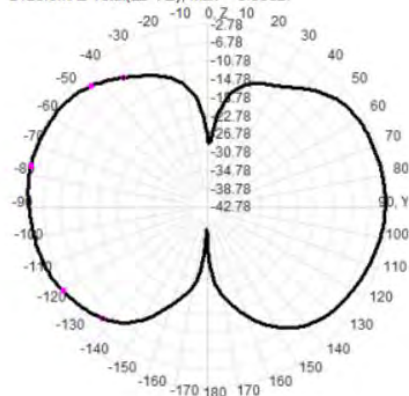
Back View



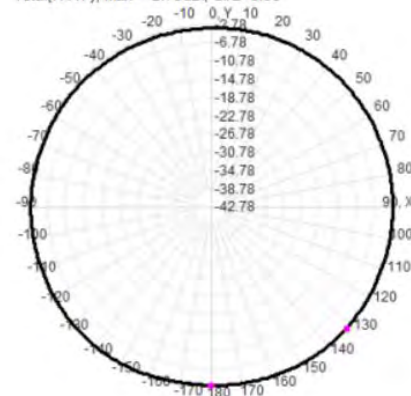
2120.0MHz Total(E1-XZ), Max=-2.78dBi



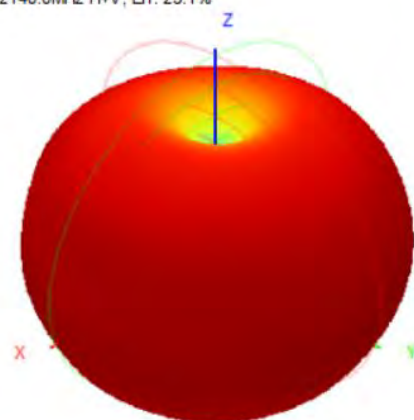
2120.0MHz Total(E2-YZ), Max=-3.06dBi



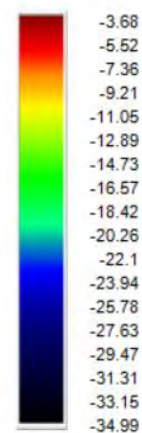
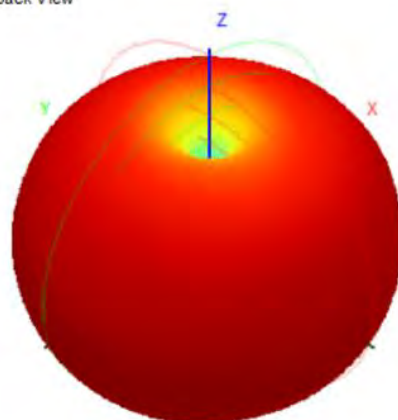
Total(H-XY), Max=-2.79dBi, CirD=0.96



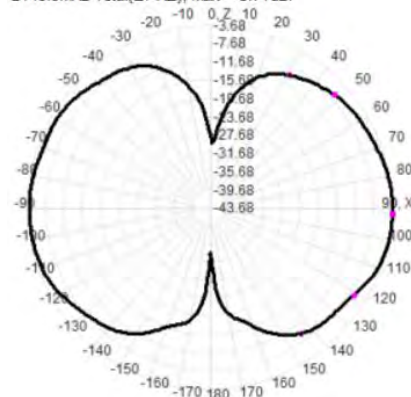
2140.0MHz H+V, Eff: 25.1%



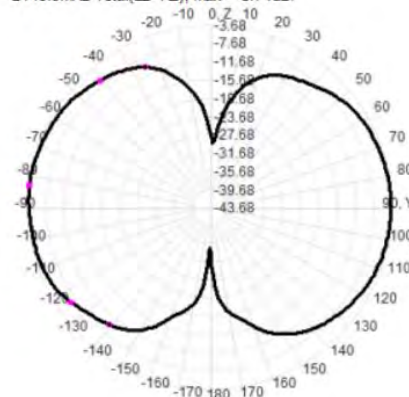
Back View



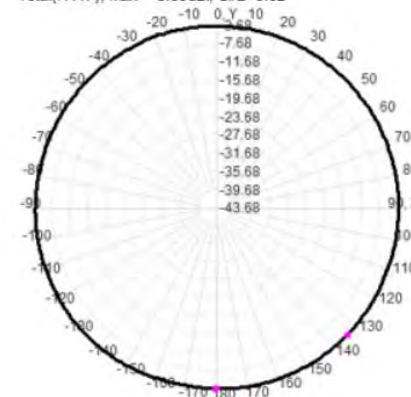
2140.0MHz Total(E1-XZ), Max=-3.71dBi



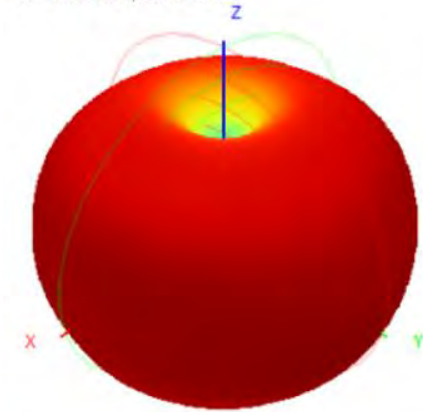
2140.0MHz Total(E2-YZ), Max=-3.74dBi



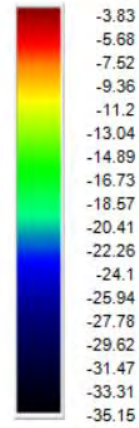
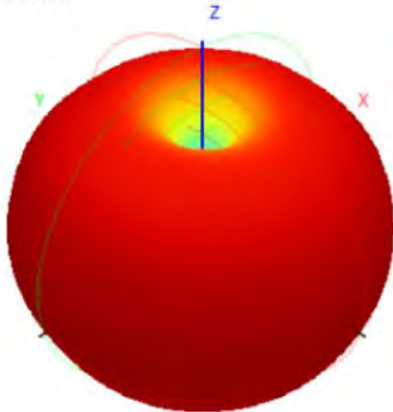
Total(H-XY), Max=-3.68dBi, CirD=0.62



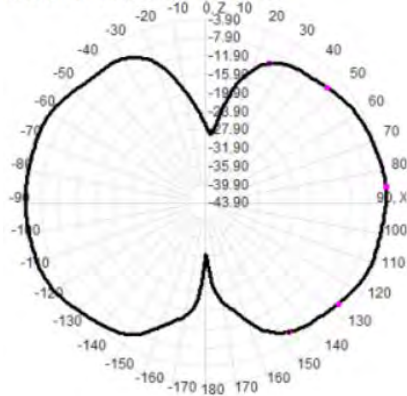
2160.0MHz H+V, Eff: 24.3%



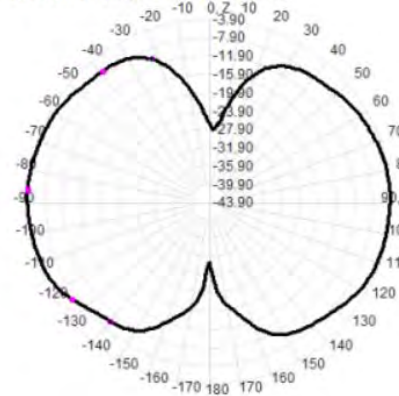
Back View



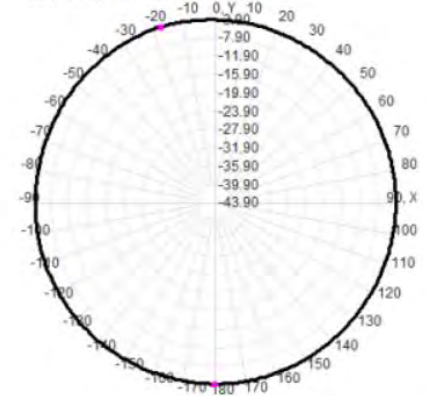
2160.0MHz Total(E1-XZ), Max=-4.14dBi



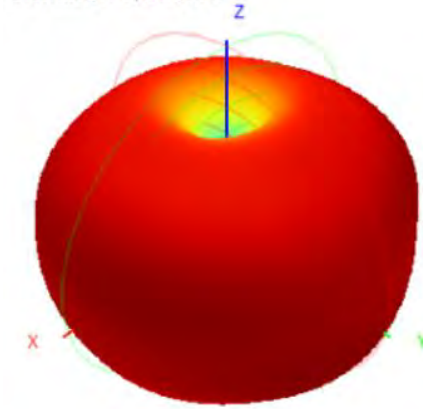
2160.0MHz Total(E2-YZ), Max=-4.02dBi



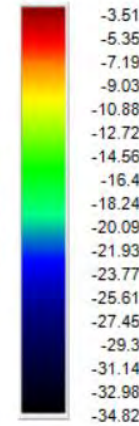
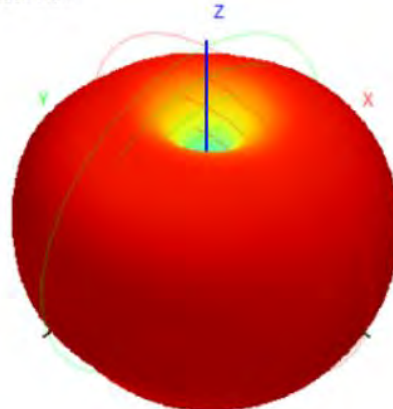
Total(H-XY), Max=-3.90dBi, CirD=0.77



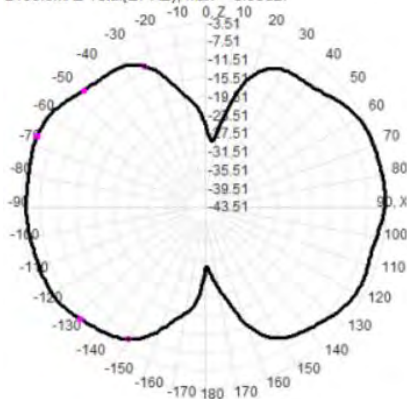
2180.0MHz H+V, Eff: 25.3%



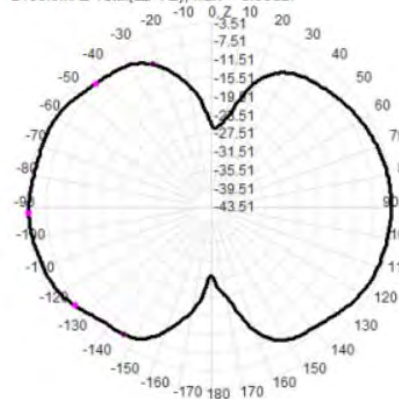
Back View



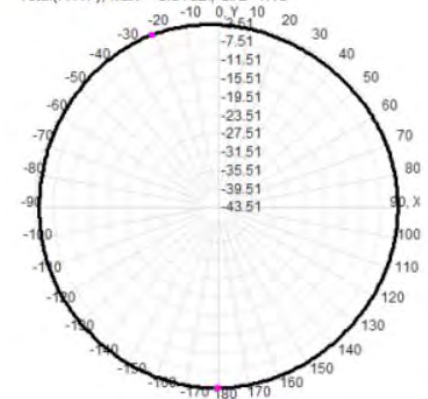
2180.0MHz Total(E1-XZ), Max=-3.95dBi



2180.0MHz Total(E2-YZ), Max=-3.86dBi

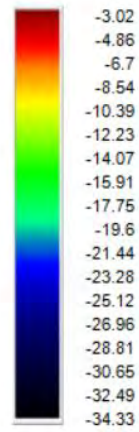
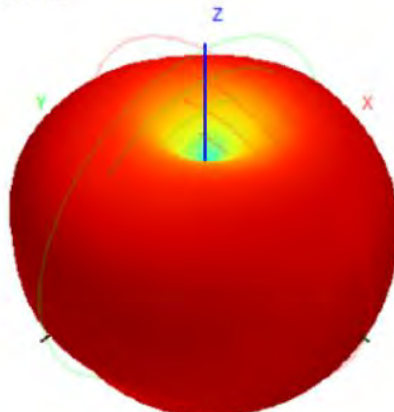
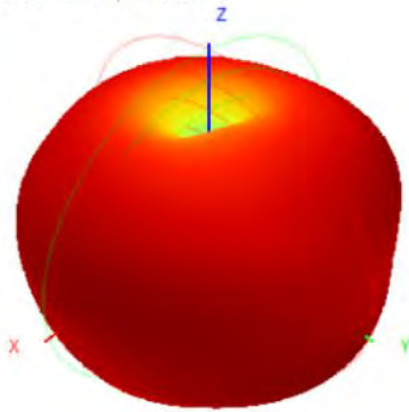


Total(H-XY), Max=-3.51dBi, CirD=1.15

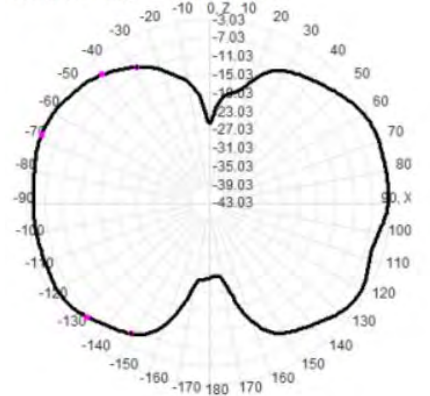


2200.0MHz H+V, Eff: 27.9%

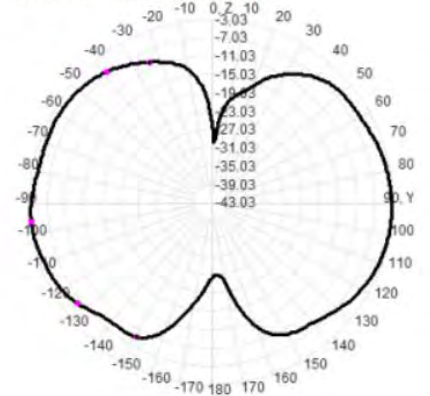
Back View



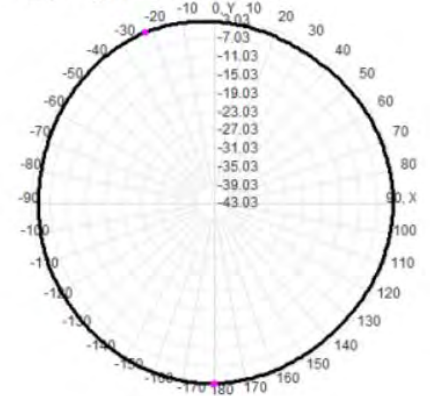
2200.0MHz Total(E1-XZ), Max=-3.48dBi



2200.0MHz Total(E2-YZ), Max=-3.33dBi

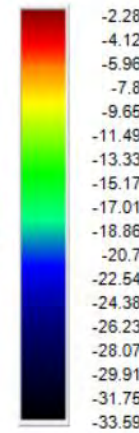
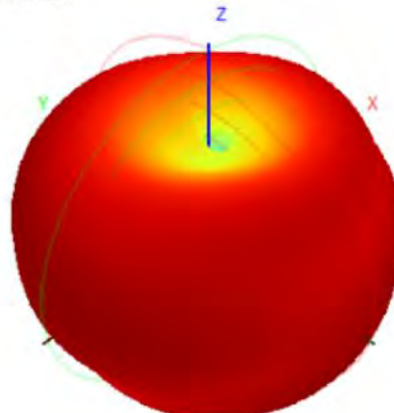
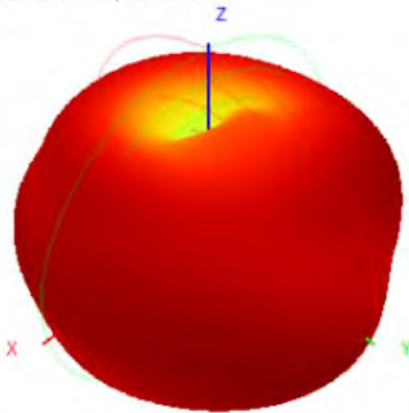


Total(H-XY), Max=-3.03dBi, CirD=1.73

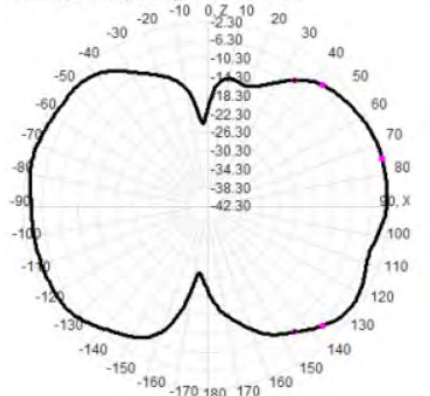


2220.0MHz H+V, Eff: 32.6%

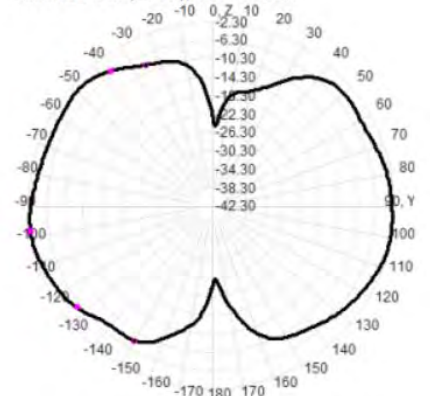
Back View



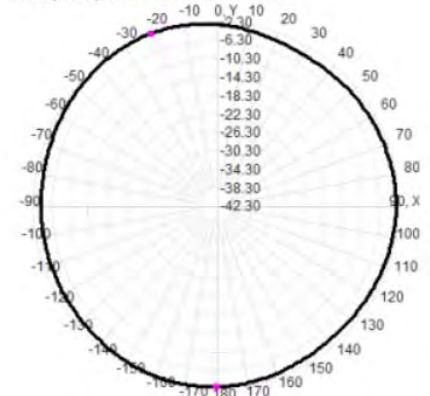
2220.0MHz Total(E1-XZ), Max=-2.78dBi



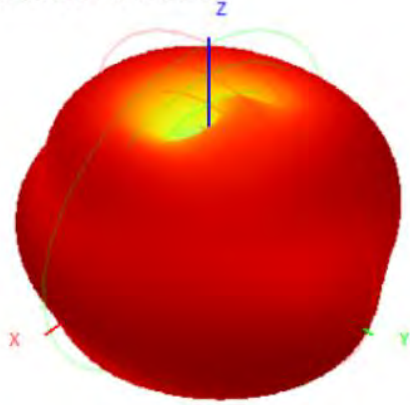
2220.0MHz Total(E2-YZ), Max=-2.49dBi



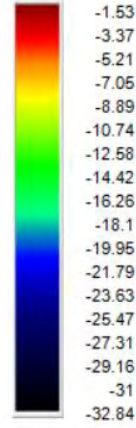
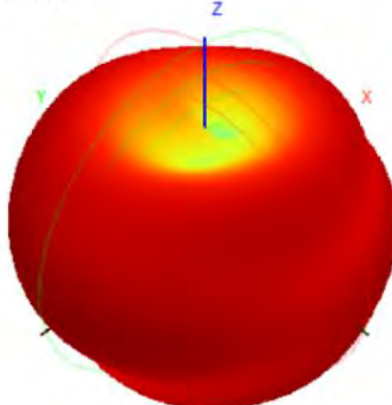
Total(H-XY), Max=-2.30dBi, CirD=2.09



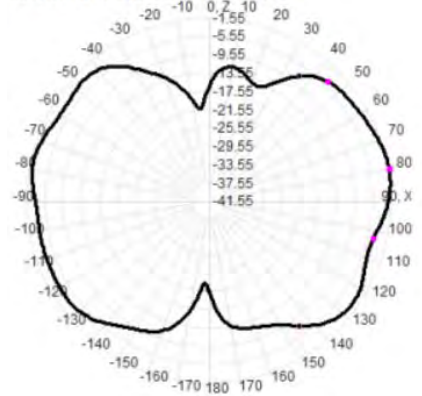
2240.0MHz H+V, Eff: 37.8%



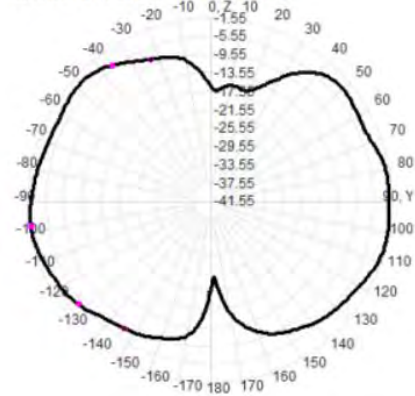
Back View



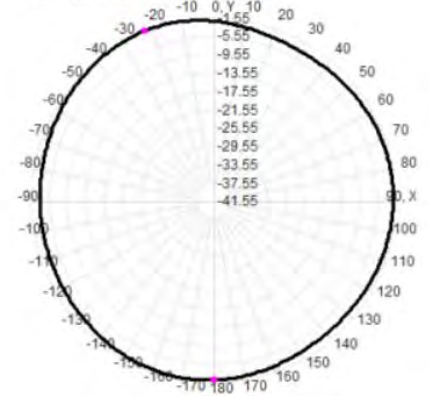
2240.0MHz Total(E1-XZ), Max=-1.63dBi



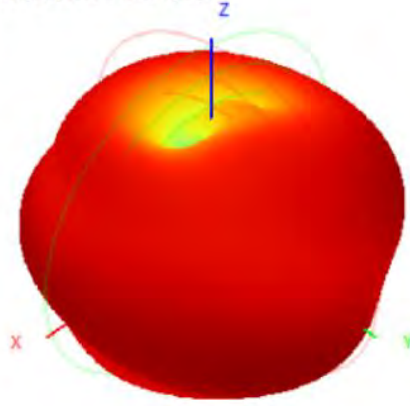
2240.0MHz Total(E2-YZ), Max=-1.94dBi



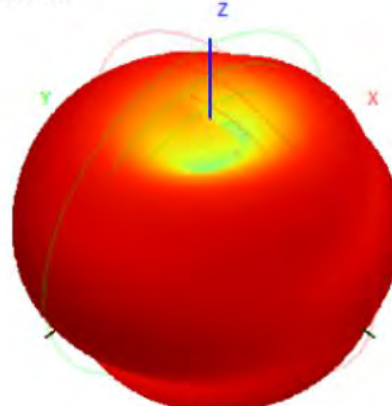
Total(H-XY), Max=-1.55dBi, CirD=2.25



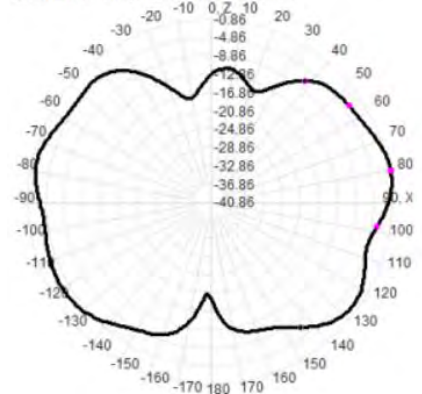
2260.0MHz H+V, Eff: 40.1%



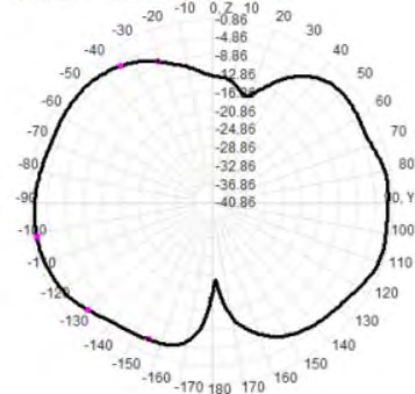
Back View



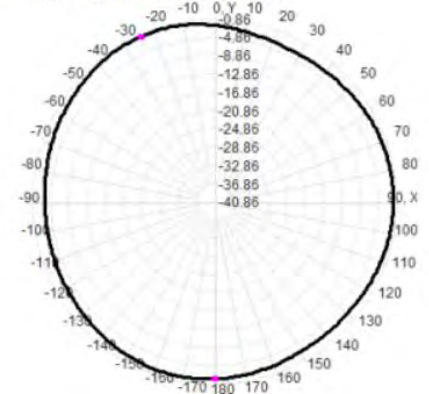
2260.0MHz Total(E1-XZ), Max=-0.86dBi



2260.0MHz Total(E2-YZ), Max=-1.94dBi

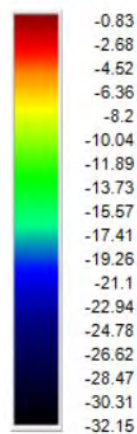
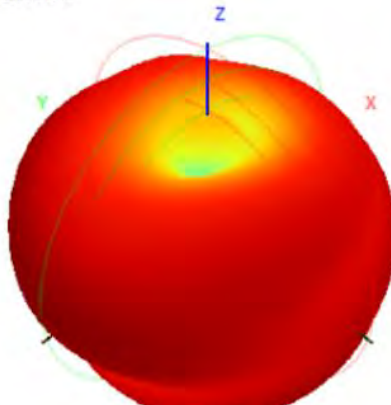
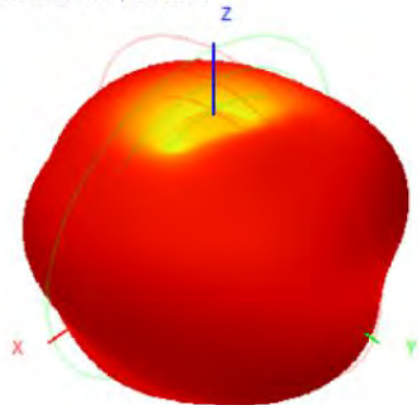


Total(H-XY), Max=-1.23dBi, CirD=2.49



2280.0MHz H+V, Eff: 39.8%

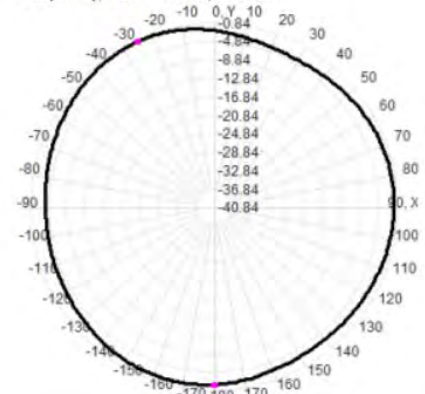
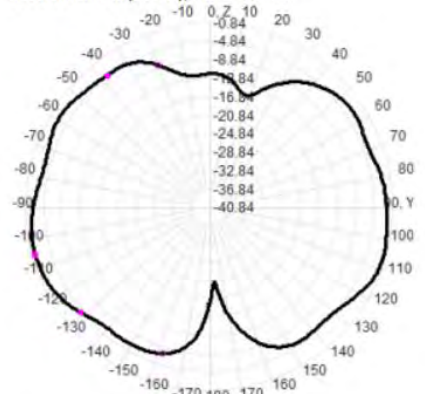
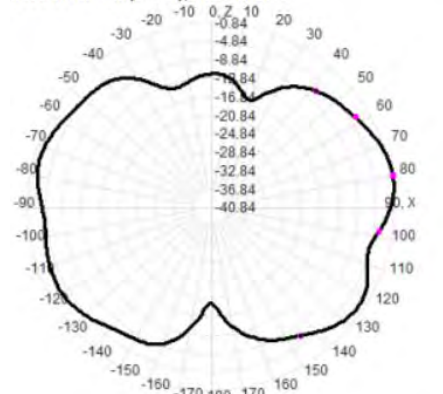
Back View



2280.0MHz Total(E1-XZ), Max=-0.84dBi

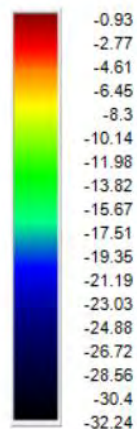
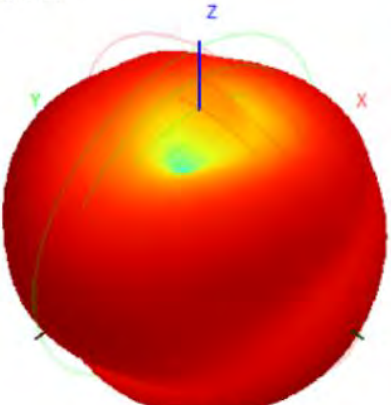
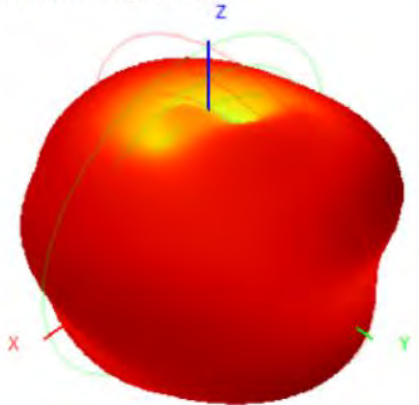
2280.0MHz Total(E2-YZ), Max=-1.59dBi

Total(H-XY), Max=-1.31dBi, CirD=2.93



2300.0MHz H+V, Eff: 39.8%

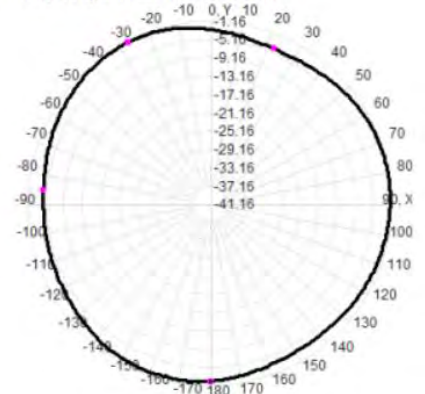
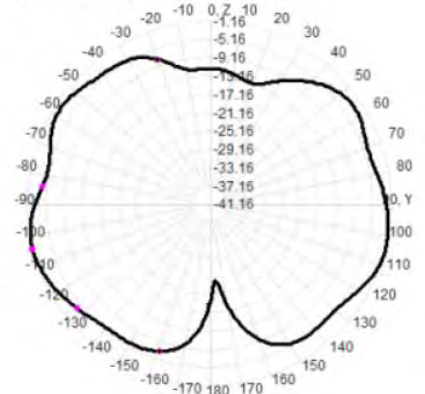
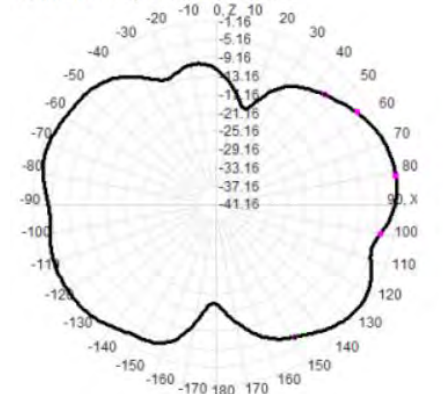
Back View



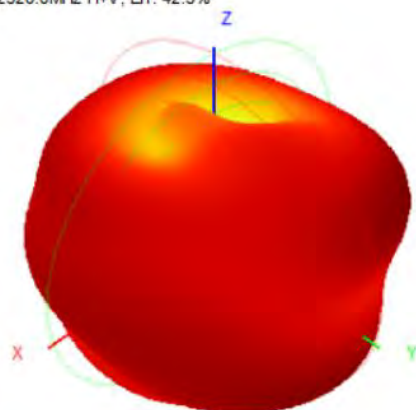
2300.0MHz Total(E1-XZ), Max=-1.18dBi

2300.0MHz Total(E2-YZ), Max=-1.16dBi

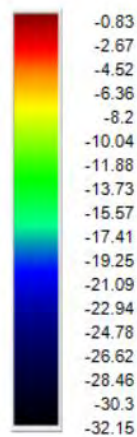
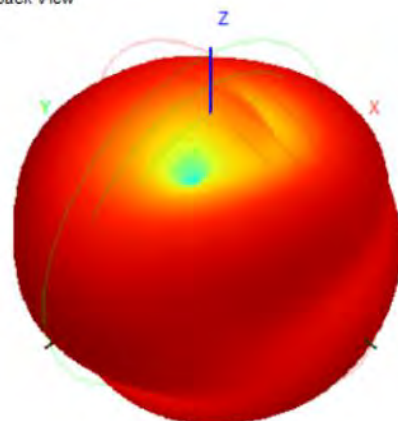
Total(H-XY), Max=-1.48dBi, CirD=3.15



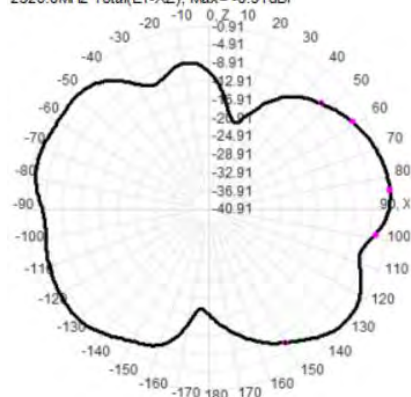
2320.0MHz H+V, Eff: 42.3%



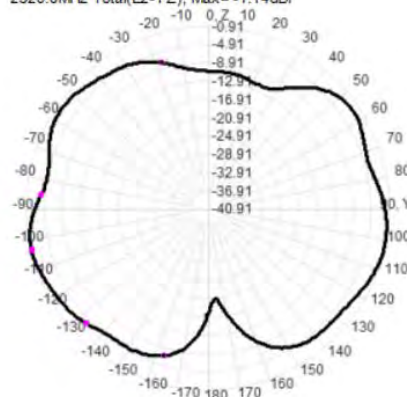
Back View



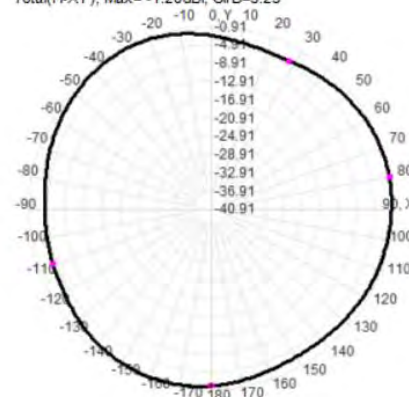
2320.0MHz Total(E1-XZ), Max=-0.91dBi



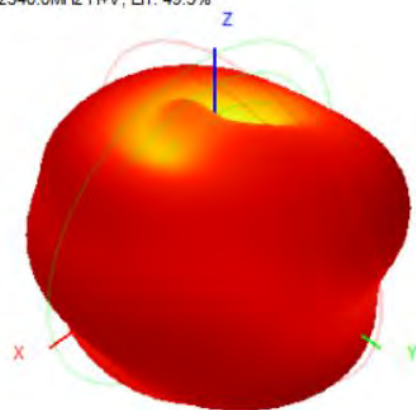
2320.0MHz Total(E2-YZ), Max=-1.14dBi



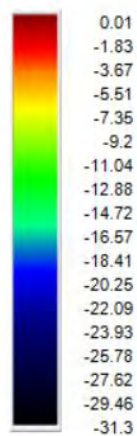
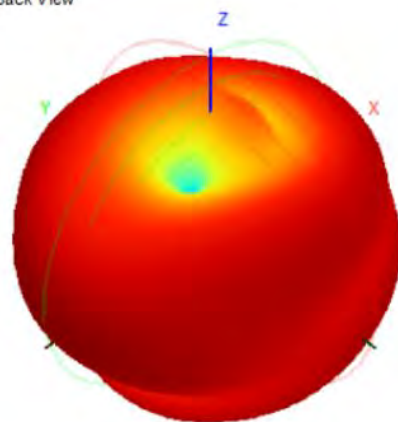
Total(H-XY), Max=-1.20dBi, CirD=3.25



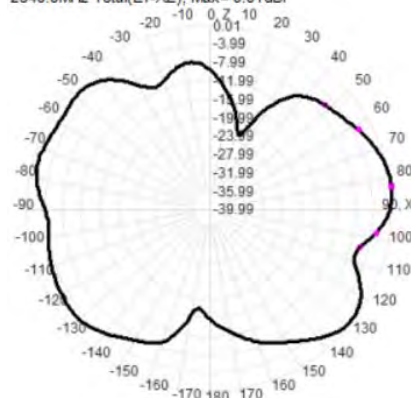
2340.0MHz H+V, Eff: 49.3%



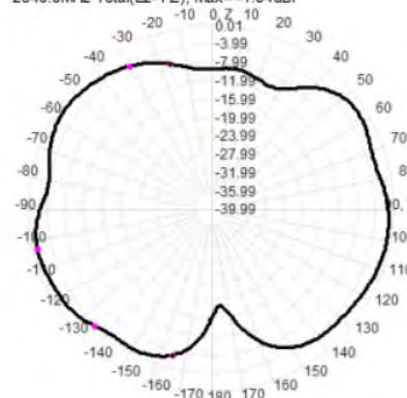
Back View



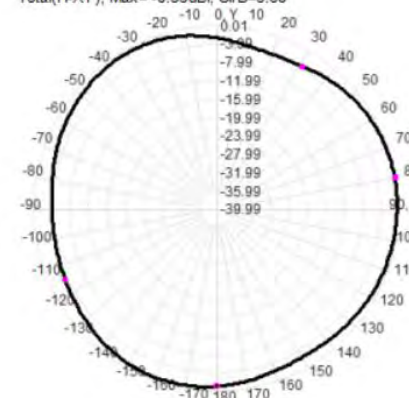
2340.0MHz Total(E1-XZ), Max=0.01dBi



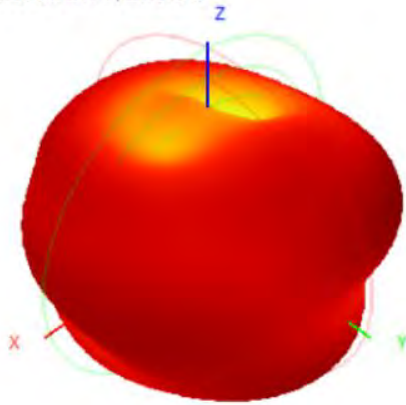
2340.0MHz Total(E2-YZ), Max=-1.04dBi



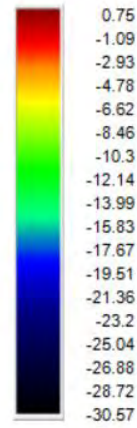
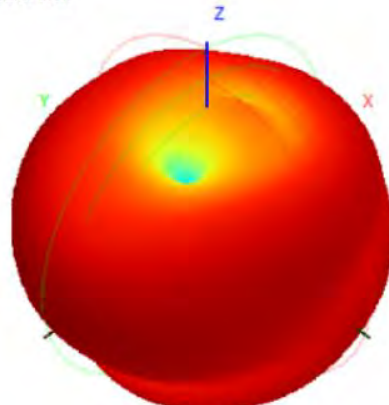
Total(H-XY), Max=-0.55dBi, CirD=3.60



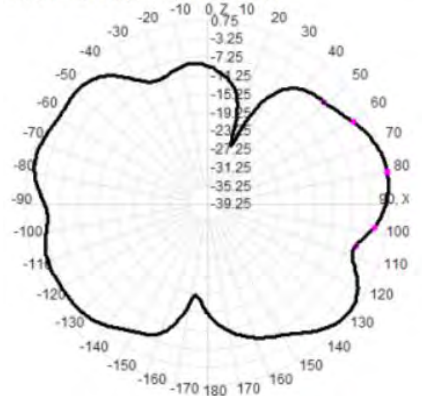
2360.0MHz H+V, Eff: 57.9%



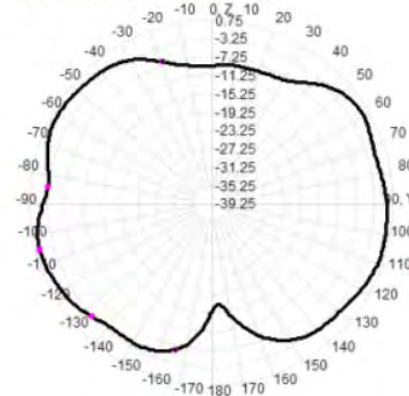
Back View



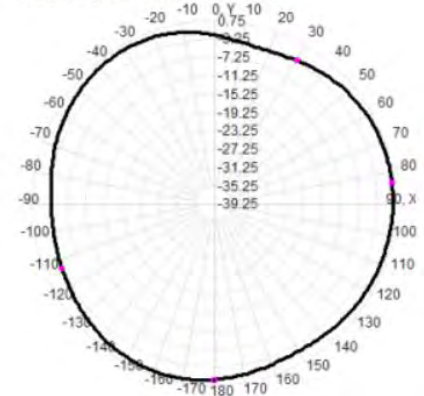
2360.0MHz Total(E1-XZ), Max= 0.75dBi



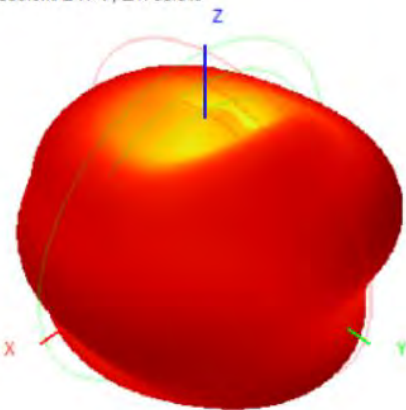
2360.0MHz Total(E2-YZ), Max= -0.28dBi



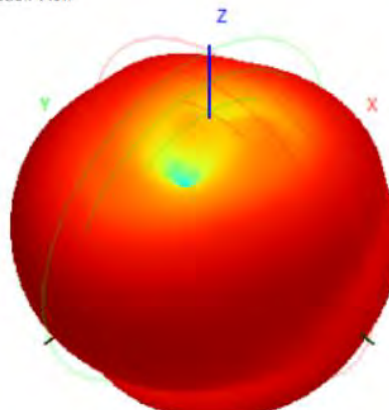
Total(H-XY), Max= -0.05dBi, CirD=3.80



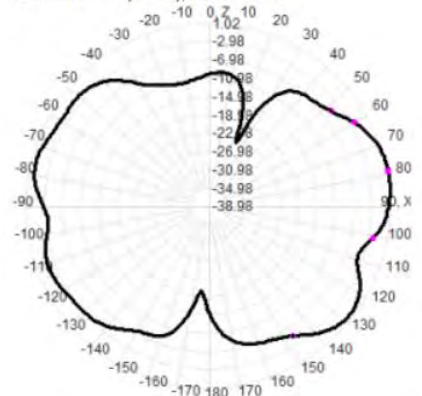
2380.0MHz H+V, Eff: 63.5%



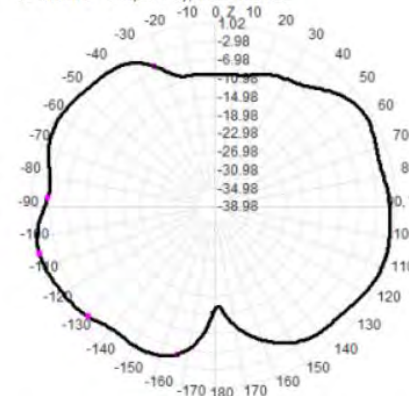
Back View



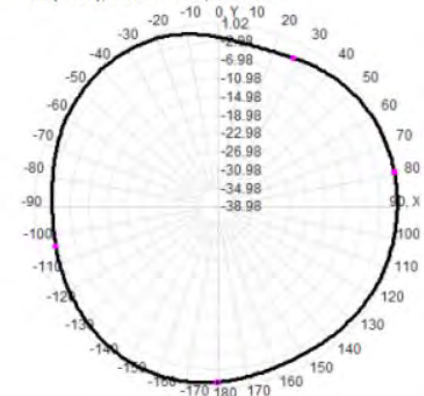
2380.0MHz Total(E1-XZ), Max= 1.02dBi



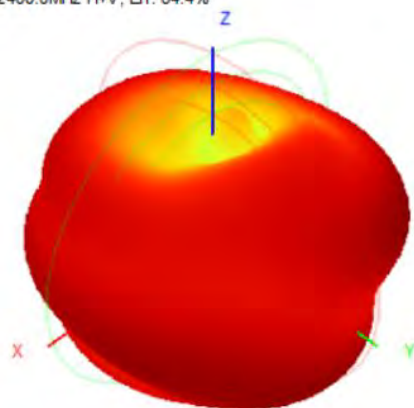
2380.0MHz Total(E2-YZ), Max= 0.54dBi



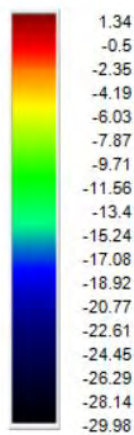
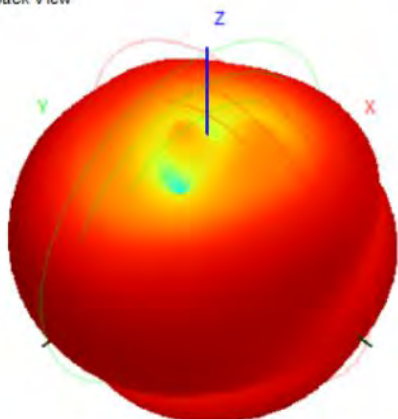
Total(H-XY), Max= 0.43dBi, CirD=3.57



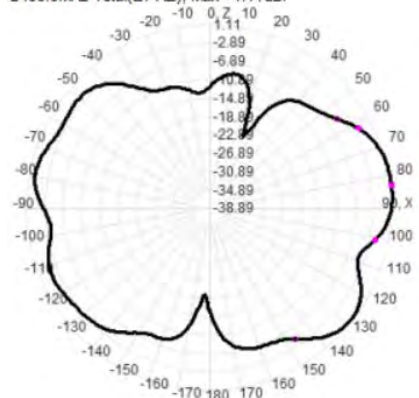
2400.0MHz H+V, Eff: 64.4%



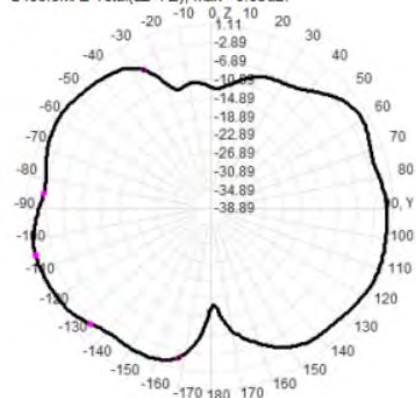
Back View



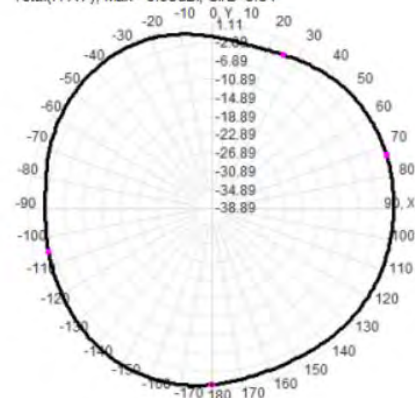
2400.0MHz Total(E1-XZ), Max= 1.11dBi



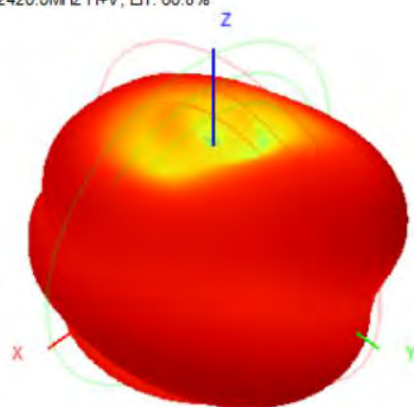
2400.0MHz Total(E2-YZ), Max= 0.63dBi



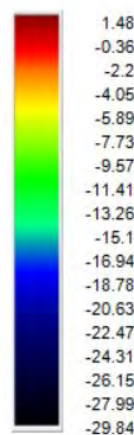
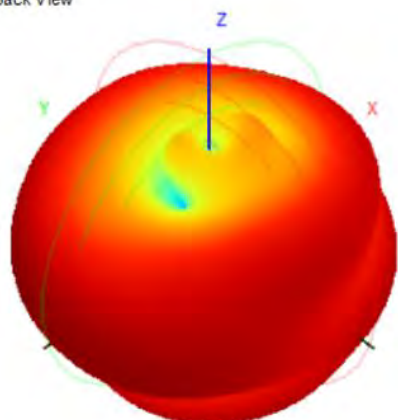
Total(H-XY), Max= 0.95dBi, CirD=3.54



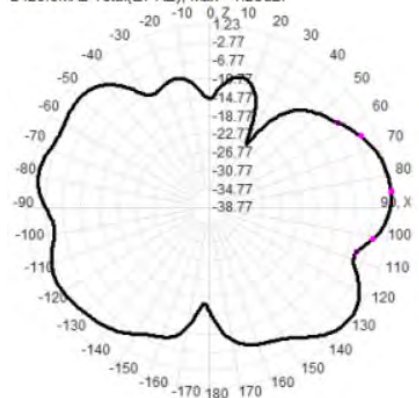
2420.0MHz H+V, Eff: 60.8%



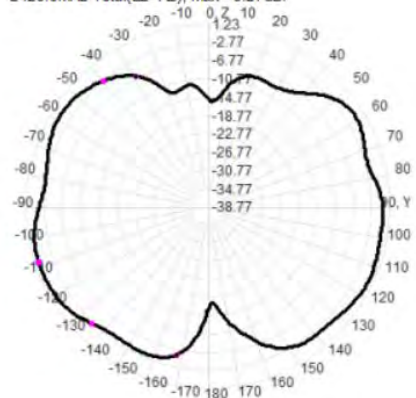
Back View



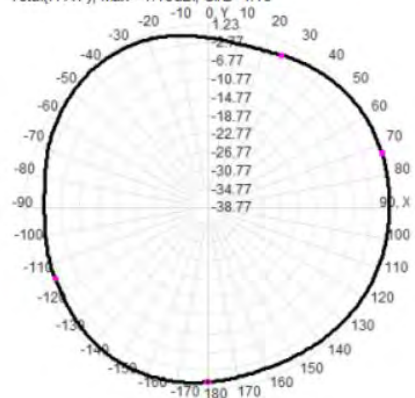
2420.0MHz Total(E1-XZ), Max= 1.23dBi



2420.0MHz Total(E2-YZ), Max= 0.27dBi

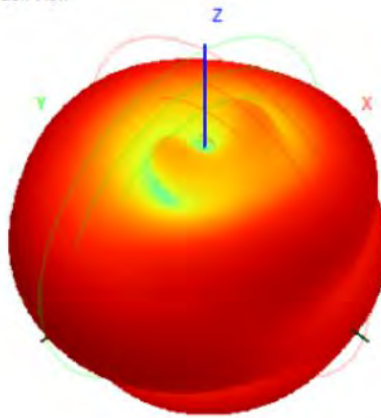
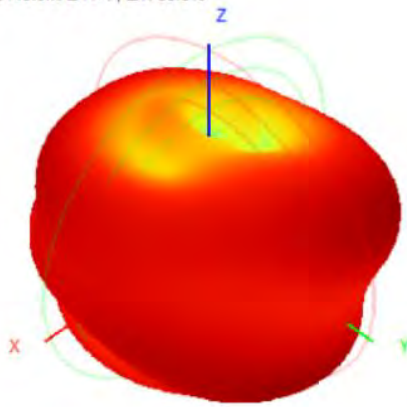


Total(H-XY), Max= 1.16dBi, CirD=4.16



2440.0MHz H+V, Eff: 55.5%

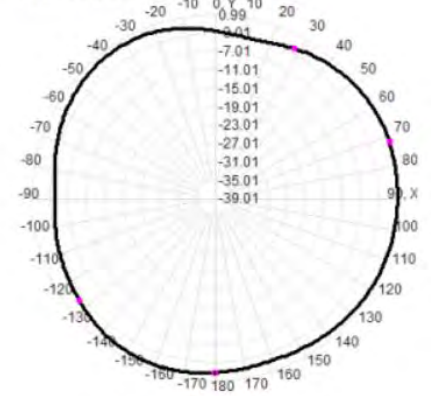
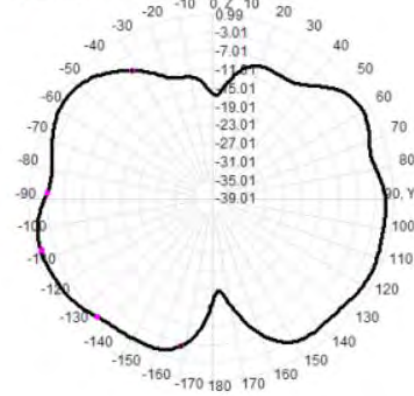
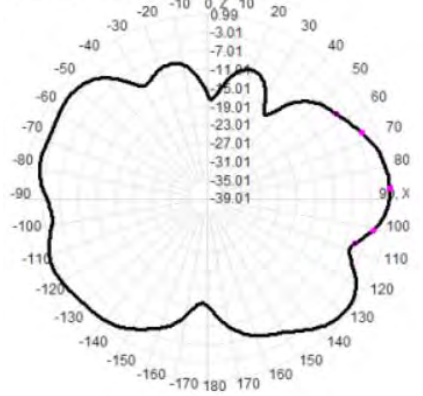
Back View



2440.0MHz Total(E1-XZ), Max= 0.97dBi

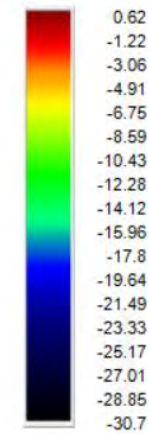
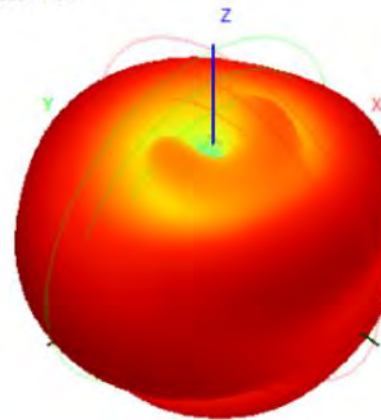
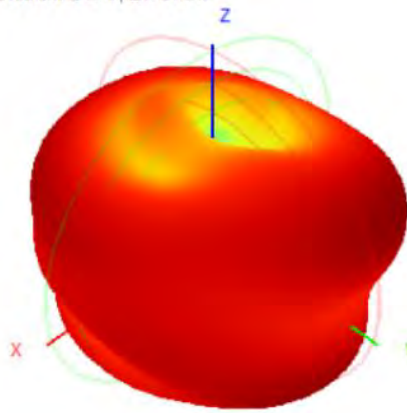
2440.0MHz Total(E2-YZ), Max= -0.05dBi

Total(H-XY), Max= 0.99dBi, CirD=5.02



2460.0MHz H+V, Eff: 51.6%

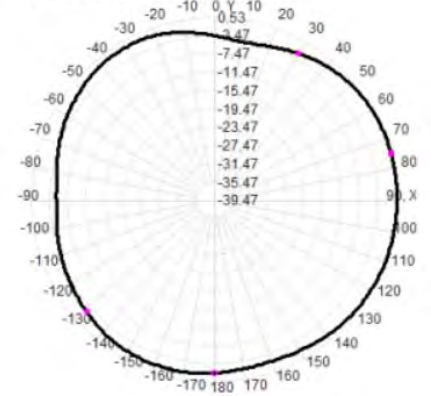
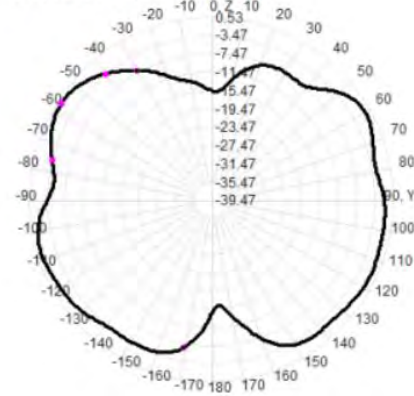
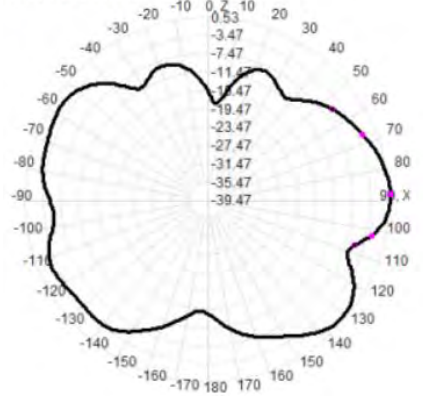
Back View



2460.0MHz Total(E1-XZ), Max= 0.51dBi

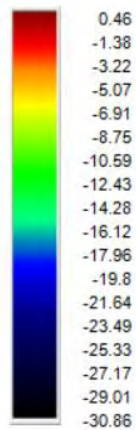
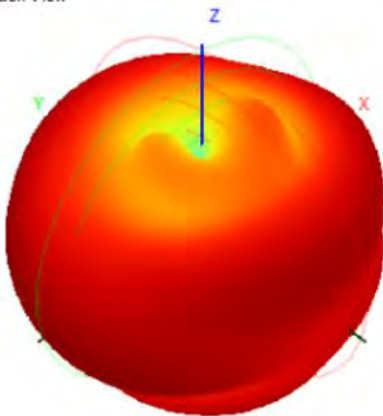
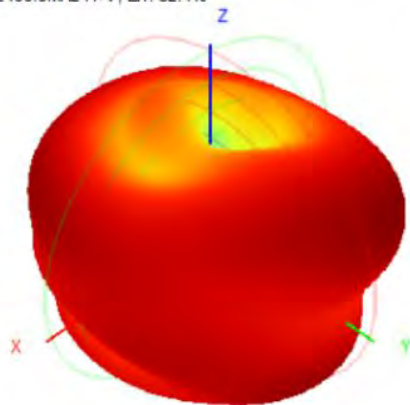
2460.0MHz Total(E2-YZ), Max= -0.43dBi

Total(H-XY), Max= 0.53dBi, CirD=5.51



2480.0MHz H+V, Eff: 52.4%

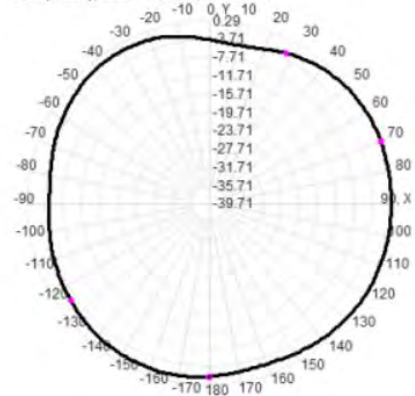
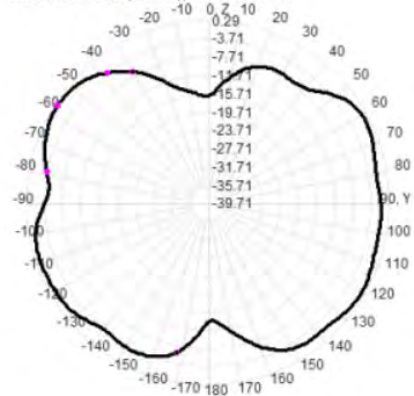
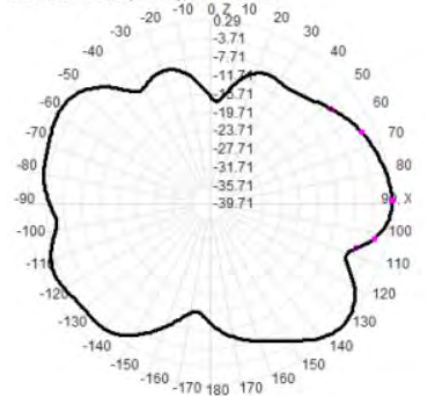
Back View



2480.0MHz Total(E1-XZ), Max= 0.24dBi

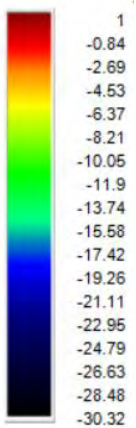
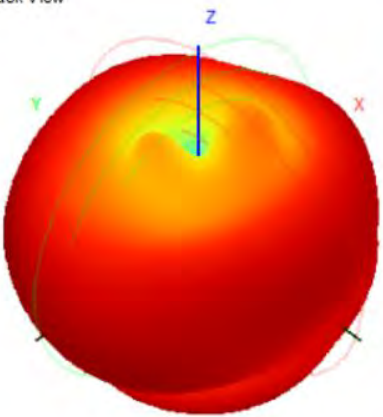
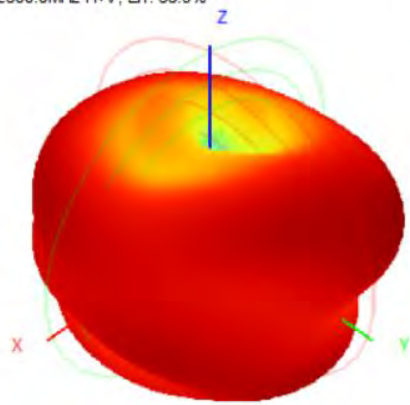
2480.0MHz Total(E2-YZ), Max= -0.39dBi

Total(H-XY), Max= 0.29dBi, CirD=4.95



2500.0MHz H+V, Eff: 55.9%

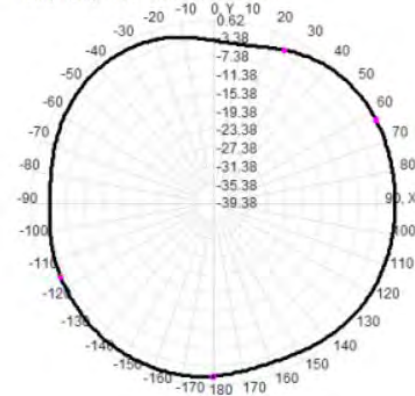
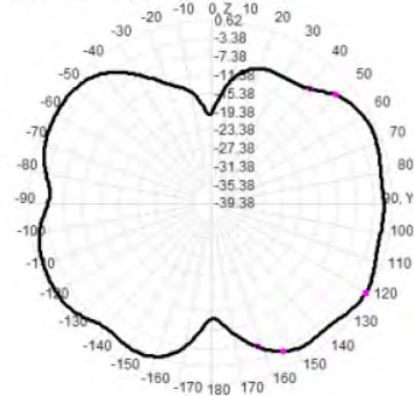
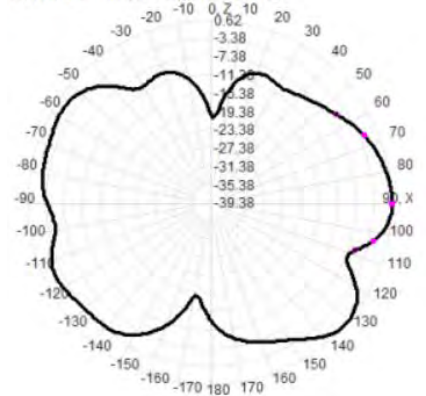
Back View



2500.0MHz Total(E1-XZ), Max= 0.41dBi

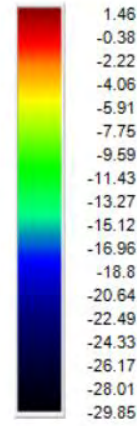
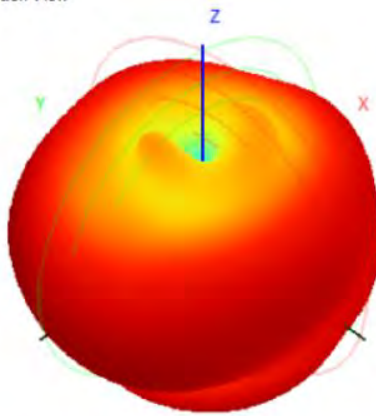
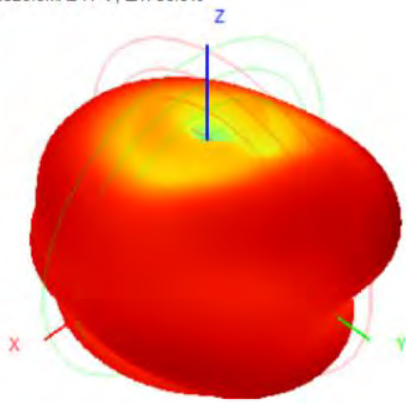
2500.0MHz Total(E2-YZ), Max= -0.18dBi

Total(H-XY), Max= 0.62dBi, CirD=4.91



2520.0MHz H+V, Eff: 56.0%

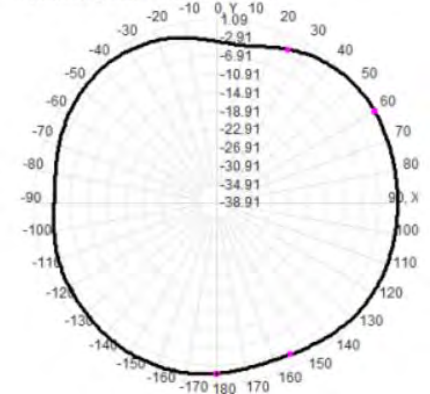
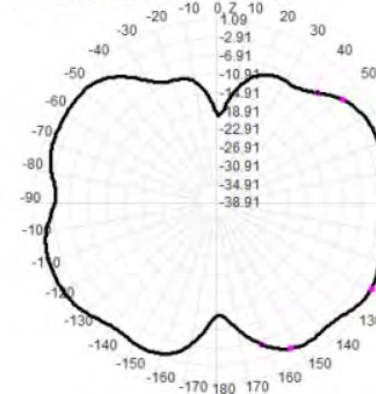
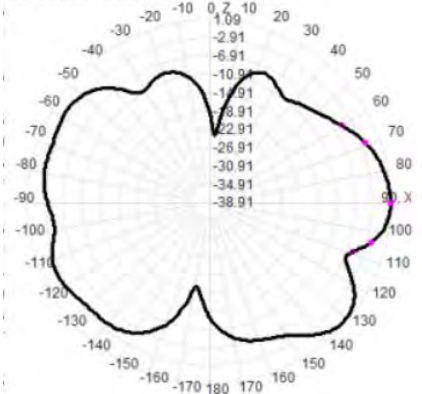
Back View



2520.0MHz Total(E1-XZ), Max= 0.76dBi

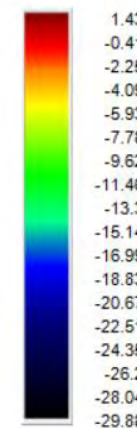
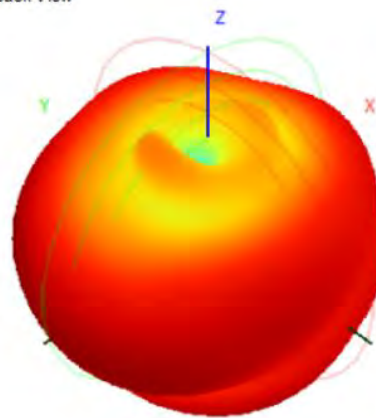
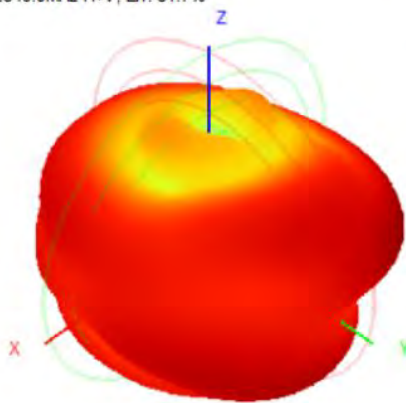
2520.0MHz Total(E2-YZ), Max= 0.03dBi

Total(H-XY), Max= 1.09dBi, CirD=5.27



2540.0MHz H+V, Eff: 51.7%

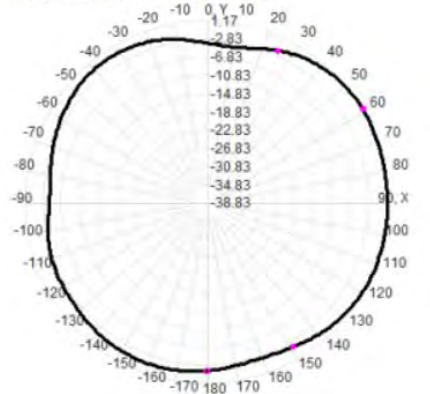
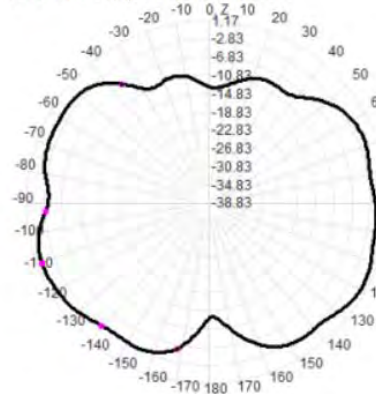
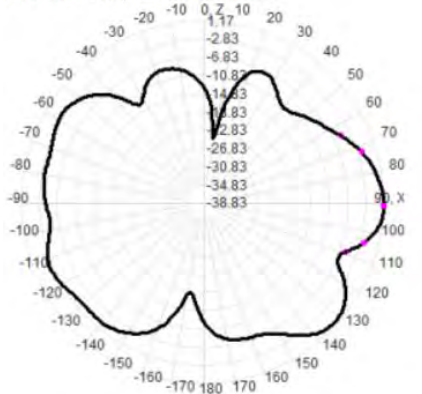
Back View



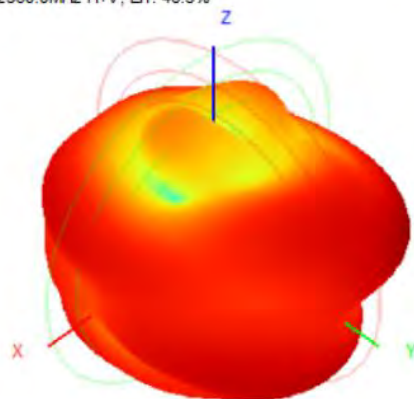
2540.0MHz Total(E1-XZ), Max= 0.89dBi

2540.0MHz Total(E2-YZ), Max= -0.05dBi

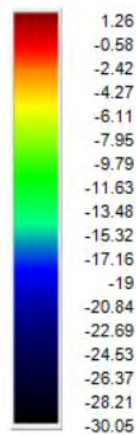
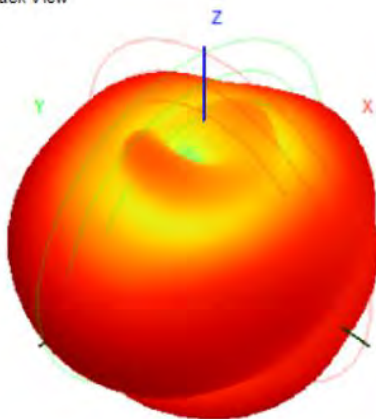
Total(H-XY), Max= 1.17dBi, CirD=5.49



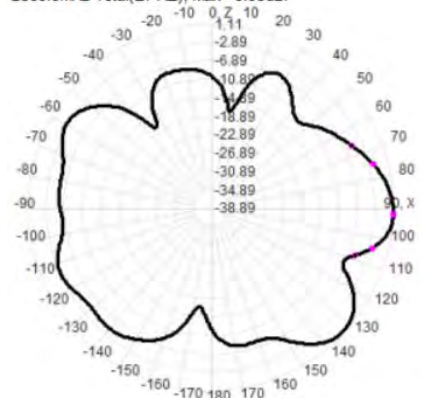
2560.0MHz H+V, Eff: 46.5%



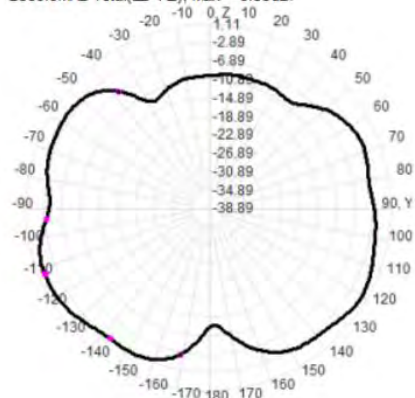
Back View



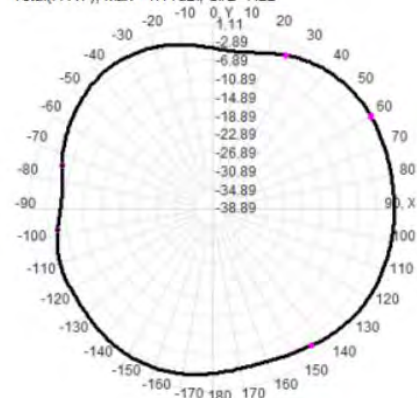
2560.0MHz Total(E1-XZ), Max= 0.85dBi



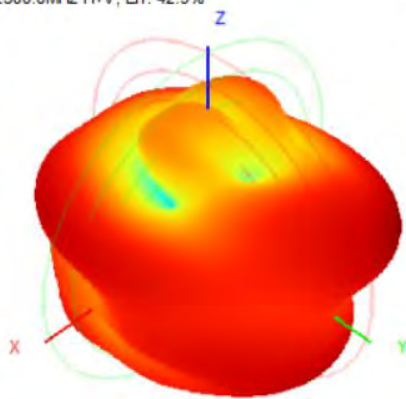
2560.0MHz Total(E2-YZ), Max= -0.33dBi



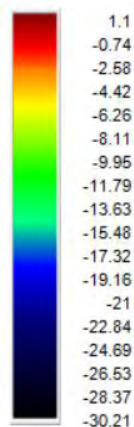
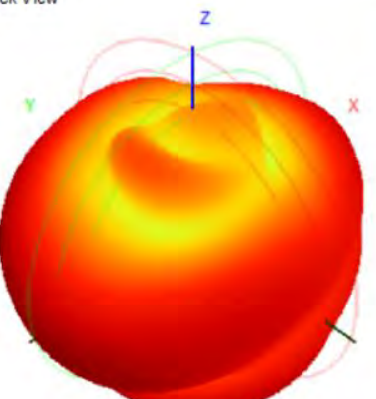
Total(H-XY), Max= 1.11dBi, CirD=7.22



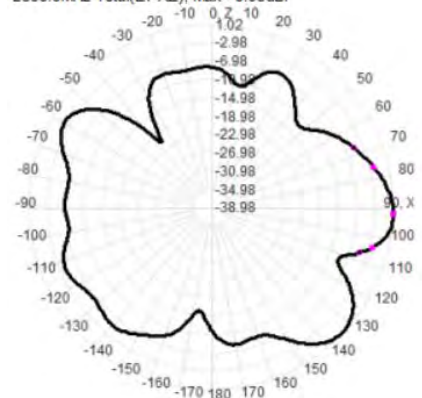
2580.0MHz H+V, Eff: 42.9%



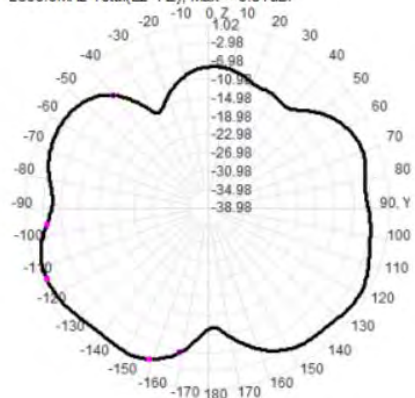
Back View



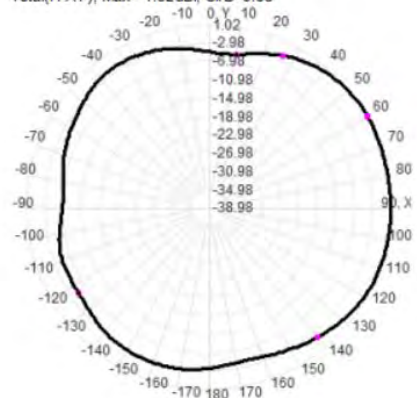
2580.0MHz Total(E1-XZ), Max= 0.83dBi



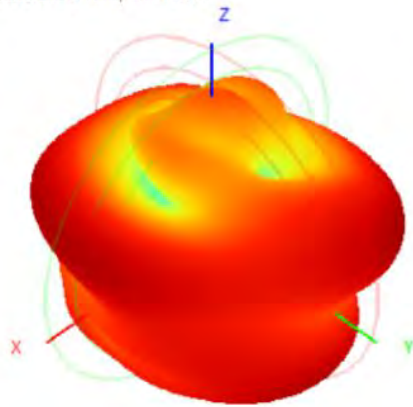
2580.0MHz Total(E2-YZ), Max= -0.51dBi



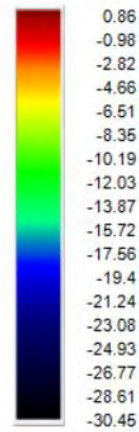
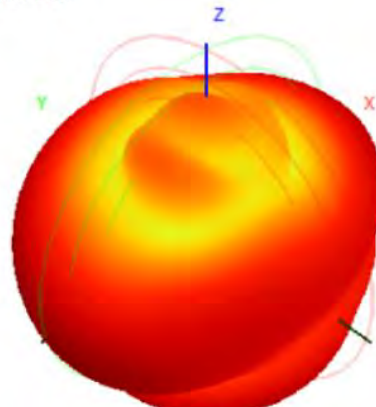
Total(H-XY), Max= 1.02dBi, CirD=8.05



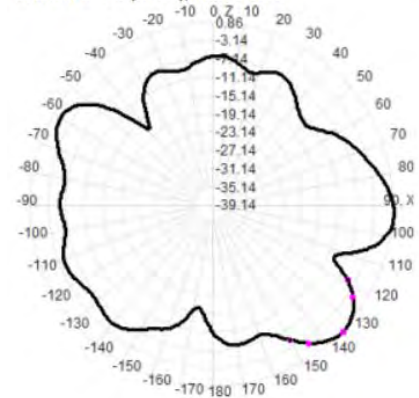
2600.0MHz H+V, Eff: 42.9%



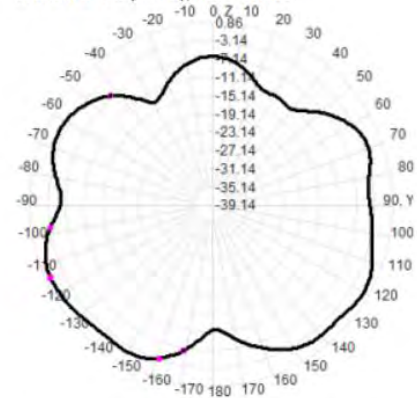
Back View



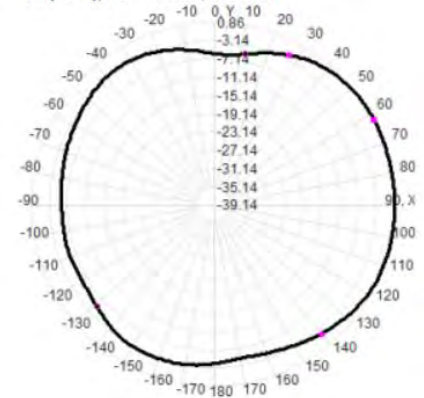
2600.0MHz Total(E1-XZ), Max= 0.86dBi



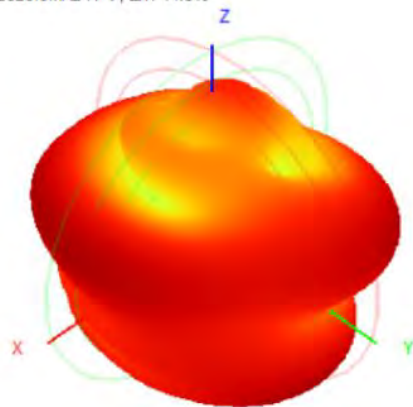
2600.0MHz Total(E2-YZ), Max= -0.45dBi



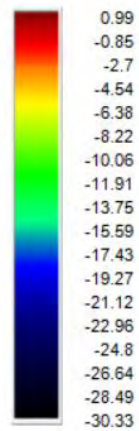
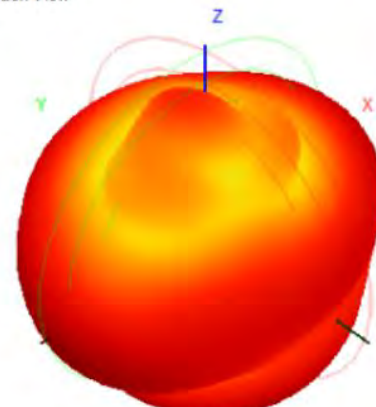
Total(H-XY), Max= 0.72dBi, CirD=6.84



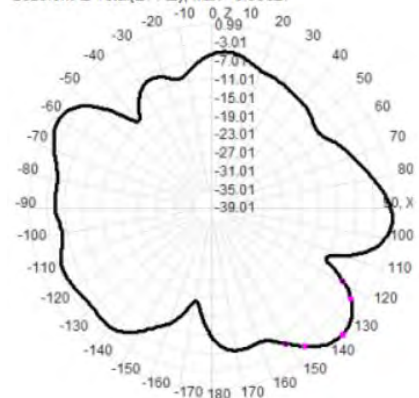
2620.0MHz H+V, Eff: 44.3%



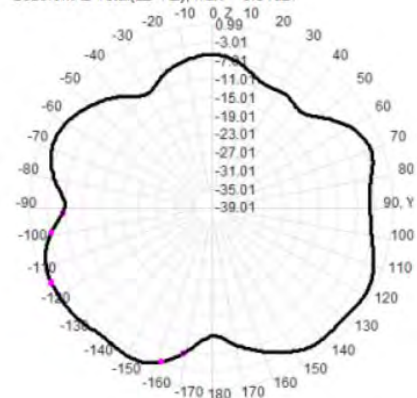
Back View



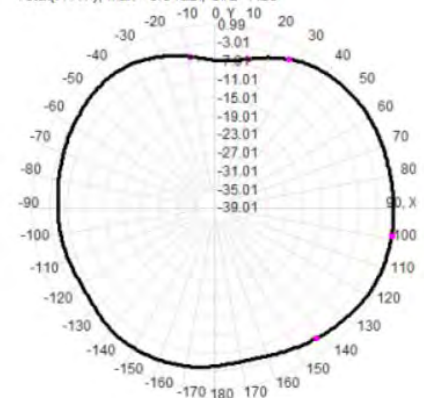
2620.0MHz Total(E1-XZ), Max= 0.99dBi



2620.0MHz Total(E2-YZ), Max= -0.34dBi

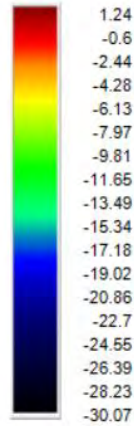
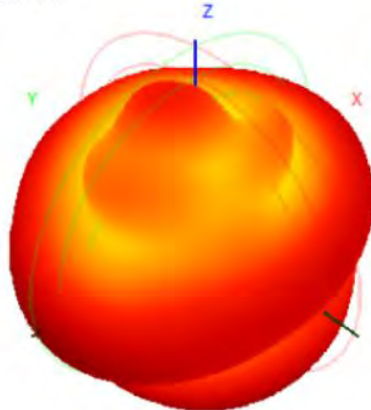
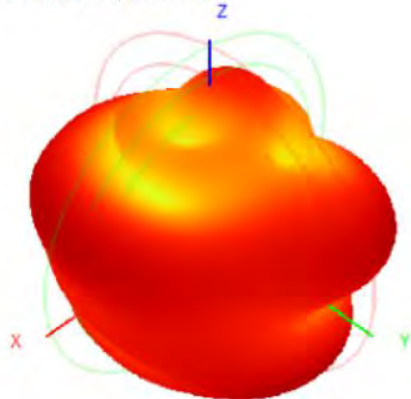


Total(H-XY), Max= 0.34dBi, CirD=7.29



2640.0MHz H+V, Eff: 47.3%

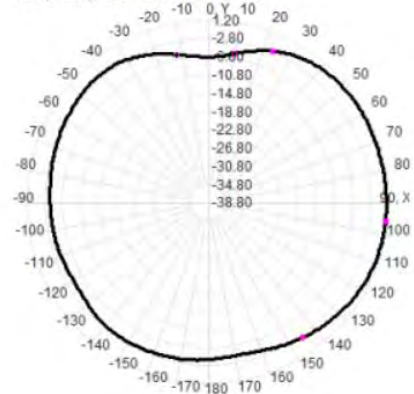
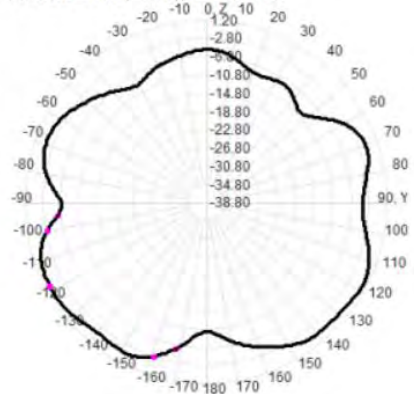
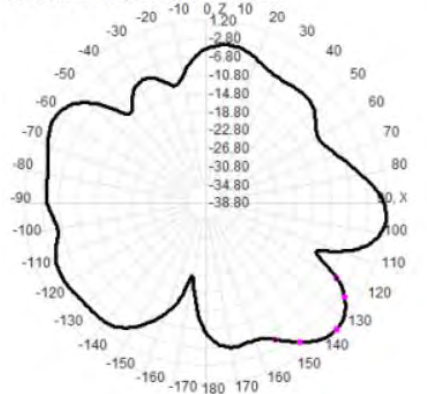
Back View



2640.0MHz Total(E1-XZ), Max= 1.20dBi

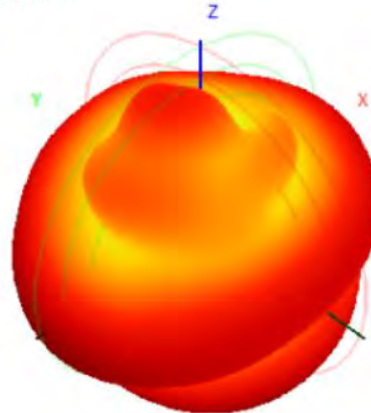
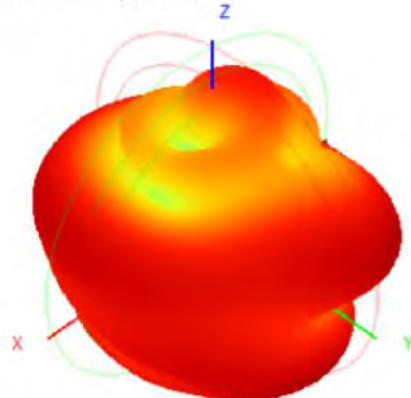
2640.0MHz Total(E2-YZ), Max= 0.15dBi

Total(H+V), Max= 0.35dBi, CirD=7.27



2660.0MHz H+V, Eff: 51.8%

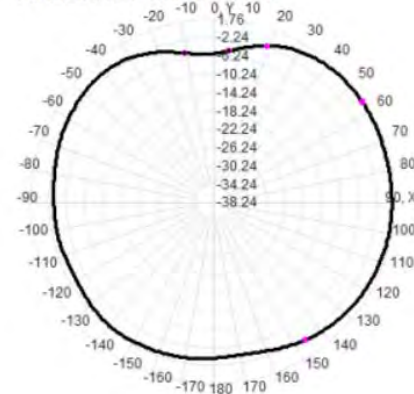
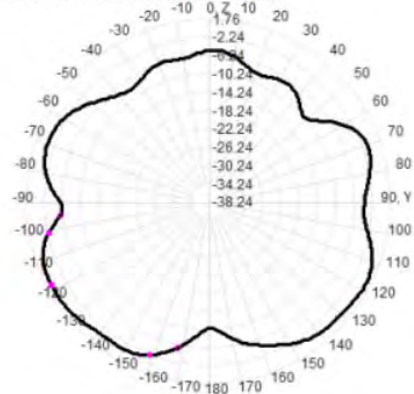
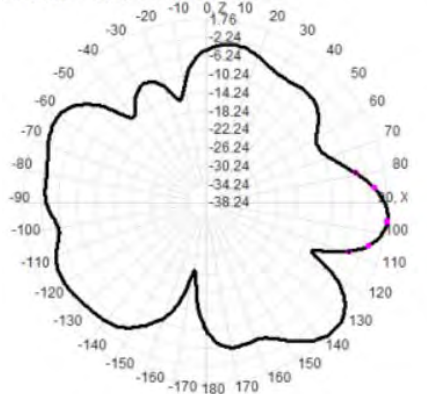
Back View



2660.0MHz Total(E1-XZ), Max= 1.76dBi

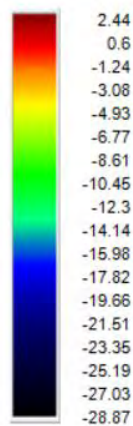
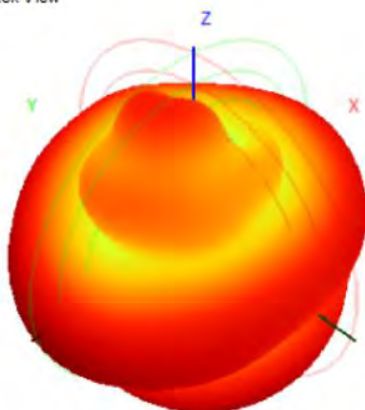
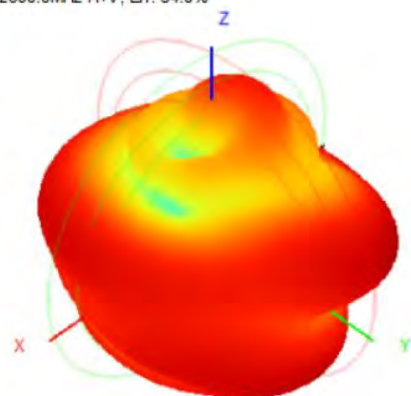
2660.0MHz Total(E2-YZ), Max= 0.57dBi

Total(H+V), Max= 1.07dBi, CirD=6.96



2680.0MHz H+V, Eff: 54.0%

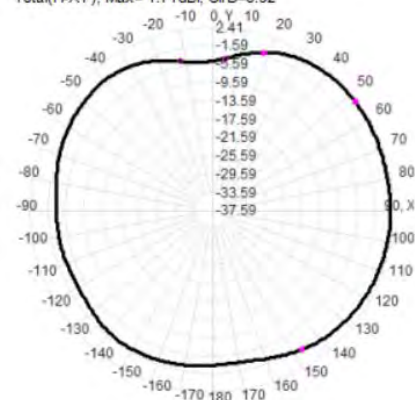
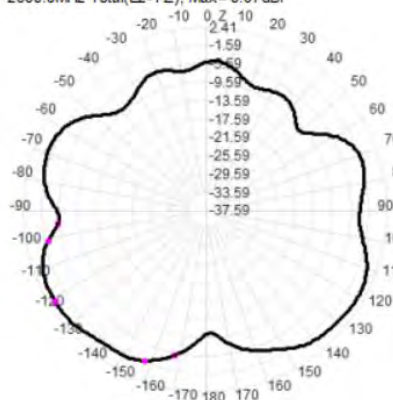
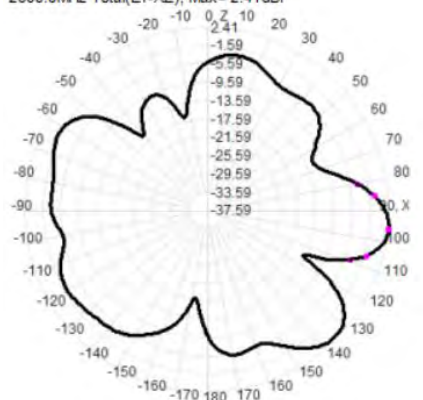
Back View



2680.0MHz Total(E1-XZ), Max= 2.41dBi

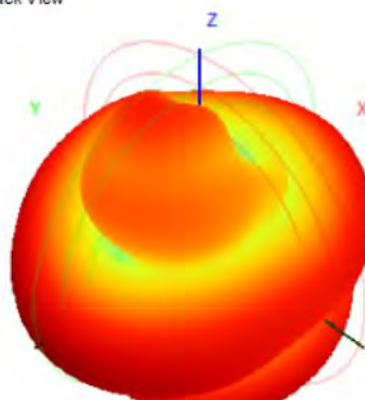
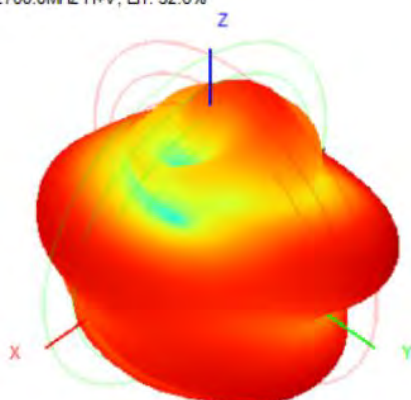
2680.0MHz Total(E2-YZ), Max= 0.87dBi

Total(H-XY), Max= 1.71dBi, CirD=6.92



2700.0MHz H+V, Eff: 52.6%

Back View



2700.0MHz Total(E1-XZ), Max= 2.53dBi

2700.0MHz Total(E2-YZ), Max= 1.09dBi

Total(H-XY), Max= 1.93dBi, CirD=7.89

