Testing Report

Customer Name: SHENZHENSHIXINZHONGXIN TECHNOLOGY. CO. , LTD

Product Name: 5 G Antenna

Sample Model: F-6168

Reference Standard: *GB/T9410-2008; ANSI/IEEE Std 149-1979*

Issue Date: 2024.04. 28

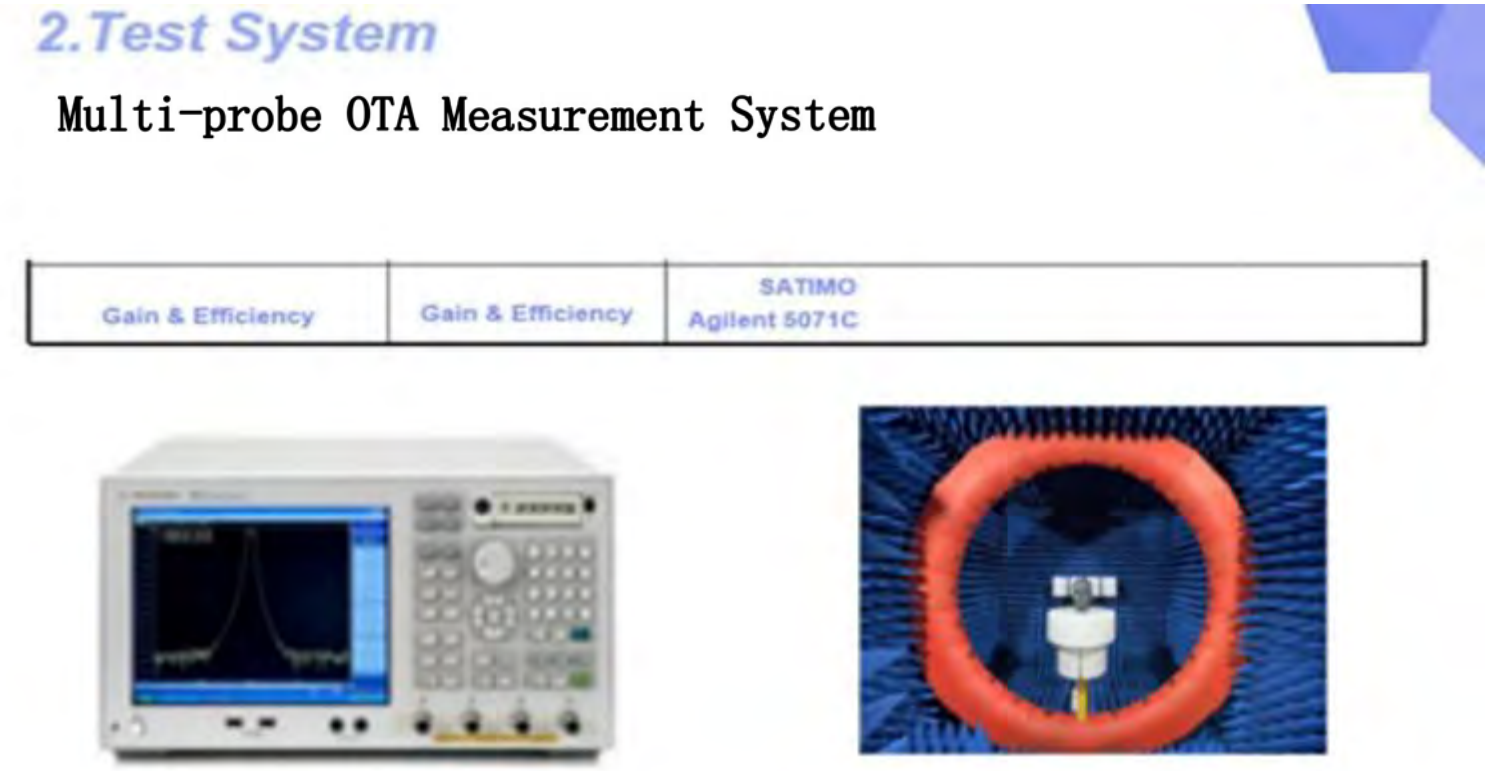
Engineer:		Date: 2024.04. 28
Auditor:		Date: 2024.04. 28
Approver:		Date: 2024.04. 28

1. General Information

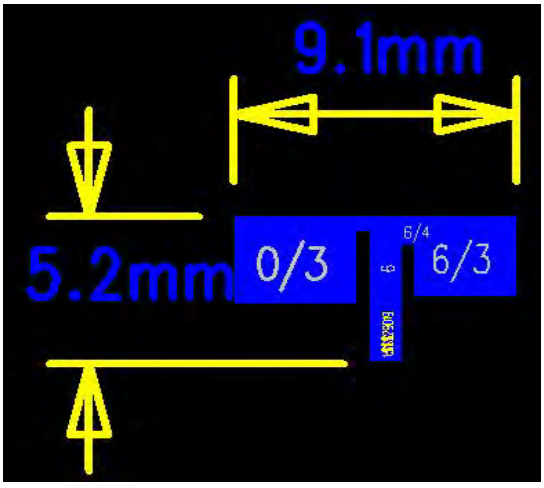
1.1 General Information of testing institutions

Name	Shenzhen Hetuo Technology Co．,Ltd．
Addres s	Room 1202 B， Building C6， Hengfeng Industrial City， Xixiang， Ba oan District， Shenzhen
Tel	18665849001
E-mail	18665849001@163.com
Equipm ent	Agilent 5071C

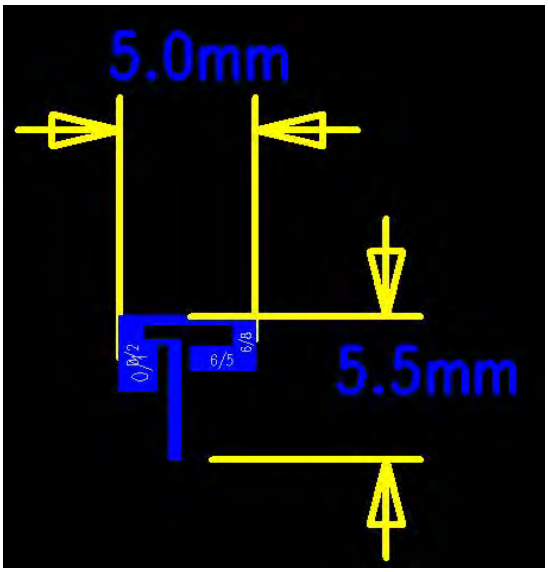
1.2 Testing principle



Antenna Photo & Lenght(mm)_ANT1: PCB antenna



Antenna Photo & Lenght(mm)_ANT2: PCB antenna



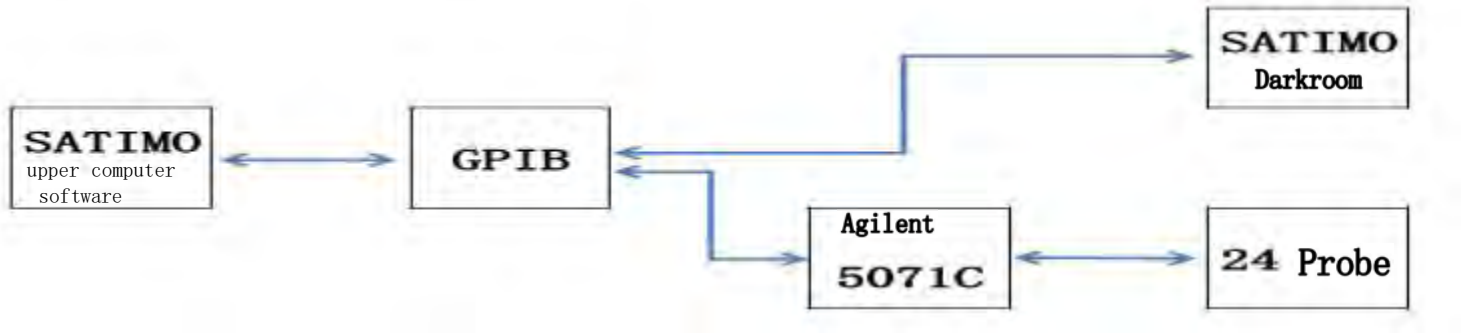
1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
24 probe microwave chamber	4*3*3	NA	SATIMO	2024.03.29	2024.04.29
Network Analyzer	5071C	NA	Agilent	2024.03.29	2024.04.29

1.4 Test environment

Temperature	24C± 1.5C
Humidity	45%RH
Pressure	101kPa

1.5 Brief summary of Procedure



1. SATIMO turn on the Upper Computer Software, Name: VeryView99.exe, Version No.: V1.10;
2. VeryView99 via GPIB (General Purpose Interface Bus) to control the shielding room (darkroom)'s SATIMO;
3. Meanwhiel, GPIB control the Agilent 5071C to read the Antenna data by 24 Probe;
4. Agilent 5071C will analyse the data and generate the result;
5. Agilent 5071C will feedback to VeryView99 software to generate the test report.

2. Sample Information

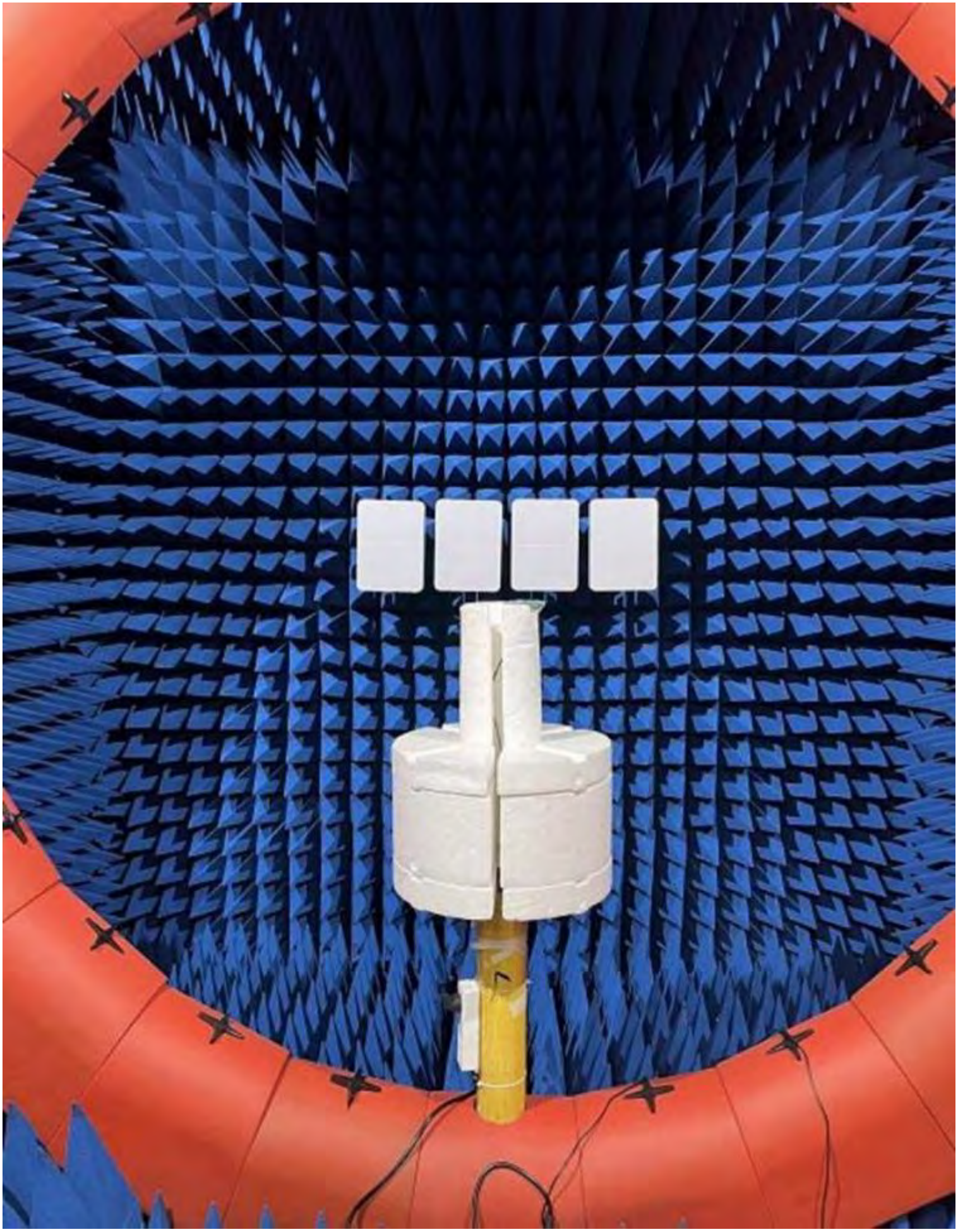
2.1 Client information

Name	SHENZHENSHIXINZHONGXIN TECHNOLOGY .CO .,LTD
Address	A1 , Shajing Donghuan Industrial Zone , Bao ' an District , Shenzhen
Contacts	Ma Chao
Tel	18218809918
E-mail	machao@ c- chip. com. cn

2.2 Description of EUT(S)

Product Name	5.2G/5.8G Antenna
Sample Model	F-6168
Antenna Size	ANT1:9.1*5.2mm
	ANT2:5.0*5.5mm
Antenna Type	PCB antenna
Serial No.	/
Test Item	Antenna Gain, Radiation pattern
Frequency Range	5155-5245MHz 5730-5848MHz
Received Date	2024.04.28
Test Date	2024.04. 28
Remark	The length of the RF cable is 50mm

The test photos



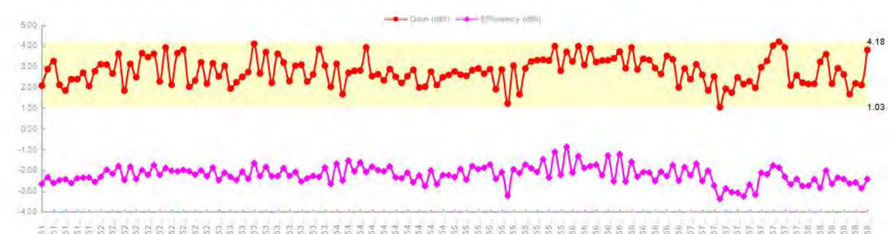
ANT1

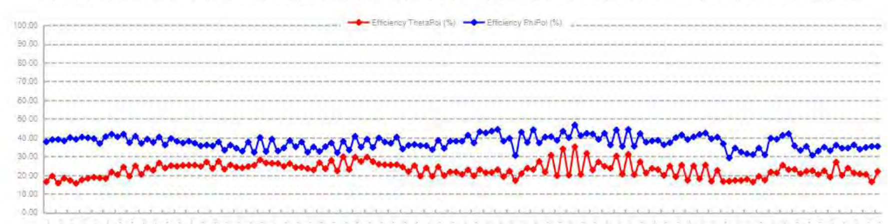
深圳市合拓科技有限公司

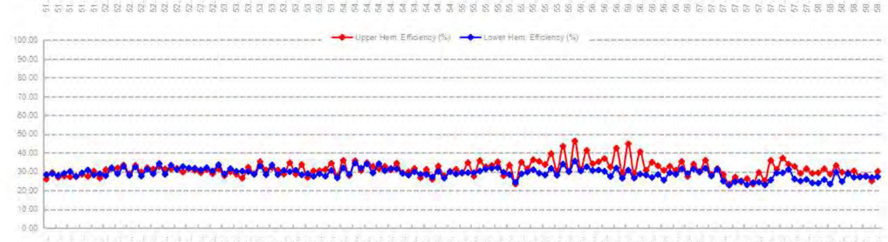
Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Frequency (MHz)	5150.0	5155.0	5160.0	5165.0	5170.0	5175.0	5180.0	5185.0	5190.0	5195.0	5200.0	5205.0	5210.0	5215.0	5220.0	5225.0	5230.0	5235.0	5240.0	5245.0	5250.0	5255.0	5260.0	5265.0
Efficiency (dBi)	-2.66	-2.34	-2.62	-2.48	-2.43	-2.62	-2.39	-2.36	-2.35	-2.57	-2.31	-1.97	-2.17	-1.80	-2.46	-1.83	-2.42	-2.00	-2.22	-1.76	-2.23	-1.90	-2.03	-2.05
Gain (dBi)	2.07	2.86	3.25	2.11	1.84	2.38	2.38	2.69	2.05	2.77	3.10	3.08	2.65	3.61	1.83	3.12	2.48	3.63	3.44	3.60	2.27	3.90	2.12	3.63
Efficiency (%)	54.18	58.32	54.73	56.53	57.11	54.69	57.70	58.12	58.25	55.36	58.71	63.46	60.65	66.05	56.69	65.62	57.30	63.12	59.98	66.73	59.84	64.59	62.68	62.31
Directivity (dB)	4.73	5.20	5.87	4.58	4.27	5.00	4.77	5.04	4.40	5.34	5.41	5.06	4.83	5.41	4.30	4.95	4.90	5.63	5.66	5.36	4.50	5.80	4.15	5.69
Peak Gain Position (Theta)	45.00	75.00	75.00	135.00	75.00	135.00	120.00	135.00	75.00	135.00	60.00	120.00	60.00	135.00	45.00	135.00	45.00	75.00	75.00	90.00	120.00	135.00	120.00	135.00
Peak Gain Position (Phi)	0.00	165.00	285.00	165.00	330.00	300.00	300.00	150.00	180.00	165.00	315.00	165.00	285.00	165.00	345.00	150.00	345.00	180.00	285.00	285.00	285.00	150.00	165.00	150.00
Efficiency ThetaPol (%)	16.41	19.46	15.73	18.30	17.16	15.60	17.46	18.24	18.80	18.48	18.20	21.63	20.22	24.23	19.36	24.91	20.40	23.97	22.53	26.45	23.77	25.05	24.66	25.18
Efficiency PhiPol (%)	37.77	38.86	39.00	38.23	39.95	39.09	40.24	39.88	39.45	36.88	40.52	41.84	40.43	41.82	37.34	40.71	36.90	39.15	37.45	40.28	36.07	39.54	38.02	37.13
Upper Hem. Efficiency (%)	25.91	29.49	26.94	27.54	27.09	27.31	28.47	27.36	30.13	26.55	31.00	31.49	31.86	33.41	28.76	33.22	29.73	31.94	31.24	32.54	31.35	31.30	31.66	29.71
Lower Hem. Efficiency (%)	28.27	28.83	27.79	28.99	30.02	27.38	29.23	30.76	28.12	28.81	27.72	31.98	28.79	32.65	27.93	32.40	27.57	31.18	28.75	34.19	28.49	33.29	31.02	32.59
T90(H)圆度	20.59	13.08	20.32	11.69	17.98	18.68	18.00	15.06	12.65	19.21	16.15	19.38	13.80	22.58	12.03	16.83	9.17	14.39	9.44	19.97	11.04	20.43	14.81	17.57
Gain 15deg (dBi)																								
E1(XZ)波瓣宽度	38.00	64.00	99.00	80.00	39.00	63.00	85.00	59.00	105.00	52.00	80.00	93.00	98.00	37.00	65.00	109.00	57.00	31.00	45.00	113.00	74.00	101.00	99.00	115.00
E1(XZ)前后比	4.66	5.37	2.85	3.28	1.30	3.15	3.22	2.96	3.54	3.81	3.96	5.30	2.11	5.65	2.18	4.61	2.01	6.23	1.89	2.45	1.11	4.50	3.05	2.27
E2(YZ)波瓣宽度	69.00	25.00	63.00	54.00	58.00	30.00	75.00	88.00	75.00	74.00	49.00	62.00	42.00	110.00	38.00	58.00	35.00	78.00	92.00	36.00	120.00	59.00	78.00	63.00
E2(YZ)前后比	7.55	11.89	8.31	8.12	8.13	10.37	7.96	8.58	6.13	6.97	5.33	8.21	4.28	4.86	5.17	9.74	4.46	6.95	2.35	8.33	1.25	6.10	1.80	4.66
最大增益处轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
仰角10度最差(大)轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Hc(XY)波瓣宽度	61.00	37.00	43.00	74.00	66.00	72.00	48.00	40.00	59.00	105.00	76.00	56.00	81.00	52.00	87.00	41.00	73.00	53.00	102.00	33.00	28.00	50.00	38.00	98.00
Hc(XY)前后比	0.00	1.93	0.00	0.94	0.00	0.00	0.00	0.88	0.61	0.00	2.81	0.00	3.11	0.00	2.13	0.00	2.73	0.38	1.32	0.00	1.60	0.00	0.00	0.07
Empty																								

Frequency ID	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Frequency (MHz)	5270.0	5275.0	5280.0	5285.0	5290.0	5295.0	5300.0	5305.0	5310.0	5315.0	5320.0	5325.0	5330.0	5335.0	5340.0	5345.0	5350.0	5355.0	5360.0	5365.0	5370.0	5375.0	5380.0
Efficiency (dBi)	-1.99	-2.05	-2.21	-2.01	-2.28	-1.88	-2.48	-2.12	-2.32	-2.47	-2.07	-2.42	-1.67	-2.29	-1.84	-2.29	-2.28	-1.90	-2.28	-2.08	-2.54	-2.39	-2.28
Gain (dBi)	3.81	2.01	2.32	3.19	2.17	3.15	2.52	3.02	1.93	2.23	2.49	2.73	4.08	2.66	3.69	2.21	3.60	3.18	2.29	3.03	3.08	2.27	2.61
Efficiency (%)	63.27	62.31	60.17	62.98	59.09	64.94	56.47	61.35	58.56	56.61	62.13	57.33	68.15	59.08	65.43	59.08	59.15	64.50	59.20	61.89	55.68	57.72	59.19
Directivity (dB)	5.79	4.07	4.52	5.20	4.45	5.02	5.00	5.14	4.26	4.71	4.56	5.14	5.75	4.95	5.53	4.50	5.88	5.09	4.57	5.11	5.62	4.65	4.89
Peak Gain Position (Theta)	75.00	135.00	120.00	120.00	120.00	135.00	135.00	135.00	135.00	150.00	135.00	135.00	75.00	135.00	135.00	75.00	135.00	30.00	135.00	75.00	135.00	90.00	30.00
Peak Gain Position (Phi)	180.00	150.00	150.00	135.00	150.00	150.00	150.00	150.00	135.00	30.00	150.00	150.00	165.00	150.00	285.00	285.00	150.00	60.00	150.00	180.00	150.00	165.00	30.00
Efficiency ThetaPol (%)	25.21	25.29	24.59	26.94	23.51	27.27	23.19	25.39	24.22	23.85	24.54	25.19	28.13	26.49	26.25	26.20	24.66	26.10	24.08	24.20	23.48	22.73	26.56
Efficiency PhiPol (%)	38.05	37.02	35.58	36.04	35.58	37.66	33.29	35.96	34.33	32.76	37.59	32.14	40.02	32.59	39.18	32.88	34.49	38.39	35.12	37.69	32.20	35.00	32.63
Upper Hem. Efficiency (%)	31.46	30.63	29.36	31.01	28.81	31.36	27.78	29.82	28.52	26.47	32.21	28.82	35.22	30.76	32.02	30.74	28.59	34.63	28.53	33.69	26.85	30.32	30.41
Lower Hem. Efficiency (%)	31.81	31.68	30.82	31.97	30.28	33.57	28.69	31.53	30.04	30.14	29.92	28.51	32.93	28.32	33.41	28.34	30.56	29.86	30.67	28.20	28.82	27.40	28.78
T90(H)圆度	13.41	15.88	12.04	14.56	21.41	13.83	16.24	14.76	17.93	10.80	24.24	14.88	17.06	12.83	17.89	10.91	22.36	15.98	15.54	18.66	11.32	16.70	10.20
Gain 15deg (dBi)																							
E1(XZ)波瓣宽度	28.00	97.00	83.00	98.00	99.00	79.00	115.00	97.00	115.00	118.00	25.00	54.00	90.00	24.00	41.00	52.00	35.00	24.00	62.00	29.00	53.00	63.00	59.00
E1(XZ)前后比	4.66	3.09	2.17	2.17	2.70	3.77	2.25	3.71	2.33	2.67	4.62	4.02	3.85	2.15	4.83	3.00	5.74	2.80	4.46	4.83	3.45	3.80	4.25
E2(YZ)波瓣宽度	107.00	63.00	83.00	59.00	80.00	108.00	88.00	26.00	55.00	23.00	108.00	62.00	103.00	80.00	49.00	32.00	55.00	51.00	76.00	38.00	49.00	23.00	93.00
E2(YZ)前后比	3.83	3.32	2.22	2.83	5.46	1.63	2.37	3.70	3.43	2.12	3.44	3.42	5.34	2.68	4.82	4.18	3.51	2.14	4.02	2.95	4.36	2.10	4.80
最大增益处轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
仰角10度最差(大)轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Hc(XY)波瓣宽度	48.00	109.00	50.00	58.00	46.00	74.00	34.00	101.00	32.00	73.00	52.00	89.00	84.00	32.00	97.00	51.00	91.00	46.00	90.00	36.00	90.00	67.00	94.00
Hc(XY)前后比	0.00	0.29	0.00	0.21	0.00	0.93	0.00	0.81	0.00	0.77	0.41	0.00	1.84	0.00	2.04	0.00	0.85	0.00	2.33	0.00	1.52	0.40	1.26
Empty																							

Frequency ID	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Frequency (MHz)	5385.0	5390.0	5395.0	5400.0	5405.0	5410.0	5415.0	5420.0	5425.0	5430.0	5435.0	5440.0	5445.0	5450.0	5455.0	5460.0	5465.0	5470.0	5475.0	5480.0	5485.0	5490.0	5495.0
Efficiency (dBi)	-2.32	-1.88	-2.66	-1.69	-2.49	-1.54	-2.06	-1.63	-2.08	-1.83	-2.00	-2.05	-1.82	-2.35	-2.38	-2.12	-2.58	-2.26	-2.77	-2.01	-2.67	-2.23	-2.24
Gain (dBi)	3.83	3.03	2.02	3.12	1.66	2.68	2.78	2.80	3.90	2.53	2.62	2.33	2.87	2.50	2.21	2.53	2.83	1.98	2.02	2.74	2.10	2.47	2.59
Efficiency (%)	58.55	64.92	54.18	67.73	56.33	70.15	62.25	68.69	61.93	65.59	63.16	62.31	65.80	58.27	57.79	61.40	55.16	59.43	52.90	62.89	54.07	59.79	59.74
Directivity (dB)	6.16	4.91	4.68	4.81	4.15	4.22	4.84	4.43	5.98	4.36	4.62	4.38	4.69	4.84	4.59	4.64	5.41	4.24	4.79	4.76	4.77	4.71	4.82
Peak Gain Position (Theta)	90.00	75.00	90.00	30.00	150.00	45.00	120.00	30.00	75.00	75.00	30.00	75.00	120.00	30.00	120.00	30.00	30.00	135.00	120.00	30.00	135.00	135.00	30.00
Peak Gain Position (Phi)	285.00	270.00	285.00	345.00	30.00	45.00	285.00	15.00	285.00	195.00	30.00	195.00	285.00	45.00	285.00	30.00	75.00	60.00	285.00	15.00	0.00	60.00	45.00
Efficiency ThetaPol (%)	23.39	27.77	22.23	29.77	22.93	29.48	27.28	29.56	27.19	25.77	25.51	25.34	25.58	24.32	21.92	25.07	19.40	23.79	19.30	24.36	19.76	21.69	21.65
Efficiency PhiPol (%)	35.16	37.15	31.95	37.96	33.39	40.67	34.97	39.12	34.74	39.82	37.65	36.97	40.22	33.95	35.88	36.33	35.77	35.63	33.60	38.52	34.30	38.10	38.09
Upper Hem. Efficiency (%)	31.05	34.38	27.60	35.87	27.83	35.69	30.52	34.62	32.71	31.47	32.72	30.82	34.44	29.27	29.72	31.57	26.66	31.12	25.87	32.84	27.58	29.99	31.08
Lower Hem. Efficiency (%)	27.50	30.54	26.58	31.86	28.49	34.46	31.74	34.06	29.22	34.12	30.43	31.49	31.36	28.99	28.08	29.83	28.51	28.31	27.03	30.05	26.49	29.80	28.65
T90(H)圆度	15.99	8.75	13.34	11.71	18.73	17.73	17.78	13.48	15.08	15.74	15.83	16.28	14.26	14.77	12.65	15.87	12.75	16.67	17.32	9.46	17.49	12.84	14.35
Gain 15deg (dBi)																							
E1(XZ)波瓣宽度	56.00	49.00	68.00	75.00	41.00	37.00	34.00	25.00	23.00	36.00	54.00	39.00	47.00	45.00	58.00	53.00	79.00	77.00	158.00	48.00	23.00	33.00	84.00
E1(XZ)前后比	2.40	6.11	3.49	4.48	4.06	5.32	3.48	3.77	5.82	4.87	3.93	3.02	3.10	4.23	1.76	4.56	4.44	7.34	3.03	4.23	5.19	5.57	2.64
E2(YZ)波瓣宽度	23.00	33.00	28.00	96.00	49.00	93.00	52.00	106.00	30.00	67.00	53.00	24.00	96.00	25.00	39.00	40.00	47.00	21.00	28.00	94.00	34.00	93.00	109.00
E2(YZ)前后比	2.95	5.34	2.32	6.21	1.75	3.82	3.71	4.20	3.41	2.22	2.36	2.99	2.80	4.68	3.86	2.79	2.38	5.41	4.03	3.84	4.40	4.33	3.16
最大增益处轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
仰角10度最差(大)轴比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Hc(XY)波瓣宽度	39.00	78.00	48.00	89.00	52.00	37.00	44.00	58.00	50.00	42.00	48.00	40.00	81.00	44.00	74.00	67.00	39.00	42.00	48.00	73.00	38.00	34.00	33.00
Hc(XY)前后比	0.00	2.15	0.00	1.24	0.00	0.01	0.00	0.00	0.92	0.00	0.00	0.00	0.14	0.00	1.25	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Empty																							







71	72	73	74	75	76	77	78	79
5500.0	**5505.0**	**5510.0**	**5515.0**	**5520.0**	**5525.0**	**5530.0**	**5535.0**	**5540.0**
-2.33	**-1.94**	**-2.46**	**-1.80**	**-1.95**	**-1.88**	**-1.73**	**-2.42**	**-2.10**
2.75	2.60	2.54	2.82	2.90	2.65	2.86	1.90	2.84
58.48	**64.02**	**56.80**	**66.00**	**63.84**	**64.85**	**67.19**	**57.29**	**61.70**
5.08	4.54	5.00	4.62	4.85	4.53	4.59	4.32	4.94
135.00	45.00	135.00	45.00	105.00	135.00	75.00	150.00	45.00
45.00	45.00	15.00	45.00	285.00	285.00	285.00	30.00	30.00
20.41	22.75	19.60	22.91	21.36	21.42	22.86	19.17	22.09
38.08	41.27	37.20	43.09	42.48	43.44	44.32	38.11	39.61
29.09	34.67	27.48	35.74	32.45	33.15	35.11	27.76	33.34
29.39	29.35	29.32	30.25	31.40	31.70	32.08	29.53	28.36
11.15	12.50	9.23	11.84	13.03	14.57	14.47	10.99	11.09
46.00	143.00	53.00	78.00	48.00	76.00	70.00	32.00	35.00
5.36	2.33	4.14	3.61	5.49	2.24	3.77	2.41	4.08
62.00	32.00	69.00	21.00	41.00	23.00	30.00	22.00	47.00
3.94	3.99	2.13	5.00	4.46	4.51	3.90	5.13	4.51
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
40.00	43.00	89.00	36.00	79.00	47.00	34.00	41.00	25.00
0.00	0.00	1.04	0.00	2.20	0.00	0.00	0.00	1.27

80	81	82	83	84	85	86	87	88
5545.0	**5550.0**	**5555.0**	**5560.0**	**5565.0**	**5570.0**	**5575.0**	**5580.0**	**5585.0**
-3.23	**-1.96**	**-2.14**	**-1.73**	**-1.91**	**-2.09**	**-1.48**	**-2.35**	**-1.11**
1.21	3.03	1.66	2.89	3.23	3.30	3.32	3.28	3.97
47.54	**63.66**	**61.13**	**67.14**	**64.42**	**61.83**	**71.14**	**58.18**	**77.36**
4.44	4.99	3.80	4.62	5.14	5.38	4.80	5.63	5.09
150.00	45.00	135.00	45.00	30.00	45.00	75.00	45.00	30.00
30.00	30.00	300.00	30.00	330.00	315.00	345.00	30.00	15.00
17.10	20.76	23.68	22.99	27.26	21.56	30.65	19.66	33.96
30.44	42.90	37.45	44.16	37.16	40.27	40.50	38.52	43.40
23.31	34.94	31.39	36.24	35.33	33.66	39.53	30.18	43.40
24.22	28.72	29.74	30.91	29.09	28.17	31.61	28.01	33.96
15.34	9.84	13.78	13.95	10.33	9.06	10.86	9.00	10.24
86.00	24.00	52.00	21.00	29.00	23.00	35.00	23.00	24.00
2.17	4.87	1.91	5.98	3.23	9.11	3.94	9.54	3.30
27.00	33.00	50.00	112.00	19.00	58.00	32.00	33.00	41.00
5.79	7.07	6.39	4.30	7.58	6.45	7.65	6.71	7.30
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
44.00	165.00	35.00	41.00	117.00	130.00	51.00	155.00	72.00
0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.17

89	90	91	92	93	94	95	96	97
5590.0	**5595.0**	**5600.0**	**5605.0**	**5610.0**	**5615.0**	**5620.0**	**5625.0**	**5630.0**
-2.22	**-0.88**	**-2.12**	**-1.32**	**-1.89**	**-1.80**	**-1.74**	**-2.24**	**-1.29**
2.79	3.70	3.24	3.97	3.07	3.86	3.21	3.27	3.29
59.92	**81.74**	**61.37**	**73.74**	**64.66**	**66.03**	**66.98**	**59.68**	**74.24**
5.01	4.57	5.36	5.29	4.96	5.66	4.95	5.52	4.59
30.00	45.00	135.00	45.00	30.00	45.00	75.00	45.00	75.00
255.00	75.00	30.00	30.00	345.00	15.00	285.00	15.00	285.00
19.95	35.04	20.33	31.54	22.74	26.95	24.70	23.64	30.19
39.96	46.70	41.05	42.21	41.92	39.08	42.28	36.03	44.05
30.00	46.19	31.04	41.25	34.12	35.22	36.90	32.38	42.45
29.92	35.55	30.33	32.50	30.54	30.80	30.08	27.29	31.80
11.96	11.67	10.27	11.31	13.57	10.91	13.63	11.52	11.09
48.00	27.00	19.00	35.00	22.00	31.00	23.00	22.00	21.00
5.38	3.93	5.65	3.35	5.87	4.14	8.20	4.92	8.44
49.00	19.00	64.00	20.00	25.00	47.00	24.00	22.00	37.00
7.86	4.65	8.12	7.11	8.73	6.39	8.64	4.74	8.66
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
43.00	108.00	52.00	53.00	56.00	76.00	69.00	69.00	43.00
0.00	0.90	0.00	4.71	0.00	2.29	0.00	3.46	0.00

98	99	100	101	102	103	104	105	106
5635.0	**5640.0**	**5645.0**	**5650.0**	**5655.0**	**5660.0**	**5665.0**	**5670.0**	**5675.0**
-2.53	**-1.23**	**-2.55**	**-1.60**	**-2.31**	**-2.09**	**-2.12**	**-2.52**	**-2.07**
3.38	3.70	2.91	3.90	2.85	3.36	3.31	2.92	2.63
55.85	**75.34**	**55.60**	**69.11**	**58.71**	**61.78**	**61.43**	**56.02**	**62.07**
5.91	4.93	5.46	5.51	5.16	5.45	5.42	5.44	4.70
45.00	30.00	45.00	45.00	75.00	45.00	75.00	45.00	75.00
15.00	30.00	285.00	45.00	285.00	45.00	285.00	45.00	300.00
20.56	31.02	20.22	27.04	21.15	23.54	22.90	19.85	24.79
35.29	44.33	35.38	42.07	37.56	38.24	38.53	36.16	37.28
29.42	44.68	29.08	40.49	30.59	34.92	33.05	30.63	32.77
26.42	30.67	26.52	28.63	28.12	26.86	28.38	25.39	29.30
7.31	12.60	11.89	10.21	14.10	12.75	14.73	10.31	18.23
20.00	23.00	22.00	25.00	24.00	49.00	32.00	31.00	45.00
3.90	6.84	3.05	8.08	3.69	6.84	3.04	6.76	3.56
19.00	36.00	58.00	31.00	56.00	36.00	19.00	32.00	69.00
6.23	9.12	6.39	8.53	6.66	7.05	6.49	7.55	6.45
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
95.00	48.00	74.00	64.00	90.00	38.00	74.00	47.00	36.00
1.18	0.00	2.42	0.00	1.66	0.00	1.20	0.00	0.00

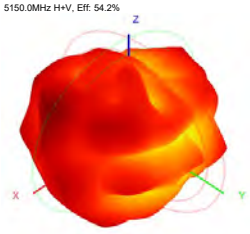
107	108	109	110	111	112	113	114	115
5680.0	**5685.0**	**5690.0**	**5695.0**	**5700.0**	**5705.0**	**5710.0**	**5715.0**	**5720.0**
-2.28	**-1.76**	**-2.50**	**-1.85**	**-2.24**	**-1.69**	**-2.52**	**-2.03**	**-2.74**
3.50	3.33	1.99	2.90	2.38	3.09	2.59	1.84	2.51
59.09	**66.73**	**56.26**	**65.24**	**59.70**	**67.76**	**56.03**	**62.67**	**53.25**
5.79	5.09	4.49	4.75	4.62	4.78	5.11	3.87	5.25
45.00	75.00	45.00	135.00	120.00	75.00	135.00	120.00	75.00
30.00	285.00	15.00	45.00	285.00	180.00	30.00	180.00	285.00
19.13	25.28	17.25	24.85	18.06	25.34	16.71	22.45	16.54
39.96	41.45	39.01	40.39	41.64	42.42	39.32	40.22	36.71
30.62	35.32	27.38	33.91	30.00	35.98	28.42	31.57	28.36
28.47	31.41	28.88	31.33	29.70	31.78	27.61	31.10	24.89
13.72	15.77	13.28	10.20	18.22	13.86	11.69	9.90	14.63
91.00	29.00	78.00	27.00	64.00	26.00	90.00	76.00	72.00
3.78	3.38	4.57	2.67	4.08	4.94	4.83	4.02	3.60
99.00	49.00	150.00	43.00	35.00	82.00	127.00	48.00	34.00
7.08	3.64	7.27	3.14	7.25	5.70	7.42	6.93	8.60
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
53.00	80.00	45.00	86.00	54.00	34.00	38.00	70.00	80.00
0.00	0.45	0.09	1.03	0.55	1.25	1.02	0.87	0.62

116	117	118	119	120	121	122	123	124
5725.0	**5730.0**	**5735.0**	**5740.0**	**5745.0**	**5750.0**	**5755.0**	**5760.0**	**5765.0**
-3.38	**-2.88**	**-3.06**	**-3.08**	**-3.26**	**-2.70**	**-3.18**	**-2.13**	**-2.20**
1.03	1.92	1.73	2.47	2.15	2.28	1.97	2.95	3.26
45.92	**51.55**	**49.40**	**49.16**	**47.24**	**53.74**	**48.12**	**61.28**	**60.31**
4.41	4.79	4.80	5.55	5.40	4.98	5.14	5.08	5.46
120.00	135.00	135.00	135.00	135.00	120.00	135.00	75.00	135.00
180.00	285.00	195.00	285.00	30.00	300.00	45.00	120.00	45.00
16.77	17.16	17.15	17.78	16.29	19.31	17.31	21.63	21.19
29.15	34.39	32.26	31.38	30.95	34.43	30.81	39.65	39.12
23.23	27.04	24.45	26.21	23.25	29.45	25.21	35.84	31.08
22.69	24.52	24.96	22.95	24.00	24.29	22.91	25.44	29.23
11.89	13.63	10.69	16.69	11.47	12.07	9.85	11.68	10.89
37.00	42.00	80.00	93.00	90.00	69.00	52.00	49.00	38.00
4.00	4.41	3.80	5.75	4.33	5.46	3.56	4.97	4.49
19.00	83.00	83.00	46.00	23.00	32.00	106.00	28.00	40.00
6.16	6.66	3.72	6.79	5.08	7.23	4.07	6.91	6.27
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
26.00	73.00	38.00	93.00	39.00	46.00	51.00	99.00	43.00
0.45	2.48	0.00	1.20	0.00	2.77	0.00	2.28	0.58

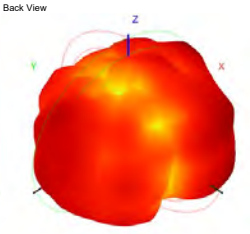
125	126	127	128	129	130	131	132	133
5770.0	**5775.0**	**5780.0**	**5785.0**	**5790.0**	**5795.0**	**5800.0**	**5805.0**	**5810.0**
-1.78	**-1.87**	**-2.32**	**-2.68**	**-2.42**	**-2.76**	**-2.75**	**-2.43**	**-2.85**
3.99	4.18	3.91	2.07	2.57	2.21	2.15	2.16	3.21
66.41	**64.94**	**58.64**	**53.91**	**57.25**	**52.94**	**53.15**	**57.12**	**51.91**
5.77	6.06	6.23	4.76	4.99	4.97	4.90	4.59	6.06
135.00	30.00	45.00	75.00	45.00	75.00	15.00	75.00	30.00
285.00	345.00	60.00	285.00	345.00	15.00	30.00	225.00	330.00
25.23	22.91	23.03	20.75	21.99	22.33	20.33	22.25	18.88
41.18	42.03	35.62	33.16	35.25	30.61	32.81	34.88	33.02
37.11	33.81	32.68	29.02	31.50	29.03	29.32	31.42	28.60
29.30	31.13	25.96	24.90	25.75	23.92	23.83	25.70	23.31
12.89	8.75	9.83	12.21	9.81	17.93	10.37	15.42	11.14
39.00	38.00	29.00	26.00	39.00	34.00	55.00	26.00	55.00
7.22	6.01	4.37	4.73	3.66	5.66	5.49	6.92	5.67
55.00	41.00	38.00	47.00	35.00	26.00	33.00	25.00	23.00
5.61	7.65	6.50	6.51	8.15	7.61	6.16	7.37	6.96
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
71.00	57.00	64.00	68.00	90.00	58.00	84.00	50.00	57.00
1.89	0.00	3.56	0.36	1.92	0.00	2.35	0.80	3.24

134	135	136	137	138	139	140	141
5815.0	**5820.0**	**5825.0**	**5830.0**	**5835.0**	**5840.0**	**5845.0**	**5850.0**
-2.02	**-2.66**	**-2.35**	**-2.43**	**-2.65**	**-2.59**	**-2.87**	**-2.43**
3.58	2.16	2.91	2.61	1.66	2.18	2.10	3.79
62.81	**54.21**	**58.18**	**57.21**	**54.38**	**55.09**	**51.69**	**57.20**
5.60	4.82	5.26	5.03	4.30	4.76	4.97	6.22
75.00	30.00	45.00	120.00	45.00	120.00	120.00	45.00
195.00	315.00	30.00	285.00	30.00	300.00	285.00	30.00
26.87	19.88	23.75	21.15	20.61	20.35	16.38	21.89
35.94	34.33	34.43	36.07	33.78	34.74	35.31	35.31
33.17	29.59	29.42	30.29	27.35	27.79	24.91	30.02
29.65	24.62	28.76	26.92	27.03	27.30	26.78	27.18
17.24	15.37	12.20	12.19	13.48	13.17	17.51	13.79
76.00	58.00	20.00	36.00	66.00	49.00	76.00	26.00
5.53	2.86	4.52	4.94	6.50	3.89	5.65	6.09
38.00	26.00	35.00	26.00	61.00	35.00	68.00	26.00
5.47	8.79	5.85	7.89	7.32	9.27	7.64	8.22
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
59.00	78.00	41.00	29.00	47.00	31.00	87.00	38.00
0.00	1.72	0.00	1.30	0.00	1.21	3.44	0.00

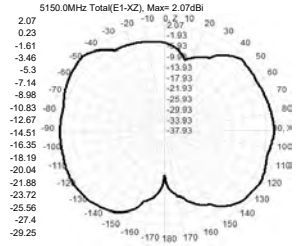
5150.0MHz H+V, Eff: 54.2%



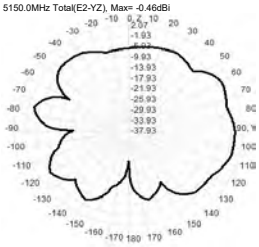
Back View



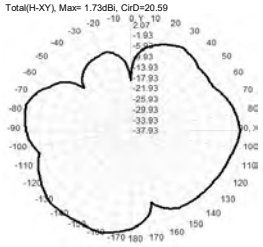
5150.0MHz Total(E1-XZ), Max= 2.07dBi



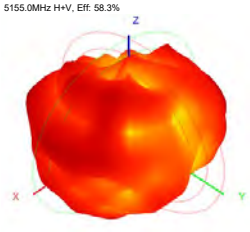
5150.0MHz Total(E2-YZ), Max= -0.46dBi



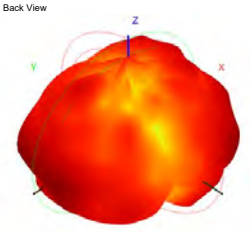
Total(H-XY), Max= 1.73dBi, CirD=20.59



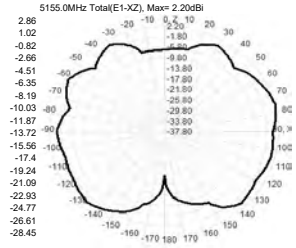
5155.0MHz H+V, Eff: 58.3%



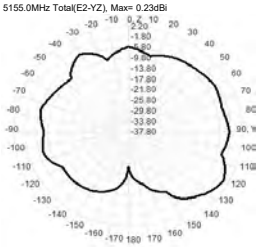
Back View



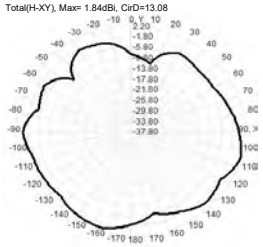
5155.0MHz Total(E1-XZ), Max= 2.20dBi



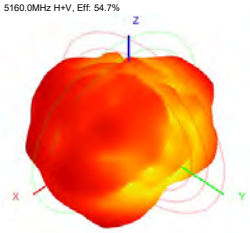
5155.0MHz Total(E2-YZ), Max= 0.23dBi



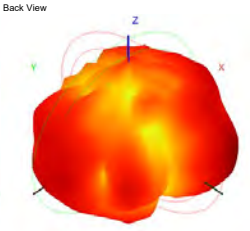
Total(H-XY), Max= 1.84dBi, CirD=13.08



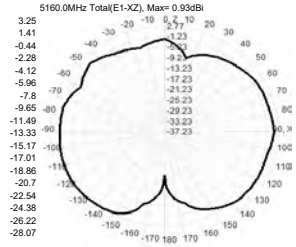
5160.0MHz H+V, Eff: 54.7%



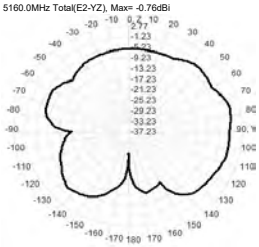
Back View



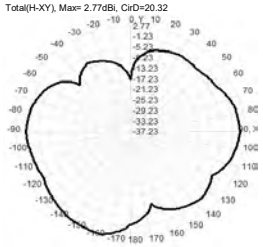
5160.0MHz Total(E1-XZ), Max= 0.93dBi



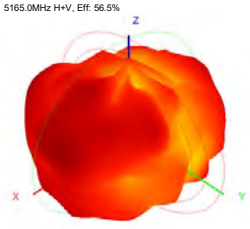
5160.0MHz Total(E2-YZ), Max= -0.76dBi



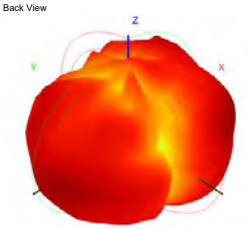
Total(H-XY), Max= 2.77dBi, CirD=20.32



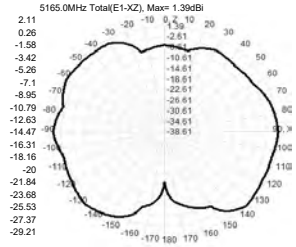
5165.0MHz H+V, Eff: 56.5%



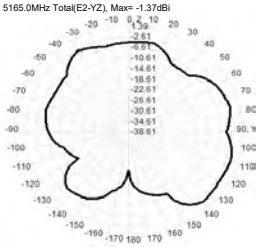
Back View



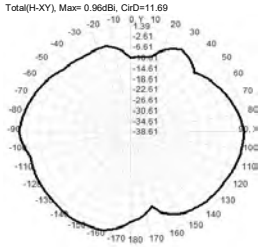
5165.0MHz Total(E1-XZ), Max= 1.39dBi



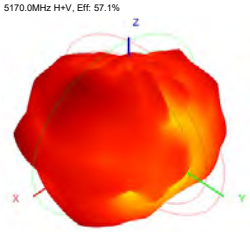
5165.0MHz Total(E2-YZ), Max= -1.37dBi



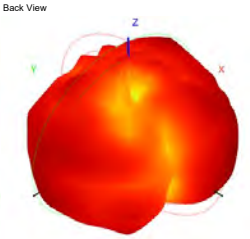
Total(H-XY), Max= 0.96dBi, CirD=11.69



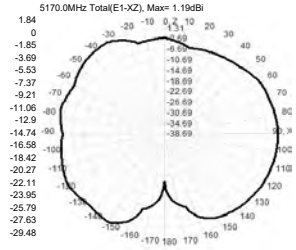
5170.0MHz H+V, Eff: 57.1%



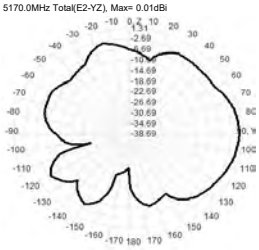
Back View



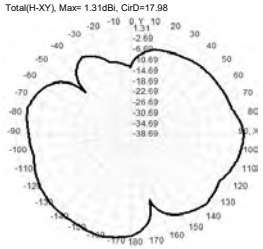
5170.0MHz Total(E1-XZ), Max= 1.19dBi



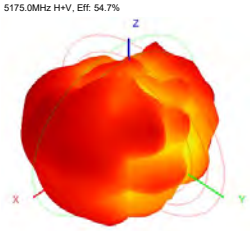
5170.0MHz Total(E2-YZ), Max= 0.01dBi



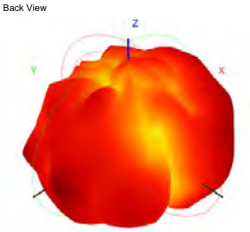
Total(H-XY), Max= 1.31dBi, CirD=17.98



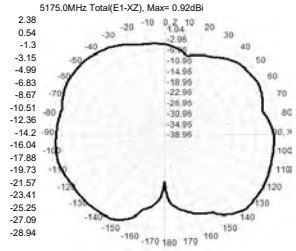
5175.0MHz H+V, Eff: 54.7%



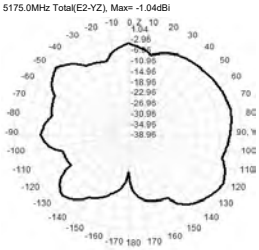
Back View



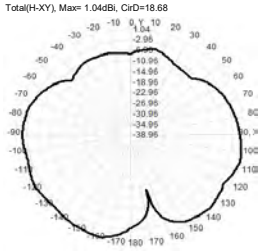
5175.0MHz Total(E1-XZ), Max= 0.92dBi



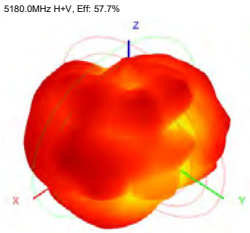
5175.0MHz Total(E2-YZ), Max= -1.04dBi



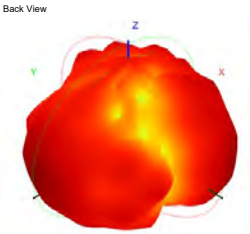
Total(H-XY), Max= 1.04dBi, CirD=18.68



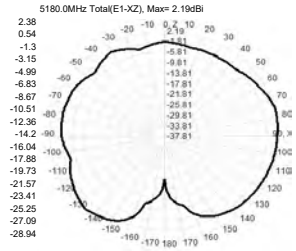
5180.0MHz H+V, Eff: 57.7%



Back View



5180.0MHz Total(E1-XZ), Max= 2.19dBi



5180.0MHz Total(E2-YZ), Max= -0.20dBi

Total(H-XY), Max= 1.88dBi, CirD=18.00

5185.0MHz H+V, Eff: 58.1%

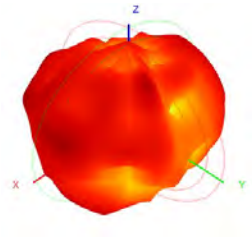
Back View

5185.0MHz Total(E1-XZ), Max= 1.61dBi

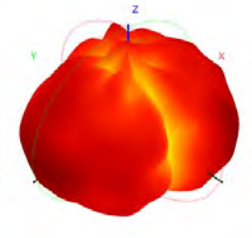
5185.0MHz Total(E2-YZ), Max= -1.35dBi

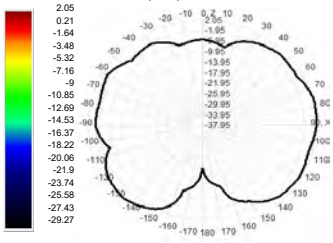
Total(H-XY), Max= 1.61dBi, CirD=15.06

5190.0MHz H+V, Eff: 58.3%



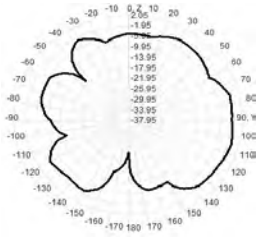
Back View



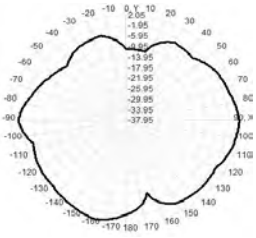


5190.0MHz Total(E1-XZ), Max= 2.05dBi

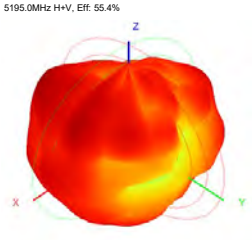
5190.0MHz Total(E2-YZ), Max= -1.01dBi



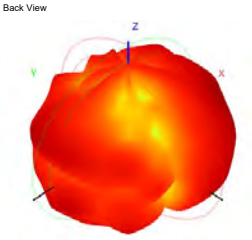
Total(H-XY), Max= 1.70dBi, CirD=12.65

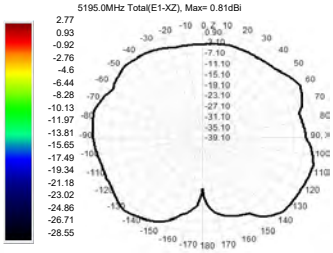


5195.0MHz H+V, Eff: 55.4%



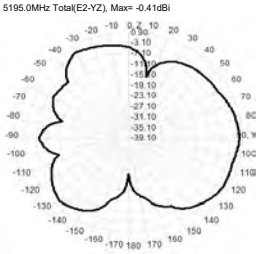
Back View



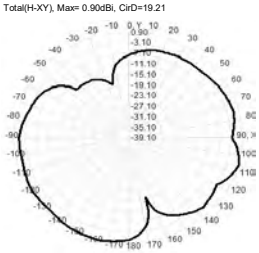


5195.0MHz Total(E1-XZ), Max= 0.81dBi

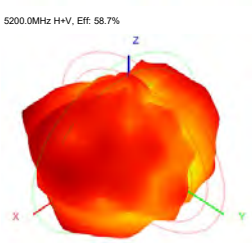
5195.0MHz Total(E2-YZ), Max= -0.41dBi



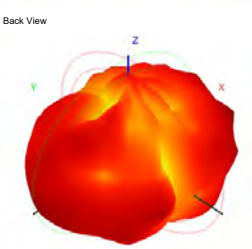
Total(H-XY), Max= 0.90dBi, CirD=19.21

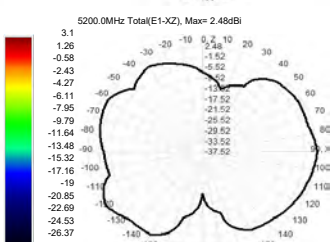


5200.0MHz H+V, Eff: 58.7%



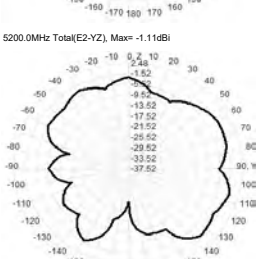
Back View



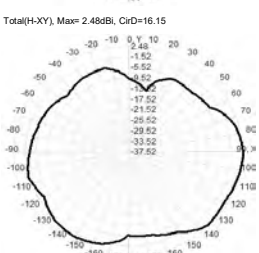


5200.0MHz Total(E1-XZ), Max= 2.48dBi

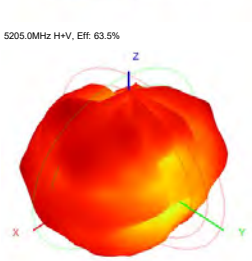
5200.0MHz Total(E2-YZ), Max= -1.11dBi



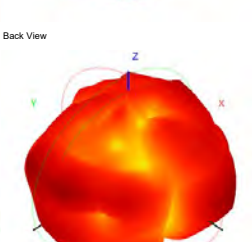
Total(H-XY), Max= 2.48dBi, CirD=16.15

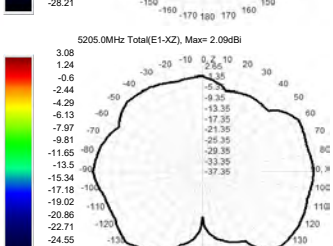


5205.0MHz H+V, Eff: 63.5%



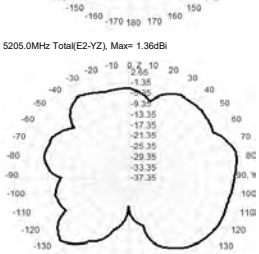
Back View



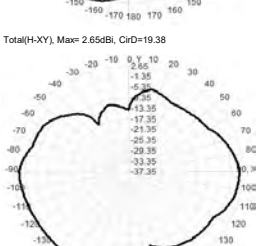


5205.0MHz Total(E1-XZ), Max= 2.09dBi

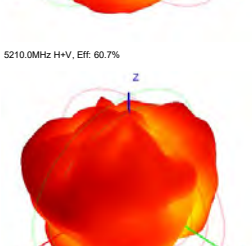
5205.0MHz Total(E2-YZ), Max= 1.36dBi



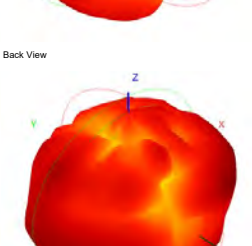
Total(H-XY), Max= 2.65dBi, CirD=19.38

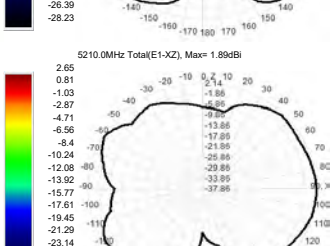


5210.0MHz H+V, Eff: 60.7%



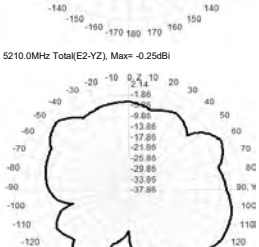
Back View



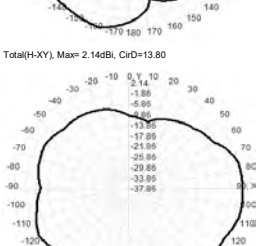


5210.0MHz Total(E1-XZ), Max= 1.89dBi

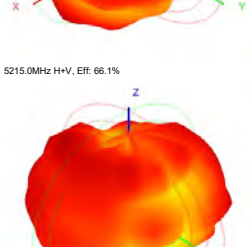
5210.0MHz Total(E2-YZ), Max= -0.25dBi



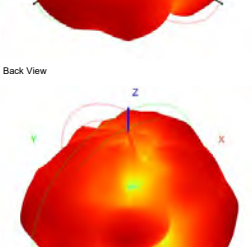
Total(H-XY), Max= 2.14dBi, CirD=13.80

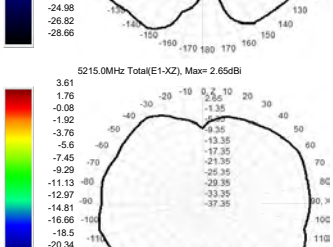


5215.0MHz H+V, Eff: 66.1%



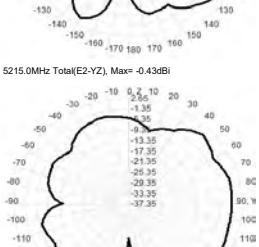
Back View



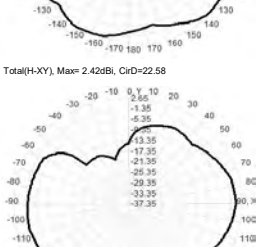


5215.0MHz Total(E1-XZ), Max= 2.65dBi

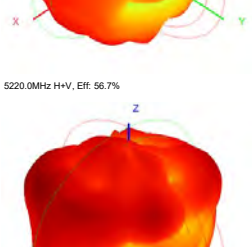
5215.0MHz Total(E2-YZ), Max= -0.43dBi



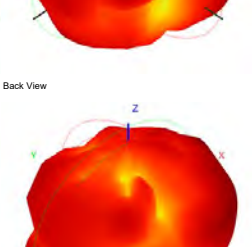
Total(H-XY), Max= 2.42dBi, CirD=22.58

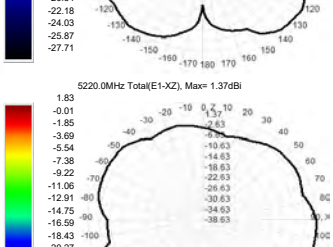


5220.0MHz H+V, Eff: 56.7%



Back View





5220.0MHz Total(E1-XZ), Max= 1.37dBi

5220.0MHz Total(E2-YZ), Max= 0.29dBi

Total(H-XY), Max= 1.28dBi, CirD=12.03

5225.0MHz H+V, Eff: 65.6%

Back View

5225.0MHz Total(E1-XZ), Max= 2.57dBi

5225.0MHz Total(E2-YZ), Max= 1.44dBi

Total(H-XY), Max= 2.93dBi, CirD=16.83

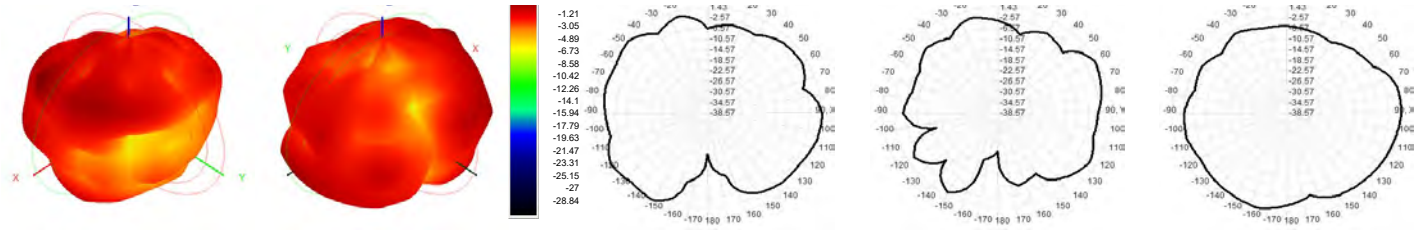
5230.0MHz H+V, Eff: 57.3%

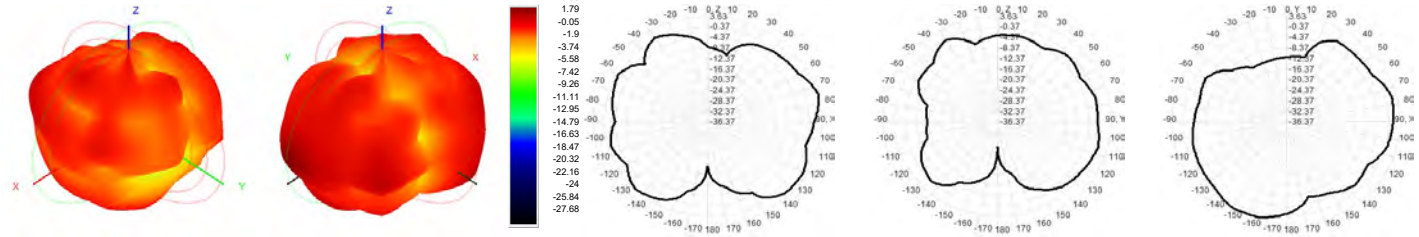
Back View

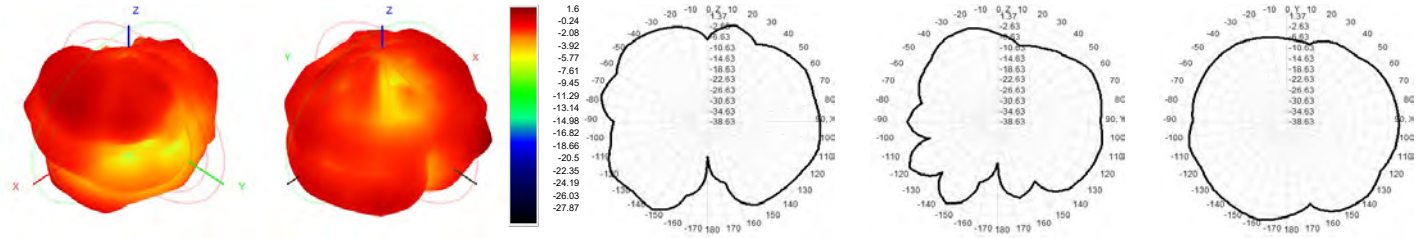
5230.0MHz Total(E1-XZ), Max= 1.43dBi

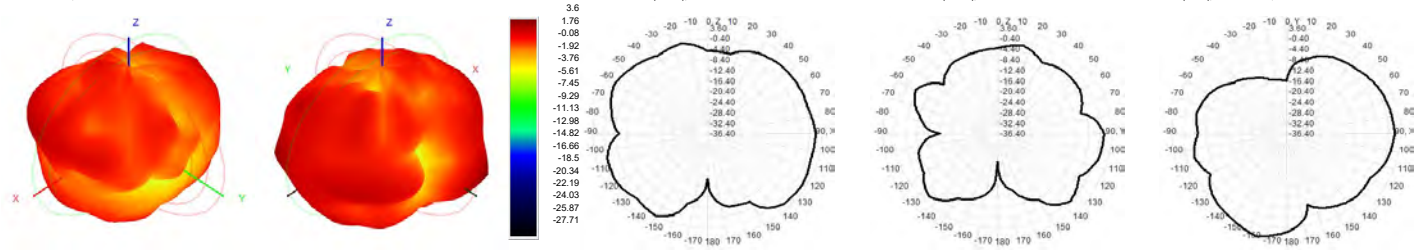
5230.0MHz Total(E2-YZ), Max= 0.53dBi

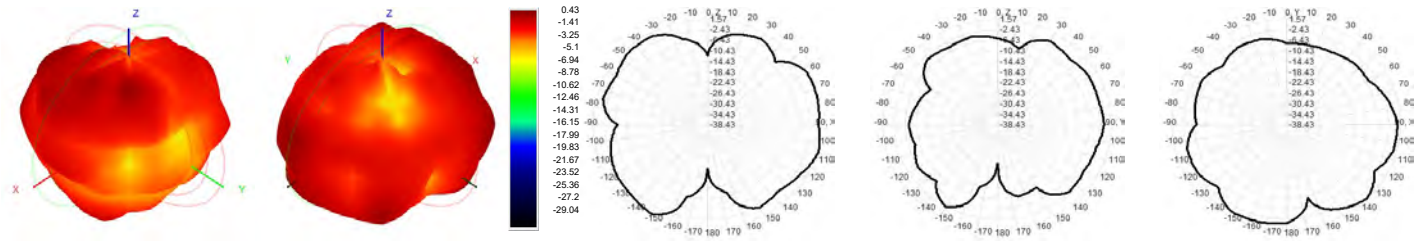
Total(H-XY), Max= 1.43dBi, CirD=9.17

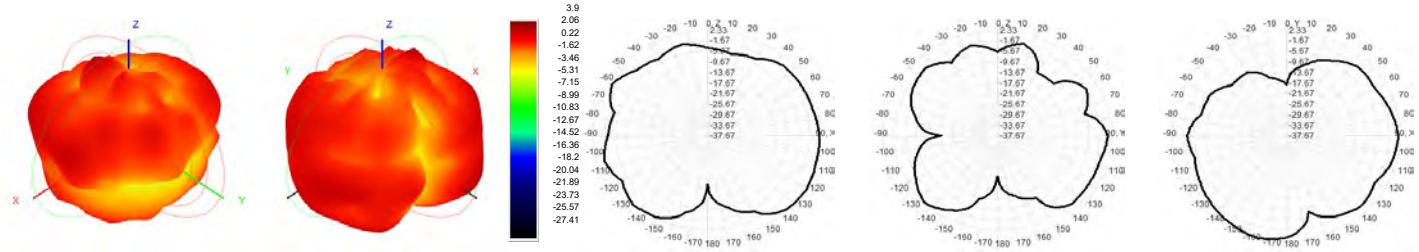

5235.0MHz H+V, Eff: 63.1%
Back View
5235.0MHz Total(E1-XZ), Max= 3.63dBi
5235.0MHz Total(E2-YZ), Max= -0.07dBi
Total(H-XY), Max= 1.48dBi, CirD=14.39

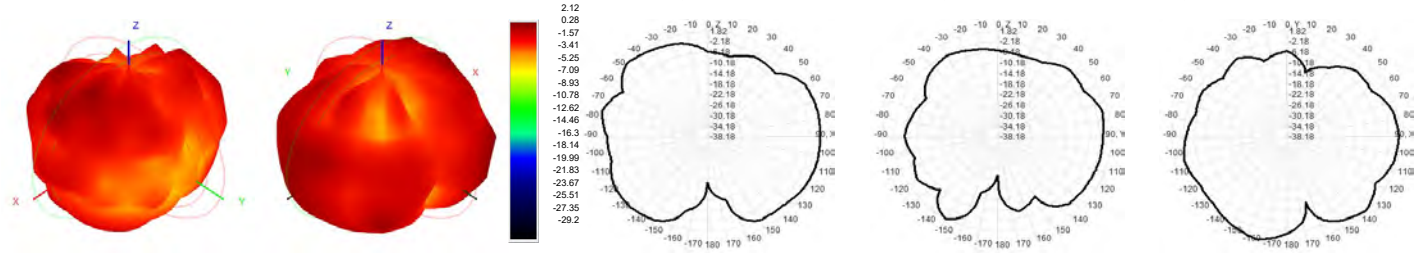

5240.0MHz H+V, Eff: 60.0%
Back View
5240.0MHz Total(E1-XZ), Max= 1.37dBi
5240.0MHz Total(E2-YZ), Max= -0.71dBi
Total(H-XY), Max= 1.23dBi, CirD=9.44

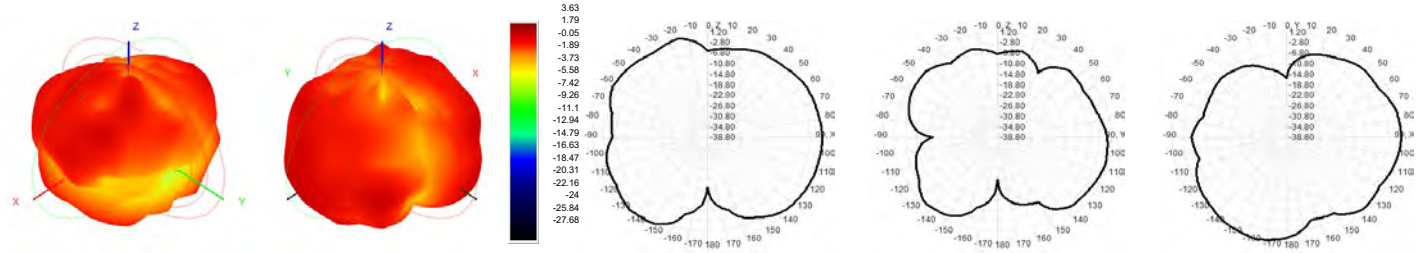

5245.0MHz H+V, Eff: 66.7%
Back View
5245.0MHz Total(E1-XZ), Max= 1.86dBi
5245.0MHz Total(E2-YZ), Max= 0.71dBi
Total(H-XY), Max= 3.60dBi, CirD=19.97

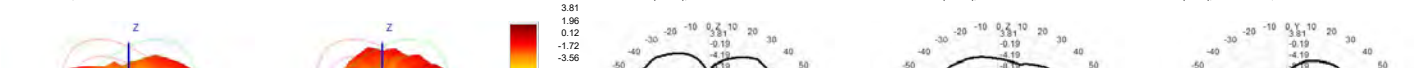

5250.0MHz H+V, Eff: 59.8%
Back View
5250.0MHz Total(E1-XZ), Max= 1.57dBi
5250.0MHz Total(E2-YZ), Max= -1.33dBi
Total(H-XY), Max= 1.09dBi, CirD=11.04

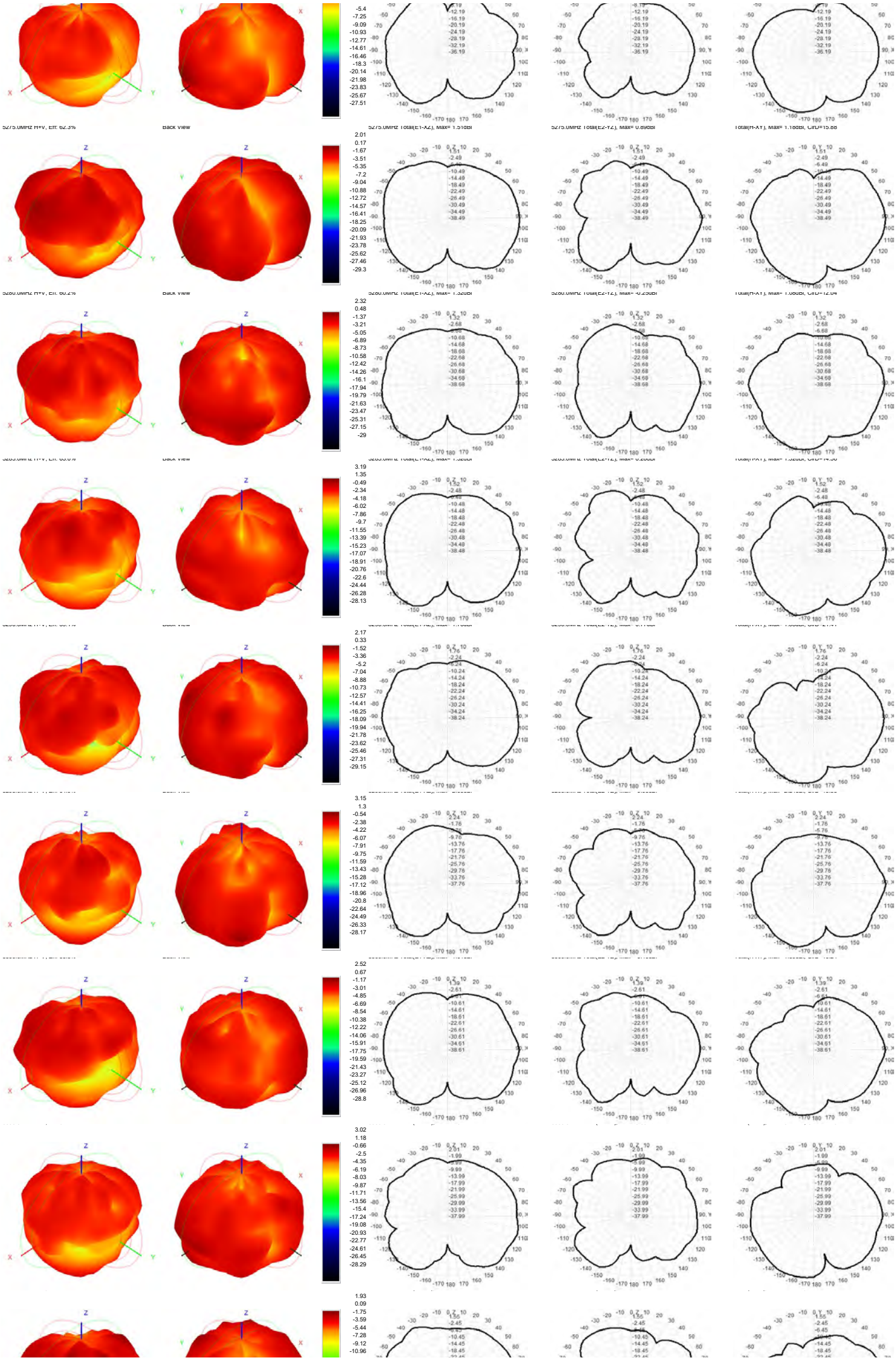

5255.0MHz H+V, Eff: 64.6%
Back View
5255.0MHz Total(E1-XZ), Max= 2.33dBi
5255.0MHz Total(E2-YZ), Max= 0.83dBi
Total(H-XY), Max= 2.21dBi, CirD=20.43

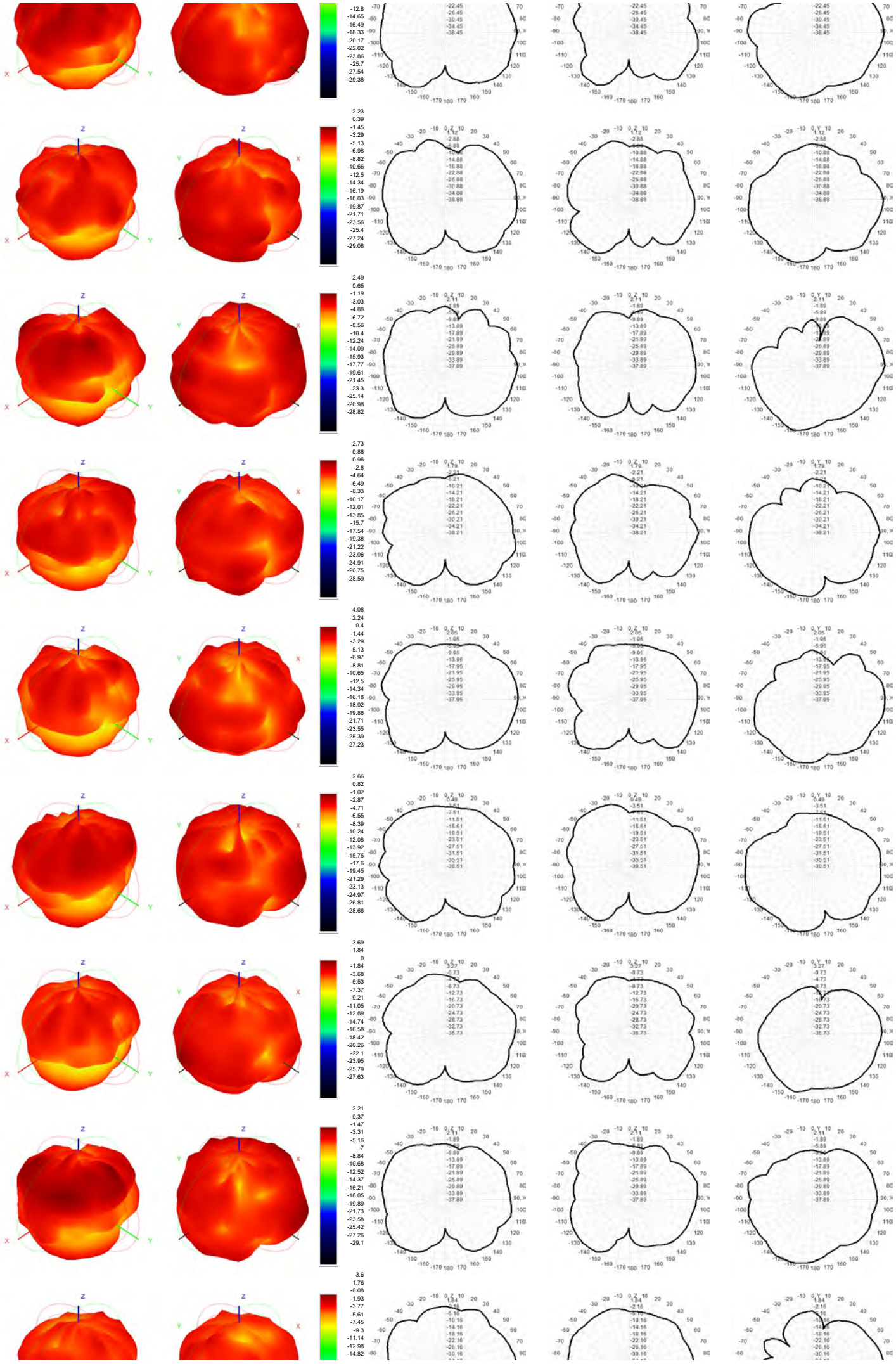

5260.0MHz H+V, Eff: 62.7%
Back View
5260.0MHz Total(E1-XZ), Max= 1.36dBi
5260.0MHz Total(E2-YZ), Max= -0.46dBi
Total(H-XY), Max= 1.82dBi, CirD=14.81

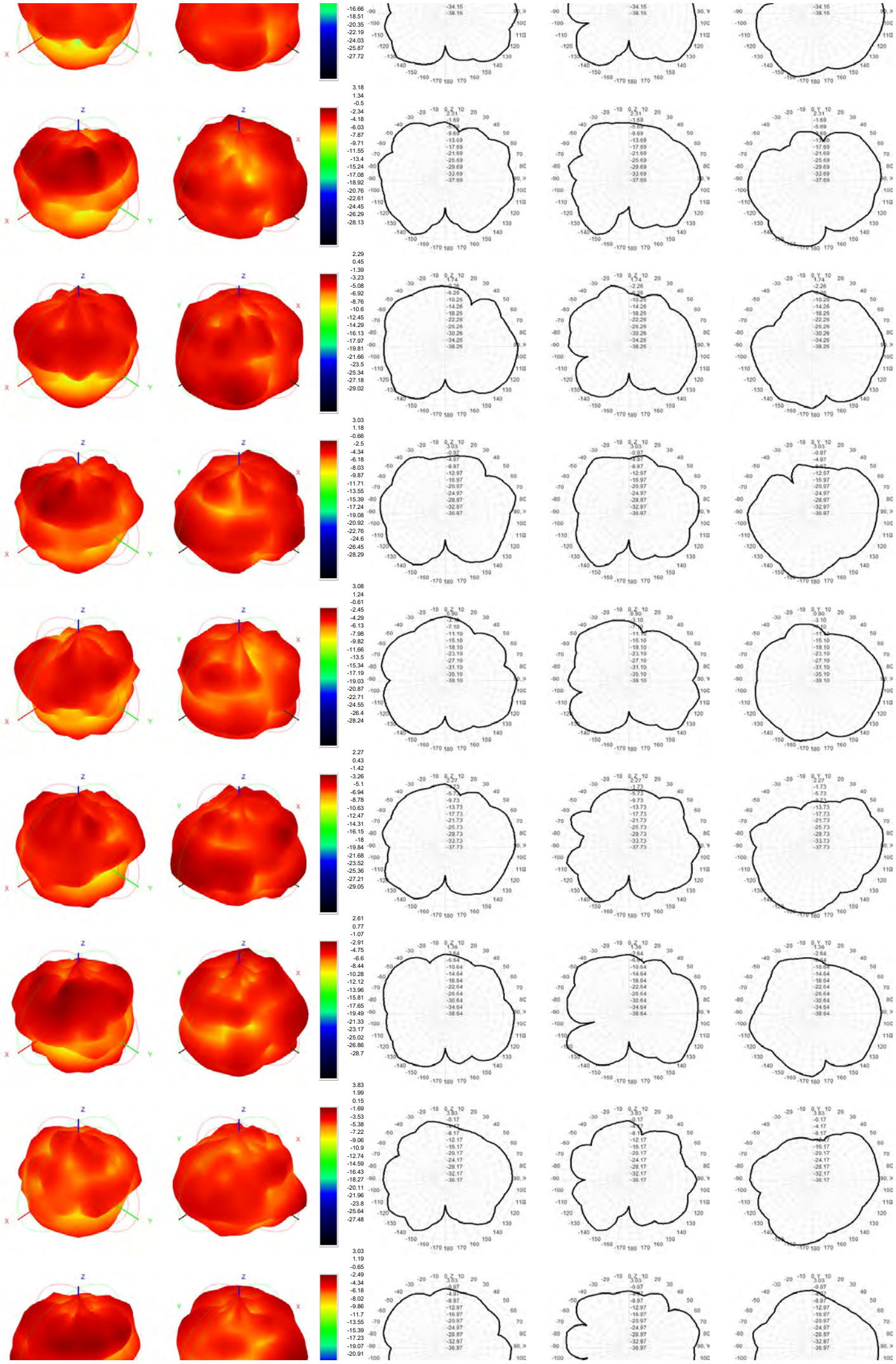

5265.0MHz H+V, Eff: 62.3%
Back View
5265.0MHz Total(E1-XZ), Max= 1.20dBi
5265.0MHz Total(E2-YZ), Max= 0.13dBi
Total(H-XY), Max= 1.20dBi, CirD=17.57

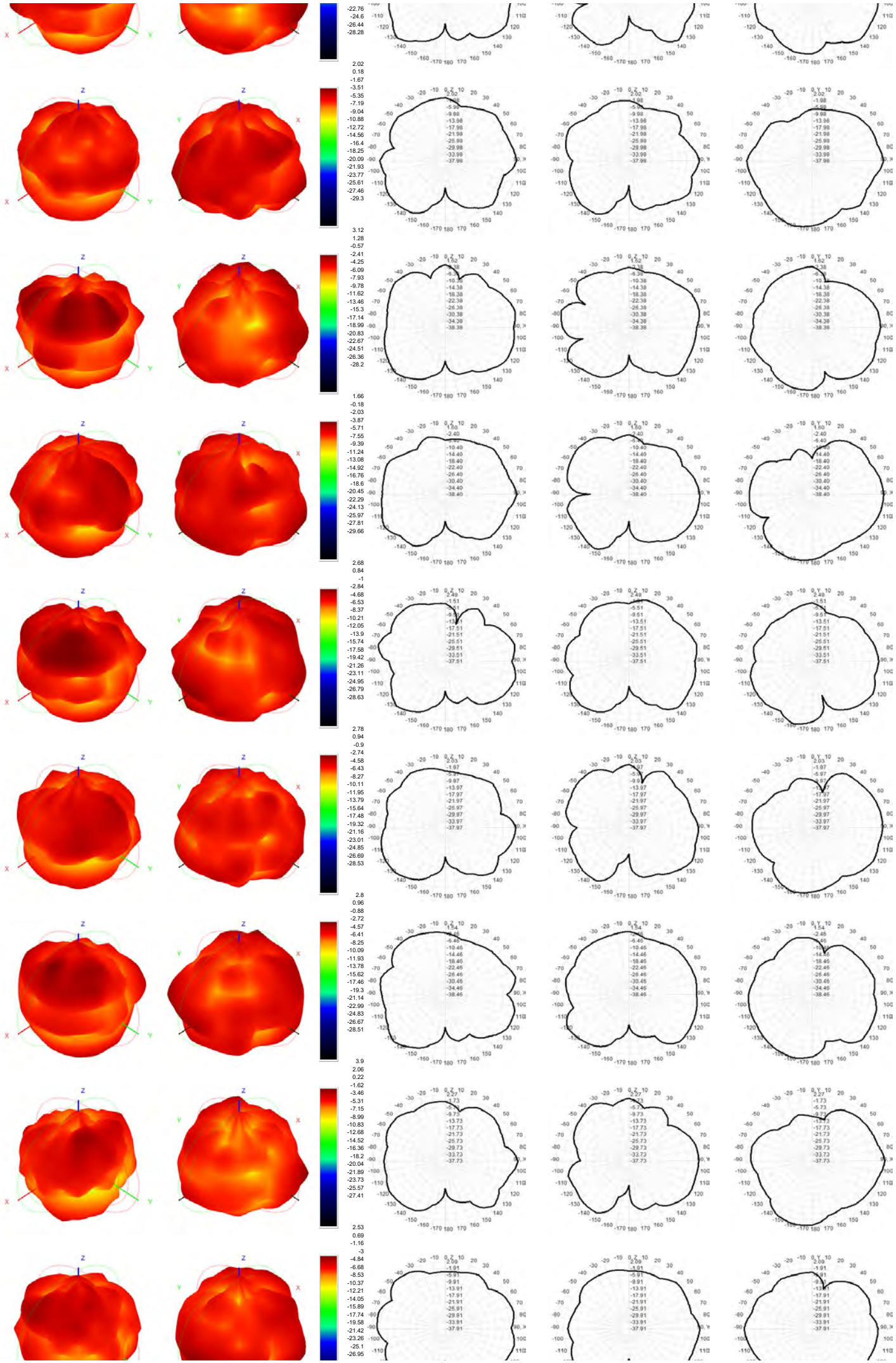

5270.0MHz H+V, Eff: 63.3%
Back View
5270.0MHz Total(E1-XZ), Max= 3.81dBi
5270.0MHz Total(E2-YZ), Max= -0.85dBi
Total(H-XY), Max= 1.06dBi, CirD=13.41

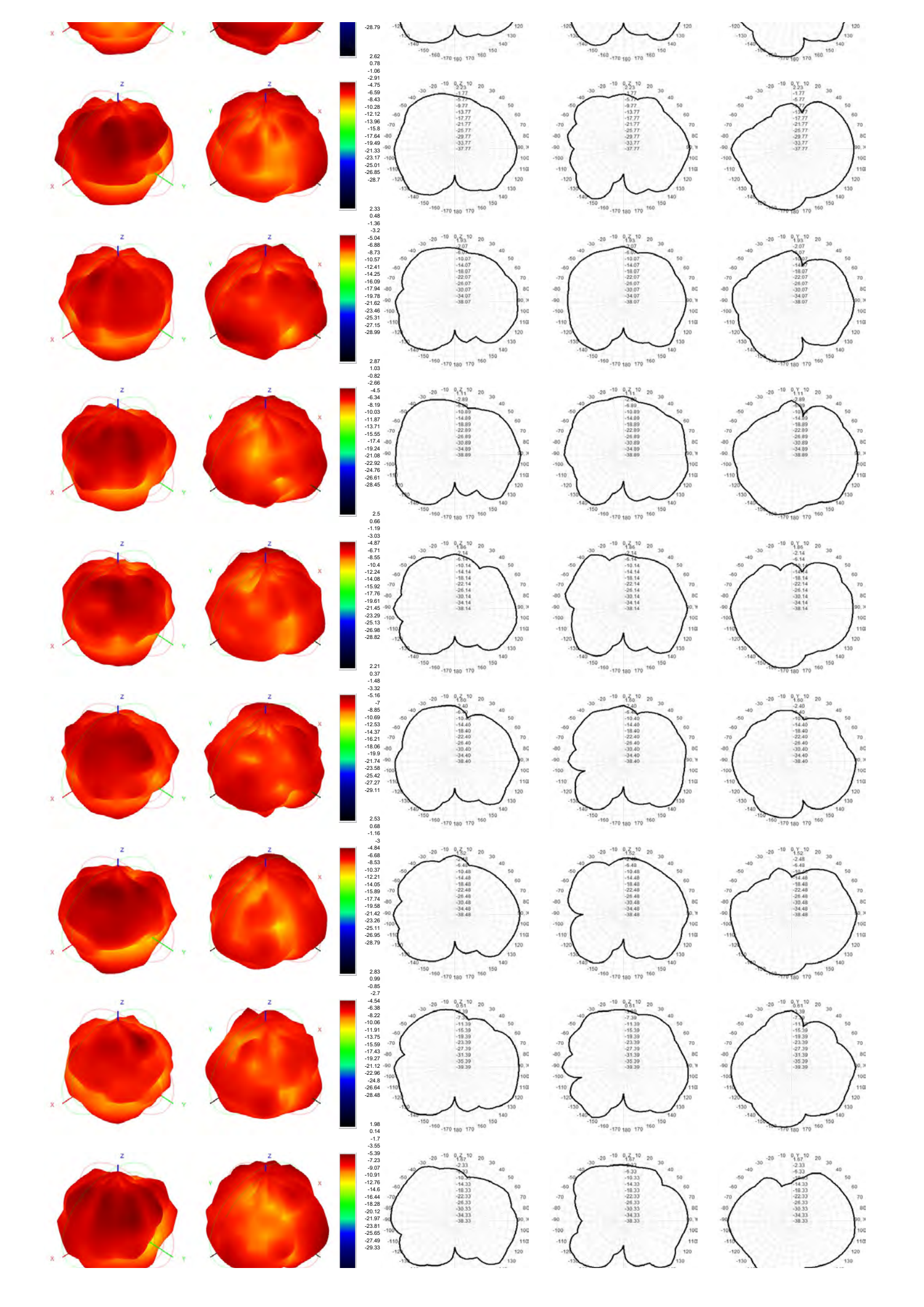


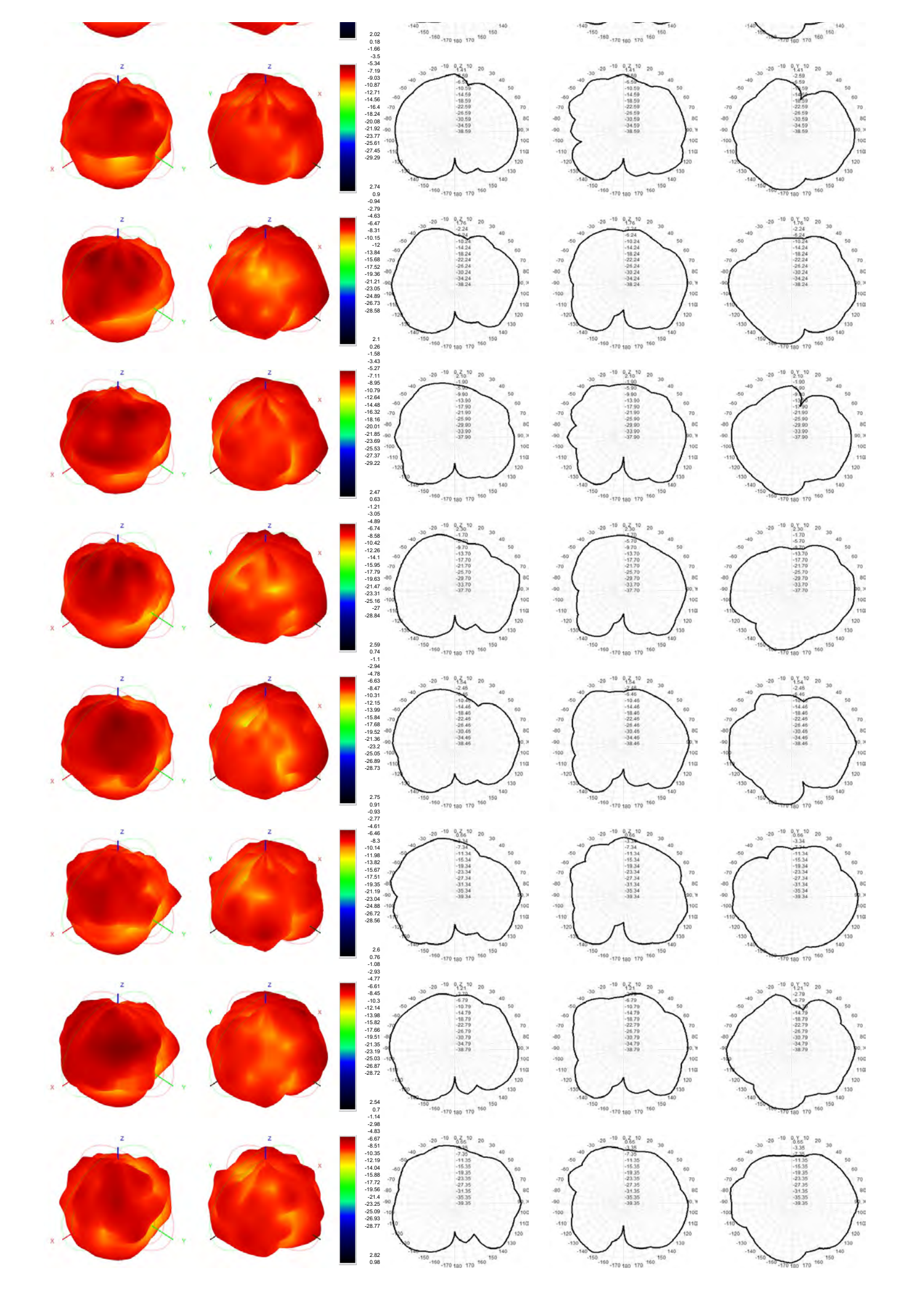


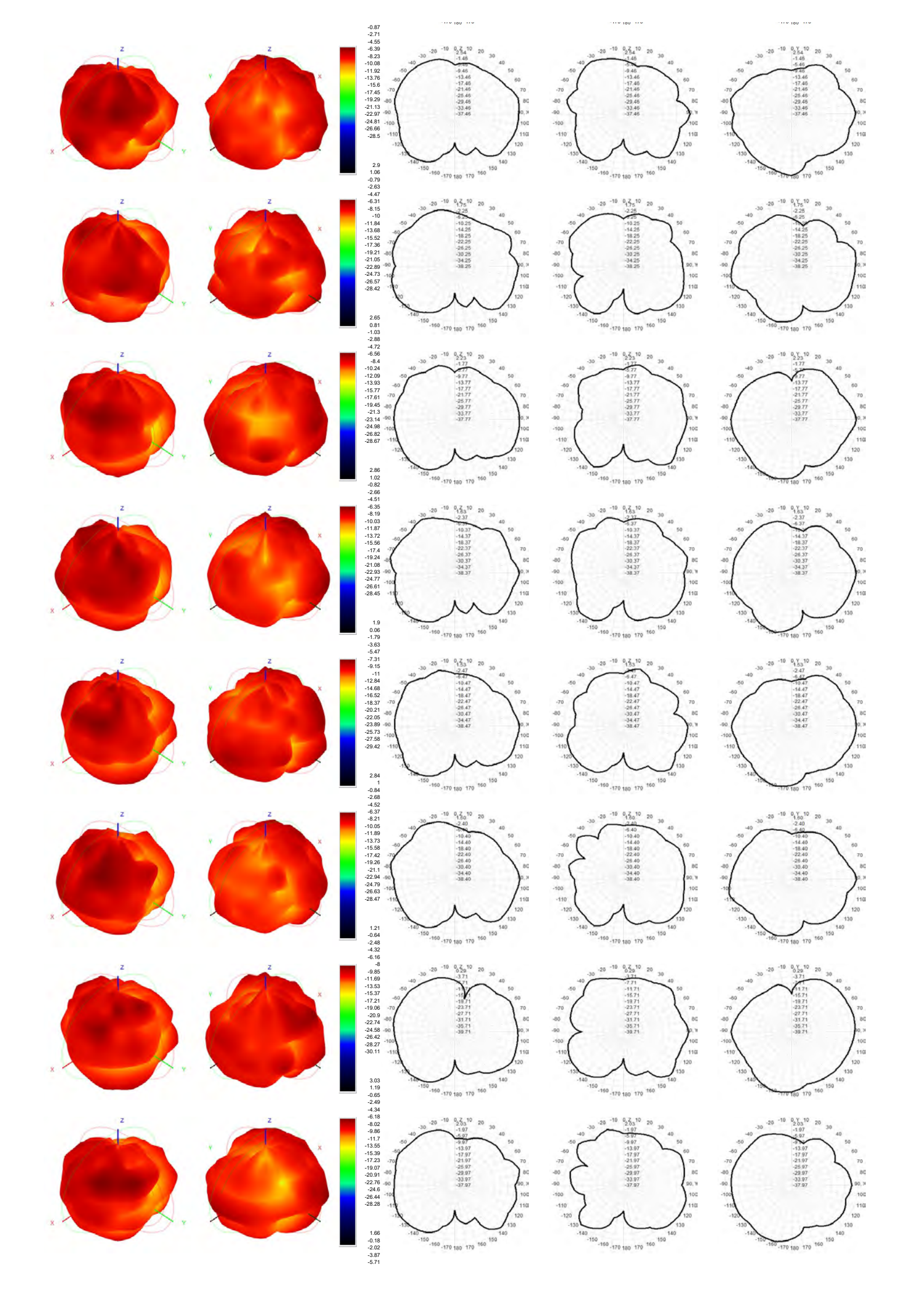


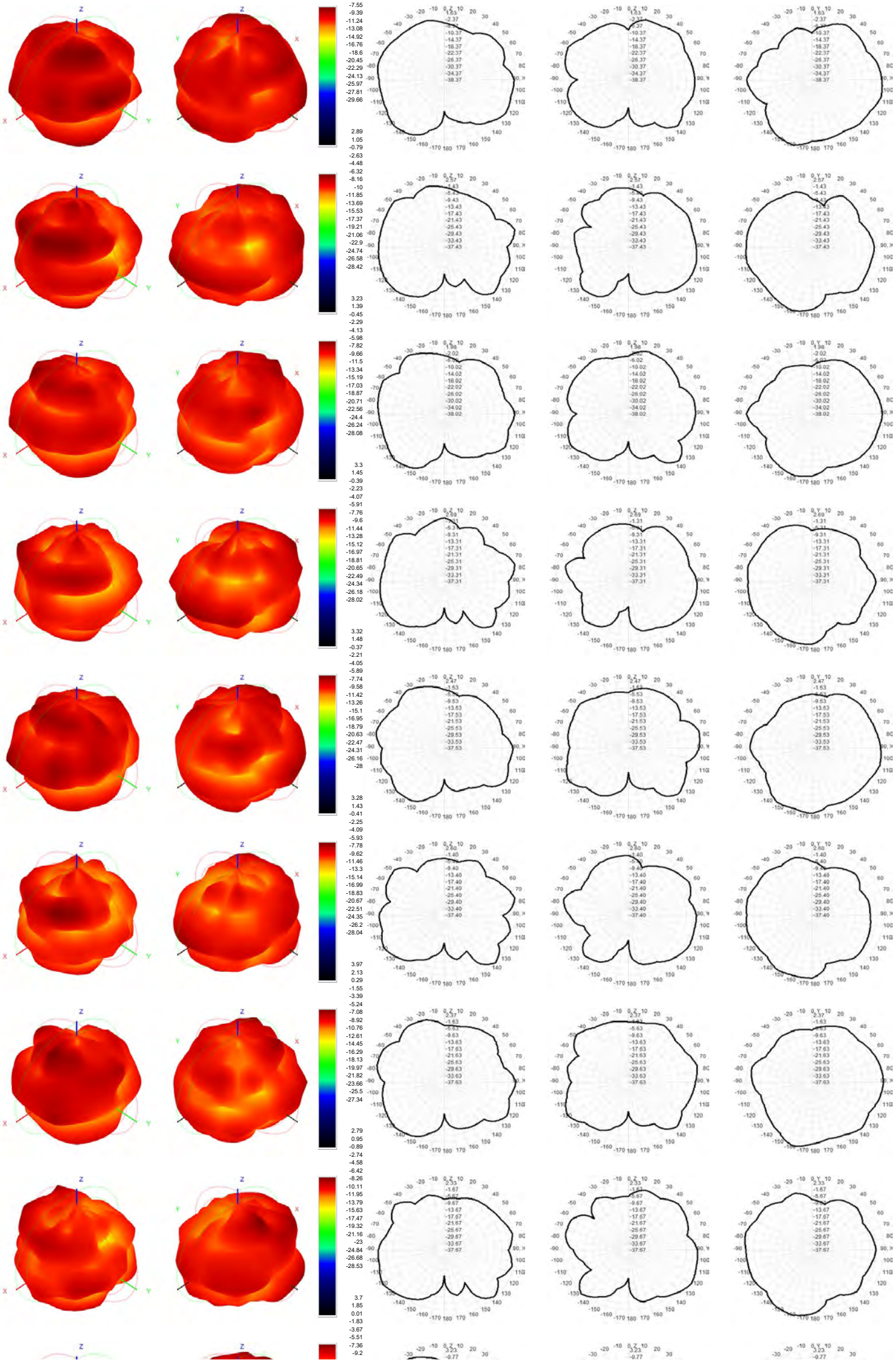


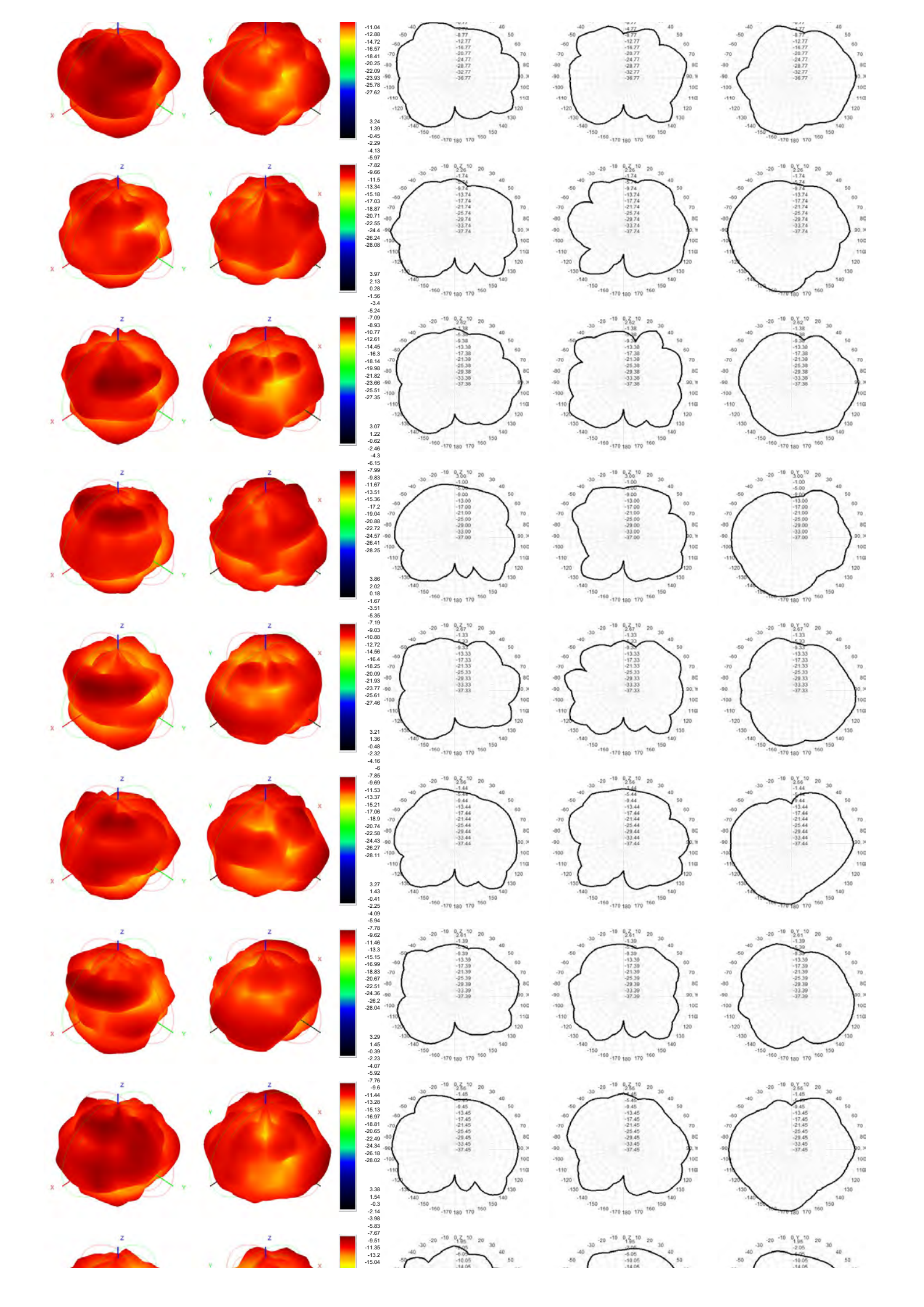


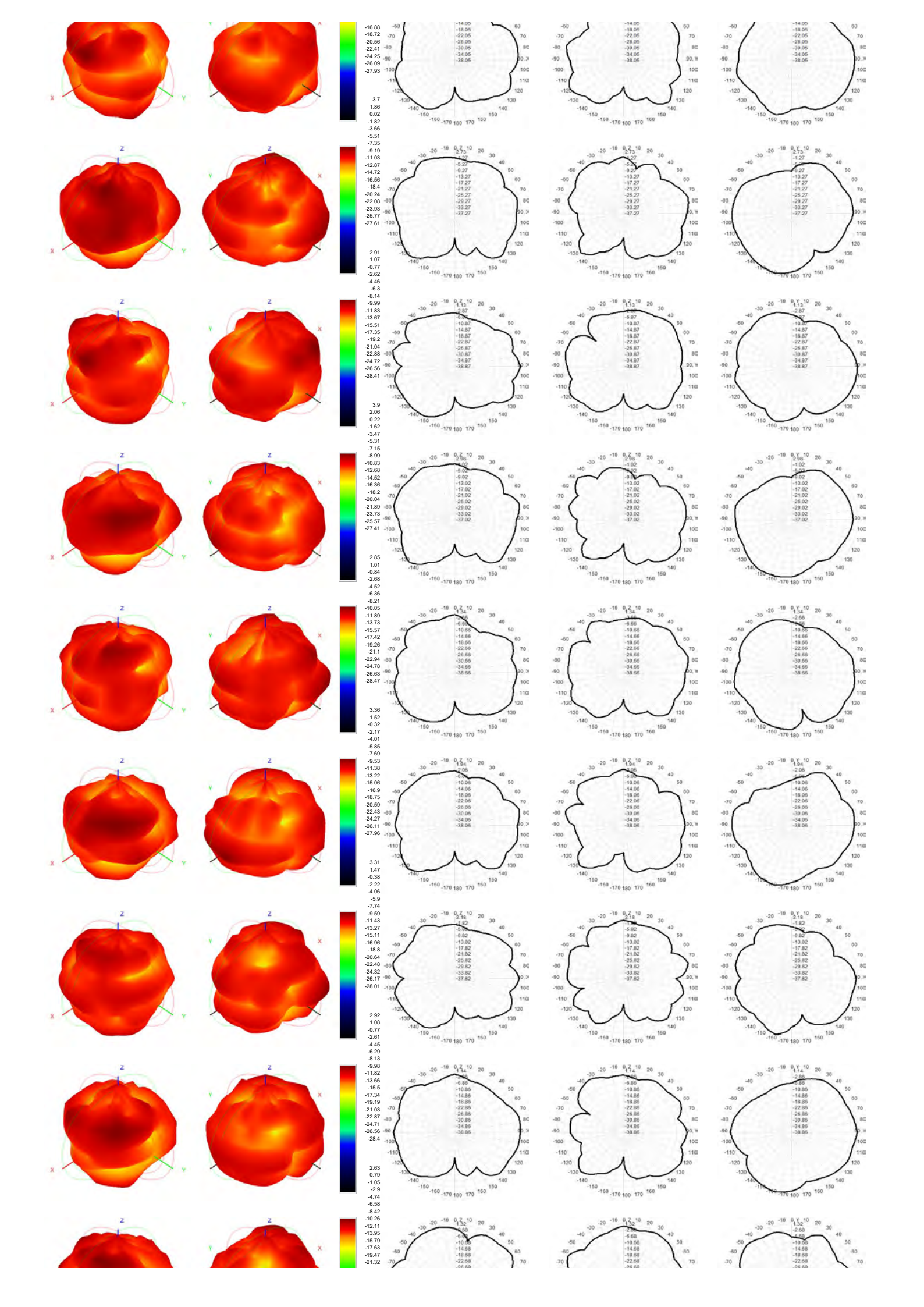


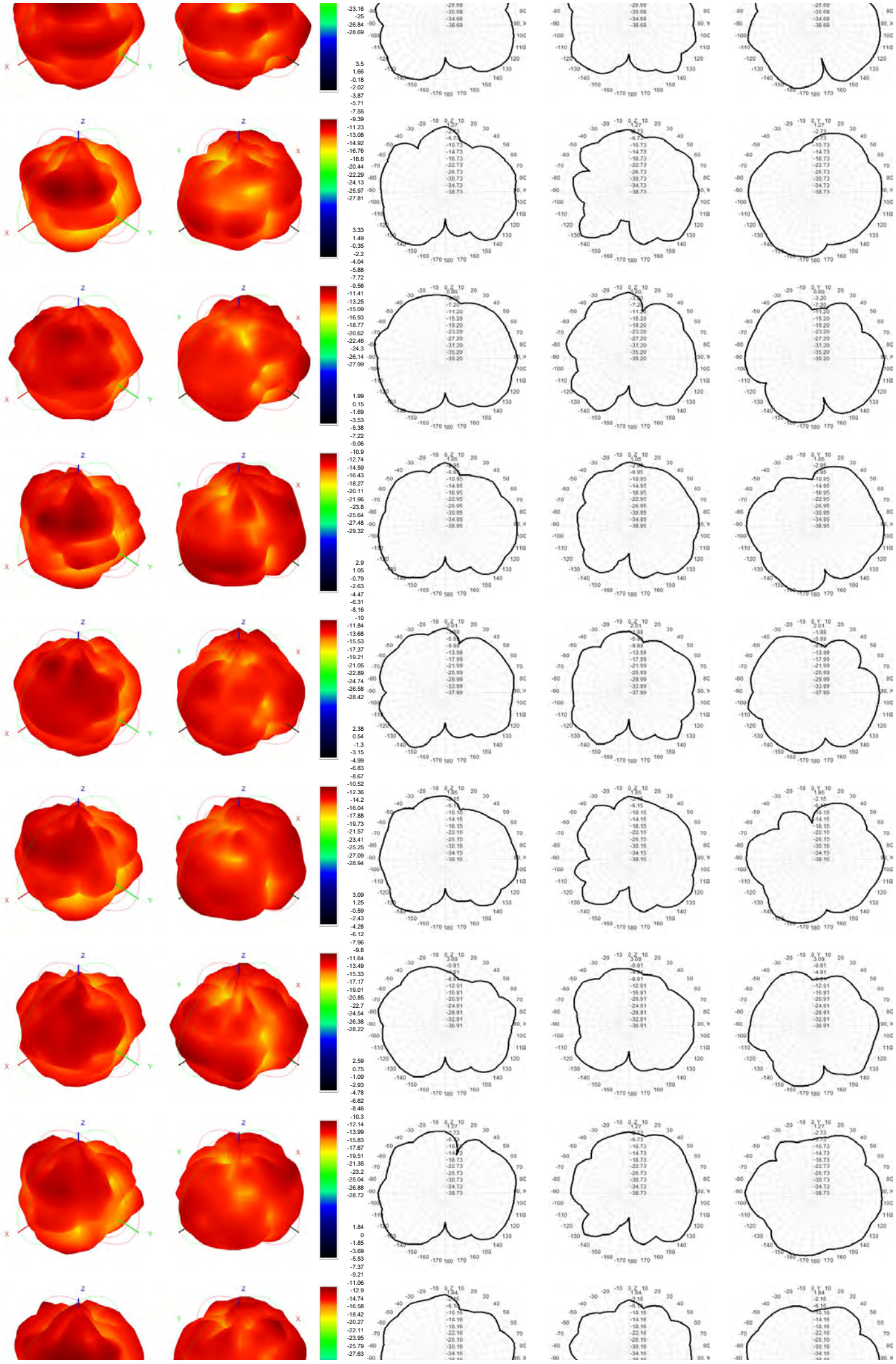


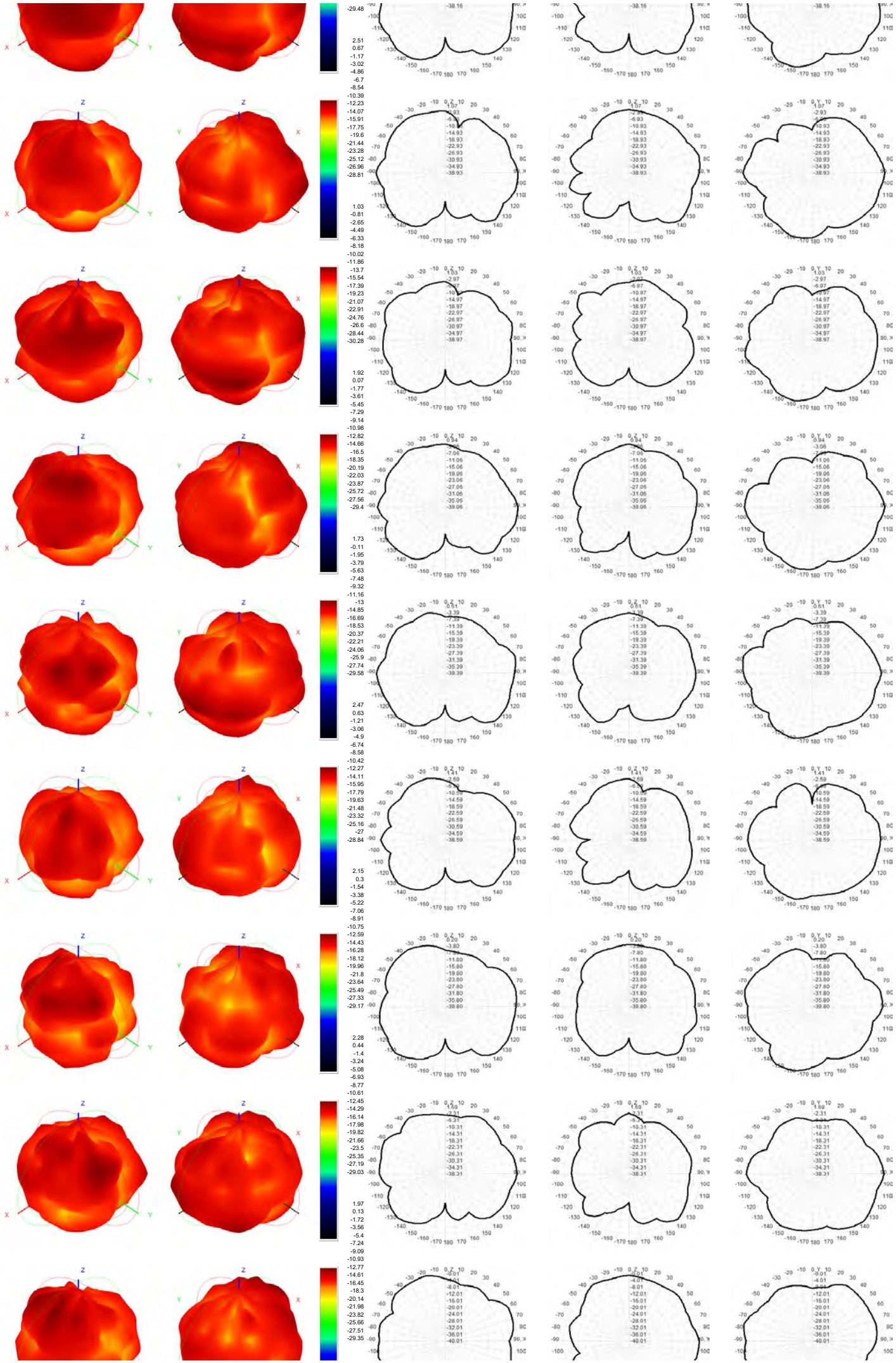


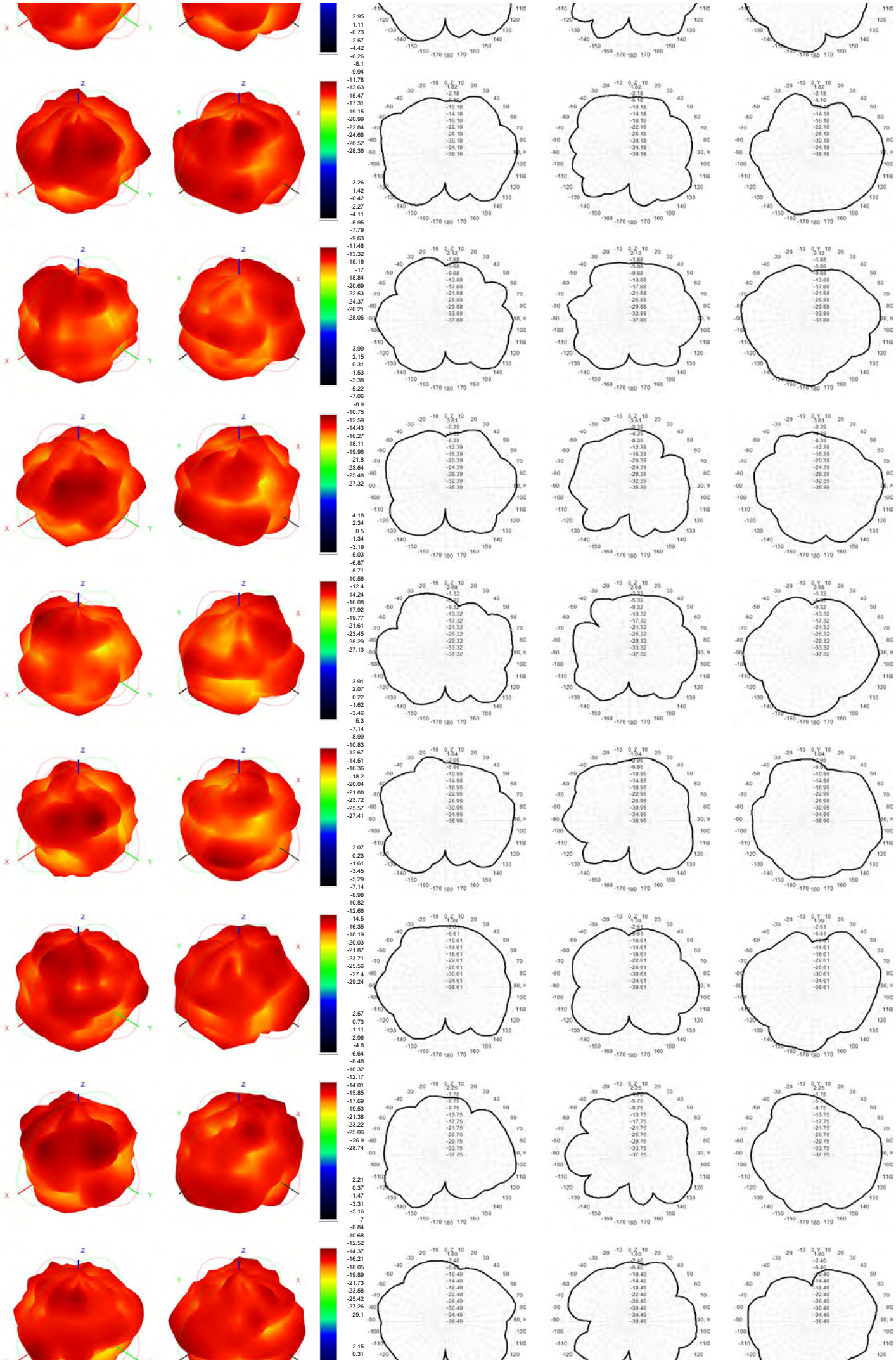


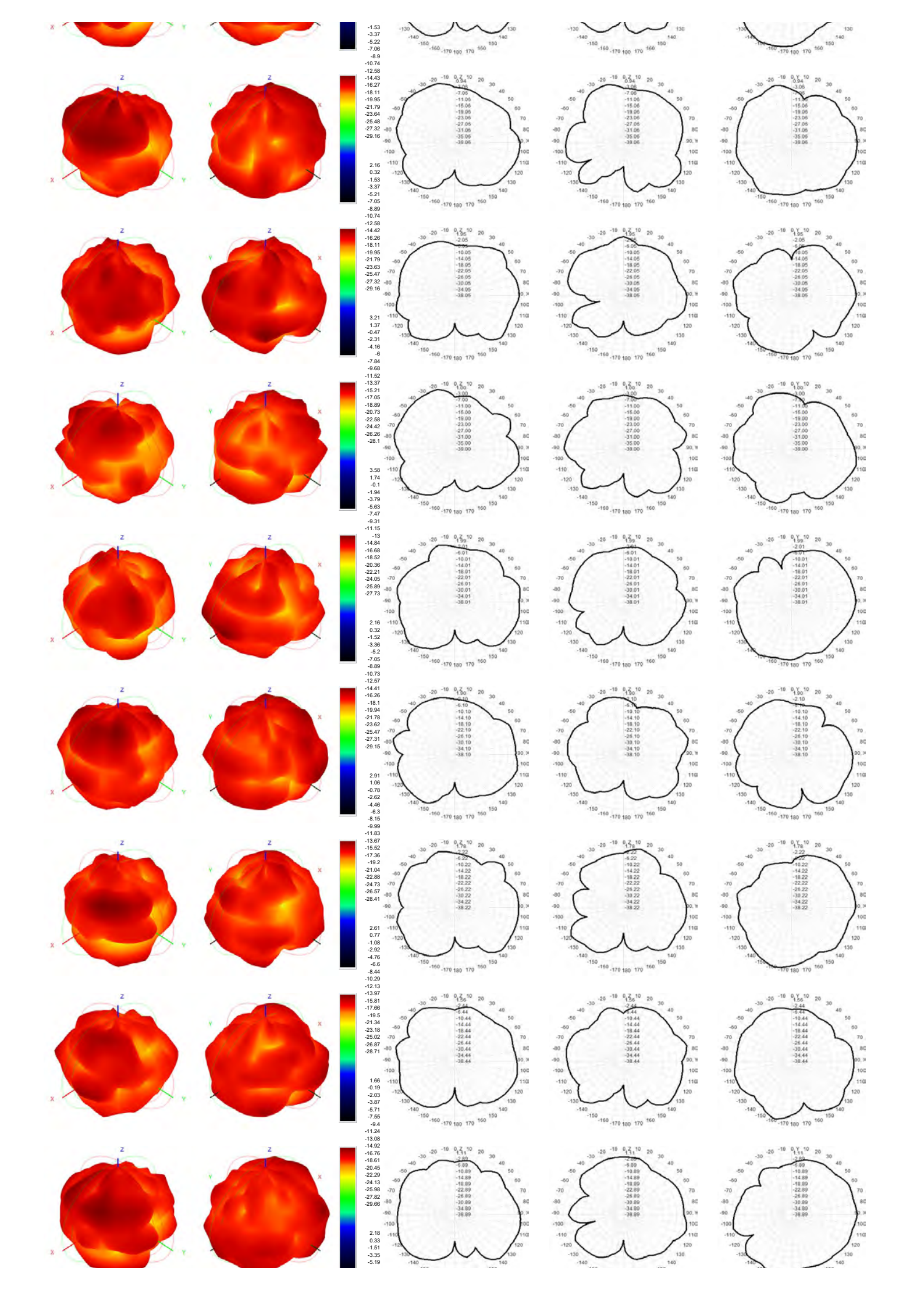


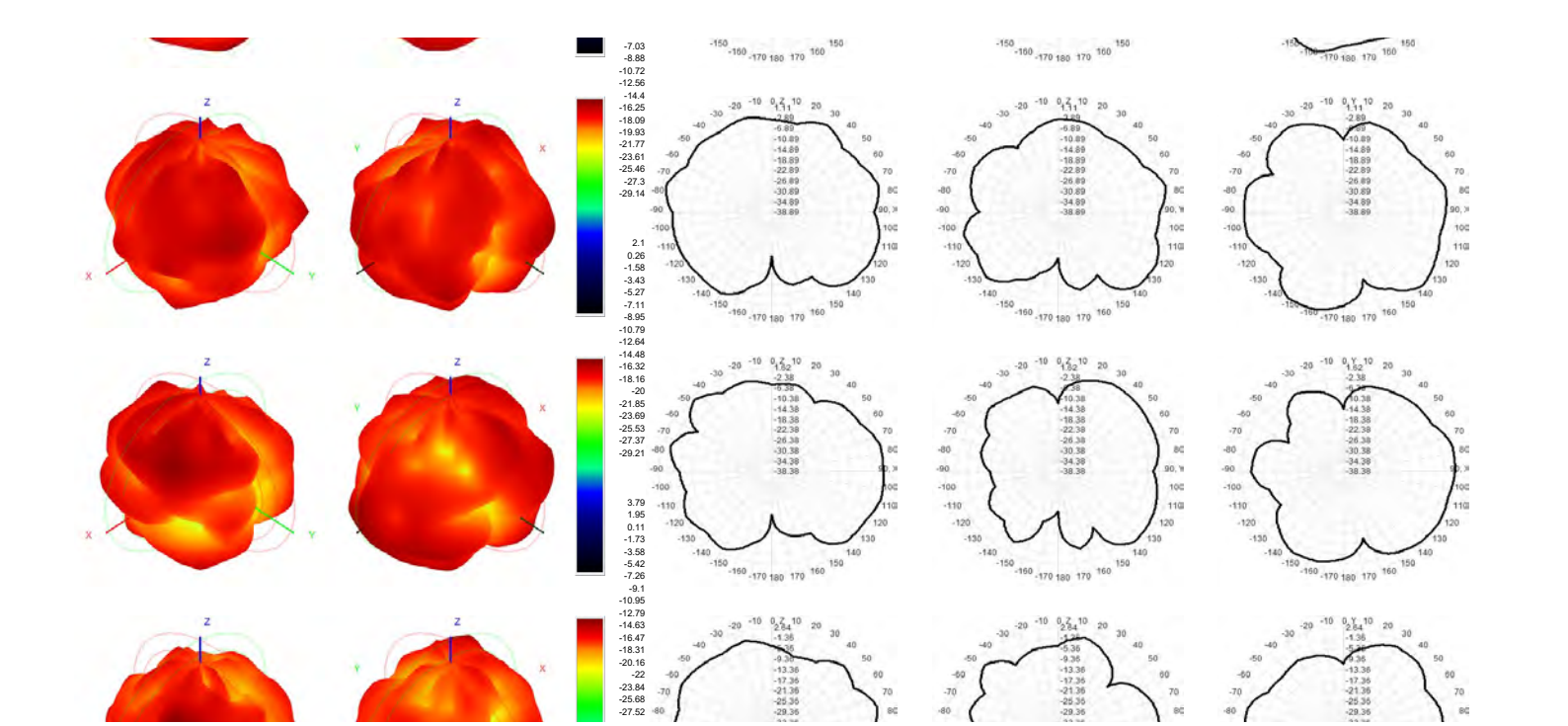








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