



Mode 1
Total Gain Data

Table with columns for Freq(Hz), TotalAnt, and Gain for various frequencies from 0 to 180 degrees. Includes sub-headers for 2.45GPol and TotalAnt 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.



Antenna Pattern

Appendix B.1

θ (7.5°)	-15.54/13.43	-13.19/13.42	-12.63/11.35	-10.88/10.63	9.91/10.54	-10.20/10.00	-9.99/9.01	-8.83/8.52	-8.41/8.45	-7.30/7.81	-6.59/6.57	-7.34/6.24	-7.18/7.39	6.92/7.78	-7.07/7.38	-8.01/7.38	-7.61/6.88	6.49/6.22	6.79/7.95	8.07/9.44	-10.03/12.07	-13.16/14.46	-13.42/15.46	-14.35/14.85
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
θ (0°)	-8.97/7.62	-7.87/7.18	-7.70/7.91	-7.73/7.73	-7.59/7.85	-7.59/7.09	-7.00/7.09	-7.84/6.44	-7.72/8.22	-6.77/8.43	8.27/8.15	-8.78/9.55	-9.19/9.40	9.27/9.76	9.81/9.91	-8.64/8.59	-8.41/8.49	9.28/8.82	-8.74/9.88	-8.75/9.04	8.33/9.22	-8.17/9.96	-8.83/8.86	-8.30/8.16

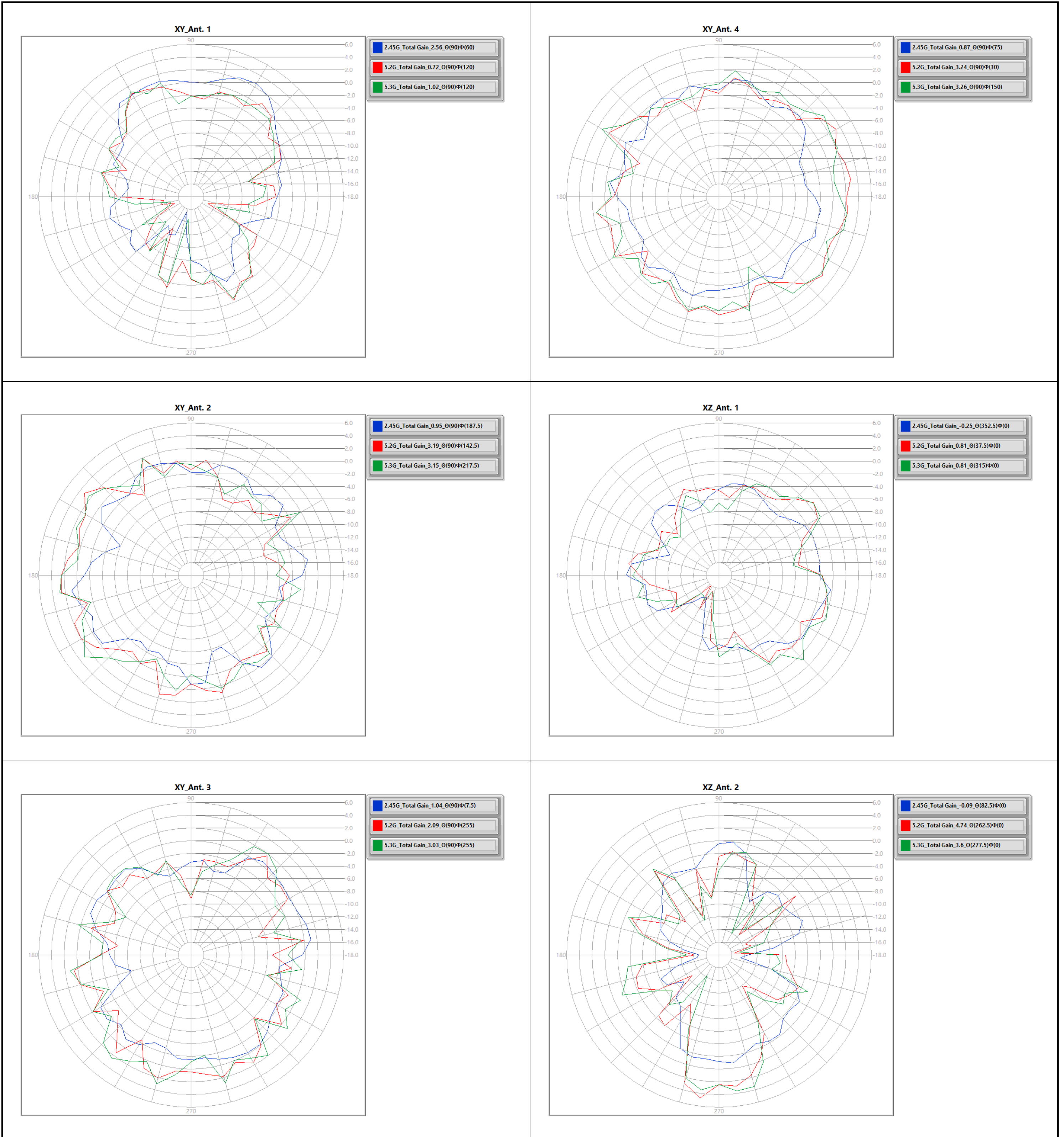


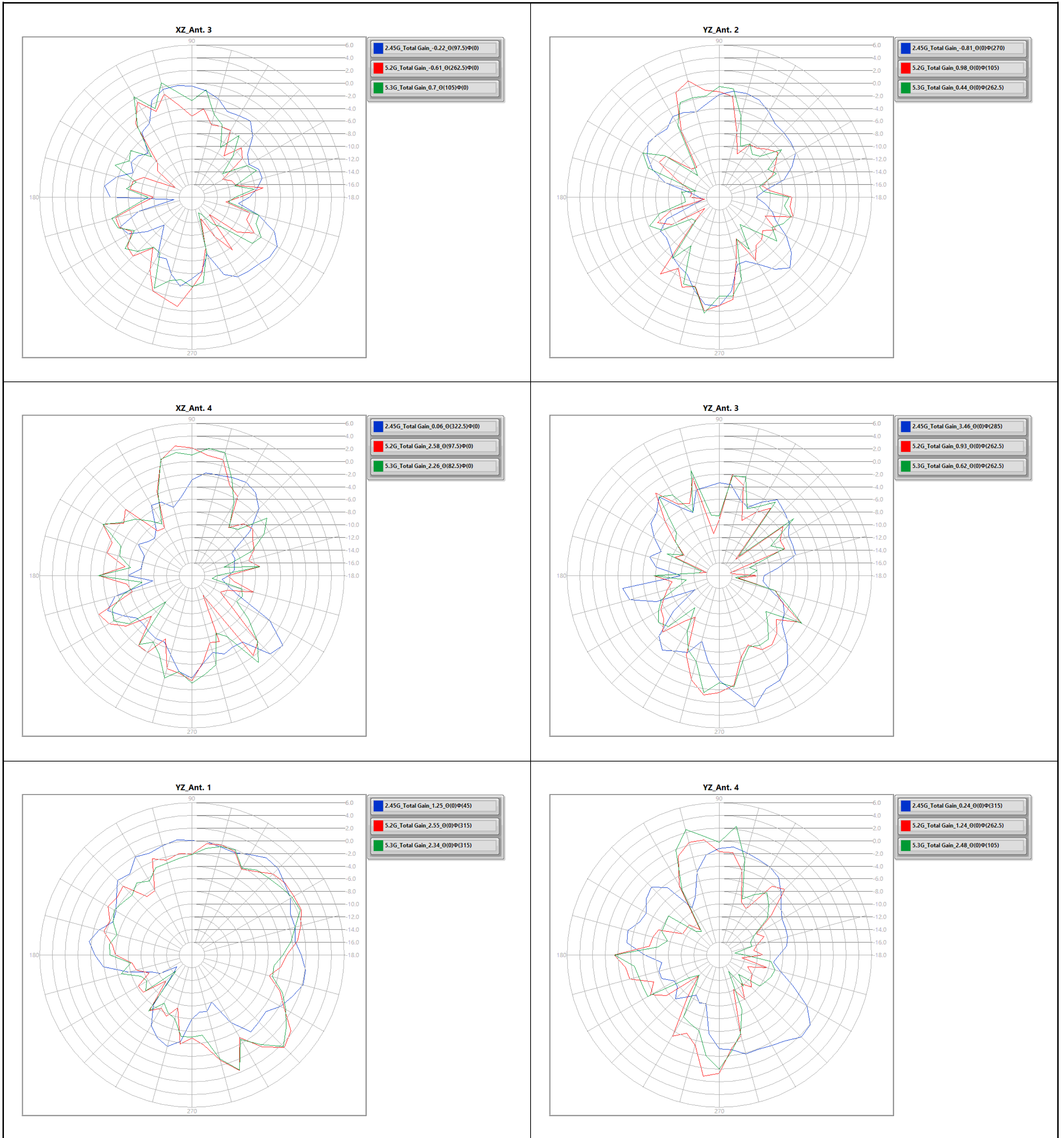
Antenna Pattern

Appendix B.1

Theta (°)	5.75/15.20	11.37/12.64	10.51/15.12	6.43/7.08	8.45/8.59	6.96/5.39	3.43/4.41	6.69/7.68	10.97/11.76	10.60/11.44	10.12/13.58	10.69/12.65	12.66/12.14	14.43/10.30	11.03/11.81	13.38/13.29	12.70/13.66	7.77/6.20	5.33/6.85	6.66/6.20	4.95/4.14	5.58/4.41	10.28/9.00	6.73/6.85
Theta (60°)	-8.90/9.83	-7.30/11.58	-3.51/5.75	-3.11/6.13	-3.80/3.30	-6.86/7.07	-5.39/6.91	-6.01/4.23	-3.87/9.82	-7.44/12.35	-10.96/6.23	-14.78/14.83	-14.85/14.21	-10.45/15.09	-14.82/13.05	-6.32/9.23	-10.88/12.61	-10.00/6.86	-5.33/8.09	-8.28/5.20	-9.95/11.17	-9.73/8.68	-6.63/12.25	-11.57/10.17
Theta (75°)	-6.65/4.70	-11.80/9.78	-6.61/7.62	-13.67/7.32	-3.74/4.42	-7.64/6.91	-6.54/4.73	-4.87/5.10	-2.41/2.30	-2.74/4.66	-7.17/7.54	-7.65/11.18	-15.34/8.93	-12.88/10.72	-8.23/8.02	-4.80/12.20	-6.99/7.24	-10.50/8.13	-5.86/9.35	-6.37/4.77	-8.12/15.63	-11.56/11.23	-4.87/14.37	-6.27/7.76
Theta (90°)	-4.49/5.81	-13.55/6.42	-7.20/7.65	-13.45/10.69	-10.41/8.63	-1.75/2.51	-1.87/1.36	-1.34/3.37	-4.84/2.33	-0.78/6.23	-3.77/7.98	-2.94/11.04	-9.06/4.40	-9.14/8.44	-5.59/4.68	-1.00/3.35	-6.07/3.32	-6.26/6.90	-3.89/4.46	-8.26/4.73	-4.87/6.30	-9.46/7.04	-5.71/4.14	-3.38/10.57
Theta (105°)	-0.94/5.01	-15.04/6.13	-14.21/3.67	-5.98/5.15	-5.31/7.22	-3.35/4.66	-2.20/1.23	-1.49/5.01	-4.57/6.89	-2.90/5.46	-4.99/4.70	-1.38/8.19	-4.43/1.00	-6.66/9.72	-2.15/1.05	-1.36/0.55	-0.43/1.66	-1.15/0.86	-0.32/3.86	-0.27/0.77	-0.76/1.46	-7.06/8.95	-3.79/0.42	-5.00/4.59
Theta (120°)	-2.75/0.58	-4.51/2.03	-2.70/1.32	-1.07/0.23	1.75/1.83	-3.27/4.83	-8.54/6.76	-2.72/4.37	-2.04/0.89	-0.80/1.20	-6.16/4.37	-0.35/3.95	-3.85/1.20	-0.15/3.90	-0.15/2.17	1.52/2.50	1.33/0.21	3.03/0.11	-1.13/2.00	2.86/0.06	0.83/1.95	-3.26/1.09	-0.85/0.69	-5.70/4.02
Theta (135°)	-1.33/1.47	-5.32/6.08	-2.16/4.38	-3.18/4.94	-3.78/5.41	-2.48/3.41	-8.43/4.70	-7.50/10.19	-6.02/5.40	-2.68/3.31	-7.63/7.25	2.14/4.78	-4.88/1.61	-0.06/1.33	0.74/0.29	2.41/3.45	-0.25/0.59	3.48/0.28	0.62/0.54	3.38/0.06	3.44/0.60	-2.57/0.98	-0.83/0.89	-2.07/1.38
Theta (150°)	0.70/1.40	-10.75/5.54	1.17/1.61	0.92/2.40	-0.64/5.62	-1.80/0.08	-0.83/0.51	-5.89/7.02	-1.42/3.86	-4.28/3.71	-7.07/7.09	1.24/3.94	-4.37/0.01	-0.23/6.71	-1.50/4.20	0.10/1.35	-3.18/2.42	3.34/1.21	-3.97/1.19	2.41/2.11	0.70/0.57	-1.47/3.06	-0.18/3.42	0.48/0.53
Theta (165°)	-2.84/0.79	-4.20/2.63	0.98/1.94	0.73/3.57	-2.59/7.44	-5.55/8.30	-7.11/4.53	-6.34/9.14	-5.23/3.40	-5.40/2.21	-5.07/4.89	-2.29/5.87	-2.50/2.09	-4.28/12.09	-4.85/2.90	-3.60/2.76	-3.83/7.77	1.35/4.10	-5.26/3.51	-0.26/0.72	-2.87/0.47	-2.85/3.67	0.44/0.89	-2.56/1.57
Theta (180°)	0.28/1.94	-8.64/3.86	-0.48/3.31	4.72/4.23	-1.23/5.05	-3.58/3.03	-3.35/6.32	-10.49/5.15	-5.19/5.37	-3.69/10.83	-8.74/3.68	-7.12/7.79	-7.83/4.75	-9.02/7.89	-3.74/4.62	-1.00/3.55	-5.07/5.52	-2.76/7.59	-7.95/0.97	-7.70/3.18	-2.92/4.31	-10.98/2.23	0.01/1.91	-3.63/2.57
Theta (225°)	-4.02/6.00	-5.02/2.76	-3.78/7.87	-10.07/3.33	-6.32/7.54	-5.26/2.37	-2.38/4.24	-10.34/6.70	-4.43/6.22	-1.57/2.80	-6.47/13.25	-10.24/4.39	-8.08/9.11	-12.51/8.08	-6.13/2.06	-4.36/5.22	-2.86/3.43	-1.29/6.83	-11.65/4.44	-2.45/1.61	-1.58/2.99	-8.36/9.60	-4.35/6.76	8.87/11.78
Theta (270°)	-8.94/14.20	-7.95/5.75	-12.14/11.07	-11.14/12.28	-6.61/4.44	-3.60/3.71	-8.48/14.90	-8.20/12.67	-8.04/11.10	-16.03/15.29	-9.71/10.16	-16.03/15.29	-9.71/10.16	-16.03/15.29	-9.71/10.16	-16.03/15.29	-9.71/10.16	-16.03/15.29	-9.71/10.16	-16.03/15.29	-9.71/10.16	-16.03/15.29	-9.71/10.16	-16.03/15.29
Theta (315°)	-5.87/10.85	-10.11/4.95	-4.52/0.96	1.02/0.03	-1.81/4.56	-8.95/7.81	-9.27/7.68	-5.01/6.79	-9.84/15.42	-9.20/5.10	-6.17/7.64	-13.52/7.71	-4.71/4.07	-8.61/7.16	-6.84/2.60	-3.75/4.67	-2.88/0.76	-0.46/2.33	-5.89/7.67	-7.84/5.85	-4.62/5.47	-5.12/3.58	-6.07/4.50	-4.75/5.21
Theta (360°)	-6.58/10.00	-2.81/6.62	-3.95/4.51	-5.69/4.64	-10.96/15.17	-13.74/10.59	-11.42/14.52	-9.89/9.11	-13.08/11.75	-7.68/9.66	-6.40/8.93	-7.52/6.52	-8.71/8.26	-5.85/3.84	-4.16/5.22	-3.27/2.90	-4.08/5.99	-6.93/5.55	-3.21/1.80	-1.29/1.33	-0.97/1.71	-1.02/2.87	-3.14/3.30	-1.02/11.04
Theta (405°)	-4.88/7.60	-6.68/9.93	-4.51/3.98	-5.63/6.91	-8.27/9.92	-10.30/10.69	-9.06/7.47	-7.41/9.09	-13.08/11.24	-12.30/12.92	-10.31/6.89	-5.34/5.45	-5.62/5.34	-4.87/5.76	-4.94/4.58	-6.06/7.69	-8.10/7.26	-5.82/1.62	-4.40/2.37	-1.32/1.81	-3.37/3.39	-1.64/2.01		
Theta (450°)	-8.95/8.36	-7.44/6.44	-4.84/3.01	-2.60/2.89	-4.05/5.31	-7.21/10.93	-15.11/15.70	-15.42/11.13	-9.37/9.92	-11.09/10.80	-7.81/5.33	-4.12/3.76	-4.95/6.29	-5.02/4.15	-4.90/5.70	-5.27/4.70	-4.55/4.99	-6.89/9.35	-11.30/11.49	-9.82/9.09	-6.34/5.28	-6.02/6.58	-5.77/4.79	-6.07/8.35
Theta (502.5°)	-7.58/9.80	-10.29/12.95	-14.28/14.59	-13.72/12.15	-11.78/11.30	-12.58/14.04	-14.78/11.27	-10.17/9.45	-8.40/6.85	-5.73/5.86	-6.08/6.45	-8.14/10.08	-9.03/6.83	-5.42/5.21	-6.19/7.27	-7.23/6.54	-7.31/7.98	-10.11/11.87	-12.75/14.20	-13.95/13.70	-12.21/12.00	-12.83/8.81	-6.72/6.12	-6.86/7.20
Theta (540°)	-11.10/11.43	-10.28/9.52	-7.58/7.18	-7.85/9.77	-10.25/11.10	-10.90/9.12	-7.69/7.10	-6.91/7.50	-8.23/8.13	-7.78/7.31	-7.46/7.85	-8.15/8.38	-7.28/6.21	-5.85/5.98	-5.88/5.83	-6.00/6.21	-6.62/7.93	-8.40/8.80	-8.85/9.25	-8.62/8.50	-9.39/10.28	-11.39/11.13	-11.59/11.57	-11.44/11.09
Theta (585°)	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00	2.45/3.00
Theta (630°)	1.21/1.90	9.79/10.16	-10.28/9.15	8.31/9.12	-10.02/9.18	-7.62/7.45	8.60/10.44	-11.00/10.63	-10.40/10.46	-10.65/11.67	-11.32/10.90	-10.55/10.92	-11.77/11.48	-10.05/9.78	-10.01/9.92	8.43/8.13	9.10/9.65	9.16/8.38	8.34/8.93	9.37/8.93	9.04/9.80	-10.78/11.39	-11.34/10.98	-11.77/12.18
Theta (675°)	-11.29/9.99	9.23/9.34	-10.22/10.05	-8.58/8.34	-9.62/9.73	-7.95/6.84	-7.31/9.01	-10.72/12.39	-12.50/11.61	-11.42/11.70	-11.83/11.76	-11.93/12.57	-13.20/12.95	-11.26/10.38	-10.34/11.22	-9.78/8.66	-8.63/9.14	9.45/9.18	9.41/9.96	9.95/9.43	9.34/10.04	-10.79/11.17	-10.97/10.93	-11.34/11.57
Theta (720°)	-11.10/9.49	-8.70/8.85	-9.94/9.79	-8.27/7.32	-7.52/8.27	-7.73/6.83	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07	-6.82/8.07
Theta (765°)	-10.72/10.33	-9.72/9.78	-10.27/10.64	-9.18/7.67	-6.88/9.61	-5.96/6.53	-6.76/7.69	-9.33/10.73	-10.65/10.05	-8.97/8.45	-8.34/8.60	-8.92/9.53	-10.39/9.80	-8.88/7.31	-6.27/6.34	-4.75/7.62	-6.02/6.68	-5.47/5.27	-4.66/6.92	-8.77/9.52	-10.01/11.06	-10.90/10.15	-10.02/10.59	-10.77/10.99
Theta (810°)	-10.81/10.95	-10.02/8.60	-7.87/8.68	-9.21/7.69	-5.65/5.06	-5.72/6.64	-6.55/6.46	-7.51/8.41	-7.57/6.71	-6.08/5.55	-5.31/4.43	-3.70/3.69	-3.86/3.07	-2.57/2.32	-2.54/3.00	-3.32/3.31	-2.86/2.63	-2.45/2.11	-2.00/2.83	-4.53/6.84	-9.47/10.92	-9.16/7.46	-6.96/7.19	-8.03/9.50
Theta (855°)	-6.48/6.18	-5.98/5.80	-5.76/5.53	-5.31/6.06	-4.30/3.11	-3.07/4.80	-5.72/5.19	-5.44/6.15	-5.39/4.58	-4.57/4.19	-2.97/1.30	-0.28/0.04	0.06/0.36	0.32/0.07	-0.60/1.35	-1.71/2.03	-1.57/1.08	0.65/0.27	0.11/0.23	-1.36/3.25	-5.80/8.11	-7.12/5.25	-4.32/4.46	-5.36/6.29
Theta (900°)	-3.09/3.21	-4.02/4.88	-5.13/5.90	-2.58/1.92	-2.09/1.47	-0.65/1.62	-4.26/4.82	-4.50/4.76	-3.92/3.45	-3.92/3.45	-4.01/2.74	-10.04/2.61	-0.51/0.62	-1.02/1.54	-1.78/2.24	-3.19/1.56	-1.10/0.61	0.29/0.88	-2.54/4.76	-5.74/4.46	-3.20/3.03	-3.63/3.59		
Theta (945°)	-1.55/2.28	-3.59/4.60	-5.02/3.55	-1.68/0.38	-0.49/0.61	0.34/0.10	-2.63/4.50	4.08/4.10	-3.53/3.54	-4.43/4.49	-3.19/2.27	-2.81/3.90	-4.79/4.95	-4.72/3.92	-3.32/3.70	-3.84/3.05	-1.70/0.96	1.06/1.67	-0.97/0.17	-0.38/0.94	-1.74/3.13	-4.02/3.68	-2.91/2.70	-2.37/1.67
Theta (990°)	-0.97/1.72	-3.05/3.87	-4.04/2.90	-1.21/0.35	0.48/0.06	0.25/0.21	2.00/3.14	2.19/2.62	-2.63/3.27	-3.25/3.96	-4.07/3.63	-6.40/5.56	-5.08/4.78	-4.94/5.18	-5.27/5.93	-7.46/8.82	-5.39/2.04	0.63/1.07	-1.51/1.45	-1.97/2.27	-2.02/2.46	-2.48/2.58	-2.73/2.25	-1.35/0.80
Theta (1035°)	-1.26/1.67	-2.63/3.20	-2.57/1.28	-0.13/0.80	0.91/0.48	0.29/0.21	-1.74/1.41	0.59/1.30	-1.22/0.94	2.13/3.06	-3.67/6.32	-8.18/6.36	-4.68/3.32	-2.49/2.44	-2.99/3.42	-9.31/7.25	-3.54/2.04	-1.92/1.23	-3.00/3.29	-2.29/2.52	-2.09/1.74	-2.11/1.16	0.52/0.84	
Theta (1080°)	-1.69/2.03	-2.44/2.42	-1.44/0.41	0.19/0.84	2.26/0.55	0.26/0.12	-1.27/0.44	0.34/0.25	-0.10/0.04	-1.16/2.47	-3.03/6.23	-9.47/7.17	-5.47/4.01	-2.48/1.64	2.01/3.42	-4.68/5.48	-5.52/5.07	4.46/3.20	-1.85/1.92	-3.60/4.86	-2.70/2.07	-2.48/2.02	-1.88/0.29	0.36/0.51
Theta (1125°)	-1.69/2.76	-3.15/2.99	-1.70/0.50	0.20/0.76	0.54/0.06	0.43/0.49	-0.81/0.24	0.70/0.05	0.19/0.48	-1.10/3.07	-2.51/4.47	-5.37/3.24	-4.06/5.58	-4.19/3.04	-3.11/3.06	-3.71/5.32	-5.40/3.83	-3.28/3.70	-2.91/2.22	-3.09/5.06	-3.51/1.91	-2.64/2.37	-2.14/0.51	0.10/0.22
Theta (1170°)	-2.88/4.31	-4.26/4.33	-2.72/0.77	0.02/0.39	-1.57/0.67	0.87/0.69	-1.18/0.74	0.06/1.21	-0.07/0.25	-2.08/3.08	-0.94/1.93	-2.70/0.66	-1.86/3.44	-3.49/4.00	-4.37/5.21	-2.23/3.66	-3.88/2.30	-1.85/3.06						

E1(XY plane) – $\Theta(90)\Phi(0-360)$
 E2(XZ plane) – $\Theta(0-180)\Phi(0)$ and $\Theta(0-180)\Phi(180)$
 E3(YZ plane) – $\Theta(0-180)\Phi(90)$ and $\Theta(0-180)\Phi(270)$







Mode 2
Total Gain Data

Table with columns for Freq(Hz), TotalAnt, and various Phi angles (0 to 345 degrees) for 2.45GPol. The table contains multiple rows of gain data for different frequencies and antenna configurations.

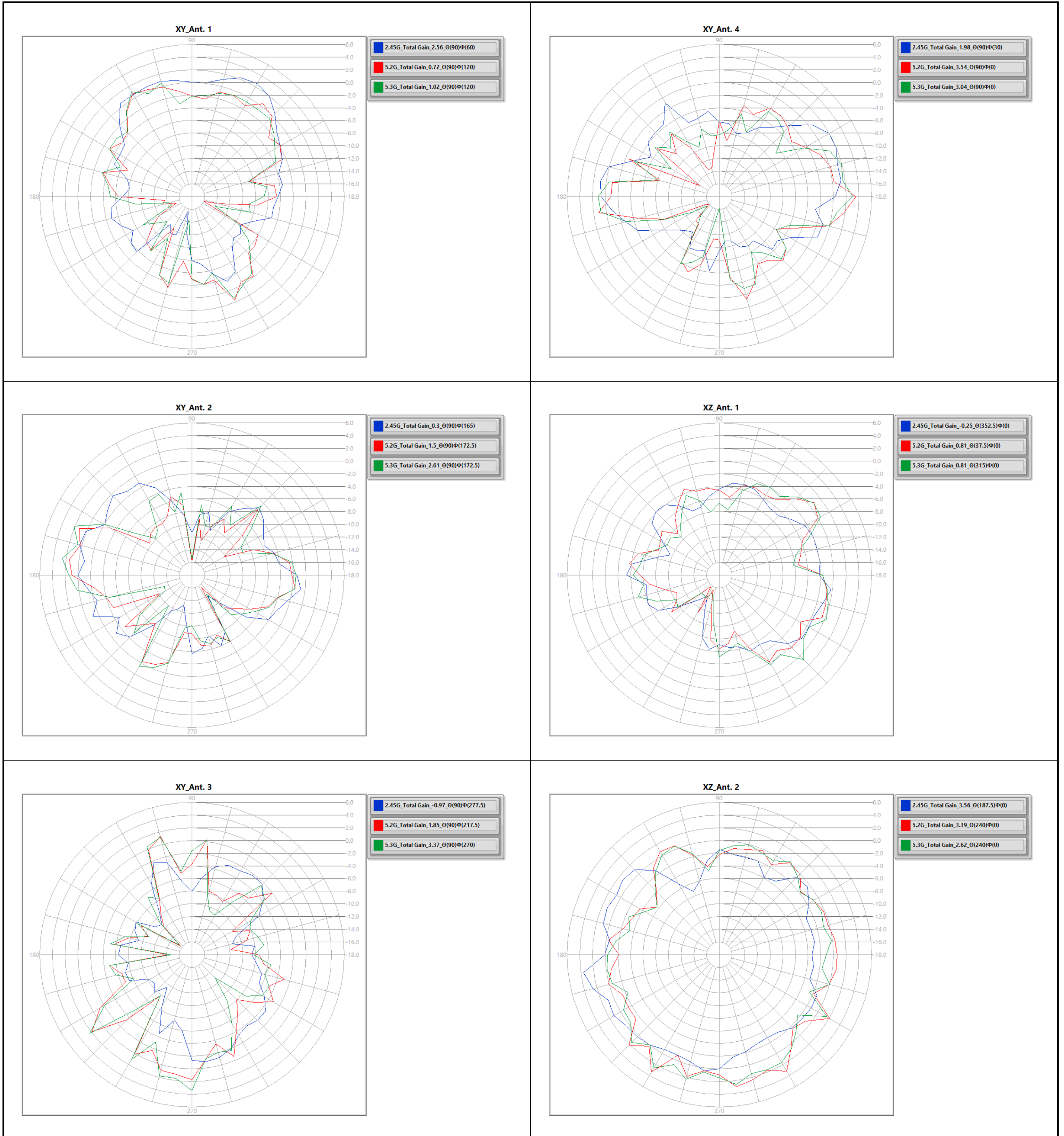


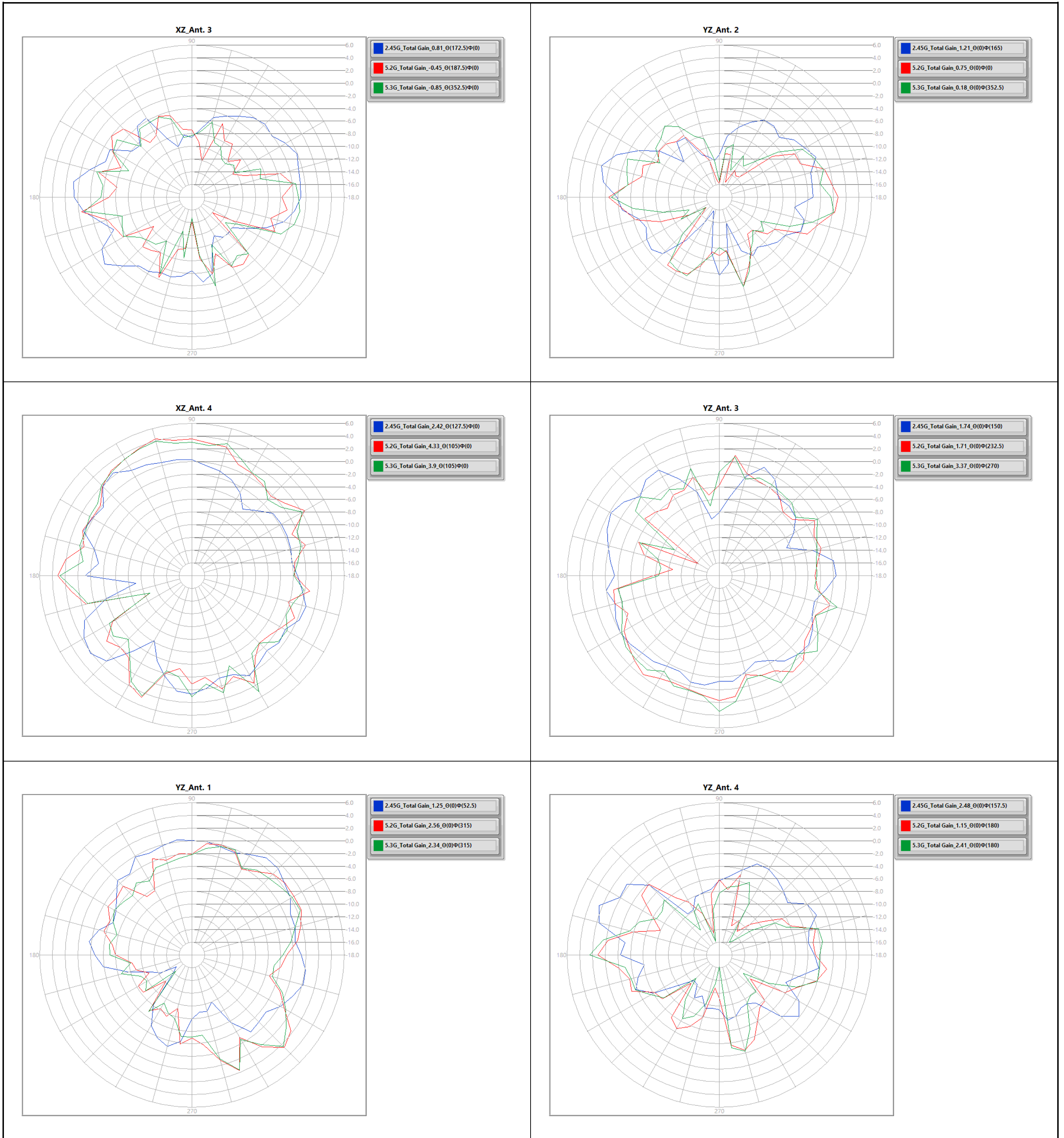
Antenna Pattern

Appendix B.2

Table with 36 columns representing different antenna orientations and 36 rows representing different frequencies. Each cell contains numerical values representing antenna gain or loss in dB.

E1(XY plane) – $\Theta(90)\Phi(0-360)$
 E2(XZ plane) – $\Theta(0-180)\Phi(0)$ and $\Theta(0-180)\Phi(180)$
 E3(YZ plane) – $\Theta(0-180)\Phi(90)$ and $\Theta(0-180)\Phi(270)$





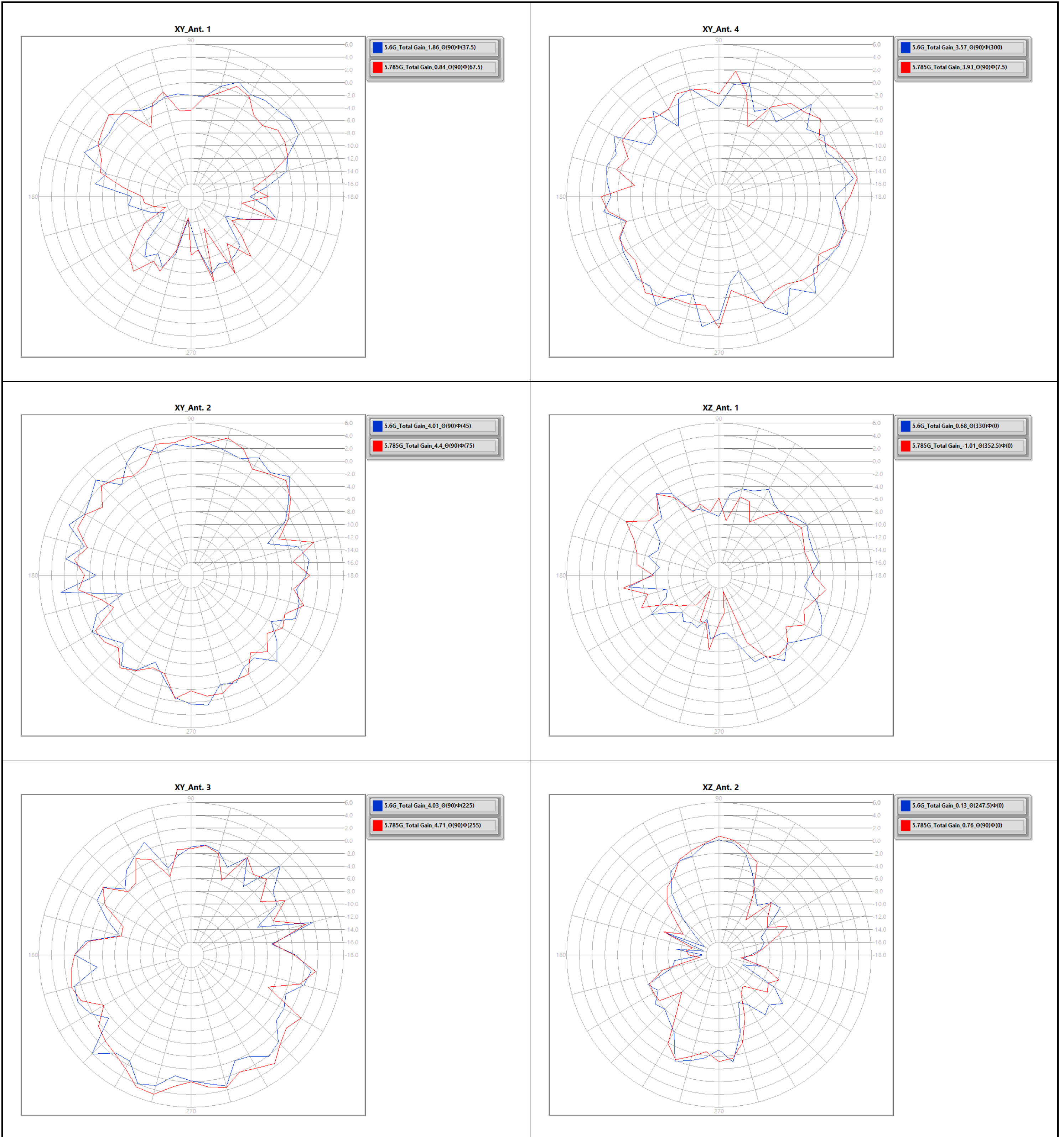


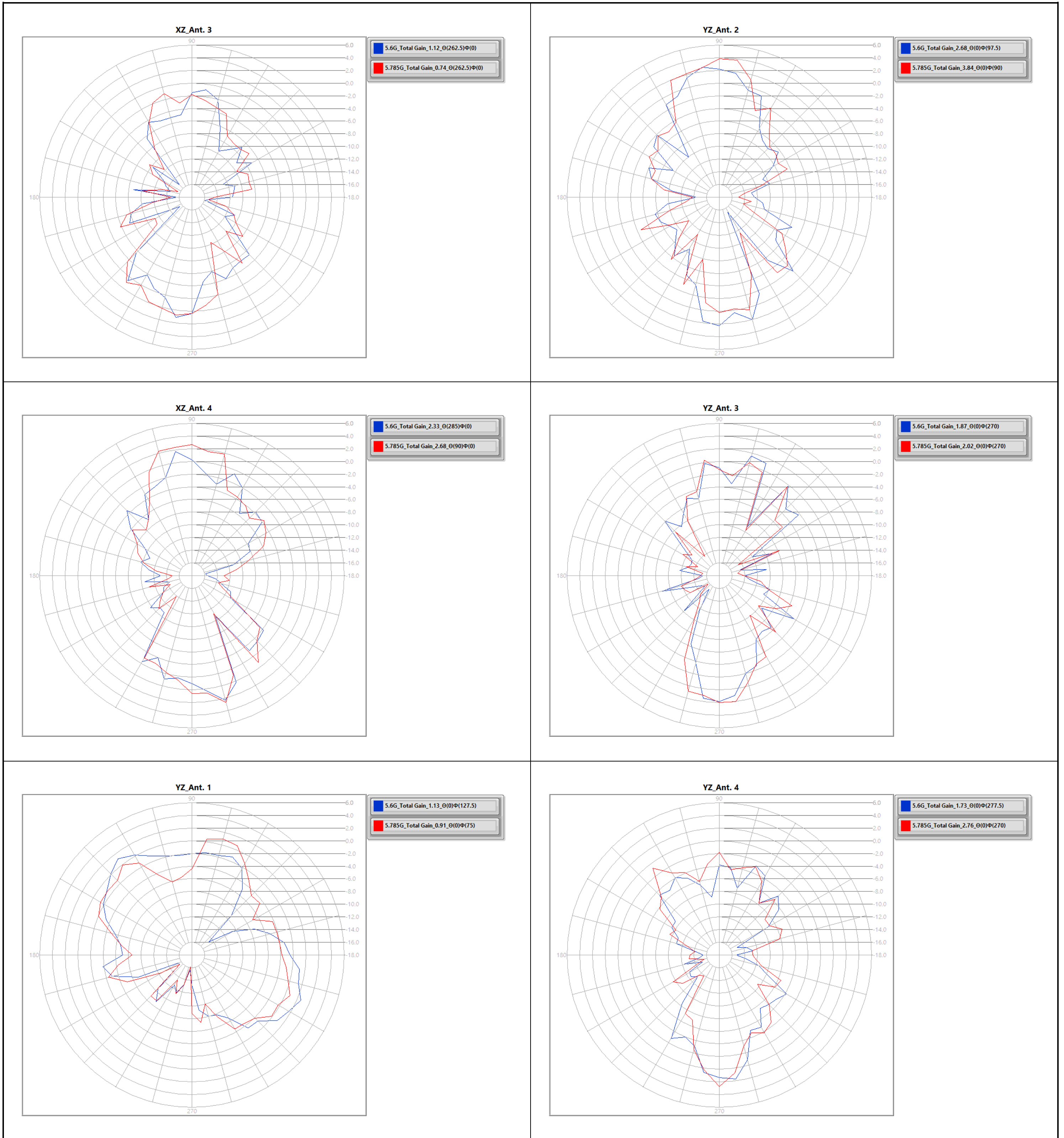
Antenna Pattern

Appendix B.3

θ (15°)	-10.99/13.77	-9.26/8.33	-8.98/11.39	-13.24/11.65	-13.90/14.15	-14.16/13.81	-14.63/15.49	-14.32/14.83	-15.89/15.67	-15.86/14.69	-15.04/15.45	-15.07/16.07	-15.86/15.53	-14.67/13.91	-12.28/12.00	-12.15/11.03	-9.43/8.11	-8.09/9.12	-9.69/10.37	-10.87/10.50	-10.74/10.25	-9.90/10.46	-11.01/11.38	-12.93/11.97	
φ (22.5°)	-12.73/9.77	-15.14/11.76	-9.55/8.53	-9.31/11.78	-11.78/11.57	-10.06/9.90	-8.97/8.83	-8.47/8.07	-8.98/10.35	-10.63/11.15	-12.75/15.96	-14.99/11.84	-10.67/10.26	-10.31/10.22	-9.52/10.65	-10.69/8.72	-7.43/9.12	-10.33/9.98	-10.46/9.46	-8.55/7.59	-7.82/8.07	-7.36/8.07	-11.38/10.06	-9.79/10.60	
φ (30°)	-7.12/6.66	-10.84/9.12	-7.67/6.76	-5.89/3.77	-3.29/3.62	-5.11/7.67	-12.01/15.40	-6.18/8.45	-7.53/7.34	-9.96/9.95	-6.58/6.61	-11.98/9.69	-7.78/6.61	-8.08/8.03	-6.76/6.53	-6.70/7.43	-5.77/4.25	-4.33/6.99	-8.30/4.71	-3.52/4.18	-4.21/4.63	-4.21/4.63	-5.53/5.90	-8.77/10.65	
φ (37.5°)	-9.11/9.34	-7.76/6.28	-8.09/9.51	-10.74/10.61	-13.23/10.39	-6.49/3.02	-2.26/3.71	-5.88/5.25	-5.60/5.35	-4.11/7.15	-9.74/9.51	-6.27/6.23	-9.97/7.56	-5.61/7.89	-7.64/6.95	-7.25/8.12	-8.29/12.13	-10.66/10.46	-9.60/6.85	-6.24/7.15	-7.37/9.74	-6.48/5.75	-5.92/4.51	-8.86/10.19	
φ (45°)	-6.82/3.60	-4.30/6.39	-1.46/6.60	-0.31/0.70	-0.71/0.40	0.72/0.52	-3.18/5.63	-5.52/3.85	-1.34/2.74	-7.67/6.76	-10.27/9.57	-11.41/5.41	-5.17/9.23	-10.10/9.50	-4.61/5.68	-4.80/8.40	-6.88/9.73	-9.94/3.33	-6.47/8.33	-9.12/8.29	-8.20/7.16	-5.54/7.73	-8.42/5.89	-5.50/6.61	
φ (52.5°)	-8.50/4.18	-5.05/8.39	-4.16/4.68	-8.33/7.73	-8.62/4.16	-0.45/0.60	-0.24/1.94	-0.45/0.60	-3.39/2.87	-3.54/3.07	-4.62/7.16	-12.32/5.92	-6.60/10.62	-5.32/5.84	-5.90/5.75	-5.71/5.67	-7.69/7.63	-7.15/4.06	-6.93/5.55	-6.42/7.60	-9.68/11.72	-6.48/8.23	-5.54/8.90	-4.39/5.84	
φ (60°)	-9.59/7.98	-9.66/9.72	-13.64/5.31	-8.20/9.78	-5.11/7.86	-9.59/10.01	-9.10/14.11	-15.13/6.27	-5.95/7.48	-5.54/8.87	-4.22/7.74	-4.69/7.49	-5.11/10.17	-5.68/4.67	-7.15/8.90	-5.02/2.20	-7.47/7.91	-3.94/4.76	-6.39/5.32	-5.99/5.75	-6.35/7.43	-4.97/5.24	-3.30/5.40	-2.27/9.13	
φ (67.5°)	-6.27/8.29	-1.33/5.80	-5.72/3.09	-3.76/2.77	-2.85/3.41	-1.42/0.80	-1.18/2.33	-2.04/2.95	-7.13/15.74	-4.94/7.25	-3.76/7.04	-3.04/5.22	-4.11/13.45	-4.61/5.28	-5.59/7.90	-2.17/2.68	-8.81/1.50	0.08/2.46	-2.65/0.07	-1.29/3.34	-1.63/0.54	-2.48/2.46	-3.98/4.57	-1.73/4.14	
φ (75°)	-2.09/6.26	-1.62/2.39	-4.64/2.67	-1.68/0.53	-0.41/0.80	-1.74/0.49	1.55/0.59	-1.64/2.74	-2.12/3.03	-4.91/6.49	-5.99/9.40	-2.21/3.63	-5.83/5.37	-2.33/0.36	-0.18/4.84	-0.57/1.47	-0.96/3.43	2.87/0.34	-2.04/1.91	1.02/0.10	1.36/2.69	-0.05/0.07	-1.15/3.03	-1.45/0.37	
φ (82.5°)	-0.91/8.81	1.26/9.24	-5.30/5.19	2.13/1.83	1.60/0.78	-0.53/1.96	-3.40/1.75	-8.22/0.50	-3.69/1.01	-1.78/2.11	-4.75/8.14	-3.37/1.15	-4.59/7.44	1.37/1.41	0.61/0.00	1.80/0.82	2.37/4.52	3.66/2.22	1.07/2.81	4.22/0.05	1.73/2.63	2.14/0.23	-1.17/3.66	-2.18/0.77	
φ (90°)	-1.50/5.15	1.85/6.62	2.38/1.69	1.90/4.45	-0.29/3.03	-1.18/0.52	-1.02/2.25	-3.85/1.21	-0.15/1.28	-3.28/0.54	0.93/3.65	-6.36/1.27	0.38/3.12	0.97/1.34	0.40/1.62	4.03/4.14	1.29/3.96	3.28/1.17	1.87/2.47	3.39/0.03	0.41/2.10	1.43/1.04	-1.14/1.85	0.37/1.09	
φ (97.5°)	-4.86/5.42	-0.17/7.43	-5.64/4.48	-0.78/2.78	-0.83/2.81	-1.64/2.06	-0.14/2.31	-3.38/3.07	0.91/2.29	-1.89/1.74	-3.07/2.43	-0.36/0.62	1.12/0.56	-0.90/5.50	1.32/4.72	2.07/2.95	0.82/1.35	3.31/0.17	1.45/1.57	0.06/2.36	-0.11/0.25	-2.03/6.36	1.55/1.36		
φ (105°)	-5.00/6.66	-2.21/7.35	-8.37/5.35	-1.69/2.94	4.31/12.27	-6.05/5.82	-5.44/7.46	-9.57/2.54	-4.62/2.88	0.91/0.93	-3.68/6.86	-1.04/1.55	-1.63/3.94	-1.39/0.82	0.54/3.05	0.14/0.56	1.26/2.81	2.01/1.50	-3.78/0.08	2.04/2.79	4.91/0.50	-2.22/4.14	-4.92/14.84	-1.84/1.23	
φ (112.5°)	-4.94/12.73	-4.16/3.85	-8.53/4.78	-5.74/3.38	-3.51/6.63	-4.88/4.13	-4.79/1.68	-2.36/0.01	-0.38/4.35	-3.66/0.48	-1.35/0.54	-7.06/0.62	-2.37/1.12	0.07/0.09	-0.43/2.93	1.08/2.22	-1.69/3.22	0.62/0.55	-6.88/2.71	1.68/3.34	8.53/5.52	-4.43/7.88	-3.05/8.52	-4.11/1.80	
φ (120°)	-4.39/12.69	-8.84/4.15	-9.05/5.41	-8.09/7.42	-5.60/9.94	-10.67/5.15	-6.71/2.58	-3.80/0.26	0.10/2.68	-3.07/1.20	-0.63/2.72	-5.04/4.67	-3.82/4.38	-8.53/1.07	-1.43/6.51	-2.83/2.31	-7.59/0.51	-1.46/3.80	-11.69/13.06	-1.79/6.60	-4.71/7.18	-4.87/2.43	-6.59/12.91	-7.61/2.89	
φ (127.5°)	-6.40/15.59	-7.52/13.72	-15.39/9.73	-10.22/6.23	-9.97/12.68	-7.32/7.36	-8.22/8.27	-9.98/3.34	-0.04/0.26	-1.67/4.96	-1.09/2.94	-4.14/5.34	-1.40/2.22	-5.37/3.17	-2.28/6.25	-12.02/7.32	-10.39/7.16	-9.50/5.99	-15.31/10.72	-2.83/4.85	-14.51/12.72	-7.86/5.95	-6.42/5.48	-8.18/5.01	
φ (135°)	-15.29/15.63	-10.47/13.39	-11.93/10.82	-10.94/7.87	-11.91/6.43	-5.62/4.67	-5.80/6.71	-8.91/12.85	-5.62/4.81	-4.19/6.27	-7.61/5.25	-5.63/5.16	-7.34/9.57	9.34/10.50	-15.09/14.68	-9.06/9.85	-11.52/15.61	-15.14/10.87	-5.78/5.80	-9.61/9.51	-10.19/9.06	-12.79/14.52	-16.10/13.40		
φ (142.5°)	-10.20/9.70	-9.06/12.41	-15.49/11.00	-13.69/15.46	-15.02/7.27	-7.82/14.15	-11.11/11.18	-12.24/12.43	-11.22/11.76	-15.78/11.03	-12.12/10.38	-14.76/11.12	-15.60/10.08	-12.52/10.26	-12.71/14.53	9.13/8.23	-9.06/9.51	-11.52/15.61	-15.14/10.87	-5.78/5.80	-9.61/9.51	-10.19/9.06	-12.79/14.52	-16.10/13.40	
φ (150°)	-12.91/14.57	-13.37/15.10	-15.88/14.58	-12.73/11.83	-15.25/14.63	-15.17/13.42	-13.05/11.89	-13.62/12.93	-8.55/8.78	-13.52/13.91	-14.52/13.26	-14.89/12.55	-13.77/9.74	-8.48/7.61	-9.48/11.24	-12.99/12.59	-9.83/7.75	-11.38/15.60	-14.88/12.36	-8.67/10.91	-9.00/7.60	-11.38/10.82	-8.26/11.16	-14.03/13.22	
φ (157.5°)	-13.55/13.22	-14.88/15.80	-12.83/12.77	-13.28/11.89	-13.30/13.44	-15.63/14.39	-13.24/12.22	-10.08/4.44	-10.02/13.44	-13.83/11.64	-10.88/12.22	-13.09/12.02	-7.37/6.37	-6.99/7.47	-7.20/9.54	-7.15/5.42	-6.99/12.73	-13.05/9.84	-8.20/7.77	-6.84/6.66	-7.50/10.16	-12.59/11.00	-13.12/15.07		
φ (165°)	-14.57/12.41	-15.66/16.24	-15.37/15.87	-12.48/9.63	-9.50/9.43	-9.92/12.21	-12.94/9.98	-9.31/8.93	-8.73/8.83	-8.80/9.76	-10.34/13.03	-15.82/12.61	-8.08/6.12	-5.85/7.66	-10.86/13.97	-13.69/10.76	-7.70/6.64	-6.57/7.63	-8.60/11.57	-13.14/11.52	-9.29/8.04	-6.83/8.83	-13.11/14.98	-15.24/15.10	
φ (172.5°)	-8.69/9.81	-11.35/12.05	-13.05/14.92	-15.46/13.40	-13.10/12.97	-12.61/11.74	-11.67/12.77	-12.99/12.81	-12.00/10.35	-9.65/9.33	-8.92/10.09	-9.86/9.62	-10.14/10.35	-10.04/9.97	-10.94/14.44	-15.27/15.34	-14.77/13.24	-14.58/15.07	-14.70/13.81	-12.15/11.13	-11.04/14.03	-15.72/14.90	-12.40/9.99	-8.37/8.39	
φ (180°)	-15.62/15.60	-15.11/14.03	-13.67/14.87	-15.21/14.69	-14.83/14.48	-15.83/14.65	-15.40/15.47	-15.08/14.53	-15.20/14.00	-14.70/14.13	-13.47/13.91	-14.70/15.15	-16.08/15.41	-15.64/15.59	-15.04/15.50	-15.80/15.36	-15.53/15.08	-15.46/16.24	-15.17/15.36	-15.35/15.86	-16.32/15.66	-15.51/15.42	-16.13/15.67	-15.79/15.22	
Freq(Hz)	5.785GPol	TotalAnt.3																							
Gain	φ(0°)/φ(7.5°)	φ(15°)/φ(22.5°)	φ(30°)/φ(37.5°)	φ(45°)/φ(52.5°)	φ(60°)/φ(67.5°)	φ(75°)/φ(82.5°)	φ(90°)/φ(97.5°)	φ(105°)/φ(112.5°)	φ(120°)/φ(127.5°)	φ(135°)/φ(142.5°)	φ(150°)/φ(157.5°)	φ(165°)/φ(172.5°)	φ(180°)/φ(187.5°)	φ(195°)/φ(202.5°)	φ(210°)/φ(217.5°)	φ(225°)/φ(232.5°)	φ(240°)/φ(247.5°)	φ(255°)/φ(262.5°)	φ(270°)/φ(277.5°)	φ(285°)/φ(292.5°)	φ(300°)/φ(307.5°)	φ(315°)/φ(322.5°)	φ(330°)/φ(337.5°)	φ(345°)/φ(352.5°)	
φ (0°)	-14.45/14.65	-14.26/14.05	-13.48/13.71	-14.91/15.79	-14.77/13.19	-12.06/12.56	-14.03/13.57	-12.44/11.90	-11.28/10.53	-10.69/10.43	-10.55/10.50	-10.38/9.97	-9.82/10.04	-11.07/11.28	-10.79/9.55	-9.43/10.09	-10.58/10.38	-10.20/10.32	-10.43/11.30	-10.90/11.93	-12.01/12.22	-12.30/12.38	-13.14/13.55	-15.05/15.01	
φ (7.5°)	-8.50/9.19	-11.24/11.72	-10.40/11.29	-13.36/14.57	-13.93/13.09	-14.03/15.21	-15.07/14.74	-14.87/15.04	-14.05/15.80	-15.49/15.22	-14.80/14.92	-15.43/14.90	-15.37/15.24	-13.53/13.86	-12.62/11.83	-11.54/11.75	-11.38/11.23	-11.79/12.61	-11.61/12.11	-11.77/12.42	-9.48/8.06	-7.50/7.69			
φ (15°)	-6.89/9.22	-6.84/7.81	-7.44/7.26	-7.64/9.98	-11.18/11.92	-13.44/13.12	-14.43/14.41	-16.00/15.21	-14.58/15.01	-15.69/15.90	-15.18/15.35	-16.34/13.58	-12.43/12.31	-11.93/12.37	-12.77/11.26	-10.06/10.49	-10.97/10.34	-10.10/10.43	-10.21/8.78	-8.88/9.95	-12.13/12.83	-13.73/12.39	-10.67/9.71		
φ (22.5°)	-3.89/8.78	-10.32/11.46	-14.15/13.72	-12.36/10.42	-8.58/6.93	-6.36/6.64	-7.76/10.15	-12.45/10.45	-14.19/14.96	-15.23/15.04	-15.77/15.51	-12.42/10.90	-10.87/12.12	-11.71/10.26	-8.68/9.64	-9.07/7.84	-6.83/8.01	-7.31/7.57	-5.61/6.45	-7.44/7.24	-6.51/6.34	-6.43/5.87	-6.90/8.95	-9.97/8.83	
φ (30°)	-9.83/7.90	-8.18/10.53	-11.87/11.44	-11.03/9.06	-7.25/8.11	-10.55/15.09	-14.60/11.30	-10.91/11.19	-10.82/11.53	-10.30/9.10	-9.23/8.87	-13.09/12.53	-10.00/8.92	-7.45/8.18	-8.96/8.13	-5.11/4.51	-6.30/8.75	-6.83/6.26	-7.63/6.92	-6.21/6.45	-5.89/4.63	-5.39/6.49	-7.29/7.42	-7.22/7.91	
φ (37.5°)	-6.64/10.40	-10.55/8.00	-6.95/8.24	-8.28/8.37	-11.45/10.41	-7.21/4.92	-6.82/8.16	-6.40/6.55	-7.59/7.88	-6.73/7.56	9.19/5.81	-5.89/6.65	-7.87/8.88	-10.11/9.19	-6.24/7.09	-7.38/4.47	-4.87/8.36	-8.53/7.17	-10.18/10.06	-5.20/6.69	-11.61/9.19	-8.95/5.84	-6.14/4.65	-7.47/10.82	
φ (45°)	-7.31/4.74	-2.78/6.12	-5.04/4.48	-0.86/0.75	0.53/1.06	-0.42/3.61	-5.62/4.32	-3.91/3.58	-2.29/7.56	-6.75/12.10	-7.78/8.29	-5.48/5.80	-10.44/12.39	-6.93/4.90	-7.33/11.20	-11.75/9.69	-8.72/9.90	-10.91/10.71	-5.39/7.21	-13.23/13.94	-11.07/10.78	-6.89/4.92	-5.07/6.13	-7.69/15.74	
φ (52.5°)	-7.24/4.24	-3.50/7.07	-4.30/3.14	-4.37/3.04	-2.21/1.97	0.280/9.7	-0.40/1.94	2.05/2.13	-1.65/0.58	-4.58/11.74	-7.15/7.89	-7.01/5.48	-4.90/4.33	-4.89/5.78	-8.04/7.70	-7.09/7.14	-5.16/8.06	-10.10/9.40	-7.58/7.89	-9.90/6.82	-8.37/3.54	-5.29/3.74	-5.32/6.61		
φ (60°)	-6.88/6.84	-6.97/10.39	-9.21/6.38	-6.36/9.01	-6.04/5.42	-10.33/12.57	-9.73/13.49	-10.76/6.13	-6.36/6.14	-5.94/6.90	-5.87/5.42	-7.56/5.68	-8.36/6.64	-5.51/7.41	-6.93/5.50										

E1(XY plane) – $\Theta(90)\Phi(0-360)$
 E2(XZ plane) – $\Theta(0-180)\Phi(0)$ and $\Theta(0-180)\Phi(180)$
 E3(YZ plane) – $\Theta(0-180)\Phi(90)$ and $\Theta(0-180)\Phi(270)$







Mode 4
Total Gain Data

Table with 33 columns (Freq/Hz, 5.6G/Pol, TotalAnt, and 30 directional gain columns) and 100 rows of data.

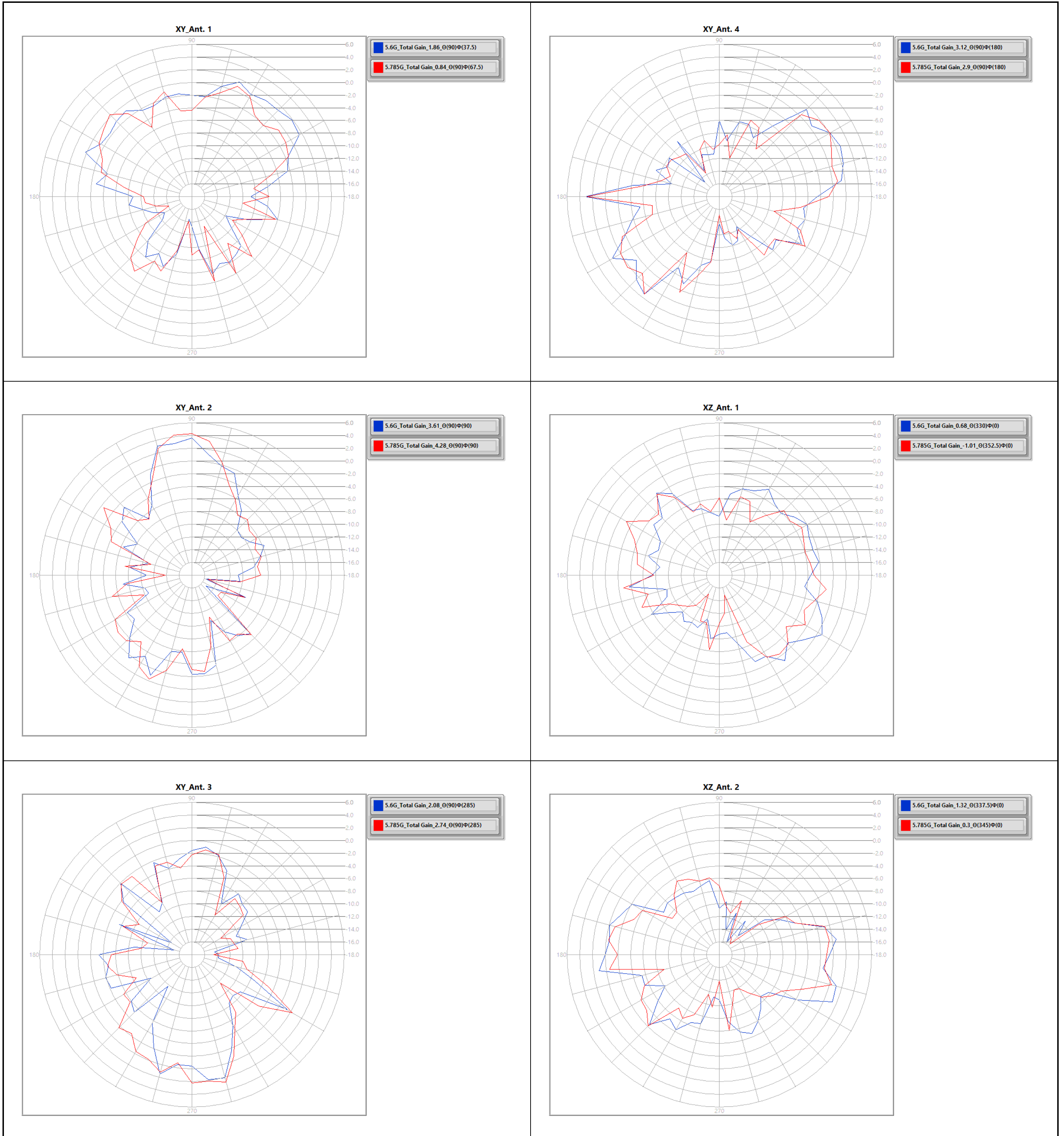


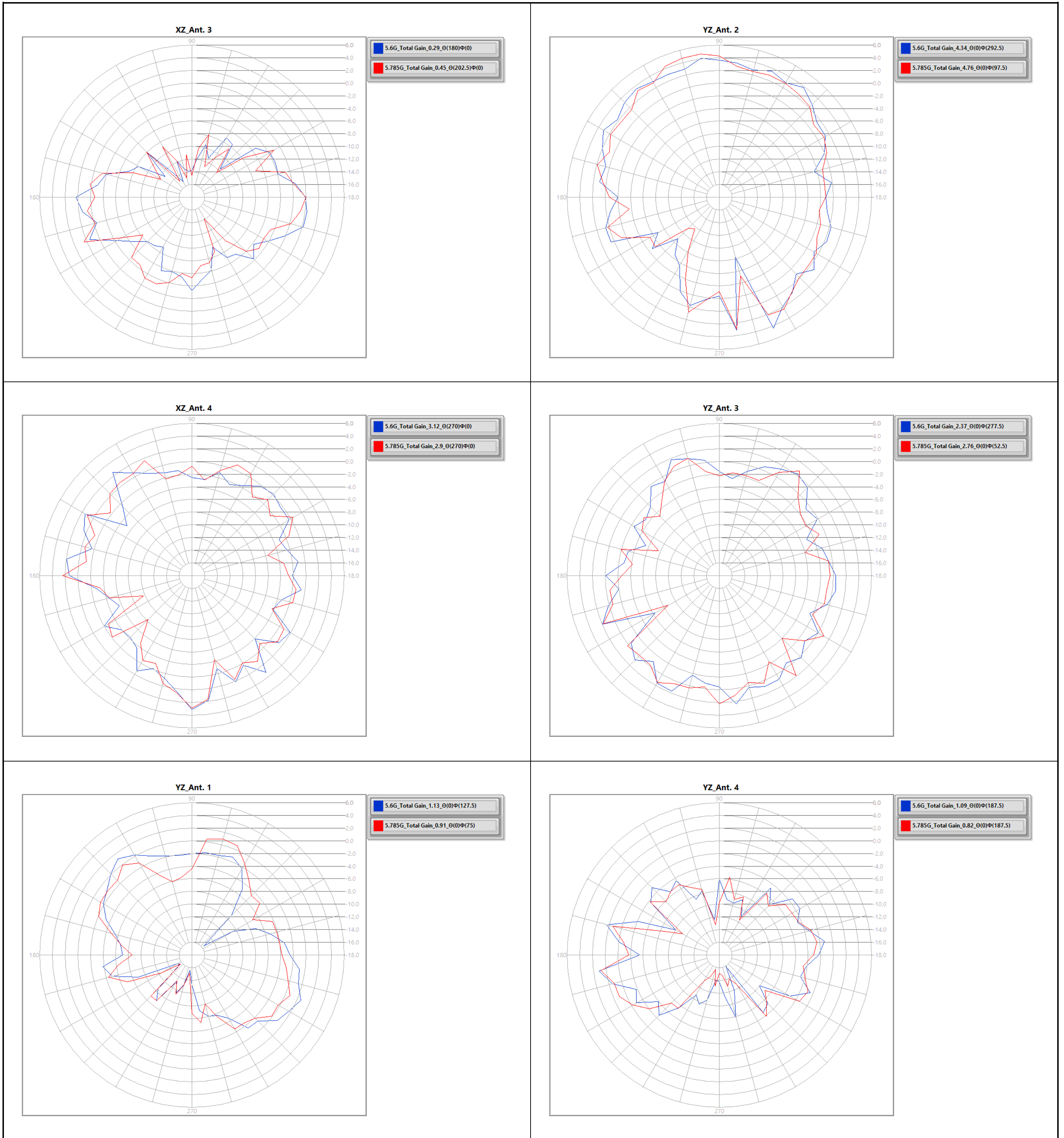
Antenna Pattern

Appendix B.4

θ (7.5°)	-1.61/2.01	-2.53/2.46	-2.44/2.84	-2.48/1.58	-1.58/1.42	-1.12/0.42	-0.61/0.07	-0.23/0.26	0.05/0.40	0.42/0.11	0.23/0.03	0.82/0.07	0.26/0.72	-0.00/0.62	-0.15/0.09	0.44/1.16	0.94/0.39	1.01/0.39	0.48/1.76	2.08/1.88	2.11/1.24	-0.32/0.28	0.39/0.15	-0.50/0.81
θ (15°)	-3.94/6.01	-5.58/5.46	-4.68/4.84	-3.53/2.45	-1.83/1.18	-0.84/0.83	-1.25/1.63	-2.28/2.04	-1.08/0.30	-0.28/0.21	-0.13/0.49	0.19/0.70	0.19/0.36	-0.36/0.74	-0.41/0.46	-0.62/0.20	-0.74/1.84	-0.81/0.22	-0.35/1.12	0.84/0.20	-0.95/1.32	-1.55/0.60	0.08/0.50	-0.21/2.94
θ (22.5°)	-13.27/4.95	-8.37/5.77	-4.19/2.66	-2.96/3.60	-4.09/4.46	-4.15/4.42	-3.12/2.73	-2.63/2.72	-1.82/1.08	-1.34/2.05	-2.95/2.62	-1.96/2.17	-1.12/3.17	-1.96/0.98	-1.12/0.28	0.94/1.22	-1.58/2.22	-2.56/1.48	-0.66/2.43	-2.90/2.53	-4.19/5.24	-2.97/2.06	-0.49/1.81	-0.19/1.94
θ (30°)	-3.86/5.66	-5.73/3.63	-3.00/2.47	-3.02/4.26	-2.54/1.12	0.28/0.86	0.18/1.14	-1.59/1.12	-0.78/0.68	-1.00/0.83	-3.01/3.53	-5.34/5.95	-4.11/3.93	-5.50/3.78	-1.36/0.79	-0.92/1.87	2.33/1.21	1.71/0.23	0.01/0.95	-0.58/2.11	2.20/5.53	8.68/10.75	-6.67/5.32	2.98/2.12
θ (37.5°)	-5.32/7.32	-5.09/5.32	-6.24/5.64	-3.97/1.90	-0.37/1.14	0.91/0.49	-0.74/2.67	-3.48/4.28	-2.81/2.45	-3.31/2.80	-4.54/5.95	-8.62/6.56	-5.77/5.45	-6.57/4.42	-2.17/0.91	-0.39/1.04	1.30/0.93	0.21/0.54	-1.03/0.79	0.49/0.50	-4.68/9.37	-11.71/14.02	-10.36/8.89	-4.70/3.67
θ (45°)	-11.75/4.82	-4.45/4.15	-8.35/12.97	-3.70/1.50	-1.02/0.96	1.13/1.91	1.70/1.32	-3.43/5.46	-6.21/4.11	-6.65/5.89	-4.30/4.49	-9.26/7.86	-4.21/5.41	-3.62/3.30	-3.78/2.28	-3.39/5.37	2.34/4.51	-1.59/1.96	0.24/0.02	2.26/0.14	0.76/0.11	-3.27/11.89	-9.42/10.94	-7.41/10.23
θ (52.5°)	-7.52/8.56	-8.50/6.57	-10.06/12.34	-5.92/7.31	-3.92/0.34	2.52/2.84	2.26/0.97	-2.23/6.56	-9.41/6.41	-6.62/6.28	-3.89/4.49	-8.60/6.07	-6.70/7.39	-4.96/7.31	-4.58/3.48	-3.57/4.96	0.48/2.29	1.28/0.79	-0.71/0.89	-3.35/0.17	-1.80/4.25	-9.49/10.97	-8.16/15.35	-10.34/12.58
θ (60°)	-7.19/14.97	-9.19/7.30	-8.01/13.41	-10.58/5.20	-3.40/1.05	0.92/2.71	1.43/1.03	-3.01/7.64	-6.70/10.09	-8.28/6.56	-5.13/4.79	-5.54/4.96	-6.99/8.70	-12.81/5.59	-3.98/6.00	-3.66/0.12	0.57/1.16	0.80/0.75	0.90/2.46	1.45/0.07	-3.30/6.52	-9.04/11.06	-11.62/6.50	-14.46/15.59
θ (67.5°)	-11.29/15.72	-11.38/6.50	-5.67/15.87	-10.31/6.27	-10.10/5.48	0.13/1.59	0.60/1.79	-3.90/10.10	-4.41/5.47	-9.95/5.14	-7.01/5.56	-5.81/8.48	-9.47/13.85	-9.04/3.21	-7.93/5.82	-1.77/2.99	0.79/2.17	1.47/0.40	0.90/0.63	0.17/3.17	-3.60/4.66	-10.30/14.80	-9.56/12.09	-11.78/11.13
θ (75°)	-9.40/6.80	-11.80/8.42	9.00/15.32	-9.57/14.94	-10.85/3.67	-0.45/0.09	-1.02/2.03	4.27/8.48	-6.62/4.31	-6.43/3.51	-10.03/7.42	-7.19/10.89	-6.11/9.46	-6.47/3.62	-7.97/5.96	-5.26/2.83	1.11/2.39	2.38/0.77	0.21/3.55	2.35/0.25	-7.85/6.73	-6.11/7.57	-6.69/7.88	-6.35/8.47
θ (82.5°)	-12.04/12.48	-10.28/7.87	-10.61/13.52	-8.40/10.43	-6.29/0.47	-0.56/0.08	-2.58/2.83	-5.30/4.26	-11.08/6.44	-3.67/3.70	-11.33/5.95	-12.60/8.99	-5.05/7.25	-4.39/5.91	-10.54/3.49	-5.34/4.24	2.41/1.87	0.47/2.03	2.37/1.67	3.68/0.63	-5.68/5.55	-11.85/7.37	-3.96/11.32	-12.30/10.52
θ (90°)	-13.73/14.38	-8.90/10.45	9.11/6.93	-6.80/5.91	-8.81/3.67	-1.84/0.93	-1.56/2.76	-3.93/2.35	-5.88/9.52	-2.11/4.46	-14.30/5.64	-15.11/8.88	-3.28/4.72	-3.94/4.24	-10.50/5.92	-5.15/11.73	-5.56/2.21	1.49/0.54	-0.47/1.84	2.08/1.71	-5.13/8.40	-8.83/8.36	-0.70/7.21	-10.66/13.84
θ (97.5°)	-13.86/10.33	-10.75/8.50	-6.01/4.63	-7.25/5.01	-5.52/5.94	-4.02/0.01	0.34/3.08	-0.83/1.11	-8.03/10.64	-4.70/3.90	-11.35/4.70	-16.04/9.77	-5.37/6.47	-4.36/3.27	-7.77/5.51	-8.07/9.52	-10.80/1.37	2.17/0.34	-0.94/1.39	1.61/1.12	-8.03/3.28	-12.80/8.41	-2.13/6.05	-9.10/9.86
θ (105°)	-13.41/13.22	-10.02/9.42	-6.20/4.50	-4.77/6.82	-6.36/4.68	-1.49/0.40	1.06/0.89	-2.14/1.72	-5.58/6.39	-5.16/4.93	-7.97/4.64	-15.38/9.73	-5.81/5.70	-5.22/5.74	-12.29/6.13	-2.33/8.76	-0.89/1.31	3.43/2.06	-1.77/1.52	3.23/4.74	0.69/13.41	-6.49/12.92	-3.50/9.99	-15.46/10.77
θ (112.5°)	-11.79/8.22	-9.71/10.40	-9.95/12.67	-9.61/10.76	-6.45/4.61	-1.64/0.85	1.82/1.20	-0.93/2.01	-5.36/4.26	-5.71/6.72	-4.37/3.04	-15.03/7.92	-5.45/4.95	-5.77/3.90	-5.92/3.04	-1.06/0.65	2.05/1.94	1.12/2.15	1.68/1.32	0.55/3.56	-2.51/6.41	-3.79/9.48	-6.00/6.74	-8.79/11.96
θ (120°)	-15.28/7.90	-8.01/12.67	-7.98/7.50	-5.77/3.76	-1.43/3.38	-3.01/2.90	-0.88/2.73	-2.81/0.41	-4.75/4.91	-5.85/6.59	-4.43/4.91	-12.58/5.25	-8.87/6.62	-6.20/6.31	-8.14/3.87	-3.18/3.97	3.10/0.12	0.73/0.16	1.59/1.17	2.60/0.62	-2.31/2.57	-5.84/8.35	-6.40/2.55	-5.41/11.50
θ (127.5°)	-13.22/6.24	-10.55/11.50	-13.69/5.27	-1.23/2.47	2.15/0.40	-3.52/1.42	-0.31/3.64	-1.47/1.36	-2.34/4.37	-5.22/5.30	-4.23/5.54	-11.58/8.06	-8.32/4.74	-7.78/6.95	-9.01/3.96	-5.40/2.76	0.87/2.75	0.11/1.62	-0.91/1.58	-0.83/2.28	-0.85/2.78	-7.01/9.24	-10.41/13.60	-9.51/6.81
θ (135°)	-8.05/2.54	-8.82/0.93	-8.81/3.36	-0.08/1.43	1.16/0.92	-0.73/0.03	-2.67/3.99	-4.47/0.42	-1.81/6.68	-3.98/3.58	-4.61/7.59	-15.97/8.43	-8.08/6.60	-10.52/12.30	-11.42/11.28	-5.27/1.08	1.60/1.36	1.26/0.98	0.81/0.24	-0.13/2.10	1.60/3.20	-7.01/9.21	-15.38/8.96	-8.10/6.92
θ (142.5°)	-12.62/7.83	-5.51/5.21	-6.35/4.44	-2.54/0.21	-0.38/1.77	-2.81/2.73	-3.43/1.72	-1.59/0.64	-1.52/4.60	-4.59/4.22	-2.56/3.96	-3.92/4.40	-6.49/5.97	-10.46/10.43	4.14/4.51	-3.18/0.25	0.82/1.02	-1.79/0.01	-0.51/5.52	2.35/2.24	0.45/4.56	-9.09/10.05	-7.44/3.83	-6.29/9.76
θ (150°)	-8.31/8.08	-10.46/8.08	-2.80/0.92	0.23/0.08	0.91/0.96	0.84/0.97	2.48/1.48	-3.03/4.29	-2.78/3.23	-3.38/2.15	-3.53/5.08	-3.99/4.79	-4.40/2.75	-3.57/5.18	-3.33/0.25	0.32/1.31	-0.02/1.21	-0.43/1.71	-6.32/1.71	0.94/1.06	-3.94/0.44	-5.23/3.60	-2.84/5.96	-9.78/10.00
θ (157.5°)	-7.33/7.12	-4.39/5.43	-5.43/4.79	-3.47/1.79	-1.68/2.12	-2.40/3.32	-5.48/7.64	-6.58/1.53	-0.36/3.77	-1.51/2.15	-4.15/4.11	-1.96/1.85	-0.56/0.12	0.89/1.50	-2.38/1.72	-0.22/0.14	-0.09/2.27	-0.98/3.18	1.98/1.24	2.48/6.42	-4.69/2.26	-1.09/0.61	-1.94/4.30	9.23/10.42
θ (165°)	-3.97/4.03	-4.16/3.46	-4.39/5.66	-5.72/5.97	-5.27/5.54	-5.59/4.69	-1.31/2.44	-1.16/0.60	-0.89/1.36	-2.01/1.71	-2.55/3.88	-3.91/2.96	-4.29/1.79	-0.58/1.64	-2.37/3.55	-4.21/0.79	1.00/1.07	2.00/0.94	0.10/1.44	-5.12/6.36	-1.37/0.01	-1.10/3.67	-5.66/3.52	-3.66/3.31
θ (172.5°)	-3.03/4.94	-3.67/4.26	-4.05/4.02	-3.48/3.87	-3.88/3.74	-3.21/2.97	-2.88/3.38	-3.54/4.65	-4.74/3.67	-3.31/2.08	-1.77/1.06	-1.03/1.40	-0.59/0.61	-0.69/0.81	-0.25/0.34	1.43/0.58	-1.85/1.44	0.18/0.44	2.02/6.51	-7.97/3.51	-1.43/2.05	-5.08/4.65	-0.44/0.54	-0.37/1.46
θ (180°)	0.29/0.15	-0.00/0.03	0.51/0.24	0.22/0.13	0.45/0.25	-0.04/0.15	0.09/0.18	0.50/0.91	-0.84/0.78	-1.20/1.16	0.48/0.90	-1.18/0.54	-0.79/0.69	-1.41/0.66	-0.58/1.08	-1.24/0.46	0.09/0.08	0.12/0.65	-0.40/8.50	-3.98/2.79	-7.07/8.56	-2.68/0.62	1.21/0.08	-0.17/0.22
Freq(Hz)	5.785GPol.	TotalAnt. 3																						
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
θ (0°)	-0.01/0.63	0.32/0.36	0.23/0.23	-0.14/0.14	-0.22/0.52	-0.58/0.30	0.51/0.59	-0.73/0.59	-0.74/0.83	-0.77/1.04	-1.09/0.56	-0.38/0.78	-0.56/0.17	-0.55/0.11	0.14/0.09	0.45/0.02	0.12/0.40	-0.12/0.40	-0.24/0.34	-0.56/1.43	0.17/1.23	0.28/0.43	0.00/0.04	0.00/0.04
θ (7.5°)	-1.78/1.04	-1.27/1.32	-1.31/1.07	-1.00/0.99	-1.06/0.88	-0.59/0.73	-0.58/0.61	-0.14/0.15	-0.29/0.27	-0.23/0.58	-0.51/0.44	0.03/0.64	-0.73/0.63	-0.76/0.34	-0.61/1.23	-0.95/0.81	0.83/0.20	0.53/0.20	0.93/1.46	-0.77/0.53	-0.86/1.94	-1.49/0.57	-1.06/0.15	-0.62/0.23
θ (15°)	-2.74/3.61	-4.55/5.09	-4.54/4.02	-3.37/2.68	-2.64/2.68	-2.39/3.39	-3.97/3.88	-2.41/1.50	-0.99/0.78	-1.55/1.45	-0.94/0.66	-0.01/0.66	-1.82/2.73	-3.38/3.17	-1.36/1.22	-0.64/0.33	0.25/0.08	-1.09/0.30	-0.87/1.30	-0.10/0.12	-0.93/2.04	-3.01/2.41	-3.08/2.05	-2.46/1.81
θ (22.5°)	-7.13/4.72	-6.68/3.95	-4.75/5.31	-5.46/6.03	-4.90/4.39	-2.42/1.73	-0.99/1.09	2.56/1.60	-0.89/1.44	-2.11/2.23	2.86/3.41	-2.68/3.30	-4.55/3.67	5.32/5.89	4.21/2.34	-0.99/1.38	0.84/0.66	-1.70/0.65	-2.11/3.85	-4.28/3.92	-5.42/5.68	-5.12/5.26	-5.55/2.46	-1.71/1.79
θ (30°)	-3.07/6.05	-4.99/4.90	-3.64/3.42	-4.93/3.56	-1.62/0.99	-0.12/0.47	2.28/2.47	-1.55/1.64	-1.62/3.15	-1.73/2.31	-4.10/4.87	-6.86/4.55	-4.99/5.60	6.74/7.01	-3.88/1.16	0.97/0.26	-0.79/0.84	0.86/1.87	1.07/0.32	0.71/1.74	-2.90/3.30	-7.95/10.64	-8.91/5.79	-5.27/2.92
θ (37.5°)	-1.70/8.10	-5.06/4.24	-9.78/9.31	-7.09/3.26	-1.22/0.77	-1.18/2.35	-1.90/3.25	-5.97/4.17	-1.55/4.48	-4.21/5.88	-4.54/5.69	-6.05/6.70	-4.74/5.06	9.17/3.98	2.70/0.36	0.23/0.69	-2.62/0.29	0.08/0.50	-1.11/1.28	-0.78/1.11	-2.16/9.58	-9.85/14.46	-10.54/7.02	-7.15/6.51
θ (45°)	-12.50/6.95	-3.66/4.85	-9.81/9.97	-3.53/2.30	-2.05/1.61	0.42/1.23	0.41/1.52	3.12/6.20	-5.17/4.63	-4.09/6.12	3.25/5.80	-8.31/6.53	-5.96/7.50	4.73/4.45	-3.73/2.61	-0.45/2.46	-3.97/2.46	-4.01/0.09	0.42/0.00	-0.63/1.72	-5.37/6.76	-12.07/12.70	-9.68/9.34	-8.38/8.94
θ (52.5°)	-8.38/8.98	-10.96/6.91	-7.97/13.36	-6.72/7.10	-4.21/0.68	1.17/1.98	2.76/0.49	-3.53/3.32	-9.34/6.04	-4.66/3.00	-3.49/4.98	-8.61/8.79	-9.36/5.42	-5.62/7.43	-5.93/5.40	-1.22/0.04	0.14/0.50	-0.18/1.12	-1.85/3.22	0.52/3.10	-3.95/3.75	-7.62/10.51	-10.73/12.67	-13.56/10.14
θ (60°)	-10.87/11.58	-12.17/5.96	-6.19/14.68	-13.45/8.11	-5.65/1.85	1.16/1.57	0.75/0.02	-3.30/7.52	-9.03/7.77	-7.01/3.63	-2.26/4.45	-5.71/8.35	-14.07/6.37	-5.74/3.97	-5.80/5.									

E1(XY plane) – $\Theta(90)\Phi(0-360)$
 E2(XZ plane) – $\Theta(0-180)\Phi(0)$ and $\Theta(0-180)\Phi(180)$
 E3(YZ plane) – $\Theta(0-180)\Phi(90)$ and $\Theta(0-180)\Phi(270)$







Mode 5
Total Gain Data

Table with 28 columns: Freq(Hz), Gain, and 26 directional gain entries (Phi(0) to Phi(355)). Rows are grouped by frequency (6.175GPol, 6.475GPol, 6.695GPol, 6.995GPol) and elevation angle (0 to 180 degrees).



Antenna Pattern

Appendix B.5

Theta (°)	-13.71/-12.08	-13.57/-11.76	-14.68/-11.25	-14.75/-12.53	-14.54/-14.06	-13.66/-15.87	-14.89/-14.31	-14.69/-14.82	-15.52/-15.48	-15.19/-14.63	-15.58/-15.68	-14.19/-12.69	-14.71/-15.27	-11.76/-15.02	-11.77/-12.51	-11.95/-11.02	-13.09/-11.82	-13.21/-12.45	-12.11/-13.01	-12.67/-10.93	-11.40/-11.68	-11.97/-11.71	-12.61/-12.90	-12.00/-11.79
Theta (75°)	-15.72/-13.31	-12.58/-13.35	-12.12/-12.03	-10.63/-11.11	-9.49/-9.76	-9.25/-9.43	-7.13/-6.84	-9.51/-11.84	-12.22/-13.22	-14.66/-15.30	-13.93/-11.71	-14.55/-14.49	-15.09/-10.88	-12.25/-10.99	-12.82/-12.76	-13.21/-13.82	-15.01/-15.35	-15.83/-15.76	-15.05/-15.57	-15.66/-15.75	-15.22/-15.04	-14.71/-15.39	-14.30/-14.27	-13.30/-12.82
Theta (22.5°)	-12.83/-12.82	-8.82/8.27	-5.91/6.82	-5.21/-7.10	-7.24/-10.42	-12.04/-10.99	-10.68/-10.55	-10.31/-6.67	-7.57/8.21	-8.78/6.72	-7.54/-11.94	-12.66/8.60	-8.27/6.22	-7.74/9.05	-6.33/4.79	-5.23/7.86	-8.86/9.92	-13.16/10.63	-10.22/9.31	-8.18/10.13	-13.51/10.82	-9.06/9.24	-11.25/10.80	-11.52/10.21
Theta (30°)	-15.14/-14.72	-11.16/-8.64	-6.49/3.85	-3.18/-1.73	-4.44/3.63	-11.20/-11.00	-14.55/-11.61	-12.11/-13.68	-10.65/-15.81	-8.75/8.34	-9.78/-10.55	-10.40/-11.84	-8.56/-8.77	-3.98/3.37	-3.89/4.74	-6.54/-7.36	-11.48/-11.49	-12.61/-11.07	-12.31/-14.14	-7.53/4.28	-4.53/-4.51	-4.55/6.04	-5.62/8.38	-10.29/-11.35
Theta (45°)	-11.35/-11.85	-1.72/-7.16	-5.36/-3.62	-3.45/-2.62	-6.89/-11.64	-10.00/-10.98	-10.61/-11.29	-10.33/-14.01	-12.28/-11.02	-10.33/-14.01	-14.05/-9.98	-10.21/-8.60	-6.09/-4.99	-2.20/4.92	-7.20/5.58	-6.35/-8.39	-9.92/8.51	-8.48/-7.42	-5.45/3.78	-4.74/2.72	-2.99/3.73	-5.14/-4.95	-8.65/8.52	-8.65/8.52
Theta (60°)	-9.98/-7.51	-2.53/-1.22	-0.35/0.33	-5.70/5.79	-4.00/5.61	-1.37/3.06	-6.60/5.66	-10.55/5.36	-4.03/1.74	-4.38/8.33	-10.85/8.42	-13.95/7.76	-5.03/2.89	-2.41/4.46	-4.51/4.85	-3.86/5.42	-8.12/14.60	-8.38/3.89	-8.03/3.43	-2.61/3.52	-5.92/3.16	-5.42/2.29	-4.97/1.67	-3.73/9.48
Theta (75°)	-6.81/4.17	-3.34/2.88	-2.50/0.43	-1.13/-1.41	-1.89/-1.19	-1.96/5.03	-13.78/6.52	-3.78/2.19	-2.53/2.67	-8.00/6.54	-6.56/6.56	-8.64/7.05	-6.98/3.92	-4.08/7.93	-6.25/9.09	-9.70/3.78	-7.85/7.98	-4.68/4.62	-5.63/5.72	-4.29/2.89	-3.59/3.20	-2.07/2.61	-5.41/8.56	-12.22/8.53
Theta (90°)	-4.04/-4.42	-3.98/4.17	-1.91/1.11	-1.33/-0.21	0.31/3.33	-6.20/14.73	-6.86/6.79	-5.13/3.63	-1.79/6.01	-4.12/7.15	-10.32/3.70	-8.01/7.11	-10.28/6.59	-7.14/3.67	-3.74/2.65	-5.11/11.45	-5.38/6.09	-5.20/7.77	-4.74/9.01	-5.79/6.19	-3.66/5.07	-2.24/2.56	-3.15/10.47	-10.53/7.35
Theta (105°)	-2.61/3.47	-0.95/8.67	-0.59/2.01	0.90/1.90	0.60/6.60	-10.73/11.62	-3.09/3.61	-4.92/4.74	-2.04/8.76	-3.05/5.16	-7.50/14.61	-14.14/8.64	-3.11/4.69	-7.18/4.71	-5.81/9.97	-7.50/12.30	-5.09/12.30	-7.41/4.63	-3.89/2.55	-4.61/1.82	-3.63/3.77	-1.10/2.89	-4.55/8.13	-10.20/14.68
Theta (120°)	-4.90/-1.09	-1.03/4.12	-4.86/1.31	1.87/1.43	0.35/3.85	-6.28/7.94	-2.48/4.23	-3.06/4.80	-3.08/5.43	-3.56/5.05	-6.25/5.34	-9.93/9.31	-12.45/7.74	-4.99/8.14	-6.23/3.28	-3.84/5.56	-8.90/4.52	-9.64/1.65	0.16/0.74	0.00/1.34	2.29/2.16	1.78/1.27	-4.97/7.72	-8.97/8.57
Theta (135°)	-3.83/-1.67	-2.37/1.10	-2.85/0.93	-3.83/-1.67	-2.51/5.08	-5.58/8.08	-5.71/4.41	-8.76/2.51	-0.98/2.70	-2.80/2.60	-3.53/1.71	-5.61/11.86	-12.82/14.29	-11.00/2.28	-7.80/7.74	-8.60/6.76	-3.05/2.65	-10.42/8.27	-3.98/2.26	2.19/0.97	-7.22/9.86	-3.98/2.26	-7.22/9.86	-11.27/5.86
Theta (150°)	-4.51/-1.46	-2.00/6.56	-4.84/1.57	1.40/5.87	1.58/0.34	-4.25/5.21	-3.88/6.86	-4.40/4.54	-2.64/1.18	-2.80/2.98	-1.20/1.73	-4.59/5.74	-8.75/5.81	-6.94/13.35	-9.52/9.11	-11.54/9.40	-9.92/9.98	-4.46/1.93	-3.43/9.23	-5.58/3.09	1.13/1.50	1.95/0.04	-3.32/12.07	-9.47/10.74
Theta (165°)	-10.22/4.07	-2.18/-1.80	-3.38/-1.58	-1.29/-0.77	-0.22/0.55	-0.50/2.73	-5.57/5.22	-0.46/0.98	0.65/0.50	-4.40/-1.59	-5.76/2.27	-5.69/5.70	-13.55/8.25	-5.08/6.19	-4.10/6.14	-9.40/8.10	-7.19/8.72	-6.06/5.00	-2.52/3.93	-11.82/12.22	2.11/1.58	1.98/1.02	-3.04/5.24	-8.37/9.97
Theta (180°)	-11.04/4.42	-2.21/0.36	-1.09/1.89	-1.98/1.83	0.73/0.13	2.08/1.67	-4.62/1.25	-1.18/0.09	1.06/4.00	-1.60/4.29	-3.61/1.95	-15.43/3.56	-2.31/1.47	-1.58/3.06	-1.65/5.75	-4.41/8.58	-1.65/5.75	-6.16/2.91	-1.74/3.78	-8.41/0.23	0.62/0.75	0.42/0.44	-1.71/1.96	-9.24/9.87
Theta (195°)	-4.81/5.98	-4.78/0.27	-2.24/3.85	-2.95/1.60	0.29/0.86	0.60/0.56	-4.21/1.14	-1.13/0.00	0.12/2.77	-5.71/5.21	-6.02/4.83	-6.66/1.14	-2.11/1.97	-2.74/5.71	-10.49/8.39	-10.70/11.49	-8.93/8.81	-6.30/5.94	-3.29/2.60	-5.67/5.08	-0.25/1.13	-0.43/1.07	-3.34/6.55	-10.29/11.07
Theta (210°)	-6.90/6.24	-4.11/4.36	-1.49/0.88	1.00/0.77	1.50/0.21	-2.86/2.17	-2.86/0.39	-1.32/0.40	-0.58/4.88	-6.56/4.70	-6.63/2.37	-3.97/2.29	-4.52/7.69	-4.19/3.96	-4.76/8.80	-10.70/8.56	-9.31/9.58	-13.54/6.74	-5.52/4.34	-6.91/5.08	0.37/0.97	-1.17/1.67	-4.44/5.08	-10.98/10.54
Theta (225°)	-4.78/4.43	-3.26/2.28	-1.02/0.19	-0.23/0.06	-0.27/1.80	-2.30/3.06	-4.03/3.08	-2.29/0.00	-4.97/2.36	-2.41/8.69	-2.70/2.70	-6.90/4.62	-4.57/5.67	0.04/0.19	-3.31/6.97	-11.01/10.03	-7.78/6.13	-5.39/1.70	-8.91/8.13	-4.57/2.26	-1.85/2.15	-2.49/1.65	-7.31/6.84	-8.19/11.24
Theta (240°)	-9.57/7.20	-5.96/4.71	-4.93/3.00	-2.81/1.98	-3.46/2.54	-3.04/4.69	-6.18/8.88	-6.17/3.70	-3.46/5.02	-7.44/8.01	0.75/2.12	-6.81/4.88	-5.36/4.26	-2.09/3.00	-4.39/3.83	-4.46/4.46	-2.01/2.73	-7.02/10.39	-4.60/2.28	-2.02/4.29	-1.74/3.28	-5.51/3.50	-4.09/9.50	-11.44/7.65
Theta (255°)	-9.86/10.42	-9.75/7.96	-7.56/9.39	-9.28/8.55	-6.33/6.07	-7.14/14.45	-11.44/8.48	-5.76/3.05	-2.45/6.97	-3.68/2.59	-7.02/9.11	-3.90/8.65	-0.75/2.32	-3.60/6.62	-6.70/6.25	-4.23/2.86	-1.88/5.04	-5.30/1.73	0.17/0.09	-0.82/1.16	-2.17/5.11	-6.16/4.68	-6.29/8.67	-13.31/11.96
Theta (270°)	-4.85/4.33	-3.18/2.87	-3.28/4.27	-4.47/1.58	-5.92/7.98	-6.91/5.50	-4.97/7.99	-4.16/4.31	-5.15/4.31	-4.50/7.06	-10.24/6.87	-3.82/3.27	-6.23/7.54	-5.21/1.07	0.43/1.04	-1.70/2.89	-3.02/3.29	-1.63/1.93	-2.77/3.26	-2.45/2.29	-2.76/3.62	-4.64/4.82	-5.71/5.71	-7.51/6.20
Theta (285°)	-5.20/5.35	-5.69/7.17	-7.81/9.29	-10.39/10.17	-8.23/6.15	-5.41/3.57	-2.89/1.27	-1.47/2.56	-0.28/0.75	-3.58/9.55	-15.73/10.64	-7.42/10.21	-9.50/3.87	-2.14/2.04	-3.57/3.95	-3.88/1.56	-1.88/2.94	-3.16/3.20	-2.84/2.31	-1.94/1.54	-1.78/2.14	-2.54/3.67	-4.67/5.97	-6.11/6.16
Theta (300°)	-4.33/4.44	-3.82/3.82	-3.60/3.01	-2.79/2.40	-3.15/2.96	-3.35/2.79	-2.41/0.76	-1.44/3.50	-4.65/9.33	-12.51/12.38	-7.11/3.49	-7.18/2.28	-2.99/4.78	-3.85/3.26	-5.06/6.14	-1.22/5.42	-5.09/5.18	-4.85/4.87	-4.75/4.66	-4.49/4.00	-3.69/3.19	-3.61/3.84	-4.08/4.18	
Theta (315°)	6.475GPol	TotalAnt.2																						
Theta (330°)	Phi(0°)/Phi(75°)	Phi(15°)/Phi(22.5°)	Phi(30°)/Phi(37.5°)	Phi(45°)/Phi(52.5°)	Phi(60°)/Phi(67.5°)	Phi(75°)/Phi(82.5°)	Phi(90°)/Phi(97.5°)	Phi(105°)/Phi(112.5°)	Phi(120°)/Phi(127.5°)	Phi(135°)/Phi(142.5°)	Phi(150°)/Phi(157.5°)	Phi(165°)/Phi(172.5°)	Phi(180°)/Phi(187.5°)	Phi(195°)/Phi(202.5°)	Phi(210°)/Phi(217.5°)	Phi(225°)/Phi(232.5°)	Phi(240°)/Phi(247.5°)	Phi(255°)/Phi(262.5°)	Phi(270°)/Phi(277.5°)	Phi(285°)/Phi(292.5°)	Phi(300°)/Phi(307.5°)	Phi(315°)/Phi(322.5°)	Phi(330°)/Phi(337.5°)	Phi(345°)/Phi(352.5°)
Theta (0°)	-7.69/8.93	-8.30/9.02	-8.32/8.54	-8.34/9.27	-7.96/8.40	-10.66/8.65	-9.24/12.60	-10.05/8.18	-7.77/9.30	-10.29/9.24	-9.28/10.31	-11.00/8.29	-8.19/7.22	-7.86/7.12	-8.13/7.46	-7.46/8.99	-7.41/8.32	-7.81/9.10	-8.72/9.38	-8.46/9.12	-8.59/8.82	-9.16/8.58	-9.21/8.87	-9.09/8.46
Theta (75°)	-9.05/8.31	-8.88/7.46	-9.55/8.31	-9.26/8.27	-7.94/8.07	-7.97/8.43	-8.48/7.43	-8.72/8.70	-7.83/7.18	-8.95/8.58	-8.47/10.31	-8.80/8.65	-10.08/9.24	-11.33/11.18	-12.68/11.18	-11.15/12.46	-14.86/13.75	-14.08/14.35	-13.03/13.77	-13.93/15.00	-13.94/13.01	-12.53/11.67	-11.99/10.86	-10.16/9.51
Theta (150°)	-14.89/15.11	-15.44/10.55	-10.82/10.78	-10.19/10.02	8.15/11.61	-10.42/11.01	-12.42/10.72	-10.38/9.32	8.70/7.68	-7.68/8.69	-9.01/7.94	9.64/12.36	-11.88/11.82	-9.84/12.79	-12.78/14.88	-15.59/11.80	-11.98/12.90	-12.94/10.05	-11.17/9.89	-12.93/10.95	-10.89/12.45	-13.89/13.26	-13.41/13.04	-13.58/14.47
Theta (225°)	-14.78/14.30	-11.66/9.32	-6.82/7.89	-9.16/9.99	-10.50/8.85	-10.37/15.26	-13.15/11.99	-9.95/11.81	-7.72/5.21	-6.52/7.12	-7.69/8.91	-12.21/11.81	-10.15/11.42	-13.50/10.42	-6.57/4.65	-5.84/5.70	-7.59/8.70	-11.84/11.25	-10.94/9.44	-10.22/12.76	-5.76/4.74	-5.52/7.46	-10.76/11.78	-11.70/10.61
Theta (300°)	-2.82/5.97	-6.30/8.01	-8.64/6.83	-7.31/6.79	-9.77/9.79	-10.31/14.31	-13.93/12.09	-8.93/15.85	-8.28/10.37	-11.48/8.79	-10.54/12.37	-13.79/10.80	-11.73/9.51	-7.62/6.53	-2.62/4.07	-7.73/14.48	-14.55/15.25	-15.42/13.65	-10.08/7.80	-5.20/3.79	-4.05/6.69	-4.93/4.58	-6.63/8.81	-6.82/7.56
Theta (375°)	-7.55/6.31	-4.17/3.82	-6.97/8.82	-11.18/6.47	-8.84/6.29	-8.81/9.57	-11.18/9.30	-9.44/12.31	-13.34/10.80	-14.84/12.62	-11.96/14.00	-10.66/12.77	-10.20/6.97	-4.37/4.78	-7.05/7.18	-9.77/15.00	-14.68/13.79	-14.74/12.36	-7.23/8.34	-9.78/4.86	-3.94/4.44	-3.55/4.26	-6.35/7.59	-10.90/9.31
Theta (45°)	-10.44/6.25	-5.73/5.22	-4.64/7.01	-12.18/6.49	-6.42/7.87	-8.36/4.98	-5.70/8.86	-8.45/15.12	-10.22/4.47	-7.74/7.19	-12.58/6.67	-7.85/8.61	-6.78/6.00	-3.90/5.57	-4.39/4.41	-9.12/7.18	-9.83/10.98	-9.46/7.08	-7.16/8.51	-4.58/7.34	-7.41/7.21	-3.75/5.15	-4.50/7.83	-11.21/10.84
Theta (60°)	-9.26/8.21	-7.47/5.75	-4.04/0.66	-5.28/5.51	-7.81/10.75	-6.30/3.04	-6.95/5.58	-15.92/12.94	-8.03/4.56	-5.40/6.28	-6.01/7.78	-6.62/9.68	-7.70/4.08	-5.38/9.10	-9.39/8.27	-4.64/6.52								

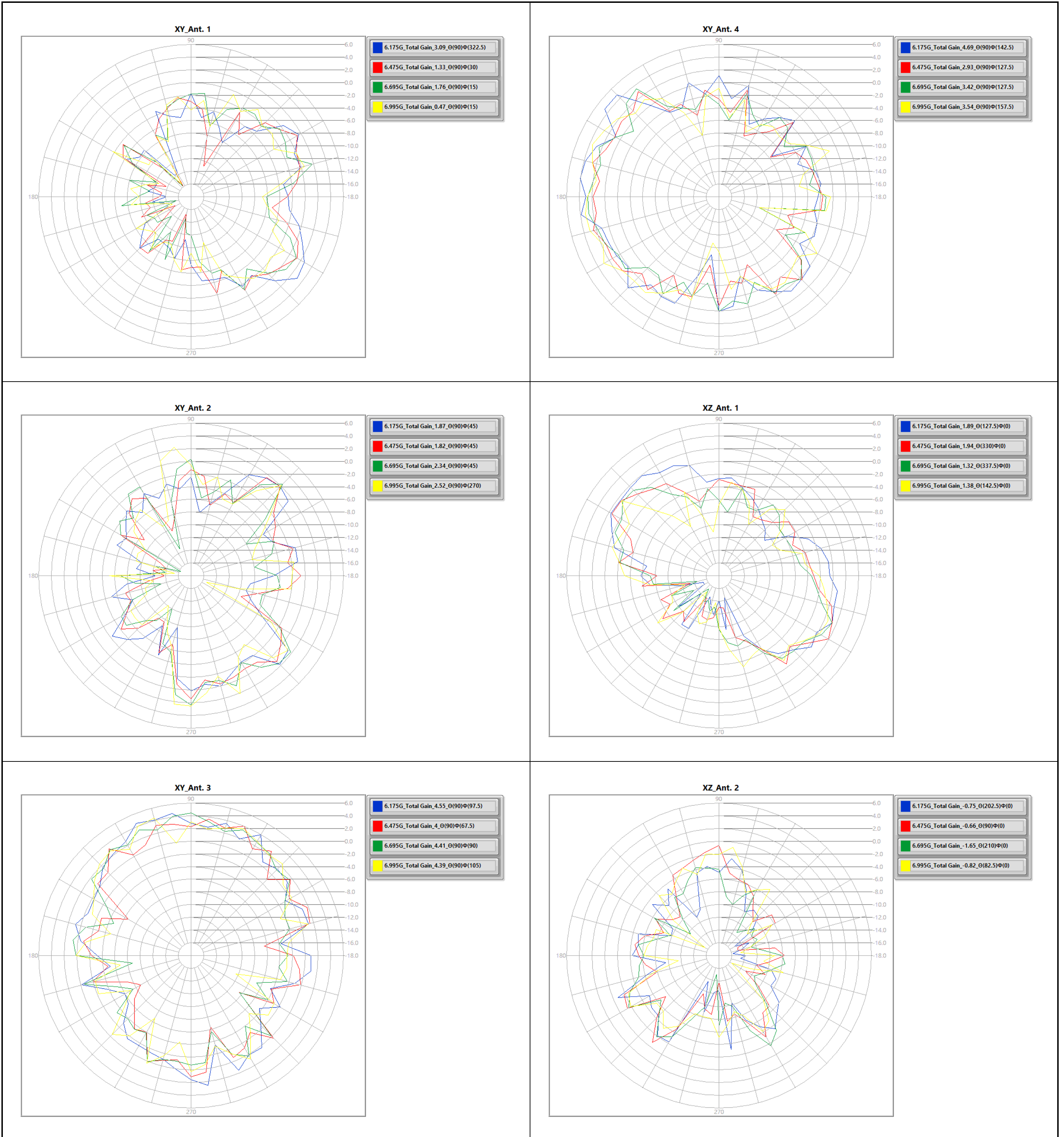


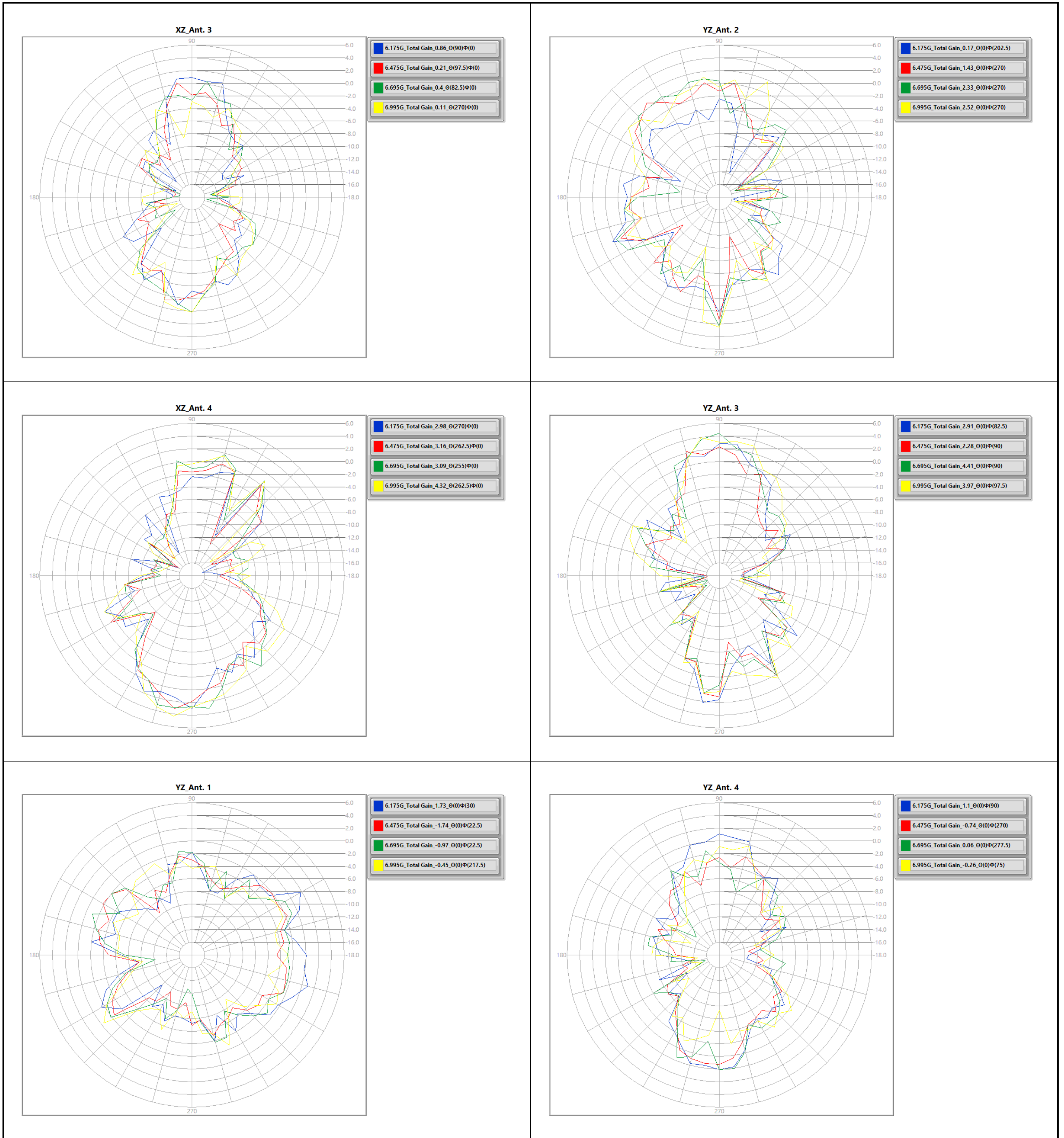
Antenna Pattern

Appendix B.5

Theta (°)	2.39/1.80	2.31/4.54	2.24/7.48	1.09/2.27	3.81/5.59	0.16/2.40	1.10/1.66	0.65/2.94	2.60/2.22	4.67/4.69	0.69/2.87	3.80/4.04	2.98/3.86	1.11/0.80	0.63/0.66	2.24/0.46	0.17/0.16	5.05/8.81	0.04/0.64	5.11/2.07	0.76/0.70	0.43/0.90	3.35/1.72	2.00/2.87
Phi (°)	4.37/3.72	2.18/4.33	3.08/5.21	2.00/3.87	3.08/5.78	0.14/3.30	0.11/0.60	0.33/0.24	1.62/1.29	0.82/3.81	2.06/3.05	3.13/3.69	1.43/3.03	2.75/0.54	1.53/1.45	0.11/1.35	1.96/1.81	1.42/7.92	0.48/0.03	7.36/7.61	3.61/0.29	3.03/1.34	3.29/3.15	7.46/3.98
Theta (°)	4.93/2.67	6.22/10.61	10.61/8.64	9.84/9.50	9.97/6.40	3.74/4.83	0.06/2.07	3.52/0.92	0.16/1.26	2.17/2.21	0.09/2.66	2.21/2.59	0.93/2.97	3.27/2.69	2.34/1.94	0.76/0.89	0.04/1.51	2.44/10.96	0.27/0.19	6.38/5.86	8.03/2.19	1.07/4.82	11.17/4.88	9.01/3.48
Theta (°)	4.55/5.35	12.62/9.77	0.91/5.35	7.11/5.73	8.28/7.22	3.17/5.33	3.03/1.11	4.74/4.92	2.30/1.76	1.86/3.79	0.83/0.66	0.56/1.37	1.73/2.82	3.15/0.11	0.97/2.24	0.12/1.35	1.73/0.95	2.46/15.59	2.49/1.03	4.63/4.00	4.29/0.84	1.25/4.02	3.10/9.36	4.12/5.62
Theta (°)	13.98/10.29	12.27/9.43	6.02/10.74	5.64/6.80	3.74/7.46	4.59/5.79	3.33/6.29	3.71/3.76	5.63/2.82	3.09/0.36	0.93/1.21	1.01/1.15	0.33/0.12	1.04/0.87	0.19/1.39	0.17/0.49	3.06/1.22	2.86/8.61	3.90/1.20	13.74/9.82	5.97/2.98	0.92/4.22	10.65/7.58	3.23/8.31
Theta (°)	5.92/5.57	12.49/12.88	5.90/7.35	12.14/14.66	7.32/7.59	7.30/7.48	7.64/4.58	4.07/4.71	3.46/2.40	4.27/12.16	5.74/2.85	2.11/3.23	3.74/2.65	1.21/1.10	2.86/5.29	3.11/3.14	0.23/3.29	6.00/12.00	4.92/3.20	10.25/5.54	5.87/5.86	15.41/6.89	5.91/8.68	8.85/6.04
Theta (°)	9.03/14.60	12.90/14.34	12.96/10.59	7.45/14.20	14.27/15.19	12.78/7.89	8.84/7.02	6.80/7.94	6.56/5.98	3.73/4.15	6.94/6.13	4.59/8.37	8.34/6.93	4.67/7.94	7.56/8.33	11.43/5.16	5.43/4.68	8.10/6.30	9.49/6.27	7.56/9.94	7.82/9.36	7.99/7.47	7.72/9.31	13.35/9.56
Theta (°)	8.56/8.10	12.51/14.97	9.71/8.65	9.71/11.02	11.12/7.99	8.13/11.04	8.73/8.82	7.81/10.06	11.93/8.81	5.57/7.77	4.92/4.48	6.39/5.11	4.78/6.30	6.33/7.23	4.13/3.36	5.06/7.55	5.27/7.63	13.11/5.84	7.83/13.84	15.53/12.90	12.11/6.94	8.72/10.64	13.43/15.23	14.64/9.85
Theta (°)	15.57/11.35	7.89/13.27	10.54/8.86	8.34/10.68	14.72/13.06	11.47/5.42	6.40/8.88	7.24/13.66	8.77/10.04	9.72/9.08	9.05/6.54	5.91/4.72	5.27/5.85	6.68/4.85	3.93/2.05	3.66/5.25	5.02/11.60	7.98/9.40	12.18/10.76	9.13/7.41	15.46/11.34	9.13/10.79	14.84/12.41	13.99/14.43
Theta (°)	12.19/13.52	15.75/14.51	13.34/14.95	13.80/13.54	14.46/15.07	13.69/11.02	9.48/6.37	7.98/9.68	5.17/5.64	10.10/10.49	9.83/9.06	5.25/3.52	3.03/3.45	4.64/5.53	6.45/4.45	4.22/2.42	3.52/7.82	11.35/13.47	7.69/7.98	11.85/13.47	15.87/15.15	15.41/16.31	14.93/13.61	10.84/10.48
Theta (°)	8.07/10.04	13.33/15.98	12.92/11.82	11.38/10.07	8.24/8.55	9.16/9.06	7.20/5.16	4.06/4.34	4.81/7.29	10.50/9.26	7.36/6.93	7.81/9.71	8.70/8.58	6.31/6.14	7.19/7.78	7.72/5.99	6.75/9.83	13.61/14.33	13.66/14.97	15.78/13.33	13.23/12.22	10.09/10.10	8.15/7.23	7.37/8.55
Theta (°)	12.70/12.58	11.90/10.44	11.28/11.82	12.62/12.51	11.43/9.08	8.56/8.23	8.05/7.60	6.84/6.77	7.00/6.84	6.64/6.47	6.04/4.82	4.34/5.76	7.43/8.96	9.68/10.29	10.68/11.27	9.64/10.49	14.73/14.38	13.65/13.75	12.43/11.08	9.99/9.47	12.79/14.21	11.80/10.73	11.25/13.01	12.97/13.40
Theta (°)	10.57/9.89	9.85/10.41	10.69/10.05	9.18/8.94	8.48/7.24	7.95/8.47	8.73/9.18	10.18/11.42	10.57/10.76	9.93/9.74	9.48/10.29	10.20/10.30	8.88/9.48	11.47/11.22	11.91/11.12	10.60/11.64	12.53/10.37	10.56/11.94	10.78/9.65	10.21/13.85	14.35/11.49	10.89/9.04	9.33/10.55	10.11/10.41
Theta (°)	6.475G/Pol.	TotalAnt. 4	Phi(0°)/Phi(37.5°)	Phi(45°)/Phi(52.5°)	Phi(60°)/Phi(67.5°)	Phi(75°)/Phi(82.5°)	Phi(90°)/Phi(97.5°)	Phi(105°)/Phi(112.5°)	Phi(120°)/Phi(127.5°)	Phi(135°)/Phi(142.5°)	Phi(150°)/Phi(157.5°)	Phi(165°)/Phi(172.5°)	Phi(180°)/Phi(187.5°)	Phi(195°)/Phi(202.5°)	Phi(210°)/Phi(217.5°)	Phi(225°)/Phi(232.5°)	Phi(240°)/Phi(247.5°)	Phi(255°)/Phi(262.5°)	Phi(270°)/Phi(277.5°)	Phi(285°)/Phi(292.5°)	Phi(300°)/Phi(307.5°)	Phi(315°)/Phi(322.5°)	Phi(330°)/Phi(337.5°)	Phi(345°)/Phi(352.5°)
Theta (°)	13.68/12.27	12.10/12.18	12.39/12.86	12.18/12.36	12.44/12.48	12.36/12.40	12.02/11.59	10.77/10.95	10.14/10.78	11.57/11.12	10.81/12.71	10.98/10.97	10.64/11.73	10.84/11.11	11.25/10.29	10.70/12.45	10.94/9.89	9.73/11.03	11.67/9.65	8.39/9.59	10.46/9.19	10.53/10.72	13.26/12.37	14.19/12.64
Theta (°)	11.24/12.41	11.07/10.97	11.87/9.25	9.29/11.07	11.39/10.92	11.88/12.46	13.22/12.18	11.60/11.51	12.35/12.64	12.44/12.79	11.82/11.16	11.17/11.13	12.23/11.01	11.53/11.83	12.31/11.96	13.76/12.98	11.23/11.69	11.56/12.13	11.01/10.22	10.34/11.86	11.75/8.22	10.10/11.75	8.64/10.56	10.46/11.93
Theta (°)	11.75/12.85	13.10/12.38	11.09/11.03	10.92/10.38	11.67/12.13	13.23/11.34	10.25/10.23	9.83/10.62	10.35/9.09	8.64/7.23	7.73/8.56	9.05/10.09	9.80/10.96	8.33/9.41	7.75/10.16	6.87/7.65	9.35/8.14	8.72/9.88	12.23/12.34	10.89/9.74	8.26/10.04	11.98/11.26	9.81/8.15	9.21/10.66
Theta (°)	11.19/10.55	9.65/9.36	9.97/11.51	8.53/6.36	7.17/9.21	9.73/10.13	10.80/8.76	7.69/6.66	8.87/7.27	6.14/7.00	7.62/7.95	7.23/6.28	6.30/5.79	5.83/5.78	5.75/6.46	6.70/7.21	5.93/5.73	6.99/8.44	8.86/8.99	8.57/8.57	8.03/9.44	9.32/9.52	10.08/10.85	12.52/11.50
Theta (°)	14.61/15.06	15.07/16.11	16.02/13.27	13.64/13.90	13.67/11.79	12.99/8.57	6.95/7.79	6.80/5.84	7.03/6.26	6.63/6.65	4.85/4.04	4.99/5.83	5.53/5.56	5.09/4.75	5.13/5.69	5.47/4.80	5.76/7.29	8.23/7.85	6.57/6.69	8.11/8.98	9.01/9.09	7.99/10.52	12.42/11.07	15.95/12.57
Theta (°)	4.25/5.53	7.14/8.43	8.38/10.43	9.95/9.35	8.22/7.94	9.95/9.35	8.83/5.70	6.84/6.77	7.00/6.84	6.64/6.47	6.04/4.82	4.34/5.76	7.43/8.96	9.68/10.29	10.68/11.27	9.64/10.49	14.73/14.38	13.65/13.75	12.43/11.08	9.99/9.47	12.79/14.21	11.80/10.73	11.25/13.01	12.97/13.40
Theta (°)	3.59/1.47	0.48/0.18	0.77/0.95	0.96/3.27	5.63/6.03	6.32/6.39	8.74/4.90	5.22/4.75	4.24/3.21	4.03/2.81	3.28/4.04	4.12/4.03	2.97/4.31	2.99/4.75	4.06/4.39	3.56/3.96	5.03/3.86	6.09/4.83	5.41/4.17	4.74/4.69	5.68/4.92	8.32/3.49	2.04/3.05	2.63/1.58
Theta (°)	0.00/0.16	2.20/2.59	1.77/2.96	2.67/3.60	1.86/3.99	1.77/2.32	7.20/3.21	4.80/5.20	5.68/2.95	4.82/2.76	2.57/6.25	1.47/1.96	1.47/1.96	2.84/3.27	3.88/3.27	4.92/5.40	9.29/3.93	6.97/6.82	9.46/9.67	9.44/5.68	9.00/3.36	4.30/3.36	4.30/3.36	4.07/2.30
Theta (°)	12.20/13.61	8.36/3.80	14.32/4.98	10.08/12.02	8.20/8.54	5.50/7.32	3.83/5.23	6.18/4.55	8.09/2.03	3.92/2.23	4.33/2.56	1.80/1.30	1.59/1.77	4.28/3.93	5.25/4.68	4.06/5.68	4.29/5.72	6.08/4.42	6.54/7.46	6.89/9.96	6.40/6.66	8.63/9.79	11.57/9.97	13.67/11.92
Theta (°)	0.28/1.73	3.34/3.54	1.32/3.90	4.83/5.58	3.37/6.64	3.80/6.21	3.12/5.88	4.33/5.10	3.91/2.46	0.79/3.85	0.90/0.97	2.27/3.51	2.94/3.30	2.86/3.84	2.74/4.02	5.07/2.56	8.08/6.85	6.00/8.22	6.16/6.65	5.99/9.20	6.28/9.76	10.91/7.98	4.17/4.94	4.11/0.80
Theta (°)	0.24/1.66	1.43/1.52	1.93/1.59	2.83/6.85	3.29/5.56	3.23/2.98	1.97/3.85	3.25/3.67	1.66/1.87	0.13/0.21	0.38/0.40	1.76/0.80	0.57/0.62	1.84/3.36	3.03/1.75	1.55/2.35	2.66/2.61	9.01/3.91	3.80/2.40	5.95/12.30	7.60/6.67	4.47/3.95	2.61/3.69	6.43/2.04
Theta (°)	1.29/3.04	1.49/3.03	2.57/2.98	0.71/4.93	5.22/8.12	1.28/3.75	4.10/2.36	2.01/7.02	0.91/1.00	1.04/0.23	0.98/0.04	2.99/2.03	0.15/1.89	1.86/1.31	0.17/0.26	2.01/3.25	1.77/1.56	3.29/6.08	1.62/1.37	1.74/10.38	3.57/2.81	10.20/7.40	8.42/4.60	8.43/1.26
Theta (°)	1.69/2.33	2.66/3.12	4.04/7.75	1.35/5.06	6.54/7.66	0.54/4.60	2.62/1.03	4.67/2.27	2.46/2.93	1.13/1.41	0.94/1.33	2.60/0.98	1.81/1.47	2.45/1.28	1.43/1.12	10.85/0.48	3.80/1.54	1.70/7.15	0.74/4.57	3.96/6.44	0.20/2.09	0.53/1.69	7.56/5.22	6.87/1.83
Theta (°)	1.35/9.62	4.84/3.26	4.54/10.41	2.33/3.74	9.67/6.19	1.62/8.34	3.31/3.04	3.21/1.78	3.36/1.17	1.24/0.20	1.80/0.05	3.13/1.20	3.16/3.79	1.31/0.94	1.91/0.08	0.85/0.13	3.45/2.07	3.41/1.78	0.77/7.78	3.74/8.16	4.73/5.33	1.23/2.38	3.70/6.67	10.89/13.63
Theta (°)	7.76/7.55	7.75/9.00	9.92/12.76	5.83/12.57	12.55/8.26	3.61/7.24	6.73/2.85	5.42/2.05	1.03/0.57	0.38/2.10	0.80/1.19	2.06/1.09	1.37/2.22	2.69/2.21	2.07/2.47	0.68/0.24	2.21/0.71	3.39/7.31	1.11/2.56	4.68/1.89	10.91/3.48	1.50/7.70	12.56/4.13	14.67/3.86
Theta (°)	7.53/7.27	8.56/9.10	3.63/6.14	8.31/9.26	12.24/7.37	5.53/8.16	3.80/3.18	6.54/6.77	3.17/0.12	1.11/2.00	0.76/1.71	1.57/2.28	0.10/6.63	2.77/1.40	0.88/0.59	3.39/0.68	4.54/2.18	3.86/12.98	1.74/1.04	5.56/4.01	12.81/0.70	0.43/4.52	8.67/6.58	7.88/9.88
Theta (°)	9.69/12.80	15.04/12.91	6.57/8.30	10.63/6.59	7.62/5.89	5.18/9.58	5.43/3.62	5.33/4.50	8.02/3.01	1.87/1.80	0.94/0.50	0.08/2.02	0.85/1.29	3.24/0.83	2.19/1.13	0.38/1.32	6.27/0.08	3.32/13.72	4.64/3.93	11.79/13.71	6.68/2.95	2.69/6.56	2.66/6.85	4.70/7.35
Theta (°)	11.90/8.53	10.37/9.63	6.95/6.09	10.27/13.94	12.29/8.78	8.67/6.05																		

E1(XY plane) – $\Theta(90)\Phi(0-360)$
 E2(XZ plane) – $\Theta(0-180)\Phi(0)$ and $\Theta(0-180)\Phi(180)$
 E3(YZ plane) – $\Theta(0-180)\Phi(90)$ and $\Theta(0-180)\Phi(270)$







Mode 6
Total Gain Data

Table with columns for Frequency (MHz), Total Ant. 1, and various gain values (Gain, Phi(0), Phi(7.5), Phi(15), Phi(22.5), Phi(30), Phi(37.5), Phi(45), Phi(52.5), Phi(60), Phi(67.5), Phi(75), Phi(82.5), Phi(90), Phi(97.5), Phi(105), Phi(112.5), Phi(120), Phi(127.5), Phi(135), Phi(142.5), Phi(150), Phi(157.5), Phi(165), Phi(172.5), Phi(180), Phi(187.5), Phi(195), Phi(202.5), Phi(210), Phi(217.5), Phi(225), Phi(232.5), Phi(240), Phi(247.5), Phi(255), Phi(262.5), Phi(270), Phi(277.5), Phi(285), Phi(292.5), Phi(300), Phi(307.5), Phi(315), Phi(322.5), Phi(330), Phi(337.5), Phi(345), Phi(352.5)).



Antenna Pattern

Appendix B.6

θ (°)	-5.69/4.36	-8.96/10.06	-5.87/2.96	-4.43/2.21	-0.28/0.62	2.17/2.85	3.34/1.18	0.86/0.34	-5.06/6.84	-6.45/10.54	-8.67/8.73	7.06/11.45	-15.24/10.88	-11.78/5.65	2.96/10.51	-9.76/4.60	-4.15/1.12	-1.47/0.55	-4.12/4.80	-3.18/8.58	2.35/3.67	-3.94/4.57	-6.03/6.47	-3.91/7.76
θ (67.5°)	-5.11/8.94	-7.38/11.41	-4.04/6.09	-5.48/3.64	-3.67/1.54	1.13/2.72	3.47/1.28	1.97/0.61	-2.10/5.69	-7.72/5.79	-7.12/8.47	-5.98/10.33	-15.32/10.72	-15.64/7.63	-5.92/8.24	-4.56/4.14	-4.46/0.94	0.32/1.73	-1.02/1.87	-10.76/8.73	-1.10/0.81	-3.50/3.22	-6.66/2.75	-5.55/8.29
θ (75°)	-5.99/9.61	-9.18/10.8	-6.93/11.80	-5.48/8.03	-3.27/0.17	3.55/3.66	4.17/2.06	1.56/2.12	-2.05/5.65	-5.43/6.04	-5.54/7.86	-6.11/7.87	-12.02/12.54	-11.33/4.95	-9.60/8.01	-9.71/4.28	-1.02/7.21	-2.48/0.78	-6.62/4.18	-14.43/2.58	-5.21/0.08	-2.61/2.61	-5.52/3.70	-6.56/10.62
θ (82.5°)	-7.99/12.82	-9.92/7.71	-5.37/8.88	-6.97/8.90	-0.90/2.11	2.44/4.90	3.47/3.94	0.55/3.03	-6.12/7.61	-5.64/3.66	-8.69/4.19	4.65/13.26	-4.95/13.18	-15.99/9.70	-8.94/11.37	-13.38/11.13	-3.93/0.65	3.68/6.61	-4.84/5.05	-10.42/9.95	-3.87/1.58	-2.90/2.15	-5.48/3.51	8.67/9.34
θ (90°)	-12.06/15.11	-6.94/8.94	-7.07/6.67	-7.14/6.23	1.60/1.89	3.82/4.51	4.04/4.06	2.77/3.48	-8.40/6.82	-3.65/5.26	-6.54/6.80	-7.04/13.33	-16.03/12.02	-12.64/9.25	-4.84/11.37	-13.38/11.13	-4.33/11.76	5.41/1.57	-3.31/14.61	-3.44/9.53	-2.37/0.39	-2.14/1.96	-8.29/4.55	-8.08/9.33
θ (97.5°)	-13.67/11.51	-8.42/6.56	-11.73/4.95	-5.73/5.85	1.46/2.53	2.79/4.45	4.58/2.77	-3.00/4.27	-10.17/9.13	-4.64/4.38	-6.76/6.06	-5.55/12.91	-12.41/12.47	-11.61/10.79	-11.20/15.27	-6.32/10.14	-5.68/4.94	-7.13/3.30	-4.46/7.65	-0.50/2.43	-2.75/2.12	-4.78/7.76	-6.70/8.94	
θ (105°)	-11.22/9.32	-10.80/10.96	9.04/7.21	-6.55/4.35	0.16/1.36	3.77/4.02	3.70/2.82	-0.80/1.08	-4.98/6.82	-4.14/3.24	-9.48/5.43	-13.48/7.41	-9.22/13.82	-11.00/8.55	-12.27/15.60	-15.78/8.15	-8.57/4.61	-8.17/2.11	-3.53/6.74	0.08/1.37	-4.82/4.56	-3.33/1.69	-5.59/9.12	-10.36/10.56
θ (112.5°)	-9.27/10.11	-8.97/13.48	-11.69/9.27	-4.90/3.63	-0.33/1.55	2.45/4.24	3.59/1.76	-3.19/2.08	-4.79/9.51	-8.50/2.85	-9.26/6.27	-11.51/10.00	-7.52/6.70	-9.19/9.64	-14.81/11.06	-11.32/6.62	-10.89/11.39	-7.92/1.58	-3.69/8.06	0.13/0.40	-4.68/2.42	-3.17/2.80	-3.56/7.10	-9.55/9.66
θ (120°)	-9.36/5.56	-6.48/8.89	-7.62/6.25	-3.22/2.89	-0.91/2.14	1.47/4.26	1.30/1.00	1.36/1.06	-1.66/5.06	-8.10/5.17	-6.70/7.26	-12.80/13.58	-7.19/9.99	-6.64/11.32	-12.24/12.34	-8.83/7.01	-11.14/12.48	-7.49/7.24	-3.86/8.29	0.27/0.19	-2.46/5.45	-6.70/6.04	-2.28/6.62	-15.21/3.34
θ (127.5°)	-4.42/7.88	-7.58/13.77	-6.55/5.36	-3.58/2.41	-1.00/1.75	1.64/2.93	1.53/3.97	1.24/0.28	-2.76/7.07	-5.68/7.38	-10.09/8.13	-9.88/8.30	-8.03/6.66	-10.97/8.03	-11.24/13.68	-10.05/11.64	-12.76/8.82	-6.03/5.72	-5.72/4.25	0.18/1.28	-2.85/5.01	-5.87/4.16	-3.66/5.18	-7.19/6.45
θ (135°)	-5.78/3.10	-4.28/10.02	-8.39/5.02	-1.52/2.21	0.55/2.59	3.43/3.60	1.98/2.97	0.31/2.80	-1.35/2.75	-7.28/10.63	-15.16/9.47	-7.44/7.63	-8.44/14.21	-10.04/10.57	-10.08/14.07	-9.51/17.03	-7.82/7.87	9.02/6.04	-0.49/0.20	-0.86/0.79	-1.62/1.07	-5.12/3.81	-6.77/4.03	-7.17/9.25
θ (142.5°)	-9.59/5.04	-5.89/4.88	-2.61/1.56	0.50/4.00	1.53/2.01	2.84/2.85	0.22/1.74	-0.67/2.86	-5.37/10.55	-3.43/14.75	-8.72/14.70	-7.67/9.43	-14.37/7.32	-8.14/12.32	-7.43/5.30	-3.96/3.20	-2.11/10.09	2.63/0.24	-2.17/1.00	0.32/1.41	-3.17/1.58	-1.56/4.57	-7.41/8.48	
θ (150°)	-3.67/5.56	-1.36/0.26	-0.28/0.35	0.07/0.61	1.18/2.15	2.13/2.08	0.41/1.47	-0.71/1.81	-1.70/1.51	-5.98/4.24	-5.34/10.26	-7.65/5.15	-7.64/6.96	-7.52/8.96	-7.25/7.14	-12.99/9.61	-6.52/6.35	-2.97/0.60	-0.19/1.81	-1.45/1.07	-0.43/2.70	-3.68/3.20	-2.02/2.14	-8.30/4.42
θ (157.5°)	-3.52/3.61	-4.33/2.67	-1.33/0.63	-1.06/0.73	-1.77/2.55	0.54/2.28	2.08/1.18	-2.50/1.65	-1.33/4.01	-2.28/1.66	9.26/9.89	-8.74/7.87	-10.87/10.34	-9.44/13.30	-8.27/8.69	-7.94/1.14	-6.09/2.32	-0.21/0.09	0.32/0.05	-0.64/1.85	-1.94/3.71	-3.09/2.53	-1.09/8.03	-3.02/3.95
θ (165°)	-0.31/0.61	-0.35/0.03	0.03/0.09	0.06/0.08	0.00/0.95	-0.63/2.96	1.54/0.48	-0.35/1.95	-2.95/1.64	-1.85/10.28	-4.99/1.33	-2.88/5.08	-7.31/6.92	-4.37/1.75	-1.76/2.30	-2.20/1.48	-1.05/0.43	-0.07/0.18	0.08/0.16	-1.69/1.06	-1.20/3.41	-2.06/2.61	-2.06/2.01	-1.26/0.84
θ (172.5°)	-1.16/1.48	-1.18/0.71	-0.23/0.20	0.64/1.12	1.57/1.29	-1.19/0.91	2.22/2.58	0.34/0.93	-2.66/1.21	-6.28/8.22	-3.16/4.02	-9.14/4.71	-3.52/5.45	-7.63/6.61	4.01/3.34	-3.28/3.30	-3.05/3.36	-2.72/2.77	-3.76/4.02	-4.56/4.13	-4.94/3.57	-2.81/1.19	-1.39/1.02	-0.98/0.59
θ (180°)	-0.75/0.13	0.50/0.03	0.18/0.21	-0.25/0.65	0.13/0.59	0.63/1.31	-2.09/1.11	-1.52/2.42	0.48/0.67	-6.13/4.69	6.41/6.01	-1.13/1.60	-2.52/1.58	2.09/2.46	-3.42/1.74	-1.67/1.63	-2.30/2.52	-2.27/1.88	-1.51/1.61	-0.82/0.48	-0.35/0.48	-0.27/0.24	-0.90/0.46	-0.61/0.15
Freq(Hz)	6475GPol.	TotalAnt.3																						
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
θ (0°)	-1.24/1.75	-1.27/1.36	-1.24/1.49	0.95/0.56	-1.16/1.32	-0.56/0.13	0.16/0.63	0.88/0.06	-0.46/1.12	0.32/0.18	0.67/0.81	-1.34/0.75	-1.68/0.59	1.14/0.64	0.83/0.92	-0.71/0.15	0.39/0.23	0.01/0.29	0.16/0.17	0.09/0.15	0.07/0.05	-0.35/0.87	-0.92/1.25	-1.03/1.51
θ (7.5°)	-2.04/2.34	-2.13/2.56	-2.41/1.95	-1.60/1.39	-2.24/0.90	-1.11/0.02	-0.77/0.84	-0.28/1.53	-0.05/2.18	-1.15/0.37	0.64/0.18	-0.97/2.13	-1.86/2.85	-2.48/2.80	2.59/2.49	-2.10/1.54	-1.17/1.36	-0.64/0.55	-0.77/0.27	-1.10/1.41	-1.31/1.44	-1.33/1.22		
θ (15°)	-2.58/4.66	-6.29/6.11	-4.89/5.38	-3.36/3.41	-3.77/3.91	-2.44/2.91	-2.51/1.84	-1.64/1.69	-1.19/0.78	-2.13/0.10	-0.92/1.54	-2.53/3.10	-4.78/2.49	-2.50/3.23	-3.94/2.79	-1.98/2.22	-2.37/3.33	2.96/2.10	-2.82/2.35	-1.75/1.69	3.08/4.09	-4.59/4.19	-2.88/3.36	-3.38/2.84
θ (22.5°)	-4.82/6.86	-6.79/4.41	-3.31/3.08	-3.03/1.94	-1.21/0.28	0.46/1.11	0.33/0.18	0.20/0.25	-3.77/2.52	-3.00/0.99	2.74/3.12	-2.92/4.14	-4.50/2.47	-3.41/2.71	-3.85/5.90	-4.36/3.16	-4.66/3.90	-2.92/2.79	-3.52/2.89	-3.41/3.63	-3.66/3.13	-6.18/4.37	-5.09/3.73	
θ (30°)	-10.39/8.58	-5.45/6.39	-3.62/2.61	-1.63/1.21	-0.87/1.42	-0.84/0.37	0.98/0.06	0.52/0.49	-3.19/2.81	-1.59/3.33	-1.42/3.28	-4.60/5.90	-8.13/7.22	-4.81/6.77	-5.90/7.17	-4.49/3.52	-3.23/2.57	-2.36/3.51	-3.87/3.49	-4.71/4.95	-5.62/6.39	-6.27/5.54		
θ (37.5°)	-10.25/5.98	-5.38/6.48	-7.23/5.45	-4.89/3.93	-2.30/0.07	0.22/1.16	0.16/1.33	-0.06/0.62	-4.53/3.46	-2.09/4.11	-0.14/2.44	-7.92/12.46	-10.03/6.74	-6.37/7.98	-12.51/10.56	-7.01/6.99	-6.33/1.38	-0.83/1.47	-1.63/2.66	-3.26/3.44	-4.04/7.21	-5.02/4.39	-7.38/7.91	-7.54/7.78
θ (45°)	-5.22/3.80	-7.71/12.87	-7.48/7.48	-2.73/1.26	-0.52/0.15	1.26/0.56	1.59/3.24	1.91/0.81	-3.01/3.13	-3.69/4.84	-6.64/4.57	-7.68/14.60	-10.45/9.50	-5.81/7.30	-8.88/8.31	-8.81/1.10	-6.26/1.32	-2.20/1.32	-1.52/0.89	-1.22/0.59	-4.36/6.09	-4.77/4.24	-5.19/2.23	-7.20/9.64
θ (52.5°)	-3.49/5.92	-9.86/5.64	-4.11/5.53	-2.42/0.58	0.75/1.21	2.28/1.10	2.58/1.22	-1.24/2.76	-2.91/2.21	-12.24/7.06	-8.21/14.10	-12.80/13.37	-8.89/6.58	-5.66/9.41	-10.91/5.49	-4.61/3.37	-2.14/2.90	-2.54/1.51	-5.29/4.34	-7.55/3.43	-5.17/3.42	-3.51/7.87	-5.87/6.76	
θ (60°)	-2.44/9.01	-6.14/5.38	-4.60/7.65	-5.24/2.77	-3.37/1.15	1.10/1.48	3.49/2.15	1.10/1.13	-0.58/4.45	-4.67/7.50	-10.96/11.12	-7.63/8.32	-7.60/14.41	-9.57/8.80	-4.82/7.69	-4.82/4.48	-8.02/1.60	0.33/0.75	-3.55/0.15	-7.34/5.82	-2.50/3.00	-3.43/3.47	-4.67/6.81	-6.39/6.69
θ (67.5°)	-6.69/12.12	-6.59/3.92	-6.60/3.63	-8.14/1.16	-2.21/3.35	2.98/3.15	3.05/1.48	0.67/4.89	-6.42/7.25	-8.42/5.44	-11.19/6.28	-6.40/4.72	-14.30/15.96	-15.24/10.69	-4.49/9.19	-7.02/11.85	-6.65/3.82	-0.16/0.66	1.16/2.24	-10.26/5.14	-1.14/3.51	-4.18/1.29	-4.22/4.48	-9.67/5.43
θ (75°)	-8.93/8.69	-8.13/1.96	-6.94/4.50	-7.63/4.54	-6.62/6.66	3.38/3.32	2.93/2.18	1.99/4.06	-8.33/5.85	-10.87/6.42	-6.31/9.84	-5.70/7.16	-9.61/14.86	-11.36/11.33	-9.35/9.28	-8.80/8.31	-3.65/6.87	-2.67/1.10	-1.68/2.00	-2.66/3.42	-2.83/2.03	-5.94/5.62	-8.63/8.16	
θ (82.5°)	-14.30/13.39	-11.71/3.07	-4.77/4.22	-6.00/2.33	0.57/1.68	2.32/3.57	4.23/4.40	1.64/0.11	-6.74/7.34	-5.47/4.28	-7.27/3.21	-6.34/12.24	-8.29/7.99	-10.55/9.05	-14.17/10.41	-14.75/14.83	-3.29/2.12	4.23/2.21	-5.01/5.15	-7.23/4.21	-2.21/4.07	-2.31/2.75	-6.04/7.66	-7.48/12.59
θ (90°)	-12.12/15.30	8.55/4.21	-4.33/5.86	-4.66/1.47	-0.77/1.38	2.81/4.25	1.64/1.49	0.96/1.88	-7.00/13.01	-6.22/4.32	-3.94/4.90	-13.50/9.01	-10.52/11.62	-12.44/16.61	-14.89/8.74	-5.35/11.13	-6.93/14.72	-3.11/1.41	-2.80/4.19	-2.38/3.70	-2.70/1.96	-2.79/2.58	-5.59/6.56	-8.46/13.54
θ (97.5°)	-11.63/15.00	-5.75/7.10	-4.54/5.03	-5.91/2.83	0.04/2.11	3.54/2.79	3.95/4.54	2.77/0.8																

E1(XY plane) – $\Theta(90)\Phi(0-360)$
 E2(XZ plane) – $\Theta(0-180)\Phi(0)$ and $\Theta(0-180)\Phi(180)$
 E3(YZ plane) – $\Theta(0-180)\Phi(90)$ and $\Theta(0-180)\Phi(270)$

