



# Radiated Composite Gain Data Radio 2 (4TX)

# Appendix B.1

Freq(Hz)	-11.54/18.62	-11.66/12.04	-12.61/18.15	-16.65/18.33	8.82/12.55	-18.26/11.87	-16.13/15.4	-18.5/18.38	-16.93/7.92	9.28/13.78	-13.15/11.14	-10.57/8.85	-14.65/18.59	-16.29/17.4	-10.46/9.65	-12.89/19.17	-10.85/18.17	-17.88/16.77	-18.79/12.1	-18.74/17.71	-16.1/14.07	9.59/15.24	-14.53/18.25	-18.76/8.34	
Theta(75°)	-18.21/15.08	-6.55/8.99	-10.64/11.18	-13.62/14.57	-11.64/11.43	-13.7/14.37	-17.13/16.83	-18.82/12.62	-12.78/7.16	8.88/12.48	-12.7/11.29	-12.4/10.57	-13.49/16.46	-19.4/18.62	-10.17/8.74	-11.22/9.24	-13.44/18.94	-17.55/18.47	-14.26/11.5	-17.82/18.02	-19.34/9.32	-10.26/12.82	-11.74/18.14	-11.83/7.42	
Theta(75°)	-17.68/10.6	-6.12/9.17	-12.43/10.97	-13.66/10.12	-15.62/12.43	-12.21/17.58	-18.65/18.37	-14.81/14.69	-17.83/9.5	-10.98/14.98	-11.19/11.29	-14.07/9.46	-18.55/17.75	-18.14/3	-11.97/12.29	-14.21/8.56	-14.63/18.64	-18.9/18.21	-14.91/13.54	-17.44/17.74	-18.49/8.04	-15.43/17.84	-12.43/15.34	-9.92/8.65	
Theta(90°)	-17.15/9.52	-7.2/13.9	-18.86/13.38	-13.59/9.08	-18.51/12.68	-12.72/18	-19.05/19.15	-13.57/12.72	-18.32/12.76	-15.34/17.98	-10.33/12.32	-13.03/9.83	-16.04/19.03	-17.08/14.25	-10.43/17.51	-18.35/11.61	-14.23/16.49	-14.69/17.61	-15.4/18.73	-17.99/18.84	-14.87/8.16	-18.35/15.47	-12.76/14.99	-10.44/11.89	
Theta(97.5°)	-15.13/10.93	-10.53/18.94	-18.72/18.09	-17.93/10.75	-18.94/13.2	-16.31/18.85	-18.33/17.63	-14.12/8.4	-19.32/15.78	-18.88/17.98	-11.81/15.23	-13.9/11.28	-18.62/18.34	-19.2/14.5	-13.01/17.36	-17.54/12.26	-14.24/15.95	-18.6/14.84	-15.88/18.06	-18.85/17.2	-13.3/12.01	-19.24/18.09	-11.97/17.1	-11.46/19.07	
Theta(105°)	-15.54/13.82	-12.2/18.58	-19.36/18.29	-18.6/12.09	-16.17/14.3	-18.53/18.89	-17.67/18.25	-13.87/11.69	-17.67/17.37	-17.91/18.42	-10.97/15.24	-17.22/11.15	-18.49/18.26	-18.54/17.97	-15.55/19.1	-19.31/18.41	-16.55/14.66	-15.02/12.26	-16.22/18.77	-18.35/19.8	-19.63/11.96	-16.45/18.21	-12.44/18.42	-14.04/17.45	
Theta(112.5°)	-14.47/15.78	-11.77/18.73	-19.07/19.35	-16.47/15.55	-18.45/15.26	-19.37/18.81	-18.57/17.05	-14.5/13.84	-18.2/15.52	-18.32/16.33	-10.29/12.79	-18.26/15.43	-18.08/17.52	-18.67/18.27	-17.5/17.1	-18.54/17.87	-11.06/15.72	-18.09/16.94	-13.62/19.38	-19.09/19.64	-12.75/18.28	-12.87/17.79	-12.68/14.48	-18.25/18.06	
Theta(120°)	-13.56/13.46	-14.62/16.96	-19.11/17.87	-13.51/17.8	-19.45/15.56	-18.97/17.58	-17.22/19.52	-16.23/14.14	-18.09/16.63	-19.01/18.58	-10.5/10.54	-13.46/18.48	-17.99/18.13	-19.37/18.72	-19.05/10.92	-16.96/15.88	-11.87/18.86	-18.33/13.47	-15.43/15.07	-17.77/10.23	-18.95/17.77	-17.52/13.18	-12.82/15.07	-18.13/18.94	
Theta(127.5°)	-18.71/12.59	-14.8/14.56	-18.71/13.91	-10.85/18.42	-18.83/18.18	-19.1/9.7	-18.02/18.48	-17.45/16.68	-16.5/16.22	-13.68/18.09	-12.63/11.62	-10.34/14.96	-18.36/17.22	-18.33/18.38	-17.93/15.19	-16.76/18.02	-14.52/17.39	-14.99/13.94	-17.62/17.7	-18.39/15.75	-18.95/17.34	-17.97/18.65	-18.46/12.92	-18.41/18.13	
Theta(135°)	-14.56/11.18	-16/18.11	-13.7/10.63	-15.69/18.66	-17.53/19.18	-17.49/18.48	-18.27/17.9	-16.26/17.77	-12.36/12.87	-12.48/16.11	-15.61/11.57	-9.2/13.19	-16.08/19.07	-19.05/19.02	-17.76/18.85	-17.04/18.34	-18.63/15.68	-13.45/16.8	-17.52/17.53	-18.09/18.48	-17.47/18.58	-18.4/13.44	-17.43/13.62	-17.37/16.58	
Theta(142.5°)	-17.2/18.34	-17.26/13.24	-9.25/14.4	-18.4/13.43	-13.9/18.2	-18.41/17.81	-13.47/19.04	-14.46/17.52	-12.67/10.24	-14.47/17.04	-18.18/12.57	-12.1/15.05	-16.47/17.37	-17.97/18.77	-15.47/16.08	-15.95/18.37	-17.97/18.77	-18.47/18.29	-18.92/17.22	-17.65/17.5	-17.2/19.11	-17.99/17.49	-12.03/16.84	-17.16/19.13	
Theta(150°)	-18.32/12.99	-9.72/12.81	-17.73/18.16	-17.67/18.49	-17.21/17.39	-18.38/18.78	-10.9/18.2	-15.32/10.96	-17.24/19.06	-17.71/18.83	-18.9/10.6	-17.78/18.33	-19.37/18.93	-18.3/18.33	-17.4/18.01	-18.49/19.18	-18.85/16.18	-15.91/18.21	-17.62/17.77	-17.39/19.08	-19.33/17.38	-17.62/17.77	-18.24/19.19	-19.36/15.85	
Theta(157.5°)	-18.96/18.74	-15.93/15.77	-17.1/19.35	-17.7/18.69	-15.48/18.1	-18.28/13.35	-12.99/18.68	-16.19/12.94	-12.73/13.32	-19.08/15.59	-14.4/16.74	-18.02/18.33	-16.77/18.55	-18.82/18.64	-18.59/15.51	-14.36/18.51	-18.92/16.21	-17.47/17.46	-14.37/17.7	-16.59/15.56	-17.75/18.72	-17.96/16.59	-13.37/17.22	-19.39/17.41	
Theta(165°)	-15.32/15.45	-15.56/15.22	-18.26/19.97	-19.11/19.05	-17.14/17.77	-18.45/15.12	-17.18/17.7	-18.43/17.88	-18.23/19.42	-18.4/18.22	-19.1/18.11	-18.96/18	-18.09/17.95	-15.84/15.36	-15.16/14.89	-15.44/17.54	-17.87/18.71	-14.89/17.66	-15.99/13.15	-14.55/19.21	-17.71/18.47	-15.52/17.41	-18.32/13.64	-18.13/16.4	
Theta(172.5°)	-17.62/18.67	-18.55/18.05	-18.03/19.13	-18.91/17.91	-18.46/18.44	-17.31/17.67	-19.09/18.63	-18.02/19.18	-17.42/16.22	-15.48/17.17	-15.3/14.77	-15.99/18.12	-18.65/18.16	-19.11/19.36	-19.07/17.39	-17.75/17.69	-17.13/18.59	-18.28/17.32	-18.89/17.81	-15.41/17.47	-18.17/15.57	-14.82/15.61	-15/14.24	-14.12/15.94	
Theta(180°)	-18.67/18.03	-19.42/18.21	-17.26/18.33	-18.44/17.78	-18.96/19.03	-17.97/19.41	-17.72/19.03	-17.98/18.26	-19.3/18.41	-18.16/17.81	-19.4/17.75	-17.35/17.79	-18.38/18.48	-18.94/19.02	-17.61/17.74	-17.52/18.82	-18.92/18.54	-17.8/18.81	-18.93/19.94	-19.11/17.53	-17.62/18.09	-17.74/18.48	-18.87/18.82	-17.75/17.44	
Freq(Hz)	6.475GHz	ThetaAnt 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	
Theta(0°)	-18.97/18.99	-15/10.95	8.47/7.39	-5.81/4.69	-3.57/2.9	-2.44/1.96	-1.85/1.97	-1.94/2.51	-3.26/3.8	4.52/5.6	-7.32/9.9	-13.66/16.86	-18.59/15.38	-12.53/9.91	-7.58/5.85	-4.62/3.61	-3.16/2.35	-2.29/2.08	-1.82/2.02	-2.68/2.96	-2.94/3.4	-4.42/6.14	-7.27/9.18	-12.44/16.47	
Theta(7.5°)	-15.58/13.2	-11.29/8.83	8.35/8.88	-7.81/7.42	-6.22/6	-5.32/5.43	-5.62/5.93	-4.92/5.18	-4.58/4.97	-3.88/4.81	-3.27/4.12	-2.76/3.57	-2.36/3.17	-2.03/2.84	-1.76/2.57	-1.54/2.35	-1.36/2.17	-1.2/2.01	-1.06/1.87	-0.92/1.73	-0.79/1.6	-0.67/1.48	-0.56/1.39	-0.46/1.29	
Theta(15°)	-17.1/17.46	-16.55/13.58	-12.52/12.76	-11.47/11.59	-11.26/12.25	-13.23/13.92	-13.11/17.18	-9.84/11.47	-14.92/16.06	-18.04/18.17	-16.46/16.28	-16.07/15.56	-12.18/10.34	-8.87/8.37	-8.68/11.15	-13.79/15.52	-14.68/13.01	-10.54/8.72	-7.42/6.77	-6.62/6.93	-7.92/10.27	-10.17/15.73	-18.71/16.1	-16.77/18.56	
Theta(22.5°)	5.89/5.73	-7.03/9.66	-13.38/18.02	-18.35/14.3	-10.91/9.7	-8.75/8.16	-8.15/7.31	6.29/5.61	5.96/7.85	-11.52/15.63	-14.28/11.26	-10.15/12.38	-19.64/19.94	-10.73/6.36	-4.59/1.41	-4.76/6.1	-7.19/8.09	6.62/4.56	3.68/4.04	-4.85/5.31	5.13/5.7	-7.56/8.34	7.38/5.21	5/6.08	
Theta(30°)	-5.04/6.34	-5.49/4.75	5.54/6.1	6.16/7.3	-7.58/7.16	-7.93/10.25	-10.04/8.7	-7.12/6.87	-6.62/4.59	6.06/10.32	-12/7.38	-5.61/6.51	-8.14/10.35	-14.71/10.67	-7.59/5.06	-4.15/4.01	-3.59/3.59	-3.17/1.55	-1.07/2.52	4.41/5.25	4.09/3.58	-4.34/3.29	-2.6/3.3	-3.75/4.18	
Theta(37.5°)	-4.56/10.2	-16.55/16.52	-14.74/9.2	-2.66/4.29	-5.42/4.67	-8.23/13.55	-9.35/8.35	-11.2/18.08	-13.69/10.51	7.23/12.79	-12.51/5.53	-5.27/5.53	-7.62/5.7	-4.17/5.67	-7.13/5.7	-3.86/2.63	-2.16/2.57	-2.48/1.82	-1.07/1.06	-1.93/2.65	-3.85/3.32	-3.14/2.48	-1.67/4.28	-2.57/3.11	
Theta(45°)	-3.89/5.27	-8.9/3.09	-1.15/2.74	-1.79/5.58	-9.55/4.29	-8.16/10.52	-8.97/10.06	-4.58/11.41	-13.97/5.14	-4.31/9.27	-5.61/3.87	-5.24/6.48	-6.21/4.35	-1.44/1.86	-3.22/2.2	0.180/7.4	-0.75/1.82	-0.75/0.92	-0.26/0.82	-2.87/2.37	-1.54/2.09	-0.720/18	-1.07/0.95	-0.84/2.23	
Theta(52.5°)	-1.04/1.56	-3.81/1.09	0.12/1.18	0.79/2.08	5.41/5.94	-8.5/6.41	3.12/5.76	1.05/1.24	-5.42/3.32	-3.31/7.7	5.14/3.13	-3.26/2.95	-1.62/0.14	0.33/1.67	-1.750/3.03	2.722/4.4	0.293/3.16	-1.27/1.39	-2.07/3.01	4.95/1.78	0.03/0.65	0.11/2.95	-4.08/1.75	-0.57/0.55	
Theta(60°)	2.110/49	-1.12/1.81	-0.29/2.59	1.210/2.2	1.216/3.7	10.56/7.55	-1.55/4.01	1.181/1.5	2.42/2.5	-1.95/5.88	-3.84/0.33	0.81/7	1.61/16	0.41/0.81	-1.270/1	2.24/2	-1.05/7.56	-3.03/2.58	5.24/5.8	9.78/9.1	-1.56/2.32	1/4.72	5/1.28	-1.33/1.5	
Theta(67.5°)	3.38/1.24	0.62/0.69	-1.21/2.82	0.350/7.4	2.51/4.05	-9.33/1.34	-0.54/0.64	1.750/8	-1.41/2.09	0.28/2.59	-0.922/7	3.052/0.5	1.580/4	0.900/34	-1.05/0.65	1.270/26	-3.03/5.54	-2.54/2.6	-4.65/5.99	-9.58/3.8	-2.86/2.4	-1.37/6.04	-3.87/1.68	-1.20/2.3	
Theta(75°)	2.321/58	1.90/98	0.24/2.27	-0.92/0.22	1.82/2.21	-7.73/1.85	1.10/32	0.90/14	-1.550/43	1.43/0.67	-0.063/19	3.24/55	0.35/1.13	-0.13/1	-0.551/3.7	-3.76/4.35	-1.09/1.36	-3.15/7.9	5.39/1.25	-4.17/2.26	-1.15/3.38	-4.45/1.17	-0.58/1.61	-0.58/1.61	
Theta(82.5°)	0.211/0.3	2.080/86	0.171/2.36	2.27/1.94	0.35/2.98	-5.85/2.18	0.580/1	0.01/1.55	-1.62/0.2	0.67/0.98	-0.52/3.25	2.210/18	-1.24/2.17	-0.41/1.52	-1.34/1.67	-1.93/4.14	-3.66/3.52	-0.4/0.71	2.48/6.63	-2.81/0.76	5.32/2.86	-6.22/6.24	-5.27/2.41	-0.530/2.7	
Theta(90°)	-2.14/0.31	1.29/0.29	-1.34/2.87	4.15/4.73	-0.81/3.45	-4.73/3.93	-0.98/1.79	-0.77/3.3	-2.88/1.65	-0.87/2.36	-2.720/65	1.01/1.19	-2.99/2.26	-0.62/0.12	-3.12/2.94	-3/7.48	-3.88/3.29	-1.47/2.32	-3.58/8.27	-3.76/1.78	-7.32/3.54	-5.46/4.83	-7.44/4.6	-1.61/1.78	
Theta(97.5°)	-3.91/3.08	-0.87/2.49	-3.83/5.21	-6.42/7.52	-2.36/4.41	-4.9/5.16	-2.2/2.75	-2.71/5.15	-5.54/3.89	-2.57/3.77	-4.31/1.28	-0.52/2.4	-3.51/3.21	-1.44/2.14	-4.48/4.71	-3.42/0.88	6.81/9.1	5.22/7.73	-9.68/10.76	6.2/4.31	-11.28/8.56	-8.27/2.99	-8.05/1.73	-3.78/2.05	
Theta(105°)	6.79/5.74	-3.45/4.64	-7.08/9.54	-8.15/11.77	-4.91/5.94	-8.47/6.56	-3.23/3.43	-4.66/6.6	-10.04/7.15	-3.87/4.43	-4.72/3.93	-2.62/4.66	-4.19/2.4	-3.29/5.37	-6.15/7.05	-4.74/5.2	-8.45/9.79	-7.53/11.84	-11.66/12.77	-12.37/8.32	-11.27/8.9				



# Radiated Composite Gain Data Radio 2 (4TX)

# Appendix B.1

Freq(Hz)	Theta(°)	Phi(°)	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°)	
6.95GPol	ThetaAnt 2																																																	
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°)		
Theta(°)	18.77/18.74	13.74/19.05	18.56/17.78	17.72/14.42	16.47/14.3	19.03/18.86	16.27/16.1	14.7/16.92	15.5/18.17	17.7/17.33	10.04/13.27	12.53/13.28	19.05/18.29	13.5/14.69	15.13/18.74	18.35/17.84	12.19/13.68	16.74/13.11	19.33/18.57	18.17/15.08	12.13/17.76	15.63/18.95	12.45/16.88	15.76/18.13	14.58/16.76	19.01/18.11	18.65/17.78	13.74/19.05	18.56/17.78	17.72/14.42	16.47/14.3	19.03/18.86	16.27/16.1	14.7/16.92	15.5/18.17	17.7/17.33	10.04/13.27	12.53/13.28	19.05/18.29	13.5/14.69	15.13/18.74	18.35/17.84	12.19/13.68	16.74/13.11	19.33/18.57	18.17/15.08	12.13/17.76	15.63/18.95	12.45/16.88	15.76/18.13
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°)		
Theta(°)	18.77/18.74	13.74/19.05	18.56/17.78	17.72/14.42	16.47/14.3	19.03/18.86	16.27/16.1	14.7/16.92	15.5/18.17	17.7/17.33	10.04/13.27	12.53/13.28	19.05/18.29	13.5/14.69	15.13/18.74	18.35/17.84	12.19/13.68	16.74/13.11	19.33/18.57	18.17/15.08	12.13/17.76	15.63/18.95	12.45/16.88	15.76/18.13	14.58/16.76	19.01/18.11	18.65/17.78	13.74/19.05	18.56/17.78	17.72/14.42	16.47/14.3	19.03/18.86	16.27/16.1	14.7/16.92	15.5/18.17	17.7/17.33	10.04/13.27	12.53/13.28	19.05/18.29	13.5/14.69	15.13/18.74	18.35/17.84	12.19/13.68	16.74/13.11	19.33/18.57	18.17/15.08	12.13/17.76	15.63/18.95	12.45/16.88	15.76/18.13





# Radiated Composite Gain Data Radio 2 (4TX)

# Appendix B.1

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°)
Theta(2.5°)	4.66/6.4	6.17/5.39	-4.48/4.37	5.22/6.27	-5.33/3.56	-2.26/1.42	-1.96/2.49	3.32/4.66	-6.85/7.18	-5.54/5.9	-8.55/10.17	-10.17/11.22	-13.89/13.32	-10.64/8.44	-6.81/6.68	-6.49/8.76	-12.11/17.09	-17.44/17.28	-13.48/11.56	-9.74/8.49	-8.29/8.34	-8.6/8.66	-8.35/6.74	-4.54/10.02
Theta(30°)	-2.77/3.56	-3.42/4.16	-4.64/3.34	-2.59/3.79	-4.55/2.89	-1.49/2.45	-4.16/3.82	-2.87/2.66	-2.54/3.4	-2.65/4.0	-9.65/14.47	-15.03/18.94	-16.42/12.47	-12.02/12.16	-12.24/11.43	-9.56/7.14	-4.91/6.09	-8.14/5.71	-4.93/6.12	-8.03/9.43	-9.44/6.81	-3.31/1.95	-2.72/3.07	-1.88/1.42
Theta(37.5°)	-1.21/2.64	-3.62/4.42	-3.04/0.57	0.97/1.18	-6.17/6.78	-6.03/6.72	-6.43/4.54	-3.2/3.03	-2.17/3.12	-3.22/6.2	-7.73/5.53	-6.84/11.42	-11.05/8.24	-13.81/12.19	-10.67/8.39	-8.15/5.53	-3.64/4.88	-6.21/5.06	-11.71/4.72	-8.73/9.47	-3.79/5.27	-2.06/0.09	-0.88/1.7	-2.89/2.14
Theta(45°)	-1.9/0.73	-1.42/5.04	-3.52/0.2	0.89/1.27	-3.3/1.58	-4.21/9.96	-3.51/5.02	-1.45/2.74	-3.36/3.88	-3.48/3.13	-5.54/6.3	-6.55/4.89	-4.95/2.78	-1.5/4.78	-4.01/3.93	-4.88/4.08	-2.29/8.15	-2.36/0.99	-8.09/13.32	5.94/1.34	-0.48/6.11	-3.8/2.52	-2.51/1.29	-3.36/4.04
Theta(52.5°)	-0.210/93	0.41/5.59	4.12/1.2	1.87/1.43	-5.44/0.77	-0.42/1.96	-2.06/3.18	2.16/0.92	1.96/2.5	-0.31/0.39	-5.68/3.24	-3.53/2.26	0.91/2.42	-1.42/1.97	-4.87/4.87	-4.94/15.6	-2.43/1.05	-7.92/9.29	-7.85/2.51	-2.72/3.43	0.74/0.88	-0.53/0.28	-2.1/1.67	
Theta(60°)	-0.580/47	0.14/6.07	-5.48/0.46	0.65/1.4	-4.13/4.99	0.51/1.37	-0.240/5.6	2.16/1.11	-0.310/0.39	1.51/1.17	1.91/0.79	-1.440/2.6	0.65/0.21	-2.31/2.34	-1.11/0.98	-5.13/2.81	-4/12.44	-1.12/5.8	-10.18/12.65	-1.46/0.48	0.270/8.4	0.09/0.67	-1.69/1.17	
Theta(67.5°)	2.11/0.76	-2.35/4.98	-7.41/3.29	-2.53/2.4	-4.96/3.46	1.37/0.44	-2.68/1	0.19/1.43	-1.09/1.94	3.05/1.9	0.88/0.12	1.06/1.11	2.45/1.78	-1.3/1.63	-0.26/1.53	-3.43/1.17	-2.22/3.6	1.293/39	1.610/19	-9.63/5.43	1.84/1.34	-1.250/2.4	1.07/1.11	0.512/9.4
Theta(75°)	2.79/1.43	-4.97/1.45	-6.79/3.06	-2.98/3.15	-6.16/1.19	0.53/5.68	-6.53/2.72	-3.52/3	-0.88/1.93	2.39/1.78	-1.03/1.11	0.210/4.1	1.57/2.5	1.19/0.87	-0.62/2.66	-3.73/1.09	-1.29/1.13	1.312/98	3.052/5.4	-5.86/2.24	3.052/0.4	-2.67/1.21	2.08/2.2	1.86/3.03
Theta(82.5°)	1.47/1.23	-5.29/0.01	-6.71/2.44	-4.84/6.2	6/2.17	0.43/6.45	6.46/2.38	-2.95/2.91	-0.04/1.77	1.50/5.2	-2.92/3.03	-1/1.0.66	-1/1.29	2.24/0.24	-0.52/5.04	-5.87/3.85	-0.78/1.1	0.67/1.62	3.512/33	-4.31/0.03	3.491/8.6	-2.16/3.85	1.89/1.84	1.31/35
Theta(90°)	-1.37/1.49	-4.85/0.88	-7.77/3.48	6.59/12.48	-5.41/4.84	-1.58/7.83	5.42/3.05	-1.72/5.18	0.40/2.3	0.55/0.85	3.92/7.33	-2.8/1.41	-4.09/0.26	1.71/0.17	0.49/5.58	-10.21/7.17	-2.31/3	-2.55/1.5	1.030/9	-5.68/0.69	1.61/0.45	-2.39/4.97	0.8/0.01	0.75/0.62
Theta(97.5°)	-5.39/8.45	-5.39/2.27	-7.44/4	-10.46/16.09	-4.88/8.39	-4.07/8.22	5.23/3.64	-2.5/6.13	-0.51/1.59	2.74/3.2	6.42/10.8	-3.85/2.04	-7.79/2.86	0.31/0.81	-2.19/6.79	-13.74/11.28	-4.54/5.76	-8.68/8.38	-2.87/2.52	-11.79/4.3	-3.27/5.1	-4.29/5.88	-0.72/1.96	-2.76/2.34
Theta(105°)	-6.71/10.46	-8.23/6.84	-8.82/5.01	-8.98/13.16	-7.42/7.65	-8.03/16.48	-9.09/8.85	6.52/7.35	-2.21/1.22	-5.71/4.42	-11.87/3.66	-6.21/4.91	-7.41/7.59	-2.70/0.76	-3.95/7.29	-12.55/8.47	-6.53/9.04	-9.74/10.61	-5.46/2.45	-18.16/7.01	-7.15/6.96	-5.72/11.47	-2.29/5.11	-5.35/3.44
Theta(112.5°)	8.71/8.41	-11.23/11.14	-8.6/5.89	-6.37/18.97	-15.94/5.88	-9.15/9.83	-12.43/17.02	-8.66/8.27	-3.11/2.44	-7.15/9.65	-13.41/16.25	-7/8.01	-12.33/12.86	5.28/1.29	-6.32/7.06	-11.71/8.52	-8.89/7.06	-13.09/7.72	-5.54/1.76	-14.01/6.55	-5.41/8.32	-10.49/9.05	-2.71/6.89	-5.75/4.97
Theta(120°)	-11.82/9.16	-11.66/12.9	-8.03/15.07	-8.88/8.18	-17.8/5.57	-13.93/16.76	-10.35/9.35	-5.05/4.19	-9.33/9.73	-10.87/13.6	-7.03/10.18	-14.41/13.54	-10.59/4.72	-6.67/7.83	-7.74/11.69	-13.84/7.84	-10.04/11.93	-12.82/5.45	-13.85/10.66	-6.71/10.53	-13.87/10.69	-2.68/5.23	-9.47/10.03	
Theta(127.5°)	-19.06/16.22	-12.68/17.9	-11.89/11.25	-12.61/13.54	-13.97/12.01	-15.97/16.54	-12/13.94	-12.97/17.64	-13/6.33	-11.98/10.93	-11.78/12.91	-7.38/13.43	-18.95/13.34	-19.38/9.1	-8.52/8.58	-9.76/8.16	-15.49/9.35	-8.67/9.64	-13/4.77	-12.66/13.78	-9.19/7.73	-11.82/17.16	-2.68/4.5	-8.92/14.28
Theta(135°)	-19.27/15.22	-13.24/18.14	-11.7/11.48	-14.21/11.21	-12.87/10.26	-18.19/16	-17.56/18.93	-14.81/18.71	-9.83/8.93	-13.71/15.39	-16.8/13.34	-10.25/14.14	-17.81/17.91	-18.09/18.71	-18.67/7.65	-12.46/8.08	-8.12/15.25	-9.08/14.54	-15.03/5.32	-16.15/12.45	-9.83/17.74	-19.07/13.83	-18.18/6.85	-8.97/19.31
Theta(142.5°)	-16.84/19.37	-18.35/19.19	-19.16/14.01	-13.26/10.51	-11.01/14.43	-19.37/17.71	-16.35/14.06	-18.64/15.16	-10.14/19.19	-11.18/12.79	-12.79/19.19	-14.39/12.72	-16.15/19	-14.19/18.5	-18.52/13.62	-13.13/17.81	-14.05/14.51	-17.96/15.06	-18.99/8.41	-18.27/14.24	-18.49/14.07	-10.54/9.91	-18.31/11.37	-10.08/16.23
Theta(150°)	-17.64/16.56	-12.29/18.88	-19.01/9.17	-10.93/19.21	-13.71/14.21	-16.71/16.77	-17.22/18.48	-18.33/14.38	-14.92/15.87	-11.08/10.59	-15.23/18.64	-18.11/12.08	-13.11/16.75	-17.47/10.65	-15.52/18.66	-15.59/12.92	-18.74/17.4	-13.71/10.58	-15.72/17.47	-12.12/13.09	-14.44/12.27	-15.1/18.35	-18.16/16.45	
Theta(157.5°)	-18.56/18.3	-19.23/18.88	-18.69/19.01	-18.1/15.97	-18.18/18.15	-16.17/15.07	-12.94/10.21	-8.33/7.47	-7.86/10.44	-13.24/16.3	-19/11.8	-13.52/11.52	-11.13/13.5	-17.35/14.9	-10.63/11.9	-14.02/17.92	-17.1/18.92	-17.94/17.63	-16.13/11.62	-11.59/15.52	-18.24/18.33	-14.43/14.76	-14.02/19.11	-18.18/51
Theta(165°)	-18.72/18.2	-18.57/19.07	-19.24/18.7	-18.14/18.01	-18.93/17.39	-18.81/15.3	-14.32/13.38	-15.35/16.86	-18.44/18.49	-18.01/19	-18.11/17.68	-19.17/17.8	-11.88/10.7	-11.65/15.69	-19.09/15.26	-11.82/13.43	-19.16/18.96	-19.15/18.01	-18.12/17.61	-13.8/11.76	-11.74/14.74	-17.47/17.52	-18.58/18.14	-17.77/19.07
Theta(172.5°)	-18.04/18.87	-17.65/17.94	-18.64/19.42	-19.05/18.15	-17.42/18.15	-18.93/18.29	-17.8/16.77	-15.43/15.97	-18.19/18.19	-19.15/17.77	-18.6/17.52	-17.25/19.24	-18.6/17.74	-16.41/15.24	-19.07/15.14	-17.06/18.91	-19.31/18.54	-17.16/14.28	-12.69/12.99	-13.76/17.38	-17.59/18.56	-18.03/19.02	-18.29/18.05	
Theta(180°)	-19.1/18.81	-19.49/17.83	-18.65/16.46	-16.42/17.98	-18.09/18.44	-18.21/18.99	-18.65/18.83	-18.39/18.99	-17.67/17.97	-17.83/19.14	-18.37/19.2	-17.9/17.88	-17.79/19.18	-18.38/18.56	-18.03/17.51	-19.09/18.32	-17.63/16.82	-16.33/16.02	-17.31/18.03	-18.18/18.59	-16.91/16.17	-15.14/16.27	-19.17/17.71	
Freq(Hz)	6.995GHz	PhiAnt.3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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°)
Theta(0°)	-6.61/6.07	5.89/5.9	-6.44/7.45	-8.8/10.3	-11.74/13.6	-16.53/18.77	-17.73/17.31	-14.21/12.1	-9.69/8.71	-7.88/8.02	-7.63/7.69	-7.97/7.69	7.56/7.42	-7.69/8.06	-8.58/9.38	-10.61/12.01	-14.24/16.7	-19.47/18.07	-18.59/19.17	-18.71/15.6	-13.44/11.66	-10.25/8.68	-7.59/6.91	-6.31/6.05
Theta(7.5°)	-14.26/14.57	-16/17.57	-19.18/18.62	-17.93/18.59	-19.22/17.9	-18.97/18.13	-18.91/15.42	-12.91/10.65	-9.26/8.42	-7.98/7.48	-7.2/6.72	-6.29/5.73	5.29/5.19	5.27/5.58	-6.23/7.39	-9.21/12.22	-16.85/18.1	-19.49/15.73	-12.86/11.18	-10.53/9.42	8.68/8.29	8.49/8.31	8.53/9	9.47/11.29
Theta(15°)	6.76/8.26	9.29/9.46	-10.71/10.47	-12.47/14.12	-17.57/16.71	-15.71/13.08	-11.49/9.47	-7.68/5.61	-3.86/2.48	-1.34/3.44	-5.25/5.19	5.93/6.37	6.95/9.71	9.75/12.37	-13.74/11.88	-12.71/15.81	-18.83/16.6	-13.95/12.53	-7.71/5.96	-11.26/9.64	-8.5/9.25	-5.45/6.74	5.45/6.45	4.92/5.7
Theta(22.5°)	6.81/8.66	9.58/9.03	-10.38/12.5	-14.4/14.84	-13.93/15.95	-19.25/19.63	-13.75/9.06	6.54/5.83	-6.25/6.08	-6.51/5.89	4.84/5.03	-5.2/6.45	-8.38/8.71	-8.68/10.95	-17.52/16.05	-15.44/18.8	-18.66/15.12	-10.44/9.74	-12.71/13.59	-9.28/6.84	-5.38/4.47	-5.34/6.18	-4.41/3.08	-3.42/4.88
Theta(30°)	-4.57/6.56	-1.8/16.27	-19/18.31	-18.57/14.65	9.77/11.52	-18.21/12.64	9.37/8.81	9.18/9.65	9.16/8.32	8.88/7.78	6.76/7.31	8.03/7.57	8.8/8.38	6.89/6.48	8.4/18.38	-18.03/13.39	-12.93/13.6	8.7/9.29	-10.97/9.57	8.59/8.19	9.82/10.4	-9.27/8.97	-6.82/5.53	-6.52/5.94
Theta(37.5°)	-11.59/15.09	-18.37/10.59	-11.03/11.24	-14.02/18.5	-13.73/14.27	-18.03/14.42	-10.12/12.43	-17.44/10.93	-8.81/9.43	-8.23/6.19	-5.98/9.04	-7.77/4.02	-6.22/8.72	-10.71/13.03	-11.58/12.4	-11.56/11.28	-10.41/11.79	-7.42/8.15	-9.37/8.86	-10.94/14.64	9.43/8.88	-10.79/14.1	-12.4/12.57	-10.79/6.99
Theta(45°)	-10.68/6.84	-17.8/9.64	-12.55/15.8	-12.32/11.98	-12.																			



# Radiated Composite Gain Data Radio 2 (4TX)

# Appendix B.1

Freq(Hz)	Theta	Phi	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)
6475GPol	Theta	Phi	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)
Gain	Theta	Phi	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)
Gain	Theta	Phi	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)



# Radiated Composite Gain Data Radio 2 (4TX)

# Appendix B.1

Theta (°)	-19.29/-15.67	-12.29/-17.62	-15.23/-18.96	-11.62/-6.32	-11.35/-8.02	-8.68/-11.97	-16.72/-12.13	-8.87/-11.74	-12.11/-12.15	-15.43/-17.45	-10.24/-18.14	-18.51/-10.95	-17.88/-12.47	-13.87/-8.67	9.94/-13.09	-18.07/-19.08	8.07/-14.57	-11.45/-4.37	-16.76/-14.47	-8.96/-7.72	-16.05/-9.31	6.08/-11.41	-14.09/-11.63	-17.45/-17.98			
Phi (°)	-18.39/-16.05	-13.53/-18.23	-17.79/-17.87	-16.99/-13.05	-10.49/-7.56	-10.01/-19.11	-19.07/-10.86	-10.8/-10.82	-10.01/-11.52	-17.09/-12.98	-18.45/-17.64	-18.81/-18.91	-17.79/-15.14	-17.28/-8.81	-19.09/-10.24	-10.83/-14.88	-14.63/-14.15	9.69/-5.42	-18.49/-17.79	-11.5/-17.59	-12.58/-9.62	-14.94/-8.48	-16.02/-14.04	-18.91/-18.37			
Freq (Hz)	6.995GPol	ThetaAnt. 4	PhiAnt. 4	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°)
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°)			
Theta (0°)	-9.03/-11.18	-13.74/-19.23	-18.54/-11.57	-16.41/-13.8	-11.65/-9.52	-8.54/-7.01	-5.8/-5.14	-4.82/-4.78	-4.98/-5.17	-5.62/-5.97	-6.8/-8.07	-8.85/-10.13	-10.94/-12.24	-14.38/-18.34	-18.56/-19.29	-14.21/-10.98	-8.89/-7.66	-6.39/-5.63	-4.99/-4.8	-4.66/-4.45	-4.35/-4.34	-4.32/-4.74	-5.24/-6.06	-6.99/-7.79			
Theta (7.5°)	-6.8/-6.69	-12.49/-17.86	-18.43/-14.78	-10.83/-9	-7.21/-6.49	-6.29/-5.78	-5.36/-5.5	-5.53/-5.24	-5.14/-4.7	-4.06/-3.85	-3.86/-4.55	-5.55/-7.9	-9.64/-13.15	-17.95/-19.4	-18.87/-16.27	-12.23/-9.73	-8.13/-6.79	-6.25/-5.76	-5.76/-5.91	-5.82/-5.9	-5.74/-5.42	-5.43/-5.67	-5.43/-5.56	-5.76/-5.8			
Theta (15°)	-10/-13.94	-18.35/-14.85	-10.16/-8.11	-6.97/-5.45	-4.12/-4.61	-5.35/-6.45	-7.97/-8.92	-9.12/-9.23	-10.57/-12.32	-14.34/-15.72	-14.13/-14.22	-15.25/-17.54	-18.62/-18.51	-15.58/-14.04	-12.65/-10.88	-9.69/-8.98	-7.84/-6.77	-6.67/-6.2	-5.9/-5.88	-5.53/-5.93	-5.71/-5.35	-5.76/-7.08	-8.64/-9.51	-8.87/-8.56			
Theta (22.5°)	-13.09/-17.92	-17.46/-10.33	-8.67/-9.3	-11.73/-10.16	-7.65/-6.46	-5.6/-4.85	-5.09/-6.09	-7.31/-9.1	-11.03/-12.27	-13.21/-16.99	-17.85/-19.33	-18.54/-18.09	-13.61/-18.86	-16.22/-19.39	-16.32/-12.46	-8.82/-6.93	-7.09/-7.15	-7.22/-7.35	-7.27/-7.04	-6.87/-7.07	-6.66/-5.53	-6.17/-10.09	-17.5/-18.17	-17.18/-13.24			
Theta (30°)	-10.48/-14.48	-18.21/-18.13	-18.53/-15.18	-13.41/-11.97	-11.91/-13.2	-13.97/-8.51	-6.01/-6.74	-7.33/-9.7	-12.52/-12.2	-9.22/-8.4	-9.18/-11.64	-18.99/-12.03	-13.08/-12.42	-7.54/-8.98	-15.53/-15.71	-10.95/-9.06	-7.73/-6.28	-5.45/-5.08	-6.07/-7.99	-7.47/-6.46	-8.17/-13.27	-19.17/-16.01	-18.91/-14.4				
Theta (37.5°)	-10.43/-18.73	-18.16/-17.98	-18.65/-16.05	-17.66/-13.85	-10.57/-13.16	-14.73/-15.96	-9.21/-5.92	-6.73/-10.86	-15.21/-9.58	-10.36/-12.89	-11.18/-8.47	-10.05/-19.03	-10.94/-12.85	-14.68/-15.93	-15.25/-14.5	-13.94/-14.27	-14.88/-16.41	-9.55/-7.5	-6.5/-5.97	-9.77/-14.1	-10.19/-7.74	-6.89/-7.08	-7.88/-8.41	-13.51/-17.19			
Theta (45°)	-13.16/-18.62	-17.77/-16.54	-18.74/-15.75	-16.19/-11.23	-11.11/-12.55	-12.26/-17.36	-8.34/-14.23	-14.03/-8.37	-11.51/-7.64	-8.97/-16.25	-8.97/-8.93	-11.62/-16.6	-18.92/-17.83	-17.73/-13.72	-9.7/-13.96	-12.86/-13.23	-8.69/-9.18	-7.36/-5.4	-6.15/-8.2	-13.11/-14.36	-8.57/-8.39	-9.65/-7.78	-7.26/-7.56	-10.36/-16.84			
Theta (52.5°)	-14.32/-18.55	-18.86/-18.5	-18.7/-12.96	-12.3/-8.77	-8.72/-9.4	-15.41/-17.95	-11.74/-12.8	-7.74/-14.79	-9.57/-13.71	-15.95/-16.64	-10.15/-12.43	-17.55/-10.28	-13.66/-16.42	-9.93/-18.79	-8.62/-14.05	-14.21/-19.16	-10.83/-6.52	-9.14/-7.02	-7.41/-9.85	-13.47/-12.18	-8.23/-7.99	-15.78/-14.94	-13.19/-11.35	-12.42/-18.36			
Theta (60°)	-16.57/-14.8	-19.66/-18.3	-18.1/-18.31	-14.29/-17.45	-10.93/-12.75	-11.97/-17.7	-14.33/-9.34	-9.88/-11.99	-9.06/-17.75	-17.94/-15.66	-18.31/-19.28	-15.62/-9.64	-12.15/-15.02	-9.5/-16.23	-12.36/-18.21	-11.69/-18.16	-17.95/-12.16	-13.35/-13.62	-10.95/-15.39	-14.56/-12.67	-12.61/-13.93	-18.71/-17.26	-17.62/-17.75	-18.23/-18.63			
Theta (67.5°)	-11.92/-19.17	-15.99/-13.71	-18.25/-11.09	-14.98/-11.74	-14.74/-18.52	-17.33/-18.21	-13.5/-12.81	-12.31/-18.51	-16.35/-12.07	-18.83/-13.96	-15.46/-19.32	-11.85/-18.5	-14.28/-16.48	-11.01/-16.13	-17.55/-18.6	-14.01/-18.92	-14.55/-13.28	-18.42/-18.83	-10.85/-17.85	-17.57/-18.49	-15.09/-14.07	-18.43/-13.91	-18.24/-18.07				
Theta (75°)	-13.22/-17.77	-16.98/-12.57	-10.98/-8.88	-12.31/-8.93	-8.45/-17.5	-17.08/-11.96	-12.59/-11.82	-12.84/-17.29	-10.46/-13.6	-18.81/-13.95	-18.32/-15.31	-12.64/-11.3	-10.39/-12.04	-8.43/-11.08	-14.33/-14.37	-15.43/-12	-11.38/-14.6	-10.54/-6.8	-9.02/-18.93	-18.36/-14.12	-14.88/-11.92	-18.84/-14.93	-18.83/-18.02				
Theta (82.5°)	-19.09/-18.22	-18.21/-14.27	-10.41/-7.97	-14.02/-7.4	-8.67/-9.52	-9/-10.87	-14.57/-8.1	-18.3/-13.79	-11.67/-13.51	-13.81/-14.04	-18.9/-14.02	-18.65/-7.04	-6.31/-12.3	-9.68/-10.8	-16.96/-18.68	-19.05/-10.62	-10.2/-8.1	-8.04/-5.01	-18.33/-10.68	-8.78/-13.73	-14.11/-11.58	-13.73/-14	-18.19/-18.99	-17.97/-17.75			
Theta (90°)	-18.31/-17.93	-17.93/-14.43	-11.61/-10.81	-18.63/-8.48	-9.62/-6.73	-10.46/-10.08	-13.07/-10	-18.61/-9.67	-14.8/-11.6	-14.87/-13.88	-18.66/-10.6	-15.39/-6.89	-9.31/-17.64	-9.12/-17.61	-16.65/-18.38	-18.03/-11.59	-11.49/-9.1	-13.86/-10.64	-10.66/-13.58	-10.96/-11.04	-15/-16.51	-18.6/-19.21	-18.53/-18.37				
Theta (97.5°)	-18.77/-16.99	-19.16/-14.91	-13.85/-14.6	-17.35/-10.07	-10.32/-6.51	-12.12/-11.91	-10.99/-10.17	-18.27/-9.82	-17.69/-12.63	-15.34/-12.13	-18.69/-10.58	-12.49/-	-10.44/-18.17	-13.67/-18.49	-18.5/-18.6	-17.36/-12.16	-14.61/-10.87	-11.31/-12.15	-13.89/-12.55	-14.29/-13.68	-9.13/-11.71	-18.48/-16.53	-18.65/-14.23	-17.42/-17.32			
Theta (105°)	-18.27/-17.59	-18.17/-18.8	-13.89/-17.81	-18.67/-14.59	-12.56/-8.08	-12.8/-11.3	-9.87/-10.22	-18.49/-11.28	-16.18/-14.81	-15.81/-12.18	-18.26/-12.93	-11.47/-16.22	-14.65/-18.67	-18.99/-18.85	-17.26/-13.6	-18.69/-13.19	-11.6/-15.3	-14.69/-18.61	-15.71/-13.56	-18.83/-7.93	-8.34/-15.33	-17.87/-18.11	-19.07/-13.35	-17.92/-18.84			
Theta (112.5°)	-19.02/-16.45	-18.91/-18.31	-14.11/-19.17	-18.48/-18.61	-10.18/-	-13.73/-12.05	-14.5/-13.07	-19.18/-15	-16.98/-19.23	-12.49/-13.98	-17.07/-18.32	-13.34/-18.65	-18.82/-17.68	-17.62/-19.11	-18.53/-12.36	-18.99/-18.1	-14.23/-18.51	-16.47/-14.54	-14.91/-18.57	-14.28/-6.51	-13.11/-16.59	-18.45/-18.95	-15.14/-15.97	-14.03/-18.4			
Theta (120°)	-19.03/-17.56	-18.43/-17.81	-16.15/-18.83	-12.27/-15.85	-18.07/-10.65	-7.81/-9.22	-14.34/-15.67	-18.17/-17.55	-17.93/-17.48	-12.9/-18.59	-14.07/-18.14	-18.87/-18.32	-18.7/-18.71	-17.36/-11	-18.38/-18.23	-18.37/-18.36	-19.75/-16.05	-18.77/-18.85	-18.82/-8.93	-19.13/-19.01	-18.48/-16.53	-15.82/-13.61	-15.79/-18.49				
Theta (127.5°)	-18.73/-17.45	-19.18/-17.94	-19.03/-14.53	-13.19/-12.66	-18.94/-17.95	-12.66/-9.61	-14.09/-15.6	-18.9/-18.36	-12.31/-17.95	-14.86/-18.94	-17.35/-14.37	-19.28/-17.88	-17.92/-19.26	-16.91/-18.88	-17.88/-15.99	-15.54/-18.58	-14.35/-19.06	-16.74/-14.87	-18.71/-18.25	-16.05/-14.57	-16.53/-18.3	-19.36/-17.3	-10.57/-18.92	-17.11/-17.69			
Theta (135°)	-18.14/-18.47	-18.71/-12.22	-16.42/-9.81	-15.82/-17.47	-17.75/-13.28	-18.05/-18.96	-15/-19.08	-16.34/-18.88	-11.47/-18.22	-18.42/-18.75	-15.19/-13.99	-18.28/-13.33	-18.02/-14.06	-17.9/-14.83	-18.48/-15.29	-13.83/-18.5	-16.12/-14.71	-18.86/-11.15	-18.62/-19.02	-16.1/-12.14	-18.52/-17.32	-18.42/-9.63	-14.96/-13.61	-12.58/-15.84			
Theta (142.5°)	-15.83/-17.3	-18.14/-17	-16.05/-18.63	-19.12/-17.74	-13.64/-15.83	-18.62/-19.74	-19.38/-14.75	-16.4/-17.35	-17.48/-18.63	-19.04/-14.21	-14.25/-19.69	-19.19/-18.88	-17.65/-16.65	-18.56/-17.18	-17.57/-18.26	-18.98/-18.64	-16.78/-18.79	-14.08/-16.19	-18.83/-18.64	-16.66/-18.15	-18.95/-18.44	-18.65/-12.83	-14.24/-11.2	-14.34/-9.77			
Theta (150°)	-17.16/-18.29	-17.99/-17.42	-15.96/-16.69	-14.69/-16.43	-13.06/-13.81	-16.57/-18.59	-15.33/-15.03	-18.04/-18.62	-14.58/-19.58	-16.88/-16.41	-17.97/-19.14	-15.44/-17.42	-18.09/-16.97	-18.64/-11.44	-14.85/-18.04	-19.66/-18.91	-17.54/-17.86	-17.86/-18.26	-18.72/-17.66	-18.58/-18.71	-18.6/-16.32	-19.34/-17.89	-11.36/-9.99	-18.68/-16.03			
Theta (157.5°)	-13.17/-18	-13.25/-11.07	-14.28/-12.41	-13.52/-16.76	-18.77/-18.67	-18.31/-18.25	-17.6/-12.4	-14.89/-17.92	-13.9/-17.55	-18.72/-18.45	-17.46/-18.1	-18.22/-14.93	-14.88/-19.06	-17.4/-19.79	-19.06/-19.25	-16.53/-17.39	-18.34/-17.74	-16.85/-18.94	-17.88/-18.44	-19.03/-19.28	-19.03/-18.73	-18.12/-14.38	-13.32/-19.06	-11.81/-10.99			
Theta (165°)	-18.48/-19.17	-16.99/-13.32	-13.56/-18.2	-18.17/-17.88	-18.46/-18.5	-18.69/-18.66	-19.01/-18.37	-18.55/-18.98	-18.63/-19.04	-17.63/-14.78	-17.57/-18.37	-17.82/-16.95	-18.43/-17.73	-17.71/-18.19	-17.95/-19.16	-18.38/-18.08	-18.42/-18.63	-17.75/-16.58	-16.05/-18.41	-19.13/-17.43	-18.14/-18.28	-18.9/-19.05	-17.89/-16.45	-16.32/-18.23			
Theta (172.5°)	-15.64/-15.42	-15.64/-14.78	-14.84/-16.18	-19.37/-18.16	-18.01/-17.88	-16.58/-16.67	-15.75/-15.79	-17.02/-17.43	-18.79/-18.94	-17.84/-18.99	-17.85/-18.42	-18.58/-18.23	-18.3/-17.02	-17.61/-18.26	-18.45/-18.73	-18.29/-19.1	-19.17/-18	-18.61/-18.07	-18.92/-17.92	-17.88/-19.12	-18.04/-18.87	-17.33/-18.81	-17.99/-16.03	-14.95/-14.97			
Theta (180°)	-18.6/-17.27	-17.28/-17.12	-18.55/-19.02	-18.69/-15.74	-14.62/-14.24	-14.62/-15.14	-16.91/-16.99	-17.17/-17.75	-17.14/-17.78	-19.14/-19.09	-18.86/-17.93	-18.92/-18.63	-17.27/-17.25	-16.91/-16.04	-15.52/-13.93	-13.67/-13.57	-14.69/-15.42	-16.36/-17.73	-18.05/-18.33	-18.73/-18.88	-18.81/-18.22	-18.91/-18.84	-18.24/-17.53	-19/-18.84			
Freq (Hz)	6.995GPol	ThetaAnt. 4	PhiAnt. 4	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°																			



Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 2 Max Gain (dBi)	3.38	4	5.81	4.76
Ant. 3 Max Gain (dBi)	3.54	2.54	3.51	3.97
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/0	Theta/67.5/157.5	Theta/67.5/97.5	Theta/75/97.5
Ant. 3 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/307.5	Theta/75/135	Theta/82.5/270	Theta/82.5/300
Max Gain (dBi)	3.54	4	5.81	4.76
DG [1SS] (dBi)	5.03	5.33	6.74	6.33
DG [2SS] (dBi)	3.54	4	5.81	4.76







# Radiated Composite Gain Data Radio 2 (2TX)

# Appendix B.2

Theta (°)	2.04/1.75	2.16/3.6	5.34/8.61	10.44/11.54	10.7/9.3	7.19/7.03	8.46/10.98	9.92/7.23	5.25/4.77	4.99/3.42	3.2/4.64	5.72/4.93	4.32/4.7	5.43/6.51	7.5/8.86	8.28/8.33	10.33/11.36	10.15/9.84	9.52/6.6	3.55/3.42	5.26/7.57	8.78/6.79	5.08/4.02	3.36/3.29
Theta (30°)	-2.32/2.61	-4.74/6.02	-6.65/6.95	-8.64/14.03	-10.99/10.84	-9.57/6.38	-9.05/11.36	-10.6/10.3	-8.03/8.31	-9.4/6.17	-4.23/3.03	-1.88/1.09	<b>-1.04/2.43</b>	4.5/5.76	9.64/14.63	-12.32/12.86	-14.26/11.56	-13.48/11.46	-8.55/8.67	-6.6/6.12	-8.98/12.51	-14.62/13.26	-11.19/8.11	6.2/3.24
Theta (45°)	-5.66/4.94	-9.61/12.31	-10.32/8.95	-7.89/7.96	-8.36/10.28	-12.49/10.23	-12.49/10.23	-9.51/10.61	-15.12/14.75	-10.47/5.59	-6.41/5.29	-4.26/4.92	-4.81/2.44	-2.44/3.9	-5.44/6.13	-8.4/14.4	-13.55/8.69	-8.37/10.86	-7.2/9.89	-7.22/8.66	-9.31/8.02	-9.38/11.38	-8.57/7.04	
Theta (60°)	-8.45/6.72	-7.92/8.75	-7.64/8.86	-8.19/5.5	-5.88/7.02	-8.28/12.65	-8.25/6.49	-14.9/10.06	-6.17/4.98	-5.91/6.57	-8.94/10.25	-9.84/5.52	-3.53/5.65	-6.87/8.4	-6.47/8.68	-7.73/12.57	-9.13/6.92	-8.19/10.08	-8.78/6.6	-11.55/4.95	-8.13/9.03	-10.25/6.89	-6.9/9.98	-7.82/7.02
Theta (75°)	-15.39/11.29	-4.66/5.7	-7.73/8.98	-8.95/8.31	-10.15/7.11	-7.65/8.42	-8.91/9.51	9.4/3.31	-5.11/6.89	-8.76/5.77	-8.44/8.98	-9.77/11.72	-11.16/10.49	-8.11/9.59	-7.23/8.83	-8.12/13.31	-9.64/14.78	-11.5/10.38	-9.62/9.39	-9.59/10.08	-12.02/6.46	-8.98/6.28	-7.32/8.16	-7.6/7.154
Theta (90°)	-9.44/10.29	-5.1/9.5	-9.51/13.83	-12.37/8.25	-13.84/15.22	-14.16/7.51	-10.55/10.59	-7.06/4.7	-9.69/8.55	-11.86/7.32	-10.04/6.93	-6.51/9.29	-9.02/9.27	-10.03/10.78	-9.78/8.75	-12.72/7.59	-13.65/13.73	-15.97/11.79	-11.4/8.4	-8.65/13.81	-11.4/8.4	-8.65/13.81	-14.91/10.86	-10.96/14.48
Theta (105°)	-7.9/11	-10.86/14.98	-8.3/13.38	-15.26/11.21	-13.26/13.04	-9.2/8.91	-14.31/13.91	-12.15/10.37	-11.83/11.98	-8.26/9.23	-14.88/7.06	-5.96/12.19	-9.36/10.15	-11.91/12.63	-12.32/12.06	-14.37/7.57	-10.94/14.86	-14.42/15.14	-11.8/11.27	-15.36/11.86	-15.29/14.21	-12.68/14.61	-9.49/10.23	-15.03/10.67
Theta (120°)	-11.14/15.72	8/12.53	-5.95/13.69	-12.08/15.13	-11.73/15.91	-7.06/9.54	-12.1/9.3	-15.8/12.11	-9.02/7.51	-6.48/7.88	-11.54/9.53	-5.82/9.48	-10/12.84	-11.24/12.26	-7.84/15.33	-9.64/10.21	-10.85/11.02	-10.86/15.7	-15.15/12.19	-13.27/11.56	-12.54/8.53	-11.65/10.46	-7.24/7.35	-7.68/5.75
Theta (135°)	-13.71/13.26	-5.62/8.73	-5.21/12.09	-7.56/13.83	-8.74/13.55	-5.68/11.91	-12.67/10.28	-15.52/10.16	-7.51/7.32	-8.06/7.98	-5.77/8.62	-9.27/14.56	-11.05/9.63	-6/14.96	-8.55/10.05	-10.89/15.95	-14.95/11.12	-9.07/13	-7.8/4.64	-10.66/12.94	-7.56/8.58	-4.54/5.1		
Theta (150°)	-12.54/10.93	-5.22/8.25	-7.02/10.51	-7.52/14.82	-10.9/11.93	-7.26/14.11	-12.92/11.55	-14.98/12.34	-7.55/9.17	-10.07/8.7	-9.81/9.22	-6.1/7.63	-10.62/13.06	-11.3/10.54	-6.71/13.94	-11/8.87	-13.79/14.52	-11.07/13.81	-13.42/15.49	-7.94/13.27	-7.53/5.69	-12.18/15.86	-10.39/11.1	-4.11/5.78
Theta (165°)	-11.22/9.72	-6.49/8.92	-10.37/9.79	-9.78/14.75	-16.05/10.87	-8.73/14.39	-13.98/13.21	-13.76/13.42	-8.66/10.93	-11.45/9.88	-10.07/9.9	-8.08/7.81	-10.67/14.62	-11.13/11.25	-9.47/16.32	-15.61/11.27	-13.24/14.95	-13.17/14.06	-14.69/15.36	-12.14/13.37	-11.02/7.57	-15.31/14.72	-12.2/12.58	-5.63/8.02
Theta (180°)	-12.87/9.22	-7.96/11.56	-14.53/11.25	-14.1/15.2	-15.29/10.35	-10.26/12.13	-12.79/14.3	-9.8/10.3	-8.65/13.53	-11.71/10.61	-9.77/11.52	-10.69/9.19	-12.03/14.59	-12.43/10.42	-9.97/14.19	-15.41/12.39	-10.3/16.26	-11.52/13.41	-13.89/14.63	-15.42/12.48	-9.94/8.9	-15.35/13.23	-13.68/14.65	-7.28/10.36
Theta (210°)	-15.13/11.14	-13.65/15.08	-12.1/12.94	-14.8/13.94	-14.76/10.96	-13.21/12.5	-11.52/14.98	-7.94/12.67	-10.9/13.56	-13.79/10.2	-7.92/14.28	-14/9.49	-13.75/14.62	-13.43/11.54	-11.72/14.86	-15.67/13.98	-9.02/15.3	-12.85/14.05	-15.72/14.87	-15.66/12.06	-13.33/10.87	-15.15/11.5	-12.08/12.99	-10.33/12.84
Theta (225°)	-15.14/15.13	-10.36/16.08	-13.91/13.73	-15.25/13.31	-10.36/11.59	-15.36/14.83	-12.21/13.58	-8.93/11.18	-12.02/13.05	-12.44/13.32	-7.6/12.4	-12.13/12.54	-15.82/15.55	-12.67/11.43	-12.11/11.97	-15.23/13.26	-11.88/11.16	-16.33/15.25	-15.65/13.27	-11.87/12.99	-12.07/15.6	-11.8/13.12	-14.02/11.88	-10.22/11.81
Theta (240°)	-13.23/11.59	-13.39/12.83	-15.15/15.14	-12.82/15.81	-7.49/12.6	-15.08/15.63	-9.57/9.11	-9.8/10.5	-14.3/11.23	-11.78/10.42	-10.59/10.57	-14.6/15	-14.71/11.33	-12.53/9.26	-15.41/11.3	-12.04/12.11	-15.93/13.54	-10.66/13.18	-15.31/9.08	-11.83/12.68	-10.18/13.43	-12.67/12.2	-13.11/11.1	-13.11/11.1
Theta (270°)	-14.19/13.85	-15.07/14.48	-15.67/14.7	-12.41/15.68	-8.96/14.59	-15.28/13.67	-8.54/10.3	-7.78/11.27	-10.9/11.08	-11.57/11.98	-15.75/10.79	-8.87/10.71	-12.86/11.52	-11.21/12.73	-10.52/12.61	-12.24/10.16	-15.39/12.51	-12.09/14.11	-12.21/13.63	-15.38/10.38	-11.38/13.69	-13.18/14.73	-9.38/11.39	-12.61/15.72
Theta (300°)	-15.28/14.06	-15.11/15	-10.61/13.54	-14.83/14.39	-14.94/12.65	-12.51/11.94	-9.15/12.14	-7.68/13.37	-10.48/11.59	-12.28/14.54	-15.41/10.16	-8.56/9.77	-12.23/12.67	-8.61/9.33	-15.97/10.51	-12.89/15.69	-14/15.29	-12.85/14.79	-12.49/15.18	-13.14/14.84	-13.46/14.97	-13.47/9.56	-14.07/10.29	-11.7/14.15
Theta (315°)	-11.37/12.71	-10.91/12.91	-11.84/12.74	-14.1/10.65	-9.13/12.5	-11.57/8.71	-8.37/11.5	-10.35/12.23	-11.09/11.17	-14.21/15.67	-15.4/14.42	-12.71/9.92	-9.55/14.07	-14.62/12.08	-14.55/16.01	-14.48/14.14	-15.58/14.86	-14.14/15.65	-12.95/11.65	-15.70/10.22	-14.17/15.88	-13.67/15.16	-14.41/11.26	-13.91/12.48
Theta (330°)	-12.52/15.39	-14.23/12.61	-12.5/11.53	-14.05/12.66	-11.14/14.22	-15.23/10.81	-9.96/11.25	-11.12/11.58	-13.6/15.68	-15.7/15.16	-14.48/15.87	-14.46/14.46	-15.31/13.73	-14.24/13.13	-14.15/15.03	-15.28/14.83	-13.51/12.65	-15.29/13.81	-11.93/14.23	-15.87/10.03	-12.77/15.72	-15.23/14.08	-10.12/10.83	-13.66/11.59
Theta (345°)	-14.39/13.85	-12.32/11.65	-12.52/14.94	-13.64/12.4	-12.61/14.1	-14.98/13.09	-11.63/15.51	-14.06/14.37	-10.25/9.26	-9.29/10.32	-11.49/15.44	-15.67/14.1	-12.94/13.44	-13.83/12.65	-11.64/12.28	-14.75/15.63	-14.19/14.88	-10.56/10.06	-12.37/14.53	-14.96/13.14	-13.94/14.62	-14.05/15.27	-12.66/12.11	-13.76/15.31
Theta (360°)	-8.44/9.73	-11.36/10.81	-12.99/12.49	-11.87/13.07	-12.69/13.43	-12.32/13.19	-14.13/15.24	-14.65/15.41	-13.77/13.06	-13.31/13.54	-13/12.72	-11.68/12.17	-12/12.61	-13.47/15.17	-15.5/14.73	-16.27/16.09	-15.29/14.58	-14.34/14.63	-15.37/15.82	-15.25/13.8	-13.49/14.72	-13.38/13.22	-12.56/11.17	-8.71/8.76
Theta (375°)	-11.58/11.13	-10.56/10.57	-10.86/11.89	-11.86/11.98	-11.38/12.22	-12.64/13.79	-14.12/14.72	-15.41/16.11	-14.71/14.75	-15.19/14.92	-15.06/14.85	-15.35/16.08	-14.9/13.98	-15.04/15.35	-16.04/15.89	-16.06/14.92	-14.92/15.29	-13.59/14.88	-15.61/15.75	-14.4/12.89	-13.49/12.37	-12.59/12.94	-13.62/12.61	-11.44/11.12
Phi (Hz)	6.995GPol.	Theta	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi
DC (dB)	Phi(0°)	Phi(15°)	Phi(30°)	Phi(45°)	Phi(60°)	Phi(75°)	Phi(90°)	Phi(105°)	Phi(120°)	Phi(135°)	Phi(150°)	Phi(165°)	Phi(180°)	Phi(195°)	Phi(210°)	Phi(225°)	Phi(240°)	Phi(255°)	Phi(270°)	Phi(285°)	Phi(300°)	Phi(315°)	Phi(330°)	Phi(345°)
Theta (0°)	-12.85/10.62	8.78/6.74	-5.26/4.48	-4/3.43	-3.15/3.06	-2.9/3.11	-3.18/3.57	-3.99/4.86	-6.52/7.86	-8.61/11.93	-15.26/15.2	-15.05/14.38	-13.37/11.59	-9.34/7.67	-6.25/5.3	-4.85/3.75	-3.11/2.8	-2.99/3.05	-3.14/3.52	-4.17/5	-5.73/4.2	-9.18/11.35	-13.62/14.8	-15.95/14.97
Theta (15°)	-10.59/10.5	-10.12/9.06	-7.87/6.59	-5.76/4.5	-3.74/4.34	-3.42/3.13	-2.96/2.82	-2.96/3.49	-4.45/4.98	-5.9/7.72	-10.82/14.43	-15.54/15.33	-10.66/7.91	-6.1/4.38	-3.09/2.68	-2.39/1.94	-1.64/1.6	-2.29/3.1	-3.69/4.47	-5.23/5.94	-6.1/6.95	-8.01/9.2	-9.52/10.14	-10.96/10.62
Theta (30°)	-4.22/4.86	-5.68/6.05	-5.47/4.98	-4.53/4.38	-4.09/3.37	-2.31/3.37	-1.11/1.34	-1.82/2.52	-3.28/5.13	-6.21/7.35	-8.94/9.94	-10.94/10.69	-10.53/10.13	-9.29/6.87	-4.98/3.12	-2.1/1.19	-1.26/2.26	-3.51/4.52	-5.12/6.17	-7.57/4.8	-6.55/5.39	-15.2/4.51	-4.51/4.98	-4.92/4.09
Theta (45°)	-3.94/5.32	-5.48/5.74	-4.7/3.41	-3.37/3.73	-4.13/4.84	-4.1/2.02	-2/3.11	-4.32/5.38	-6.77/5.45	-3.32/3.11	-5.57/7.62	-7.74/8.59	-9.41/9.24	-7.63/5.78	-5.15/4.94	-3.48/3.13	-3.12/3.92	-4.2/4.03	-3.65/3.54	-3.54/3.44	-3.39/3	-2.98/2.82	-2.83/3.4	-3.31/3.37
Theta (60°)	-1.2/1.42	-1.34/1.93	-2.59/1.9	-2.52/1.58	-5.61/3.4	-1.11/1.08	-2.02/2.16	-1.72/1.58	-2.27/3.85	-2.3/2.18	-6.65/12.49	-9.91/9.08	-7.31/6.53	-6.57/5.51	-3.75/2.56	-1.020/31	0.540/3	0.53/0.96	-2.03/3.12	-4.52/5.75	-4.05/6.05	0.61/0.16	-1.93/2.12	-0.77/0.4
Theta (75°)	1.01/0.29	-1.26/2.22	-1.620/4.4	0.87/1.35	-3.81/4.72	-3.68/2.7	-2.96/3.1	-2.11/0.51	-0.54/3.55	-4.07/4.92	-8.03/6.5	-6.08/6.57	-6.25/4.61	-7.59/8	-2.57/0.67	0.020/19	0.26/1.28	-0.96/2.43	-6.45/9.39	-5.1/1.07	0.842/21	2.651/64	0.40/16	-0.440/64
Theta (90°)	1.67/1.54	0.51/2.39	-2.990/63	0.04/0.28	0.110/51	-3.63/2.66	-1.94/4.51	-1.94/0.68	0.28/2.24	-2.97/2.61	-3.93/3.85	-2.59/1.02	-0.930/16	1.24/1.07	0.940/52	0.890/77	0.51/1.61	-1.51/0.65	-3.75/4.5	-0.880/63	1.03/0.47	0.68/0.28	-0.52/1	1.390/99
Theta (105°)	1.22/9.2	2.18/0.49	-0.923/24	1.94/0.7	-1.430/8.5	0.23/3	-3.192/13	3.61/96	1.36/0.15	0.781/54	1.92/1	0.6/3.2	-0.420/7	3.12/15	1.021/18	0.75/0.07	-0.41/1.23	-0.35/1.76	-1.94/3.26	-2.11/2.09	0.481/99	3.792/529	1.052/25	2.852/13
Theta (120°)	3.02/4.06	3.020/51	0.253/73	2.30/79	0.13/1.25	1.920/8	1.716/22	5.533/34	2.961/8	1.752/61	3.84/35	3.512/51	2.32/72	2.883/56	2.732/24	0.32/0.15	-1.27/1.28	0.63/3	-0.34/1.07	-6.36/8.78	1.183/36	3.32/82	0.982/17	2.092/8
Theta (135°)	5.11/0.47	2.61/81	0.42/98	0.505/26	0.430/45	2.1/1.6	<b>2.586/74</b>	4.862/76	2.943/67	3.423/73	3.634/61	5.114/27	4.64/75	3.493/98	3.532/87	1.306/69	-1.110/16	2.624/19	1.490/9	-4.01/3.94	3.043/24	1.731/88	1.363/49	1.133/15
Theta (150°)	5.483/22	1.583/84	1.492/86	0.630/62</																				



Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.06	3.81	3.38	3.2	2.54	3.32	3	4.97	4.81
Ant. 2 Max Gain (dBi)	2.52	3.21	2.86	3.11	3.78	3.22	4.16	3	3.45
Ant. 3 Max Gain (dBi)	3.05								
Ant. 1 Polarization/ $\theta$ (°)/ $\Phi$ (°)	Theta/60/270	Theta/67.5/60	Theta/67.5/60	Theta/75/37.5	Theta/52.5/0	Theta/67.5/75	Theta/67.5/75	Theta/75/75	Theta/75/75
Ant. 2 Polarization/ $\theta$ (°)/ $\Phi$ (°)	Theta/60/90	Theta/75/142.5	Theta/82.5/217.5	Theta/60/120	Theta/60/127.5	Theta/75/255	Theta/75/255	Theta/75/105	Theta/82.5/202.5
Ant. 3 Polarization/ $\theta$ (°)/ $\Phi$ (°)	Theta/60/262.5								







# Radiated Composite Gain Data Radio 3 & Radio 4

# Appendix C

Theta	Phi	Gain	Phi(0°)	Phi(15°)	Phi(30°)	Phi(45°)	Phi(60°)	Phi(75°)	Phi(90°)	Phi(105°)	Phi(120°)	Phi(135°)	Phi(150°)	Phi(165°)	Phi(180°)	Phi(195°)	Phi(210°)	Phi(225°)	Phi(240°)	Phi(255°)	Phi(270°)	Phi(285°)	Phi(300°)	Phi(315°)	Phi(330°)	Phi(345°)	
Theta(7.5°)	Phi(9°)	9.13/9.12	-5.76/4.28	-11.96/9.88	-9.56/6.91	-8.16/14.71	-4.49/6.56	-4.76/-7.62	-7.14/-11.58	-8.46/-7.65	-9.59/10	-8.84/5.2	-3.02/3.1	-5.68/7.11	-7.32/5.88	-7.59/5.27	-5.94/9.51	-7.91/14.32	-15.06/13.53	-6.78/10.41	-18.61/17.85	-6.4/7.42	-17.31/7.11	-3.98/5.35	-6.01/4.05		
Theta(7.5°)	Phi(15°)	-7.01/-10.09	-5.42/4.25	-11.21/5.37	-6.18/-12	-12.12/10.24	-3.89/8.03	-6.88/-14.78	-19.29/18.29	-18.43/14.37	-17.74/-15.6	-14.2/-9.11	-5.53/4.01	-5.22/5.75	-8.43/-6.48	-7.13/6.07	-4.53/9.88	-8.87/-11.32	-15.77/15.97	-6.51/9.46	-12.03/19.02	-8.33/8.48	-13.66/5.47	-2.13/4.35	-3.61/1.86		
Theta(7.5°)	Phi(22.5°)	-9.82/-10.73	-6.07/5.99	-13.81/4.66	-5.23/15.84	-15.13/6.77	-4.81/-11.08	-8.55/13	-16.88/-11.56	-14.86/14.32	-17.93/17.16	-16.22/11.96	-6.45/-7.79	-5.63/5.8	-8.99/7.79	-6.32/7.7	-6.37/9.08	-11.21/11.52	-18.55/13.26	-6.33/10.67	-11.82/18.6	-13.66/8.87	-9.61/6.31	-3.97/7.14	-4.28/2.44		
Theta(7.5°)	Phi(30°)	-11.21/13.89	-7.03/9.57	-15.97/4.53	-5.71/13.84	-14.97/5.89	-5.94/14.92	-10.64/8.68	-11.99/8.5	-9.27/8.91	-16.95/19.34	-18.56/12.91	-8.97/10.51	-6.89/7.45	-8.44/7.36	-6.8/8.13	-8.59/9.16	-12.95/13.61	-15.24/11.33	-8.79/13.64	-13.22/14.49	-17.63/11.6	-7.92/11.2	-6.36/10.52	-8.15/4.43		
Theta(7.5°)	Phi(37.5°)	-10.24/13.73	-8.61/17.7	-11.04/5.83	-6.63/16.95	-12.2/6.72	-7/18.67	-11.66/7.18	-8.57/7.64	-8.06/8.4	-13.39/17.85	-18.29/13.92	-11.72/10.6	-8.68/10.91	-8.89/9.04	-9.75/8.66	-9.88/10.43	-11.88/13.94	-18.24/11.62	-10.62/10.81	-15.79/15.87	-18.22/17.68	-9.11/18.72	-9.93/13.6	-11.96/8.04		
Theta(7.5°)	Phi(45°)	-12.69/15.71	-12.19/16.07	-8.89/7.07	-9.07/17.02	-13.19/7.14	-11.36/18.17	-13.1/7.36	-9.36/8.89	-8.11/8.26	-14.58/15.33	-18.36/12.68	-15.77/12.62	-14.37/12.73	-10.47/8.9	-10.06/10.15	-10.79/12.93	-12.04/13.81	-16.02/14.13	-14.12/12.75	-10.82/16	-17.95/17.7	-11.52/10.02	-12.92/12.85	-16.04/16.22		
Theta(7.5°)	Phi(52.5°)	-18.49/16.74	-10.43/10.38	-9.63/9.2	-14.77/13.33	-11.72/8.59	-12.26/18.08	-13.98/8.23	-11.66/9.91	-8.84/10.13	-13.01/17.36	-19.47/13.58	-18.1/15.03	-8.74/12.74	-11.4/12.4	-18.21/9.1	-10.11/16.37	-13.65/13.32	-18.64/16.9	-12.67/11.77	-15.06/14.53	-13.24/17.52	-10.6/10.24	-19.02/18.21	-17.54/15.54		
Theta(7.5°)	Phi(60°)	-19.07/9.68	-8.98/8.72	-16.53/13.12	-17.05/12.12	-9.85/11.08	-16.28/18.52	-13.47/13.14	-16.68/12.39	-9.5/11.73	-11.45/14.42	-16.37/13.9	-17.7/17.82	-14.11/12.94	-11.57/13.67	-18.85/11.78	-11.4/10.49	-15.16/16.63	-19.56/18.38	-18.16/10.59	-12.71/13.99	-12.09/13.02	-15.07/10.26	-15.52/12.97	-17.49/9.72		
Theta(7.5°)	Phi(67.5°)	-12.69/7.49	-10.59/13.51	-19.05/17.3	-10.19/16.92	-11.1/12.97	-16.51/16.02	-17.01/17.86	-17.4/13.08	-10.13/9.45	-13.44/17.16	-16.41/17.2	-17.77/17.36	-14.25/13.18	-13.99/18.12	-18.35/18.87	-10.22/10.81	-12.74/16.76	-18.06/18.34	-15.55/15.65	-10.6/13.28	-18.62/15.91	-9.51/19.09	-13.38/11.18	-18.32/9.94		
Theta(7.5°)	Phi(75°)	-18.65/10.23	-15.14/19.04	-18.93/8.63	-9.53/15.3	-11.94/17.67	-17.39/16.87	-16.97/15.99	-14.91/11.99	-11.31/13.15	-16.4/18.48	-17.59/15.35	-18.72/19.06	-17.26/13.15	-12.11/16.13	-19.35/19.03	-16.01/11.28	-13.52/13.99	-18.14/18.51	-12.9/16.52	-15.47/18.76	-18.44/18.59	-11.32/15.7	-14.29/11.01	-15.06/13.18		
Theta(7.5°)	Phi(82.5°)	-18.15/11.15	-15.08/17.64	-13.35/15.59	-18.36/9.54	-13.19/15.27	-15.95/18.76	-19.24/18.32	-18.92/18.96	-15.48/16.01	-18/12.36	-11.07/16.06	-17.17/10.86	-12.6/18.66	-14.53/14.06	-18.01/15.46	-18.01/15.46	-18.01/15.46	-17.95/18.88	-15.99/18.59	-15.2/17.46	-17.32/19.36	-18.72/17.47	-13.98/18.93	-12.59/12.47		
Theta(7.5°)	Phi(90°)	-18.17/15.76	-17.17/11.89	-15.98/10.55	-18.97/17.38	-18.06/12.16	-14.97/19.26	-12.28/18.19	-19.03/19.11	-11.76/15.54	-10.11/15.65	-17.59/17.73	-19.12/17.71	-12.21/14.81	-17.04/17.24	-15.19/15.71	-19.08/17.96	-19.17/16.79	-18.3/16.93	-15.08/17.94	-19.06/18.21	-14.22/18.18	-18.71/14.61	-11.82/14.76			
Theta(7.5°)	Phi(97.5°)	-13.61/12.17	-12.53/13.87	-17.48/15.87	-13.39/12.97	-10.91/10.98	-15.55/14.39	-10.62/12.04	-15.98/15.17	-12.1/12.06	-12.19/13.5	-14.26/13.85	-13.17/16.54	-18.83/14.45	-14.17/13.43	-13.04/19.36	-18.6/18.87	-15.79/14.32	-14.33/13.33	-12.78/14.12	-18.65/17.29	-18.98/18.2	-15.26/16.36	-17.51/13.93	-14.23/14.52		
Theta(7.5°)	Phi(105°)	-17.09/15.56	-18.27/16.75	-13.6/12.66	-13.51/16.33	-18.63/17.83	-12.92/10.57	-10.02/12.79	-15.42/13.78	-12.44/12.98	-16.83/18.93	-16.99/18.89	-16.98/15.26	-16.08/18.85	-19.17/18.28	-14.8/12.65	-11.83/12.72	-14.56/18.35	-19.1/14.89	-14.63/18.76	-18.04/18.75	-19.07/19.73	-16.91/16.47	-17.43/15.58	-12.59/12.47		
Theta(7.5°)	Phi(112.5°)	-18.54/18.38	-18.19/18.63	-18.99/18.35	-19.18/29	-17.9/18.94	-18.74/17.82	-18.52/17.12	-17.38/18.23	-18.88/17.59	-18.54/17.64	-15.92/17.04	-14.7/13.16	-13.28/15.51	-19.31/18.76	-19.41/16.23	-16.93/17.96	-18.56/19.22	-18.16/19.22	-17.9/18.9	-17.92/18.94	-17.13/18.27	-17.39/18.44	-17.43/15.91	-19.1/19.24		
Theta(7.5°)	Phi(120°)	-17.49/18.43	-17.95/18.44	-18.73/18.92	-18.59/17.93	-18.82/17.49	-19.23/19.12	-18.4/18.29	-17.84/17.79	-16.49/16.11	-16.23/15.76	-14.99/14.43	-15.1/18.98	-18.42/17.53	-17.88/18.49	-19.02/18.31	-17.89/18.18	-18.92/18.44	-18.65/19.13	-18.48/18.05	-17.8/18.59	-19.52/19	-18.55/19.06	-17.84/16.77	-18.35/18.51		
Theta(7.5°)	Phi(127.5°)	5.785/GPol	Theta/Ant. 1																								
Theta(7.5°)	Phi(135°)	Gain	Phi(0°)	Phi(15°)	Phi(30°)	Phi(45°)	Phi(60°)	Phi(75°)	Phi(90°)	Phi(105°)	Phi(120°)	Phi(135°)	Phi(150°)	Phi(165°)	Phi(180°)	Phi(195°)	Phi(210°)	Phi(225°)	Phi(240°)	Phi(255°)	Phi(270°)	Phi(285°)	Phi(300°)	Phi(315°)	Phi(330°)	Phi(345°)	
Theta(7.5°)	Phi(142.5°)	9.14/9.49	-10.43/10.51	9.86/8.6	-7.5/6.34	-5.19/4.4	-4.08/3.1	2.52/2.68	2.52/2.17	-2/2.03	-2.55/3.26	-3.52/4.13	-5.72/7.01	-8.46/9.78	-11.96/15.56	-18.17/16.5	-12.76/10.37	-8.48/6.52	-4.86/4.22	-4.03/3.91	-3.59/3.31	-3.16/3.67	-4.01/4.46	-4.98/5.98	-6.64/8.01		
Theta(7.5°)	Phi(150°)	-4.96/6.25	-7.24/8.84	-10.59/13.45	-14.35/15.37	-11.01/9.6	-8.04/6.21	5.09/5.14	4.85/4.67	-4.68/4.36	4.04/4.46	5.31/5.27	5.02/5.18	-5.72/6.27	6.55/6.05	6.15/5.88	-5.14/4.56	-3.82/3.04	-2.12/1.64	-1.73/1.69	-1.88/2.23	-2.35/2.28	-2.42/2.76	-3.24/3.39	-4.14/4.45		
Theta(7.5°)	Phi(157.5°)	-10.15/10.7	-10.69/8.64	-7.85/9.38	-10.37/11.52	-8.93/8.65	-6.25/6.47	-4.2/3.25	-3.15/3.77	-6.08/8.55	-14.57/17.65	-15.55/15.53	-14.02/11.29	-8.79/9.09	6.72/6.47	6.33/5.84	-7.13/7.17	-6.91/6.76	-6.03/4.79	-3.75/4.91	-2.27/1.68	-1.47/1.44	-2.12/3.28	-5.78/6.02			
Theta(7.5°)	Phi(165°)	8.04/7.56	6.87/7.11	5.71/5.19	6.84/10.78	18.71/15.82	7.93/5.37	4.95/4.68	5.53/5.46	5.03/4.6	-5.98/7.96	-10.69/11.32	-10.11/8.93	9.07/9.21	6.89/5.26	4.29/3.63	2.98/3.29	-5.03/6.59	6.52/6.41	6.11/5.06	-3.05/1.29	0.68/0.71	-1.54/2.71	3.87/4.23	-5.71/7.63		
Theta(7.5°)	Phi(172.5°)	-10.46/8.2	-4.15/4.85	-7.4/10.58	-12.78/8.46	-6.74/8.39	-9.67/11.19	-14.31/14.11	-10.45/11.68	-11.67/17.7	-9.29/13.96	-14.4/10.44	-7.78/5.88	6.27/7.74	-7.3/5.34	-3.7/4.07	-4.31/3.68	-5.01/5.42	-2.95/1.74	-2.52/3.73	-3.27/2.88	-2.41/1.8	-0.09/0.83	-2.41/2.21	-4.07/1.79		
Theta(7.5°)	Phi(180°)	-5.3/7.6	-4.18/3.15	-2.84/2.87	-9.8/4.19	-2.84/2.87	-4.49/8.18	-7.82/7.6	-3.92/3.04	-8.95/9.57	-11.12/18.39	-12.02/17.86	-10.82/9.8	-6.94/5.84	-5.33/3.87	-9.54/6.67	-2.43/3.51	-1.46/0.54	-6.66/1.27	-1.73/2.4	-1.85/1.18	-1.07/1.02	-1.07/1.02	-1.07/1.02	-1.07/1.02		
Theta(7.5°)	Phi(187.5°)	0.09/2.09	-2.39/3.67	-4.41/6.07	-4.49/0.75	-2.34/3.75	-1.59/5.96	-4.78/3.5	-6.09/4.62	-6.96/3.39	-3.45/3.13	-9.29/5.44	-1.880/4.4	0.07/0.17	-3.37/8.73	-6.57/5.26	-8.32/8.11	-3.65/7.18	-5.32/1.48	-3.15/0.1	-0.15/0.24	1.540/3.1	-1.56/1.24	-3.02/4.1	-2.9/2.65		
Theta(7.5°)	Phi(195°)	2.54/0.94	-0.71/0.61	0.97/3.34	-2.49/0.78	0.22/5.6	0.88/2.7	0.26/0.8	-10.04/8.03	-13.56/8.59	8.05/11.11	9.94/3.95	-0.390/8.1	0.06/1.16	4.44/11.65	-14.19/7.64	-6.48/7.78	-3.8/11.08	-12.9/5.16	-6.26/2.4	1.29/0.41	1.181/0.7	0.050/0.6	-1.55/3.49	-3.78/0.18		
Theta(7.5°)	Phi(202.5°)	1.94/0.4	2.42/0.27	2.7/2.77	-1.82/1.38	1.98/2.91	0.040/4.3	-0.35/0.33	-6.74/4.97	6.62/7.77	15.24/20.84	8.75/6.22	3.04/2.55	-3.02/2.88	-3.38/6.76	-10.52/6.09	-2.99/4.5	-0.37/4.49	-7.64/6.89	6.52/2.53	2.7/0.96	0.610/7.4	-1.090/0.5	0.64/4.59	-3.40/2.28		
Theta(7.5°)	Phi(210°)	1.440/7.1	-1.220/2.5	0.6/0.4	-0.39/1.36	1.38/0.57	1.14/1.76	-2.45/0.87	-2.63/0.77	-3.83/3.52	8.7/5.45	-7.28/10.02	-2.340/8.3	0.13/1.38	-4.19/6.76	-5.2/4.62	-1.87/4.43	-0.56/2.57	-1.42/4.14	-5.33/1.46	-1.31/0.43	10.79	-1.970/3.1	-0.27/3.25	-0.320/8.2		
Theta(7.5°)	Phi(217.5°)	1.170/9.1	0.93/1.37	-0.06/2.06	1.17/1.14	1.01/0.6	0.96/0.1	3.18/0.56	0.080/1.7	-1.7/3.03	-6.09/2.99	4.39/11.15	2.99/1.4	0.94/1.29	4.06/4.72	-3.26/3.69	-3.28/4.62	-1.65/0.75	1.20/5.7	-1.63/1.24	-0.480/2.7	1.74/1.27	2.06/7.9	-0.5/2.18	0.261/0.6		
Theta(7.5°)	Phi(225°)	0.30/5.5	0.610/6.5	0.7/1.89	0.710/3.																						



# Radiated Composite Gain Data Radio 3 & Radio 4

# Appendix C

Theta	Phi	Gain	Phi(7.5)	Phi(15)	Phi(30)	Phi(45)	Phi(60)	Phi(75)	Phi(90)	Phi(105)	Phi(120)	Phi(135)	Phi(150)	Phi(165)	Phi(180)	Phi(195)	Phi(210)	Phi(225)	Phi(240)	Phi(255)	Phi(270)	Phi(285)	Phi(300)	Phi(315)	Phi(330)	Phi(345)
Theta(112.5)	Phi(0)	-11.75/8.89	-10.12/18.68	-10.79/9.54	-15.08/15.39	-18.36/15.62	-12.12/18.07	-18.81/13.74	-14.34/11.94	-6.63/8.35	-11.07/18.49	-13.54/17.12	-12.76/15.61	-17.19/13.6	-13.31/14.76	-15.04/14.8	-13.26/13.08	9.04/10.38	-11.21/14.61	-17.44/12.76	-11.84/10.34	-18.22/15.44	-13.62/18.83	9.68/11.91	-15.21/13.4	-19.07/19.4
Theta(120)	Phi(7.5)	-12.83/12.81	-15.99/11.92	-16.87/16.38	-15.96/15.47	-12.27/17.08	-14.64/18.87	-18.79/13.82	-16.17/11.57	-7.89/8.35	-12.9/18.29	-14.32/17.62	-16.91/14.05	-17.8/14.59	-13.12/16.68	-18.17/13.56	-15.33/14.81	-12.4/11.87	-13.96/18.21	-18.57/17.83	-11.69/11.11	-19.3/19.2	-13.02/18.22	-16.7/11.33	-17.6/18.49	-19.07/19.4
Theta(127.5)	Phi(15)	-17.51/9.09	-14.98/12.28	-19.08/17.61	-13.7/19.18	-12.34/15.76	-14.77/18.02	-14.11/18.37	-10.16/9.16	-10.11/12.51	-18.95/19.19	-14.73/13.87	-17.33/16.55	-18.31/12.39	-14.11/19.26	-16.06/15.62	-14.5/18.2	-14.05/15.46	-19.21/17.9	-10.81/11.65	-9.43/13.63	-17.12/18.26	-18.7/10.41	-17.17/13.76	-17.6/18.49	-19.07/19.4
Theta(135)	Phi(30)	-18.34/11.07	-19.22/18.42	-19.46/15.01	-14.15/11.21	-14.42/13.28	-12.58/17.51	-18.73/18.62	-14.27/11.76	-13.7/18.19	-18.39/18.74	-13.76/12.97	-16.46/16.56	-19.03/18.12	-16.06/17.5	-16.33/18.57	-17.9/18.22	-16.8/14.36	-17.48/19.13	-17.86/18.27	-16.89/16.32	-17.95/16.52	-12.39/18.62	-15.36/12.56	-18.8/11.56	-19.07/19.4
Theta(142.5)	Phi(45)	-17.54/18.06	-17.39/13.92	-14.02/15.79	-18.37/11.32	-17.28/11.1	-18.7/15.43	-18.21/17.41	-18.81/19.23	-18.65/17.75	-18.68/18.07	-10.25/12.99	-18.4/17.81	-18.48/12.71	-16.12/17.34	-17.85/18.78	-18.99/19.06	-17.41/19.12	-18.19/18.15	-18.92/18.87	-14.05/18.53	-17.6/18.21	-18.64/17.27	-18.83/17.76	-15/18.32	-19.07/19.4
Theta(150)	Phi(60)	-18.49/12.26	-11.09/11.09	-11.27/17.97	-17.49/17.22	-15.87/15.68	-18.99/10.78	-18.91/12.87	-13.51/18.88	-18.58/17.05	-12.66/12.07	-12.97/11.58	-17.8/17.73	-18.61/17.57	-14.24/18.3	-17.84/17.89	-18.61/18.37	-18.61/18.53	-17.39/17.01	-12.55/14.7	-18.42/18.67	-18.55/19.36	-16.34/16.19	-17.17/13.71	-7.55/19.19	-19.07/19.4
Theta(157.5)	Phi(75)	-9.69/12.32	-17.63/17.78	-15/15.05	-10.53/13.17	-19.48/16.79	-12.63/10.88	-13.64/14.51	-10.88/12.45	-11.39/9.97	-10.49/12.81	-15.07/19.58	-18.04/19.3	-17.47/17.37	-13.67/15.43	-19.09/19.11	-18.92/19.14	-17.63/16.29	-16.22/16.58	-16.49/17.87	-18.19/18.51	-19.16/12.95	-12.71/18.09	-19.11/15.93	-16.36/16.04	-19.07/19.4
Theta(165)	Phi(90)	-18.94/17.09	-15.22/15.05	-14.86/17.07	-18.08/18.01	-16.25/12.73	-11.39/13.59	-13.98/11.98	-11.56/12.53	-13.25/13.07	-13.66/16.94	-18.92/18.32	-17.83/17.97	-19.6/18.89	-18.61/17.83	-18.36/18.25	-18.83/17.98	-18.2/19.1	-17.94/18.97	-18.06/17.72	-19.23/18.98	-17.16/18.87	-18.28/15.9	-12.35/11.31	-14.88/18.22	-19.07/19.4
Theta(172.5)	Phi(105)	-15.94/17.9	-18.35/18.63	-17.11/18.01	-18.33/18.37	-17.63/18.49	-18.06/18.91	-17.02/16.44	-17.5/18.35	-18.63/18.8	-18.01/19.18	-19.29/18.29	-18.02/17.73	-18.82/17.98	-19.06/18.23	-18.01/18.06	-17.09/18.13	-18.52/18.51	-17.25/18.7	-17.51/18.7	-19.14/17.77	-18.7/18.78	-17.9/18.62	-18.77/16.33	-19.07/19.4	-19.07/19.4
Theta(180)	Phi(120)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(187.5)	Phi(135)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(195)	Phi(150)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(202.5)	Phi(165)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(210)	Phi(180)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(217.5)	Phi(195)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(225)	Phi(210)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(232.5)	Phi(225)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(240)	Phi(240)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(247.5)	Phi(255)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(255)	Phi(270)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(262.5)	Phi(285)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(270)	Phi(300)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(277.5)	Phi(315)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(285)	Phi(330)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(292.5)	Phi(345)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(300)	Phi(360)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23	-18.49/18.94	-18.37/18.16	-18.64/18.51	-17.58/17.54	-19.17/18.3	-17.42/18.3	-17.11/15.32	-14.32/15.62	-16.64/16.97	-18.69/18.49	-19.07/19.4
Theta(307.5)	Phi(375)	-17.95/18.12	-19.08/18.91	-19.15/19.2	-17.75/18.57	-18.05/17.54	-18.15/18.79	-17.27/17.38	-16.31/14.26	-16.02/17.55	-18.21/19.81	-18.13/16.23	-15.47/15.66	-16.73/19.3	-19.79/18.23											