



Radiated Composite Gain Data

Appendix A.4

Θ(22.5°)	-16.61-15.49	-15.65-9.77	-8.2/-2.02	-5.86/-4	-2.83/-2.79	-1.6/-0.83	-0.130-16	0.1/-0.61	-1.02/-19	-3.19/-5.25	-8.99/-10.49	-13.06/-10.05	-9.14/-12.44	-14.48/-12.58	-9.07/-6.96	-4.83/-3.7	-5.87/-8.3	-5.99/-1.79	0.24/-0.03	-3.63/-4	-3.96/-5.34	-6.51/-7.34	-9.68/-9.37	-13.58/-14.37
Θ(30°)	-17.98/-19.15	-15.7/-10.02	-10.47/-6.31	-4.84/-4.17	-1.83/-0.83	-0.370/-44	1.26/-1.99	1.750/-63	-0.98/-1.75	-3.74/-5.21	-6.87/-10.13	-19.07/-14.6	-17.91/-12.01	-14.56/-13.92	-9.22/-4.35	-3.26/-5.27	-4.26/-1.3	-1.97/-1.15	-1/-1.78	-5.8/-6.24	-4.94/-6.6	-8.43/-8.03	-8.83/-14.4	-9.28/-15.13
Θ(35°)	-16.94/-17.39	-16.74/-13.14	-9.43/-7.02	-3.4/-3.74	-3.3/-2.34	-0.53/-0.37	1.38/-1.64	-0.46/-1.51	-2.07/-2.27	-4.98/-4.8	-5.79/-12.33	-12.98/-18.41	-17.94/-18.04	-11.19/-13.04	-9.49/-5.52	-10.07/-6.24	-4.14/-2.38	-2.1/-1.15	0.34/-1.68	-2.93/-1.5	-1.29/-5.24	-6.81/-8.74	-5.7/-6.64	-13.81/-18.98
Θ(45°)	-19.12/-18.49	-15.47/-16.43	-10.84/-10.3	-6.87/-4.43	-5.26/-2.37	0.47/-1.5	2.68/-2.01	0.05/-1.44	-3.05/-6.03	-8.94/-9.25	-9.46/-14.09	-17.54/-10.43	-14.22/-18.86	-12.14/-13.27	-6.92/-11.63	-4.39/-2.09	-5.22/-3.88	-1.24/-1.48	-1.67/-5.82	-6.85/-3.61	-6.95/-9.23	-8.39/-10.17	-10.52/-13.68	-17.21/-18.84
Θ(52.5°)	-12.12/-17.31	-14.04/-17.28	-15.17/-11.5	-10.01/-4.91	-3.54/-1.85	1.832/-65	3.832/-78	1.030/-7	-1.07/-5.38	-15.98/-17.78	-11.52/-13.04	-10.46/-10.43	-13.18/-18.59	-14.11/-17.29	-7.87/-5.96	-6.74/-10.52	-5.97/-6.75	-1.38/-0.31	0.340/-42	0.57/-0.55	-5.15/-6.73	-15.84/-10.04	-12.53/-19.19	-17.92/-19.02
Θ(60°)	-18.49/-16.27	-18.61/-19.1	-12.59/-10.78	-8.37/-4.29	-3.68/-4.25	0.71/-1.92	2.84/-48	-0.05/-1.36	-3.5/-5.33	-8.35/-14.46	-10.5/-15.87	-5.35/-10.97	-19.22/-13.75	-11.81/-9.29	-7.27/-5.86	-6.68/-11.5	-6.76/-1.9	-2.41/-76	1.69/-0.76	-0.12/-3.23	-7.19/-18.84	-18.12/-18.94	-18.05/-11.38	-10.49/-17.12
Θ(67.5°)	-14.18/-19.03	-13.52/-12.23	-16.44/-9.78	-6.06/-7.15	-4.31/-1.41	0.71/-3.21	3.52/-35	2.360/-0.9	-5.12/-7.3	-5.59/-10.33	-13.94/-14.95	-7.98/-10.41	-18.31/-14.55	-12.8/-12.36	-2.18/-6.35	-9.09/-6.37	-5.49/-9.34	-4.73/-0.38	3.48/-1.7	-3.69/-4.56	0.19/-7.49	-12.98/-12.19	-19.21/-9.09	-16.97/-16.08
Θ(75°)	-15.68/-13.12	-12.17/-12.29	-10.16/-7.35	-9.02/-7.38	-1.98/-2.65	0.24/-1.99	2.72/-1.39	1.26/-0.52	-2.98/-5.54	-6.92/-10.4	-11.08/-11.31	-9.43/-14.22	-8.55/-17.81	-12.05/-7.73	-4.69/-7.16	-7.97/-5.99	-4.41/-2.56	-4.61/-2.83	-15.51/-1.98	0.960/-47	-3.27/-11.11	-10.01/-9.08	-12.41/-17.77	-18.09/-17.95
Θ(82.5°)	-10.34/-11.24	-9.73/-8.3	-9.64/-7.6	-9.68/-5.75	-2.76/-2.72	-0.01/-0.5	3.312/-67	1.53/-2.81	-6.32/-9.97	-8.5/-7.26	-8.31/-10.4	-10.86/-9.63	-7.74/-10.81	-10.36/-9.45	-2.17/-6.09	-8.06/-13.3	-2.66/-10.39	-7.08/-2.01	2.93/-4.84	2.1/-3.29	-4/-10.56	-15.75/-12.01	-10.17/-11.68	-12.25/-13.59
Θ(90°)	-11.63/-9.67	-7.21/-5.91	-8.15/-9.8	-9.38/-6.32	-5.59/-0.68	-0.42/-1.17	3.56/-2.89	3/-1.15	-5.56/-7.37	-4.74/-4.45	-8.52/-7.44	-13.1/-8.51	-14.65/-14.18	-12.49/-11.82	-6.57/-6.88	-4.77/-2.1	-3.53/-1.16	-6.41/-6.61	-2.49/-3.4	-3.71/-10.88	-8.77/-6.57	-5.34/-17.73	-15.59/-12.79	-19.1/-17.9
Θ(97.5°)	-9.72/-8.78	-7.88/-6.93	-9.4/-6.76	-9.52/-4.99	-4.820/-23	-0.69/-1.25	4.08/-3.15	2/-2.63	-7.71/-12.05	-5.6/-3.87	-8.27/-10.14	-8.78/-9.58	-12.71/-11.78	-7.66/-7.38	-6.85/-6.79	-9.940/-54	-10.42/-2.1	-2.47/-10.67	-1.81/-1.7	-2.37/-10.47	-15.14/-12.51	-5.7/-16.76	-18.66/-11.29	-18.01/-18.92
Θ(105°)	-12.73/-19.14	-5.79/-6.41	-9.11/-10.06	-10.15/-8.93	-2.89/-0.65	0.71/-0.06	2.852/-89	2.45/-0.55	-4.74/-6.62	-6.36/-3.57	-6.95/-5.98	-10.78/-5.46	-9.77/-12.75	-8.81/-11.15	-5.66/-8.75	-5.34/-14.89	-2.42/-0.95	1.54/-2.27	-0.37/-2.01	-4.1/-18.12	-18.72/-11.89	-10.26/-10.84	-17.4/-11.62	-18.11/-13.53
Θ(112.5°)	-16.39/-15.39	-6.78/-9.21	-7.65/-8.64	-7.85/-8.06	-2.70/-28	0.672/-12	32/-18	2.05/-0.99	-3.62/-5.23	-4.4/-15.26	-4.71/-17.11	-4.08/-10.15	-9.27/-10.88	-3.75/-14.26	-17.91/-2.89	-13.06/-7.63	-1.520/-16	-2.99/-3.58	-3.6/-0.22	-6.57/-12.88	-14.76/-11.49	-11.36/-10.67	-15.1/-16.72	-10.73/-18.57
Θ(120°)	-17.97/-19.08	-8.86/-11.9	-9.44/-6.76	-7.77/-6.28	-2.80/-66	0.763/-0.7	31/-88	2.091/-17	-2.34/-4.77	-5.86/-10.22	-12.28/-10.66	-6/-7	-11.12/-8.33	-6.75/-9.01	-7.9/-15.53	-8.55/-2.16	-5.9/-9.28	-8.19/-2.93	-17.63/-6.76	-3.56/-5.28	-6.43/-5.08	-6.69/-18.72	-14.65/-18.42	
Θ(127.5°)	-16.32/-15.68	-13.56/-12.72	-12.01/-8.54	-8.73/-6.66	-1.080/-03	2.062/-25	3.473/-37	3.072/-16	0.29/-3.47	-17.08/-7.69	-5.99/-6.44	-10.29/-11.21	-7.21/-19	-17.17/-1.72	-4.55/-3.82	-11.26/-6.21	-12.97/-10.76	-6.89/-6.87	-11.76/-2.46	-6.52/-9.75	-6.89/-11.26	-7.9/-1.5	-15.49/-16.76	
Θ(135°)	-11.11/-11.7	-17.98/-8.73	-7.55/-6.37	-5.46/-2.67	-1.86/-2.32	0.76/-1.86	3.120/-42	1.020/-45	-1.63/-4.87	-5.09/-6.73	-10.9/-5.19	-5.16/-8.13	-8.53/-10.63	-11.7/-15.75	-7.87/-4.25	-5.85/-5.38	-11.4/-18.81	-7.85/-7.46	-9.25/-12.91	-10.05/-8.59	-14.86/-5.77	-4.47/-7.19	-12.14/-10.65	-10.02/-17.52
Θ(142.5°)	-11.7/-9.9	-9.48/-6.35	-4.23/-3.67	-4.7/-2.68	-1.161/-48	1.12/-66	2.130/-11	-0.32/-1.02	-2.46/-6.78	-8.04/-7.14	-4.71/-5.25	-6.37/-6.45	-9.54/-11.82	-13.46/-11.7	-9.49/-14.71	-7.14/-7.39	-13.61/-9.5	-4.12/-4.42	-4.94/-10.56	-11.77/-8.79	-4.97/-2.6	-3.29/-7.46	-12.92/-10.58	-13.53/-19.4
Θ(150°)	-8.65/-6.86	-8.81/-4.03	-5.28/-2.91	-4.05/-4.38	-0.110/-36	0.011/-29	2.92/-17	-0.3/-2.42	-2.99/-5.61	-5.36/-3.71	-6.83/-8.98	-15.43/-18.13	-11.05/-11.16	-13.04/-14.41	-7.22/-19.14	-6.42/-7.92	-7.38/-9.75	-7.2/-2.29	-1.72/-4.53	-5.14/-3.3	-3.27/-4.67	-5.81/-9.59	-13.66/-15.78	
Θ(157.5°)	-8.77/-8.37	-11.74/-6.13	-7.17/-7.78	-4.22/-4.22	-2.360/-76	1.55/-1.58	1.621/-71	1.470/-68	-0.48/-1.99	-3.44/-4.15	-8.09/-16.4	-19.11/-17.41	-11.58/-17.79	-14.09/-6.4	-7.39/-15.12	-15.78/-9.05	-7.86/-9.99	-6.73/-1.65	0.43/-0.67	-2.37/-1.81	-2.16/-3.34	-4.86/-5.14	-5.27/-8.6	-18.06/-16.82
Θ(165°)	-8.75/-10.02	-18.38/-18.68	-12.03/-5.33	-6.07/-2.14	-0.77/-0.79	-1.63/-1.41	0.251/-12	0.18/-0.92	-3.04/-5.31	-5.46/-3.45	-4.75/-10.68	-18.01/-13.97	-16.26/-11.85	-8.5/-7.75	-13.39/-17.76	-14.55/-17.8	-10.91/-4.52	-3/-1.38	0.39/-1.06	1.14/-0.13	-0.02/-0.56	-2.14/-1.43	-7.22/-12.52	-15.60/-10.18
Θ(172.5°)	-9.34/-10.51	-11.4/-9.64	-6.63/-0.57	-3.84/-2.45	-1.56/-0.3	0.510/-69	0.390/-0.8	0.06/-0.37	-1.19/-2.85	-5.98/-9.32	-10.93/-13.45	-18.62/-16.64	-7.68/-9.32	-16.8/-8.72	-11.08/-6.79	-2.91/-1.63	-0.990/-63	-0.78/-1.71	0.44/-0.15	-1.62/-3.2	-3.52/-3.93	-4.24/-6.14	-6.62/-7.72	
Θ(180°)	-8.7/-9.2	-7.71/-6.56	-4.94/-4.62	-3.4/-2.9	-2/-2.44	-2.41/-2.53	-2.85/-2.22	-3.17/-3.39	-3.45/-4.89	-6.75/-9.94	-10.29/-10.11	-10.89/-10.81	-11.28/-18.18	-11.29/-11	-13.61/-10.59	-10.47/-3.56	-1.79/-1.37	-2.79/-3.74	-3.2/-2.11	-3.49/-1.58	-3.71/-5.15	-5.03/-7.02	-6.44/-6.96	
Freq(Hz)	5.66/Pol.	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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°)	-0.74/-0.63	-0.4/-1.04	-1.25/-2.28	-3.09/-3.26	-4.79/-6.26	-7.5/-10.02	-13.3/-16.38	-18.81/-15.28	-11.39/-8.98	-5.29/-4.97	-3.43/-2.37	-2.27/-0.68	-1.15/-0.26	-1.1/-0.45	-0.6/-1.76	-2.63/-3.15	-3.01/-5.6	-6.97/-9.98	-15.47/-18.18	-18.81/-14.96	-10.64/-6.59	-4.83/-3.96	-1.92/-1.79	-1.04/-1.83
Θ(7.5°)	0.24/-1.09	0.750/-97	0.54/-0.92	-1.93/-3.34	-4.78/-9.54	-7.9/-13.5	-17.31/-17.65	-15.85/-16.06	-10.62/-8.08	-6.36/-4.29	-3.22/-2.33	-1.35/-4.02	-1.69/-6.76	-1.04/-3.39	-3.37/-4.29	-3.47/-3.86	-3.67/-6.29	-8.85/-10.21	-15.66/-19.39	-15.04/-10.19	-6.54/-4.79	-3.2/-2.85	-2.57/-2.51	-0.74/-0.01
Θ(15°)	-1.16/-0.3	-1.71/-1.9	-1.19/-1.49	-2.22/-2.8	-2.77/-9.63	-14.64/-17.89	-18.02/-18.29	-17.59/-10.35	-6.73/-5.4	-2.16/-1.26	-0.560/-15	-0.85/-1.78	0.23/-2.1	-5.62/-3.24	-5.59/-5.51	-7.23/-0.35	-8.12/-11.48	-13.72/-17.19	-17.75/-16.32	-12.7/-8.06	-6.15/-6.35	-4/-3.66	-2.45/-1.9	
Θ(22.5°)	-5.26/-3.12	-4.23/-2.95	-4.27/-5.55	-3.84/-5.83	-7.83/-7.98	-8.47/-9.6	-16.37/-18.56	-15.68/-11.48	-10.5/-7.29	-5.37/-5.24	-3.84/-2.63	-3.44/-1.62	0.91/-1.37	0.13/-8.27	-3.95/-1.91	-2.79/-5.51	-7.91/-11.14	-13.18/-13.75	-18.06/-18.21	-18.24/-18.35	-12.36/-9.64	-10.57/-7.53	-4.94/-4.74	-3.43/-4.76
Θ(30°)	-7.3/-6.3	-10.55/-12.45	-6.78/-4.97	-4.89/-4.12	-4.87/-6.53	-9.97/-11.73	-18.07/-18.14	-12.15/-9.49	-8.74/-7.49	-6.9/-6.85	-5.66/-6.44	-6.33/-7.26	-3.92/-1.62	-5.49/-6.15	-1.17/-3.31	-5.57/-10.93	-12.1/-7.05	-6.09/-8.54	-13.11/-18.59	-18.75/-15.51	-11/-8.1	-12.81/-9.45	-6.35/-6.03	-4.31/-3.53
Θ(37.5°)	-9.74/-10.17	-13.09/-15.32	-8.37/-6.47	-4.85/-6.84	-9.56/-9.84	-11.75/-14.57	-18.2/-14.81	-13.37/-12.65	-8.89/-7.08	-6.82/-6.55	-5.23/-8.2	-9.58/-7.28	-8.69/-2.45	-3.84/-7.46	-4.85/-10.86	-13.32/-7.09	-5.71/-7.41	-8.01/-6.93	-8.78/-15.69	-19.11/-17.82	-11.4/-15.25	-8.23/-9.21	-10.98/-7.97	-4.79/-6.85
Θ(45°)	-15.3/-14.24	-8.88/-9.98	-9.39/-12.2	-10.81/-19.4	-10.04/-10.25	-10.22/-12.83	-18.19/-18.33	-13.83/-10.48	-10.77/-10.21	-10.76/-8.25	-8.51/-9.27	-8.78/-9.61	-10.2/-7.14	-4.55/-5.71	-4.02/-17.71	-8.21/-9.21	-5.24/-7.48	-9.26/-10.31	-14.74/-15.82	-17.93/-15.51	-11.27/-11.05	-10.78/-16.52	-8.13/-6.38	-9.15/-14.66
Θ(52.5°)	-19.08/-13.74	-9.94/-7.15	-11.85/-18.71	-16.29/-13.33	-9.04/-10.23	-10.36/-16.33	-19.05/-19.21	-12.7/-10.48	-9.47/-10.92	-10.62/-14.13	-10.45/-8.16	-4.82/-7.82	-8.58/-13.03	-5.65/-4.56	-12.09/-12.71	-12.8/-15.85	-13.93/-14.34	-11.01/-8.75	-8.4/-16.51	-19.12/-20.1	-14.15/-11.57	-12.82/-13.41	-10.47/-19.2	-14.15/-16.29
Θ(60°)	-18.89/-10.62	-8.4/-14.54	-15.95/-19.17	-12.96/-12.19	-13.65/-14.52	-13.14/-17.07	-16.24/-18.02	-14.2/-12.63	-14.39/-13.75	-12.13/-12.95	-11.98/-14.72	-6.62/-9.27	-6.04/-12.26	-12.52/-7.2	-8.77/-14.95	-10.17/-14.33	-17.61/-18.39	-7.48/-1.64	-10.18/-14.33	-14.85/-19.19	-11.88/-12.4	-18.02/-9.06	-10.09/-11.61	-9.22/-13.99
Θ(67.5°)	-18.63/-14.96	-7.89/-18.68	-15.66/-15.33	-12.44/-15.42	-18.79/-14.43	-18.11/-18.04	-18.66/-13.89	-12.88/-10.05	-13.48/-13.46	-13.33/-13.64	-13.99/-12.53	-7.81/-6.06	-4.74/-8.25	-11.49/-5.1	-6.66/-14.04	-18.41/-18.71	-15.43/-16.34	-10.08/-6	-3.1/-5.6	-14.35/-15.63	-17.76/-12.19	-14.72/-18.1	-7.97/-10.86	-13.64/-17.89
Θ(75°)	-18.98/-11.33	-9.98/-10.72	-11.14/-16.7	-17.77/-15.44	-18.96/-16.1	-18.86/-17.27	-17.74/-15.23	-13.07/-17.87	-18.76/-12.6															



Radiated Composite Gain Data

Appendix A.4

Θ (67.5°)	-18.52/-19.2	-18.48/-7.9	-17.86/-18.64	-13.22/-7	-10.78/-6.52	-0.08/-1.34	-0.35/-2.97	-5.56/-10.81	-8.2/-7.96	-10.64/-8.54	-10.18/-12.94	-12.08/-14.67	-14.58/-16.61	-10.6/-3.72	-9.05/-6.75	-2.14/-3.47	0.71/-92	1.170/-17	0.84/-0.58	0.11/-3.29	-3.72/-4.99	-10.91/-16.91	-11.73/-18.73	-17.42/-15.05
Θ (75°)	-18.56/-13.07	-13.75/-10.82	-14.46/-18.84	-11.07/-17.77	-12.01/-5.16	-0.79/-0.23	-1.38/-2.82	-8.49/-9.56	-9.02/-6.86	-6.72/-5.26	-15.97/-10.93	-14.35/-13	-8.37/-11.36	-8.52/-4.1	-12.68/-6.51	-5.46/-3.04	0.89/-12	2.06/-35	0.03/-49	2.32/-0.7	-9.06/-6.99	-6.6/-8.99	-7.55/-10.08	-14.81/-11.53
Θ (82.5°)	-18.81/-19.25	-17.67/-8.81	-13.81/-5.6	-9.21/-11.16	-6.54/-10.3	-0.62/-0.01	-2.68/-3.13	-7.81/-5.78	-13.4/-5.5	-3.88/-4.55	-18.44/-8.23	-14.03/-12.81	-6.1/-10.11	-4.92/-6.58	-12.46/-4.68	-5.64/-4.6	-2.81/-6.4	0.08/-2.12	2.33/-62	3.62/-58	-5.96/-6.45	-12.91/-11.86	-4.12/-12.16	-16.56/-14.21
Θ (90°)	-15.78/-16.12	-18.54/-13.17	-12.06/-8.32	7.5/-7	-9.42/-4.05	-1.99/-1.07	-1.67/-2.9	-5.16/-3.18	-9.04/-14.11	-2.93/-4.74	-17.34/-5.92	-18.09/-10.99	-3.88/-5.22	-4.45/-4.38	-15.7/-6.17	-5.32/-14.13	-5.9/-2.3	1.45/-0.6	-0.54/-1.66	1.91/-1.83	-5.63/-10.08	-15.28/-8.83	-0.89/-7.52	-13.76/-16.67
Θ (97.5°)	-15.85/-14.7	-14.93/-10.19	-7.65/-4.93	-7.62/-5.2	-5.76/-6.77	-5.24/-0.39	0.11/-3.19	-1.06/-2.08	-8.75/-13.78	-4.87/-4.16	-12.32/-4.91	-18.97/-16.3	-5.62/-7.4	-4.75/-3.41	-8.19/-5.98	-8.47/-10.81	-12.95/-1.7	2.07/-0.08	-1.05/-1.55	1.57/-1.08	-10.39/-3.49	-18.32/-8.83	-2.82/-7.46	-15.55/-13.95
Θ (105°)	-15.39/-14.81	-12.81/-17.96	-8.13/-5.05	-5.09/-7.16	-6.6/-4.9	-1.61/-0.26	-0.79/-0.61	-2.73/-2.62	-18.73/-14.64	-4.66/-6.78	-12.16/-4.95	-18.73/-14.64	-4.66/-6.78	-5.7/-6.14	-16.76/-7.15	-2.5/-12.4	3.32/-2.39	2.95/-5.22	0.43/-15.16	-6.83/-17.67	-3.75/-10.96	-18.49/-11.73		
Θ (112.5°)	-17.71/-9.97	-10.5/-13.96	-14.64/-13.92	-10.83/-11.43	-7.13/-4.81	-1.88/-0.8	1.77/-1.76	-2.48/-3.87	-8.04/-5.28	-6.02/-7.42	-6.41/-3.38	-19.15/-18.98	-6.06/-5.96	-6.24/-4.11	-6.58/-3.48	-12.69/-0.72	-2.53/-1.83	1.02/-2.51	1.24/-0.86	-0.06/-3.41	-3.96/-6.65	-6.04/-17.22	-7.58/-17.21	-12.26/-16.89
Θ (120°)	-17.21/-8.51	-11.28/-14.83	-12.75/-9.36	-7.54/-4.34	-1.99/-3.5	-3.14/-0.33	-0.97/-2.87	-3.53/-1.49	-6.63/-5.48	-6.09/-8.95	-6.64/-5.54	-18.01/-19.1	-9.82/-9.43	-8.25/-7.51	-9.76/-4.27	-3.3/-4.36	3.06/-0.5	0.66/-0.17	1.19/-0.69	2.49/-0.1	-3.47/-2.85	-12.68/-17.92	-15.61/-11.46	-19.36/-12.57
Θ (127.5°)	-14.73/-11.77	-13.53/-18.8	-16/-8.1	-3.22/-1.62	1.49/-0.7	-3.77/-1.5	-0.59/-4	-2.01/-1.98	-3.47/-5.25	-6.54/-16.24	-6.53/-6.69	-14.66/-18.12	-15.84/-9.31	-11.79/-11.31	-12.88/-14.49	-6.19/-3.22	0.82/-72	0.03/-4	1.69/-1.35	-1.22/-0.85	-0.97/-8.28	-10.92/-13.39	-19.22/-15.39	-15.22/-7.77
Θ (135°)	-11.89/-7.4	-8.29/-9.74	-9.26/-5.16	-0.72/-2.24	0.84/-0.68	-0.85/-0.05	-2.91/-4.75	-5.13/-0.08	-2.26/-6.67	-5.4/-15.05	-10.11/-10.84	-18.27/-12.02	-11.25/-17.15	-13.79/-15.82	-14.1/-13.98	-5.84/-0.91	1.42/-1.31	1.13/-1.06	0.62/-0.88	-2.67/-2.84	-0.51/-7.36	-7.79/-11.84	-18.68/-19.19	-18.44/-11.1
Θ (142.5°)	-15.38/-16.25	-9.11/-8.07	-7.26/-6.56	-3.21/-1.08	-0.72/-2.06	-3.73/-4.35	-6.19/-3.5	-2.44/-0.31	-1.61/-7.86	-14.33/-8.78	-4.8/-5.78	-6.27/-8.52	-9.49/-9.24	-12.54/-13.68	-5.71/-5.01	-3.65/-4.09	0.44/-0.69	-2.03/-0.35	-0.92/-6.26	1.74/-11	-2.96/-8.51	-9.66/-16.43	-15.02/-15.98	-18.68/-12.58
Θ (150°)	-18.33/-17.16	-18.55/-10.74	-6.33/-5.56	-2.44/-2.15	-0.04/-0.53	0.61/-1.27	-3.33/-4.9	-3.2/-2.85	-4.15/-9	-10.01/-7.33	-0.94/-9.78	-9.82/-11.87	-11.26/-9.33	-8.28/-9.33	-2.61/-1.88	-1.3/-3.09	-0.32/-1.28	-0.51/-0.78	7.09/-10.4	-0.18/-2.29	-5.64/-10.58	-3.88/-13.88	-17.76/-18.06	-19.55/-14.05
Θ (157.5°)	-18.75/-16.48	-17.97/-12.71	-9.43/-6.23	-4.45/-2.4	-1.85/-2.24	-2.54/-3.47	-5.67/-7.94	-6.89/-2.51	-2.89/-4.63	-10.68/-17.62	-10.15/-8.2	-9.2/-10.46	-9.75/-6.84	-6.46/-7.01	-7.69/-4.54	-1.03/-0.47	-3.95/-0.49	-1.07/-3.53	1.44/-0.5	-3.39/-6.78	-8.77/-9.15	-11.95/-11.49	-10.38/-12.76	-18.99/-17.59
Θ (165°)	-18.09/-8.86	-7.51/-5.56	-6.04/-6.52	-6.57/-3.4	-7.1/-7.6	-6.82/-19.9	-3.46/-2.96	-2.57/-3.11	-5.9/-8.71	-10.18/-9.42	-12.01/-16.52	-17.57/-16.32	-13.56/-10.81	-7.19/-6.24	-5.18/-6.35	-7.51/-1.59	0.96/-1.17	-2.12/-0.77	-0.18/-1.72	-5.38/-18.62	-9.39/-7.2	-10.2/-15.16	-13.97/-11.85	-14.97/-16.33
Θ (172.5°)	-12.02/-19.86	-18.77/-13.03	-16.87/-8.38	-6.89/-5.37	-4.76/-4.04	-3.32/-3.09	-6.88/-3.68	-4.1/-5.7	-6.77/-7.36	-8.24/-8.33	-9.91/-10.68	-10.42/-8.12	-5.88/-4.56	-3.43/-3.18	-1.85/-0.26	1.14/-0.05	-3.04/-1.83	0.06/-0.53	-0.21/-6.11	-1.785/-12.07	-8.15/-10.76	-10.77/-13.23	-8.26/-7.54	-7.21/-9.17
Θ (180°)	-12.16/-10.04	-8.18/-5.1	-5.08/-3.04	-2.09/-1.44	-1.25/-0.82	-0.46/-0.55	-0.46/-0.69	-1.17/-2.01	-2.66/-3.46	-5.02/-6.67	-7.53/-8.73	-10.95/-10.67	-11.8/-9.99	-8.19/-7.51	-5.4/-5.46	-4.2/-1.2	-0.07/-0.08	-0.21/-0.71	-4.34/-9.95	-5.56/-5.09	-15.55/-12.7	-6.54/-7.19	-9.93/-10.52	-12.85/-13.93
Freq[Hz]	5.66/Pol.	ThetA/Int. 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°)	-0.34/-0.1	-0.93/-0.8	-2.28/-3.54	-4.37/-6.08	-8.93/-12.62	-17.57/-18.05	-16.65/-11.16	-7.96/-6.19	-4.26/-2.85	-1.51/-0.55	-0.67/-0.08	-0.25/-0.05	0.06/-0.53	-0.52/-1.96	-2.5/-3.18	-4.18/-5.93	-9.31/-13	-17.78/-19.06	-14.42/-9.9	-7.52/-4.51	-2.51/-2.65	-4.04/-1.28	0.33/-0.65	0.55/-0.1
Θ (7.5°)	-1.79/-3.12	-3.69/-3.96	-4.32/-3.81	-7.03/-6.73	-10.49/-10.42	-18.18/-16.92	-14.22/-9.35	-6.84/-4.55	-3.35/-1.96	-1.45/-1.06	-0.42/-0.21	0.76/-0.07	-0.08/-0.05	-1.44/-1.34	-3.73/-3.54	-5.05/-6.89	-9.01/-12.73	-15.64/-17.65	-16.58/-10.25	-6.86/-3.59	-1.31/-1	-1.85/-0.8	-0.06/-0.21	-0.62/-0.9
Θ (15°)	-4.08/-6.22	-5.81/-5.76	-5.35/-7.68	-5.88/-6.84	-8.83/-9.53	-13.63/-18.13	-18.11/-1.75	-4.54/-4.54	-3.83/-3.05	-2.47/-1.41	-0.54/-0.65	0.05/-0.45	-0.11/-0.68	-1.62/-2.05	-2.53/-3.53	-5.99/-4.82	-6.99/-9.72	-13.27/-14.92	-17.08/-12.55	-6.96/-4.9	-4.14/-4.1	-3.91/-2.87	-1.65/-0.22	-0.41/-3.05
Θ (22.5°)	-3.91/-5.66	-9.23/-7.08	-5.41/-4.94	-6.87/-9.51	-12.84/-15.21	-18.19/-18.22	-14.41/-10.81	-9.37/-8.33	-5.23/-4.34	-3.41/-3.73	-3.51/-2.77	-2.09/-2.26	-2.17/-4.04	-6/-5.9	-4.83/-4.23	-4.13/-4.59	-5.94/-9.64	-12.24/-16.98	-19.03/-12.89	-10.47/-9.37	-8.08/-5.37	-5.93/-7.08	-4.73/-3.29	0.42/-2.03
Θ (30°)	-4.01/-6.15	-6.63/-4.47	-4.58/-6.13	-12.56/-19.21	-12.46/-13.27	-15.19/-18.52	-18.33/-11.95	-7.01/-8.88	-4.26/-3.74	-3.14/-2.3	-4.34/-3.66	-5.54/-6.19	-4.6/-5.41	-8.47/-6.25	-4.72/-5	-5.11/-6.9	-5.11/-9.45	-9.68/-13.34	-16.99/-16.35	-11.61/-10.11	-7.98/-11.91	-13.25/-18.64	-18.91/-8.05	-8.88/-2.26
Θ (37.5°)	-5.53/-9.31	-6.48/-6.37	-8.99/-13.43	-14.69/-8.53	-9.95/-10.63	-13.66/-19.44	-15.63/-14.38	-18.91/-8.66	-5.6/-4.72	-4.62/-3.72	-6.06/-6.26	-9.12/-6.88	-6.61/-7.28	-7.87/-8.51	-6.33/-6.88	-6.03/-5.95	-9.98/-12.88	-35.32/-14.11	-12.81/-9.76	-10.13/-12.57	-14.32/-18.74	-14.33/-16.09	-12.21/-15.94	-6.39/-6.8
Θ (45°)	-12.87/-5.13	-5.06/-4.61	-11.18/-14.24	-6.49/-10.58	-19.46/-18.07	-17.5/-13.76	-13.68/-11.44	-10.37/-18.11	-9.96/-5.98	-7.76/-7.25	-5.35/-4.77	-9.99/-8.25	-4.91/-6.82	-5.85/-4.8	-7.24/-9.29	-10.83/-13.51	-14.89/-13.33	-13.51/-13.84	-18.41/-15.12	-17.41/-9.13	-6.96/-10.74	-14.37/-18.47	-11.34/-16.11	-16.74/-14.82
Θ (52.5°)	-8.84/-9.6	-10.41/-9.34	-12.74/-14.19	-18.08/-13.27	-14.85/-19.44	-14.25/-19.04	-12.41/-10.76	-13.23/-18.61	-18.83/-9.05	-7.91/-8.62	-6.64/-5.32	-9.06/-4.68	-7.07/-8.62	-6.44/-10.73	-8.64/-7.38	-7.45/-8.84	-10.38/-10.32	-11.11/-16.75	-18.35/-15.73	-18.84/-14.96	-18.11/-17.74	-18.6/-17.51	-16.17/-18.7	-15.77/-18.04
Θ (60°)	-7.92/-18.67	-12.41/-9.21	-10.24/-17	-15.04/-9.27	-13.95/-19.22	-16.27/-6.87	-7.54/-7.12	-12.21/-19.81	-8.87/-19.55	-12.87/-10.32	-9.63/-6.01	-5.96/-6.15	-7.45/-9.32	-12.33/-13.21	-11.23/-12.37	-10.29/-8.7	-11.4/-18.41	-17.82/-13.84	-18.84/-17.72	-18.53/-17.88	-15.71/-19.04	-16.01/-10.06	-18.32/-19.97	
Θ (67.5°)	-12.2/-18.31	-12.32/-12.08	-5.94/-19.14	-13.42/-14.35	-18.47/-12.2	-13.11/-10.97	-6.49/-8.01	-8.87/-18.29	-6.76/-9.08	-18.28/-7.79	-9.86/-6.44	-6.98/-9.67	-11.07/-17.12	-14.23/-12.73	-14.35/-12.96	-12.6/-12.75	-15.96/-10.35	-10.28/-12.56	-17.88/-18.6	-18.75/-18.95	-19.29/-16.04	-19.12/-18.94	-13.61/-13.15	-13.16/-13.39
Θ (75°)	-9.96/-7.97	-16.22/-12.13	-10.45/-17.88	-14.93/-18.13	-17.13/-9.05	-11.71/-11.43	-12.05/-8.94	-6.33/-15.07	-10.35/-7.84	-18.28/-8.49	-11.31/-9.98	-8.12/-15.04	-10.03/-13.97	-10.71/-13.45	-9.76/-15.2	-18.67/-16.05	-11.88/-9.35	-9.16/-12.29	-13.65/-15.3	-18.91/-10.35	-13.98/-19.12	-15.85/-13.39	-14.12/-11.88	-7.02/-11.44
Θ (82.5°)	-13.07/-13.51	-11.15/-14.6	-13.35/-17.71	-16.17/-18.54	-18.84/-9.61	-19.16/-17.92	-19.07/-14.6	-8.88/-9.57	-17.01/-11.22	-12.27/-9.83	-18.13/-11.32	-11.73/-10.41	-13.79/-14.34	-15.01/-16.36	-17.12/-15.23	-13/-11.07	-10.17/-19.07	-18.27/-18.02	-14.8/-18.56	-18.82/-12.82	-18.49/-9.23	-18.36/-18.86	-14.34/-12.95	
Θ (90°)	-18.02/-19.19	-9.4/-13.78	-12.19/-12.54	-15.07/-12.44	-17.63/-14.45	-16.62/-16.02	-17.47/-1.76	-10.02/-9.92	-18.55/-11.38	-9.78/-16.44	-17.29/-17.68	-18.15/-13.03	-12.21/-14.33	-13.48/-19.1	-12.06/-18.39	-19.21/-15.44	-16.82/-19.08	-18.45/-19.17	-18.47/-12.04	-12/-17.25	-14.75/-13.35	-14.94/-18.29	-14.29/-18.87	-13.88/-17.04
Θ (97.5°)	-18.22/-12.31	-12.84/-13.42	-11.04/-16.39	-18.11/-18.58	-18.14/-13.54	-10.21/-10.6	-12.59/-11.96	-13.76/-8.08	-16.17/-13.53	-18.9/-16.18	-18.35/-17.89	-19.14/-10.86	-17.94/-13.63	-15.02/-18.41	-18.07/-15.37	-18.67/-15.44	-14.89/-12.05	-14.44/-11.98	-17.1/-15.68	-18.67/-19.02	-11.81/-16.53	-14.23/-18.73	-10.49/-11.63	-10.22/-12
Θ (105°)	-17.78/-18.36	-13.28/-10.08	-10.65/-13.71	-16.31/-18.01	-19.14/-17.73	-17.23/-14.66	-11.16/-11.09	-11.09/-9.02	-8.42/-8.94	-17.19/-18.84	-10.06/-16.26	-18.08/-11.42	-14.37/-12.27	-15.04/-16.3	-14.21/-12.93	-16.39/-11.22	-9.65/-16.35	-12.41/-13.41	-17.92/-12	-8.86/-14.57	-11.59/-18.2	-17.71/-14.69	-16.11/-17	-18.46/-17.78
Θ (112.5°)	-13.08/-13.02	-17.52/-12.93	-11.76/-18.68	-15.71/-19.22	-14.85/-18.03	-14.33/-18.23	-17.65/-13.07	-6.16/-6.59	-8.72/-11.06	-17.37/-14.98	-8.64/-14.33	-17.16/-8.27	-14.3/-11.77	-15.65/-17.11	-14.43/-13.15	-16.09/-18.7	-11.81/-13.91	-14.89/-13.1						



Radiated Composite Gain Data

Appendix A.4

Θ (112.5°)	-1.09/0.7	4.15/2.6	2.82/1.53	0.34/5.14	-6.75/-8.65	-7.96/-6.26	-11.72/-18.41	-17.72/-14.99	-15.75/-13.58	-7.78/-6.6	-9.19/-7.12	-11.65/-12.98	-2.49/-5.6	-6.26/-1	-2.9/-9.23	-2.92/-3.47	-3.57/-3.18	-5.65/-19.1	-12.07/-10.43	-15.25/-18.59	-15.33/-9.99	-6.72/-1.9	-4.91/-6.81	-5.32/-3.02
Θ (120°)	0.55/0.35	0.82/1.09	1.74/1.39	0.6/-6.01	-4.18/-17.7	-7.36/-18.97	-7.54/-16.98	-12.68/-13.76	-7.43/-10.08	-6.42/-4.71	-6.97/-10.08	-12.39/-7.07	-1/-7.15	-6.74/-2.25	-4.35/-5.65	-2.6/-2.77	-4.4/-3.8	-9.34/-18.05	-13.09/-10.79	-13.12/-17.23	-18.32/-10.08	-13.83/-12.07	-4.46/-3.68	-1.73/-1.33
Θ (127.5°)	2.43/2.56	-2.18/3.5	-1.43/1.9	0.19/-1.78	-11.02/-2.41	-16.41/-9.62	-15.25/-15.3	-12.61/-16.2	-8.5/-8.49	-5.99/-6.51	-16.73/-10.66	-17.05/-11.26	-3.86/-6.41	-3.94/-3.71	-3.43/-2.65	-2.44/-4.21	-3.26/-2.54	-7.36/-19.85	-10.61/-10.64	-15.1/-13.06	-14.63/-14.55	-10.61/-10.64	-19.46/-4.37	-2.04/0.24
Θ (135°)	-3.08/-1.92	-2.31/1.15	0.01/-0.04	1.44/-3.83	-5.36/-9.14	-6.87/-18.92	-11.73/-11.48	-15.83/-19.69	-10.51/-9.35	-18.75/-6.67	-5.5/-6.61	-19.25/-9.14	-4.87/-2.88	2.53/1.13	1.82/0.58	-4.89/-3.93	-3.56/-7.21	-5.21/-16.09	-15.58/-18.45	-10.92/-17.28	-18.46/-18.91	-7.09/-6.01	-7.46/-11.81	-9.98/-3.21
Θ (142.5°)	-6.07/-3.52	-0.14/0.98	1.42/1.69	-2.01/-0.15	-10.9/-3.66	-4.56/-7.52	-12.06/-18.29	-17.6/-13.44	-16.45/-18.7	-18.4/-18.09	-17.15/-17.65	-9.77/-6.11	-5.17/0.36	1.51/0.98	1.56/-0.35	-5.28/-5.52	-4.04/-6.65	-9.67/-17.45	-17.12/-15.26	-19.48/-17.95	-17.27/-17.46	-16.92/-5.52	-3.03/-2.38	-3.92/-9.54
Θ (150°)	1.01/2.94	3.43/1	1.35/-3.76	1.58/-5.69	-4.07/-5.15	-4.01/-5	-11.21/-18.99	-18.23/-15.25	-19.06/-13.23	-12.15/-17.33	-12.83/-5.19	-2.57/-3.13	-2.29/-3.26	-4.19/-0.51	0.1/-1.06	-3.49/-6.6	-9.39/-7.62	-11.67/-18.31	-11.95/-12.4	-16.64/-19.14	-17.64/-17.57	-10.39/-7.51	-3.75/-1.54	-0.32/0.19
Θ (157.5°)	0.11/-2.8	0.4/0.91	-6.4/-2.93	-3.93/-0.55	-2.14/-5.96	-7.03/-11.61	-18.68/-16.53	-19.42/-16.56	-14.19/-12.43	-11.43/-12.75	-13.28/-12.28	-9.14/-5.53	-5.83/-7.41	-5.58/-3.07	-3.14/-4.67	-5.38/-7.07	-7.58/-10.87	-11.06/-15.45	-18.31/-12.72	-12.73/-18.58	-13.73/-9.98	-13.07/-12.85	-9.57/-6.45	-2.45/-0.44
Θ (165°)	-2.16/-2.76	-7.24/-0.98	-0.92/-1.45	2.66/1.4	-2.52/-11.17	-11.72/-6.8	-8.87/-13.81	-16.03/-11.62	-10.77/-14.34	-18.86/-17.55	-14.29/-9.43	-9.38/-8.2	-5.82/-3.09	-2.35/-2.53	-4.52/-6.16	-7.47/-6.64	-7.29/-5.69	-6.78/-8.44	-12.84/-18.29	-18.21/-15.21	-9.31/-6.81	-4.72/-4.56	-5.26/-4.74	-5.06/-3.41
Θ (172.5°)	1.36/2.57	3.57/0.8	0.02/2.07	1.54/-0.58	-4.08/-12.24	-19.1/-18.63	-18.19/-19.08	-18.95/-17.84	-14.66/-11.16	-11.03/-8.83	-10.16/-8.48	-7.15/-6.51	-5.56/-4.67	-3.76/-2.5	-1.26/-0.95	-1.26/-2.97	-4.18/-5.36	-6.97/-7.64	-10.11/-13.58	-14.92/-16.05	-9.86/-7.4	-5.23/-3.69	-2.24/-1.6	-0.89/0.34
Θ (180°)	1.12/-0.55	0/0.72	0.37/-0.89	-2.02/-7.15	-13.67/-8.6	-9.36/-15.15	-13.61/-10.75	-11.42/-11.1	-8.9/-6.45	-6.24/-4.67	-3.24/-2.53	-2.52/-2.12	-1.37/-0.66	-0.92/-1.17	-1.37/-1.99	-2.8/-3.53	-3.96/-5.2	-6.81/-9.01	-9.95/-11.88	-13.07/-9.69	-8.29/-6.58	-4.71/-4.35	-2.22/-1.24	-0.43/0.67
Freq(Hz)	5.65GPol.	Theta/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-11.18/-13.09	-16.75/-17.88	-15.75/-12.66	-9.87/-6.54	-5.55/-5.72	-4.35/-3.05	-2.58/-2.91	-4.09/-3.76	-3.34/-4.54	-4.72/-5.05	-5.51/-6.65	-7.98/-9.4	-11.05/-13.73	-18.51/-18.83	-18.86/-13.3	-11.33/-9.35	-7.09/-5.15	-4.26/-3.85	-2.76/-2.11	-1.56/-2.27	-2.89/-3.02	-3.46/-3.41	-3.33/-4.2	-6/-10.24
Θ (7.5°)	-11.08/-13.69	-19.37/-17.65	-17.17/-13.27	-10.48/-6.33	-4.75/-4.51	-4.12/-3.28	-1.97/-0.84	-1.08/-1.13	-1.12/-0.78	-1.36/-1.64	-1.96/-2.68	-3.84/-5.47	-7.51/-9.81	-13.65/-18.18	-18.74/-14.79	-11.14/-8.57	-6.34/-5.72	-5.21/-5.39	-5.04/-5.68	-4.22/-4.14	-3.55/-4.69	-5.94/-5.19	-7.97/-8.46	-9.22/-9.22
Θ (15°)	-11.46/-10.9	-12.38/-16.45	-14.78/-11.82	-11.02/-8.42	-6.27/-7.04	-6.68/-6.81	-4.06/-2.28	-1.45/-2.14	-1.44/-0.7	-1.76/-1.26	-2.67/-3.81	-5.38/-7.03	-9.21/-12.1	-18.18/-18.34	-15.73/-11.37	-10.19/-9.08	-6.11/-5.79	-5.99/-6.53	-5.16/-4.07	-3.08/-3.66	-4.56/-5.73	-7.59/-6.82	-6.04/-6.81	-8.84/-10.29
Θ (22.5°)	-8.57/-14.51	-18.79/-18.25	-15.11/-12.49	-12.16/-5.8	-3.02/-4.58	-4.02/-4.97	-6.06/-4.23	-2.25/-3.51	-4.53/-0.89	-1.64/-2.57	-5.04/-6.19	-8.22/-8.23	-10.6/-11.09	-13.94/-18.68	-17.69/-19.43	-15.78/-15.27	-9.69/-6.8	-5.98/-4.03	-3.07/-1.66	-1.59/-3.34	-4.62/-5.48	-5.65/-7.12	-9.84/-12.81	-8.43/-7.37
Θ (30°)	-8.89/-11.56	-16.9/-17.93	-14.13/-12.57	-12.82/-4.95	-6.4/-8.08	-4.79/-5.64	-4.37/-3.62	-3.88/-3.91	-4.2/-4.99	-3.23/-2.66	-3.17/-7.37	-8.85/-9.1	-12.85/-18.51	-17.93/-15.24	-18.85/-15.25	-14.04/-12.78	-10.74/-9.3	-5.86/-3.17	-2.67/-5.84	-7.01/-6.8	-9.85/-18.76	-15.24/-9.72	-8.49/-8.71	
Θ (37.5°)	-10.78/-8.53	-10.6/-16.96	-19.13/-12.39	-9.28/-4.66	-6.41/-12.01	-8.7/-6.13	-5.02/-3.86	-5.53/-3.76	-3.67/-3.37	-5.51/-5.68	-4.99/-4.66	-10.42/-11.62	-6.65/-5.27	-7.55/-15.07	-18.58/-18.2	-13.17/-10.16	-15.65/-13.31	-13.58/-16.33	-10.62/-8.8	-10/-8.1	-10.14/-12.8	-13.43/-9.95	-12.92/-14.13	-12.71/-17.75
Θ (45°)	-11.32/-9.46	-13.95/-18.94	-15.65/-14.39	-9.01/-6.02	-8.88/-12.85	-8.11/-10.67	-7.59/-4.63	-5.65/-5.95	-6.5/-5.36	-4.24/-7.97	-6.94/-5.44	-12.73/-15.27	-8.77/-15.8	-17.43/-12.82	-17.52/-17.8	-13.42/-10.16	-7.29/-8.6	-6.01/-8.71	-9.81/-13.98	-13.53/-7.09	-4.98/-7.84	-10.97/-13.57	-17.56/-14.98	-9.24/-9.58
Θ (52.5°)	-17.54/-14.51	-12.85/-17.59	-19.13/-14.31	-6.86/-8.71	-10.89/-11.22	-15.81/-10.41	-6.85/-7.06	-10.55/-9.79	-9.07/-8.58	-7.16/-9.8	-8.09/-6.75	-12.46/-10.43	-9.84/-11.26	-17.09/-17.28	-16.07/-13.73	-14.61/-13.23	-9.04/-12.22	-13.11/-14.9	-7.96/-9.63	-8.97/-7.74	-6.02/-6.66	-17.32/-10.85	-13.23/-16.99	-13.07/-14.52
Θ (60°)	-17.51/-17.81	-17.65/-17.29	-18.17/-16.84	-4.42/-10.75	-8.59/-18.14	-11.35/-10.45	-14.82/-7.06	-6.7/-8.53	-8.42/-7.08	-7.45/-9.04	-14.5/-8.4	-13.57/-10.59	-10.43/-13.74	-15.56/-18.99	-17.55/-17.63	-9.23/-13.38	-13.35/-17.64	-18.77/-9.97	-5.7/-9.72	-11.07/-11.72	-12.56/-12.7	-19.08/-19.01	-12.91/-16.31	
Θ (67.5°)	-16.78/-17.78	-17.08/-17.63	-13.14/-18.58	-7/-13.34	-10.86/-13.22	-15.95/-10.88	-14.9/-11.01	-8.53/-12.25	-18.96/-10.24	-14.28/-8.7	-16.54/-9.92	-16.71/-11.8	-12.12/-14.36	-17.42/-18.93	-18.06/-18.11	-18.86/-17.67	-19.12/-12.52	-12.29/-17.3	-16.36/-9.15	-6.76/-5.64	-8.79/-18.61	-19.34/-10.79	-15.49/-18.13	-18.05/-18.67
Θ (75°)	-16.66/-18.84	-19.04/-17.74	-14.93/-17.26	-10.2/-19.7	-15.62/-8.81	-18.97/-10.63	-16.26/-13.07	-13.16/-10.01	-10.5/-13.8	-14.16/-7.35	-18.11/-9.37	-11.36/-9.23	-11.33/-19.01	-14.5/-18.18	-19.04/-19.7	-12.21/-16.75	-18.12/-18.08	-13.34/-15.65	-13.45/-14.43	-14.83/-17.91	-17.75/-19.29	-17.51/-19.29	-18.27/-17.27	
Θ (82.5°)	-18.91/-19.37	-14.35/-17.8	-14.72/-17.23	-16.28/-18.15	-6.87/-15.83	-12.89/-15.3	-11.52/-12.76	-16.16/-6.31	-17.47/-18.27	-18.41/-8.41	-10.77/-13.94	-12.07/-9.89	-8.15/-18.11	-18.99/-13.14	-19.45/-11.81	-18.21/-18.29	-18.78/-18.19	-18.1/-18.83	-19.27/-11.57	-15.26/-12.62	-16.75/-18.52	-18.24/-18.46	-17.64/-17.74	-17.66/-14.85
Θ (90°)	-19.11/-18.47	-13.03/-18.46	-13.16/-18.89	-15.36/-10.69	-11.05/-17.35	-18.39/-18.42	-16.55/-12.51	-12.09/-12.55	-14.93/-18.23	-17.97/-14.67	-16.85/-8.95	-18.18/-12.46	-12.81/-17.58	-14.42/-14.76	-9.02/-13.99	-14.1/-17.74	-18.8/-17.97	-17.44/-15.29	-15.55/-18.14	-19.03/-19.08	-14.03/-18	-18.67/-18.99	-13.22/-15.45	-12.87/-18.44
Θ (97.5°)	-14.65/-18.84	-16.42/-17.5	-18.95/-14.61	-18.72/-18.46	-15.47/-12.21	-19.15/-18.18	-17.84/-11.75	-18.55/-18.36	-7.91/-11.03	-15.73/-15.51	-15.22/-7.97	-13.6/-19.2	-14.52/-18.77	-19.09/-13.65	-10.34/-11.78	-18.2/-12.49	-19.04/-19.7	-15.51/-14.01	-17.76/-11.27	-16.53/-18.19	-16.98/-14.17	-12.03/-15.12	-18.83/-15.5	-12.21/-9.36
Θ (105°)	-13.11/-13.09	-18.4/-19.06	-19.26/-17.96	-11.7/-15.8	-15.64/-14.14	-16.6/-19.13	-16.46/-13.28	-11.89/-13.95	-12.88/-17.51	-13.77/-7.6	-12.43/-16.79	-15.71/-18.62	-17.39/-18.02	-16.76/-9.56	-12.89/-15.43	-19.14/-14.34	-19.39/-9.25	-18.39/-16.32	-14.31/-14.22	-10.13/-18.89	-8.99/-11.41	-11.43/-5.88	-18.77/-9.1	-13.81/-17.95
Θ (112.5°)	-9.83/-18.48	-14.97/-13.68	-18.46/-18.54	-10.73/-14.67	-13.04/-18.38	-14.19/-18.94	-15.25/-15.68	-18.71/-16.89	-17.35/-18.49	-1.71/-13.39	-16.33/-18.78	-17.83/-14.74	-13.39/-18.27	-19.3/-13.73	-15.57/-16.4	-13.02/-17.81	-10.59/-9.05	-18.39/-13.63	-13.38/-5.66	-6.58/-19.38	-6.37/-5.44	-17.06/-5.92	-12.16/-11.32	-13.97/-13.13
Θ (120°)	-13.95/-18.85	-13.86/-16.51	-14.52/-17.43	-14.35/-12.83	-15.45/-17.64	-18.92/-18.4	-7.35/-14.37	-6.75/-9.56	-9.33/-18.81	-8.41/-10.21	-8.81/-17.3	-12.27/-11.61	-12.16/-12.71	-18.32/-17.3	-18.14/-17.73	-12.34/-16.67	-8.88/-8.99	-18.68/-10.26	-1.449/-3.8	-4.33/-8.2	-10.25/-5.01	-12.26/-13.32	-5.92/-8.85	-9.72/-16.67
Θ (127.5°)	-13.93/-13.5	-11.91/-18.47	-13.47/-19.26	-10.44/-12.19	-18.49/-18.47	-7.15/-18.86	-5.92/-5.94	-12.87/-12.83	-19.3/-15.84	-14.37/-17.63	-18.53/-19.05	-17.48/-14.54	-17.86/-13.91	-13.84/-17.95	-12.77/-12.14	-15.88/-15.61	-9.3/-6.47	-17.81/-12.61	-11.09/-3.01	-5.25/-4.18	-15.8/-6.44	-4.05/-7.92	-10.31/-11.73	-9.8/-5.87
Θ (135°)	-11.59/-11.81	-12.1/-15.39	-16.45/-12.31	-4.88/-7.48	-18.49/-7.87	-18.44/-6.46	-3.6/-7.24	-15.31/-16.35	-11.29/-10.77	-14.9/-17.94	-17.24/-18.86	-18.05/-14.33	-12.55/-7.52	-11.51/-15.56	-15.8/-11.21	-14.09/-15.47	-9.59/-14	-11.16/-17.57	-4.87/-3.58	-1.01/-2.07	-10.25/-11.91	-3.91/-6.41	-7.03/-11.54	-14.87/-13.06
Θ (142.5°)	-12/-9.36	-10.31/-13.06	-12.32/-10.04	-6.7/-8.42	-11.48/-18.96	-4.29/-1.55	-5.23/-11.12	-11.17/-7.99	-5.62/-9.14	-15.23/-19.08	-14.22/-14.52	-17.91/-11.62	-10.26/-14.71	-18.21/-18.96	-15.95/-13.9	-10.75/-14.23	-14.89/-15.87	-10.8/-9.74	-6.24/-1.48	0.79/-0.94	-6.16/-8.94	-9.65/-4.48	-3.41/-3.42	-7.29/-10.43
Θ (150°)	-8.59/-10.6	-18.36/-12.44	-7.79/-11.21	-10.03/-6.89	-18.43/-4.14	-2.02/-8.04	-16.5/-9.83	-10.22/-8.42	-10.24/-12.84	-15.4/-10.78	-10.29/-10.38	-13.83/-15.78	-14.81/-12.99	-11.3/-9.37	-7.13/-7.4	-11.79/-14.8	-14.98/-14.79	-11.35/-3.38	-3.5/-0.77	0.28/-0.01	-1.03/-7.03	-10.29/-7.8	-4.66/-3.51	-4.35/-6.81
Θ (157.5°)	-11.41/-9.13	-18.78/-11.21	-8.77/-16.44	-12.76/-6.86	-3.02/-2.77	-10.68/-12.28	-16.81/-1.56	-2.02/-4.26	-7.27/-10.															



Mode 5

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.1	3.04	2.87	2.01
Ant. 2 Max Gain (dBi)	2.8	2.63	3.57	4.12
Ant. 3 Max Gain (dBi)	4.49	3.97	4.38	4.34
Ant. 4 Max Gain (dBi)	4.65	3.76	4.1	4.29
Ant. 1 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Phi/120/330	Phi/120/322.5	Phi/127.5/330	Phi/127.5/30
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/105/292.5	Theta/105/292.5	Theta/105/292.5	Theta/105/292.5
Ant. 3 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/90/112.5	Theta/90/67.5	Theta/90/90	Theta/90/105
Ant. 4 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/90/135	Theta/97.5/187.5	Theta/97.5/210	Theta/97.5/180
Max Gain (dBi)	4.65	3.97	4.38	4.34
DG [1SS] (dBi)	5.66	5.2	5.58	5.35
DG [2SS] (dBi)	4.65	3.97	4.38	4.34
DG [4SS] (dBi)	4.65	3.97	4.38	4.34

DG 1SS Result

[illegible]



Radiated Composite Gain Data

Appendix A.5

Θ(22.5°)	-6.46/-7.48	-8.39/-10.18	-9.62/-9.04	-7.55/-9.49	-6.38/-7.06	-7.32/-8.06	-7.67/-6.52	-7.01/-6.63	-4.69/-3.01	-2.82/-3.46	-2.37/-2.08	-2.45/-2.42	-1.85/-2.76	-3.59/-3.99	-3.94/-3	-3.93/-7.13	-5.86/-6.26	-9.5/-12.63	-11.55/-8.77	-6.48/-5.43	-3.82/-2.23	-3.82/-4.13	-5.47/-5.92	-5.25/-5.27
Θ(30°)	-7.68/-7.82	-7.68/-6.29	-6.77/-6.54	-5.79/-6.05	-6.76/-6.51	-7/-7.08	-8.49/-9.02	-6.93/-8.75	-7.54/-6.56	-5.8/-4.56	-2.89/-3.28	-3.37/-3	-2.4/-3.16	-2.89/-3.25	-3.63/-4.77	-5.91/-7.59	-8.26/-8.53	-12.2/-11.16	-10/-10.74	-9.69/-5.76	-4.24/-3.52	-3.37/-4.12	-2.77/-4.94	-5.49/-6.73
Θ(37.5°)	-7.55/-6.77	-5.94/-5.4	-4.63/-4.22	-4.21/-5.32	-6.27/-5.55	-6/-6.96	-9.98/-7.11	-8.58/-9.65	-9.37/-9.21	-7.32/-6.26	-3.64/-2.33	-3.19/-4.57	-4.23/-3.26	-3.11/-3.28	-4.26/-5.41	-6.67/-9.82	-10.39/-7.82	-9.86/-11.79	-12.22/-11.08	-9.48/-8.48	-7.46/-4.73	-2.7/-3.14	-3.37/-4.46	-7.82/-7.51
Θ(45°)	-5.96/-4.98	-4.2/-4.63	-4.67/-2.28	-3.05/-5.55	-8.08/-7.44	-6.9/-8.19	-8.15/-6.42	-7.27/-9.44	-7.27/-6.19	-5.43/-5.09	-4/-3.5	-2.87/-3.41	-4.27/-3.79	-4.17/-3.58	-4.06/-4.51	-7.21/-5.74	-6.37/-6.69	-9.11/-7.77	-8.91/-10.02	-8.51/-6.27	-3.49/-5.1	-4.87/-3.66	-3.81/-6.83	-8.29/-9.75
Θ(52.5°)	-6.7/-5.43	-3.86/-6.05	-4.36/-2.94	-4.46/-7.47	-8.63/-9.32	-6.71/-8.67	-7.43/-8.89	-7.82/-6.4	-6.38/-5.71	-4.86/-4.82	-3.48/-2.18	-3.42/-4.67	-2.87/-3.25	-2.37/-3.86	-5.11/-6	-6.68/-7.7	-8.53/-5.88	-6.53/-8.22	-9.96/-8.4	-8.81/-6.84	-6.17/-4.51	-3.86/-3.55	-6.2/-6.88	-9.02/-8.92
Θ(60°)	-6.74/-4.43	-4.51/-5.97	-4.86/-1.38	-3.21/-6.2	-8.3/-6.62	-7.58/-9.56	-9.15/-9.42	-7.47/-8.02	-6.72/-8.3	-5/-4.67	-6.89/-7.76	-5.03/-3.81	-2.54/-2.61	-3.24/-3.9	-5.03/-7.38	-7.39/-6.31	-8.7/-6.04	-10.5/-9.69	-6.4/-7.1	-4.39/-5.12	-7.41/-5.96	-5.29/-3.9	-3.87/-8.65	-9.74/-7.34
Θ(67.5°)	-7.62/-4.3	-4.25/-3.83	-2.99/-0.93	-2.74/-4.79	-6.19/-4.4	-8.52/-10.03	-9.3/-10.37	-6.75/-7.21	-6.5/-5.57	-5.69/-3.61	-5.06/-4.65	-8.88/-8.01	-4.55/-3.55	-4.36/-5.9	-5.31/-9.15	-4.7/-6.4	-7.51/-6.16	-6.08/-6.84	-5/-7.56	-5.73/-5.8	-5.17/-2.97	-4.23/-3.77	-4.18/-8.56	-8.22/-8.29
Θ(75°)	-7.2/-4.7	-2.79/-3.53	-3.18/-2.19	-4.43/-4.71	-4.55/-5.59	-10.45/-7.62	-10.84/-6.35	-7.49/-7.73	-10.75/-9.1	-4.6/-6.94	-3.58/-7.51	-5.16/-8.04	-7.32/-5.51	-6.22/-7.28	-5.51/-8.57	-7.32/-10.17	-7.27/-8.18	-7.89/-5.37	-8.2/-7.14	-7.54/-5.85	-6.53/-5.97	-7.43/-3.3	-3.05/-5.67	-7.46/-7.27
Θ(82.5°)	-6.82/-5.46	-2.39/-3.83	-2.98/-3.3	-4.32/-3.93	-3.87/-5.25	-8.91/-7.12	-5.92/-5.47	-5.22/-11.81	-10.25/-9.48	-7.49/-8.36	-6.57/-7.26	-7.24/-6.37	-5.4/-8.65	-8.51/-8.45	-5.86/-9.06	-9.05/-9.4	-8.84/-7.82	-6.37/-12.21	-10.4/-8.25	-5/-5.66	-3.41/-4.1	-4.76/-4.09	-3.88/-5.09	-5.22/-6.86
Θ(90°)	-5.11/-4.39	-1.3/-3.21	-2.15/-2.37	-5.27/-3.8	-4.42/-4.21	-5.46/-2.68	-3.39/-4.76	-5.37/-8.75	-5.96/-8.63	-7.1/-7.21	-7.82/-9.44	-10.08/-8.96	-8.44/-9.77	-9.36/-8.72	-9.65/-8.04	-10.95/-7.93	-9.05/-6.33	-8.76/-7.57	-4.3/-4.67	-5.58/-6.77	-4.72/-5.81	-1.99/-2.01	-2.08/-3.88	-4.29/-6.97
Θ(97.5°)	-5.28/-4.07	-1.76/-1.83	-2.99/-2.21	-4.8/-3.22	-3.95/-3.13	-5.27/-3.1	-3.27/-4.9	-4.21/-6.77	-5.74/-8.84	-7.23/-6.41	-7.46/-8.03	-9.56/-9.16	-9.32/-8.04	-8.86/-9.8	-12.77/-8.97	-8.85/-9.73	-11.35/-9.79	-6.32/-5.03	-3.82/-7.12	-3.22/-4.56	-2.8/-2.42	-2.16/-2.39	-4.62/-7.14	
Θ(105°)	-7.52/-4.92	-2.6/-2.57	-4.05/-0.96	-3.76/-2.86	-5.84/-3.25	-4.28/-5.53	-5.34/-5.28	-6.06/-7.39	-7.78/-5.31	-10.43/-7.84	-9.79/-5.13	-8.02/-9.72	-7.63/-9.91	-10.71/-12.87	-11.8/-10.65	-8.68/-7.67	-12.09/-11.85	-11.34/-8.4	-6.67/-6.53	-5.83/-2.72	-2.04/-2.42	-0.7/-1.96	-3.69/-5.21	
Θ(112.5°)	-4.31/-3.46	-1.96/-0.93	-2.19/-1.6	-0.25/-2.09	-3.73/-2.6	-4.47/-8.39	-6.65/-10.69	-6.31/-9.05	-9.21/-6.5	-6.92/-6.31	-7.92/-6.9	-6.51/-8.01	-10.51/-8.85	-7.44/-7.06	-8.3/-6.38	-6.09/-7.85	-9.52/-11.53	-7.65/-9.85	-8.09/-7.55	-6.95/-2.36	-2.59/-3.98	-1.98/-1.33	0.83/-1.93	-5.28/-6.51
Θ(120°)	-4.2/-2.26	-2.1/-1.91	-2.19/-1.28	-0.72/-1.67	-4.24/-3.42	-5.19/-11.32	-5.19/-8.72	-5.04/-9	-7.07/-9.36	-10.57/-10.1	-9.89/-5.78	-7.55/-7.99	-10.64/-7.3	-5.84/-6.95	-8.97/-9	-8.02/-9.48	-10.59/-10.32	-11.03/-9.37	-8.89/-9.89	-7.79/-6.52	-4.17/-2.99	-1.920/-17	0.18/-1.42	-3.85/-6.95
Θ(127.5°)	-3.01/-3.12	-3.51/-2.81	-3.78/-3.5	-2.57/-4.06	-2.27/-4.46	-5.37/-12.03	-9.66/-11.1	-10.05/-11.44	-9.7/-11.2	-7.85/-10.56	-6.89/-6.12	-5.69/-8.49	-7.37/-8.61	-7.67/-7.67	-7.4/-11.3	-10/-7.19	-9.23/-7.06	-9.57/-11.51	-5.54/-5.39	-7.42/-8.58	-5.6/-3.83	-1.560/83	0.35/-1.44	-1.78/-3.42
Θ(135°)	-2.1/-2.87	-3.13/-2.29	-3.11/-4.1	-4.1/-2.46	-3.87/-5.67	-9.35/-10.14	-9.83/-10.68	-8.41/-6.31	-10/-6.85	-8.83/-7.42	-9.39/-6.84	-9.56/-7.69	-9.29/-6.32	-8.58/-10.54	-9.96/-11.43	-9.8/-8.95	-7.67/-8.95	-9.26/-9.65	-10.03/-9.92	-8.63/-10.47	-4.2/-5.46	-1.26/-1.04	0.45/-2.07	-3/-2.56
Θ(142.5°)	-1.96/-2.84	-3.67/-3.66	-4.57/-5.05	-6.55/-5.15	-5.42/-5.01	-9.95/-10.46	-8.47/-6.09	-8.01/-10.9	-5.64/-6.89	-4.6/-8.04	-7.18/-5.35	-6.58/-6.78	-7.22/-6.2	-7.6/-6.88	-9.24/-11.45	-10.25/-12.46	-9.42/-10.84	-11.3/-9.91	-7.63/-8.45	-5.76/-6.84	-4.88/-3.6	-2.78/-1.49	-0.91/-2.62	-2.09/-0.75
Θ(150°)	-2.9/-4.13	-3.35/-3.63	-4.22/-5.41	-5.25/-5.52	-5.31/-4.66	-6.43/-7.26	-8.27/-6.56	-7.18/-7.53	-6.7/-5.17	-9.45/-6.09	-3.62/-5.93	-7.96/-9.71	-8.92/-6.78	-5.22/-6.11	-8.03/-10.02	-10.32/-11.19	-12.11/-10.77	-7.05/-7.14	-6.11/-5.51	-4.7/-4.14	-4.35/-4.5	-3.37/-3.76	-5.39/-4.86	-3.43/-1.89
Θ(157.5°)	-2.99/-3.43	-4.52/-4.08	-3.22/-3.14	-3.92/-4.68	-4.32/-5.59	-8.18/-8.09	-7.88/-8.86	-5.13/-6.55	-9.24/-11.04	-6.08/-6.54	-9.98/-12.35	-9.61/-9.3	-10.5/-10.32	-9.03/-7.7	-9.55/-12.59	-11.6/-10.4	-9.05/-7.58	-6.6/-6.15	-6.45/-6.48	-5.48/-4.85	-5.75/-5.56	-4.24/-4.2	-3.78/-4.61	-4.88/-3.52
Θ(165°)	-4.65/-4.73	-4.04/-4.58	-3.76/-4.71	-5.77/-5.47	-5.45/-4.76	-4.17/-5.77	-3.87/-5.15	-4.56/-6.95	-5.62/-5.82	-6.69/-7.3	-11.77/-10.46	-8.2/-10.03	-12.29/-10.98	-7.53/-7.03	-7.83/-7.9	-8.54/-7.96	-7.44/-7.7	-7.12/-7.8	-10.62/-9.06	-7.22/-6.25	-6.5/-5.58	-6.24/-6.53	-6.34/-4.99	-4.23/-4.6
Θ(172.5°)	-3.65/-3.09	-3.09/-1.81	-1.7/-1.67	-2.08/-2.39	-4.3/-5.11	-5.62/-6.53	-6/-7.43	-8/-6.4	-4.84/-4.84	-5.6/-6.46	-7.72/-8.03	-7.44/-7.88	-6.4/-8.9	-4.77/-5.42	-5.44/-6.36	-7.22/-8.26	-9.7/-11.05	-9.87/-9.7	-9.04/-7.66	-7.48/-7.14	-6.48/-6.26	-6.5/-6.03	-5.39/-4.1	
Θ(180°)	-6.18/-5.43	-5.94/-5.63	-6.35/-5.56	-6.5/-6.35	-5.75/-5.48	-6.52/-6.28	-6.53/-6.4	-6.68/-7.52	-7.33/-8.01	-9.25/-10.54	-9.5/-8.85	-8.43/-7.21	-5.12/-5.45	-4.87/-4.63	-3.78/-3.87	-4.07/-5.53	-6.86/-6.04	-6.86/-7.06	-7.34/-7.82	-7.83/-7.25	-6.76/-6.38	-6.69/-6.42	-5.66/-5.43	-5.14/-5.7
Freq(Hz)	6.695GPol.	Theta/-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC(dB)	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°)	-5.97/-6.18	-6.57/-6.73	-8.02/-8.38	-8.02/-9.05	-8.07/-6.75	-5.29/-5.2	-4.21/-3.49	-4.73/-4.56	-3.4/-2.97	-3.51/-3.69	-4.14/-4.96	-5.13/-4.44	-0.62/-5.66	-6.83/-6.99	-7.09/-7.04	-6.65/-6.89	-6.4/-6.04	-4.93/-4.84	-4.62/-3.78	-3.86/-3.43	-3.27/-3.15	-3.31/-3.5	-3.52/-3.78	-4.29/-4.7
Θ(7.5°)	-6.67/-7.51	-6.09/-7.34	-6.64/-9.99	-6.47/-7.02	-5.37/-5.72	-5.35/-4.27	-4.89/-4.51	-3.73/-4.58	-4.27/-3.18	-3.18/-3.99	-4.58/-4.44	-4.98/-4.36	-5.16/-5.13	-5.61/-5.46	-6.02/-6.09	-5.63/-4.95	-5.05/-5.14	-5.32/-5.66	-5.17/-5.19	-5.64/-5	-5.21/-4.87	-4.42/-4.65	-4.62/-5.8	-6.11/-6.76
Θ(15°)	-6.38/-6.55	-5.79/-6.88	-6.42/-7.14	-7.13/-7.08	-6.34/-6.42	-4.76/-2.54	-3.23/-3.75	-3.08/-2.46	-2.58/-1.96	-3.39/-3.46	-3.34/-4.08	-5.34/-4.62	-4.59/-3.27	-2.76/-2.73	-3.11/-3.02	-2.85/-3.45	-2.52/-2.62	-2.23/-1.61	-1.29/-1.69	-2.9/-4.11	-5.38/-4.38	-4.22/-4.53	-5.33/-5.49	-5.15/-5.4
Θ(22.5°)	-7.9/-6.84	-5.9/-6.02	-6.42/-5.82	-4.34/-3	-1.76/-1.42	-1.78/-1.85	-1/-0.8	-1.01/-0.75	-1.28/-0.14	0.08/-0.68	-1.49/-2.42	-4.17/-4.58	-0.77/-3.97	-2.37/-1.18	-1.98/-1.96	-1.69/-2.37	-1.56/-0.65	-0.27/-0.45	-0.44/-0.43	-0.54/-1.46	-2.62/-4.19	-4.39/-5.15	-5.48/-6.6	-8.06/-8.86
Θ(30°)	-6.47/-5.55	-5.07/-5.16	-6.22/-3.35	-4.43/-4.33	-1.24/-1.72	-0.89/-0.22	0.44/-0.96	-0.590.34	0.50.64	0.03/-1.18	-0.51/-1.25	-2.27/-2.9	-3.19/-3.69	-1.73/-0.59	-0.48/-0.87	-1.31/-2.09	-1.06/-2.35	-3.45/-3.33	-2.43/-1.22	-1.37/-1.23	-1.28/-2.74	-3.24/-5.79	-5.1/-3.54	-6.99/-9.34
Θ(37.5°)	-4.43/-3.06	-3.25/-4.66	-6.2/-4.31	-3.76/-1.99	-0.97/-0.69	0.11/-0.56	0.04/-0.19	0.510.45	-0.030.46	0.19/-0.41	-0.71/-0.99	-1.55/-2.65	-1.39/-0.24	-0.65/-0.14	1.020.96	0.02/-1.39	-1.020.16	-0.170.51	1.270.42	-0.68/-1.46	-3.39/-2.52	-4.93/-4.42	-3.94/-5.42	
Θ(45°)	-1.59/-2.33	-0.63/-0.77	-0.130.03	0.06/-0.19	-0.01/-0.49	0.15/-0.6	0.02/-0.12	-0.4/-0.19	0.51/-0.67	0.280.94	-0.46/-1.26	-0.420.14	-0.89/-1.34	-2.05/-0.44	-0.29/-0.63	0.270.52	0.780.14	-0.150.43	-1.04/-1.1	0.59/-1.75	0.160.07	0.330.32	0.83/-0.42	-1.13/-0.48
Θ(52.5°)	-0.24/-1.48	0.70.3	10.42	0.94/-1.98	1.97/-1.01	1.810.96	1.310.06	0.34/-0.82	-0.890.2	0.9/-0.27	0.37/-1.8	-2.61/-0.22	1.41/-4.07	-0.65/-0.65	-1.03/-0.19	-0.68/-0.06	-0.680.86	-0.45/-1.43	-0.770	-0.140.43	-3.490.09	-0.53/-1.33	-0.47/-2.79	-0.67/-0.86
Θ(60°)	-2.43/-2.2	-0.95/-0.6	-1.89/-2.27	-0.470.62	0.870.61	-0.232.06	-0.04/-1.77	0.790.17	1.640.38	-0.15/-2.96	-2.2/-1.51	-0.99/-1.78	0.29/-1.33	-0.10/-19	0.33/-0.16	-0.10/-57	-0.40/-3.7	1.660.17	-0.18/-1.49	1.610.4	0.9/-0.97	-2.36/-4.1	-2.26/-5.27	
Θ(67.5°)	1.620.86	1.55/-1.03	0.530.22	1.772.77	2.05/-0.52	3.31/-33	1.54/-1.89	1.64/-1.39	0.642.63	1.730.15	-0.470.65	-0.44/-1.54	-0.25/-0.44	-0.12/-1.05	0.26/-0.67	-0.39/-2.12	-1.35/-3.09	-2.16/-1.43	0.59/-0.37	-0.8/-0.64	0.240.81	0.99/-0.66	-0.81/-1.73	-1.11/-0.15
Θ(75°)	2.610.41	2.91.44	2.012.31	3.31/-1.38	2.712.3	4.583.26	2.662.16	1.822.37	2.683.67	2.512.3	1.912.59	1.88/-0.49	0.68/-0.42	1.750.96	2.11/-43	2.021.77	1.030.59	2.221.86	2.221.15	1.19/-1.24	0/-0.19	1.46/-1.21	-0.46/-1.56	-0.71/-1.16
Θ(82.5°)	1.850.04	1.781.01	1.042.9	5.244.81	2.523	2.852.64	2.714.38	2.972.29	2.783.5	2.571	1.121.16	1.531.76	1.532.45	2.012.94	0.62/-0.19	0.580.19	1.87/-3.96	1.622.47	3.393.35	1.461.97	3.942.88	1.06/-2.89	-0.81/-	



Radiated Composite Gain Data

Appendix A.5

Θ(22.5°)	-5.90/6.84	-8.99/-13.09	-16.51/-15.59	-11.53/-17.95	-9.11/-9.4	-10.38/-12.24	-9.83/-8.95	-9.96/-8.53	-4.73/-2.61	-1.51/-1.36	-1.34/-0.42	0.46/0.14	1.28/-0.21	-1.1-/0.23	-1.89/-2.23	-4.2/-7.19	-6.37/-9.94	-13.18/-19.19	-17.71/-9.4	-4.78/-5.1	-2.6/-1.78	-1.73/-2.23	-3.14/-3.97	-3.45/-4.13
Θ(30°)	-6.74/-6.86	-6.86/-5.93	-9.76/-14.3	-12.27/-8.88	-9.01/-8.4	-9.86/-8.57	-9.37/-12.34	-12.47/-12.57	-13.66/-11.84	-7.86/-2.97	-0.81/0.06	0.06/0.12	0.41/-0.11	-0.83/-1.68	-2.07/-3.59	-4.77/-7.85	-9.43/-10.3	-18.21/-19.28	-18.47/-16.58	-10.19/-5.05	-2.93/-1.85	-1.13/-0.39	-1.28/-3.1	-5.12/-5.45
Θ(142.5°)	-6.93/-4.92	-3.79/-4.3	-5.48/-6.36	-6.69/-6.74	-9.77/-9.92	-10.17/-8.91	-15.22/-12.8	-14.17/-15.21	-13.69/-13.22	-7.44/-4.25	-1.68/0.3	-0.51/-1.82	-1.36/-0.45	-0.58/-1.17	-1.98/-4.03	-6.65/-9.99	-13.58/-11.5	-13.45/-17.44	-18.68/-14.78	-13.14/-9.3	-3.73/-6.65	-1.77/-2.52	-2.69/-4.61	-8.78/-8.3
Θ(45°)	-6.71/-2.21	-2.32/-2.24	-4.31/-4.37	-5.38/-7.08	-15.46/-10.02	-9.35/-10.1	-9.03/-8.33	-7.98/-12.95	-7.41/-6.57	-4.16/-4.35	-2.65/-0.98	-0.77/-1.72	-1.65/-1.45	-1.08/-1.78	-2.65/-4.17	-7.83/-6.96	-5.81/-8.45	-12.21/-15.13	-15.92/-11.81	-8/-4.49	-3.02/-4.27	-4.14/-4.1	-4.87/-5.56	-8.16/-11.49
Θ(52.5°)	-5.33/-3.13	-2.13/-3.87	-4.08/-3.5	-4.17/-6.6	-12.1/-11.1	-5.63/-9.57	-7.62/-9.06	-9.72/-7.26	-7.44/-5.9	-4.27/-4.58	-2.63/-0.74	-2.95/-2.98	-2.37/-1.7	-2.02/-3.1	-5.31/-8.63	-11.33/-12.27	-11.73/-9.31	-14.44/-18.79	-18.19/-13.56	-13.79/-8.46	-6.05/-3.39	-1.29/-1.91	-6.46/-12.14	-10.88/-10.18
Θ(60°)	-6.58/-3.9	-2.73/-3.83	-5.82/-0.92	-2.64/-4.27	-7.68/-4.5	-6.83/-12.64	-9.23/-10	-6.39/-10.07	-11.02/-9.74	-5.64/-7.82	-9.82/-6.98	-4.31/-3.55	-4.05/-3.3	-3.24/-4.75	-7.04/-11.7	-18.27/-11.62	-14.34/-12.26	-14.34/-15.29	-12.48/-13.56	-6.46/-6.03	-7.25/-6.09	-3.43/-1.65	-3.61/-9.97	-15.1/-10.8
Θ(67.5°)	-7.46/-4.52	-3.24/-2.93	-5.09/0	-1.77/-2.62	-4.32/-5.78	-10.42/-13.46	-10.42/-12.05	-7.76/-10.92	-14.49/-6.57	-6.28/-3.45	-5.74/-6.47	-13.69/-14.81	-9.67/-5.59	-5.01/-6.35	-6.33/-10.04	-13/-17.97	-10.77/-10.55	-8.84/-11.65	-11.35/-11.98	-9.81/-6.86	-5.17/-3.62	-2.89/-0.77	-1.83/-10.62	-12.06/-7.37
Θ(75°)	-5.8/-2.86	-1.2/-3.93	-3.54/-0.42	-3/-3.54	-2.44/-7.04	-13.12/-9.98	-13.49/-6.16	-8.65/-14.06	-17.39/-10.96	-4.49/-5.39	-3.24/-6.61	-6.16/-18.5	-7.95/-8.67	-8.84/-10.72	-10.57/-17.38	-11.2/-15.68	-14.71/-13.75	-11.7/-11.51	-9.89/-12.92	-7.95/-5.29	-7.83/-7.97	-6.44/-0.99	0.18/-4.12	-8.75/-7.57
Θ(82.5°)	-4.95/-2.82	0.49/-2.71	-2.71/-0.43	-2.77/-2.83	-3.02/-5.62	-15.31/-6.06	-4.37/-4.29	-5.88/-18.04	-13.85/-9.62	-8.26/-9.82	-6.33/-19.02	-6.49/-10.7	-7.86/-16.47	-19.34/-19.22	-13.26/-13.11	-16.63/-11.44	-14.34/-13.73	-10.98/-18.58	-15.26/-7.94	-6.91/-6.19	-2.07/-2.93	-3.4/-1.52	-0.88/-2.9	-4.62/-5.59
Θ(90°)	-7.14/-2.07	1.72/-1.76	-1.18/-0.74	-2.93/-2.15	-2.66/-3.57	-7.79/-1.69	-1.98/-2.85	-3.89/-10.3	-7.91/-18.54	-10.95/-8.09	-7.66/-18.31	-12.8/-12.58	-10.13/-10.94	-18.79/-18.8	-13.04/-12.58	-18.74/-11.62	-18.9/-13.62	-17.93/-18.29	-13.65/-8.88	-6.74/-7.09	-2.87/-4.31	-1.42/0.47	1.06/-1.41	-5.55/-5.92
Θ(97.5°)	-5.01/-0.75	1.11/0.18	-0.97/0.35	-2.33/-2.56	-2.57/-3.38	-6.66/-2.98	-2.43/-4.46	-4.52/-6.8	-6.65/-18.18	-12.04/-8.82	-13.16/-19.58	-18.51/-14.75	-14.55/-9.85	-18.51/-18.83	-15/-17.91	-18.64/-12.92	-11.19/-18.59	-18.29/-12.64	-13.85/-4.89	-4/-2.02	-2.14/-2.93	-2.12/-0.26	1.42/0.14	-3.19/-9.28
Θ(105°)	-7.73/-3.21	-0.95/-0.96	-5.06/-1.27	-1.68/-1.25	-3.69/-3.46	-5.06/-7.21	-8.83/-4.62	-4.63/-8.46	-9.17/-16.31	-16.9/-11.14	-18.17/-10.42	-18.96/-17.78	-18.62/-18.02	-17.65/-18.91	-15.1/-18.94	-12.1/-17.58	-18.68/-15.89	-19.32/-18.29	-9.51/-7.33	-5.5/-0.73	-0.7/-3.28	0.44/0.54	1.18/0.08	-1.06/-6
Θ(112.5°)	-5.4/-3.8	0.56/0.03	-0.55/-1.39	1.19/-1.41	-4.05/-2.41	-4.8/-13.18	-10.93/-19.01	-6.69/-11.94	-13.71/-12.22	-16.17/-10.39	-12.42/-15.06	-17.3/-18.26	-18.49/-18.71	-16.81/-16.41	-18.95/-19.82	-19.6/-14.9	-12.59/-19.37	-14.59/-14.31	-11.29/-8.44	-5.96/-1.46	-0.99/-2.3	0.51/0.38	2.77/0.7	-2.89/-6.06
Θ(120°)	-3.62/-1.89	0.06/0.76	-0.95/0.71	1.4/-1.17	-4.71/-4.28	-5.66/-18.41	-9.8/-12.07	-8.9/-15.09	-15.56/-17.77	-19.19/-19.29	-13.56/-13.48	-11.04/-11.06	-17.98/-18.02	-16.06/-17.49	-19.46/-18.19	-13.22/-14.99	-17.43/-17.47	-16.86/-14.81	-11.06/-15.77	-10.51/-6.23	-3.21/-1.93	0.53/0.96	2.25/-1.59	-1.32/-5.1
Θ(127.5°)	-0.52/-1.37	-0.91/0.48	-0.87/-1.68	-0.04/-3.88	-3.31/-10.17	-8.06/-18.77	-16.82/-19.11	-18.22/-15.53	-19.05/-15.7	-13.38/-7.53	-11.77/-10.88	-17.88/-18.18	-14.2/-10.19	-11.34/-15.48	-17.88/-18.95	-18.69/-10.98	-17.31/-19.1	-12.56/-15.56	-14.28/-12.25	-9.85/-2.74	0.74/0.55	2.87/0.34	-0.55/-1.75	
Θ(135°)	1/0.94	-1.51/-0.15	-1.19/-2.52	-3.12/-2.29	-3.71/-7.96	-17.63/-17.7	-14.63/-18.68	-16.22/-11.08	-15.23/-12.34	-14/-11.87	-10.09/-12.64	-18.46/-18.72	-19.09/-15.97	-13.39/-13.26	-13.92/-17.9	-18.73/-18.79	-12/-11.64	-14.54/-16	-12.52/-12.52	-13.05/-16.61	-8.03/-4.56	-0.82/1.4	2.61/1.43	-0.37/0.6
Θ(142.5°)	0.73/-0.77	-1.34/-0.94	-2.75/-5.33	-7.19/-3.97	-4.82/-6.37	-19.19/-17.72	-11.32/-9.84	-15.45/-17.7	-13.39/-9.31	-10.44/-17.62	-13.2/-11.55	-12.54/-9.27	-10.48/-11.73	-16.73/-17.97	-13.48/-16.22	-18.64/-19.14	-13.77/-11.5	-6.68/-8.43	-9.43/-7.98	-7.02/-4.68	-2.27/-1.1	-0.53/0.16	0.93/0.64	
Θ(150°)	-0.53/-0.91	-0.50/-0.68	-2.41/-3.68	-3.93/-3.9	-7.05/-6.83	-12.31/-14.46	-15.11/-7.91	-9.99/-9.85	-11.23/-13.17	-17.31/-11.49	-13.07/-13.17	-18.78/-18.87	-17.37/-18.98	-17.8/-18.12	-17.71/-18.55	-18.46/-16.04	-12.09/-8.23	-6.46/-7.28	-5.78/-4.52	-4.67/-4.84	-4.14/-4.57	-4.63/-3.2	-0.96/-0.3	
Θ(157.5°)	-1.13/-1.27	-1.72/-2.02	-1.7/-2.45	-4.75/-7.51	-5.57/-6.85	-8.78/-11.56	-10.81/-10.21	-7.47/-8.22	-12.69/-15.4	-15.97/-16.94	-18.17/-18.75	-17.75/-14.98	-12.92/-14.15	-17.16/-17.75	-18.78/-18.62	-18.18/-17.92	-19.01/-19.01	-14.87/-10.9	-9.43/-9.41	-7.87/-6.35	-6.64/-8	-6.54/-5.02	-3.64/-2.86	-1.9/-1.35
Θ(165°)	-3.72/-3.93	-1.79/-1.59	-1.76/-2.85	-4.91/-4.65	-6.76/-6.68	-8.7/-7.6	-6.28/-7.06	-7.72/-7.84	-8.42/-9.75	-15/-16.4	-19.38/-18.35	-17.79/-17.75	-18.1/-16.21	-13.61/-15	-15.95/-16.3	-17.07/-18.94	-18.62/-17.91	-16.94/-17.32	-17.97/-13.38	-10.44/-5.86	-7.97/-6.04	-6.98/-5.94	-4.77/-3.92	-3.29/-3.74
Θ(172.5°)	-4.73/-3.82	-4.03/-3.77	-3.22/-4.08	-4.82/-6.78	-10.96/-18.74	-15.57/-13.14	-11.04/-12.87	-15.79/-18.32	-11.51/-8.69	-8.89/-9.07	-8.78/-8.66	-7.42/-7.84	-6.59/-9.75	-10.65/-13.53	-16.22/-18.12	-17.96/-18.32	-18.68/-18.18	-17.96/-17.6	-16.11/-13.09	-11.54/-9.97	-8.87/-7.78	-7.12/-6.97	-6.49/-5.43	
Θ(180°)	-8.97/-8.63	-8.13/-8.35	-7.83/-9.22	-8.93/-8.87	-9.58/-8.86	-12.17/-12.28	-11.41/-12.57	-17.23/-18.28	-17.7/-18.89	-8.67/-13.67	-10.09/-9.33	-9.08/-7.98	-6.54/-7.82	-7.53/-6.74	-7/-7.37	-7.39/-8.63	-9.15/-9.73	-9.79/-10.01	-10.08/-9.86	-10.49/-10.23	-9.53/-9.46	-8.89/-8.19	-7.17/-8.29	
Freq(Hz)	6.695GPol.	Theta/Ant. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-6.56/-7.19	-7.67/-8.1	-10.21/-8.68	-9.49/-10.43	-9.05/-7.35	-6.39/-5.65	-6.06/-6.7	-5.14/-4.98	-4.47/-4.4	-6.52/-4.57	-6.35/-6.51	-5.82/-6.42	-7.99/-8.01	-9.73/-10.26	-11.28/-11.04	-17.97/-9.15	-9.7/-9.64	-7.73/-7.52	-6.83/-5.55	-5.35/-5.47	-5.05/-4.88	-4.86/-5.02	-5.49/-5.86	-5.74/-6.2
Θ(7.5°)	-9.0/-10.97	-10.73/-13.51	-12.32/-12.86	-9/-9.63	-5.14/-6.29	-6.01/-4.15	-5.03/-6.54	-4.81/-4.62	-4.69/-4.62	-4.77/-4.97	-6.24/-6.39	-7.72/-7.74	-7.85/-7.77	-7.41/-7.86	-7/-5.93	-5.02/-4.77	-4.52/-4.02	-3.29/-2.8	-3.08/-3.34	-3.63/-3.58	-3.65/-3.68	-4.17/-5.87	-6.86/-8.33	
Θ(15°)	-12.7/-15.34	-19.09/-19.02	-12.46/-10.88	-10.94/-10.31	-10.06/-5.35	-7.74/-4.52	-3.81/-5.2	-5.04/-8.08	-3.62/-3.44	-4.35/-5.13	-6.45/-6.36	-8.45/-6.39	-9.67/-8.7	-7.54/-6.53	-5.42/-5.17	-4.85/-5.62	-3.52/-3.1	-2.54/-2.15	-2.62/-3.01	-3.36/-3.75	-4.12/-4.34	-4.27/-3.83	-4.64/-5.65	-7.15/-9.68
Θ(22.5°)	-18.48/-19.27	-17.78/-17.84	-17.89/-18.57	-17.79/-8.85	-4.7/-3.39	-3.85/-3.22	-1.58/-1.75	-2.28/-1.28	-1.11/-1.61	-2.09/-2.49	-3.66/-5.48	-10.74/-17.18	-18.92/-12.08	-9.21/-6.94	-6.29/-5.64	-5.62/-5.77	-4.83/-3.96	-3.77/-3.36	-2.56/-2.52	-3.57/-5.7	-6.91/-9.92	-14.4/-13.35	-14.11/-14.55	-19.41/-18.84
Θ(30°)	-14.27/-15.06	-19.35/-16.82	-18.24/-14.41	-7.64/-5.61	-1.27/-1.72	-1.96/-2.72	-1.75/-3.65	-1.41/0.27	0.6/-0.16	-1.04/-9.27	-4.53/-5.71	-7.42/-9.95	-13.53/-18.71	-12.41/-8.5	-6.67/-5.75	-7.4/-4.71	-3.86/-5.74	-7.73/-7.3	-4.25/-3.52	-3.73/-3.64	-5.16/-4.66	-11.82/-18.96	-15.11/-12.21	-15.51/-18.83
Θ(37.5°)	-13.44/-14.6	-14.71/-18.29	-18.54/-7.38	-4.54/-3.1	-1.74/-2.64	-3.69/-3.53	-3.82/-3.67	-1.5/-0.86	-1.06/-0.63	-0.5/-1.78	-2.95/-4.5	-7.42/-10.19	-12.87/-18.14	-12.02/-8.14	-8.02/-5.25	-4.05/-2.27	-5.49/-4.73	-3.14/-2.06	-1.84/-1.42	-1.7/-2.37	-5.12/-9.06	-14.28/-12.15	-9.3/-12.08	
Θ(45°)	-8.53/-13.65	-18.51/-18.38	-10.34/-6.62	-4.71/-3.6	-2.08/-2.67	-6.05/-5.79	-7.82/-5.33	-5.42/-3.2	-2.78/-3.45	-4.25/-2.88	-3.77/-6.57	-7.5/-7.65	-12.48/-14.77	-16.15/-10.59	-9.11/-8.79	-4.73/-2.74	-3.83/-3.92	-6.67/-8.52	-4.76/-4.61	-6.74/-4.72	-3.07/-5.72	-4.61/-3.81	-7.23/-17.99	-9.89/-8.1
Θ(52.5°)	-6.68/-7.88	-13.96/-13.04	-8.82/-6.23	-5.37/-3.67	-3.35/-4.37	-4.49/-5.54	-4.82/-5.1	-4.4/-2.45	-2.99/-3.92	-7.17/-4.93	-4.78/-8.39	-15.08/-17.87	-6.68/-11.92	-14.61/-13.77	-16.9/-9.33	-5.51/-3.71	-6.22/-5.53	-6.98/-7.81	-6.43/-7.21	-7.08/-6.68	-6.77/-10.58	-15.65/-9.5	-8.73/-13.53	-18.52/-15.1
Θ(60°)	-16.93/-9.12	-6.49/-6.94	-10.33/-15.94	-8.94/-6.08	-5.73/-6.08	-9.17/-8.12	-13.05/-2.25	-5.13/-5.56	-4.91/-5.63	-5.95/-10	-6.51/-8.44	-14.99/-19.02	-19.13/-19.09	-16.77/-11.83	-14.86/-9.1	-6.01/-4.91	-6.35/-4.99	-8.61/-13.44	-9.57/-10.49	-9.88/-6.73	-5.45/-6.03	-8.07/-1.76	-18.94/-13.38	-14.82/-18.42
Θ(67.5°)	-12.61/-11.25	-4.56/-6.08	-12.77/-10.96	-9.77/-7.46	-4.53/-11.05	-3.92/-15.57	-4.85/-6.62	-7.77/-7.58	-10.35/-5.9	-5.56/-15.89	-13.48/-10.66	-11.62/-18.66	-10.67/-14.19	-12.49/-9.23	-7.78/-8.67	-5.48/-9.25	-9.67/-6.19	-6.02/-6.14	-4.77/-6.26	-5.01/-11.25	-7.85/-6.07	-6.82/-13.47	-13.4/-18.41	-17.91/-16.73
Θ(75°)	-7.78/-16.49	-7.88/-8.79	-11.64/-13.11	-17.37/-13.99	-6.39/-12.39	-7.																		



Radiated Composite Gain Data

Appendix A.5

Θ(75°)	-10.9/-8.74	-9.54/-8.1	-13.34/-13.82	-17.14/-17.74	-12.05/-16.3	-15.7/-19.04	-18/-15.93	-16.18/-14.37	-8.53/-12.03	-9.81/-14.06	-18.92/-5.82	-10.41/-8.78	-11.45/-9.62	-9.66/-15.65	-9.7/-15.27	-15.47/-16.19	-17.3/-8.54	-7.55/-11.03	-13.47/-13.75	-14.43/-11.66	-10.27/-15.18	-13.68/-18.08	-13.58/-14.18	-19.44/-12.31
Θ(82.5°)	-5.58/-8.41	-8.1/-11.63	-18.16/-18.79	-15.33/-12.78	-11.03/-16.8	-15.63/-17.44	-13.04/-18.78	-18.58/-13.89	-10.3/-9.33	-13.13/-7.13	-9.81/-17.03	-16.64/-9.57	-6.21/-5.51	-7.48/-13.35	-8.62/-12.78	-11.59/-11.28	-8.91/-18.54	-8.69/-19.09	-6.63/-19.01	-10.95/-17.4	-12.63/-10.78	-9.97/-16.36	-11.9/-10.16	-11.12/-16.67
Θ(90°)	-6.87/-5.64	-9.16/-10.69	-18.46/-11.26	-9.81/-8.87	-7.05/-17.09	-18.39/-14.16	-7.58/-18.58	-10.68/-14.9	-9.07/-10.33	-11.45/-8.36	-10.98/-13.88	-13.47/-15.47	-17.42/-18.88	-8.42/-8.85	-11.26/-8.15	-13.17/-8.26	-18.41/-10.78	-14.66/-13.2	-18.58/-9.64	-12.78/-10.63	-17.41/-17.95	-8.78/-13.55	-9.45/-13.89	
Θ(97.5°)	-8.1/-5.49	-7.32/-14.77	-17.52/-10.96	-7.95/-8.57	-6.17/-18.93	-17.07/-13.94	-13.96/-11.41	-15.2/-9.99	-9.63/-9.67	-18.07/-8.37	-13.79/-10.31	-9.71/-13.47	-14.48/-13.05	-18.62/-10.2	-14.4/-18.66	-19.72/-4.97	-15.43/-15.65	-16.36/-16.53	-9.64/-8.53	-12.37/-7.64	-15.27/-16.06	-13.95/-12.17	-12.98/-11.09	-12.17/-8
Θ(105°)	-9.01/-7.93	-7.1/-12.25	-18.68/-12.01	-5.4/-3.1	-5.1/-13.82	-17.81/-10.09	-12.31/-9.28	-8.93/-13.75	-10.32/-9.91	-9.68/-13.87	-9.33/-8.92	-10.47/-7.1	-9.33/-14.44	-17.16/-18.85	-14.46/-13.36	-18.47/-12.28	-14.24/-12.37	-12.81/-12.98	-5.45/-18.9	-15.09/-8.82	-6.42/-14.61	-18.58/-16.18	-14.64/-18.6	-12.59/-11.68
Θ(112.5°)	-16.21/-12.49	-9.9/-10.64	-9.33/-9.3	-5.41/-3.84	-5.55/-10.5	-12.93/-15.52	-11.92/-6.23	-8.98/-17.24	-8.94/-9.23	-10.03/-6.03	-10.27/-5.44	-7.11/-9.1	-15.53/-9.5	-8.04/-7.02	-7.57/-6.52	-12.63/-12.94	-11.66/-17.08	-16.07/-11.74	-5.57/-11.6	-18.04/-8.76	-9.02/-7.87	-19.04/-18.22	-12.69/-8.1	-12.27/-10.56
Θ(120°)	-17.85/-15.48	-9.71/-5.36	-6.52/-7.01	-4.47/-4.99	-3.97/-12.53	-13.52/-9.76	-12.84/-6.63	-16.28/-7.57	-7.79/-9	-6.37/-7.57	-4.12/-3.26	-18.94/-6.98	-10.23/-4.64	-6.72/-4.43	-6.88/-11.52	-17.4/-15.56	-9.62/-16.61	-15.23/-19.2	-6.51/-10.81	-18.32/-12.98	-14.77/-6.44	-15.61/-10.72	-10.28/-10.03	-15.84/-12.86
Θ(127.5°)	-8.32/-11.19	-7.35/-4.94	-5.7/-6.6	-7.63/-4.65	-8.11/-14.28	-18.26/-16.04	-11.76/-15.53	-7.2/-11.65	-6.4/-11.73	-9.13/-6.88	-6.33/-6.2	-7.91/-7.65	-14.31/-8.06	-8.3/-8.47	-11.4/-16.99	-17.21/-12.32	-10.01/-9.5	-9.21/-10.8	-10.12/-19.1	-13.37/-17.65	-11.86/-7.96	-10.51/-16.07	-10.94/-11.01	-19.13/-12.05
Θ(135°)	-7.94/-9.31	-9.23/-10.49	-8.04/-8.15	-10.71/-9.21	-10.24/-11.08	-14.26/-18.58	-9.97/-8.94	-15.66/-8.05	-7.18/-9.68	-7.66/-6.62	-14.72/-4.63	-6.96/-5.37	-6.51/-18.09	-14.34/-19.15	-17.2/-14.75	-17.23/-9.24	-16.21/-16.59	-16.51/-9.8	-15.91/-17.69	-6.97/-5.89	-15.28/-10.07	-9.45/-9.53	-18.15/-11.56	
Θ(142.5°)	-13.99/-13.39	-7.22/-5.59	-6.25/-7.96	-8.64/-6.19	-7.63/-9.01	-8.46/-16.01	-16.34/-13.12	-13.64/-4.48	-7.95/-9.57	-5.57/-10.03	-4.77/-7.9	-18.77/-8.11	-8.78/-19.27	-12.55/-17.18	-17.87/-11	-17.45/-11.33	-9.45/-10.5	-11.78/-15.64	-14.57/-13.66	-18.03/-13.41	-8.24/-7.1	-9.86/-11.86	-13.77/-9.66	-11.11/-18.65
Θ(150°)	-18.62/-13	-17.53/-10.48	-11.09/-9.55	-15.16/-12.54	-13.46/-6.71	-7.13/-9.45	-9.96/-10.89	-12.09/-6.79	-6.39/-2.39	-18.71/-1.95	-0.19/-2.89	-8.8/-11.55	-10.38/-6.7	-5.78/-6.48	-8.34/-8.33	-13.87/-13.33	-8.96/-6.85	-7.91/-12.78	-13.12/-10.79	-7.19/-6.03	-5.01/-7.73	-18.16/-7.8	-7.53/-23.19	-13.65/-11.18
Θ(157.5°)	-14/-18.04	-16.96/-11.11	-12.53/-18.53	-12.85/-10.84	-9.8/-9.6	-9.64/-16.74	-12.55/-9.99	-9.42/-4.9	-2.59/-7.63	-4.67/-3.15	-8.19/-9.77	-8.01/-13.72	-18.21/-17.88	-18.97/-17.44	-12.02/-9.28	-8.11/-10.59	-13.77/-17.6	-17.95/-18.02	-10.42/-6.9	-5.5/-4.53	-4.68/-7.79	-14.94/-10.66	-9.39/-11.6	-18.3/-15.5
Θ(165°)	-9.84/-7.98	-8.05/-6	-5.56/-5.43	-5.2/-5.9	-6.73/-8.85	-7.53/-5.76	-5.69/-9.94	-4.3/-4.66	-5.36/-3.67	-4.87/-8.12	-18.76/-10.84	-7.18/-7.4	-10.05/-9.17	-8.1/-7.35	-9.51/-11.21	-10.16/-8.08	-6.52/-6.79	-6.26/-6.44	-7.92/-8.49	-6.81/-6	-4.99/-4.98	-6.6/-7.35	-7.68/-8.42	-10.31/-10.94
Θ(172.5°)	-5.42/-5.6	-6.59/-8.6	-11.14/-14.38	-17.56/-17.79	-13.33/-9.6	-8.13/-5.2	-3.49/-5.22	-2.41/-3.4	-2.26/-1.68	-3.72/-10.07	-18.49/-16.36	-17.35/-18.57	-11.68/-8.69	-8.88/-1.96	-13.67/-18.32	-18.79/-17.47	-11.93/-13.36	-10.78/-10.5	-9.79/-6.74	-4.9/-3.6	-2.86/-2.64	-2.79/-3.86	-4.85/-6.2	-6.55/-6.48
Θ(180°)	-5.24/-5.39	-4.59/-5.5	-5.29/-5.85	-5.73/-6.52	-7.7/-8.73	-8.4/-7.49	-7.43/-8.19	-5.81/-4.57	-3.84/-3.83	-5.78/-15.73	-17.5/-15.33	-9.44/-4.16	-2.79/-4.22	-6.75/-7.2	-7.21/-8.08	-10.69/-12.4	-17.51/-14.31	-15.3/-13.67	-13.04/-10.79	-10.04/-10.16	-8.34/-7.32	-6.31/-5.39	-5.2/-5.09	-5.15/-4.88
Freq(Hz)	6.175GPol.	Theta/Ant. 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(75°)	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°)	-15.85/-16.41	-17.91/-18.97	-18.66/-18.23	-18.08/-17.61	-18.03/-17.75	-17.81/-19.06	-18.94/-18	-17.31/-19.77	-19.25/-17.75	-18.02/-17.32	-18.47/-18.64	-16.03/-13.8	-17.51/-17.58	-17.07/-18.58	-19.26/-17.54	-18.21/-18.74	-18.57/-18.99	-18.27/-18.6	-15.67/-14.53	-14.49/-11.76	-12.51/-12.59	-12.9/-12.99	-13.77/-14.34	-13.07/-13.92
Θ(7.5°)	-19.01/-17.61	-19.05/-18.1	-18.41/-18.63	-17.81/-18.37	-18.22/-18.16	-16.48/-13.81	-13.7/-13.88	-8.44/-7.99	-10.07/-12.73	-13.81/-18.78	-18.44/-18.16	-16.11/-13.15	-16.67/-17.68	-18.05/-13.58	-14.71/-13.56	-13.93/-14.14	-15.35/-15.46	-17.92/-17.78	-19.56/-18.72	-18.83/-19.24	-19.01/-18.89	-17.67/-17.23	-17.07/-18.06	-17.55/-17.13
Θ(15°)	-17.91/-18.97	-17.67/-13.56	-11.08/-10.51	-11.76/-11.81	-16.08/-19.09	-17.87/-18.35	-11.34/-14.23	-10.09/-6.5	-6.55/-5.99	-7.89/-8.93	-9.99/-13.21	-15.64/-13.72	-14.34/-14.23	-14.41/-12.1	-14.63/-10.04	-8.98/-8.06	-6.88/-9.74	-10.34/-9.98	-10.45/-11.11	-11.69/-12.76	-12.13/-12.42	-16.6/-18.86	-17.98/-17.73	-14.67/-14.68
Θ(22.5°)	-16.3/-14.1	-9.26/-8.67	-8.02/-8.1	-8.6/-8.27	-9.16/-12.91	-18.35/-17.92	-14.15/-11.49	-12.29/-7.05	-8.04/-9.51	-12.13/-9.18	-10.65/-17.88	-15.73/-12.29	-10.01/-9.85	-10.89/-10.69	-10.31/-7.39	-6.74/-8.22	-9.36/-10.61	-14.86/-12.79	-11.5/-10.48	-9.56/-12.35	-18.12/-14.16	-11.18/-14.75	-18.33/-12.04	-12.61/-12.95
Θ(30°)	-18.16/-18	-12.27/-9.59	-8.35/-5.26	-5.27/-2.93	-5.26/-7.57	-16.44/-15.46	-18.17/-15.25	-16.1/-15.11	-11.39/-18.38	-9.8/-9.97	-13.58/-15.22	-14.81/-17.93	-9.37/-11.3	-5.6/-5.29	-6.63/-6.06	-7.91/-8.05	-12.37/-12.32	-13.81/-12	-13.47/-15.28	-8.05/-4.51	-5.29/-6.31	-6.54/-8.51	-8.46/-13.62	-11.39/-13.47
Θ(37.5°)	-15.77/-13.04	-8.74/-7.96	-7.55/-4.52	-7.25/-3.99	-10.47/-13.43	-16.54/-18.81	-11.4/-12.48	-14.55/-17.39	-14.96/-13.7	-11.54/-16.01	-13.95/-10.65	-10.91/-9.17	-7.51/-5.63	-4.68/-5.91	-8.4/-7.29	-7.62/-9.1	-12.76/-10.55	-9.11/-7.3	-6.64/-3.97	-5.45/-5.55	-9.43/-4.5	-6.4/-7.58	-9.53/-12.99	-10.77/-11.18
Θ(45°)	-11.56/-6.93	-2.83/-3.1	-4.77/-4.94	-9.22/-16.89	-18.06/-7.79	-6.84/-7.03	-4.86/-13.53	-13.56/-6.7	-5.43/-6.29	-8.59/-17.33	-11.59/-7.18	-7.65/-8.26	-7.38/-4.38	-2.42/-2.03	-4.02/-3.56	-7.06/-8.21	-12.59/-9.68	-9.79/-5.59	-5.27/-5.41	-4.99/-6.91	-8.24/-4.57	-7.92/-7.95	-5.97/-14.98	-9.57/-15.01
Θ(52.5°)	-9.94/-9.04	-1.87/-1.74	-1.26/-2.51	-11.54/-10.96	-7.92/-5.51	-4/-3.58	-5.99/-14.84	-18.86/-4.26	-5.16/-2.22	-5.43/-8.65	-16.09/-11.6	-10.22/-7.63	-5.55/-3.97	-3.95/-5.79	-7.89/-8.03	-10.49/-9.82	-12.59/-17.05	-5.91/-4.21	-2.99/-4.7	-6.14/-3.27	-5.64/-9.12	-3.38/-4.13	-4.24/-10.61	-11.48/-9.41
Θ(60°)	-15.46/-8.25	-3.87/-2.33	-1.21/-1.13	-5.9/-5.99	-4.16/-2.72	-1.85/-3.23	-8.54/-5.89	-13.27/-6.18	-4.44/-2.08	-4.57/-9.29	-13.65/-11.01	-15.84/-10.08	-6.48/-4.93	-7.78/-6.72	-5.66/-6.58	-7.45/-9.39	-10.36/-13.76	-11.58/-5.36	-5.98/-3.56	-3.12/-3.77	-2.94/-3.41	-5.25/-1.77	-4.16/-10.03	-11.01/-10.48
Θ(67.5°)	-8.09/-5.56	-5.07/-5.24	-3.72/-0.07	-1.29/-1.49	-2.08/-1.37	-2.67/-5.35	-15.84/-7.01	-3.98/-4.35	-3.54/-3.65	-8.82/-7.1	-9.4/-9.39	-11.69/-16.75	-14.62/-7.55	-5.86/-11.26	-11.23/-19.13	-15.56/-11.32	-18.29/-8.37	-5.07/-6.39	-6.08/-7.07	-4.52/-4.34	-3.99/-4.03	-2.71/-2.72	-5.65/-8.99	-13.42/-9.02
Θ(75°)	-5.04/-7.14	-5.89/-6.43	-2.23/-0.64	-1.45/-0.29	0.05/-3.47	-6.72/-16.74	-7.21/-7.35	-5.49/-4.01	-2.83/-7.26	-5.49/-8.14	-10.96/-7.82	-11.74/-12.06	-16.54/-9.59	-10.71/-9.35	-5.01/-6.83	-13.77/-13.23	-5.67/-7.94	-8.99/-7.3	-5.36/-10.78	-6.43/-7.64	-4.73/-5.52	-2.56/-2.68	-3.56/-12.87	-11.3/-9.02
Θ(82.5°)	-5.66/-6.55	-18.81/-17.3	-5.52/-8.9	-0.81/-0.75	-1.01/-6.39	-12.43/-12.94	-3.55/-3.74	-5.1/-5.3	-2.74/-17.88	-3.59/-5.4	-13.55/-18.31	-17.73/-15.8	-10.42/-12.35	-18.91/-3.95	-9.03/-13.2	-6.65/-7.82	-7.41/-13.63	-13.34/-4.79	-17.29/-2.65	-0.87/-1.93	-4.22/-4.74	-0.75/-3.09	-5.43/-12.42	-14.71/-9.03
Θ(90°)	-9.27/-2.97	-1.75/-5.12	-5.05/-1.06	1.56/-1.01	-0.52/-4.06	-6.53/-9.13	-4.09/-4.39	-3.89/-5.25	-4.34/-7.13	-4.33/-7.78	-8.03/-9.59	-12.47/-10.51	-14.12/-9.09	-7.61/-16.34	-7.86/-3.71	-4.38/-9.9	-9.42/-6.69	-11.28/-1.97	0.11/-3.4	-0.23/-1.88	-2.49/-2.26	1.73/-1.22	-7.31/-9.04	-18.74/-10.08
Θ(97.5°)	-5.86/-4	-4.05/-11.91	-3.0/-4	-0.35/-1.38	-1.48/-5.26	-5.3/-9.39	-6.41/-5.38	-9.88/-3.36	-1.62/-3.68	-2.93/-3.94	-3.96/-2.35	-7.75/-16.94	-16.05/-8.44	-6.04/-3.4	-17.99/-16.27	-11.63/-5.64	-8.62/-8.51	-9.4/-7.24	-4.13/-3.95	-10.42/-4.7	-4.31/-1.18	2.08/-0.75	-8.56/-15.92	-18.54/-9.95
Θ(105°)	-6.41/-2.57	-3.61/-7.92	-5.02/-1.98	0.38/-1.72	-0.55/-0.54	-4.45/-6.92	-4.32/-10.56	-6.29/-7.5	-3.45/-1.81	-1.23/-3.35	-1.92/-2.65	-5.89/-11.46	-17.76/-6.45	-7.37/-14.51	-10.11/-11.15	-12.53/-12.55	-11.93/-13.72	-5.15/-2.29	-7.73/-7.93	-6.092/-8	0.29/-1.39	1.91/-0.07	-3.65/-13.16	-12.38/-17.85
Θ(112.5°)	-11.48/-4.75	-2.98/-2.41	-4.65/-2.39	-3.41/-3.72	-1.72/-0.2	-0.78/-2.96	-6.71/-12.06	-1.12/-1.08	0.15/-1.12	-5.79/-3.52	-7.66/-5.12	-11.29/-8.35	-17.91/-14.25	-8.14/-13.78	-6.69/-16.88	-12.2/-9.83	-9.23/-9.41	-6.52/-6.04	-5.49/-4.75	-130.76	1.76/-1.06	1.95/-1.1	-3.54/-8.4	-10.64/-18.91
Θ(120°)	-12.05/-8.29	-3.06/-1	-2.55/-3.48	-5.59/-4.7	-1.07/-0.11	1.96/-1.35	-5.33/-2.73	-1.32/-9.05	0.45/-5.65	-3.36/-6.48	-13.27/-7.9	-17.99/-10.42	-3.08/-4.33	-3.17/-7.3	-7.53/-7.27	-12.99/-								



Radiated Composite Gain Data

Appendix A.5

Θ (120°)	-11.28/-6.02	-11.61/-15.94	-14.76/-12.96	-10.68/-19.62	-10.5/-6.65	-9.11/-13.87	-6.6/-15	-8.52/-16.25	-15.77/-15.33	-19.11/-17.56	-17.39/-9.32	-14.47/-12.83	-15.2/-6.58	-6.14/-5.53	-8.64/-13.83	-18.23/-12.02	-16.57/-14.81	-18.67/-18.69	-14.29/-18.01	-18.52/-17.18	-12.5/-10.63	-15.38/-7.87	-11.47/-12.95	-18.47/-18.79
Θ (127.5°)	-17.34/-10.64	-16.11/-18.8	-19.27/-18.27	-17.8/-13.81	-7.31/-6.44	-9.63/-17.6	-14.07/-18.03	-14.36/-17.61	-14.74/-17.08	-13.58/-15.26	-8.08/-13.5	-7.76/-16.3	-12.59/-15.9	-17.36/-19.69	-14.32/-8.48	-11.25/-11.51	-19.17/-15.8	-10.96/-13.43	-17.02/-17.85	-10.03/-10.63	-9.62/-9.99	-9.07/-11.72	-18.16/-18.47	
Θ (135°)	-12.16/-17.47	-13.41/-14.77	-11.85/-18.14	-17.92/-10.18	-9.56/-9.82	-13.61/-16.16	-15.76/-18.08	-15.81/-8.01	-12.71/-17.33	-10.75/-8.96	-17.12/-7.33	-12.87/-8.78	-12.77/-10.06	-18.03/-18.98	-14.85/-14.78	-11.09/-8.65	-18.04/-17.87	-18.01/-17.26	-17.34/-17.53	-14.99/-17.85	-4.61/-10.54	-5.49/-18.23	-13.87/-18.31	
Θ (142.5°)	-18.57/-16.83	-16.6/-17.33	-13.02/-16.58	-13.31/-17.16	-14.27/-9.38	-10.97/-14.4	-18.56/-13.28	-15.1/-14.12	-6.89/-12.22	-6.87/-9.38	-8.12/-6.49	-11.81/-15.22	-9.91/-9.83	-14.54/-17.71	-17.54/-18.99	-13.65/-18.77	-15.22/-17.33	-19.36/-17.55	-18.47/-18.25	-11.3/-13.35	-8.59/-7.28	-7.85/-9.57	-5.24/-13.78	-17.77/-18.36
Θ (150°)	-11.83/-18.67	-18.18/-18.91	-18.13/-18.15	-19.09/-17.39	-8.37/-7.06	-7.44/-6.94	-8.75/-19.23	-11.32/-14.55	-9.34/-5.33	-13.88/-6.03	-2.3/-6.07	-10.45/-17.1	-11.72/-16.5	-8.69/-9.37	-7.72/-13.49	-12.7/-18.03	-18.52/-16.71	-14.58/-15.56	-11.89/-8.28	-8.75/-7.74	-8.05/-8.79	-6.93/-8.32	-12.51/-12.58	-16.82/-11.46
Θ (157.5°)	-10.97/-12.02	-17.46/-12.63	-11.54/-13.15	-12.03/-9.51	-8.83/-11.4	-14.91/-11.52	-12.55/-15.84	-7.13/-9.98	-13.97/-16.56	-5.11/-5.52	-13.88/-17.75	-12.44/-12.21	-18.99/-14.74	-10.3/-7.11	-10.47/-18.26	-17.23/-14.99	-14.03/-11.26	-9.06/-9.04	-17.79/-7.96	-11.55/-6.69	-6.56/-7.51	-8.75/-15.75	-18.97/-12.87	
Θ (165°)	-10.29/-13.37	-14.03/-18.89	-13.64/-16.16	-12.75/-10.06	-8.44/-7.58	-7.61/-8.57	-13.02/-14.9	-8.7/-13.9	-7.62/-8.09	-7.16/-7.94	-15.41/-12.34	-7.88/-12.04	-18.84/-16.48	-9.52/-7.07	-8.29/-9.48	-13.04/-15.62	-14.41/-13.01	-10.89/-13.1	-13.5/-11.52	-10.15/-8.98	-9.98/-10.68	-11.88/-15.79	-16.8/-12.63	-10.18/-10.52
Θ (172.5°)	-6.44/-5.77	-5.49/-4.79	-4.61/-5.4	-5.46/-5.36	-8.08/-7.81	-10.08/-14.78	-14.56/-14.46	-13.67/-9.15	-6.39/-8.1	-8.03/-9.05	-15.65/-18.77	-18.41/-15.96	-11.55/-7.12	-5.84/-5.97	-6.5/-17.3	-6.51/-7.13	-9.13/-11.04	-13.49/-13.79	-10.79/-10.78	-10.6/-9.22	-9.15/-9.8	-9.4/-11.17	-11.58/-12	-10.55/-7.99
Θ (180°)	-8.4/-7.5	-8.25/-7.49	-10.7/-8.15	-11.81/-10.81	-9.83/-11.53	-10.75/-10.3	-11.87/-10.09	-8.31/-9.19	-8.58/-8.11	-11.22/-18.04	-18.39/-18.53	-16.66/-12.95	-8.12/-7.42	-8.07/-8.56	-6.41/-7.14	-7.16/-8.25	-9.9/-8.28	-9.19/-8.92	-9.88/-11.55	-11.17/-10.51	-9.9/-9.48	-7.9/-9.03	-8.13/-8.31	-7.21/-7.83
Freq(Hz)	6.995GPol.	Theta/Ant. 2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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°)	-16.12/-16.65	-18.58/-19	-18.64/-19.55	-16.5/-15.87	-14.16/-13.07	-8.67/-11.31	-7.93/-8.18	-11.38/-11.14	-8.26/-8.22	-11.17/-13.04	-14.73/-10.71	-15.69/-15.38	-15.41/-16.47	-13.99/-13.82	-12.27/-12.36	-9.88/-10.2	-9.73/-9.14	-8.59/-8.05	-8.58/-7.77	-8.24/-8.35	-8.53/-9	-9.43/-10.89	-12.13/-13.97	
Θ (7.5°)	-14.44/-16.43	-11.65/-13.07	-11.62/-13.73	-15.3/-18.99	-19.84/-15.82	-14.43/-11.53	-13.03/-10.58	-8.82/-11.22	-10.96/-9.9	-7.92/-9.98	-9.05/-8.98	-10.67/-9.85	-10.56/-12.64	-16.13/-15.38	-19.69/-17.9	-16.03/-14.37	-15.34/-13.09	-14.02/-17.43	-15.33/-18.31	-18.62/-17.45	-18.41/-16.45	-15.55/-14.72	-12.77/-13.9	-15.2/-15.75
Θ (15°)	-13.99/-12.44	-10.37/-12.67	-13.15/-18.47	-17.19/-18.69	-15.79/-17.77	-15.99/-11.01	-15.59/-13.83	-10.28/-9.94	-13.89/-10.05	-10.65/-13.09	-11.64/-12.14	-16.51/-14.84	-11.33/-10.88	-13.06/-12.07	-13.57/-13.99	-13.87/-15.51	-12.04/-12.42	-10.94/-10.66	-9.97/-9.04	-11.37/-15.15	-18.12/-18.4	-17.31/-13.74	-17.94/-17.68	-12.07/-14.84
Θ (22.5°)	-12.99/-11.15	-11.33/-16.5	-11.61/-13.15	-14.28/-18.45	-18.86/-19.37	-15.23/-18.36	-13.31/-11.98	-18.1/-8.86	-10.84/-15.03	-14.28/-15.18	-13.86/-13.55	-11.55/-14.94	-12.51/-12.07	-14.67/-11.02	-10.49/-10.21	-9.71/-9.51	-8.59/-7.68	-7.82/-8.09	-8.15/-7.57	-10.66/-18.7	-11.54/-12.99	-17.41/-12.99	-17.68/-16.98	
Θ (30°)	-13.38/-9.55	-7.09/-9.3	-13.79/-19.28	-15.53/-16.52	-18.74/-17.09	-16.03/-15.64	-9.94/-11.67	-11.17/-10.77	-15.32/-13.88	-18.89/-18.72	-13.44/-15.22	-18.31/-19.01	-16.39/-15.02	-10.73/-10.39	-9.11/-7.18	-8.92/-14.91	-14.12/-13.24	-11.93/-11.04	-9.58/-7.33	-7.29/-6.26	-7.23/-11.65	-9.59/-10.52	-15.03/-11.22	-17.37/-16.19
Θ (37.5°)	-12.31/-8.86	-8.11/-9.23	-9.54/-12.6	-18.14/-17.63	-13.11/-13.55	-6.69/-8.64	-7.23/-8.93	-9.27/-16.61	-18.25/-17.5	-18.68/-17.66	-17.98/-17.96	-17.61/-14	-11.46/-9.64	-6.07/-5.04	-8.1/-6.1	-7.81/-9.94	-9.17/-9.38	-8.75/-9.03	-13.56/-9.62	-6.49/-6.38	-6.72/-6.06	-12.22/-4.72	-1.17/-9.48	-10.83/-18.94
Θ (45°)	-17.88/-12.12	-6.07/-6.74	-9.87/-10.44	-13.67/-8.85	-10.93/-10.66	-5.62/-6.61	-3.23/-6.72	-8.44/-14.59	-18.7/-9.35	-11.76/-5.94	-13.73/-18.74	-11.45/-7.14	-7.92/-9.91	-6.92/-4.55	-6.75/-6.32	-6.24/-11.65	-12.35/-11.16	-12.21/-8.96	-81/-96	-5.53/-8.33	-8.94/-6.47	-3.99/-3.73	-8.09/-7.65	-13.91/-18.59
Θ (52.5°)	-14.92/-8.34	-7.23/-9.2	-10.25/-9.4	-9.44/-5.67	-5.16/-8.23	-4.88/-4.42	-3.86/-11.37	-13.01/-13.71	-17.95/-8.4	-4.04/-11.43	-7.4/-14.74	-10.82/-5.35	-4.36/-5.13	-3.47/-6.82	-8.34/-6.43	-18.78/-11.26	-13.07/-7.56	-7.68/-8.25	-8.3/-4.39	-4.24/-4.35	-13.84/-4.1	-6.6/-2.58	-6.64/-13.64	-13.75/-14.19
Θ (60°)	-6.77/-7.66	-7.81/-5.93	-9.3/-18.85	-6.44/-7.35	-3.34/-8.57	-8.71/-3.63	-5.86/-10.91	-14.15/-11.62	-4.77/-7.02	-6.87/-3.78	-10.48/-18.22	-16.1/-9.35	-5.31/-7.41	-4.74/-2.56	-6.79/-8.24	-9.84/-10.84	-11.77/-8.99	-13.3/-11.77	-5.42/-8.33	-3.38/-2.69	-4.71/-7.34	-5.36/-5.47	-6.03/-11.54	-4.61/-12.98
Θ (67.5°)	-8.01/-5.8	-10.07/-12.73	-9.96/-18.62	-7.32/-9.25	-4.15/-15.15	-10.17/-3.63	-6.57/-9.72	-6.58/-7.47	-8.62/-3.98	-4.21/-6.73	-8.62/-8.78	-17.53/-19.07	-15.92/-9.43	-7.02/-9.97	-6.56/-4.63	-13.27/-11.7	-11.52/-15.88	-12.52/-9.13	-3.99/-3.71	-8.15/-12.62	-6.74/-6.9	-2.76/-3.44	-8.08/-9.49	-6.83/-9.96
Θ (75°)	-10.46/-9.92	-5.12/-10.12	-11.38/-8.5	-1.88/-0.76	-3.22/-5.07	-2.98/-7.1	-2.55/-10.03	-5.7/-6.64	-3.99/-4.64	-5.4/-7.34	-3.68/-6.96	-9.06/-13.12	-11.95/-8.27	-6.42/-11.96	-5.98/-13.23	-7.52/-9.7	-11.11/-8.47	-4.24/-3.48	-4.51/-6.3	-6.14/-7.27	-4.69/-4.64	-3.49/-1.12	-5.96/-16.68	-8.1/-10.16
Θ (82.5°)	-9.5/-7.44	-5.7/-8.97	-13.84/-4.35	1.80/-19	-7.78/-21.4	-5.65/-4.55	-5.06/-0.27	-8.83/-14.34	-5.85/-4.03	-7.12/-9.21	-3.68/-15.45	-13.63/-8.61	-18.18/-15.78	-7.34/-4.4	-5.6/-8.42	-17.89/-10.24	-8.35/-14.07	-3.61/-13.85	-5.78/-5.38	-1.61/-5.38	-3.11/-1.99	-4.07/-4.8	-0.81/-8.04	-9.6/-7.65
Θ (90°)	-8.84/-8.19	-5/-4.68	-11.72/-41.5	2.29/-0.21	-5.1/-2.37	-7.59/-7.32	0.13/-1.21	-6.08/-15.03	-2.36/-2.36	-5.69/-4.31	-5.42/-19.36	-13.62/-15.92	-7.2/-9.78	-18.13/-10.29	-5.8/-4.68	-9.37/-12.42	-13.75/-8.35	-1.53/-6.67	1.32/-1.54	-1.63/-6.7	-2.31/-0.14	1.27/-4.4	-2.21/-6.53	-8.63/-9.96
Θ (97.5°)	-4.77/-7.38	-8.32/-4.16	-3.11/-1.99	2.89/-0.16	-3.17/-5.48	-8.14/-5.45	0.47/-0.16	-4.62/-12.09	-2.23/-3.06	-3.6/-2.23	-4.96/-6.6	-6.95/-17.99	-18.11/-7.11	-13.93/-18.85	-15.55/-4.92	-16.59/-13.22	-7.53/-7.98	-6.78/-10.24	-2.75/-2.14	2.52/-1.82	-3.43/-0.84	2.51/-94	-0.68/-4.9	-8.17/-3.95
Θ (105°)	-3.99/-3.44	-4.25/-4.11	-1.77/-1.05	1.87/-0.65	-4.82/-19.04	-7.05/-6.04	0.19/-0.85	-8.25/-9.91	-4.28/-5.09	-6.07/-5.59	-6.91/-5.33	-5.42/-9.2	-18.86/-43	-16.02/-11.59	-19.44/-10.95	-9.43/-15.03	-9.32/-14	-5/-1.5	-9.76/-18.78	-0.93/-57	-0.04/-0.95	2.93/-102	-0.54/-4.95	-5.48/-3.67
Θ (112.5°)	-7.32/-5.72	-9.41/-6.85	-4.83/-2.67	0.91/-0.57	-4.28/-7.41	-3.71/-4.44	-1.44/-0.58	-3.44/-5.57	-4.93/-1.21	-6.35/-8.41	-8.84/-3.99	-6.13/-16.98	-7.77/-11.64	-11.89/-8.6	-14.39/-9.62	-11.36/-4.37	-11.36/-6.32	-6.46/-3.64	-4.38/-6.16	1.35/-98	1.02/-1.09	1.32/-0.82	-1.69/-1.76	-5.91/-0.3
Θ (120°)	-8.6/-6.23	-7.68/-12.33	-11.69/-2.28	-0.58/-1.73	-3.74/-0.22	0.55/-2.78	-0.71/-1.02	-5.26/-3.95	-4.6/-3.41	-7.95/-8.18	-17.89/-10.94	-13.33/-10.08	-3.52/-1.75	-2.15/-4.61	-19.24/-6.12	-15.01/-9.65	-7.98/-9.09	-11.62/-11.07	-6.18/-3.79	-5.71/-5.03	1.28/-0.8	2.77/-2.41	-5.03/-5.49	-12.32/-4.88
Θ (127.5°)	-6.88/-6.65	-4.44/-7.12	-9.99/-5.16	-3.96/-3.2	-1.06/-1.74	2.21/-1.11	-0.22/-0.6	-4.87/-0.59	-3.08/-3.45	-6.6/-17.9	-11.79/-9.13	-6.01/-18.36	-3.21/-5.49	-4.74/-8.87	-18.39/-11.5	-13.96/-11.38	-11.13/-12.92	-9.38/-7.38	-3.4/-3.9	-8.84/-3.33	-0.07/-0.25	0.12/-1.83	-7.03/-6.53	-17.94/-6.61
Θ (135°)	-10.71/-7.55	-5.04/-6.89	-9.77/-7.23	-7.12/-4.91	-2.11/-0.42	1.68/-0.26	0.0/-0.28	-2.38/-0.39	-2.22/-0.48	-2.85/-12.3	-7.15/-2.14	-0.75/-2.9	-5.44/-12.14	-8.93/-5.7	-9.69/-17.99	-16.5/-18.49	-13.34/-10.86	-10.57/-5.07	-6.32/-4.24	5.07/-3.8	0.4/-0.63	-1.31/-7.29	-7.22/-9.17	-11.24/-9.58
Θ (142.5°)	-13.59/-18.2	-7.96/-5.46	-6.14/-4.38	-5.86/-5.01	-3.79/-1.55	-0.97/-1.55	-2.72/-5.22	-2.83/-4.13	0.12/-4.49	-3.31/-3.41	-3.41/-4.04	-3.98/-11.88	-9.71/-7.04	-4.72/-4.78	-7.66/-14.96	-13.72/-10.57	-15.34/-11.72	-9.61/-13.54	-7.32/-2.79	-3.83/-2.23	-2.23/-0.07	-2.88/-11.09	-8.77/-10.32	-14.07/-8.49
Θ (150°)	-7.5/-7.2	-4.44/-3.16	-1.62/-3.1	-3.62/-6.48	-4.54/-2.02	-2.9/-4.34	-5.67/-5.67	-4.72/-4.18	-9.9/-4.92	-4.49/-2	-3.28/-7.01	-9.93/-4.62	-2.1/-1.17	-3.21/-5.83	-8.38/-8.31	-3.89/-5.07	-7.3/-7.94	-6.17/-3.43	-1.83/-3.77	-3.45/-0.47	-1.38/-4.14	-4.85/-4.74	-5.56/-15.49	-11.05/-8.57
Θ (157.5°)	-15.57/-10.91	-8.49/-8.7	-10.91/-11.74	-10.82/-7.58	-7/-7.37	-10.22/-7.78	-6.34/-9.03	-12.14/-17.56	-10.72/-6.97	-4.78/-5.43	-10.29/-8.58	-5.78/-3.95	-6.9/-6.12	-12.16/-16	-6.98/-6.44	-8.57/-9.06	-5.96/-4.41	-2.95/-1.9	-1.17/-2.03	-1.69/-3.06	-4.57/-3.09	-4.87/-7.12	-10.07/-12.48	-12.44/-12.53
Θ (165°)	-11.81/-11.82	-14.49/-16.47	-17.36/-14.91	-8.3/-8.97	-8.96/-10	-13.41/-17.93	-16.69/-17.71	-12.68/-12.29	-14.05/-4.98	-8.38/-18.28	-7.81/-5.37	-3.62/-2.91	-5.14/-10.41	-8.72/-5.75	-3.91/-2.88	-4.34/-4.7	-5.55/-4.49	-4.47/-5	-4.74/-4.18	-3.82/-6.39				



Radiated Composite Gain Data

Appendix A.5

Θ (172.5°)	-17.6/-18.74	-18.18/-18.88	-15.1/-15.58	-14.15/-12.08	-11.36/-12.6	-12.18/-15.86	-17.29/-19.08	-18.94/-15.47	-17.59/-17.18	-18.54/-18.17	-18.56/-18.01	-18.38/-18.76	-17.53/-19.36	-18.67/-18.12	-18.61/-12.67	-11.72/-12.37	-11.13/-12.66	-12.95/-14.9	-13.72/-13.87	-14.52/-13.67	-15.8/-19.46	-16.81/-18.63	-18.2/-19.14	-16.2/-17.58
Θ (180°)	-17.8/-16.84	-16.03/-18.95	-18.72/-17.82	-18.53/-18.01	-18.62/-18.78	-18.51/-15.86	-18.96/-17.98	-17.76/-16.95	-17.41/-18.01	-17.85/-17.29	-18.71/-18.12	-18.29/-18.78	-16.22/-17.26	-17.28/-15.32	-16.22/-13.32	-15.1/-16.01	-16.78/-17.81	-17.33/-14.24	-14.54/-15.66	-14.58/-16.21	-16.47/-14.95	-14.04/-14.14	-13.89/-14.16	-14.73/-14.73
Freq(Hz)	6.175GPol.	Theta/Ant. 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°)	-15.52/-14.47	-15.14/-18.81	-17.26/-17.7	-18.84/-18.24	-18.45/-18.95	-17.78/-18.74	-18.01/-19.01	-18.35/-17.72	-19.67/-18.32	-17.43/-18.58	-19.29/-17.53	-17.47/-18.93	-18.54/-18.22	-18.57/-17.83	-18.67/-18.09	-17.76/-18.94	-17.67/-18.17	-17.91/-17.89	-18.01/-18.04	-19.14/-17.76	-17.68/-18.11	-18.06/-18.21	-15.92/-15.96	-15.73/-17.77
Θ (7.5°)	-17.62/-18.75	-19.24/-18.57	-18.33/-18.29	-18.8/-17.54	-17.72/-16.96	-15.35/-17.59	-14.53/-14.79	-14.73/-15.44	-12.4/-9.94	-9.98/-11.91	-9.42/-11.91	-12.84/-13.41	-12.4/-9.94	-12.84/-13.41	-12.4/-9.94	-12.84/-13.41	-12.4/-9.94	-12.84/-13.41	-12.4/-9.94	-12.84/-13.41	-12.4/-9.94	-12.84/-13.41	-12.4/-9.94	-12.84/-13.41
Θ (15°)	-14.99/-18.28	-18.9/-19	-17.26/-17.41	-17.18/-19.2	-19.06/-18.14	-18.96/-13.13	-13.22/-12.93	-9.88/-10.16	-9.99/-10.64	-9.71/-11.33	-8.95/-11.44	-14.24/-13.5	-11.77/-10.85	-11.93/-12.48	-17.35/-12.72	-11.1/-8.8	-7.78/-10.5	-7.37/-7.99	-8.45/-9.85	-9.82/-10.97	-12.44/-12.56	-13.84/-17.05	-15.92/-15.29	-13.69/-13.6
Θ (22.5°)	-9.6/-10.97	-12.37/-13.06	-14.61/-13.15	-10.31/-9.58	-8.68/-8.49	-8/-8.07	-7.73/-6.78	-6.47/-6.83	-6.41/-7.75	-10.37/-9.47	-8.57/-7.72	-9.71/-8.62	-9.45/-9.76	-13.79/-13.09	-7.85/-9.44	-9.3/-12.96	-10.86/-11.46	-8.79/-10.18	-10.83/-10.19	-8.58/-9.85	-11.98/-11.33	-12.71/-15.46	-18.27/-12.05	-9.74/-8.26
Θ (30°)	-13.6/-10.75	-14.43/-12.18	-17.67/-13.39	-9.46/-9.8	-11.28/-9.43	-9.95/-6.95	-5.37/-6.16	-5.66/-5.05	-6.08/-7.76	-5.79/-7.19	-7.97/-7.28	-7.31/-9.34	-10.25/-7.83	-7.86/-9.29	-6.36/-6.65	-9.5/-9.83	-9.85/-8.74	-9.62/-8.94	-7.92/-8.76	-6.68/-12.64	-18.13/-14.47	-17.53/-12.31	-11.89/-11.82	-13.22/-16.15
Θ (37.5°)	-13.03/-15.45	-12.44/-14.33	-12.5/-8.54	-8.88/-13.44	-10.48/-10.14	-9.58/-11.05	-9.33/-6.84	-7.06/-7.56	-7.47/-10	-5.23/-8.49	-12.8/-6.51	-9.01/-5.25	-8.59/-8.11	-8.14/-5.41	-5.43/-7.85	-8.13/-6.26	-5.7/-6	-5.92/-4.57	-2.71/-3.18	-4.99/-3.82	-4.8/-8.11	-7.63/-13.05	-11.94/-13.92	-11.76/-12.28
Θ (45°)	-6.4/-12.11	-14.55/-9.97	-11.41/-12.31	-12.39/-8.33	-8.49/-10.21	-11.23/-12.29	-7.88/-8.7	-11.39/-13.92	-7.17/-8.82	-9.86/-9.51	-9.14/-9.17	-11.17/-14.03	-8.94/-8.25	-10.4/-11.94	-10.21/-11.03	-6.69/-5.36	-8.26/-5.94	-5.95/-7.02	-8.54/-7.79	-7.72/-8.01	-4.25/-3.85	-4.21/-3.65	-7.93/-14.04	-11.24/-7.44
Θ (52.5°)	-7.22/-5.88	-9.98/-10.17	-5.53/-6.26	-7.38/-6.31	-6.86/-5.91	-7.71/-7.35	-6.46/-6.7	-4.93/-7.6	-8.75/-9.2	-6.41/-7.3	-7.61/-15.23	-11.45/-9.39	-6.09/-6.88	-4.68/-7.25	-6.16/-4.63	-3.64/-4.1	-4.34/-7.32	-7.84/-4.95	-5.89/-6.89	-6.7/-6.61	-15.53/-13.43	-4.73/-3.32	-4.57/-3.02	-1.79/-2.27
Θ (60°)	-6.97/-6.5	-3.96/-7.84	-3.79/-5.58	-3.93/-3.1	-3.09/-3.31	-2.64/-3.84	-1.72/-3.61	-4.03/-4.1	-4.92/-1.79	-5.53/-8.65	-5.59/-8.77	-8.5/-6.29	-3.97/-5.74	-8.68/-6.75	-6.6/-6.53	-5.61/-6.47	-3.19/-4.44	-2.19/-1.9	-2.38/-1.63	-3.88/-3.82	-3.9/-4.58	-10.68/-6.9	-4.75/-5.26	-7.34/-8.08
Θ (67.5°)	-4.11/-6.66	-1.7/-3.12	-5.18/-1.1	-1.85/-0.15	-0.03/-0.56	0.630/-79	-0.42/-0.57	-4.61/-1.59	-2.420/-73	-4.91/-0.88	-3.51/-5.13	-9.24/-4.86	-3.19/-9.23	-6.69/-6.94	-12.58/-18.7	-10.02/-6.67	-12.13/-8.55	-11.01/-4.69	-6.72/-12.01	-3.1/-1.5	-6.09/-7.25	-4.96/-5.1	-7.6/-5.14	-3.2/-5.23
Θ (75°)	0.64/-3.2	-3.09/-1	-1.56/-1	-0.27/-1.27	2.581/-64	1.590/-01	0.18/-0.71	0.961/-07	-1.391/-68	-0.99/-04	-3.14/-6.47	-4.25/-5.14	-4.66/-7.17	-5.14/-4.6	-1.3/-3.1	-4.731/-06	-2.871/-08	-1.89/-6.03	-5.26/-6.66	-6.13/-5.43	-4.08/-1.53	-4.22/-0.76	-4.57/-3.02	-1.79/-2.27
Θ (82.5°)	0.14/-1.46	0.43/-0.83	-1.51/-9.5	0.480/-43	3.142/-34	2.67/-0.17	2.813/-44	4.213/-99	0.822/-7	-3.15/-0.96	-2.64/-2.32	-3.05/-3.55	-2.71/-6.06	-4.09/-3.52	-3.48/-5.15	-4.3/-1.07	-2.75/-1.97	-2.01/-7.97	-3.47/-2.1	-2.030/-69	0.689/-1.32	-1.68/-3.57	-3.07/-3.13	-1.23/-2.21
Θ (90°)	0.64/-3.42	0.820/-79	-1.02/-0.14	1.160/-44	3.951/-73	3.532/-31	2.734/-44	2.62/-12	1.60/-01	-0.4/-0.51	0.65/-0.66	-3.56/-5.55	-0.41/-4.07	-6.55/-6.61	-4.74/-1.96	-1.73/-1.75	-1.14/-0.05	-1.48/-2.17	-3.751/-38	0.030/-17	-2.76/-4.64	-1.88/-5.25	-1.180/-94	
Θ (97.5°)	0.74/-2.53	-0.90/-21	-2.370/-25	0.542/-62	3.821/-02	3.511/-29	2.851/-81	2.952/-63	2.092/-6	2.73/-144	-2.02/-4.19	3.240/-58	0.99/-2.82	-0.22/-8.29	-5.94/-5.66	-3.04/-4.51	-1.67/-1.96	1.08/-1.53	1.68/-0.12	-5.01/-1.56	1.20/-1	0.16/-2.94	-0.07/-3.27	-1.151/-89
Θ (105°)	-2.33/-1.18	-0.68/-2.11	-8.43/-1.36	-3.67/-1.11	2.610/-34	2.982/-67	1.333/-46	3.092/-25	2.083/-32	0.97/-2.91	-2.08/-2.24	2.69/-0.49	-4.21/-8.8	-1.92/-4.35	-5.16/-2.36	-1.63/-2.79	-1.46/-2.13	-1.34/-11.47	-3.23/-5.83	-4.15/-2.85	-1.33/-1.02	-0.97/-6.45	-6.39/-6.61	-7.17/-3.51
Θ (112.5°)	-8.81/-4.73	-5.89/-4.88	-3.3/-0.08	-3.7/-1.7	-1.89/-1.74	-1.77/-2.51	-1.49/-1.13	0.08/-0.7	-0.22/-1.09	-2.62/-2.51	-0.86/-1.96	0.35/-0.65	-5.63/-2.92	-1.32/-4.5	-11.43/-7.26	-3.43/-3.73	-6.62/-13	-7.18/-10.47	-4.56/-12.63	-2.79/-4.77	-2.47/-3.59	-3.48/-8.98	-8.55/-6.76	-10.05/-7.29
Θ (120°)	-16.4/-8.88	-6.34/-8.07	-4.92/-4.23	-5.97/-7.86	-6.09/-6.78	-6.154/-93	-5.21/-4.76	-4.98/-3.23	-6.31/-1.65	-4.68/-2.52	-6.05/-6.82	-4.09/-8.04	-8.16/-6.6	-4.67/-7.52	-10.37/-10.02	-7.06/-7.7	-1.91/-4.28	-11.33/-12.89	-2.37/-3.75	-1.94/-4.94	-3.09/-4.88	-6.65/-4.07	-12.83/-4.02	
Θ (127.5°)	-7.05/-7.02	-12/-14.11	-10.76/-14.61	-8.66/-9.49	-4.73/-8.42	-8.82/-5.05	-4.88/-6.95	-8.96/-11.82	-4.03/-3.84	-6.14/-7.72	-8.13/-7.5	-3.05/-3.57	-5.57/-14.37	-7.31/-7.19	-5.69/-6.86	-10.44/-19.25	-10.49/-11.79	-5.27/-11.4	-9.8/-9.32	-11.02/-6.9	-7.93/-6.38	-4.46/-3	-8.91/-7.63	-14.09/-14.03
Θ (135°)	-17.77/-18.27	-16.55/-19.1	-11.21/-12.18	-17.62/-10.55	-10.81/-9.57	-10.65/-11.72	-11.02/-8.61	-5.63/-5.07	-7.72/-5.78	-11.83/-12.34	-11.19/-9.57	-8.68/-10.3	-15.78/-18.71	-8.89/-7.88	-15.83/-15.04	-18.37/-13.01	-11.49/-18.29	-14.86/-17.85	-10.62/-17.3	-10.47/-18.95	-8.57/-15	-12.28/-18.0	-10.12/-12.7	-18.13/-19.62
Θ (142.5°)	-10.49/-8.84	-8.45/-17.91	-6.84/-6.91	-6.52/-3.4	-7.12/-6.93	-7.04/-4.65	-3.98/-5.5	-6.64/-5.2	-6.07/-9.62	-10.53/-13.97	-12.24/-18.6	-18.28/-15.14	-8.14/-17.12	-18.75/-17.66	-16.19/-8.9	-15.1/-11.38	-8.34/-18.96	-17.58/-18.1	-13.98/-11.69	-10.61/-8.71	-16.79/-13.86	-14.58/-14.81	-12.48/-14.24	-14.71/-10.97
Θ (150°)	-13.44/-11.81	-9.7/-21	-6.29/-4.57	-5.71/-8.25	-5.72/-5.12	-3.69/-4.43	-5.92/-5.35	-6.67/-8.02	-8.72/-9.35	-15.3/-19.03	-8.89/-9.09	-4.84/-4.85	-6.65/-8.48	-9.12/-14.1	-18.25/-17.99	-17.99/-18.29	-15.87/-18.38	-18.43/-16.01	-10.63/-10.58	-10.99/-14.89	-17.13/-12.13	-19.07/-19.11	-11.63/-10.15	-10.91/-11.41
Θ (157.5°)	-17.82/-18.4	-10.77/-6.09	-7.04/-13.3	-6.61/-3.7	-4.19/-6.1	-10.249/-03	-8.01/-8.1	-8.81/-7.54	-5.84/-6.02	-12.58/-13.62	-9.28/-7.85	-7.59/-5.29	-13.31/-11.41	-10.27/-9.68	-10.52/-11.91	-15.26/-13.98	-15.72/-18.08	-11.58/-16.68	-12.35/-14.02	-11.28/-10.57	-12.67/-18.39	-13.12/-11.09	-12.49/-11.09	-10.56/-13.55
Θ (165°)	-14.33/-18	-18.05/-17.56	-12.46/-12.55	-12.94/-12.35	-11.64/-8.68	-7.049/-67	-7.33/-9.95	-6.45/-6.82	-6.61/-9.88	-6.59/-13.31	-10.95/-17.82	-17.57/-11.29	-12.01/-14.43	-14.96/-13.81	-18.12/-17.83	-18.98/-17.7	-18.89/-12.86	-10.21/-10.15	-17.71/-11.23	-10.57/-9.7	-8.91/-12.17	-14.99/-18.93	-17.04/-12.71	-17.52/-16.1
Θ (172.5°)	-18.14/-17.61	-19.34/-18.1	-17.39/-17.7	-18.77/-18.27	-19.28/-17.01	-13.47/-13.61	-12.64/-11.65	-12.95/-13	-10.33/-10.17	-10.14/-12.78	-18.96/-15.85	-13.87/-12.44	-12.65/-13.98	-17.95/-18.63	-17.31/-18.2	-17.16/-16.02	-13.6/-11.18	-13.23/-12.47	-11.55/-11.58	-10.85/-11.06	-12.16/-13.41	-14.8/-17.76	-17.9/-18.82	-18.09/-19.26
Θ (180°)	-18.35/-18.24	-18.37/-18.84	-18.57/-16.29	-15.83/-17.15	-16.47/-19.35	-18.49/-19.15	-18.83/-16.73	-15.3/-18.89	-18.68/-13.1	-18.84/-14.59	-11.52/-15.76	-17.12/-13.94	-12.58/-15.98	-17.89/-18.75	-16.63/-18.1	-17.68/-15.75	-18.18/-17.93	-16.03/-15.75	-15.6/-16.72	-16.91/-18.12	-16.59/-18.4	-18.19/-18.95	-19.08/-18.86	-18.45/-18.43
Freq(Hz)	6.475GPol.	Phi/Ant. 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°)	-15.9/-16.16	-16.38/-15.35	-15.77/-18.17	-18.79/-18.63	-18.79/-17.53	-17.88/-19.22	-18.09/-18.21	-17.6/-18.23	-18.63/-19.44	-18.06/-15.66	-15.76/-16.82	-14.65/-14.1	-16.92/-14	-11.18/-12.64	-12.09/-13.1	-14.78/-12.21	-17.3/-16.13	-15.11/-15.36	-17.1/-17.1	-19.08/-18.2	-17.96/-18.45	-15.99/-18.54	-16.61/-14.48	-15.87/-15.23
Θ (7.5°)	-16.04/-16.58	-17.04/-17.78	-18.44/-18.67	-17.54/-16.14	-17.89/-14.24	-16.52/-19.03	-16.21/-17.85	-18.76/-18.74	-18.24/-15.99	-18.08/-17.12	-18.76/-15.02	-17.81/-18.04	-18.32/-18.78	-18.01/-17.14	-12.49/-13.03	-11.77/-13.19	-13.93/-13.95	-13.94/-18.66	-19.1/-19.31	-18.51/-18.59	-18.61/-18.38	-17.43/-18.42	-16.14/-14.84	-14.06/-14.07
Θ (15°)	-18.24/-18.27	-18.84/-19.21	-17.63/-19.38	-18.77/-18.85	-17.44/-18.95	-18.05/-16.16	-19.04/-18.24	-18.08/-13.65	-18.03/-18.95	-18.16/-18.63	-14.82/-18.88	-19.36/-17.95	-15.69/-15.84	-16.3/-16.66	-12.32/-13.1	-10.57/-10.43	-12.09/-13.95	-17.18/-17.69	-19.08/-18.67	-19.01/-18.03	-18.18/-18.72	-18.3/-17.4	-18.59/-19.35	-18.52/-17



Radiated Composite Gain Data

Appendix A.5

Θ(15°)	-14.52/-13.77	-11.91/-12.28	-13.65/-13.24	-10.67/-10.21	-8.2/-9.41	-9.25/-9.18	-10.68/-10.97	-12.14/-12.58	-11.69/-11.73	-14.95/-15.56	-14.08/-16.53	-18.31/-13.2	-11.05/-9.78	-9.85/-11.08	-13.18/-11.06	-11.19/-13.59	-10.24/-10.1	-10.47/-9.05	-8.8/-9.87	-10.19/-10.74	-13.39/-10.25	-10.06/-10.72	-12.82/-13.07	-16.03/-13.57
Θ(22.5°)	-14.32/-13.42	-11.4/-9.87	-10.77/-10.27	-8.13/-7.15	-6.01/-6.13	-8.01/-7.21	-7.4/-6.78	-7.58/-9.38	-10.13/-8.79	-6.4/-8.33	-9.99/-10.13	-18.11/-9.8	-8.32/-8.88	-7.22/-6.22	-8.67/-10.37	-9.36/-9.92	-7.52/-7.47	-7.43/-7.12	-7.09/-6.92	-6.24/-6.66	-7.4/-6.56	-7.71/-8.08	-9.6/-13.39	-12.92/-12.96
Θ(30°)	-13.31/-11.41	-10.08/-9.29	-9.59/-10.79	-7.35/-6.2	-6.61/-7.29	-6.55/-5.22	-6.36/-7.33	-7.64/-6.69	-5.67/-8.01	-5.73/-6.69	-6.65/-7.44	-6.73/-6.02	-7.94/-5.36	-7.82/-6.38	-10.57/-11.72	-11.37/-12.63	-7.82/-7.81	-7.43/-7.12	-7.09/-6.92	-6.24/-6.66	-7.4/-6.56	-6.88/-10.01	-9.53/-7.7	-12.92/-12.96
Θ(37.5°)	-8.96/-7.04	-7.88/-8.44	-10.3/-9.2	-7.69/-6.93	-6.79/-5.32	-5.21/-6.07	-5.55/-5.01	-6.99/-5.38	-5.52/-6.58	-6.82/-7.55	-6.82/-6.74	-7.43/-6.48	-6.17/-8.88	-9.49/-8.67	-7.63/-7.92	-4.98/-5.81	-6.98/-6.49	-5.62/-5.06	-4.8/-5.06	-5.83/-6.82	-12.13/-73	-13.64/-8.07	-8.4/-7.31	-8.67/-6.8
Θ(45°)	-7.02/-8.1	-6.78/-6.47	-5.99/-9.26	-6.82/-6.91	-5.64/-5.99	-3.85/-5.24	-5.16/-4.65	-4.56/-4.55	-4.89/-6.22	-5.45/-7.73	-8.61/-5.28	-4.42/-5.98	-7.15/-6.95	-5.89/-4.65	-7.08/-5.71	-6.17/-4.84	-3.79/-3.78	-4.37/-5.3	-4.14/-2.8	-4.56/-5.08	-4.42/-5.58	-6.06/-13.96	-8.01/-4.56	-8.71/-11.76
Θ(52.5°)	-9.1/-7.94	-5.38/-6.39	-5.85/-8.4	-4.4/-5.68	-6.09/-3.87	-3.77/-5.36	-5.62/-2.99	-3.57/-4.71	-6.62/-6.37	-7.44/-7.1	-8.66/-5.02	-8.25/-6.6	-7.43/-11.3	-7.63/-6.28	-7.15/-7.08	-5.73/-4.45	-4.49/-3.74	-5.65/-7.48	-7.44/-5.59	-5.55/-7.04	-9.67/-9.4	-3.31/-5.57	-8.3/-9.83	-6.14/-7.99
Θ(60°)	-5.55/-6.75	-4.81/-5.06	-4.1/-4.21	-2.26/-2.74	-4.67/-1.96	-2.16/-2.05	-3.92/-2.95	-3.39/-4.61	-6.38/-5.69	-4.08/-5.96	-9.51/-10.16	-6.31/-5.73	-6.88/-9.49	-5.82/-5.27	-3.83/-4.9	-3.15/-4.29	-1.8/-3.03	-0.620.51	-0.08/-2.02	-2.14/-3.15	-2.38/-2.97	-2.96/-4.05	-5.61/-7.47	-7.14/-4.45
Θ(67.5°)	-2.17/-2.41	-1.82/-1.46	-2.97/-0.86	-1.270.62	-2.240.18	1.760.84	-1.290.31	0.01/-2.47	-4.79/-1.6	-3.92/-6.25	-6.81/-4.62	-4.83/-6.01	-7.97/-6.75	-7.88/-8.83	-10.56/-11.74	-9.53/-6.63	-6.56/-10.83	-6.44/-0.68	-4.77/-7.33	-4.58/-1.97	-3.23/-1.7	-2.85/-8.2	-5.4/-22	-4.25/-4.41
Θ(75°)	-2.28/-3.5	-0.44/-1.45	-0.57/-1.71	0.53/-1.95	0.25/-1.11	2.42/-1.57	1.68/-1.2	1.45/-1.6	1.08/-1.7	-1.42/-0.1	-3.03/-3.41	-4.02/-2.08	-4.11/-9.94	-2.53/-4.8	-6.09/-2.33	-3.64/-3.11	-2.34/-3.16	-1.23/-3.62	-3.29/-4.07	-4.94/-5.51	-5.23/-10.01	-4.5/-6.35	-7.2/-5.93	-2.49/-1.18
Θ(82.5°)	0.29/-4.02	-1.32/-2.67	-0.61/-1.49	1.65/-2.55	2.15/-2.14	0.81/-68	2.23/-8	1.78/-95	2.15/-1.54	0.81/-0.02	-3.42/-6.38	-2.76/-1.93	-3.13/-4.52	-2.69/-4.74	-4.97/-2.56	-5.31/-5.5	-3.69/-2.17	-3.57/-11.44	-6.09/-2.86	-2.92/-1.55	-2.32/-2.8	-1.22/-4.69	-3.96/-12.65	-3.16/-3.16
Θ(90°)	-3.49/-4.14	-2.07/-2.05	-1.04/-1.55	0.99/-2	2.48/-3.36	2.22/-8	4.384.08	2.33/-34	2.06/-2	1.21/-63	-0.84/-5.45	-0.99/-0.62	0.06/-9.8	-0.77/-5.74	-7.93/-347	-4.06/-3.66	-4.91/-0.41	-1.49/-1.49	-0.91/-1.41	-5.98/-1.48	0.17/-4.06	-0.24/-8.81	-4.23/-7.63	-2.83/-4.41
Θ(97.5°)	-1.97/-4.84	-3.49/-1.71	-0.01/-0.12	-0.22/-1.69	-0.42/-84	1.12/-34	3.62/-82	1.15/-242	2.53/-237	2.51/-75	-2.46/-4.9	1.31/-37	-1.25/-3.52	1.32/-2.57	-8.94/-1.25	-8.61/-2.48	-2.72/-4.53	-0.12/-3.31	0.42/-2.08	-14.93/-2.69	-0.03/-8.04	-2.2/-7.4	-6.8/-9.16	-1.58/-4.75
Θ(105°)	-1.72/-5.21	-5.7/-5.91	-3.39/-1.17	0.65/-0.78	-1.66/-1.92	-2.05/-2.05	1.280.79	1.34/-1.29	2.84/-2.4	1.64/-1.28	-2.32/-3.26	0.14/-0.14	-2.52/-4.91	-0.51/-5.6	-12.96/-2.07	-6.66/-3.95	-6.83/-10.43	-5.74/-15.48	-5.18/-5.94	-17.46/-12.23	-6.04/-19	-8.13/-6.4	-4.38/-11.59	-5.16/-3.57
Θ(112.5°)	-4.2/-6.46	-5.06/-4.26	-4.23/-2.5	-3.13/-2.4	-2.270.03	-1.91/-1.73	0.61/-1.1	-1.43/-0.9	0.790.24	-1.47/-3.11	-0.73/-4.07	-2.64/-2.05	-3.11/-7.5	-2.63/-15.19	-18.42/-8.57	-8.77/-2.79	-9.01/-10.18	-9.82/-11.78	-4.08/-10.75	-6.94/-13.35	-8.16/-8.78	-12.44/-9.59	-6.26/-9.57	-11.26/-8.65
Θ(120°)	-7.56/-7.42	-8.86/-6.48	-3.97/-3.07	-5.32/-4.48	-8.99/-6.51	-3.38/-6.64	-8.16/-2.25	-3.69/-4.92	-5.15/-1.88	-3.44/-5.23	-6.89/-4.07	-7.42/-3.93	-3.37/-5.05	-3.78/-12.46	-17.76/-9.29	-8.57/-12.14	-13.43/-12.74	-12.32/-9.23	-10.14/-14.17	-6.55/-7.95	-2.73/-10.13	-6.15/-12.66	-7.82/-10.42	-12.58/-12.3
Θ(127.5°)	-10.17/-13.23	-15.41/-8.21	-6.34/-4.76	-7.94/-10.79	-7.22/-7.21	-5.65/-7.7	-6.56/-8.63	-7.68/-9.32	-9.3/-4.92	-6.39/-13.34	-10.54/-9.74	-7.02/-4.46	-4.06/-8.62	-9.32/-18.23	-12.9/-8.46	-12.42/-16.13	-16.87/-12.26	-12.03/-16.37	-10.96/-17.35	-16.78/-8.73	-6.54/-11.29	-8.21/-11.62	-7.62/-12.22	-13.69/-8.55
Θ(135°)	-10.97/-10.82	-18.04/-17.73	-15.59/-13.65	-12.67/-14.9	-7.96/-8.7	-10.75/-11.79	-8.33/-7.66	-7.24/-8.51	-7.33/-6.61	-9.95/-12.34	-7.84/-9.64	-11.94/-7.21	-7.62/-13.71	-18.16/-15.84	-15.02/-16.24	-17.69/-18.27	-14.38/-19.27	-7.16/-17.7	-12.69/-14.44	-16.89/-12.44	-8.22/-12.43	-11.19/-8.2	-18.56/-12.85	
Θ(142.5°)	-10.32/-12.23	-13.48/-8.72	-9.16/-11.64	-14.45/-7.86	-8.66/-7.82	-5.42/-6.38	-6.81/-6.79	-6.72/-8.77	-8.11/-15.35	-13.21/-11.94	-16.14/-15.19	-17.6/-10.4	-12.58/-17.9	-18.68/-7.89	-19.23/-16.25	-12.38/-18.82	-18.35/-18.64	-18.24/-16.25	-13.79/-11.25	-18.57/-18.5	-12.83/-15.14	-13.64/-13.5	-13.41/-12.79	
Θ(150°)	-11.01/-9.51	-7.02/-5.78	-7.21/-9.49	-7.58/-5.01	-4.14/-4.28	-4.58/-3.43	-3.16/-2.7	-2.95/-5	-8.89/-8.24	-10.99/-17.19	-16.36/-14.53	-12.94/-9.72	-12.43/-19.11	-17.70/-10.72	-12.38/-16.96	-18.89/-18.13	-14.6/-16.05	-17.92/-16.8	-18.24/-18.1	-15.79/-16.63	-17.47/-19.25	-11.19/-13.01	-14.2/-10.56	-12.81/-10.7
Θ(157.5°)	-12.76/-12.18	-9.8/-11.57	-8.95/-6.05	-4.88/-6.21	-5.04/-3.94	-3.72/-4.26	-5.61/-5.78	-4.21/-3.08	-3.53/-5.92	-5.74/-9.86	-14.35/-10.02	-12.64/-13.91	-13.32/-10	-9.9/-11.75	-18.01/-17.75	-17.98/-18.12	-15.79/-14.27	-18.85/-18.63	-18.75/-18.44	-17.76/-18.91	-18.06/-14.51	-13.26/-18.07	-15.58/-17.78	-14.59/-12.62
Θ(165°)	-19.03/-15.37	-11.12/-9.78	-10.27/-10.45	-8/-6.77	-6.53/-6.06	-9.31/-10.16	-10.41/-8.73	-7.49/-8.96	-7.91/-7.74	-6.47/-7.26	-7.8/-9.75	-15.59/-17.31	-13.13/-12.52	-15.93/-17.1	-19.2/-18.6	-15.27/-13.87	-10.96/-9.03	-9.47/-8.82	-8.55/-9.62	-12.17/-14.87	-19.02/-16.06	-15.48/-16.64	-18.31/-18.29	-17.53/-18.3
Θ(172.5°)	-19.06/-18.22	-16.14/-04	-13.94/-13.48	-12.96/-12.95	-11.74/-11.49	-9.9/-10.15	-9.96/-8.41	-7.5/-10.07	-10.9/-10.88	-12.22/-12.45	-15.26/-12.88	-14.3/-13.1	-11.84/-13.08	-17.16/-18.18	-19.07/-18.45	-17.91/-18.25	-18.28/-19.05	-18.27/-17.74	-17.84/-18.12	-18.93/-18.46	-18.92/-19.05	-19.12/-18.09	-18.29/-17.17	-19.37/-18.43
Θ(180°)	-18.52/-17.62	-18.08/-17.27	-18.92/-17.98	-19.08/-17.23	-18.56/-17.92	-18.94/-17.96	-18.97/-18.63	-14.57/-15.97	-15.02/-14.76	-15.33/-18.56	-16.89/-15.89	-18.64/-17.24	-16.18/-18.51	-18.63/-18.35	-19.06/-18.95	-17.71/-17.92	-18.31/-17.91	-18.04/-18.39	-18.18/-17.77	-18.52/-18.16	-18.21/-17.63	-18.93/-16.58	-18.67/-18.91	-18.79/-19.79
Freq[Hz]	6.995GPol.	Phi/Ant. 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°)	-10.91/-13.61	-10.87/-11.33	-13.78/-13.13	-13.87/-17.07	-15.45/-18.29	-17.48/-18.76	-18.42/-18.92	-19.28/-18.16	-15.66/-16.95	-13.19/-13.24	-14.6/-12.56	-12.41/-11.71	-12.56/-13.64	-13.37/-16.01	-13.62/-17.54	-17.24/-19.1	-17.72/-18.97	-17.67/-18.62	-18.12/-17.76	-17.7/-15.21	-15.26/-13.85	-10.96/-11.77	-11.53/-11.3	-10.77/-12.7
Θ(7.5°)	-17.57/-18.17	-17.65/-14.45	-16.52/-15.39	-16.9/-17.28	-18.89/-17.16	-17.39/-14.83	-18.9/-16.89	-13.22/-12.65	-13.15/-12.7	-11.28/-14.33	-12.34/-15.17	-13.5/-11.73	-11.58/-11.23	-9.26/-13.6	-10.39/-13.52	-11.8/-17.8	-16.61/-18.88	-19.15/-19	-17.31/-18.89	-19.44/-18.56	-17/-18.3	-16.03/-18.96	-17.92/-17.55	-18.37/-18.57
Θ(15°)	-17.07/-18.5	-18.12/-17.87	-16.56/-16.64	-16.98/-18.09	-17.77/-18.61	-15.56/-16.25	-18.84/-16.78	-13.43/-14.95	-14.76/-13.61	-12.33/-15.38	-15.99/-15.48	-17.02/-18.57	-16.35/-15.82	-13.54/-16.86	-18.24/-16.31	-19.77/-15.17	-13.64/-14.97	-16.27/-17.12	-18.18/-6	-18.74/-17.8	-18.95/-17.93	-18.4/-18.91	-18.36/-18.37	-18.71/-17.97
Θ(22.5°)	-17.68/-18.17	-17.91/-16.7	-18.31/-17.72	-19.24/-17.93	-19.19/-16.12	-15.54/-17.43	-15.04/-15.56	-12.66/-15.31	-14.68/-14.07	-18.92/-15.11	-17.49/-14.39	-18.06/-17.78	-17.87/-18.88	-15.53/-15.35	-18.46/-15.45	-16.07/-13.73	-16.62/-19	-17.49/-17.94	-17.75/-15.17	-17.36/-17.65	-15.64/-17.77	-18.04/-17.52	-18.21/-17.94	-19.02/-17.96
Θ(30°)	-18.78/-19.13	-18.94/-18.71	-18.95/-18.71	-18.21/-14.95	-13.3/-14.98	-19.26/-18.38	-13.29/-13.07	-12.23/-14.47	-15.8/-14.61	-18.9/-18.64	-18.44/-17.67	-18.2/-15.71	-18.55/-19.41	-15.94/-15.96	-18.4/-17.08	-17.42/-18.51	-18.19/-18.4	-18.89/-17.52	-16.11/-15.55	-16.96/-12.98	-15.26/-13.74	-16.49/-15.49	-18.57/-19.02	
Θ(37.5°)	-17.21/-18.41	-18.27/-19.73	-17.82/-16.58	-15.24/-18.23	-19.06/-18.87	-17.25/-15.97	-13.31/-11.32	-13.14/-57	-18.54/-17.68	-18.43/-19.06	-19.46/-18.85	-18.04/-18.85	-18.41/-18.24	-17.6/-17.26	-18.74/-17.95	-18.91/-18.72	-15.4/-17.77	-18.96/-18.07	-18.72/-18.52	-19.14/-18.16	-19.1/-18.58	-17.98/-18.84	-15.96/-16.26	
Θ(45°)	-17.81/-17.41	-16.64/-17.62	-19.14/-16.17	-13.7/-12.99	-17.59/-18.74	-17.84/-18.1	-15.31/-9.1	-12.53/-17.89	-14.19/-16.32	-17.25/-18.73	-16.87/-17.73	-18.82/-18.77	-18.31/-18.74	-19.02/-19.02	-17.03/-16.26	-18.53/-18.54	-16.19/-15.33	-18.83/-14.7	-15.76/-18.02	-15.07/-17.91	-17.78/-18.71	-17.94/-19	-18.62/-19.05	-17.38/-17.58
Θ(62.5°)	-17.67/-17.59	-18.41/-15.93	-18.35/-17.43	-18.78/-16.64	-12.85/-16.44	-19.06/-17.35	-17.92/-15.54	-13.71/-15.28	-18.06/-16.6	-12.26/-14.25	-15.85/-16.63	-15.02/-11.26	-18.47/-16.5	-17.42/-17.91	-17.61/-17.37	-18.12/-17.57	-18.83/-14.7	-16.12/-17.05	-16.61/-15.43	-12.25/-15.93	-13.77/-11.3	-11.42/-16.54	-18.98/-14.21	-16.14/-17.43
Θ(60°)	-17.28/-18.53	-16.62/-17.45	-18.44/-17.65	-18.93/-17.42	-17.4/-17.92	-15.94/-17.46	-18/-17.75	-18.97/-18.69	-19.31/-17.12	-13.11/-11.51	-10.39/-10.8	-10.87/-18.96	-12.05/-18.29	-18.89/-18.52	-16.04/-16.86	-15.5								



Radiated Composite Gain Data

Appendix A.5

Θ (67.5°)	-0.61	-2.17/-3.2	-1.6/-3.16	-5.43/-4.1	-3.23/-3.24	-7.68/-5.3	-3.8/-5.27	-6.79/-9.71	-5.86/-1.84	-2.13/-3.73	-8.67/-1.5	-0.75/-0.83	-1.78/-3.97	-0.81/-3.7	-7.31/-4.26	-3.89/-5.88	-3.05/-7.43	-8.68/-6.38	-9.93/-6.51	-5.48/-13.66	-9.31/-7.61	-12.14/-10.95	-3.61/-1.17	-3.61/0.73
Θ (75°)	-1.28/0.68	-1.05/-1.67	-1.91/-0.92	-0.02/-4.45	-4.96/-3.15	-2.85/-7.5	0.34/-3.8	-6.07/-3.69	-3.94/-2.41	-1.3/-1.58	-4.93/-2.67	-1.62/-0.24	-3.63/-0.04	1.52/0.3	-3.18/-2.72	-2.36/-2.5	-4.24/-5.08	-3.67/-13.74	-2.54/-5.1	-4.87/-8.2	-12.08/-1.65	-6.51/-4.25	-3.37/0.05	-2.28/-1.58
Θ (82.5°)	-2.76/-0.39	0.06/-0.25	-1.32/-1.64	-0.68/-2.86	-3.14/-4.46	-2.68/-3.09	0.56/-4.29	-3.44/-2.59	-1.42/0.6	-3.10/0.68	-1.04/0.8	-0.02/0.61	-0.07/2.54	1.32/0.22	-1.76/-0.09	-2.09/-2.82	-5.34/-11.74	-0.32/-2.43	-4.75/-2.76	-3.98/-1.55	-2.94/-0.13	-6.56/-4.05	-5.03/-2.13	
Θ (90°)	-2.59/-2.05	-2.49/-4.75	-2.61/-6.66	-1.44/-2.79	-3.94/-5.82	-0.02/-3.2	0.98/-1.76	0.6/-3.02	-2.71/0.01	4.65/4.64	0.58/2.82	3.77/4.01	2.94/3.84	1.06/0.76	0.56/-0.06	2.1/-0.7	0.02/-0.14	-5.66/-9.83	-0.25/-0.74	-5.38/-2.16	-0.83/0.61	0.08/-0.07	-4.3/-1.83	-2.2/-2.1
Θ (97.5°)	-4.57/-3.87	-2.28/-4.57	-3.52/-4.2	-2.68/-3.99	-3.21/-6.02	-0.01/-5.83	-0.38/-0.73	0.15/-0.3	-1.72/-1.52	0.76/3.79	1.98/2.9	3.05/3.58	1.29/2.97	2.63/0.47	1.49/1.41	0.06/1.3	-2.05/-1.76	-1.51/-9.64	-0.6/-0.09	-7.93/-7.98	-3.83/0.23	-3.14/-2.04	-3.73/-3.46	-7.83/-4.42
Θ (105°)	-5.12/-2.8	-6.74/-14.61	-11.47/-9.45	-10.56/-10.13	-10.59/-6.62	-3.92/-5.39	-0.31/-2.19	-3.79/-1.07	0.1/1.19	2.13/2.17	0.02/2.48	2.04/2.41	1.89/2.94	3.24/2.66	2.28/1.76	0.64/0.8	-0.31/-3.9	-2.76/-11.72	-0.40/-1	-6.71/-6.19	-9.36/-2.73	-2.86/-5.17	-14.2/-0.55	-9.52/-3.69
Θ (112.5°)	-4.74/-5.57	-13.92/-17.39	-1.22/-5.69	-7.96/-6.48	-8.7/-8.14	-3.52/-5.56	-3.2/-1.2	-4.96/-5.14	-2.55/-1.4	1.72/3.77	0.45/0.6	0.44/1.33	1.69/2.79	-3.31/0.97	0.91/1.8	0.05/1.23	-2.03/0.79	-2.88/-18.68	-2.73/0.94	-5.6/-5.17	-5.99/0.77	0.7/-4.2	-4.09/-10.01	-4.38/-5.85
Θ (120°)	-15.63/-11.02	-13.71/-11.24	-6.56/-16.29	-6.13/-7.47	-4.72/-4.91	-4.95/-6.66	-3.48/-2.83	-3.98/-3.89	-5.98/-5.01	-3.95/-0.52	-1.48/-1.63	-1.69/-1.43	-0.40	-1.13/-0.94	-0.02/-1.98	-0.64/-0.86	-3.48/1.17	-3.58/-10.8	-4.25/-1.58	-19.24/-10.94	-7.22/-3.44	-1.22/-4.37	-1.24/-7.91	-3.67/-8.67
Θ (127.5°)	-6.69/-5.94	-13.62/-14.51	-6.93/-8.47	-14.85/-17.29	-7.7/-8.08	-7.99/-12.63	-10.58/-4.75	-3.43/-4.91	-4.24/-3.48	-5.24/-13.37	-6.86/-3.96	-2.98/-3.5	-3.94/-3.22	-1.29/-1.25	-3.04/-5.87	-3.24/-4.32	-0.37/-3.44	-6.21/-14.75	-8.46/-3.92	-11.73/-6.59	-6.06/-6.73	-17.86/-4.79	-9.61/-11.68	-17.94/-7.01
Θ (135°)	-9.49/-17.71	-14.49/-18.17	-14.67/-13.67	-12.55/-17.83	-16.23/-17.83	-16.63/-13.89	-12.71/-8.46	-9.45/-11.83	7.21/-6.54	-3.9/-4.29	-7.6/-6.59	-5.65/-8.94	-8.83/-7.55	-4.89/-8.86	-9.28/-9.14	-12.27/-5.78	-5.7/-5.89	-10.35/-6.95	-10.07/-6.48	-7.87/-18.66	-8.63/-9.89	-10.3/-10.64	-9.75/-10.74	-15.2/-10.34
Θ (142.5°)	-11.55/-9.99	-13.68/-17.9	-10.52/-10.02	-13.01/-18.78	-14.63/-9.03	-9.26/-12.81	-9.32/-9.24	-10.14/-10.97	-15.4/-9.34	-5.77/-8.11	-5.08/-4.76	-5.04/-5.65	-6.6/-8.31	-4.93/-4.22	-5.47/-7.91	-6.25/-11.47	-14.49/-6.06	-8.3/-16.18	-18.3/-14.17	-13.31/-7.21	-9.59/-11.67	-15.99/-19.17	-17.91/-15.53	
Θ (150°)	-18/-12.97	-9.03/-16.43	-18.16/-16.75	-13.9/-13.21	-17.41/-19.05	-14.2/-5.7	-6.74/-9.38	-7.66/-15.78	-9.33/-10.72	-10.26/-10.28	-9.62/-6.87	-6.21/-4.92	-5.49/-6.4	-7.02/-5.22	-4.15/-2.24	-3.82/-5.69	-5.26/-12.69	-9.02/-10.84	-13.26/-11.61	-9.7/-7.76	-18.32/-12.29	-10.55/-11.69	-17.57/-13.5	-17.26/-16.86
Θ (157.5°)	-14.42/-15.19	-18.68/-18.69	-15.64/-17.33	-15.96/-16.07	-17.89/-18.27	-15.35/-14.09	-10.33/-6.69	-8.33/-10.41	-5.34/-5.91	-11.07/-12.16	-10.52/-9.92	-6.24/-4.25	-3.6/-3.6	-4.88/-5.75	-7.53/-5.39	-4.66/-2.99	-4.68/-12.99	-19.17/-15.35	-8.1/-8.31	-12.95/-15.15	-18.78/-18.61	-18.3/-19.22	-17.41/-15.15	-12.18/-11.78
Θ (165°)	-6.58/-10.76	-16.85/-19.12	-16.11/-14.31	-12.3/-10.73	-8.87/-9.49	-10.71/-10.2	-7.84/-6.58	-4.3/-4.61	-5.35/-8.57	-7.73/-7.35	-8.26/-10.95	-9.21/-8.92	-6.57/-6.38	-8.08/-9.32	-10.31/-9.87	-17.54/-16	-16.11/-17.46	-18.82/-15.04	-14.69/-13.76	-14.55/-11.04	-9.36/-7.91	-7.74/-9.05		
Θ (172.5°)	-15.23/-15.75	-13.4/-11.92	-12.63/-14.91	-16.2/-16.39	-14.98/-11.96	-10.82/-9.92	-9.09/-8.35	-7.12/-7.12	-7.28/-7.31	-6.84/-6.94	-6.55/-5.52	-5.7/-1.9	-9.09/-12.21	-12.83/-13.12	-14.13/-16.01	-18.71/-17.91	-17.57/-17.38	-15.17/-16.48	-18.95/-17.35	-18.20/-10.56	-14.77/-15.83	-12.89/-11.65	-12.11/-14.25	-14.6/-14.82
Θ (180°)	-13.81/-19.17	-17.28/-18.36	-18.65/-17.18	-16.93/-15.08	-14.48/-12.81	-12.2/-12.01	-11.68/-12.32	-13.16/-12.64	-11.41/-11.44	-10.51/-10.28	-10.3/-11.19	-11.73/-12.99	-11.83/-13.62	-18.14/-17.77	-18.74/-17.66	-17.56/-17.78	-18.78/-14.35	-13.05/-14.46	-12.13/-10.31	-11.06/-15.86	-16.51/-12.53	-11.58/-9.58	-10.71/-13.8	-12.04/-14.22
Freq[Hz]	6.475GPol.	PhiAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-18.67/-19.2	-19.29/-18.95	-17.69/-19.09	-18.05/-15.59	-14.46/-13.96	-13.49/-13.46	-12.89/-12.47	-11.62/-11.84	-10.77/-11.63	-13.12/-12.76	-12.18/-16.11	-14.42/-16.26	-16.53/-18.67	-18.26/-17.14	-18.82/-19.22	-17.33/-17.76	-16.31/-15.17	-14.19/-15.77	-13.95/-10.22	-8.88/-10.21	-11.35/-9.76	-12.06/-12.39	-14.41/-14.12	-16.16/-19.16
Θ (7.5°)	-17.06/-18.82	-18.39/-18.37	-18.42/-18.5	-18.93/-18.54	-18.58/-16.89	-15.79/-14.72	-14.89/-13.25	-12.64/-12.42	-14.05/-14.42	-15.98/-18.83	-17.82/-17.65	-17.45/-17.58	-17.81/-17.67	-19.29/-18.4	-17.05/-16.46	-16.54/-14.4	-12.28/-12.53	-12.48/-13.28	-13.29/-13.87	-14.21/-14.57	-12.63/-12	-12.65/-14.07	-13.12/-15.82	-17.09/-19.16
Θ (15°)	-18.61/-18.27	-18.44/-17.96	-19.4/-18.8	-17.54/-17.31	-17.49/-17.93	-18.26/-15.97	-12.88/-13.39	-13.92/-13.77	-12.47/-12.03	-13.08/-10.71	-11.02/-13.8	-13.77/-18.69	-18.11/-18.31	-19.1/-14.97	-13.04/-17.72	-11.33/-16.49	-15.64/-13.65	-14.72/-14.46	-13.94/-14.07	-11.74/-11.77	-10.26/-12.33	-14.87/-15.89	-18.82/-17.99	-18.21/-18.48
Θ (22.5°)	-19.03/-18.33	-18.38/-18.27	-18.58/-17.96	-18.18/-17.28	-18.13/-18.91	-18.09/-17.29	-18.04/-18.2	-18.71/-14.69	-12.94/-12.33	-13.38/-17.65	-17.87/-15.92	-13.28/-15.31	-17.86/-17.71	-17.84/-14.35	-15/-18.97	-16.12/-15.38	-19.2/-12.25	-11.52/-12.15	-14.11/-18.5	-17.45/-18.22	-18.8/-18.16	-16.87/-18.78	-18.32/-17.7	-17.56/-18.38
Θ (30°)	-17.29/-18.81	-18.85/-19.43	-19.15/-18.54	-18.38/-17.31	-17.1/-15.72	-17.85/-18.1	-18.77/-18.82	-18.71/-7.99	-19.18/-13.43	-15.64/-18.4	-17.37/-15.92	-14.08/-14.46	-14.41/-18.54	-14.68/-12.82	-10.56/-15.63	-12.81/-18.36	-17.99/-14.61	-17.28/-18.11	-16.53/-16.62	-19.25/-18.35	-14.15/-18.6	-15.39/-12.5	-18.13/-18.79	
Θ (37.5°)	-18.17/-16.53	-18.86/-17.65	-17.38/-15.22	-13.39/-14.07	-17.57/-14.04	-15.49/-12.53	-15.68/-15.88	-17.81/-18.69	-18.51/-18.2	-14.99/-16.37	-15.18/-17.67	-16.89/-13.85	-18.31/-17.76	-18.02/-10.73	-12.9/-12.99	-19.55/-17.39	-9.12/-10.38	-17.7/-10.56	-12.94/-14.37	-15.67/-18.61	-18.29/-13.12	-11.29/-13.95	-9.3/-18.01	-19.34/-18.67
Θ (45°)	-16.29/-18.12	-18.58/-16.26	-15.07/-13.99	-12.84/-13.77	-14.66/-18.84	-13.25/-13.17	-10.6/-13.1	-9.59/-12.7	-17.22/-18.43	-17.96/-16.26	-16.26/-16.57	-16.64/-18.91	-14.91/-12.99	-18.96/-17.78	-12.96/-10.03	-17.82/-11.22	-10.72/-15.25	-14.91/-12.21	-14.34/-12.07	-15.97/-9.08	-12.33/-18.11	-12.86/-18.87		
Θ (52.5°)	-18.74/-18.1	-18.84/-18.54	-17.81/-17.85	-18.41/-17.31	-18.41/-15.72	-18.41/-13.22	-12.06/-15.95	-12.40/-8.72	-12.6/-17.15	-18.83/-18.84	-17.73/-17.59	-18.6/-13.94	-18.42/-18.39	-17.82/-16.84	-16.88/-16.05	-16.72/-15.77	-17.75/-10.2	-12.91/-11.41	-17.06/-18.78	-18.2/-16.05	-18.71/-17	-19.1/-15.88	-18.52/-17.51	-18.38/-18.79
Θ (60°)	-15.59/-17.66	-17.78/-18.21	-17.57/-18.27	-15.88/-17.77	-14.68/-18	-18.51/-16	-17.44/-17.24	-18.62/-15.98	-12.17/-14.53	-18.92/-18.2	-18.9/-18.36	-15.35/-16.02	-18.35/-18.73	-16.8/-17.12	-18.49/-12.87	-12.36/-12.53	-18.6/-13.56	-16.49/-13.56	-17.21/-9.16	-17.23/-17.46	-13.11/-17.21	-17.83/-19.16	-14.93/-17.67	-15.19/-13.04
Θ (67.5°)	-18.49/-15.07	-14.51/-18.11	-14.08/-13.93	-17.48/-19.24	-14.61/-19.27	-19.69/-13.24	-19.18/-13.33	-15.82/-18.36	-19.25/-14.36	-17.97/-18.73	-17.37/-18.04	-18.34/-16.88	-15.31/-14.19	-12.84/-14.82	-16.48/-15.76	-17.54/-8.11	-14.09/-17.43	-17.88/-19.1	-13.81/-16.28	-14.09/-17.82	-17.88/-19.1	-13.58/-16.81	-16.87/-18.81	
Θ (75°)	-17.26/-17.27	-16.78/-17.65	-19.27/-13.36	-17.81/-18.36	-17.16/-18.69	-18.64/-15.61	-15.64/-11.86	-17.16/-16.24	-17.4/-16.47	-17.39/-18.38	-16.86/-18.78	-13.5/-18.14	-17.54/-17.78	-12.63/-14.23	-12.64/-18.42	-17.92/-17.19	-14.8/-7.91	-15.08/-17.79	-15.75/-18.98	-18.9/-16.55	-13.95/-11.28	-18.96/-18.46	-18.13/-18.04	
Θ (82.5°)	-10.33/-18.92	-15.33/-17.72	-17.63/-17.93	-18.85/-18.29	-18.32/-13.58	-16.25/-18.24	-15.37/-15.37	-14.65/-14.65	-12.51/-18.78	-14.71/-14.66	-17.75/-18.11	-12.12/-14.06	-13.16/-16.21	-18.42/-19.75	-15.51/-14.04	-16.46/-18.41	-13.44/-15.48	-11.96/-19.25	-18.66/-12.51	-9.15/-13.9	-17.13/-18.13	-16.21/-19.24	-14.67/-13.19	-17.71/-18.54
Θ (90°)	-14.3/-13.76	-13.23/-12.48	-13.89/-14.69	-10.17/-16.89	-18.52/-19.63	-14.8/-11.86	-14.72/-18.96	-18.26/-17.46	-14.32/-16.58	-18.09/-17.93	-17.4/-17.88	-18.67/-16.96	-16.31/-18.47	-18.82/-15.31	-19.22/-18.6	-17.97/-15.7	-10.2/-18.83	-14.86/-10.93	-15.58/-9.59	-16.41/-18.45	-19.03/-18.31	-12.8/-10.6	-13.97/-18.57	-17.27/-18.4
Θ (97.5°)	-16.05/-18.99	-18.64/-16.06	-18.44/-18.56	-15.04/-13.87	-16.39/-16.3	-17.76/-12.42	-14.48/-13.29	-16.6/-18.44	-18.45/-16.53	-19.15/-18.3	-14.58/-18.68	-18.88/-18.76	-13.56/-18.6	-12.2/-18.42	-18.23/-19.33	-17.95/-18.61	-18.14/-17.96	-17.73/-18.48	-14.29/-17.39	-17.77/-16.3	-13.82/-12.75	-17.82/-12.1	-18.76/-14.56	-16.98/-18.57
Θ (105°)	-18.32/-16.34	-17.91/-18.67	-18.59/-17.34	-18.58/-18.37	-18.49/-17.05	-18.73/-17.45	-15.4/-11.94	-16.61/-16.99	-18.12/-11.8	-13.19/-12.23	-19.53/-15.46	-14.13/-14.19	-10.93/-18.39	-15.87/-19.43	-18.48/-18.27	-15.59/-17.38	-18.33/-15.87	-18.96/-14.54	-18.78/-15.1	-18.55/-19.2	-18.03/-11.67	-12/-16.86	-18.93/-13.91	-18.3/-12.65
Θ (112.5°)	-18.93/-18.21	-15.53/-12.46	-11.17/-13.6																					



Radiated Composite Gain Data

Appendix A.5

Θ (105°)	-6.69/-10.74	-9.18/-7.66	-8.14/-13.29	-2.72/-12.84	-10.46/-6.96	-4.25/-13.34	-5.85/-4.76	-5.16/-3.75	-4.26/-0.64	1.03/0.56	1.52/1.83	1.53/3.1	2.92/2.79	0.1/1.69	2.44/0.9	1.08/1.07	-0.71/-1.33	-4.34/-5.82	-1.46/-0.06	-3.78/-7.79	-8.8/-3.46	-3.26/-5.56	-11.38/-2.07	-13.02/-3.75
Θ (112.5°)	-8.98/-8.65	-6.23/-9.97	-4.91/-9.96	-14.81/-10.61	-11.78/-11.47	-3.91/-8.4	-5.01/-7.18	-9.23/-5.53	-3.44/-1.7	0.74/-1.62	-2.56/0.44	-0.87/0.93	-0.45/0.3	1.78/-0.57	-1.08/2.15	-5.35/-0.94	-6.22/-0.62	-1.45/-9.67	-0.64/-1.06	-6.74/-5.34	-8.54/-0.75	-2.75/-2.65	-5.25/-6.78	-10.51/-10.42
Θ (120°)	-10.39/-11.84	-18.1/-18.71	-6.29/-14.75	-9.98/-6.89	-9.74/-6.66	-7.75/-8.82	-2.87/-2.18	-4.65/-10.65	-8.52/-4.91	0.09/-2.47	-2.42/-1.26	-0.59/-2.66	-1.21/-1.08	-1.17/-2	-1.32/-0.49	-2.64/-1.78	-7.62/-2.25	-1.9/-10.69	-4.92/-4.74	-8.52/-11.83	-3.94/-3.05	-4.71/-4.85	-2.09/-4.02	-6.98/-5.92
Θ (127.5°)	-14.08/-12.13	-11.87/-10	-9.34/-17.02	-11.69/-18.82	-10.75/-10.5	-14.56/-11.77	-6.73/-6.46	-4.81/-5.59	-5.88/-7.18	-6.98/-6.7	-4.97/-3.77	-5.25/-5.49	-3.57/-0.45	-6.54/-2.26	-5.48/-3.8	-2.7/-5.3	-6.96/-2.94	-8.51/-18.06	-12.07/-13.99	-15.93/-19.31	-13.04/-6.05	-14.76/-8.27	-10.27/-10.05	-18.59/-12.78
Θ (135°)	-12.94/-16.9	-13.7/-18.24	-13.25/-17.75	-10.27/-18.16	-12.95/-18.11	-13.07/-8.95	-15.74/-9.18	-11.79/-10.41	-6.24/-7.54	-8.89/-9.65	-11.88/-11.39	-5.84/-7.67	-9.9/-7.65	-5.96/-4.1	-7.98/-9.09	-7.95/-8.38	-6.7/-6.15	-13.66/-18.14	-9.69/-10.68	-10.63/-11.86	-18.22/-9.78	-10.41/-13.58	-14.06/-12.17	-10/-14.92
Θ (142.5°)	-16.35/-13.47	-13.21/-14.14	-16.85/-15.51	-18.81/-17.68	-18/-14.79	-11.51/-12.37	-16.54/-13.22	-15.15/-19.19	-12.51/-8.72	-5.84/-5.55	-5.58/-5.08	-6.13/-8.42	-9.04/-7.8	-8.86/-6.62	-9.86/-13.01	-6.16/-10.02	-6.6/-6.88	-17.02/-13.7	-8.84/-16.57	-17.86/-18.43	-13.45/-15.69	-17.73/-18.36	-17.99/-13.17	
Θ (150°)	-16.78/-9.63	-13.96/-18.26	-17.44/-18.34	-18.3/-18.38	-14.53/-17.51	-12.44/-10.56	-9.74/-8.38	-11.2/-13.95	-13.95/-8.97	-8.1/-4.99	-4.4/-4.96	-4.39/-3.83	-4.85/-3.51	-5.25/-5.23	-6.07/-6.58	-8.12/-6.14	-12.13/-12.44	-6.52/-7.1	-6.24/-11.25	-16.39/-14.74	-12.19/-18.69	-13.49/-18	-17.21/-19.4	-18.23/-15.2
Θ (157.5°)	-12.57/-12.85	-14.58/-11.62	-9.68/-13.4	-15.26/-17.53	-14.02/-11.92	-9.3/-8.91	-11.25/-13.72	-11.46/-9.32	-11.23/-10.18	-6.66/-8.38	-7.33/-5.65	-5.92/-6.69	-8.32/-7.76	-6.91/-6.02	-5.82/-3.91	-5.42/-8.35	-5.63/-6.23	-9.13/-11.05	-19.8/-10.56	-10.11/-13.4	-11.26/-11.5	-15.92/-17.63	-16.81/-17.69	-14.29/-11.99
Θ (165°)	-14.23/-19.26	-12.93/-11.24	-10.77/-11.77	-10.48/-13.6	-14.51/-14.48	-11.26/-8.86	-8.6/-9.01	-11.92/-14.49	-19.69/-18.39	-18.03/-15.11	-12.93/-10.89	-9.43/-8.17	-7.58/-7.68	-7.27/-6.35	-6.56/-5.37	-4.25/-4.14	-5.11/-9.1	-18.05/-16.75	-17.68/-16.22	-14.29/-15.95	-16.29/-18.54	-17.9/-15.99	-18.71/-19.22	-18.57/-17.91
Θ (172.5°)	-12.99/-12.02	-13.4/-16.61	-16.56/-15.95	-17.67/-17.21	-13.41/-12.68	-10.21/-8.34	-7.7/-7.7	-8.01/-8.1	-7.78/-9.19	-9.66/-9.88	-11.14/-12.19	-9.92/-9.42	-8.37/-8.39	-8.7/-9.88	-8.88/-8.87	-12.01/-17.86	-15.56/-13.29	-10.56/-9.62	-11.15/-13.96	-17.23/-18.78	-17.73/-17.67	-18.77/-16.42	-15.21/-18.57	-14.69/-12.53
Θ (180°)	-14.59/-16.58	-16.92/-15.44	-14.7/-14.47	-14.67/-14.73	-17.85/-17.99	-17.3/-18.43	-17.28/-15.8	-13.97/-14.61	-13.57/-11.84	-11.32/-10.79	-10.1/-11.01	-11.04/-11.89	-11.91/-11.01	-10.53/-10.57	-12.97/-16.25	-15.42/-11.95	-10.41/-11.45	-12.84/-14	-19.06/-18.18	-16.21/-15.84	-18.49/-17.45	-16.89/-16.03	-17.87/-15.09	-14/-14.47
Freq(Hz)	6.995G/Pol.	Phi/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
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°)	-18.49/-17.9	-19.45/-18.36	-15.98/-12.78	-13.39/-13.03	-12.46/-11.82	-10.01/-8.98	-10.06/-10.26	-11.01/-9.24	-9.17/-11.64	-12.77/-13.07	-17.13/-15.63	-18.01/-18.98	-18.69/-17.59	-18.5/-19.17	-16.13/-11.91	-14.64/-14.29	-10.77/-10.32	-10.71/-10.43	-10.98/-10.17	-11.39/-11.42	-10.95/-13.45	-12.77/-15.4	-14.82/-16.05	-19.22/-17.91
Θ (7.5°)	-18.81/-19.36	-18.01/-17.65	-17.77/-18.32	-19.04/-17.87	-18.46/-16.64	-14.1/-14.47	-11.53/-10.79	-11.5/-10.77	-11.07/-12.02	-13.98/-13.84	-14.43/-15.42	-19.03/-19.09	-18.51/-17.63	-18.5/-17.27	-18.64/-18.25	-18.81/-14.33	-13.07/-12.07	-12.66/-12.19	-11.38/-10.52	-12.77/-14.71	-14.37/-15.9	-18.36/-18.63	-18.67/-17.74	
Θ (15°)	-18.79/-17.65	-17.79/-18.31	-18.37/-18.1	-15.08/-12.78	-12.84/-11.82	-12.08/-13.68	-15.44/-14.5	-13.46/-12.26	-13.05/-12.47	-13.3/-16.66	-16.35/-18.17	-18.41/-17.76	-19.04/-19.3	-18.59/-19.05	-15.92/-16.68	-19.2/-14.31	-11.29/-12.58	-13.29/-13.87	-14.69/-14.83	-14.35/-12.78	-14.08/-13.57	-11.32/-13.89	-14.97/-17.56	-17.78/-19.23
Θ (22.5°)	-18.48/-19.01	-18.9/-18.98	-18.72/-18.21	-17.94/-17.95	-17.63/-15.56	-13.69/-10.99	-11.23/-12.55	-12.21/-10.6	-11/-15.62	-18.6/-15.19	-14.31/-16.95	-17.71/-19.14	-18.42/-18.02	-18.14/-18.95	-19.37/-12.91	-18.7/-12.97	-15.25/-18.5	-12.1/-11.08	-13.9/-13.06	-11.95/-16.44	-18.91/-12.55	-15.94/-17.06	-19.12/-18.95	-19.12/-17.54
Θ (30°)	-18.94/-18.2	-18.33/-17.69	-17.58/-16.85	-17.79/-18.91	-18.91/-18.66	-17.67/-19.1	-17.86/-17.04	-14.75/-14.82	-12.07/-12.51	-11.36/-12.51	-18.99/-17.74	-16.72/-19.07	-18.81/-15.92	-17.23/-17.76	-15.56/-19.07	-18.11/-14.37	-15.08/-14.01	-12.09/-15.63	-18.73/-16.04	-18.41/-18.19	-18.54/-12.74	-17.55/-17.9	-12.51/-18.46	-17.87/-17.9
Θ (37.5°)	-16.45/-16.25	-18.71/-18.19	-18.43/-17.48	-18.8/-18.2	-17.83/-18.73	-19.54/-18.99	-18.05/-18.59	-19.06/-17.48	-18.17/-19.04	-11.29/-12.45	-18.46/-18.73	-18.86/-17.31	-18.91/-18.65	-18.72/-19.2	-12.77/-12.83	-9.32/-17.15	-10.18/-17.64	-14.09/-15.21	-13.33/-17.57	-18.06/-18.81	-18.35/-13.64	-17.46/-18.13	-17.81/-19.32	-18.91/-17.79
Θ (45°)	-16.93/-17.21	-17.22/-16.32	-15.88/-12.87	-14/-14.47	-15.41/-17.46	-17.17/-17.87	-14.58/-15.94	-19.35/-18.81	-18.92/-15	-17.88/-14.48	-16.76/-18.68	-18.89/-18.02	-18.23/-18.69	-17.54/-12.67	-17.26/-16.74	-12.54/-14.04	-13.96/-14.46	-10.39/-18.81	-14.47/-12.49	-14.84/-11.3	-12.37/-12.94	-15.27/-15.97	-14.01/-17.16	-18.45/-19.16
Θ (52.5°)	-17.83/-18.86	-18.32/-18.15	-18.02/-16.62	-14.06/-13.77	-16.62/-19.82	-18.74/-14.25	-16.07/-14.84	-15.97/-18.85	-18.34/-19.33	-18.83/-13.82	-18.57/-18.4	-18.09/-18.52	-19.01/-17.52	-14.13/-12.66	-16.05/-17.18	-12.04/-13.49	-18.96/-13.3	-12.33/-13.1	-17.76/-15.06	-14.11/-12.08	-14.52/-19.05	-19.1/-18.72	-12.36/-18.58	
Θ (60°)	-16.96/-19.13	-17.83/-19.08	-18.92/-17.52	-18.89/-18.43	-17.99/-16.98	-14.52/-18.6	-18.29/-17.08	-18.51/-14.14	-14.55/-18.87	-16.09/-18.12	-17.72/-18.67	-19.13/-18.31	-18.31/-16.58	-18.61/-16.52	-16.99/-18.33	-17.74/-14.07	-17.84/-10.33	-10.39/-17.03	-18.69/-18.31	-18.05/-18.17	-18.81/-18.29	-17.71/-17.63	-15.01/-17.91	-15.55/-18.9
Θ (67.5°)	-14.26/-16.19	-14.27/-18.3	-15.98/-12.78	-13.36/-18.76	-18.79/-16.87	-15.58/-19.16	-18.34/-17.61	-17.91/-17.75	-15.39/-13.59	-15.82/-18.18	-18.09/-17.75	-17.91/-18.57	-19.33/-18.69	-14.39/-14.79	-19.24/-9.07	-13.07/-12.31	-16.37/-18.96	-12.65/-18.85	-10.72/-9.52	-16.76/-18.66	-17.52/-17.58	-19.31/-17.65	-18.94/-19	-15.37/-18.08
Θ (75°)	-18.99/-19.51	-14.68/-17.96	-16.86/-16.42	-13.86/-17.51	-17.47/-18.02	-17.22/-18.13	-16.52/-18.75	-15.97/-19.21	-11.24/-14.16	-16.98/-18.52	-17.84/-18.39	-17.51/-18.75	-15.15/-12.97	-11.2/-18.87	-11.87/-10.78	-18.47/-18.89	-17.51/-12.23	-11.13/-12.8	-17.76/-15.06	-18.47/-18.11	-19.05/-18.19	-18.47/-12.42	-17.73/-12.92	-17.23/-18.31
Θ (82.5°)	-15.77/-17.5	-17.88/-18.41	-18.72/-18.82	-12.88/-17.94	-16.2/-18.27	-17.03/-18.03	-18.52/-13.63	-14.64/-16.02	-18.23/-18.17	-18.47/-17.38	-18.82/-18.43	-17.91/-19.27	-18.12/-18.61	-16.02/-18.01	-17.92/-18.13	-13.21/-14.96	-17.32/-13.45	-15.42/-8.9	-13.71/-17.92	-15.35/-17.58	-18.29/-19.2	-17.85/-12.57	-17.8/-16.57	-16.01/-17.8
Θ (90°)	-15.1/-16.15	-14.42/-13.07	-18.71/-16.22	-13.85/-17.65	-17.1/-17.64	-10.62/-18.58	-15.6/-15.15	-17.87/-16.08	-11.66/-16.12	-18.76/-19.34	-19.21/-18.22	-18.39/-17.92	-18.9/-14.79	-19.65/-15.41	-18.72/-19.34	-18.79/-19.21	-14.31/-12.48	-19.14/-19.13	-13.13/-13.69	-11.06/-17.75	-15.33/-14.21	-18.91/-12.22	-18.97/-18.55	-17.67/-14.1
Θ (97.5°)	-14.51/-18.66	-17.49/-11.33	-12.07/-18.25	-11.62/-18.29	-15.1/-17.88	-13.89/-18.94	-14.97/-14.71	-17.92/-14.95	-15.8/-15.98	-16.58/-14.96	-16.62/-18.08	-14.63/-17.42	-18.73/-17.31	-18.24/-18.68	-19.75/-17.83	-18.54/-14.75	-12.56/-14.79	-18.97/-17.88	-18.78/-18.65	-18.38/-17.32	-18.71/-15.45	-18.19/-18.55	-17.73/-18.31	
Θ (105°)	-17.83/-19.43	-18.23/-18.02	-16.11/-18.7	-18.69/-17.94	-18.76/-15.39	-17.99/-17.71	-16.34/-14.37	-16.53/-17.9	-18.5/-16.36	-14.09/-17.58	-19.05/-15.61	-18.14/-17.73	-17.89/-18.08	-18.34/-16.86	-12.18/-16.01	-18.92/-18.32	-19.67/-17.96	-17.73/-12.41	-19.02/-15.72	-16/-18.33	-19.16/-14.2	-18.34/-18.54	-12.4/-14.03	-17.77/-16.85
Θ (112.5°)	-18.06/-18.06	-16.2/-17.81	-12.56/-17.83	-13.34/-18.4	-17.36/-17.99	-9.06/-19.24	-13.68/-13.75	-17.7/-18.3	-14.7/-11.51	-11.53/-16.22	-16.98/-18.31	-18.44/-18.71	-17.99/-19.66	-18.46/-19.09	-18.56/-8.44	-14.86/-13.38	-19.1/-19.13	-17.6/-18.98	-16.27/-16.8	-14.95/-12.51	-16.64/-19.14	-19.07/-17.31	-17.64/-16.61	-17.43/-16.53
Θ (120°)	-17.31/-17.72	-18.19/-18.4	-18.46/-18.58	-14.11/-13.55	-17.03/-18.28	-17.87/-17.88	-18.19/-13.37	-17.91/-17.82	-14.55/-10.36	-10.2/-13.45	-9.7/-12.77	-18.18/-15.21	-17.83/-19.18	-16.71/-18.91	-14.09/-6.75	-11.03/-12.97	-18.13/-12.56	-8.51/-17.68	-14.13/-16.59	-15.55/-18.8	-17.76/-18.45	-18.91/-10.85	-17.31/-14.36	-16.24/-17.66
Θ (127.5°)	-15.59/-18.47	-18.37/-16.45	-14.81/-14.4	-13.32/-18.47	-15.46/-14.77	-17.31/-19.18	-18.56/-18.24	-15.11/-18	-19.03/-18.04	-18.16/-12.76	-18.38/-18.23	-17.72/-18.04	-18.76/-17.49	-19.14/-18.31	-17.99/-15.25	-14.1/-17.89	-11.03/-18.04	-10.88/-13.6	-12.79/-18.66	-15.84/-19	-19.31/-17.65	-18.36/-18.19	-13.45/-19.01	
Θ (135°)	-19.57/-13.47	-18.02/-17.62	-18.89/-15.53	-11.96/-10.47	-18.72/-17.83	-14.77/-13.04	-13.93/-11.26	-16.99/-14.18	-17.55/-18.88	-14.96/-18.88	-18.58/-17.38	-17.53/-17.57	-18.37/-13.59	-18.3/-18.46	-14.95/-18.58	-18.01/-12.24	-11.31/-18.35	-19.36/-11.08	-19.16/-18.24	-18.64/-14.5	-18/-18.79	-17.85/-19.01	-17.64/-18.83	-18.51/-18.5
Θ (142.5°)	-15.64/-13.36	-18.03/-19.03	-18.19/-18.6	-16.19/-16.73	-12.27/-14.74	-18.55/-18.5	-14.11/-																	



Mode 6

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.1	3.04	2.87	2.01
Ant. 2 Max Gain (dBi)	2.8	2.63	3.57	4.12
Ant. 3 Max Gain (dBi)	4.88	4.49	4.92	4.59
Ant. 4 Max Gain (dBi)	4.53	4.43	4.26	4.31
Ant. 1 Polarization/Θ(°)/Φ(°)	Phi/120/330	Phi/120/322.5	Phi/127.5/330	Phi/127.5/30
Ant. 2 Polarization/Θ(°)/Φ(°)	Theta/105/292.5	Theta/105/292.5	Theta/105/292.5	Theta/105/292.5
Ant. 3 Polarization/Θ(°)/Φ(°)	Phi/82.5/82.5	Phi/97.5/97.5	Phi/90/90	Phi/112.5/75
Ant. 4 Polarization/Θ(°)/Φ(°)	Phi/120/150	Phi/135/165	Phi/112.5/157.5	Phi/82.5/165
Max Gain (dBi)	4.88	4.49	4.92	4.59
DG [1SS] (dBi)	4.99	4.63	4.64	4.41
DG [2SS] (dBi)	4.88	4.49		
DG [4SS] (dBi)	4.88	4.49		



Sporton International Inc. Hsinchu Laboratory



Radiated Composite Gain Data

Appendix A.6

Θ(22.5°)	-2.95/-3.85	-4.87/-5.79	-4.97/-3.82	-2.32/-2.9	-1.75/-2.26	-1.77/-2.31	-1.54/-1.7	-0.7/-2.46	-0.250/-0.6	0.010/0.24	0.65/1.26	1.6/1.14	1.02/0.63	-0.04/-0.62	-0.83/-1.27	-3.1/-5.06	-3.32/-3.44	-4.67/-4.57	-5.4/-2.87	-1.06/-1.29	0.14/1.42	0.5/-0.17	-1.23/-2.47	-3.08/-3.01
Θ(30°)	-3.45/-7	-3.62/-3.38	-3.51/-3.64	-3.14/-1.75	-2.2/-1.58	-2.19/-2.41	-2.37/-0.84	-0.63/-1.35	-1.98/-1.39	-1.52/-1.18	1.58/1.41	1.51/1.31	0.86/0.81	0.71/0.21	-0.89/-2.84	-4.44/-4.74	-5.61/-4.4	-6.36/-5.78	-5.17/-4.57	-4.01/-2.17	-1.75/-0.21	0.17/1.12	0.86/-1.18	-0.98/-0.63
Θ(37.5°)	-5.98/-4.25	-2.93/-3.05	-3.65/-3.92	-2.05/-1.99	-1.93/-0.71	0.13/-0.55	-1.35/-1.43	-1.39/-1.92	-1.44/-1.39	-0.77/-0.1	1.17/2.34	1.14/1.07	0.07/0.2	0.14/-0.4	-2.33/-5.47	-5.75/-5.18	-6.42/-6.28	-4.62/-5.23	-5.47/-6.5	-3.44/-4.22	-2.14/0.8	0.61/0.79	0.13/-2.23	-3.1/-3.37
Θ(45°)	-3.26/-1.86	-0.67/-1.39	-1.47/0.82	-0.09/-1.67	-2.55/-1.97	-0.7/-1.45	-1.2/-1.32	-1.06/-1.49	-0.36/-0.82	0.87/-0.59	1.09/1.36	1.23/0.39	0.48/0.68	-0.54/-0.73	-1.58/-3.97	-6.46/-3.86	-3.04/-5.33	-3.92/-3.25	2.8/-1.5	-2.07/-1.23	-0.97/0.35	-0.27/-1.29	-2.01/-3.13	-4.13/-4.39
Θ(52.5°)	-1.58/-3.11	-0.87/-3.38	0.24/0.03	-0.19/-2.27	-2.25/-2.86	-0.28/-0.84	0.51/-0.88	-2.11/-0.72	-1.17/0.27	1.74/0.9	0.14/-1.77	0.83/0.34	1.09/-0.01	-0.35/-0.76	-2.39/-3.44	-3.25/-3.79	-6.8/-3.33	-2.6/-3.38	-2.23/-3.21	-3.51/-2.03	-1.14/0.94	2.31/3.98	-2/-5.2	-2.83/-1.72
Θ(60°)	-1.71/-3.33	-1.16/-3.4	-1.23/0.63	0.04/-3.11	-3.17/-0.83	-1.35/-1.38	-0.34/-0.78	-0.1/-3.1	-1.73/-1.37	0.06/-0.05	-1.23/-0.04	1.32/1.18	1.46/0.8	0.26/-0.79	-1.33/-2.88	-5.06/-2.76	-6.28/-3.73	-4.12/-2.32	-0.65/-3.64	-1.76/-0.18	-1.12/0.72	1.03/2.32	1.04/-2.55	-5.41/-2.84
Θ(67.5°)	-3.92/-3.34	-1.9/-0.67	-1.89/2.73	-1.02/-0.93	0.68/1.53	-0.19/-0.43	0.23/-0.21	0.21/-0.6	-1.22/0.8	1.03/1.97	1.37/1.75	0.75/-0.42	-0.91/-0.3	-0.4/-1.95	-0.75/-4.48	-3.07/-6.76	-4.92/-3.59	-2.11/-2.59	-0.97/-4.99	-2.43/-1.06	0.65/0.99	1.48/1.89	1.47/-1.61	-3.73/-2.35
Θ(75°)	-2.76/-2.54	-0.32/-0.62	-0.54/-0.48	-1.56/-1.05	1.67/0.56	-0.56/0.76	-0.28/1.88	0.74/-0.47	-5.29/-3.81	0.32/0.89	2.97/0.57	1.49/-1.23	-1.49/-1.02	-1.89/-3.64	-1.03/-2.86	-2.09/-6.75	-2.96/-6.23	-2.65/-0.29	-4.16/-4.93	-2.87/-1.1	1.05/-0.59	-0.48/2.3	1.51/-0.65	-2.87/-1.87
Θ(82.5°)	-2.55/-2.57	0.28/-1.54	-1.31/-2.14	-1.21/0.55	-0.75/0.8	1.06/2.4	2.18/0.68	1.25/-3.89	-2.99/-2.23	-0.06/1	1.56/0.37	0.76/-0.35	0.77/-0.86	-1.58/-5.06	-3.37/-2.91	-5.93/-4.85	-7.44/-3.84	0.98/-2.36	-5.02/-5.73	-3.80/0.52	1.53/-2.29	-0.99/1.86	2.48/-0.54	-2.09/-1.41
Θ(90°)	-0.87/-2.26	-0.11/-1.27	-0.1/-0.82	-1.95/-0.5	-0.88/1.8	1.39/2.52	4.31/3.42	1.19/-0.68	-1.26/-1.07	-1.48/1.08	1.95/0.5	-0.43/-0.04	-0.31/-0.99	-2.45/-2.67	-5.75/-1.76	-4.86/-2.07	-5.77/-5.75	-3.23/-2.32	-0.99/-4.36	-0.23/-0.52	1.21/25	1.37/2.27	3.61/2.23	-3.29/-2.6
Θ(97.5°)	-2.29/-2.52	0.5/-0.89	-1.2/-1.05	-0.94/-0.09	0.63/2.52	2.36/3.06	3.81/1.7	1.11/-1.19	-0.53/-0.24	-0.48/1.98	1.66/2.64	0.16/-0.93	-1.78/-1.49	-3.01/-3.36	-4.67/-6.89	-6.24/-4.11	-5.7/-4.57	-6.65/-3.55	-4.96/-1.44	1.58/2.03	-0.37/-2.21	1.65/2.12	3.89/2.22	-3.57/-3.04
Θ(105°)	-4.66/-4.04	-0.96/-0.8	-1.86/-1.4	-1.22/0.3	0.42/-37	2.33/2.02	2.35/0.84	1.25/-3.12	-1.41/0.43	-3.03/0.86	1.29/-37	-0.26/-1.34	-0.9/-1.5	-3.58/-3.19	-5.36/-5.75	-6.45/-4.74	-8.34/-7.67	-5.52/-4	-2.52/-3.07	0.61/1.8	0.65/2.57	1.73/0.1	2.11/1.88	-0.6/-2.11
Θ(112.5°)	-2.36/-2.02	-1.04/-0.51	-0.94/1.21	1.27/1.38	1.06/2.65	0.71/0.74	2.08/0.16	0.12/-3.91	-2.24/-0.11	-1.94/0.73	0.83/2.41	-0.07/-1.72	-1.86/-1.41	-2.66/-1.24	-3.02/-2.9	-6.21/-4.65	-8.63/-10.03	-8.54/-3.57	-3.33/-3.4	-0.18/0.32	2.17/0.11	2.17/1.6	2.86/2.78	-0.08/-2.56
Θ(120°)	-3.54/0.09	-0.43/-0.4	0.88/1.53	2.53/1.08	1.1/95	0.61/0.97	1.80/23	0.21/-5.89	-1.37/-2.55	-1.86/-1.12	-0.82/2.22	-0.74/-1.95	-2.71/-1.84	-2.42/-2.31	-3.54/-4.44	-4.23/-4.37	-8.65/-6.39	-5.76/-6.04	-5.67/-6.99	-0.56/-1.29	-0.19/-2.71	2/073.98	1.73/1.9	-0.22/-6
Θ(127.5°)	-2.55/-2.66	-2.95/-1.29	-0.41/-0.27	0.56/0.42	1.29/0.32	0.48/0.31	-1.25/-1.61	-3.66/-3.5	-2.14/-0.8	-0.6/-0.48	-0.09/2.15	1.19/-2.56	-0.17/-2.26	-2.13/-4.13	-5.39/-5.26	-5.71/-4.3	-6.53/-2.34	-5.69/-5.92	-2.74/-5.42	-1.8/-3.36	0.16/1.1	1.51/4.64	1.87/0.71	-1.35/-2.97
Θ(135°)	-1.39/-2.9	-3.22/-1.46	-1.04/-1.22	-0.84/0.66	0.25/-1.24	-1.41/-3.7	-1.08/-2.84	-1.47/0.38	-1.41/-1.57	-0.24/1.02	-2.55/-1.23	-0.07/-0.96	-1.56/-1.83	-3.57/-3.14	-4.49/-6.31	-6.09/-3.16	-3.99/-7	-8.16/-3.32	-2.66/-4.76	-2.57/-3.22	0.5/-2.26	2.16/1.57	3.08/0.29	-1.61/-2.77
Θ(142.5°)	-2/-2.13	-2.91/-2.88	-2.94/-3	-2.51/-0.83	-0.25/-1.46	-0.7/-2.53	0.54/-1.07	-0.66/-2.08	0.84/-0.48	2.64/0.06	-2.03/0.13	-0.42/-1.13	-0.92/-1.68	-5.32/-6.43	-5.32/-6.38	-6.87/-7.28	-7.61/-8.23	-7.16/-2.37	-2.21/-3.2	-2.48/-1.38	-2.01/-0.44	-0.4/-0.72	0.59/-1.15	-2.1/-1.41
Θ(150°)	-2.25/-3.84	-1.95/-0.4	-1.11/-1.87	0.09/-0.12	-0.39/-0.05	-0.46/0.76	1.41/-1.67	-0.16/-0.93	-0.79/0.17	-1.13/-1.92	0.92/-0.18	-0.15/-1.47	-3.63/-4.08	-3.78/-5.14	-5.64/-6.32	-7.64/-6.34	-3.34/-1.69	0.06/-0.72	0.04/0.14	-1.3/-2.16	-0.28/-1.24	-2.23/-3.07	-2.75/-1.68	
Θ(157.5°)	-0.02/-0.92	-2.2/-1.64	-0.74/-1.25	-1.32/-1.08	0.52/0.39	-2.13/-2.01	0.12/-3.08	1.01/-0.19	-1.81/-2.39	0.73/-0.82	-3.73/-3.22	-1.55/-0.52	-1.99/-2.78	-1.69/-1.61	-3.3/-5.01	-5.46/-7.02	-7.23/-5.67	-3.45/-1.38	-1.05/-0.25	0.01/-0.94	-2.76/-2.23	-0.77/-0.74	-1.89/-4	-2.75/-1.14
Θ(165°)	-2.66/-2.94	-2.29/-2.03	-1.14/-1.43	-1.62/-1.15	-0.68/-0.62	-1.59/-0.92	0.22/-1.69	1.18/-0.45	0.54/0.43	-0.59/-1.93	-5.12/-6.2	-5.36/-5.36	-5.81/-5.73	-3.6/-3.35	-4.03/-6.1	-6.66/-6.16	-4.84/-3.81	-3.17/-6.38	-3.63/-1.68	-2.04/-3.55	-3.42/-2.84	-3.33/-3.52	-2.73/-2.07	-1.57/-1.98
Θ(172.5°)	-0.52/0.71	1.46/1.52	1.81/15	0.81/-0.1	-1.44/-1.73	-1.76/-0.43	-1.72/-0.95	-1.18/0.39	1.61/1.78	0.71/-0.65	-1.83/-2.31	-2.52/-3.29	-2.9/-1.55	-1.8/-1.62	-1.33/-2.33	-3.05/-3.62	-5.12/-5.64	-7.33/-5.53	-3.64/-3.12	-4.12/-5.01	-2.88/-2.69	-1.18/-1.06	-1.1/-1.58	-2.11/-1.75
Θ(180°)	0.1/0.36	0.12/0.42	-0.11/-0.2	-0.98/-1.28	-1.85/-1.78	-1.51/-1.24	-3.31/-0.78	-1.47/-1.46	-0.58/-1.11	-2.59/-2.21	-1.61/-1.65	-1.61/-0.9	-0.12/0.24	-0.01/-0.04	0.07/0.6	0.55/-0.72	-2.02/-1.86	-1.95/-0.94	-1.6/-2.44	-2.87/-2.25	-2.95/-2.27	-1.52/-0.7	-0.22/-0.97	0.22/0.68
Freq(Hz)	6.695G/Pol.	Theta°	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
DGc(dB)	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°)	-1.42/-1.41	-1.62/-1.33	-1.63/-1.18	-1.34/-1.91	-2.1/-1.62	-0.73/-1.66	-1.18/-2.02	-2.08/-1.76	-1.2/-1.32	-1.73/-3.03	-1.3/-1.1	-1.66/-1.49	-1.41/-1.18	-1.46/-1.53	-1.92/-1.86	-1.58/-2.78	-3.05/-2.06	-2.57/-3.2	-2.47/-1.68	-1.03/-0.09	-0.06/-0.38	-0.58/-1.13	-0.51/-0.96	
Θ(7.5°)	-3.13/-3.4	-2.9/-3.35	-3.13/-3.57	-3.11/-3.94	-3.19/-4.16	-3.82/-2.21	-2.62/-2.21	-0.83/-1.2	-0.69/0.13	-0.39/-0.8	-1.04/-1.62	-1.91/-0.92	-2.09/-1.6	-1.88/-1.51	-0.99/-1.1	-0.92/-0.81	-0.58/-0.04	-1.28/-0.69	-0.4/-1.78	-2.76/-2.87	-2.98/-1.96	-1.58/-1.8	-1.61/-2.14	-2.59/-2.61
Θ(15°)	-4.31/-4.44	-4.22/-3.66	-2.92/-3.49	-2.94/-3.9	-3.12/-3.45	-4.17/-1.83	-2.43/-3.04	-2.55/-0.92	-1.42/-0.04	-1.87/-1.34	-1.87/-3.17	-4.49/-3.63	-2.5/-2.54	-1.97/-1.69	-1.17/-1.16	-0.55/-1.48	-1.26/-0.25	0.03/0.45	0.32/-0.88	-1.6/-1.67	-2.38/-3.25	-2.77/-2.59	-3.34/-3.12	-2.21/-3.3
Θ(22.5°)	-7.08/-5.48	-4.82/-6.02	-6.02/-5.15	-4.75/-2.32	-1.26/-1.21	-1.13/-2.38	-2.43/-1.32	-0.68/-0.4	-1.11/0.11	-1.72/-1.91	-2.02/-3.92	-4.2/-4.27	-4.64/-3	-1.64/-0.81	-0.91/-1.62	-2.51/-1.81	-1.35/-1.33	0.01/-0.4	-0.41/-0.88	-0.42/-1.54	-2.03/-4.18	-5.41/-5.07	-7.03/-5.81	-5.07/-5.8
Θ(30°)	-7.31/-5.2	-4.03/-4.38	-4.1/-4.46	-1.67/-0.61	0.02/-1.39	-2.15/-2.45	-0.75/-2.08	-0.91/0.07	-2.4/-3.33	-4.41/-5	-6.04/-7.48	-2.4/-0.75	-1.69/-2.39	-2.17/-3.29	-2.62/-2.36	-1.75/-2.37	-2.1/-1.75	-1.6/0	-1.82/-3.66	-3.98/-4.55	-5.95/-3.79	-6.03/-3.95		
Θ(37.5°)	-5.25/-3.74	-3.8/-5.08	-4.14/-3.21	-3.06/-2.44	-1.59/-2.54	-1.76/-2.46	-1.75/-3.02	-1.33/-1.63	-0.89/-0.18	-2.67/-2.22	-2.35/-2.8	-5.32/-7.24	-1.86/-0.68	-2.86/-3.14	-0.79/0.26	-1.79/-2.5	-0.91/-2.41	-2.32/-3.17	0.38/0.07	0.06/-1.24	-2.71/-6.1	-3.03/-4.77	-4.88/-6.25	
Θ(45°)	-4.09/-5.8	-5.71/-5.16	-5.16/-3.31	-1.99/-1.09	-1.37/-2.27	-2.93/-2.76	-2.52/-2.63	-1.74/-3.41	-1.26/-0.72	-2.69/-2.03	-1.96/-5.82	-4.25/-4.11	-6.14/-5.1	-1.73/-0.87	-1.93/-3.03	-1.87/-0.88	-1.36/-1.52	-3.41/-4.98	-1.93/-0.82	-1.2/-1.41	-0.92/-2.39	-1.29/0.16	-2.01/-5.89	-4.57/-4.61
Θ(52.5°)	-3.87/-4.67	-4.59/-6.6	-4.43/-3.79	-2.06/-0.57	-2.01/-3.37	-1.46/-1.94	-2.69/-5.16	-3.35/-2.29	-3.92/-1.76	-1.35/-3.09	-3.64/-6.59	-6.45/-5.61	-3.62/-3.88	-2.74/-2.06	-3.46/-3.07	-4.48/-1.51	-1.67/-1.61	-4.11/-3.94	-2.52/-2.16	-0.41/-1.24	-3.54/-1.51	-5.51/-1.07	-2.89/-6.32	-7.12/-5.16
Θ(60°)	-5.38/-4.76	-3.73/-3.02	-5.18/-7.74	-3.7/-2.16	-1.54/-3.68	-3.55/-3.27	-5.08/-3.06	-5.24/-3.41	-1.59/-3.6	-2.6/-3.5	-4.52/-6.69	-7.94/-7.55	-6.4/-6.61	-5.3/-2.09	-2.96/-2.86	-3.24/-3.48	-3.35/-1.1	-3.73/-4.47	-3.48/-3.77	-2.23/-0.29	-1.12/-1.88	-2.8/-3.72	-3.31/-5.58	-4.03/-5.54
Θ(67.5°)	-5.66/-3.74	-3.32/-4.63	-5.57/-5.78	-2.43/-2.02	-1.66/-1.07	-2.46/-6.4	-3.35/-4.08	-3.91/-3.9	-2.49/-2.29	-1.79/-4.9	-5.71/-4.82	-8.68/-12.22	-6.93/-6.24	-6.11/-5.44	-2.9/-2.75	-3.98/-8.46	-6.92/-4.23	-3.62/-4.28	-3.37/-2.81	-3.29/-3.56	-3.79/-2.72	-1.49/-2.54	-4.36/-7.47	-6.22/-4.84
Θ(75°)	-6.23/-6.81	-3.48/-4.33	-5.82/-6.69	-2.41/-2.02	-2.22/-4.4	-1.62/-2.78	-3.51/-5.4	-3.87/-6.02	-2.79/-3.5	-6.63/-4.41	-3.86/-4.56	-6.86/-1.04	-7.32/-6.75	-6.35/-8.22	-3.42/-3.77	-3.55/-3.7	-4.47/-3.57	-2.42/-0.33	-2.62/-3.98	-1.85/-5.28	-3.8/-2.36	-2.65/-1.08	-4.76/-8.59	-6.65/-5.5
Θ(82.5°)	-7.82/-6.02	-5.86/-7.69	-7.79/-6.28	-0.41/-1.61	-4.86/-4.63	-5.2/-3.48	-5.1/-1.89	-2.74/-8.25	-4.54/-6.29	-6.49/-7.44	-3.86/-8.84	-9.13/-7.88	-11.45/-4.44	-6.76/-4.7	-5.82/-8.39	-5.25/-4.85	-3.78/-5.79	-1.38/-0.61	-4.73/-2.84					



Freq(Hz)	6.175GPol.	PhiAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-1.07/-0.59	0.07/0.04	-0.26/-0.88	-1.4/-2.1	-2.65/-3.86	-5.17/-8.01	-9.56/-10.85	-15.55/-17.44	-15.19/-10.72	-7.31/-4.18	-3.63/-3.1	-1.53/-1.58	0.16/0.06	0.13/0.1	-0.22/-0.13	-0.53/-8.74	-2.03/-3.13	-4.11/-5.79	-7.71/-11.26	-16.95/-19.17	-14.98/-10.77	-7.64/-5.93	-3.39/-2.63	-1.88/-1.09
Θ(7.5°)	-0.86/-0.89	-0.88/-0.68	-0.67/-0.9	-1.72/-2.56	-3.38/-3.44	-5.22/-8.64	-11.99/-13.57	-18.76/-18.51	-18.44/-13.43	-10.38/-6.91	-4.69/-3.58	-1.76/-0.87	-0.06/0.6	0.05/0.54	0.41/0.27	-0.51/-0.13	-2.08/-3.19	-5.73/-7.79	-10.74/-17.5	-18.33/-15.52	-10.57/-6.95	-5.14/-3.57	-2.39/-1.87	-1.67/-1.04
Θ(15°)	-1.5/-2.25	-3.47/-4.38	-4.71/-5.21	-6.37/-6.65	-4.34/-4.64	-5.25/-6.01	-9.12/-12.53	-14.11/-15.7	-13.3/-9.87	-7.28/-5.93	-3.72/-2.76	-1.26/-0.56	0.17/0.77	1.21/1.8	0.62/-0.34	-2/-3.27	-4.68/-4.5	-6.2/-9.15	-15.64/-18.81	-12.62/-9.63	-7.8/-3.93	-2.96/-2.18	-1.77/-1.12	-0.96/-1.37
Θ(22.5°)	-2.94/-5.34	-9.27/-10.52	-8.45/-4.86	-4.56/-5.3	-5.04/-5.34	-4.19/-1.2	-9.65/-15.84	-18.08/-8.32	-9.46/-8.09	-4.86/-4.1	-2.46/-1.03	0.09/0.72	0.86/-0.88	-3.09/-3.75	-6.26/-5.38	-8.89/-8.7	-9.53/-13.86	-18.99/-18.57	-12.26/-13.3	-7.81/-5.5	-3.7/-2.55	-1.7/-0.68	-0.63/-1.7	
Θ(30°)	-6.58/-8.39	-11.4/-14.4	-7.73/-4.35	-2.85/-3.27	-4.12/-3.27	-5.45/-8.98	-13.29/-17.18	-12.44/-10.58	-5.71/-3.87	-3.04/-2.08	-1.39/-0.92	-1.07/-1.04	-0.43/-0.41	0.72/-1.44	-2.33/-3.79	-3.02/-2.17	-4.86/-6.66	-9.15/-12.89	-17.56/-17.37	-18/-14.5	-10.24/-6.75	-5.01/-4.57	-2.63/-2.23	-3.26/-5.25
Θ(37.5°)	-13.29/-13.42	-11.21/-12.99	-9.65/-2.37	-2.79/-4.9	-3.07/-1.82	-5.45/-8.47	-9.35/-12.28	-15.19/-18.23	-13.04/-11.63	-8/-3.31	-2.7/-1.95	-1.06/-0.24	0.22/0.46	0.03/-0.98	-1.68/-2.19	-2.81/-4.02	-6.62/-7.92	-8.84/-13.63	-18.29/-19.09	-12.23/-10.17	-6.28/-5.1	-4.26/-2.58	-1.39/-1.61	-3.41/-7.01
Θ(45°)	-8.89/-10.54	-10.17/-8.24	-4.46/-1.8	-2.61/-2.33	-1.18/-1.68	-5.25/-4.23	-6.53/-6.78	-10.71/-18.1	-9.55/-6.87	-4.78/-4.07	-1.67/-1.78	-3.83/-3.65	-1.56/-1.45	-2.3/-2.83	-2.79/-3.89	-3.71/-6.55	-12.72/-18.26	-12.92/-13.16	-15.12/-16.8	-10.89/-10.06	-4.81/-3.8	-2.67/-1.66	-1.26/-0.88	-1.94/-1.74
Θ(52.5°)	-7.28/-17.23	-7.28/-17.07	-2.36/-3.23	-3.31/-2.09	-3.31/-3.74	-4.13/-6.7	-6.94/-6.61	-7.23/-10.57	-6.93/-5.03	-2.75/-4.82	-2.36/-1.58	3.04/-4.4	-2.81/-2.31	-4.16/-5.81	-5.56/-4.89	-4.11/-3.74	-13.71/-13.53	-15.71/-14.11	-15.85/-11.28	-10.09/-6.78	-5.04/-3.11	-2.71/-2.16	-2.7/-2.4	-3.66/-4.83
Θ(60°)	-5.96/-4.38	-4.59/-4.43	-0.49/-3.87	-1.21/-2.86	-6.21/-3.84	-4.64/-5.62	-7.79/-9.45	-12.13/-13.43	-16.27/-13.05	-2.91/-2.75	-3.15/-4.97	-4.35/-3.59	-4.67/-4.5	-6.36/-7.11	-9.45/-19.17	-15.74/-8.07	-7.71/-17.9	-9.65/-18.78	-14.94/-6.7	-7.71/-2.1	-1.39/-0.44	-1.4/-1.38	-3.53/-5.39	
Θ(67.5°)	-4.82/-3.34	-2.55/-3.37	0.28/-3.77	-1.95/-6.66	-6.61/-7.28	-6.65/-9.25	-16.12/-7.93	-11.4/-17.92	-18.66/-10.88	-6.72/-4.87	-4.45/-6.82	-10.07/-8.79	-8.44/-4.05	-3.52/-5	-6.53/-8.82	-9.45/-9.41	-18.44/-15.9	-9.61/-10.41	-13.76/-10					



Radiated Composite Gain Data

Appendix A.6

Θ(22.5°)	-5.98/-6.84	-8.99/-13.09	-16.51/-15.59	-11.53/-17.95	-9.11/-9.4	-10.38/-12.24	-9.83/-9.95	-9.96/-8.53	-4.73/-2.61	-1.51/-1.36	-1.34/-0.42	0.46/0.74	1.28/-0.21	-1.1/-2.03	-1.89/-2.23	-4.2/-7.19	-6.37/-9.94	-13.18/-18.71	-17.71/-9.4	-4.78/-1.4	-2.6/-1.78	-1.73/-2.23	-3.14/-3.97	-3.45/-4.13
Θ(30°)	-6.74/-6.86	-6.86/-5.93	-9.76/-12.43	-12.77/-8.88	-9.01/-8.4	-9.86/-8.57	-9.37/-12.34	-12.47/-12.57	-13.66/-11.84	-7.86/-2.97	-0.81/-0.06	0.06/0.12	0.41/-0.11	-0.83/-1.68	-2.07/-3.59	-4.77/-7.85	-9.43/-10.3	-18.93/-17.79	-18.47/-16.58	-10.19/-5.05	-2.93/-1.85	-1.13/-0.39	-1.28/-3.31	-5.12/-5.45
Θ(42.5°)	-6.93/-4.92	-3.79/-4.43	-5.46/-6.36	-6.69/-6.74	-9.77/-9.92	-10.17/-8.91	-12.22/-12.8	-14.17/-15.21	-13.69/-13.22	-7.46/-4.25	-1.68/-0.43	-0.51/-1.82	-1.36/-0.45	-0.89/-1.17	-6.63/-9.99	-13.58/-11.5	-13.45/-17.44	-18.15/-14.78	-13.14/-9.3	-7.33/-4.65	-1.77/-2.52	-2.69/-4.61	-6.78/-8.3	
Θ(45°)	-6.71/-2.21	-2.32/-2.24	-4.31/-4.37	-5.38/-7.08	-15.46/-10.02	-9.35/-10.1	-9.03/-9.33	-7.98/-12.95	-7.41/-6.57	-4.18/-4.35	-2.85/-0.98	-0.77/-1.72	-1.65/-1.45	-1.08/-1.78	-2.65/-4.17	-7.83/-6.96	-5.81/-8.45	-12.21/-15.13	-15.92/-11.81	-8/-4.49	-3.02/-4.27	-4.14/-4.1	-4.87/-5.56	-8.16/-11.49
Θ(52.5°)	-5.33/-3.13	-2.13/-3.87	-4.08/-3.5	-4.17/-6.6	-12/-11.11	-5.63/-9.57	-7.62/-9.06	-9.72/-7.28	-7.44/-5.9	-4.27/-4.58	-2.63/-0.76	-2.95/-9.28	-2.37/-1.7	-2.02/-3.1	-5.31/-8.63	-11.33/-12.27	-11/-7.93.1	-14.44/-19.14	-18/-13.56	-13.79/-8.46	-6.05/-3.39	-1.29/-1.91	-6.46/-12.44	-10.68/-10.18
Θ(60°)	-6.58/-3.9	-2.73/-3.83	-5.82/-0.92	-2.64/-4.27	-7.68/-7.45	-6.83/-12.64	-9.23/-10	-6.39/-10.07	-11.02/-9.74	-5.64/-7.82	-9.82/-6.98	-4.31/-3.55	-4.05/-3.3	-3.24/-4.75	-7.04/-11.7	-12.77/-11.62	-13.38/-12.26	-14.34/-15.29	-12.48/-13.56	-6.46/-6.03	-7.25/-6.09	-3.43/-1.65	-3.6/-9.97	-15.1/-10.18
Θ(67.5°)	-7.46/-4.52	-3.24/-2.93	-5.09/0	-1.77/-2.62	-4.32/-5.78	-10.42/-13.46	-10.42/-12.05	-7.76/-10.92	-14.49/-6.57	-6.28/-3.45	-5.74/-6.47	-13.69/-14.81	-9.67/-5.59	-5.01/-6.35	-6.33/-10.04	-13/-18.72	-10.77/-10.55	-8.84/-11.65	-11.35/-11.98	-9.81/-6.86	-5.17/-3.62	-2.89/-0.77	-1.83/-10.62	-12.06/-7.37
Θ(75°)	-5.8/-2.86	-1.2/-3.93	-3.54/-0.42	-3/-3.54	-2.44/-7.04	-13.12/-9.98	-13.49/-6.16	-8.65/-14.06	-17.39/-10.96	-4.49/-5.39	-3.24/-6.1	-6.16/-12.85	-7.95/-8.67	-8.84/-17.72	-10.57/-17.38	-11.2/-15.68	-14.71/-17.78	-11.7/-11.51	-9.89/-12.92	-7.95/-5.29	-7.83/-7.97	-6.44/-9.09	0.18/-4.12	-8.75/-7.57
Θ(82.5°)	-4.95/-2.82	-0.49/-2.71	-2.71/-0.43	-2.77/-2.83	-3.02/-5.62	-15.31/-6.06	-4.37/-4.29	-5.88/-17.86	-13.85/-9.62	-8.26/-9.82	-6.33/-18.16	-6.49/-10.7	-7.86/-16.47	-17.86/-10.68	-13.26/-13.11	-16.63/-11.44	-14.34/-13.73	-10.98/-19.66	-15.26/-7.92	-6.91/-6.19	-2.07/-2.93	-3.4/-1.52	-0.88/-2.9	-4.62/-5.59
Θ(90°)	-7.14/-2.07	1.72/-1.76	-1.18/-0.74	-2.93/-2.15	-2.66/-3.57	-7.79/-1.69	-1.98/-2.85	-3.89/-10.3	-7.91/-18.81	-10.95/-8.09	-7.66/-19.33	-12.8/-12.58	-10.13/-10.94	-18.43/-19.37	-13.04/-12.58	-18.35/-11.62	-18.92/-13.62	-17.7/-19.05	-13.65/-8.88	-6.74/-7.09	-2.87/-4.31	-1.42/0.47	1.06/-1.41	-5.55/-5.92
Θ(97.5°)	-5.01/-0.75	1.11/0.18	-0.97/0.35	-2.33/-2.56	-2.57/-3.38	-6.66/-9.28	-2.43/-4.46	-4.52/-8.6	-6.65/-18.18	-12.04/-8.82	-13.16/-19.58	-18.22/-14.75	-14.55/-9.85	-19.26/-18.83	-15/-17.91	-18.93/-12.92	-11.19/-17.75	-18.7/-12.64	-13.85/-4.89	-4/-2.02	-2.14/-2.93	-2.12/0.26	1.42/0.14	-3.19/-2.28
Θ(105°)	-7.73/-3.21	0.95/0.96	-1.38/2.13	-1.68/-1.25	-3.69/-3.46	-5.06/-7.21	-8.83/-4.62	-4.63/-8.46	-9.17/-16.31	-16.9/-11.14	-17.96/-10.42	-18.88/-17.78	-16.82/-18.02	-14.22/-19.02	-15.1/-19.25	-12.17/-15.58	-18.37/-15.89	-18.83/-19.85	-9.51/-7.33	-0.53/-7.3	-0.73/-3.28	0.44/0.54	1.18/0.08	-1.06/-6
Θ(112.5°)	-5.4/-3.8	0.56/1.03	-0.55/-1.39	1.19/-1.41	-4.05/-2.41	-4.8/-13.18	-10.93/-18.17	-6.69/-11.94	-13.71/-12.22	-16.17/-10.39	-12.42/-15.06	-19.21/-18.43	-18.49/-17.47	-16.81/-16.41	-18.18/-19.49	-17.65/-14.9	-12.59/-18.19	-14.59/-14.31	-11.29/-8.44	-5.96/-1.46	-0.99/-2.3	0.51/1.38	2.77/0.7	-2.89/-6.06
Θ(120°)	-3.62/-1.89	0.06/0.76	-0.95/0.71	1.4/-1.17	-4.71/-4.28	-5.66/-18.41	-9.8/-12.07	-8.9/-15.09	-15.56/-17.77	-17.75/-18.69	-13.56/-13.48	-11.04/-11.06	-17.88/-18.02	-16.06/-17.49	-18.74/-18.19	-13.22/-14.99	-17.43/-18.74	-16.86/-14.81	-11.06/-15.77	-10.51/-2.33	-3.21/-1.93	0.53/1.96	2.25/-5.9	-1.32/-5.1
Θ(127.5°)	-0.52/-1.37	-0.91/0.48	-0.87/-1.68	-0.04/-3.88	-3.31/-10.17	-8.06/-17.49	-16.82/-19.11	-19.31/-15.5	-17.53/-15.53	-14.54/-15.7	-13.38/-7.53	-11.77/-18.08	-17.88/-18.25	-14.22/-10.19	-11.31/-15.48	-17.89/-18.95	-18.88/-10.98	-18.26/-17.23	-12.56/-15.56	-14.28/-12.25	-9.85/-2.74	0.74/2.55	2.87/0.34	-0.55/-1.75
Θ(135°)	1/-0.94	-1.51/-0.15	-1.19/-2.52	-3.12/-2.29	-3.71/-7.96	-18.28/-17.78	-14.63/-18.08	-16.22/-11.08	-15.23/-12.34	-14/-11.87	-10.09/-12.64	-18.46/-19.34	-18.88/-15.97	-13.39/-13.26	-13.92/-17.9	-18.73/-18.79	-12/-11.64	-14.54/-16	-12.52/-12.52	-13.05/-16.61	-8.03/-4.56	-0.82/1.4	2.61/1.43	-0.37/0.6
Θ(142.5°)	0.73/-0.77	-0.34/-0.68	-2.75/-3.53	-7.19/-3.97	-4.02/-6.37	-18.25/-18.25	-11.32/-9.84	-15.45/-8.81	-13.38/-9.31	-10.44/-17.77	-13.2/-11.55	-12.54/-9.22	-10.48/-11.73	-16.73/-17.97	-13.48/-16.22	-18.63/-18.13	-18.86/-16.04	-13.77/-11.5	-6.68/-4.83	-9.43/-7.98	-7.02/-4.68	-2.27/-1.1	-0.53/0.16	0.93/0.64
Θ(150°)	-0.53/-0.91	-0.5/-0.68	-2.41/-3.68	-3.93/-3.9	-7.85/-6.83	-12.31/-14.22	-15.11/-7.91	-9.99/-9.85	-11.23/-13.17	-10.41/-16.69	-17.31/-11.49	-13.07/-13.17	-18.98/-19.72	-18.66/-18.28	-18.47/-19.24	-18.17/-16.4	-12.09/-8.23	-6.46/-7.28	-5.78/-4.52	-4.67/-4.84	-4.14/-5.7	-4.63/-3.2	-0.96/0.3	
Θ(157.5°)	-1.13/-1.27	-1.72/-2.02	-1.7/-2.45	-4.75/-7.51	-5.57/-6.65	-8.78/-11.56	-10.81/-10.21	-9.47/-8.22	-12.69/-15.4	-15.97/-16.94	-18.81/-18.58	-17.26/-14.98	-12.92/-14.15	-17.16/-18.64	-17.31/-18.6	-18.18/-17.92	-18.72/-19.98	-14.87/-10.9	-9.43/-9.41	-7.87/-6.35	-6.64/-8	-6.54/-5.02	-3.64/-2.86	-1.9/-1.35
Θ(165°)	-3.72/-2.93	-1.79/-1.59	-1.76/-2.85	-4.91/-4.65	-6.76/-6.68	-8.7/-7.6	-6.28/-7.06	-7.72/-7.84	-8.42/-9.75	-15/-16.4	-18.14/-18.28	-18.88/-18.26	-19.11/-16.21	-13.61/-15.7	-15.95/-16.3	-19.09/-19.43	-18.79/-17.91	-16.94/-17.32	-17.97/-13.38	-10.44/-5.96	-7.97/-6.04	-6.98/-5.94	-4.77/-3.92	-3.29/-3.74
Θ(172.5°)	-4.73/-3.82	-4.03/-3.77	-3.22/-4.08	-4.82/-6.78	-10.96/-18.22	-15.57/-13.14	-11.04/-12.87	-15.79/-18.03	-11.51/-8.69	-8.89/-9.07	-8.69/-6.76	-7.42/-7.84	-8.79/-8.34	-9.66/-9.75	-10.65/-13.53	-16.22/-18.12	-18.42/-18.37	-18.96/-18.91	-10.47/-10.6	-16.11/-13.09	-11.54/-9.97	-8.87/-7.78	-7.12/-6.97	-6.49/-5.43
Θ(180°)	-8.97/-8.63	-8.13/-8.35	-7.83/-9.22	-8.93/-9.87	-9.58/-8.86	-12.17/-12.28	-11.41/-12.57	-17.23/-18.95	-18.11/-18.1	-18.01/-13.67	-10.79/-9.33	-9.08/-7.98	-6.54/-7.82	-7.55/-6.74	-7/-7.3	-7.39/-8.63	-9.15/-9.73	-9.79/-10.01	-10.08/-9.86	-10.49/-10.23	-9.53/-9.46	-8.89/-8.19	-7.71/-8.29	
Freq(Hz)	6.995/GPol.	Theta/Ant. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-6.56/-7.19	-7.6/-7.81	-10.21/-9.88	-9.49/-10.43	-9.05/-7.35	-6.39/-5.65	-6.06/-6.7	-5.14/-4.98	-4.47/-4.4	-4.62/-5.47	-6.35/-6.51	-5.82/-6.42	-7.99/-8.01	-9.73/-10.26	-11.28/-11.04	-10.37/-9.15	-9.7/-9.64	-6.83/-5.55	-5.35/-4.77	-5.05/-4.88	-4.86/-5.02	-5.49/-5.86	-5.74/-6.2	
Θ(7.5°)	-9.9/-10.97	-10.73/-13.51	-12.32/-12.86	-9.9/-6.63	-5.14/-6.29	-6.01/-4.15	-5.03/-5.64	-4.81/-4.62	-4.69/-4.62	-4.71/-5.47	-6.24/-6.39	-6.73/-6.59	-7.72/-7.74	-7.85/-7.77	-7.41/-7.86	-7/-9.3	-5.02/-4.77	-4.52/-4.02	-3.29/-2.8	-3.09/-3.34	-3.63/-3.58	-3.65/-3.68	-4.17/-5.87	-6.86/-8.33
Θ(15°)	-12.71/-15.34	-18.74/-19.71	-12.46/-10.88	-10.94/-10.31	-10.06/-5.35	-7.74/-6.52	-3.81/-5.2	-5.04/-4.08	-3.62/-3.24	-4.38/-5.13	-5.93/-6.46	-8.45/-8.35	-9/-8.67	-7.54/-6.53	-5.42/-5.17	-4.85/-4.56	-3.55/-3.1	-2.54/-2.15	-2.62/-3.01	-3.36/-3.75	-4.12/-4.34	-4.27/-3.83	-4.64/-5.65	-7.15/-9.68
Θ(22.5°)	-18.29/-19.27	-17.91/-19	-17.31/-18.65	-17.79/-8.85	-4.7/-3.19	-3.85/-3.22	-1.58/-1.75	-2.28/-1.28	-1.11/-1.61	-2.09/-2.49	-3.66/-4.58	-10.74/-17.18	-18.65/-12.98	-9.21/-9.64	-6.29/-5.64	-5.62/-5.77	-4.83/-3.96	-3.77/-3.36	-2.56/-2.52	-3.57/-5.7	-6.91/-9.92	-11.4/-13.5	-14.11/-14.55	-19.41/-17.96
Θ(30°)	-14.27/-15.06	-18.66/-16.82	-18.03/-14.41	-7.64/-5.61	-1.27/-1.72	-1.96/-2.72	-1.75/-3.65	-1.41/0.27	0.6/-0.16	-1.06/-2.97	-4.53/-5.71	-7.42/-9.95	-12.41/-9.5	-6.67/-7.55	-7.4/-7.1	-3.86/-5.74	-7.73/-7.3	-4.25/-3.52	-3.73/-3.64	-5.16/-4.86	-11.82/-18.96	-15.11/-12.21	-15.91/-18.68	
Θ(37.5°)	-13.44/-14.6	-14.71/-17.88	-18.54/-7.38	-4.54/-3.1	-1.74/-2.64	-3.69/-3.53	-3.82/-3.67	-1.54/-0.86	-1.06/-0.63	-0.5/-1.78	-2.95/-4.5	-7.42/-10.19	-12.87/-18.01	-12.02/-8.14	-8.02/-5.25	-4.05/-2.27	-4.59/-1.72	-5.49/-4.73	-3.14/-2.06	-1.84/-1.42	-1.77/-3.27	-5.12/-9.06	-14.28/-12.15	-9.3/-12.08
Θ(45°)	-8.53/-13.65	-17.51/-17.67	-10.34/-6.62	-4.71/-3.6	-2.08/-2.67	-6.05/-9.75	-7.82/-3.35	-5.42/-3.2	-2.76/-3.45	-4.25/-2.88	-3.77/-6.57	-7.5/-7.65	-12.8/-14.77	-16.15/-10.59	-9.11/-8.79	-4.73/-2.74	-3.83/-3.92	-6.67/-5.82	-4.76/-4.61	-6.74/-4.72	-3.07/-5.72	-4.61/-3.81	-7.23/-17.99	-9.89/-8.12
Θ(52.5°)	-6.68/-7.88	-13.98/-13.04	-8.82/-6.23	-5.37/-3.67	-3.35/-4.37	-4.49/-5.54	-4.82/-5.1	-4.4/-2.45	-2.99/-3.92	-7.17/-9.43	-14.68/-8.39	-16.61/-11.92	-14.61/-13.77	-16.9/-9.33	-5.51/-3.71	-6.22/-5.53	-6.98/-8.71	-6.43/-7.21	-7.08/-6.68	-6.77/-10.58	-15.65/-9.5	-8.73/-13.53	-19.1/-15.1	
Θ(60°)	-16.93/-9.12	-6.49/-6.94	-10.33/-15.94	-8.94/-6.08	-5.73/-6.08	-9.17/-6.12	-13.05/-2.25	-5.13/-5.56	-4.91/-5.63	-5.95/-10	-6.51/-8.24	-14.99/-17.94	-19.03/-19.2	-16.77/-11.83	-14.86/-9.01	-6.01/-4.91	-6.35/-4.99	-8.61/-13.44	-9.57/-10.49	-9.88/-6.73	-5.45/-6.03	-8.07/-17.6	-18.98/-13.38	-14.82/-18.04
Θ(67.5°)	-12.61/-11.25	-4.56/-6.08	-12.71/-10.96	-9.77/-7.46	-4.53/-11.05	-3.92/-15.57	-4.85/-6.62	-7.71/-7.58	-10.35/-9.5	-6.56/-15.89	-13.48/-10.68	-11.62/-18.15	-10.67/-14.19	-12.49/-9.29	-7.78/-6.77	-5.48/-9.25	-9.67/-6.19	-6.02/-6.14	-4.77/-6.26	-5.01/-11.25	-7.85/-6.07	-6.82/-13.47	-13.4/-19.11	-18.97/-16.73
Θ(75°)	-7.78/-16.49	-7.88/-8.79	-11.64/-13.11	-17.37/-13.99	-6.39/-12.39	-7.77/-3																		



Radiated Composite Gain Data

Appendix A.6

Θ (67.5°)	-12.73/-9.78	-8.18/-6.65	-8.63/-9.22	-15.67/-19.2	-15.50/-15.19	-10.20/-16.56	-19.50/-16.27	-19.20/-8.16	-9.38/-9.6	-15.67/-15.72	-9.74/-9.76	-11.62/-7.54	-7.89/-6.38	-8.80/-16.64	-7.90/-9.54	-10/-4.62	-8.26/-19.36	-15.29/-9.38	-15.67/-11.47	-17.08/-8.35	-14.20/-10.82	-10.72/-18.41	-17.79/-18.28	-18.07/-18.28
Θ (75°)	-10.9/-7.74	-9.54/-8.1	-13.34/-8.82	-18.84/-17.74	-12.05/-18.39	-15.7/-18.67	-19.12/-15.93	-16.18/-14.37	-8.53/-12.03	-9.80/-14.06	-18.38/-5.82	-10.40/-8.16	-11.45/-9.62	-9.66/-16.65	-9.7/-15.27	-15.47/-16.19	-17.3/-8.54	-7.55/-11.03	-13.47/-13.75	-14.43/-11.66	-10.27/-15.18	-13.68/-17.92	-13.58/-14.18	-19.3/-12.31
Θ (82.5°)	-5.58/-8.41	-8.1/-11.63	-18.16/-13.79	-15.33/-12.78	-11.03/-16.9	-15.63/-17.44	-13.04/-18.36	-18.58/-13.89	-10.30/-9.33	-13.37/-13	-8.80/-17.03	-16.64/-9.57	-6.21/-5.51	-7.48/-13.35	-8.62/-12.78	-11.59/-11.28	-8.90/-19.15	-8.69/-18.92	-6.63/-19.01	-10.95/-18.69	-12.63/-10.78	-9.97/-16.36	-11.12/-16.67	
Θ (90°)	-6.87/-5.64	-9.16/-10.99	-18.46/-11.26	-9.80/-8.87	-7.05/-18.55	-17.89/-14.16	-7.58/-17.88	-10.68/-14.9	-9.07/-10.33	-11.45/-9.36	-10.98/-13.88	-13.47/-15.47	-18.00/-17.66	-8.42/-8.85	-11.26/-8.15	-13.17/-8.26	-17.76/-10.78	-14.66/-13.2	-18.58/-9.64	-12.78/-10.63	-15.83/-18.84	-17.40/-17.95	-8.78/-13.55	-9.45/-13.89
Θ (97.5°)	-8.1/-5.49	-7.32/-14.77	-17.52/-10.96	-7.95/-8.57	-6.17/-17.71	-10.77/-13.94	-13.96/-11.40	-15.2/-9.99	-9.63/-6.97	-13.79/-10.31	-9.70/-13.47	-14.48/-13.05	-18.62/-10.2	-14.4/-18.66	-19.08/-4.97	-15.43/-15.65	-16.36/-16.53	-9.64/-8.53	-12.37/-17.64	-15.27/-16.06	-13.95/-12.72	-12.98/-11.09	-12.17/-8	
Θ (105°)	-9.00/-7.93	-7.1/-12.25	-18.68/-12.01	-5.4/-3.31	-5.1/-13.82	-18.25/-10.09	-12.30/-9.28	-8.93/-13.75	-10.32/-9.91	-9.33/-8.92	-10.47/-7.1	-13.30/-14.44	-17.16/-18.38	-18.46/-13.36	-18.47/-12.28	-12.80/-12.98	-5.45/-18.67	-15.08/-8.82	-6.42/-14.61	-18.24/-16.18	-14.64/-16.84	-12.59/-11.68	-12.59/-11.68	
Θ (112.5°)	-16.20/-12.49	-9.9/-10.64	-9.33/-9.3	-5.40/-3.84	-5.55/-10.5	-12.93/-15.52	-11.92/-6.23	-8.98/-17.24	-8.94/-9.23	-10.03/-6.03	-10.27/-5.44	-7.00/-9.1	-15.53/-9.5	-8.04/-7.02	-7.57/-6.52	-12.63/-12.94	-11.46/-18.68	-16.07/-11.74	-5.57/-11.6	-18.48/-8.76	-9.02/-7.87	-18.85/-19.38	-12.69/-8.11	-12.27/-10.56
Θ (120°)	-17.85/-15.48	-9.70/-5.36	-6.52/-7.01	-4.47/-4.99	-3.97/-12.3	-13.52/-9.76	-12.84/-6.63	-16.28/-7.57	-7.79/-9	-6.37/-7.57	-4.12/-3.26	-18.78/-9.88	-10.23/-4.06	-6.72/-4.43	-6.88/-11.52	-17.4/-15.56	-9.62/-16.61	-15.23/-17.92	-6.50/-10.81	-18.32/-12.98	-14.77/-6.44	-15.60/-10.72	-10.26/-10.03	-15.84/-12.86
Θ (127.5°)	-8.32/-11.19	-7.35/-4.94	-5.7/-6.6	-7.63/-8.45	-8.10/-14.25	-18.26/-16.04	-11.76/-11.53	-7.20/-11.65	-6.4/-11.73	-9.13/-6.88	-6.33/-6.2	-7.90/-7.65	-14.30/-8.06	-8.3/-8.47	-11.4/-16.99	-17.20/-12.32	-10.00/-9.5	-9.20/-10.8	-10.12/-19.1	-13.37/-18.23	-11.86/-7.96	-10.50/-10.56	-10.94/-11.01	-19.39/-12.65
Θ (135°)	-7.94/-9.31	-9.23/-10.49	-8.04/-8.15	-10.70/-9.20	-10.24/-11.08	-14.28/-18.27	-9.97/-8.94	-15.66/-8.05	-7.08/-9.68	-7.66/-6.62	-14.72/-4.63	-6.96/-5.37	-6.50/-18.09	-19.15/-18.56	-17.2/-14.75	-17.23/-9.24	-10.23/-10.29	-16.20/-16.59	-16.50/-9.8	-15.90/-17.87	-6.97/-5.89	-15.28/-10.07	-9.45/-9.53	-18.23/-11.56
Θ (142.5°)	-13.59/-13.39	-7.22/-5.59	-6.25/-7.96	-8.64/-6.19	-7.63/-9.00	-8.46/-16.01	-16.34/-13.12	-13.64/-4.48	-7.95/-9.57	-5.57/-10.03	-4.77/-7.9	-18.16/-8.11	-8.78/-17.76	-12.55/-17.48	-18.72/-11	-17.45/-11.33	-9.45/-10.5	-11.78/-15.64	-14.57/-13.66	-17.69/-13.41	-8.24/-7.1	-9.86/-11.86	-13.77/-9.66	-11.10/-18.9
Θ (150°)	-18.62/-13	-17.53/-10.48	-11.39/-9.95	-15.16/-12.54	-13.46/-6.71	-7.13/-9.45	-9.96/-10.89	-10.69/-6.79	-6.39/-2.39	-18.37/-1.95	-0.09/-2.89	-8.80/-11.55	-10.78/-16.67	-5.78/-6.48	-8.34/-8.33	-13.87/-13.33	-8.96/-6.85	-7.90/-12.78	-13.12/-10.79	-17.19/-6.03	-5.00/-7.73	-18.16/-7.8	-7.53/-18.49	-13.65/-11.8
Θ (157.5°)	-14/-18.17	-16.96/-11.11	-12.53/-18.53	-12.85/-10.84	-9/-8.96	-9.64/-16.74	-12.55/-8.99	-9.42/-4.9	-2.59/-7.63	-4.67/-3.15	-8.00/-13.72	-18.20/-18.15	-19.03/-17.44	-12.02/-9.28	-8.00/-10.59	-13.77/-17.6	-18.38/-18.02	-10.42/-6.9	-5.5/-4.53	-4.68/-7.79	-14.94/-10.66	-9.39/-11.6	-17.85/-15.6	
Θ (165°)	-8.84/-7.98	-8.05/-6	-5.56/-5.43	-5.2/-5.9	-6.73/-8.85	-7.53/-7.56	-5.69/-9.94	-4.3/-4.66	-5.36/-3.67	-4.87/-8.12	-7.00/-17.4	-10.05/-9.17	-8.00/-11.21	-10.16/-8.08	-6.52/-6.79	-6.26/-6.44	-7.92/-4.89	-6.80/-6	-4.99/-4.98	-6.6/-7.35	-7.68/-8.42	-10.30/-10.94	-10.30/-10.94	
Θ (172.5°)	-5.42/-5.6	-6.59/-8.6	-11.90/-14.38	-18.36/-17.79	-13.33/-9.6	-8.03/-5.72	-3.49/-2.52	-2.40/-3.44	-2.26/-1.68	-17.07/-10.07	-17.55/-16.86	-17.35/-17.52	-11.68/-8.69	-8.88/-11.96	-13.67/-17.2	-18.74/-17.47	-13.93/-13.36	-10.78/-10.5	-9.79/-6.74	-2.86/-2.64	-2.79/-3.86	-4.85/-6.2	-6.55/-4.68	
Θ (180°)	-5.24/-5.39	-4.59/-5.3	-5.29/-5.85	-5.73/-6.52	-7.7/-7.83	-8.4/-7.49	-7.43/-8.19	-5.80/-4.57	-3.84/-3.83	-5.78/-15.73	-17.5/-15.33	-9.44/-4.16	-2.79/-4.22	-6.75/-7.2	-7.20/-8.08	-10.69/-12.4	-17.50/-14.31	-15.3/-13.67	-13.04/-10.79	-10.04/-10.16	-8.34/-7.32	-6.30/-5.39	-5.2/-5.09	-5.15/-4.88
Freq[Hz]	6.175G/Pol	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-15.85/-16.41	-17.90/-18.19	-18.69/-18.44	-18.64/-18.73	-18.59/-17.25	-18.18/-18.68	-18.10/-18.24	-17.64/-17.97	-18.55/-18.00	-17.16/-17.32	-17.83/-18.67	-16.03/-13.8	-17.56/-17.55	-17.07/-18.68	-17.88/-18.25	-17.52/-17.95	-18.42/-17.85	-18.72/-18.6	-15.67/-14.53	-14.49/-11.76	-12.50/-12.59	-12.94/-12.99	-13.77/-14.34	-13.07/-13.92
Θ (7.5°)	-17.42/-18.45	-18.32/-18.29	-18.97/-18.69	-19.2/-19	-18.40/-18.65	-16.48/-13.81	-13.70/-13.88	-8.44/-7.99	-10.07/-12.73	-13.80/-17.42	-19.07/-18.16	-16.00/-13.15	-16.67/-17.68	-18.05/-13.38	-14.70/-13.36	-13.93/-14.14	-15.35/-15.46	-17.92/-19.33	-17.67/-17.23	-17.90/-19.18	-17.67/-17.23	-17.07/-18.06	-17.55/-17.73	
Θ (15°)	-19.07/-17.53	-17.67/-13.56	-11.08/-10.50	-11.76/-11.81	-19.10/-18.35	-11.30/-14.23	-10.05/-6.5	-6.55/-5.99	-13.50/-13.79	-14.35/-14.23	-11.34/-14.23	-14.35/-14.23	-18.80/-13.61	-18.80/-13.61	-14.35/-14.23	-14.35/-14.23	-10.34/-9.86	-10.45/-11.11	-11.69/-12.76	-12.13/-12.42	-16.60/-17.28	-17.64/-17.73	-14.67/-14.68	
Θ (22.5°)	-16.30/-14.1	-9.26/-8.67	-8.02/-8.41	-8.6/-8.27	-9.16/-12.91	-18.35/-19.33	-14.15/-11.49	-12.29/-7.05	-8.04/-9.51	-12.13/-9.18	-10.65/-17.88	-15.73/-12.29	-10.00/-8.95	-10.89/-10.69	-10.30/-7.39	-6.74/-8.22	-9.36/-10.61	-14.86/-12.79	-11.50/-10.48	-9.56/-12.35	-18.80/-14.16	-11.18/-14.75	-18.33/-12.04	-12.60/-12.95
Θ (30°)	-19.02/-18.8	-12.27/-9.59	-8.35/-5.26	-5.27/-2.93	-5.26/-7.57	-16.44/-15.46	-18.78/-15.25	-16.10/-15.11	-11.38/-18.86	-9.89/-9.7	-9.37/-11.3	-5.8/-5.29	-6.63/-6.06	-7.90/-8.05	-12.37/-12.32	-13.80/-12	-13.47/-15.82	-8.05/-4.51	-5.29/-6.31	-6.54/-8.51	-8.46/-13.62	-10.30/-13.47		
Θ (37.5°)	-15.77/-13.04	-8.74/-7.96	-7.55/-5.42	-7.25/-3.99	-10.47/-13.43	-16.54/-18.93	-11.40/-12.48	-14.50/-17.39	-14.90/-13.7	-11.54/-16.00	-13.95/-10.65	-10.90/-9.17	-7.50/-5.63	-4.68/-5.91	-8.40/-7.29	-7.62/-9.1	-12.76/-10.55	-9.00/-7.73	-5.45/-5.55	-4.93/-4.35	-6.47/-5.8	-9.53/-12.99	-10.77/-11.38	
Θ (45°)	-11.56/-6.93	-2.83/-3.1	-4.77/-4.94	-9.22/-16.89	-19.07/-7.79	-8.84/-7.03	-4.86/-11.53	-13.56/-6.7	-5.43/-6.29	-8.59/-17.33	-11.59/-7.18	-7.65/-8.26	-7.38/-4.38	-2.42/-2.03	-4.02/-3.56	-7.06/-8.21	-12.59/-9.68	-9.79/-5.59	-5.27/-5.41	-4.99/-6.91	-8.24/-4.57	-7.92/-7.95	-5.97/-14.98	-9.57/-15.01
Θ (52.5°)	-9.94/-9.04	-1.87/-1.74	-1.26/-2.51	-11.54/-10.96	-7.92/-5.50	-4/-3.58	-5.99/-4.84	-18.86/-4.26	-5.16/-2.22	-5.43/-8.65	-16.09/-11.6	-10.22/-7.63	-5.59/-3.97	-3.95/-5.79	-7.89/-8.03	-10.46/-9.82	-12.59/-7.05	-5.90/-4.21	-2.99/-4.7	-6.14/-3.27	-5.64/-6.12	-3.38/-4.13	-4.24/-10.61	-10.15/-9.40
Θ (60°)	-15.48/-8.25	-3.87/-3.23	-1.20/-1.13	-5.9/-5.99	-4.16/-2.72	-1.85/-3.23	-8.56/-5.89	-13.27/-6.18	-4.44/-2.08	-4.59/-4.33	-4.78/-6.72	-5.66/-6.58	-4.79/-6.39	-10.36/-17.91	-11.58/-5.36	-3.12/-3.57	-2.94/-3.41	-5.25/-1.77	-1.16/-10.03					
Θ (67.5°)	-8.09/-5.56	-5.07/-5.24	-3.72/-0.07	-1.29/-1.49	-2.08/-1.37	-2.67/-5.35	-15.84/-7.01	-3.98/-3.45	-3.54/-3.65	-8.82/-7.1	-9.4/-3.99	-11.69/-16.75	-14.62/-7.55	-5.86/-11.26	-11.23/-19.46	-15.56/-11.32	-18.22/-8.37	-5.07/-6.39	-6.08/-7.07	-4.52/-4.34	-3.99/-4.03	-2.70/-2.72	-5.65/-8.99	-14.92/-9.02
Θ (75°)	-5.04/-7.14	-5.39/-6.43	-2.23/-6.4	-1.45/-0.29	0.05/-3.47	-6.72/-16.74	-7.20/-7.35	-5.49/-4.00	-2.83/-7.26	-5.49/-8.14	-10.96/-7.82	-11.74/-12.06	-16.54/-9.59	-10.70/-3.95	-5.00/-6.83	-13.77/-13.23	-5.67/-9.74	-8.99/-7.3	-5.36/-10.78	-6.43/-7.64	-4.73/-5.52	-2.56/-6.88	-3.56/-12.87	-11.34/-9.02
Θ (82.5°)	-5.66/-6.55	-1.88/-11.73	-5.52/-18.9	0.80/-7.5	-1.00/-6.39	-12.43/-12.94	-3.55/-3.74	-5.00/-5.3	-2.74/-17.88	-3.59/-5.4	-11.35/-18.31	-18.29/-15.8	-6.04/-12.35	-18.95/-5.35	-9.03/-13.2	-9.65/-7.82	-7.40/-13.63	-13.34/-4.79	-7.19/-2.65	-0.87/-1.93	-4.22/-4.74	0.75/-3.09	-5.43/-12.42	-19.27/-17.7
Θ (90°)	-9.27/-2.97	-1.75/-5.12	-5.00/-1.06	-1.56/-0.01	-0.52/-4.06	-6.53/-9.13	-4.09/-4.39	-3.89/-5.25	-4.34/-7.13	-4.37/-7.78	-8.03/-5.99	-12.47/-10.51	-14.12/-8.09	-7.60/-16.34	-7.86/-3.71	-4.38/-8.9	-9.42/-5.69	-11.28/-1.97	0.00/-1.34	-0.23/-1.88	-2.49/-2.26	-1.70/-2.22	-7.30/-9.04	-18.74/-10.08
Θ (97.5°)	-5.86/-4	-4.05/-11.91	-30/-64	-0.35/-3.8	-1.48/-5.26	-5.9/-9.39	-6.40/-5.38	-9.88/-3.36	-1.62/-6.38	-2.93/-3.94	-3.96/-2.35	-7.75/-16.94	-16.05/-8.44	-6.04/-4.34	-18.92/-16.27	-11.63/-5.64	-8.62/-8.51	-9.40/-7.24	-4.13/-3.95	-0.00/-2.47	-4.30/-11.8	0.08/-0.75	-8.56/-15.92	-17.63/-9.95
Θ (105°)	-6.40/-2.57	-3.60/-7.92	-5.02/-1.98	0.38/-1.72	0.53/-0.54	-4.45/-6.92	-4.32/-10.56	-6.29/-10.5	-3.45/-1.80	-3.27/-3.35	-1.92/-2.65	-5.89/-11.46	-17.76/-6.45	-7.37/-14.51	-10.00/-11.15	-12.53/-12.55	-11.93/-13.72	-5.15/-2.29	-7.73/-9.73	-6.09/-2.8	0.29/-1.39	1.90/-0.07	-3.65/-13.16	-12.38/-18.08
Θ (112.5°)	-11.48/-4.75	-2.98/-2.41	-4.65/-2.39	-3.40/-3.72	-1.72/-0.2	-0.76/-2.96	-1.70/-1.06	-1.20/-1.08	-0.50/-1.12	-0.79/-3.52	-7.66/-6.12	-11.25/-8.35	-17.90/-14.25	-8.04/-13.78	-6.69/-16.88	-12.92/-9.83	-9.20/-9.40	-6.52/-6.04	-5.49/-4.75	-1.30/-76	1.70/-0.60	1.95/-1.1		



Radiated Composite Gain Data

Appendix A.6

Θ(120°)	-11.28/-6.02	-11.61/-15.94	-14.76/-12.96	-10.88/-18.04	-10.5/-6.65	-9.11/-13.87	-6.6/-15	-8.52/-16.25	-15.77/-15.33	-18.06/-17.92	-18.42/-9.32	-14.47/-12.83	-15.2/-6.58	-6.14/-5.53	-8.64/-13.83	-18.75/-12.02	-16.57/-14.81	-18.92/-18.35	-14.29/-18.02	-19.13/-17.18	-12.5/-10.63	-15.38/-7.87	-11.47/-12.95	-18.73/-17.69
Θ(127.5°)	-17.34/-10.64	-16.11/-17.75	-17.55/-18.27	-17.85/-13.81	-7.31/-6.44	-9.63/-17.6	-14.07/-18.66	-14.36/-18.08	-14.74/-17.08	-13.58/-15.26	-8.08/-13.75	-5.98/-14.07	-7.76/-16.3	-12.59/-15.9	-17.36/-17.87	-14.32/-8.42	-11.25/-11.51	-19.17/-15.8	-10.96/-13.43	-17.02/-17.85	-10.03/-10.63	-9.62/-6.99	-9.07/-11.72	-18.71/-19.17
Θ(135°)	-18.52/-18	-13.41/-14.77	-11.84/-15.17	-17.44/-10.18	-9.56/-9.82	-13.61/-16.16	-15.76/-17.62	-15.81/-18.01	-17.67/-17.62	-15.74/-17.08	-12.71/-7.33	-12.87/-8.78	-12.77/-10.86	-18.03/-18.97	-14.85/-14.78	-11.09/-8.65	-10.44/-18.97	-18.01/-17.26	-17.34/-18.93	-14.92/-17.92	-7.22/-13.8	-4.61/-10.54	-5.49/-18.7	-13.87/-19.1
Θ(142.5°)	-18.02/-16.83	-16.6/-17.33	-13.02/-16.58	-13.31/-18.89	-14.27/-9.38	-10.97/-14.4	-18.8/-13.28	-15.1/-14.12	-6.89/-12.22	-6.87/-8.39	-8.12/-6.49	-11.81/-15.22	-9.91/-9.83	-14.54/-17.71	-17.54/-18.47	-13.65/-18.77	-15.22/-17.33	-19.02/-17.55	-18.32/-18.25	-11.3/-13.35	-8.59/-7.28	-7.85/-9.57	-5.24/-13.78	-17.77/-18.6
Θ(150°)	-11.83/-17.49	-18.18/-17.86	-18.08/-18.7	-17.89/-17.39	-8.37/-7.06	-7.44/-6.94	-8.75/-19.3	-11.32/-14.55	-9.34/-5.33	-13.88/-6.03	-2.34/-6.07	-11.72/-7.65	-8.69/-9.37	-7.72/-13.49	-12.71/-18.03	-18.63/-16.71	-14.58/-15.56	-11.89/-8.28	-8.75/-7.42	-8.05/-8.78	-6.93/-8.32	-12.51/-12.58	-16.82/-11.46	
Θ(157.5°)	-10.97/-12.02	-17.46/-12.63	-11.54/-13.55	-12.03/-9.51	-8.83/-11.4	-14.91/-11.52	-12.55/-15.84	-7.15/-9.98	-13.97/-16.56	-5.11/-5.52	-13.18/-17.75	-12.44/-12.21	-18.89/-16.44	-10.37/-7.11	-10.47/-18.38	-17.23/-14.99	-14.03/-11.26	-9.06/-9.04	-8.54/-8.23	-7.79/-7.96	-11.55/-8.69	-6.56/-7.51	-8.75/-15.75	-18.12/-87
Θ(165°)	-10.29/-13.37	-14.03/-18.18	-13.64/-16.16	-12.75/-10.06	-8.44/-7.58	-7.61/-8.57	-13.02/-14.9	-8.7/-13.9	-7.62/-8.09	-7.16/-7.94	-15.41/-12.34	-7.88/-12.04	-19.33/-16.48	-9.52/-7.07	-8.29/-9.48	-13.04/-15.62	-14.41/-13.01	-10.89/-13.1	-13.5/-11.52	-10.15/-8.98	-9.98/-10.68	-11.88/-15.79	-16.8/-12.63	-10.18/-10.52
Θ(172.5°)	-6.44/-5.77	-5.49/-4.79	-4.61/-4.5	-5.46/-5.36	-8.08/-7.81	-10.08/-14.78	-14.56/-14.46	-13.67/-9.15	-6.39/-8.1	-8.03/-9.05	-15.65/-18.55	-18.67/-18.94	-11.55/-7.12	-5.84/-5.97	-6.5/-17.3	-6.51/-7.13	-9.13/-11.04	-13.49/-13.79	-10.79/-10.78	-10.6/-9.22	-9.15/-9.8	-9.4/-11.17	-11.58/-12	-10.55/-7.99
Θ(180°)	-8.4/-7.5	-8.25/-7.49	-10.7/-8.15	-11.81/-10.81	-9.83/-11.53	-10.75/-10.8	-11.87/-10.09	-8.31/-9.19	-8.58/-8.11	-11.22/-18.04	-17.15/-18.53	-16.66/-12.66	-9.12/-7.42	-8.07/-8.56	-6.41/-7.14	-7.16/-8.25	-9.9/-8.28	-9.19/-8.92	-9.88/-11.55	-11.17/-10.51	-9.9/-9.48	-9.7/-9.03	-8.13/-8.31	-7.21/-7.83
Freq(Hz)	6.695GPol.	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-16.12/-16.65	-18.58/-18.3	-18.07/-17.21	-15.6/-15.87	-14.5/-13.06	-9.67/-11.31	-7.93/-8.18	-11.38/-11.14	-8.26/-8.22	-9.07/-8.71	-11.17/-13.04	-14.73/-10.71	-15.69/-15.38	-15.41/-16.47	-13.99/-13.82	-12.27/-12.36	-9.88/-10.2	-9.73/-9.14	-8.59/-8.05	-8.58/-7.77	-8.24/-8.35	-8.53/-9	-9.43/-10.89	-12.13/-13.97
Θ(7.5°)	-14.44/-16.43	-11.65/-13.07	-11.62/-13.73	-15.3/-19.64	-17.37/-15.82	-14.43/-11.53	-13.03/-10.58	-8.82/-11.22	-10.96/-9.9	-7.92/-9.98	-9.05/-9.98	-10.67/-9.85	-10.56/-12.64	-16.13/-15.38	-17.53/-18.68	-16.03/-14.37	-15.34/-13.09	-14.02/-17.43	-15.33/-18.31	-18.81/-18.47	-18.59/-16.45	-15.55/-14.72	-12.77/-13.9	-15.2/-15.75
Θ(15°)	-13.95/-12.44	-10.37/-12.67	-13.15/-18.47	-17.9/-17.99	-15.79/-18.97	-15.99/-11.01	-15.59/-13.83	-10.28/-9.94	-13.89/-10.05	-10.65/-13.09	-11.64/-12.14	-16.51/-14.84	-11.33/-10.88	-13.06/-12.27	-13.57/-13.99	-13.87/-15.51	-12.04/-12.49	-10.94/-16.66	-9.97/-9.04	-11.37/-15.15	-19/-18.77	-18.24/-18.46	-17.7/-17.68	-12.07/-14.84
Θ(22.5°)	-12.99/-11.15	-11.33/-16.63	-16.6/-15.17	-17.3/-17.83	-18.28/-19.1	-17.3/-17.83	-15.23/-18.13	-17.95/-19.28	-13.31/-11.98	-18.1/-8.86	-10.84/-15.03	-14.28/-15.18	-13.86/-13.55	-11.55/-14.94	-12.51/-12.07	-14.67/-11.02	-10.49/-10.21	-9.71/-9.95	-7.82/-8.09	-8.15/-7.57	-16.66/-18.7	-11.54/-12.99	-17.84/-16.15	-17.97/-16.98
Θ(30°)	-13.38/-9.55	-7.09/-9.3	-13.79/-19.12	-15.53/-16.52	-18.42/-17.09	-16.03/-15.64	-9.94/-11.67	-11.17/-10.77	-15.32/-13.88	-17.99/-19.3	-13.44/-15.22	-18.31/-18.21	-16.39/-15.02	-10.73/-10.39	-9.11/-7.18	-8.92/-14.91	-14.12/-13.24	-11.93/-11.04	-9.58/-7.33	-7.29/-6.26	-7.23/-11.65	-9.59/-10.52	-15.03/-11.22	-17.37/-16.19
Θ(37.5°)	-12.31/-8.06	-8.11/-9.23	-9.54/-12.6	-18.46/-17.63	-13.11/-13.55	-6.99/-8.64	-7.23/-9.83	-9.27/-16.43	-18.15/-18.43	-18.1/-16.54	-18.55/-17.68	-17.61/-14	-11.46/-9.64	-6.07/-5.04	-8.1/-7.61	-7.81/-9.94	-9.17/-7.38	-8.75/-9.03	-13.56/-9.62	-6.49/-6.38	-6.72/-6.06	-12.22/-7.42	-17.17/-9.48	-10.83/-18.4
Θ(45°)	-18.77/-12.12	-6.07/-6.24	-9.87/-10.44	-13.67/-8.85	-10.93/-10.66	-5.62/-6.1	-3.23/-6.72	-8.44/-14.59	-17.76/-9.35	-11.76/-9.54	-13.73/-17.74	-11.45/-7.14	-7.92/-9.91	-6.92/-4.55	-4.75/-6.32	-6.24/-11.65	-12.35/-11.16	-12.21/-8.96	-8/-3.96	-5.53/-8.33	-8.94/-6.47	-3.59/-3.73	-8.09/-7.65	-11.93/-18.04
Θ(52.5°)	-14.92/-8.34	-7.23/-9.2	-10.25/-9.4	-9.44/-5.67	-5.16/-8.23	-4.88/-4.42	-3.86/-11.37	-13.01/-13.71	-18.94/-8.4	-4.04/-11.43	-7.4/-14.74	-10.82/-5.35	-4.36/-5.13	-3.47/-6.82	-8.34/-6.43	-18.78/-11.26	-13.07/-7.56	-7.68/-8.25	-8.3/-4.39	-4.24/-4.35	-13.84/-4.1	-6.6/-2.58	-6.64/-13.64	-13.75/-14.19
Θ(60°)	-7.67/-7.66	-7.81/-5.93	-9.3/-16.85	-6.44/-3.75	-3.34/-5.87	-8.71/-3.63	-5.86/-10.91	-14.15/-11.62	-4.77/-7.02	-6.87/-3.78	-9.04/-17.29	-11.6/-9.35	-5.51/-7.41	-4.74/-2.56	-6.79/-8.24	-9.84/-10.81	-11.77/-9.89	-13.3/-11.77	-5.42/-3.83	-3.38/-2.69	-4.71/-7.34	-5.36/-5.47	-6.03/-11.54	-4.61/-12.98
Θ(67.5°)	-8.01/-5.8	-10.07/-12.73	-9.99/-11.82	-3.72/-3.25	-4.15/-15.15	-10.17/-5.33	-6.57/-7.92	-4.82/-3.38	-4.21/-6.73	-8.62/-8.78	-19.24/-19.07	-15.9/-49	-11.02/-9.07	-6.56/-4.63	-12.77/-19.1	-15.52/-15.88	-12.52/-9.31	-5.39/-3.71	-6.74/-6.29	-7.67/-3.44	-8.08/-9.49	-8.25/-9.93		
Θ(75°)	-10.46/-9.92	-5.12/-10.12	-11.38/-8.5	-1.88/-0.76	-3.22/-5.07	-2.98/-7.1	-2.55/-10.03	-5.7/-6.64	-3.59/-4.64	-5.4/-7.34	-3.68/-6.96	-9.06/-13.12	-11.95/-8.27	-6.42/-11.96	-5.98/-13.23	-7.52/-9.7	-11.11/-8.47	-4.24/-3.48	-4.51/-6.3	-6.14/-7.27	-4.69/-4.64	-3.49/-1.12	-5.96/-16.68	-8.1/-10.16
Θ(82.5°)	-9.5/-4.74	-5.7/-8.97	-13.84/-4.35	1.80/-19	-7.78/-21.4	-5.65/-4.5	-5.06/-21.7	-3.83/-14.31	-5.85/-4.03	-7.12/-9.21	-13.63/-8.61	-10.83/-15.78	-7.34/-44	-5.6/-8.42	-17.44/-10.24	-8.35/-14.07	-3.61/-13.85	-5.78/-5.38	-1.61/-5.38	-3.11/-1.99	-0.470/-48	-0.81/-8.04	-9.67/-6.5	
Θ(90°)	-9.84/-8.19	-5.4/-6.8	-11.72/-4.15	2.29/-0.21	-5.12/-3.7	-5.79/-7.32	-6.59/-13.21	-6.08/-15.03	-2.36/-7.92	-3.69/-4.13	-5.42/-17.88	-13.62/-15.92	-7.02/-7.98	-19.09/-10.29	-5.8/-4.68	-9.37/-12.42	-13.75/-8.35	-5.83/-5.07	1.32/-1.54	-0.935/-57	-2.310/-4.14	1.21/-74	-2.21/-6.53	-8.63/-9.96
Θ(97.5°)	-4.77/-7.38	-8.32/-4.16	-3.11/-1.99	2.890/-16	-3.17/-5.48	-8.14/-5.45	0.470/-16	-4.62/-12.09	-2.23/-3.06	-6.3/-2.23	-4.96/-6.6	-6.95/-18.96	-18.11/-7.11	-13.93/-19.24	-15.55/-4.92	-16.59/-13.22	-7.53/-7.98	-6.78/-10.24	-2.75/-2.14	2.52/-18.2	-3.430/-8.4	2.51/-94	-0.68/-4.9	-8.17/-3.95
Θ(105°)	-3.99/-3.44	-4.25/-4.11	-1.77/-1.05	1.870/-65	-4.82/-10.91	-7.05/-6.04	0.190/-85	-8.25/-9.91	-4.28/-5.09	-6.07/-3.59	-6.91/-3.53	-5.42/-9.2	-19.16/-4.63	-16.02/-11.59	-14.44/-10.95	-9.43/-15.03	-9.32/-14	-5/-15	-9.76/-13.85	1.933/-57	-0.040/-95	2.93/-102	-0.54/-4.95	-5.48/-3.67
Θ(112.5°)	-7.32/-5.72	-9.41/-6.85	-4.28/-7.41	-3.71/-44	-1.44/-0.58	-4.34/-5.57	-4.93/-1.21	-6.53/-8.41	-8.84/-9.39	-6.13/-16.98	-7.77/-11.64	-11.89/-6.8	-14.39/-9.62	-11.36/-4.37	-11.36/-6.32	-6.46/-3.64	-4.38/-6.16	-1.38/-6.35	-0.935/-57	1.021/-09	2.13/-082	-1.69/-7.16	-5.91/-3.03	
Θ(120°)	-8.6/-6.23	-7.68/-12.33	-11.69/-2.28	-0.58/-1.73	-3.740/-22	0.55/-2.78	-0.71/-1.02	-5.26/-3.95	-4.6/-3.41	-7.95/-8.18	-17.89/-10.94	-13.33/-10.08	-3.72/-1.75	-2.15/-4.61	-17.88/-6.12	-15.01/-9.65	-7.98/-9.09	-11.62/-11.07	-6.18/-3.79	-5.71/-5.03	1.280/-8	2.77/-2.41	-5.03/-5.49	-12.32/-4.88
Θ(127.5°)	-6.88/-6.65	-4.44/-7.12	-9.99/-16.3	-3.96/-3.2	-1.061/-74	2.2/-1.11	-0.220/-6	-4.87/-5.09	-3.08/-3.45	-6.6/-17.79	-11.79/-9.13	-6.01/-18.36	-3.21/-5.49	-4.74/-8.87	-18.39/-11.5	-13.96/-11.38	-11.11/-12.72	-9.38/-7.38	-3.4/-3.9	-8.84/-3.33	-0.072/-05	0.12/-1.83	-7.03/-6.53	-17.16/-6.61
Θ(135°)	-10.71/-7.75	-5.04/-6.89	-9.77/-7.23	-7.12/-4.91	-2.11/-0.42	1.680/-26	0/-0.28	-2.38/-0.39	-2.220/-48	-2.85/-12.3	-7.15/-2.24	-8.93/-57	-9.69/-17.99	-16.5/-18.49	-14.34/-10.86	-10.57/-5.07	-6.32/-4.24	-5.07/-3.8	0.4/-0.63	-1.31/-7.29	-7.22/-9.17	-11.24/-9.58		
Θ(142.5°)	-13.58/-18.2	-7.96/-5.46	-6.14/-8.38	-5.86/-5.01	-3.79/-1.55	-0.97/-1.55	-2.75/-2.2	-2.83/-4.13	0.12/-4.49	-3.31/-3.41	-3.41/-4.04	-3.98/-11.88	-9.17/-10.4	-4.72/-4.78	-7.66/-14.96	-13.72/-10.57	-15.54/-11.72	-9.61/-13.54	-7.32/-2.79	-3.83/-2.23	-2.23/-0.07	-2.88/-11.09	-8.77/-10.32	-14.07/-8.49
Θ(150°)	-7.5/-7.2	-4.44/-3.16	-1.62/-3.1	-3.62/-6.48	-4.54/-2.02	-2.9/-3.4	-5.67/-5.67	-4.72/-14.8	-9.9/-4.92	-4.49/-2	-3.28/-7.01	-9.93/-4.62	-2.1/-1.17	-3.21/-5.83	-8.38/-8.31	-3.89/-5.07	-7.3/-7.94	-6.17/-3.43	-1.83/-3.77	-3.450/-47	-1.38/-4.14	-4.85/-4.74	-5.56/-15.49	-11.05/-8.7
Θ(157.5°)	-15.57/-10.91	-8.49/-8.7	-10.91/-11.74	-10.82/-7.58	-7/-7.37	-10.22/-7.78	-6.34/-9.03	-12.14/-17.8	-10.72/-6.97	-4.78/-5.43	-10.29/-8.58	-5.78/-3.95	-2.9/-6.12	-12.16/-16	-6.98/-6.44	-8.57/-9.06	-5.96/-4.41	-2.95/-1.9	-1.17/-2.03	-1.68/-3.06	-4.57/-3.09	-4.87/-7.12	-10.07/-12.48	-12.44/-12.53
Θ(165°)	-11.81/-11.82	-14.49/-16.47	-17.36/-14.91	-8.3/-8.97	-8.96/-10	-13.41/-17.93	-13.49/-17.71	-12.69/-12.29	-14.05/-4.49	-8.39/-19.1	-7.81/-6.57	-3.62/-2.91	-5.14/-10.41	-8.72/-6.75	-3.91/-2.88	-4.34/-4.7	-5.55/-5.49	-4.47/-5	-4.74/-4.18	-3.82/-6.39	-6.39/-4.74	-6.52/-8	-9.18/-13	



Radiated Composite Gain Data

Appendix A.6

Θ (165°)	-18.07/-13.3	-8.85/-6.31	-3.94/-3.23	-1.81/-0.73	-0.33/-1.28	-0.97/2.84	1.50/41	-0.61/-2.18	-3.8/-41	-18.19/-18.56	-11.02/-9.15	-19.6/-18.96	-17.85/-16.67	-15.25/-7.85	-5.32/-45	-3.51/-2.41	-1.55/-0.58	-0.12/0.13	0.03/-1.37	-2.23/-2.35	-4.22/-8.76	-10.21/-8.07	-6.96/-7.76	-9.5/-13.03
Θ (172.5°)	-16.29/-13.19	-9.65/-6.61	-4.48/-2.71	-1.10/08	1.02/1.02	-1.41/-1.02	2.18/-2.7	0.19/-1.32	-3.02/-3.91	-8.32/-17.73	-18.65/-16.64	-17.12/-18.31	-13.34/-11.34	-10.84/-11.76	-9.38/-7.78	-5.78/-4.79	-3.93/-3.85	-2.99/-2.89	-3.92/-4.21	-4.88/-4.97	-7.13/-7.24	-8.46/-9.6	-12.86/-19.32	-18.63/-18.78
Θ (180°)	-15/-12.74	-9.38/-6.82	-5.67/-4.34	-3.02/-2.25	-1.09/0.2	0.39/-1.67	-2.42/-0.5	-1.94/-2.78	-0.7/-2.66	-6.96/-7.46	-10.08/-12.11	-12.27/-16.87	-17.66/-18.39	-16.65/-15.51	-10.01/-6.78	-4.67/-3.42	-3.57/-3.39	-2.82/-2.24	-1.77/-1.91	-1.31/-1.32	-1.74/-2.59	-3.31/-4.38	-6.51/-8.35	-11.98/-14.3
Freq(Hz)	6.175/GPol.	Theta/Ant. 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°)	-1.66/-1.11	-1.57/-1.91	-2.19/-3.03	-3.64/-4.53	-5.04/-6.97	-9.09/-11.65	-17.79/-19.03	-17.43/-14.03	-10.56/-6.22	-2.8/-2.15	-0.59/-2.96	-0.48/-0.87	-0.99/-0.73	-1.31/-1.85	-2.54/-2.56	-4.47/-6.16	-8.06/-11.27	-17.74/-18.77	-16.48/-17.77	-8.72/-12.6	-4.4/-3.43	-2.22/-1.88	-1.77/-1.25	
Θ (7.5°)	-1.52/-1.07	-0.57/-1.29	-1.3/-2.27	-2.87/-4.23	-5.12/-8	-10.49/-13.69	-17.91/-17.21	-19.08/-11.89	-10.91/-5.52	-3.99/-4.72	-5.5/-4.43	-1.56/-2.39	-4.14/-0.83	-2.72/-2.7	-3.29/-4.39	-5.12/-5.15	-6.32/-7.75	-9.33/-10.31	-13.19/-17.65	-18.24/-17.74	-11.35/-7.26	-5.49/-3.77	-2.25/-1.92	-1.63/-1.8
Θ (15°)	-5.38/-5.23	-6.47/-7.39	-7.01/-7.09	-8.02/-8.82	-8.62/-9.95	-11.46/-17.54	-17.9/-18.93	-15.26/-8.47	-6.22/-6.82	-3.63/-6.19	-4.87/-2.84	-2.59/-1.88	-2.6/-3.1	-2.63/-4.3	-3.83/-4.34	-5.82/-8.76	-8.41/-12.41	-13.36/-12.83	-12.83/-16.89	-18.24/-14.54	-10.58/-8.44	-6.82/-5.51	-4.09/-3.35	-2.63/-3.55
Θ (22.5°)	-6.28/-7.59	-7.8/-9.6	-7.17/-7.59	-5.35/-5.54	-7.68/-8.42	-9.34/-11.85	-14.32/-19.05	-13.79/-11.26	-4.18/-7.49	-4.25/-9.17	-6.02/-2.84	-1.72/-3.43	-4.51/-4.01	-2.4/-5.56	-5.25/-5.62	-6.16/-6.33	-8.19/-12.69	-14.36/-17.93	-18.62/-15.68	-11.51/-14.74	-12.39/-9.46	-6.38/-5.95	-6.1/-5.49	-3.97/-3.78
Θ (30°)	-8.08/-15.95	-8.25/-4.64	-4.8/-7.98	-7.24/-9.76	-9.25/-8.69	-11/-15.54	-18.17/-11.46	-16.42/-15.19	-4.89/-8.06	-3.93/-10.27	-3.92/-3.56	-1.85/-5.6	-5.92/-4.53	-6.75/-7.21	-8.01/-9.22	-8.19/-8.07	-9.33/-10.78	-14.44/-18.15	-13.9/-12.67	-13/-12.09	-16.53/-15.09	-12.27/-4.51	-6.18/-6.08	-8.09/-8
Θ (37.5°)	-16.14/-7.46	-3.61/-6.78	-6.59/-7.4	-10.36/-10.43	-9.47/-10.38	-12.22/-18.26	-18.31/-17.73	-14.5/-9.73	-5.47/-11.35	-9.93/-2.67	-5.81/-14.32	-10.48/-12.74	-10.48/-6.24	-6.82/-10.05	-9.16/-6.38	-7.46/-9.04	-8.04/-9.59	-12.64/-14.44	-15.9/-17.1	-19.58/-15.59	-8.56/-9.26	-18.84/-5.6	-5.29/-9.32	-8.44/-9.92
Θ (45°)	-17.34/-4.27	-6.25/-11.68	-11.96/-9.98	-8.53/-11.22	-11.66/-12.39	-15.49/-18.74	-18.84/-17.64	-13.02/-8	-6.29/-11.46	-10.77/-8.26	-8.81/-11.41	-12.28/-19.4	-15.05/-7.12	-5.05/-8.81	-5.53/-7.56	-7.19/-8.72	-7.95/-7.49	-10.58/-12.58	-18.95/-12.09	-19.21/-13.09	-13.82/-10.6	-12.3/-13.15	-4.86/-7.39	-11.75/-10
Θ (52.5°)	-10.75/-4.94	-10.55/-11.74	-10.11/-9.5	-12.77/-11.38	-14.85/-9.17	-10.23/-17.96	-18.71/-18.88	-15.97/-8.87	-9.89/-11.15	-11.34/-19.25	-11.35/-16.41	-13.92/-16.79	-18.21/-11.68	-8.11/-6.87	-8.59/-12.5	-8.42/-14.08	-13.39/-9.93	-13.84/-14.15	-17.73/-18.53	-16.38/-11.25	-18/-9.47	-14.05/-12.94	-6.43/-11.21	-9.4/-9.8
Θ (60°)	-6.67/-6.11	-10.17/-12.72	-12.04/-16.76	-9.11/-9.43	-12.46/-13.95	-10.19/-18.35	-18.72/-19.82	-12.08/-9.61	-14.08/-14.03	-9.15/-14.64	-17.94/-17.8	-12.67/-19.55	-17.77/-18.22	-17.02/-5.89	-4.44/-12.12	-12.32/-11.58	-12.39/-8.34	-8.71/-10.09	-12.68/-13.61	-12.58/-11.9	-10.25/-18.43	-16.72/-12.69	-7.25/-10.27	-5.44/-8.08
Θ (67.5°)	-5.47/-8.92	-9.47/-16.48	-12.4/-12.97	-10.06/-14.36	-18.82/-17.2	-11.39/-18.95	-12.17/-13.41	-19.14/-8.32	-16.2/-8.99	-19.73/-10.24	-11.72/-18	-18.14/-11.52	-18.29/-13.51	-10.9/-4	-14.78/-16.26	-12.11/-14.75	-13.95/-10.77	-10.36/-18.2	-18.18/-18.27	-7.42/-10.24	-18.09/-10.65	-8.02/-7.42	-5/-8.97	
Θ (75°)	-6.3/-10.18	-16.64/-12.88	-12.87/-14.02	-15.84/-19.18	-17/-18.97	-19.36/-18.06	-13.99/-14.52	-13.88/-10.48	-9.54/-10.91	-11.12/-10.61	-11.1/-18.5	-18.41/-13.55	-8.71/-13.67	-12.39/-10.19	-10.62/-10.9	-18.2/-10.32	-18.49/-14.93	-11.35/-18.56	-17.21/-14.67	-18/-9.84	-12.93/-13.56	-18.94/-15.21	-6.96/-8.98	-8.82/-15.46
Θ (82.5°)	-9.59/-15.52	-14.08/-12.34	-13.87/-14.14	-18.34/-18.14	-19.05/-18.89	-18.72/-19.82	-11.37/-18.13	-19.07/-9.48	-14.54/-18.34	-15.46/-17.32	-10.39/-15.92	-18.78/-14.78	-6.23/-14.61	-18.73/-6.11	-9.41/-13.61	-17.78/-13.49	-13.65/-13	-13.5/-16.15	-19.18/-18.77	-18.99/-19.09	-19.1/-14.79	-18.62/-17.89	-8.42/-16.64	-10.33/-18.29
Θ (90°)	-17.6/-17.85	-18.85/-13.19	-14.69/-17.36	-19.13/-17.02	-18.55/-18.15	-18.98/-14.91	-17.34/-14.26	-12.65/-14.62	-18.18/-18.65	-15.75/-15.1	-13.92/-13.67	-13.89/-17.72	-17.77/-19.25	-16.73/-18.26	-17.8/-14.58	-17.67/-18.21	-16.41/-13.09	-18.68/-18.95	-18.24/-17.78	-18.81/-10.89	-14.9/-17.75	-18.62/-19.71	-5.29/-17.13	-15.84/-19.21
Θ (97.5°)	-18.3/-18.05	-18.58/-15.47	-19.11/-11.47	-15.75/-18.31	-17.87/-18.25	-16.07/-16.97	-17.03/-11.46	-14.44/-16.74	-18.25/-10.92	-15.78/-16.67	-18.92/-10.77	-13.25/-17.38	-19.28/-13.64	-13.21/-14.37	-18.31/-18.06	-16.47/-18.76	-15.92/-18.87	-19.1/-18.7	-17.96/-18.44	-15.57/-19.12	-17.94/-15.09	-10.43/-18.47	-16.95/-18.39	-12.18/-19.05
Θ (105°)	-13.07/-10.55	-15.89/-19.38	-14.18/-13.27	-16.43/-13.95	-13.6/-15.38	-13.88/-14.97	-15.26/-14.64	-17.06/-15.12	-13.94/-10.8	-16.29/-9.06	-18.62/-14.62	-18.56/-10.11	-9.8/-15.88	-11.78/-15.15	-13.73/-14.94	-18.75/-18.53	-17.16/-12	-14.98/-12.27	-14.65/-18.32	-9.29/-17.6	-16.87/-13.8	-12.04/-10.26	-17.96/-18.27	-18.11/-17.72
Θ (112.5°)	-9.91/-12.38	-12.61/-19.25	-12.57/-12.92	-13.03/-11.16	-14.34/-13.36	-12.36/-12.48	-18.08/-13.58	-15.53/-15.79	-17.76/-10.22	-19.93/-27	-14.67/-18.29	-12.68/-11.64	-10.67/-8.75	-14.33/-18.1	-18.02/-12.89	-18.31/-18.09	-17.39/-18.77	-19.19/-19.8	-18.57/-18.32	-11.67/-11.55	-18.97/-13.85	-10.18/-14.05	-9.83/-17.84	-10.97/-11.27
Θ (120°)	-9.94/-6.47	-9.21/-13.24	-11.88/-8.16	-9.03/-16.95	-18.8/-16.46	-13.09/-14.07	-13.04/-13.49	-15.64/-17.29	-18.93/-8.16	-9.14/-5.97	-17.8/-8.13	-15.55/-15.36	-8.23/-19.04	-12.25/-15.07	-18.23/-18.85	-16.64/-18.07	-19.16/-17.47	-15.57/-17.97	-17.4/-18.93	-10.77/-12.27	-12.1/-10.48	-16.26/-14.79	-15.37/-18.81	-18.96/-6.86
Θ (127.5°)	-4.58/-8.26	-8.89/-17.77	-8.21/-8.66	-9.94/-13.79	-12.19/-13.19	-15.09/-16.18	-16.45/-18.34	-11.89/-10.61	-17.66/-18.88	-7.29/-9.11	-11.66/-12.38	-11.44/-8.81	-10.33/-9.09	-15.46/-12.26	-11.86/-12.95	-18.59/-17.62	-12.41/-14.01	-17.6/-8.74	-15.09/-10.12	-11.53/-7.05	-16.72/-15.43	-8.25/-12.69	-18.98/-6.87	
Θ (135°)	-7.11/-3.43	-4.98/-11	-9.92/-9	-10.46/-7.85	-8.86/-10.48	-18.83/-18.15	-17.79/-18.59	-9.21/-9.24	-10.91/-17.39	-8.67/-11.32	-18.15/-9.5	-8.89/-14.01	-11.47/-16.59	-10.89/-11.94	-15.01/-15.97	-17.37/-15.25	-14.28/-15.89	-10.45/-10.9	-12.84/-13.57	-10.41/-5.68	-6.33/-6.24	-17.92/-9	-18.58/-11.81	
Θ (142.5°)	-10.6/-5.24	-6.22/-6.72	-6.84/-7.75	-7.52/-8.01	-5.71/-6.95	-13.1/-16.3	-16.84/-15.02	-7.87/-6.32	-9.5/-10.85	-14.92/-18.78	-6.92/-18.95	-13.2/-18.9	-10.81/-10.64	-16.25/-7.67	-8.58/-15.86	-14.27/-16.08	-17.79/-19.05	-14.27/-12.77	-10.11/-12.86	-10.22/-18.11	-6.57/-4.18	-4.28/-7.93	-8.78/-9.97	-9.6/-9.03
Θ (150°)	-4.3/-6.18	-2.29/-1.62	-2.12/-2.76	-3.46/-3.78	-6.01/-12.44	-18.29/-18.47	-15/-13.98	-8.9/-7.31	-9.13/-8.36	-9.76/-6.95	-7.35/-14.31	-10.12/-6.37	-8.15/-7.24	-7.89/-10.01	-9.32/-10.09	-16.99/-16.95	-15.46/-9.72	-9.51/-10.9	-11.39/-11	-14.96/-11.44	-6.93/-6.03	-6.33/-5.6	-4.64/-3.36	-13.88/-16.7
Θ (157.5°)	-3.8/-8.7	-5.18/-4.19	-4.12/-4.26	-6.35/-8.55	-12.22/-12.98	-17.79/-18.71	-11.96/-14.73	-15.32/-7.71	-8.86/-9.55	-5.27/-9.09	-7.96/-14.22	-9.5/-6.34	-11.51/-11.2	-13.99/-14.38	-12.25/-12.16	-12.12/-3.73	-13.96/-12.17	-11.53/-10.27	-6.66/-5.55	-5.32/-5.06	-4.18/-3.21	-3.73/-4.16		
Θ (165°)	-0.38/-0.85	-1.01/-1.2	-1.68/-2.64	-4.49/-7.59	-11.36/-12.35	-11.91/-12.61	-19.17/-17.4	-12.69/-14.91	-10.46/-5.27	-3.10/-9.8	-6.24/-2.12	-2.97/-5.26	-7.71/-7.41	-4.74/-2.97	-4.28/-6.31	-8.05/-8.63	-10.68/-15.04	-19.41/-18.85	-19.25/-14.36	-11.05/-6.95	-4.21/-4.91	-5.34/-4.06	-3.76/-3.35	-1.97/-1.11
Θ (172.5°)	-1.3/-1.78	-1.85/-2	-2.88/-2.92	-4.17/-5.6	-7.67/-10.93	-14.33/-17.13	-18.28/-18.17	-14.34/-11.6	-13.6/-4.56	-10.48/-8.74	-3.28/-4.26	-9.89/-4.9	-4/-6.75	-10.44/-8.19	-5.5/-5.28	-6.87/-8.66	-10.41/-13.05	-14.89/-18.47	-18.2/-17.63	-16.05/-11.67	-8.95/-6	-4.19/-1.87	-1.71/-1.08	-1.06/-0.66
Θ (180°)	-0.92/-0.37	0.03/-0.98	-1.21/-2.33	-3.51/-5.75	-5.97/-10.05	-12.03/-12.32	-13.46/-17.66	-11.91/-13.41	-5.77/-5.01	-13.87/-9.96	-8.85/-7.23	-1.48/-1.73	-2.66/-1.67	-2.27/-3.04	-4.5/-3.37	-4.7/-6.33	-8.25/-9.95	-11.53/-12.83	-13.88/-13.35	-10.53/-8	-5.99/-4.63	-3.25/-2.36	-2.3/-1.23	-0.94/-0.32
Freq(Hz)	6.475/GPol.	Phi/Ant. 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°)	-18.23/-18.92	-17.42/-11.39	-8.06/-2.25	-4.86/-2.75	-6.29/-2.26	-1.05/-0.02	0.10/-0.58	-0.10/-0.33	-0.16/-2.32	-2.52/-2.62	-5.27/-6.84	-11.74/-11.82	-18.15/-19	-13.42/-10.4	-7.44/-5.68	-3.73/-1.83	-1.51/-0.97	-0.30/-4.01	-0.09/-0.23	-0.07/-0.58	-0.89/-1.23	-11.21/-3.4	-4.42/-6.47	-8.77/-12.47
Θ (7.5°)	-19/-14.65	-11.98/-9.53	-6.77/-5.4	-3.73/-2.99	-3.3/-1.39	-1.34/-0.04	-0.86/-0.97	-0.55/-2.24	-0.79/-3.23	-2.6/-2.16	-3.31/-5.09	-7.97/-12.31	-14.42/-18.28	-18.15/-12.85	-8.65/-7.09	-5.83/-5.03	-3.69/-2.52	-2.33/-1.66	-1.25/-1.45	-0.9/-1.1	-1.87/-1.8	-3.33/-4.47	-5.43/-7.6	-11.75/-16.1



Radiated Composite Gain Data

Appendix A.6

Θ(75°)	-3.44/-3.78	-5.09/-5.61	-5.92/-8.03	-7.5/-10.15	-10.5/-13.89	-17.92/-18.41	-18.83/-18.48	-10.61/-9.72	-6.18/-3.34	-5.33/-4.76	-3.74/-4.63	-3.48/-0.99	-2.44/-1.51	-2.17/-2.57	-2.1/-2.9	-3.54/-5.63	-6.39/-8.29	-11.36/-17.96	-18.41/-18.42	-16.54/-12.85	-9.33/-6.76	-4.79/-3.57	-3.04/-2.71	-2.67/-2.17	
Θ(15°)	-3.57/-3.47	-5.31/-4.53	-5.19/-4.02	-4.99/-5.9	-6.74/-9.9	-13.8/-17.1	-18.19/-18.52	-19.19/-10.84	-11.03/-6.6	-6.11/-4.66	-3.5/-5.31	-5.3/-4.36	-3.66/-5.34	-3.48/-4.45	-4.38/-5.23	-6/-5.75	-8.7/-9.27	-11.69/-14.1	-18.83/-18.76	-18.9/-15.66	-12.82/-12.68	-8.23/-5.86	-5.49/-4.08	-2.58/-2.59	
Θ(22.5°)	-7.53/-5.87	-5.28/-6.95	-9.24/-7.74	-7.11/-6.86	-6.24/-6.2	-8.49/-12.63	-17.15/-12.8	-18.40/-8.94	-8.65/-6.29	-8.85/-5.98	-5.7/-0.9	-4.09/-2.61	-4.68/-4.24	-4.27/-3.79	-3.8/-5.6	-9.47/-10.96	-10.26/-13.5	-13.49/-12.25	-15.35/-18.78	-17.19/-15.11	-11.91/-8.64	-11.62/-7	-9.37/-5.14	-2.89/-3.92	
Θ(30°)	-12.12/-7.09	-6.33/-7.98	-4.57/-4.88	-2.83/-3.96	-5.86/-6.98	-10.03/-15.18	-15.67/-17.59	-14.85/-10.93	-7.47/-6.45	-9.49/-4.11	-4.9/-5.14	-5.47/-5.38	-7.03/-9.27	-5.17/-5.54	-7.27/-8.71	-11.53/-10.93	-12.24/-13.24	-12.61/-15.31	-15.92/-18.24	-17.28/-11.48	-18.19/-10.34	-8.13/-5.29	-7.01/-5.16	-5.87/-7.59	
Θ(37.5°)	-6.25/-5.98	-6.3/-9.27	-7.69/-8.24	-10.15/-10.45	-8.79/-12.05	-15.82/-19.21	-17.24/-18.8	-15.35/-12.45	-8.06/-5.81	-5.64/-6.13	-5.5/-4.4	-8.17/-12.53	-17.46/-11.03	-6.41/-8.6	-15.53/-14.51	-10.76/-8.66	-11.14/-12.47	-16.46/-17.56	-18.96/-18.93	-11.31/-13.81	-12.92/-16.65	-9.76/-5.79	-8.52/-9.28	-8.37/-10.89	
Θ(45°)	-3.96/-7.11	-1.75/-7.64	-10.06/-7.26	-6.54/-8.06	-11.46/-12.51	-18.01/-14.78	-19.23/-18.35	-11.03/-16.75	-5.58/-6.14	-13.68/-18.49	-7.4/-10.38	-7.49/-11.16	-17.63/-12.63	-6.66/-7.27	-10.36/-10.48	-14.22/-11.26	-10.86/-13.68	-18.16/-18.27	-15.15/-12.05	-17.81/-13.61	-11.43/-14.07	-13.33/-4.09	-4.93/-3.61	-6.35/-6.51	
Θ(52.5°)	-3.62/-11.58	-8.77/-12.06	-9.69/-11.45	-10.29/-9.22	-12.15/-16.59	-15.33/-17.71	-18.06/-18.76	-18.1/-14.09	-11.41/-10.71	-12.42/-8.01	-17.23/-11.95	-8.98/-11.6	-16.4/-18.12	-8.81/-6.35	-7.21/-13	-14.56/-12.46	-10.56/-11.69	-14.58/-17.06	-15.48/-18.43	-12.07/-16.28	-12.33/-18.16	-15.99/-5.15	-6.29/-8.51	-6.9/-4.39	
Θ(60°)	-8.82/-11.41	-10.35/-9.2	-9.9/-9.68	-12.63/-11.77	-8.81/-11.95	-12.69/-17.87	-18.41/-13.92	-14.07/-14.3	-12.46/-18.26	-13.72/-17.49	-12.01/-11.99	-10.12/-12.66	-16.49/-18.61	-14.85/-8.78	-6.24/-9.85	-14.84/-18.38	-14.72/-10.88	-10.18/-11.71	-13.66/-19.21	-11.31/-9.84	-14.39/-14.04	-13.9/-7.04	-5.05/-6.69	-8.75/-4.63	
Θ(67.5°)	-11.89/-9.38	-11.36/-11.43	-8.82/-10.75	-8.96/-9.85	-11.92/-13.53	-12.59/-19.19	-18.66/-11.45	-14.13/-12.55	-8.57/-17.73	-10.45/-10.81	-11.18/-9.03	-11.93/-18.96	-18.43/-17.94	-18.31/-19.92	-8.71/-19.11	-16.81/-18.56	-18.91/-14.25	-19.22/-14.7	-18.58/-15.99	-18.29/-9.43	-13.61/-17.62	-12.12/-8.84	-8.84/-11.2	-8.94/-5	
Θ(75°)	-18.74/-10	-11.85/-8.23	-9.53/-15.28	-8.3/-9.1	-12/-17.82	-12.21/-18.97	-18.97/-13.35	-11.48/-14.41	-9.5/-11.11	-17.63/-8.29	-11.45/-11.92	-14.75/-16.7	-12.64/-13.99	-12.85/-18.66	-15.04/-13.87	-18.52/-18.82	-17.72/-19.09	-16.31/-14.44	-14.54/-18.2	-13.45/-19.07	-14.63/-17.42	-13.35/-7.43	-12.27/-13.21	-10.77/-7.44	
Θ(82.5°)	-16.72/-10.89	-11.81/-13.22	-12.54/-17.87	-12.06/-19.08	-18.2/-18.81	-17.88/-14.97	-19.28/-13.67	-17.48/-15.2	-9.06/-18.74	-14.32/-14.74	-13.96/-17.85	-13.5/-14.43	-16.25/-7.35	-13.68/-17.28	-17.28/-12.38	-17.53/-17.67	-18.79/-10.56	-7.95/-13.81	-18.74/-18.56	-18.43/-15.46	-15.97/-17.97	-18.62/-10.11	-16.99/-11.91	-18.1/-10.4	
Θ(90°)	-12.92/-15.59	-18.24/-12.1	-18.8/-18.97	-18.89/-17.52	-17.69/-18.64	-17.91/-19.02	-17.63/-15.35	-17.52/-17.53	-9.45/-17.59	-16.46/-18.07	-14/-15.14	-18.36/-12.45	-18.08/-13.35	-19.39/-19	-18.34/-18.36	-18.85/-11.12	-17.87/-17.52	-17.39/-18.98	-18.91/-18.22	-17.87/-17.52	-17.53/-18.05	-18.04/-18.63	-18.7/-16.07	-17.81/-13.96	-18.83/-18.64
Θ(97.5°)	-15.45/-18.19	-18.33/-17.23	-18.62/-13.44	-17.35/-14.25	-18.45/-15.68	-18.37/-18.16	-17.85/-17.22	-18.44/-19.15	-18.49/-11.02	-12.37/-13.94	-19/-13.14	-16.11/-17.84	-18.02/-15.7	-17.94/-18.99	-18.07/-18.84	-18.28/-18.39	-16.41/-18	-17.43/-18.36	-17.6/-19.2	-18.54/-10.66	-18.57/-16.06	-17.89/-16.58	-17.34/-18.7	-16.12/-14.77	
Θ(105°)	-13.79/-17.68	-16.49/-18.45	-15.36/-10.65	-14.89/-12.28	-17.93/-14.43	-17.99/-16.63	-17.87/-19.04	-13.47/-19.36	-17.48/-15.2	-11.66/-9.86	-18.61/-15.1	-18.77/-19.01	-13.49/-17.47	-16.72/-17.8	-18.76/-15.26	-16.92/-18.91	-17.71/-18.82	-18.52/-17.13	-17.13/-18.06	-14.31/-17.61	-18.41/-18.32	-11.02/-18.13	-18.72/-16.98	-14.62/-16.7	
Θ(112.5°)	-10.01/-14.98	-12.04/-14.14	-18.31/-16.14	-18.94/-16.13	-13.34/-11.52	-18.53/-17.45	-17.85/-17.8	-17.13/-16.52	-18.68/-10.57	-12.71/-7.25	-18.71/-13.32	-17.44/-18.62	-11.65/-11.68	-13.03/-18.6	-19.09/-15.71	-17.45/-17.43	-17.21/-18.58	-17.56/-16.95	-15.8/-16.09	-10.42/-19.29	-17.39/-18.55	-12.43/-15.71	-18.55/-11.03	-13.26/-11.98	
Θ(120°)	-7.05/-12.73	-11.38/-8.82	-18.33/-17.71	-17.73/-12.67	-8.05/-11.57	-15.91/-14.18	-18.45/-16.27	-11.53/-11.28	-18.7/-13.22	-13.01/-10.79	-10.04/-11.4	-9.25/-16.35	-17.01/-14.13	-18.83/-19.44	-14.62/-17.85	-18.44/-18.58	-17.92/-16.71	-18.6/-17.3	-18.64/-18.34	-12.13/-8.86	-18.45/-10.18	-7.85/-13.82	-15.91/-11.5	-9.5/-11.79	
Θ(127.5°)	-9.65/-9.1	-10.57/-5.7	-10.02/-11.23	-7.86/-6.08	-9.67/-12.48	-12.25/-13.98	-19.27/-15.75	-10.58/-14.5	-12.75/-17.97	-18.25/-8.09	-12.59/-16.01	-8.28/-11.56	-12.9/-8.68	-10.1/-10.25	-16.52/-18.92	-18.52/-18.93	-18.2/-13.82	-18.67/-17.5	-10.64/-18.74	-17.25/-10.43	-10.61/-7.79	-8.07/-19.19	-9.2/-13.65	-7.38/-2.44	
Θ(135°)	-9.11/-8.56	-9.93/-7.25	-5.14/-6.62	-7.46/-7.17	-10.58/-13.04	-17.33/-14.5	-13.53/-13.48	-17.15/-9.96	-13.43/-10.18	-13.73/-18.63	-16.83/-10.61	-8.35/-16.48	-16.6/-18.49	-12.47/-17.61	-15.11/-18.94	-16.97/-18.91	-15.7/-18.01	-18.03/-14.01	-11.17/-15.73	-19.29/-8.6	-6.4/-6.08	-8.21/-18.14	-8.32/-12.7	-7.23/-4.55	
Θ(142.5°)	-6.96/-3.95	-7.69/-8.55	-6.3/-4.65	-5.27/-8.29	-10.9/-11.17	-10.4/-18.18	-15.52/-16.7	-12.6/-10.57	-7.89/-9.64	-9.69/-8.03	-12.86/-12.43	-18.28/-12.91	-10.47/-8.79	-9.09/-11.1	-8.03/-13.9	-18.21/-18.91	-12.45/-11.78	-11.94/-13.16	-17.51/-10.62	-18.75/-8.3	-2.92/-7.41	-8.96/-10.52	-8.97/-8.83	-8.31/-4.14	
Θ(150°)	-4.34/-2.82	-2.88/-5.12	-6.28/-5.61	-6.52/-7.12	-8.1/-6.75	-12.1/-18.96	-17.29/-17.72	-9.65/-8.13	-9.86/-3.82	-4.76/-9.43	-3.56/-10.99	-17.84/-8.83	-7.8/-8.51	-6.64/-8.67	-11.4/-16.99	-15.41/-15.1	-14.77/-18.46	-18.03/-15.35	-15.28/-18.82	-11.43/-15.42	-6.41/-10.54	-4.84/-4.44	-7.42/-8.66	-4.44/-5.41	
Θ(157.5°)	-3.15/-3.97	-2.8/-3.01	-2.7/-4.58	-4.46/-5.53	-6.79/-12.41	-18.65/-18.36	-18.79/-16.16	-9.08/-7.2	-7.66/-5.38	-7.93/-4.19	-10.72/-7.13	-5.89/-10.91	-13.17/-17.59	-16.92/-9.87	-7.09/-10.17	-16.89/-18.38	-15.86/-14.17	-15.64/-19.21	-18.25/-11.31	-11.89/-13.33	-8.11/-6.47	-4.83/-4.49	-4/-5.24	-5.48/-2.73	
Θ(165°)	-4.21/-2.94	-4.3/-3.22	-2.5/-2.96	-4.59/-5.68	-7.4/-9.81	-14.99/-18.95	-15.38/-14.15	-10.05/-7.15	-11.22/-10.4	-4.82/-9.52	-8.99/-2.99	-4.48/-7.98	-4.84/-4.75	-6.75/-12.14	-17.22/-10.8	-7.51/-6.83	-9.02/-11.9	-15.2/-19.08	-19.28/-14.38	-10.84/-9.31	-10.03/-8.76	-4.46/-3.02	-2.16/-2.57	-3.2/-3.15	
Θ(172.5°)	-1.18/-0.56	-1.61/-2.07	-4.01/-5.01	-7.69/-10.63	-14.06/-18.65	-18.17/-14.79	-13.07/-16	-11.8/-12.07	-8.83/-3.6	-4.89/-17	-5.26/-6.71	-18.21/-9.73	-5.13/-5.13	-5.69/-3.24	-4.48/-7.82	-10.12/-10.86	-10.51/-14.9	-13.02/-17.9	-9.69/-8.22	-6.9/-6.89	-5.37/-4.2	-3.63/-2.84	-2.24/-2.01	-2.77/-2.31	
Θ(180°)	-2.66/-2.78	-3.66/-4.55	-5.97/-6.88	-8.21/-10.34	-11.66/-16.03	-18.28/-18.13	-12.83/-9.25	-8.77/-8.45	-4.79/-4.83	-13.31/-2.2	-2.45/-6.13	-2.35/-2.32	-3.01/-2.84	-5.41/-5.58	-5.53/-5.55	-7.77/-9.76	-12.03/-14.64	-19.1/-17.72	-13.67/-10.59	-8.07/-6.33	-5.37/-4.25	-3.63/-2.64	-1.82/-1.8	-1.97/-1.74	
Freq(Hz)	6.995GPol.	PhiAnt. 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°)	-18.18/-15.02	-10.72/-6.06	-4.68/-3.6	-2.86/-1.23	-0.360/-11	0.21/-0.21	-0.42/-0.27	-1.87/-2.29	-3.06/-4.59	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(7.5°)	-18.73/-14.07	-11.62/-8.82	-6.87/-5.62	-3.68/-3.49	-3.15/-2.83	-4.43/-2.72	-3.36/-2.15	-1.46/-1.43	-2.07/-3.18	-3.51/-7.28	-9.69/-13.1	-14.26/-14.8	-18.82/-14.74	-12.06/-11.64	-10.18/-8.06	-6.79/-5.03	-3.5/-2.58	-1.5/-1.8	-1.16/-1.59	-2.04/-3.03	-3.57/-4.72	-5.47/-6.44	-7.64/-9.7	-12.85/-16.59	
Θ(15°)	-17.07/-15.05	-13.62/-11.95	-10.26/-8.39	-6.69/-4.89	-3.4/-2.94	-1.17/-0.82	-3.04/-2.43	-3.63/-5.5	-2.12/-3.87	-3.25/-6.1	-7.45/-9.21	-11.63/-12.64	-13.2/-13.89	-15.25/-14.44	-12.04/-10.74	-10.24/-6.97	-7.04/-7.02	-5.76/-4.72	-3.88/-3.46	-3.8/-5.09	-4.58/-4	-3.75/-5.72	-9.3/-9.84	-13.8/-18.15	
Θ(22.5°)	-16.12/-18.83	-17.78/-12.82	-8.89/-4.58	-3.14/-1.96	-1.27/-0.93	0.98/-1.79	-0.73/-0.87	-2.5/-4	-4.99/-12.31	-10.77/-10.65	-12.66/-13.52	-13.89/-14.27	-14.56/-12.09	-8.43/-7.43	-8.89/-8.59	-8.77/-7.04	-4.76/-5.67	-4.4/-4.6	-5.21/-4.25	-4.45/-5.37	-5.43/-8.06	-9.44/-16.71	-13.25/-12.91		
Θ(30°)	-17.6/-17.99	-12.13/-8.23	-8.58/-8.04	-6.34/-4.66	-2.09/-1.33	-1.03/-1.26	-0.17/-2.69	-0.30/-0.64	-1.38/-4.61	-6.79/-11.57	-7.89/-11.3	-14.9/-18.01	-18.84/-17.95	-11.59/-18.15	-13.31/-11.09	-7.34/-10.35	-11.01/-6.96	-5.96/-3.71	-2.36/-2.67	-4.77/-5.25	-4.52/-9.06	-5.66/-8.64	-11.27/-15.5	-12.57/-16.9	
Θ(37.5°)	-13.03/-13.49	-8.19/-11.2	-7.15/-4.78	-2.71/-1.06	-0.19/-0.27	0.710/-62	1.350/-02	0.81/-0.4	-2.21/-8.76	-9.34/-6.56	-11.5/-10.9	-9.33/-11.99	-16.7/-17.69	-18.56/-16.10	-11.65/-15.5	-15.64/-12.21	-9.88/-6.86	-6.04/-6.64	-5.37/-3.84	-5.76/-4.52	-4.95/-6.5	-7.21/-7.68	-10.31/-18.96	-10.83/-12.72	
Θ(45°)	-11.98/-12.17	-9.48/-9.83	-5.21/-3.4	-1.8/-2.84	-0.690/-11	1.990/-62	3.05/-14	-1.430/-11	-1.89/-5.03	-13.9/-9.25	-11.1/-7.7	-13.44/-16.15	-18/-18.23	-19.01/-11.05	-12.8/-13.53	-15.48/-11.37	-4.15/-3.94	-4.95/-3.52	-2.78/-3.49	-4.18/-6.56	-5.21/-5.33	-3.9/-6.71	-10.83/-16.22	-13.19/-18.3	



Radiated Composite Gain Data

Appendix A.6

Θ(52.5°)	-15.15/-19.06	-17.31/-19.11	-15.68/-9.18	-13.99/-9.28	-8.44/-12.95	-7.24/-9.17	-8.76/-11.72	-11.93/-8.96	-10.23/-10.26	-8.94/-11.94	-15.49/-16.63	-19.07/-18.6	-17.83/-12.4	-10.54/-15.38	-8.39/-8.6	-13.24/-11.73	-6.59/-18.94	-7.28/-8.69	-5.46/-12.53	-11.69/-10.76	-6.06/-4.73	-8.75/-12.48	-13.33/-18.07	-18.43/-18.57
Θ(60°)	-12.53/-17.05	-18.16/-9.99	-18.09/-19.28	-10.61/-11.32	-13.56/-19.11	-6.8/-11.9	-11.81/-8.92	-11.72/-19.1	-9.98/-11.87	-10.43/-13.19	-18.18/-13.89	-17.07/-14.91	-18.29/-17.53	-12.75/-12.36	-9.39/-11.71	-9.59/-8.4	-9.58/-12.88	-10.79/-8.68	-18.96/-7	-16.83/-9.63	-8.03/-7	-11.99/-10.14	-12.71/-18.41	-17.9/-13.22
Θ(67.5°)	-13.28/-17.96	-13.57/-18.55	-17.28/-14.87	-12.08/-16.3	-15.7/-9.58	-9.75/-12.62	-12.55/-19.24	-13.54/-9.55	-14.61/-13.51	-8.75/-13.77	-18.13/-14.89	-18.04/-18.59	-14.5/-17.44	-14.99/-15.23	-11.79/-10.21	-10.13/-17.98	-10.38/-8.4	-15.45/-11.23	-12.33/-17.21	-8.22/-17.52	-13.04/-9.66	-8.59/-13.52	-10.71/-17.38	-15.73/-18.18
Θ(75°)	-12.59/-17.93	-12.35/-18.62	-18.33/-9.4	-12.48/-17.32	-13.98/-10.65	-10.83/-14.43	-10.47/-17.39	-17.18/-11.66	-12.9/-16.37	-14.96/-13.39	-17.4/-16.05	-17.31/-19.06	-17.15/-18.45	-17.64/-18.57	-18.42/-9.44	-11.88/-9.34	-8.76/-9.04	-12.36/-16.93	-19.11/-19.68	-18.07/-11.8	-19.4/-12.58	-18.75/-10.66	-19.31/-17.47	-18.66/-14.85
Θ(82.5°)	-16.02/-15.05	-18.32/-14.14	-10.63/-12.11	-17.85/-17.98	-17.95/-14.84	-14.39/-16.71	-11.2/-18.97	-18.59/-12.25	-16.46/-18.14	-10.05/-15.31	-19.3/-17.39	-18.9/-18.01	-18.85/-17.82	-18.43/-17.1	-16.03/-13.31	-17.44/-11.3	-14.65/-19.1	-9.97/-17.28	-19.2/-17.47	-12.42/-15.04	-19.02/-15.3	-19.02/-16.81	-17.42/-15.4	-12.88/-12.31
Θ(90°)	-15.04/-18.66	-17.46/-13.51	-13.65/-14.15	-18.33/-17.76	-11.09/-18.14	-18.28/-18.02	-18.92/-18.5	-18.63/-18.38	-16.22/-19.38	-10.86/-18.37	-11.99/-15.81	-19.03/-18.7	-19.14/-11	-17.15/-18.08	-16.18/-15.84	-10.85/-15.97	-11.39/-14.48	-18.07/-13.37	-18.25/-12.46	-16.86/-16.35	-17.68/-11.99	-17.88/-11.29	-18.36/-18.48	
Θ(97.5°)	-14.57/-14.53	-9.43/-13.55	-19/-8.11	-13.54/-14.36	-12.22/-10.18	-14.07/-18.85	-17.57/-18.88	-14.31/-17.13	-18.12/-12.57	-10.51/-12.15	-12.83/-17.87	-18.17/-17.83	-18.12/-16.92	-18.24/-18.7	-18.58/-18.56	-10.62/-15.45	-10.05/-15.79	-16.6/-13.16	-14.82/-13.49	-15.61/-18.43	-15.3/-15.31	-17.74/-11.31	-16.24/-18.63	-17.47/-11.32
Θ(105°)	-12.23/-18.79	-14.96/-10.22	-11.7/-16.95	-12.09/-12.1	-11.55/-9.32	-12.56/-12.41	-14.78/-19.02	-13.25/-10.4	-14.15/-12	-15.11/-19.09	-17.61/-18.95	-17.92/-18.15	-13.72/-15.28	-18.86/-11.65	-9.3/-19.1	-12.06/-10.9	-10.76/-17.03	-9/-15.83	-19.1/-17.33	-15.07/-16.73	-18.4/-19.22	-12.49/-18.8	-15.93/-18.79	
Θ(112.5°)	-12.34/-10.27	-11.96/-19.09	-11.91/-17.22	-18.89/-10.1	-10.95/-8.29	-8.51/-12.72	-14.98/-14.8	-10.69/-11.21	-15.31/-11.73	-18.06/-10.12	-11.53/-16.69	-17.27/-12.46	-18.33/-17.28	-11.35/-10.8	-15.99/-11.22	-19/-11.05	-10.13/-8.67	-14.19/-5.97	-8.73/-18.42	-12.34/-11.24	-18.25/-12.99	-17.79/-19.53	-18.37/-18.74	-8.91/-12.16
Θ(120°)	-17.89/-18.72	-17.5/-17.02	-13.06/-17.24	-11.31/-8.55	-9.72/-5.95	-8.24/-9.63	-12.64/-14.08	-6.97/-17.39	-8.44/-9.36	-18.14/-7.28	-12.76/-18.9	-11.89/-12.1	-15.21/-17.97	-16.96/-10.49	-10.07/-8.7	-14.06/-5.39	-10.49/-9.85	-7.45/-6.89	-5.86/-18.5	-8.15/-15.01	-11.54/-17.2	-11.19/-18.25	-15.35/-19.01	-12.56/-13.13
Θ(127.5°)	-15.96/-19.22	-18.34/-13.51	-9.31/-5.97	-4.06/-4.31	-5.38/-5.85	-18.92/-10.23	-10.46/-57	-9.06/-18.91	-4.76/-6.86	-18.78/-9.59	-13.74/-15.61	-11.51/-9.29	-7.86/-11.02	-15.18/-13.39	-14.78/-13.5	-6.15/-4.22	-8.17/-9.12	-3.76/-3.34	-6.77/-18.65	-11.95/-11.64	-11.12/-16.38	-11.6/-16.62	-13.64/-18.32	-16.8/-13.87
Θ(135°)	-19.07/-12.7	-14.14/-13.43	-12.34/-11.04	-6.91/-4.12	-6.65/-10.36	-16.69/-3.72	-3.19/-8.1	-13.84/-11.71	-6.52/-7.11	-15.97/-8.02	-16.61/-12.27	-15.83/-18.09	-9.54/-13.13	-16.8/-12	-5.08/-5	-13.04/-0.08	-11.5/-2.7	-6.5/-19.1	-9.03/-14.54	-6.89/-6.97	-18.21/-18.68	-18.37/-12.69	-18.98/-13.72	
Θ(142.5°)	-18.77/-16.61	-17.25/-18.78	-13.6/-11.69	-16.92/-12.64	-12.44/-7.27	-5.22/-8.39	-5.99/-7.46	-13.73/-4.69	-4.67/-10.35	-9.22/-4.26	-5.94/-9.75	-17.48/-18.76	-13.4/-16.3	-15.84/-11.27	-7.76/-3.87	-5.53/-8.77	-14.29/-3.14	-1.87/-0.64	-4.55/-11.51	-13.37/-7	-18.18/-15.85	-18.37/-17.49	-19.06/-17.96	-15.4/-18.55
Θ(150°)	-16.8/-14.74	-11.88/-5.95	-6.16/-7.54	-11.39/-6.23	-2.84/-5.43	-6.63/-6.87	-4.39/-4.96	-2.71/-2.96	-6.08/-14.26	-9.98/-9.35	-11.54/-7.25	-7.99/-5.01	-4.81/-5.27	-9.86/-9.41	-6.25/-6.1	-0.12/-1.56	-6.68/-6.56	-9.32/-8.27	-18.54/-17.28	-15.9/-15.09	-17.34/-15.58	-18.43/-18.34		
Θ(157.5°)	-9.07/-10.83	-8.81/-8.65	-8.31/-8.21	-7.23/-4.15	-6.45/-8.48	-4.63/-2.34	-0.89/-0.04	-0.11/-2.58	-7.48/-12.48	-11.32/-13.14	-16.15/-16.89	-12.44/-13.48	-14.41/-10.43	-8.48/-5.78	-5.36/-5.4	-7.29/-3.7	-2.29/-1.97	-2.16/-4.36	-5.29/-12.16	-18.74/-9.42	-11.64/-17.57	-17.75/-16.55	-18.52/-13.34	
Θ(165°)	-14.8/-15.12	-12.63/-10.9	-7.54/-6.62	-5.72/-6.2	-5.08/-1.5	0.782/-1.7	1.89/-1.31	0.3/-1.87	-7.09/-12.47	-8.09/-7.12	-7.83/-9.77	-8.89/-7.2	-6.77/-7.58	-9.69/-11.26	-8.35/-7.41	-6.92/-4.99	-2.62/-0.21	1.1/-1.13	-2.46/-0.17	-3.63/-18.29	-7.47/-6.76	-10.69/-14.56	-18.15/-18.17	-18.11/-17.07
Θ(172.5°)	-9.78/-7.6	-6.02/-4.26	-3.9/-2.65	-1.51/-0.54	0.46/-0.85	0.9/-0.46	-1.5/-2.31	-2.84/-3.92	-6.67/-8.73	-9.96/-11.01	-15.46/-18.14	-18.33/-14.64	-10.21/-7.66	-5.38/-4.51	-3.15/-2.12	-0.53/-0.08	-0.25/-0.22	-0.44/-0.2	1.21/-3.55	-10.44/-5.2	-5.22/-10.23	-15.62/-13.96	-18.01/-17.22	-15.99/-13.75
Θ(180°)	-7.34/-6.08	-3.88/-2.23	-1.27/-0.75	-0.17/-1.17	-1.15/-0.28	-1.33/-1.24	-1.59/-1.84	-1.8/-2.87	-5/-6.55	-9.22/-12.43	-16.21/-18.54	-17.97/-12.51	-8.74/-6	-4.05/-3.06	-1.59/-1.37	-0.45/-0.23	0.01/-0.75	1.61/-1.86	-1.93/-10.53	-3.97/-3.36	-7.21/-11.92	-10.4/-13.08	-18.63/-18.12	-17.46/-9.59
Freq(Hz)	6.475G/Pol.	PhiAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-1.97/-3.19	-3.77/-4.42	-5.23/-5.15	-9.04/-11.44	-16.69/-15.54	-13.64/-11.23	-8.19/-7.48	-6.36/-5.22	-4.59/-4.14	-3.76/-4.11	-5.49/-6.15	-7.97/-9.17	-12.53/-15.17	-19.3/-15.03	-13.77/-7.2	-5.81/-5.13	-3.94/-2.01	-5.15/-5.19	-3.62/-3.88	-	-	-	-	-
Θ(7.5°)	-4.16/-3.93	-5.55/-7.05	-6.92/-8.78	-10.91/-15.11	-18.13/-17.2	-18.1/-12.22	-9.41/-8.88	-7.77/-6.6	-5.61/-4.25	-3.47/-2.34	-1.85/-1.06	-1.17/-1.33	-1.44/-1.89	-2.47/-2.59	-3.88/-4.36	-5.9/-7.63	-9.52/-15.36	-15.17/-18.68	-17.52/-11.85	-7.38/-5.27	-4.29/-3.52	-3.86/-2.73	-2.74/-2.79	-3.05/-4.53
Θ(15°)	-2.95/-4.38	-2.86/-2.2	-3.89/-5.08	-7.09/-8.07	-13.87/-17.85	-18.67/-19.12	-14.54/-10.64	-8.1/-4.6	-5.39/-3.64	-2.37/-2.13	-1.93/-1.68	-1.98/-2.92	-3.34/-4.02	-4.41/-4.1	-5.42/-5.4	-7.6/-9.79	-9.67/-13.09	-18.14/-17.14	-16.6/-18.35	-10.37/-3.39	-3.7/-3.6	-3.06/-3.46	-5.47/-5.23	
Θ(22.5°)	-8.9/-6.09	-5.04/-6.31	-5.89/-7.39	-9.35/-10.64	-17.59/-18.61	-17.64/-18.74	-7.46/-5.87	-5.12/-4.55	-4.28/-3.78	-2.68/-2.32	-1.63/-1	-1.85/-2.39	-4.36/-7.01	-8.83/-14.9	-16.78/-13.23	-12.75/-18.55	-17.92/-14.51	-11.65/-14.86	-11.87/-1.38	-3.72/-2.69	-4.06/-4.72	-2.82/-2.8	-2.23/-3.66	
Θ(30°)	-3.1/-6.34	-11.57/-9.08	-8.6/-12.8	-12.6/-13.99	-15.47/-18.83	-15.17/-18	-14.31/-13.27	-9.4/-6.69	-5.58/-4.33	-3.52/-2.21	-0.32/-0.2	-0.44/-0.26	-0.05/-0.38	-1.16/-2.39	-2.94/-6.13	-9.36/-15.4	-16.74/-15.49	-13.5/-11.33	-9.57/-18.55	-11.64/-12.72	-10.27/-4.29	-3.31/-2.77	-2.59/-1	0.01/-0.62
Θ(37.5°)	-4.61/-5.99	-7.84/-8.54	-9.05/-14.1	-10.68/-10.7	-16.5/-16.7	-17.49/-12.82	-14.25/-10.34	-7.97/-6.15	-4.3/-2.38	-1.28/-1.64	-1.63/-0.35	-0.150/-73	-10.1/-1.74	-2.74/-4.84	-8/-6.6	-7.58/-8.45	-18.93/-16.25	-19.08/-18.06	-19.32/-9.32	-9.95/-5.33	-0.92/-0.77	-1.15/-9.29	-5.99/-3.48	-1.61/-9.19
Θ(45°)	-8.55/-7.05	-4.7/-5.85	-11.06/-7.12	-7.85/-10.62	-18.31/-14.89	-17.54/-18.87	-12.94/-12.51	-1.76/-10.23	-0.73/-0.26	1.1/-0.33	0.39/-0.47	0.72/-0.37	-3.03/-4.1	-7.74/-10.32	-9.94/-9.79	-16.94/-11.76	-17.25/-18.67	-19.94/-5.04	-7.99/-4.93	-2.77/-3.47	-6.61/-9.39	-14.88/-9.52	-3.07/-1.66	
Θ(52.5°)	-0.2/-7.61	-4.52/-12.57	-5.9/-5.02	-10.29/-12.25	-9.63/-17.82	-18.12/-19.29	-18.96/-17.71	-12.17/-7.85	-5.64/-2.46	-0.90/-35	0.980/-98	1.28/-1.35	1.59/-0.31	-1.36/-2.42	-8.7/-6.07	-2.55/-7.39	-18.34/-18.57	-13.98/-13.36	-15.69/-15.49	-4.08/-11.97	-3.22/-0.43	1.38/-0.23	-1.67/-3.33	-1.11/-5.19
Θ(60°)	-2.42/-12.81	-7.24/-17.15	-6.78/-11.35	-8.94/-6.45	-18.58/-15.17	-12.76/-18.43	-15.84/-11.89	-11.14/-9.39	-4.37/-3.65	-0.06/-0.1	0.55/-8.1	2.82/-2.69	1.29/-0.18	-1.03/-3.51	-6.26/-4.91	-4.2/-6.98	-8.03/-18.96	-18.99/-14.08	-14.24/-9.64	-4.99/-8.21	-1.87/-2.77	0.14/-0.95	-2.14/-2.78	-3.84/-2.94
Θ(67.5°)	-1.93/-9.52	-5.48/-13.32	-9.65/-7.4	-6.3/-14.69	-15.48/-10.62	-16.4/-19.37	-17.35/-12.93	-10.9/-4.9	-6.49/-2.52	-0.67/-0.87	1.172/-4.2	3.03/-9.7	0.73/-0.1	-2.98/-5.13	-2.72/-4.27	-11.73/-9.32	-10.28/-18.23	-15.94/-10.1	-9.68/-3.98	-7.53/-2.31	-0.35/-1.02	-0.08/-1.3	-3.36/-0.51	
Θ(75°)	-0.5/-6.32	-6.66/-8.15	-11.46/-13.89	-12.38/-15.18	-8.04/-17.85	-16.38/-15.19	-11.72/-13.13	-7.53/-7.98	-6.55/-0.69	-0.68/-1.49	3.14/-2.6	1.98/-0.45	-1.35/-2.82	-3.47/-3.48	-1.46/-1.53	-7.79/-9.96	-11.55/-9.59	-16.54/-10.11	-12.68/-13.72	-5.61/-4.27	-3.06/-3.84	-2.85/-1.38	-2.12/-0.73	-1.70/-3.6
Θ(82.5°)	-1.29/-6.89	-8.19/-17.51	-10.87/-16.11	-10.53/-11.95	-18.07/-17.31	-10.28/-13.1	-11.24/-8.3	-7.13/-7.21	-5.61/-4.2	0.68/-2.21	2.582/-5.8	1.43/-0.36	-0.41/-3.44	-3.13/-2.42	-2.34/-1.69	-3.65/-5.08	-18.32/-12.22	-8.67/-9.69	-12.66/-14.44	-5.05/-1.08	-4.44/-0.09	-4.61/-0.15	1.56/-5.94	-10.18/-1
Θ(90°)	0.78/-12.07	-18.09/-7.59	-6.6/-11.61	-16.36/-17.76	-18.74/-12.77	-11.47/-12.55	-7.3/-7.14	-5.75/-8.6	-11.89/-2.17	0.472/-5.8	1.633/-4.5	3.12/-0.37	0.430/-1.8	-4.42/-1.68	-2.09/-1.24	-4.94/-3.24	-19.22/-7.74	-6.15/-8.65	-10.46/-12.76	-4.55/-1.24	-3.68/-1.02	-8.67/-4.72	2.592/-4.3	-8.03/-1.87
Θ(97.5°)	-4.03/-13.91	-10.67/-13.56	-18.76/-7.56	-14.89/-18.44	-8.23/-10.73	-8.06/-5.59	-5.97/-7.5	-9.07/-0.57	0.062/-2.4	2.423/-4.1	3.38/-1.65	1.86/-1.54	-3.70/-4	-3.29/-1.78	-6.88/-1.91	-5.78/-4.95	-10.18/-4.85	-10.83/-8.75	-18.50/-55	-4.89/-4.18	-2.65/-1.48	2.91/-1.08	-11.45/-17.2	
Θ(105°)	-8.72/-18.18	-18																						



Radiated Composite Gain Data

Appendix A.6

Θ (105°)	-16.74/-17.17	-12.53/-12.42	-15.34/-14.19	-12.52/-16.87	-9.51/-8.84	-14.91/-13.69	-18.29/-13.64	-11.05/-18.08	-18.06/-10.32	-17.62/-16.95	-18.26/-18.22	-18.92/-17.6	-18.56/-18.67	-17.51/-16.17	-10.01/-17.97	-14.93/-12.27	-11.21/-17.28	-13.27/-13.92	-11.72/-17.89	-12.24/-15.31	-13.47/-19.07	-14.56/-18.44	-18.56/-17.75	-18.28/-14.04
Θ (112.5°)	-18.33/-12.24	-12.24/-18.9	-18.99/-18.14	-18.79/-12.08	-10.24/-10.67	-8.17/-11.91	-17.67/-9.99	-11.09/-13.41	-11.26/-10.13	-14.26/-9.76	-17.23/-17.47	-12.4/-12.05	-14.24/-16.19	-19.03/-14.42	-9.59/-10.59	-11.96/-11.31	-7.92/-8.36	-13.6/-10.15	-8.18/-16.58	-13.69/-17.55	-14.35/-13.18	-18.76/-18.22	-18.37/-18.51	-13.71/-13.95
Θ (120°)	-11.81/-16.19	-13.54/-12.68	-13.58/-10.75	-11/-11.89	-10.66/-11.22	-9.59/-7.84	-19.26/-6.34	-14.68/-18.5	-10.11/-12.1	-11.84/-9.99	-19.15/-17.27	-17.81/-10.76	-12.25/-14.55	-16.22/-19.1	-15/-8.73	-9.11/-5.39	-6.93/-16.35	-8.18/-3.03	-7.91/-12.28	-13.43/-16.94	-8.95/-13.94	-19.14/-18.26	-18.83/-17.9	-14.44/-10.62
Θ (127.5°)	-14.84/-16.23	-16.18/-11.44	-8.04/-7.08	-6.45/-8.27	-8.54/-15.37	-8.9/-9.08	-9.11/-8.77	-9.91/-6.96	-5.07/-16.33	-10.69/-9.59	-17.65/-15.67	-18.27/-13.25	-11.9/-11.2	-9.62/-8.87	-9.48/-10.42	-9.01/-2.18	-4.63/-9.98	-2.31/-4.78	-6.72/-13.67	-13.65/-9.21	-12.27/-16.75	-18.23/-17.17	-15.16/-16.78	-19.33/-18.56
Θ (135°)	-17.96/-18.75	-10.82/-18.08	-14.43/-11.05	-7.9/-10.72	-13.69/-17.13	-14.37/-8	-6.32/-9.6	-16.16/-7.3	-6.3/-12.7	-7.65/-9.94	-18.77/-14.48	-15.7/-14.54	-10.68/-10.07	-9.62/-7.08	-10.29/-8.9	-5.78/-2.78	-7.42/-7.98	-3.12/-3.07	-7.19/-6.05	-8.47/-13.49	-9.43/-7.83	-13.82/-16.05	-17.97/-17.84	-10.16/-18.95
Θ (142.5°)	-18.41/-15.82	-17.65/-14.78	-9.97/-12.17	-14.72/-8.6	-9.5/-16	-11.75/-5.82	-9.65/-10.62	-7.45/-4.46	-8.29/-11.07	-4.89/-7.25	-19.37/-18.35	-15.57/-11.31	-16.22/-10.86	-12.15/-18.67	-11.93/-5.18	-2/-4.97	-5.97/-8.72	-3.34/-3.46	-10.76/-11.97	-8.83/-18.61	-18.08/-16.63	-16.98/-19.33	-15.06/-13.11	
Θ (150°)	-15.64/-15.81	-13.45/-8.2	-6.29/-8.05	-6.08/-3.87	-4.86/-9.29	-10.36/-5.25	-4.75/-2.44	-4.02/-4.65	-8.8/-10.18	-3.41/-5.84	-16.49/-18.64	-17.42/-12.68	-13.32/-8.94	-7.2/-8.01	-8.87/-4.88	-5.5/-9.03	-18.49/-8.25	-4.31/-0.9	-3.66/-1.9	-7.1/-13.11	-17.52/-19.08	-18.92/-17.62	-18.19/-18.99	-18.69/-17.5
Θ (157.5°)	-11.03/-12.2	-15.1/-18.96	-14.12/-15.96	-12.22/-9.58	-18.28/-7.2	-2.84/-1.44	-1.21/-1.29	-3.44/-6.56	-10.29/-8.58	-8.47/-15.73	-18.91/-18.73	-18.77/-11.11	-7.81/-7.4	-6.4/-4.01	-6.42/-7.16	-5.86/-9.43	-9/-3.08	-1.12/-0.68	0.93/-4.88	-3.78/-6.77	-17.57/-11.5	-14.89/-18.46	-18.93/-17.71	-16.06/-15.65
Θ (165°)	-15.1/-12.61	-11.23/-6.92	-4.45/-5.32	-3.31/-2.32	-0.39/-0.28	0.3/-0.24	-0.58/-1.66	-4.21/-5.51	-5.36/-5.38	-6.59/-9.56	-16.62/-18.3	-18.8/-18.13	-11.64/-8.11	-8.1/-6.91	-8.24/-8.42	-9.07/-5.86	-5.34/-3.49	-2.28/-0.35	-3.13/-0.26	-3.1/-17.77	-10.74/-9.35	-12.9/-14.66	-17.91/-17.92	-17.79/-15.34
Θ (172.5°)	-10.55/-8.18	-6.83/-5.93	-5.53/-3.36	-1.96/-1.94	-1.89/-1.99	-2.95/-2.8	-2.34/-2.2	-2.51/-2.57	-3.01/-3.89	-6.25/-8.27	-10.98/-13.42	-15.84/-16.66	-15.55/-13.05	-9.94/-8.3	-5.53/-4.53	-2.25/-1.62	-2.5/-1.2	-0.78/-1.12	0.36/-1.82	-18.62/-6.1	-3.96/-6.42	-9.82/-11.69	-19.37/-17.78	-18.78/-14.02
Θ (180°)	-10.76/-7.46	-5.81/-4.23	-3.28/-2.73	-1.74/-1.39	0.23/-0.36	0.10/-0.7	0.15/-0.21	-1.05/-1.44	-2.26/-3.29	-5.07/-7.96	-11.98/-18.29	-18.13/-15.13	-10.32/-7.28	-5.04/-4.04	-2.51/-3.28	-2.49/-1.55	-0.73/-0.04	1.04/0.49	-4.41/-8.22	-1.38/-0.47	-3.84/-8.25	-7.83/-9.56	-10.44/-15.58	-18.1/-13.97
Freq(Hz)	6.995G/Pol.	PhiAnt. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
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°)	-1.46/-2.88	-5.24/-3.84	-4.5/-5.64	-6.42/-7.86	-8.73/-11.38	-15.3/-14.89	-16.17/-13.08	-9.59/-8.84	-7.11/-5.87	-5.49/-4.8	-4.57/-4.48	-4.45/-4.4	-3.95/-4.54	-4.53/-4.3	-6.09/-6.54	-7.55/-9.16	-10.66/-14.95	-16.12/-15.26	-11.59/-12.44	-12.3/-10.54	-7.72/-5.65	-4.55/-3.94	-3.64/-3.4	-4.96/-2.85
Θ (7.5°)	-8.78/-6.97	-8.2/-11.25	-13.38/-10.95	-15.62/-17.2	-18.71/-15.79	-13.25/-11.3	-11.26/-10.82	-8.81/-6.88	-5.39/-4.03	-3.81/-2.65	-2.67/-3.17	-3.09/-3.22	-3.88/-4.32	-5.49/-5.88	-8.15/-8.45	-9.99/-13.4	-18.14/-18.17	-17.76/-14.74	-12.96/-10.5	-7.42/-6.26	-6.11/-5.68	-5.18/-6.12	-4.51/-5.04	
Θ (15°)	-3.73/-4.75	-7.25/-8.59	-9.98/-12.86	-13.15/-15.72	-18.3/-18.84	-18.48/-15.06	-13.79/-10.46	-8.97/-8.45	-7.57/-5.8	-6.14/-4.99	-3.74/-3.07	-2.56/-3.25	-3.81/-4.43	-6.63/-8.65	-9.52/-10.29	-11.86/-17.14	-18.94/-18.37	-18.56/-18.4	-14.19/-10.94	-11.76/-10.68	-7.37/-6.21	-4.72/-5.09	-3.52/-3.16	-5.79/-6.03
Θ (22.5°)	-10.37/-10.98	-7.21/-8.46	-9.03/-9.45	-10.47/-11.22	-14.3/-17.16	-18.39/-17.65	-17.88/-14.97	-10.72/-8.02	-6.54/-5.23	-3.58/-2.47	-2.17/-3.16	-2.84/-1.64	-0.9/-1.6	-6.23/-4.78	-2.33/-4.78	-5.86/-8.26	-12.09/-17.41	-15.16/-15.64	-9.24/-11.51	-8.5/-5.82	-6.98/-12.3	-1.3/-1.56	-3.3/-5.15	-6.09/-5.7
Θ (30°)	-11.86/-10.3	-9.23/-8.53	-15.39/-14.16	-11.81/-17.34	-16.71/-15.58	-18.04/-13.67	-11.73/-13	-13.71/-9.18	-5.96/-5.5	-3.17/-2.3	-1.59/-1.28	-1.41/-1.07	-1.57/-2.3	-1.95/-2.9	-4.71/-5.95	-7.73/-13.09	-14.82/-18.35	-18.33/-11.85	-15.62/-8.08	-9.45/-9.84	-7.72/-8.1	-6.99/-3.69	-1.89/-1.72	-2.45/-4.22
Θ (37.5°)	-9.57/-8.15	-7.79/-8.54	-10.88/-10.14	-11.22/-17.68	-18.45/-18.4	-18.2/-16.07	-17.73/-11.6	-8.96/-8.32	-6.19/-3.28	-3.11/-2.11	-1.07/-0.73	-0.78/-1.5	-1.56/-2.91	-5.18/-6.31	-8.02/-8.23	-12.35/-12.67	-13.29/-18.84	-14.18/-12.78	-17.31/-16.36	-12.91/-6.47	-8.32/-2.8	-2.12/-2.19	-1.17/-0.38	-0.8/-4.15
Θ (45°)	-3.94/-10.3	-3.46/-12.95	-5.88/-8.01	-12.24/-11.31	-18.42/-18.85	-18.61/-14.48	-10.04/-7.42	-7.12/-2.98	-1.3/-1.19	-0.2/-0.02	1.180/-47	-1.42/-7.2	-2.47/-3.2	-5.45/-5.83	-8.27/-12.16	-13.93/-15.58	-17.96/-16.24	-13.09/-8.18	-2.88/-4.29	-2.16/-1.39	-5.17/-5.31	-5.56/-2.64	-2.76/-1.82	
Θ (52.5°)	-5.04/-9.62	-7.58/-8.65	-6.63/-18.21	-5.34/-9.97	-19.01/-18	-18.4/-14.51	-18.21/-14.9	-9.45/-8.29	-5.62/-3.24	-1.72/-0.84	0.651/-73	1.30/-15	-2.24/-1.11	-2.97/-4.6	-7.15/-7.98	-12.54/-7.22	-11.58/-17.85	-17.05/-14.6	-10.32/-13.27	-6.93/-3.03	-3.12/-0.3	-0.62/-2	-5.79/-6.92	-1.67/-0.08
Θ (60°)	0.1/-11.91	-4.47/-13.24	-10.48/-10.25	-7.84/-13.63	-9.55/-18.8	-17.02/-16.85	-17.94/-18.58	-15.08/-7.78	-5.26/-4.09	-0.36/-0.39	2.49/-2.11	1.56/-0.4	-0.98/-2.25	-2.86/-2.72	-3.64/-6.46	-6.94/-10.5	-15.09/-12.86	-15.55/-17.91	-7.86/-18.36	-7.01/-3.98	-1.37/-1.34	-0.39/-1.23	1.1/-2.19	-4.72/-0.08
Θ (67.5°)	-4.49/-7.28	-9.31/-9.52	-18.43/-5.83	-13.49/-14.13	-12.22/-17.93	-14.3/-17.03	-13.85/-12.44	-11.2/-9.42	-5.03/-2.72	0.030/-3	2.89/-2.4	1.69/-0.57	-0.01/-1.81	-4.45/-4.82	-2.33/-2.46	-2.89/-7.83	-6.87/-12.76	-12.04/-11.86	-14.28/-14.12	-13.53/-4.07	-3.09/-3.09	-1.54/-0.05	-0.22/-0.47	-1.59/-0.7
Θ (75°)	-6.37/-10.78	-6.86/-12.78	-17.31/-18.81	-17.63/-16.98	-12.3/-12.81	-18.08/-17.42	-8.57/-8.84	-12.96/-8.66	-4.43/-2.42	0.081/-86	2.51/-92	3.47/-2.9	3.17/-2.3	-0.06/-1.68	-3.71/-2.46	-4.72/-1.95	-9.92/-18.23	-7.01/-9.35	-13.19/-12.71	-9/-4.63	-1.99/-0.66	-4.72/-2.37	-1.98/-4.8	-9.5/-1.99
Θ (82.5°)	-2.28/-4.31	-8.57/-9.13	-15.14/-9.48	-14.65/-11.27	-15.75/-17.15	-13.9/-7.92	-7.98/-8.75	-10.25/-12.33	-4.65/-2.1	-0.53/-1.05	3.343/-09	4.31/2.95	1.21/-38	-0.38/-0.38	-3.62/-3.74	-6.23/-3.55	-11.17/-18.65	-7.81/-4.74	-12.95/-16.38	-10.41/-11.4	-1.53/-2.15	-5.82/-1.22	3.33/-1.95	-3.67/-1.19
Θ (90°)	-0.5/-6.32	-15.97/-18.88	-18.42/-11.78	-16.03/-8.31	-16.73/-17.99	-12.18/-6.21	-7.67/-8.55	-7.55/-12.11	-5.04/-0.19	-2.2/-2.1	3.264/-23	2.58/-0.74	-0.75/-4.52	-2.56/-1.01	-0.87/-5	-5.89/-8.76	-5.52/-10.73	-7.36/-6.93	-7.07/-8.5	-3.98/-0.51	-0.88/-0.86	-5.79/-3.55	3.03/-1.61	-17.37/-2.72
Θ (97.5°)	-6.1/-18.51	-10.28/-13.61	-16.75/-13.66	-11.06/-17.83	-18.85/-18.18	-13.95/-6.23	-7.1/-7.03	-7.84/-10.81	-6.19/-5.03	-1.57/-2.29	3.514/-19	1.951/-56	0.26/-2.86	-2.17/-0.88	-0.96/-3.08	-5.99/-8.28	-9.51/-17.06	-7.04/-5.02	-10.24/-17.57	-5.28/-14	-4.921/-63	-10.78/-69	3.46/-1.92	-9.25/-4.02
Θ (105°)	-11.36/-17.97	-12.76/-17.62	-15.4/-11.51	-7.44/-6.86	-18.82/-17.48	-13.91/-8.58	-8.17/-7.74	-6.81/-0.87	-1.57/-2.84	3.153/-51	3.042/-54	-0.59/-1.73	-2.06/-0.98	-2.21/-3.86	-5.67/-5.46	-11.41/-9.67	-11.38/-10.68	-7.42/-16.65	-9.37/-3.81	-2.79/-5.4	-6.57/-11.38	-2.91/-3.31	-7.75/-4.2	
Θ (112.5°)	-7.86/-8.02	-16.35/-17.66	-18.13/-6.8	-6.82/-7.47	-18.68/-10.66	-12.57/-6.82	-7/-10.2	-8.16/-6.92	-4.94/-0.82	0.2/-77	2.813/-85	2.873/-58	-1.17/-0.48	0.280/-82	-2.17/-4.17	-6.12/-4.23	-9.96/-6.24	-13.36/-10.73	-8.76/-14.25	-5.7/-2.32	-3.15/-5.01	-5.32/-12.9	-0.05/-6.69	-0.84/-2.6
Θ (120°)	-17.91/-7.6	-7.25/-9.56	-7.51/-6.17	-4.69/-12.57	-10.26/-14.53	-15.38/-12.16	-11.88/-7.59	-9.28/-6.48	-3.97/-1.52	0.332/-93	2.652/-52	2.064/-23	-0.14/-1.22	-0.09/-2.25	-1.81/-0.4	-4.43/-4.34	-10.96/-9.63	-18.71/-10.22	-7.82/-17.27	-6.49/-6.25	-5.23/-1.33	-1.89/-3.52	-1.75/-4.23	-0.09/-6.4
Θ (127.5°)	-14.54/-12.28	-18.34/-9.28	-6.06/-4.88	-5.41/-14.88	-15.01/-16.68	-10.81/-10.83	-11.78/-14.69	-9.36/-6.45	-1.66/-2.47	0.582/-66	2.812/-51	0.513/-13	0.29/-6.22	-4.19/-3.47	-1.11/-3.58	-6.82/-8.14	-5.96/-6.22	-19.22/-6.77	-11.58/-9.24	-7.24/-4.87	-8.36/-14.68	-8.92/-6.29	-8.71/-10.87	-15.61/-17.48
Θ (135°)	-13.4/-14.19	-10.76/-17.67	-18.12/-18.88	-10.83/-15.42	-17.83/-18.62	-15.1/-19.12	-12.51/-7.39	-9.98/-6.05	-2.46/-2.57	1.440/-97	1.693/-09	1.621/-84	2.27/-0.5	-3.64/-3.89	-4.74/-6.18	-3.37/-11.77	-13.17/-10.05	-15.61/-12.96	-8.15/-18.15	-19.4/-7.33	-5.53/-8.06	-7.01/-2.89	-5.83/-3.61	-6.49/-5.39
Θ (142.5°)	-18.18/-13.24	-11.67/-8.36	-19.11/-17.81	-18.33/-16.83	-18.37/-18.83	-16.73/-10.67	-5.5/-6.96	-11.47/-2.91	-3.37/-1.4	1.96/-0.91	0.392/-17	1.4/-0.92	-1.04/-0.66	-4.14/-8.01	-7.5/-6.12	-5.15/-6.03	-8.03/-19.44	-10.84/-11.02	-9.79/-8.41	-16.04/-4.98	-11.8/-17.73	-6.02/-7	-16.78/-13.13	-12.11/-13.49
Θ (150°)	-11.81/-18.56	-15.6/-10.23	-12.62/-12.44	-11/-15.19	-15.95/-9.12	-11.75/-16.93	-11.88/-10.85	-4.92/-4.91	-5.81/-1.01	2.120/-48	0.641/-11	0.210/-48	-1.62/-0.33	-1.98/-1.91	-3.38/-6.02	-8.94/-8.78	-9.05/-16.47	-11.8/-7.31	-4.82/-9.39	-7.24/-4.87	-8.36/-14.68	-8.92/-6.29	-8.71/-10.87	-15.61/-17.48