



Radiated Composite Gain Data of 5GHz UNII 1~UNII 3

Appendix B

Θ(165°)	-9.81/-11.74	-17.08/-18.26	-17.8/-17.88	-16.17/-12.54	-11.52/-11.66	-13.75/-19.03	-18.91/-16.18	-11.49/-9.2	-9.04/-9.77	-11.66/-13.51	-14.61/-13.63	-12.09/-10.24	-7.89/-5.65	-4.62/-4.21	-3.91/-4.59	-5.58/-6.76	-8.44/-11	-13.08/-14.95	-15.08/-14.34	-12.76/-11.19	-9.95/-8.79	-7.93/-7.6	-7.81/-7.1	-7.21/-9.51
Θ(172.5°)	-9.91/-9.55	-11.24/-12.74	-13.08/-14.26	-15.86/-16.75	-17.8/-18.05	-16.93/-15.54	-14.07/-11.24	-9.72/-8.69	-8.82/-9.33	-9.9/-10.34	-10.71/-10.36	-9.73/-9.03	-7.79/-6.63	-5.75/-5.73	-6.34/-7.59	-8.96/-10.99	-13.33/-16.22	-17.74/-17.06	-15.71/-14.58	-14.42/-14	-14.31/-16.3	-15.7/-15.73	-13.31/-11.77	-11.18/-10.8
Θ(180°)	-12.01/-13.06	-17.68/-18.64	-18.56/-18.76	-18.58/-18.02	-17.9/-13.23	-12.17/-11.17	-10.35/-11.62	-8.21/-7.64	-7.52/-7.89	-8.2/-8.46	-8.79/-9.16	-10.53/-12.08	-14.46/-19.02	-15.06/-18.96	-14.61/-16.17	-15.06/-18.96	-12.73/-11.87	-12.73/-11.87	-11.39/-11.51	-12.28/-12.2	-13.04/-12.83	-11.47/-10.48	-10.47/-9.79	-10.63/-12.85
Freq(Hz)	5.2GPol	ThetaAnt.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°)	-18.41/-17.26	-17.87/-17.54	-14.08/-11.15	-10.58/-6.25	-8.79/-8.68	-8.79/-8.95	-8.74/-8.54	-8.7/-9.1	-10.33/-12.1	-14.59/-17.14	-17.73/-17.59	-16.02/-19.06	-17.34/-15.18	-13.51/-11.84	-10.98/-9.89	-9.25/-8.7	-8.29/-7.83	-7.64/-8.26	-6.93/-6.98	-9.82/-10.55	-12.01/-13.9	-16.8/-18.14	-18.34/-18.76	
Θ(7.5°)	-13.75/-11.96	-10.79/-10.05	-8.87/-7.68	-7.48/-7.2	-6.89/-6.76	-6.87/-6.68	-6.71/-7.07	-7.77/-8.18	-9.15/-10.45	-12.26/-14.25	-15.79/-16.57	-17.56/-18	-18/-18.26	-17.59/-15.12	-13.03/-11.85	-11.68/-11.17	-10.45/-9.25	-8.31/-7.92	-8.74/-9.44	-10.17/-10.82	-11.07/-12.13	-14.65/-17.81	-18.82/-19.19	-18.85/-15.62
Θ(15°)	-9.92/-7.58	-6.9/-6.17	-5.32/-4.74	-4.75/-4.41	-3.98/-3.96	-4.01/-4.15	-4.04/-4.54	-4.91/-5.35	-6/-6.99	-8.29/-9.72	-12/-13.18	-14.17/-16.07	-18.16/-18.55	-18.08/-17.79	-15.11/-14.85	-15.66/-16.87	-16.15/-13.34	-11.73/-11.43	-11.22/-11.31	-11.08/-10.2	-9.91/-10.57	-12.62/-15.34	-18.54/-17.55	-18.19/-13.55
Θ(22.5°)	-6.39/-5.26	-4.96/-5.45	-6.38/-6.15	-6.07/-6.23	-5.69/-5.84	-5.99/-5.47	-4.81/-4.48	-4.26/-4.25	-4.4/-5.1	-6.1/-6.99	-10.89/-13.55	-17.67/-18.25	-18.79/-17.42	-16.13/-14.99	-15.02/-14.96	-14.76/-13.61	-12.75/-12.05	-12.71/-13.96	-14.65/-13.55	-12.87/-13.43	-16.32/-18.83	-18.18/-17.83	-11.87/-8.7	
Θ(30°)	-10.28/-8.8	-8.09/-8.69	-10.95/-11.75	-9.49/-8.36	-6.85/-6.37	-5.62/-4.88	-4.43/-4.32	-4.11/-3.98	-4.09/-4.57	-5.52/-6.14	-6.35/-4.97	-9.82/-11.86	-12.94/-14.61	-18.02/-18.36	-18.86/-14.57	-13.13/-12.8	-12.32/-10.47	-9.44/-10.11	-13.81/-19.06	-18.21/-17.01	-17.92/-17.76	-17.42/-18.21	-17.97/-19.45	-16.13/-13.81
Θ(37.5°)	-9.11/-8.9	-9.31/-10.18	-11.88/-13.23	-11.01/-9.39	-7.84/-7.71	-6.83/-5.71	-4.82/-4.27	-3.78/-3.66	-3.92/-4.22	-4.31/-4.64	-5.02/-7.17	-11.68/-14.82	-13.88/-15.28	-17.8/-17.79	-14.69/-12.28	-12.48/-12.09	-11.56/-12.77	-16.78/-18.87	-17.79/-17.83	-19.14/-16.75	-17.97/-18.57	-18.75/-18.51	-14.36/-12.45	-11.34/-9.69
Θ(45°)	-9.92/-9.75	-10.25/-11.1	-11.22/-9.35	-8.61/-7.04	-6.18/-5.47	-5.61/-6.31	-7.49/-7.15	-5.33/-3.94	-5.36/-4.09	-4.68/-4.84	-5.12/-6.1	-8.44/-10.22	-12.25/-15.98	-17.83/-18.9	-16.73/-16.05	-15.39/-13.13	-13.46/-18.5	-18.62/-17.89	-17.64/-17.83	-18.14/-18.77	-17.96/-17.56	-14.84/-10.91	-10.15/-9.54	-9.98/-10.29
Θ(52.5°)	-10.7/-6.69	-8.28/-7.99	-8.01/-6.64	-5.68/-4.19	-3.49/-2.96	-2.85/-3.37	-3.84/-4.48	-4.57/-4.49	-4.38/-4.37	-3.73/-4.7	-4.16/-5.91	-7.45/-7.62	-8.48/-11.06	-17.78/-17.54	-17.77/-17.97	-19.04/-18.6	-17.08/-17.25	-15.41/-12.44	-14.33/-13.81	-18.19/-18.33	-18.11/-13.67	-12.48/-9.83	-7.69/-8.05	-10.2/-13.41
Θ(60°)	-8.25/-8.09	-12.39/-10.8	-10.21/-9.18	-7.73/-7.09	-5.28/-3.98	-2.52/-2.42	-3.03/-4.75	-6.19/-6.02	-4.32/-3.03	-2.64/-2.98	-3.39/-3.96	-4.25/-3.78	-5.05/-7.84	-12.09/-15.29	-13.68/-14.3	-18.51/-17.86	-18.71/-19	-17.9/-16.53	-13.56/-13.67	-14.71/-11.96	-10.88/-11.2	-10.67/-10.55	-8.86/-9.15	-10.2/-9.8
Θ(67.5°)	-8.89/-8.17	-8.37/-8.8	-8.52/-8.02	-5.66/-5.07	-4.27/-4.41	-4.55/-4.34	-5.02/-5.18	-5.52/-7.2	-8.38/-7.44	-5.57/-4.9	-5.03/-5.46	-6.42/-6.27	-6.96/-9.42	-14.99/-17.89	-15.34/-15.2	-18.67/-16.91	-18.51/-16.24	-13.83/-10.98	-10.87/-12.13	-11.27/-14.26	-18.18/-17.63	-12.82/-10.71	-10.91/-14.31	-11.9/-8.93
Θ(75°)	-10.26/-10.14	-8.07/-11.7	-14.24/-10.93	-9.6/-8.62	-7.36/-4.41	-3.69/-3.67	-4.2/-4.75	-4.4/-5.06	-8.6/-10.15	-5.8/-3.5	-3.56/-5.2	-5.81/-5.02	-6.03/-8.11	-9.68/-11.03	-10.05/-13.45	-15.21/-16.76	-18.5/-12.79	-10.46/-11.7	-14.55/-16.42	-18.71/-17.78	-14.32/-10.77	-11.17/-14.24	-18.18/-14.66	-11.17/-10.32
Θ(82.5°)	-17.08/-18.22	-10.69/-8.04	-7.63/-6.52	-7.57/-6.88	-5.57/-4.26	-3.57/-3.87	-5.23/-6.28	-5.77/-5.42	-6.14/-8.76	-7.17/-4.05	-4.07/-5.7	-6.42/-6.39	-10.14/-9.52	-9.84/-11.23	-11.53/-11.24	-8.88/-7.56	-7.9/-7.87	-9.85/-13.41	-15.48/-12.83	-13.28/-13.58	-19.21/-16.78	-18.31/-16.7	-18.6/-16.45	
Θ(90°)	-13.07/-9.01	-8.55/-7.8	-11.65/-8.55	-7.24/-7.94	-4.79/-3.47	-3/-4	-5.36/-5.21	-6.60/-6.43	-7.64/-9.07	-8.45/-4.15	-5.15/-6.57	-4.96/-9.32	-5.78/-8.1	-7.91/-6.05	-5.53/-4.09	-5.99/-9.21	-7.26/-6.81	-4.53/-4.04	-5.91/-9.65	-1.11/-7.57	-6.61/-9.05	-1.11/-7.57	-16.69/-17.29	-15.94/-17.63
Θ(97.5°)	-17.78/-9.46	-10.88/-10.94	-8.36/-7.56	-9.07/-12.67	-8.2/-4.31	-3.2/-3.31	-4.49/-7.8	-7.01/-6.97	-10.74/-15.19	-8.15/-4.62	-5.72/-6.77	-11.59/-10.52	-8.57/-9.47	-6.25/-5.73	-7.17/-6.76	-5.49/-4.57	-3.91/-4.14	-4.16/-4.51	-4.42/-4.62	-6.07/-6.59	-6.23/-6.5	-8.58/-18.08	-18.01/-18	-16.49/-19.44
Θ(105°)	-14.71/-9.74	-10.32/-9.87	-10.48/-11.9	-16.35/-14.59	-10.17/-6.58	-4.28/-3.47	-4.41/-6.26	-8.54/-9.38	-11.14/-14.19	-8.85/-9.51	-6.11/-6.83	-10.15/-11.21	-16.33/-14.92	-9.69/-7.19	-5.44/-7.1	-3.59/-7.28	-3.87/-3.14	-5.38/-5.11	-5.2/-3.19	-3.18/-9.45	-4.14/-5.56	-6.21/-10.22	-18.39/-14.45	-16.83/-18.22
Θ(112.5°)	-17.73/-9.23	-10.84/-9.21	-8.07/-10.93	-11.1/-10.62	-10.74/-7.63	-7.13/-7.29	-8.97/-13.64	-15.3/-10.08	-8.97/-15.23	-6.57/-5.59	-4.27/-5.15	-10.5/-8.62	-9.72/-10.43	-5.27/-3.51	-4.51/-5.87	-4.59/-3.93	-3.21/-0.14	-2.14/-10.24	-6.5/-4.34	-12.39/-15.66	-13.62/-18.23	-16.82/-17.84		
Θ(120°)	-15.16/-18.94	-16.83/-10.29	-9.2/-10.14	-10.23/-19	-11.43/-10.18	-10.52/-12.35	-16.22/-19.08	-13.86/-15.07	-16.33/-17.78	-8.43/-8.62	-9.34/-11.17	-8.38/-7.63	-7.51/-6.96	-6.48/-5.08	-3.64/-6.05	-5.09/-4.05	-2.03/-2.04	-1.12/-4.65	-7.21/-2.3	-2.66/-5.62	-6.26/-3.48	-5.21/-8.32	-8.91/-11.98	-10.3/-7.05
Θ(127.5°)	-17.51/-8.5	-12.65/-17.85	-13.66/-13.39	-19.23/-12.89	-11.27/-8.73	-10.41/-14.24	-18.81/-19.05	-18/-18.6	-18.52/-17.72	-16.87/-11.67	-8.26/-33	-1.32/-16.64	-18.55/-13.25	-8/-7.62	-9.01/-9.47	-9.57/-8.07	-4.32/-3.84	-6.16/-6.32	-6.52/-4.94	-3.6/-3.1	-2.9/-4.14	-6.55/-5.23	-2.79/-6.26	-3.95/-4.54
Θ(135°)	-11.79/-7.39	-9.61/-11.35	-8/-7.26	-10.28/-12.89	-16.6/-19.29	-18.49/-19.09	-18.78/-14.44	-17.91/-18.44	-18.25/-18.47	-16.98/-16.01	-16.91/-17.65	-17.33/-8.85	-18.25/-18.14	-16.98/-18.24	-6.57/-8.3	-3.34/-14.3	-3.65/-6.18	-4.6/-2.37	8.07/-2.12	-4.56/-1.39	-3.11/-0.52	0.66/-2.2	-6.73/-18.52	-15.93/-15.82
Θ(142.5°)	-5.06/-10.82	-18.3/-16.98	-17.52/-11.52	-9.66/-10.96	-14.94/-16.71	-15.53/-16.33	-18.72/-18.07	-15.06/-11.98	-11.71/-13.78	-17.9/-15.93	-11.86/-10.61	-7.58/-7.61	-11.41/-10.93	-8.5/-7.17	-8.38/-18.43	-8.09/-6.94	-2.73/-1.05	-5.62/-7.55	-6.31/-3.97	-2.09/-2.41	-2.47/-5.17	-9.97/-4.87	-4.11/-8.24	-6.71/-3.91
Θ(150°)	-5.74/-10.29	-18.08/-18.66	-18.42/-14.31	-10.63/-11.16	-14.24/-16.98	-15.52/-12.9	-12.44/-12.55	-13.19/-14.61	-17.41/-8.61	-18.61/-18.34	-17.76/-19.14	-16.23/-14.64	-18.55/-13.25	-8/-7.62	-9.01/-9.47	-9.57/-8.07	-4.32/-3.84	-6.16/-6.32	-6.52/-4.94	-3.6/-3.1	-2.9/-4.14	-6.55/-5.23	-2.79/-6.26	-3.95/-4.54
Θ(157.5°)	-8.89/-12.73	-17.8/-18.26	-18.8/-17.9	-19.08/-19.24	-18.73/-18.44	-18.26/-19.07	-18.45/-19.47	-16.98/-16.01	-16.91/-17.65	-17.33/-8.85	-18.25/-18.14	-16.98/-18.24	-6.57/-8.3	-3.34/-14.3	-3.65/-6.18	-4.6/-2.37	8.07/-2.12	-4.56/-1.39	-3.11/-0.52	0.66/-2.2	-6.73/-18.52	-15.93/-15.82		
Θ(165°)	-16.06/-18.62	-18.87/-16.23	-15.2/-17.2	-18.45/-18.41	-18.93/-19.28	-15.41/-13.78	-12.83/-13.78	-16.72/-17.9	-19.2/-18.47	-16.66/-15.87	-15.62/-15.83	-15.21/-13.41	-11.17/-9.21	-7.21/-5.9	-4.98/-4.59	-4.75/-5.22	-6.43/-7.72	-8.04/-6.8	-5.36/-4.61	-4.84/-5.72	-6.84/-7.95	-7.51/-6.66	-6.27/-6.25	-7.55/-11.66
Θ(172.5°)	-17.59/-18.56	-17.34/-14.68	-12.63/-12.82	-13.16/-13.11	-12.84/-13.74	-14.52/-15.76	-18.17/-18.66	-17.34/-15.06	-12.61/-11.52	-11.73/-12.77	-13.74/-14.47	-14.11/-12.72	-11.28/-9.65	-8.09/-6.7	-5.78/-5.39	-5.64/-6.18	-7.05/-6.71	-8.18/-6.87	-9.32/-9.5	-10.34/-10.58	-10.15/-9.91	-9.43/-9.15	-9.34/-10.5	-12.19/-17.52
Θ(180°)	-14.33/-13.27	-12.19/-11.62	-12.15/-11.39	-10.58/-10.07	-9.68/-9.49	-9.34/-9.63	-10.99/-12.28	-12.99/-13.25	-13.71/-13.81	-13.37/-12.36	-11.38/-11.1	-10.69/-10.06	-9.04/-8.29	-7.22/-6.74	-6.79/-7.08	-7.26/-7.36	-7.29/-7.53	-8.45/-9.98	-11.03/-11.82	-12.31/-11.75	-11.94/-12.5	-14.15/-14	-13.46/-13.43	-13/-12.27
Freq(Hz)	5.3GPol	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°)	-5.22/-5.09	-5.46/-5.73	-6.86/-7.33	-8.84/-10.6	-13.06/-15.07	-16.96/-18.47	-18.14/-17.14	-14.12/-11.36	-9.71/-8.45	-7.71/-7.46	-6.67/-6.64	-6.79/-6.54	-6.32/-6.71	-7.15/-7.86	-8.41/-8.49	-8.76/-18.47	-17.74/-18.47	-17.51/-16.5	-14.76/-12.48	-10.33/-8.65	-8.46/-7.65	-6.66/-5.68	-4.75/-4.59	
Θ(7.5°)	-5.24/-4.46	-4.66/-5.01	-5.98/-6.77	-7.99/-9.66	-11.32/-13.83	-16.34/-18.29	-19.1/-16.34	-14.44/-11.93	-10.07/-8.62	-8.11/-7.53	-6.89/-6.95	-6.73/-6.29	-6.16/-6.36	-7.01/-7.27	-7.99/-9.38	-11.07/-13.22	-17.4/-18.28	-18.2/-17.81	-14.51/-13.25	-11.52/-9.53	-8.82/-8.72	-6.96/-6.12	-5.4/-5	-5.26/-4.8



Radiated Composite Gain Data of 5GHz UNII 1~UNII 3

Appendix B

Θ(15°)	-15.14/-14.74	-12.07/-10.98	-9.55/-7.31	-6.46/-5.75	-5.34/-4.83	-4.68/-4.32	-4.29/-4.5	-4.4/-4.7	-5.31/-6.08	-7.75/-9.84	-12.85/-16.03	-16.05/-13.07	-10.93/-9.06	-8.01/-7.39	-6.56/-6.11	-5.68/-5.62	-5.8/-5.48	-4.79/-4.57	-4.62/-5.25	-5.53/-5.85	-6.75/-8.04	-9.9/-11.42	-12.57/-13.72	-14.79/-14.95
Θ(22.5°)	-17.13/-15.03	-10.26/-7.88	-6.72/-4.44	-2.91/-4.4	-1.14/-0.6	-0.52/-0.91	-1.4/-2.21	-3.3/-4.91	-6.58/-7.47	-8.34/-9.84	-11.67/-14.89	-15.42/-13.23	-11.1/-10	-10.19/-10.65	-11.84/-12.68	-13.47/-15.61	-13.57/-11.21	-8.55/-7.48	-7.32/-8.2	-9.7/-10.76	-10.95/-10.98	-12.19/-12.62	-13.73/-14.99	-16.03/-18.19
Θ(30°)	-12.24/-9.78	-7.21/-5.32	-4.08/-4.27	-3.99/-2.54	-1.44/-1.33	-1.76/-1.97	-1.33/-1.01	-1.37/-2.54	-4.53/-7	-9.05/-10.22	-11.72/-13.9	-15.99/-16.72	-14.81/-1.98	-10.65/-10.48	-10.59/-12.88	-16.02/-14.3	-13.6/-17.31	-17.95/-12.48	-11.75/-11.36	-12.22/-13.57	-16.45/-16.02	-15.96/-15.82	-13.96/-12.69	-14.09/-15.21
Θ(37.5°)	-11.53/-7.72	-6.27/-6.36	-6.31/-6.25	-6.59/-5.86	-4.53/-3.49	-3.93/-4.11	-3.84/-3.38	-3.63/-3.69	-3.74/-4.01	-4.71/-7.3	-11.47/-15.93	-14.48/-14.29	-17.21/-18.56	-16.7/-16.18	-18.23/-17.92	-17.7/-19.08	-17.24/-18.48	-18.21/-17.89	-18.41/-16.96	-15.08/-17.33	-19.12/-17.83	-13.35/-11.71	-11.21/-10.2	-12.47/-13.08
Θ(45°)	-9.53/-10.07	-8.41/-8.14	-8.46/-8	-7.17/-6.62	-5.58/-6.07	-4.29/-3.38	-3.17/-3.3	-2.74/-2.35	-2.9/-3.95	-4.84/-6.3	-6.49/-8.94	-12.18/-15.43	-18.2/-14.69	-8.84/-8.73	-12.64/-12.8	-14.26/-17.63	-18.58/-17.43	-14.93/-14.26	-12.63/-13.14	-18.5/-18.83	-19.01/-18.13	-18.37/-15.28	-8.72/-8.26	-8.96/-8.12
Θ(52.5°)	-6.61/-6.53	-9.98/-8.65	-8.18/-7.45	-7.25/-8.15	-5.97/-6.34	-5.07/-4.33	-3.74/-3.6	-3.64/-3.54	-3.81/-3.53	-3/-3.68	-5.25/-5.68	-8.64/-9.28	-11.33/-14.21	-14.6/-15.25	-17.22/-18.69	-17.9/-18.23	-18.28/-17.41	-18.69/-18.42	-14.74/-10.8	-11.9/-15.03	-14.44/-18	-16.72/-13.09	-11.51/-10.03	-1.66/-5.96
Θ(60°)	-7.21/-5.45	-5.18/-7.41	-9.19/-6.28	-4.51/-3.93	-3.64/-4.46	-5.59/-4.1	-1.52/-0.55	-1.14/-2.84	-4.31/-4.42	-3.72/-3.48	-5.03/-5.96	-4.96/-6.7	-9.91/-15.53	-17.25/-13.96	-13.29/-14.31	-15.12/-18.12	-18.08/-16.28	-14.25/-14	-13.22/-15.81	-13.97/-11.95	-18.4/-18.65	-18.06/-11.69	-9/-7.84	-6.36/-6.44
Θ(67.5°)	-7.04/-9.07	-10.03/-8.04	-6.48/-4.79	-6.83/-7.87	-7.06/-4.6	-2.48/-1.35	-0.38/-0.19	-1.06/-1.86	-3.18/-5.95	-5.84/-2.4	-2.21/-2.75	-2.89/-4.25	-6.16/-9.09	-10.61/-9.77	-10.57/-8.14	-11.76/-11.66	-10.19/-11.16	-10.52/-11.39	-17.66/-18.05	-18.63/-18.87	-15.63/-11.45	-10.49/-13.38	-14.5/-10.27	-7.54/-5.98
Θ(75°)	-7.25/-5.71	-5.53/-6.06	-5.27/-4.34	-4.93/-5.45	-4.8/-4.5	-5.1/-4.4	-2.59/-0.92	-0.17/-1.25	-2.91/-5.86	-7.91/-4.37	-3.12/-3.57	-4.65/-3.92	-5.92/-9.25	-12.16/-10.48	-7.94/-7.58	-7.85/-4.83	-6.23/-5.41	-6.62/-7.52	-8.54/-15.82	-15.32/-17.43	-17.69/-16.57	-14.38/-12.1	-9.78/-9.82	-7.13/-4.74
Θ(82.5°)	-10.43/-12.41	-7.05/-10.11	-10.74/-7.25	-5.87/-6.44	-3.77/-1.69	-1.58/-3.68	-4.34/-1.51	-0.41/-0.31	-3.51/-7.25	-4.73/-3.4	-3.77/-5.32	-6.13/-5.59	-6.81/-6.77	-6.37/-5.12	-5.77/-5.18	-7.39/-6.23	-8.57/-6.16	-5.55/-6.4	-7.61/-9.9	-10.89/-7.54	-6.43/-9.72	-13.07/-18.51	-17.64/-17.94	-10.78/-6.67
Θ(90°)	-15.01/-8.81	-2.58/-4.37	-4.92/-4.2	-7.53/-11.76	-9.92/-3.61	-0.89/-0.75	-2.59/-4.86	-3.04/-1.74	-2.84/-5.17	-6.3/-6.24	-5.48/-4.79	-4.06/-5.38	-8.39/-3.77	-3.2/-5.84	-2.3/-5.84	-5.09/-4.4	-3.17/-2.16	-3.2/-5.82	-7.04/-7.36	-6.97/-4.99	-4.82/-6.44	-11.44/-8.56	-14.4/-12.5	-10.82/-6.71
Θ(97.5°)	-15.33/-9.86	-7.45/-10.47	-12.25/-6.99	-10.06/-16.69	-9.91/-2.95	-0.29/-0.9	-3.38/-4.65	-3.1/-1.99	-3.63/-7.19	-8.74/-4.83	-4.41/-4.39	-0.99/-9.78	-3.83/-7.19	-4.58/-1.87	-3.04/-3.31	-3.07/-2.57	-0.59/-0.66	-1.29/-2.25	-3.17/-2.43	-2.32/-1.4	-2.83/-6.11	-7.28/-17.13	-17.76/-18.14	-13.91/-9.16
Θ(105°)	-18.21/-6.48	-3.33/-6.11	-8.78/-6.2	-11.57/-18.07	-11.15/-4.64	-1.75/-1.89	-4.2/-6.99	-5.03/-4.16	-6.2/-10.48	-8.86/-5.35	-6.3/-4.28	-8.57/-8.26	-7.68/-9.82	-4.59/-4.89	-4.94/-4.65	-3.4/-1.62	-2.51/-0.67	-0.72/-0.88	-2.58/-1.93	-0.46/-1.71	-2.55/-3.87	-3.16/-7.51	-18.63/-17.96	-16.51/-14.27
Θ(112.5°)	-14.94/-8.59	-5.55/-8.88	-9.02/-7.56	-16.95/-10.58	-7.74/-5.6	-2.44/-2.67	-5.51/-7.46	-4.68/-4.38	-7.93/-12.79	-6.49/-5.12	-6.43/-3.67	-5.64/-5.79	-10.94/-10.4	-4.18/-1.3	-1.2/-3.01	-4.29/-5.17	-4.03/-1.62	-1.96/-1.82	-1.2/-0.3	-2.04/-3.78	-2.92/-4.21	-6.18/-10.68	-18.31/-12.27	-14.16/-12.08
Θ(120°)	-14.95/-12.99	-7.17/-9.4	-10.06/-11.2	-13.3/-14.83	-11.77/-9.61	-13.14/-13.13	-8.83/-9.97	-16.81/-17.35	-13.84/-13.36	-10.95/-10.08	-6/-2.56	-2.89/-3.76	-11.47/-7.45	-7.94/-6	-3.26/-1.79	-3.4/-0.38	-0.3/-0.3	-1.6/-4.09	-7.40/-66	-0.24/-10.24	-6.79/-247	-6.08/-10.29	-11.84/-8.57	-11.59/-14.13
Θ(127.5°)	-19.06/-7.45	-8.97/-8.17	-12.29/-12.93	-17.85/-18.38	-12.17/-12.78	-18.21/-17.64	-15.43/-14.86	-15.45/-16.04	-18.2/-18.36	-11.64/-8.58	-6.15/-7.77	-4.3/-6.89	-5.01/-5.36	-5.05/-0.22	-2.73/-1.37	-3.58/-4.96	-0.98/-0.26	-2.01/-2.72	-5.02/-1.66	-2.36/-4.12	-5.66/-0.59	-3.59/-13.98	-13.47/-15.63	-17.15/-7.59
Θ(135°)	-11.71/-5.77	-7.45/-8.06	-9.02/-9.71	-7.08/-7.9	-14.26/-17.8	-10.76/-9.93	-13.44/-17.5	-17.66/-18.23	-14.96/-15.77	-18.35/-16.95	-13.42/-6.95	-7.45/-7.34	-4.96/-9.03	-6.69/-0.55	-0.81/-5.02	-12.19/-127	-2.51/-2	-4.98/-2.5	-2.86/-1.1	-6.08/-6.06	-1.17/-4.45	-14.08/-18.76	-17.36/-17.92	
Θ(142.5°)	-8.48/-14.47	-18.19/-15.42	-18.45/-17.94	-18.123/-13.95	-15.61/-16.15	-15.68/-16.12	-18.61/-16.95	-11.1/-10.03	-13.11/-19.11	-18.73/-16.58	-9.57/-11.22	-9.15/-4.58	-6.92/-13.7	-5.44/-1.96	-2.13/-8.15	-9.59/-2.41	-3.08/-0.67	-1.38/-8.49	-7.56/-1.23	-1.26/-1.38	-4/-9.98	-13.27/-3.74	-5.14/-12.06	-7.19/-6.26
Θ(150°)	-6.74/-18.31	-17.24/-16.95	-12.88/-8.86	-8.91/-11.32	-12.48/-14.14	-15.01/-12.08	-11.01/-14.45	-18.84/-17.8	-18.29/-18.93	-17.66/-18.91	-12.65/-10.79	-7.52/-6.69	-11.09/-11.76	-8.5/-6.38	-4.73/-4.68	-3.93/-4.19	-1.54/-0.63	-3.58/-5.28	-3.84/-0.39	-0.66/-0.66	-2.12/-4.13	-8.66/-4.25	-3.09/-4.39	-4.54/-4.07
Θ(157.5°)	-5.33/-10.52	-18.8/-18.81	-17.83/-15.59	-14.1/-14.36	-14.94/-19.55	-19.28/-19.29	-19.12/-18.96	-16.76/-16.02	-17.72/-18.79	-18.72/-18.25	-18.11/-18.38	-14.47/-15.15	-13.69/-9.83	-6.85/-6.69	-6.46/-5.84	-4.67/-3.01	-1.53/-1.6	-2.53/-3.88	-5.32/-5.25	-4.08/-2.11	-1.95/-2.85	-4.35/-4.43	-3.74/-2.79	-3.06/-3.78
Θ(165°)	-11.32/-14.82	-14.02/-11.93	-14.39/-18.53	-19.07/-18.13	-18.26/-16.42	-15.69/-15.19	-15.49/-18.35	-18.24/-16.79	-12.56/-11.73	-13.19/-17.1	-18.66/-17.99	-14.31/-10.34	-6.66/-3.75	-1.8/-0.74	-0.13/-0.44	-0.84/-0.45	-0.28/-0.41	-1.78/-2.59	-2.82/-2.04	-1.75/-1.29	-1.31/-2.42	-4.16/-5.2	-4.7/-4.34	-5.26/-6.65
Θ(172.5°)	-18.35/-18.78	-12.74/-9.87	-9.75/-10.66	-11.19/-13.7	-17.75/-18.02	-18.16/-17.15	-17.32/-17.88	-18.48/-12.73	-9.82/-9.06	-9.82/-12.07	-16.82/-18.55	-17.83/-14.33	-10.27/-2.5	-5.29/-3.59	-2.41/-1.44	-1.05/-1.36	-2.25/-3.04	-3.76/-3.95	-4.82/-6.08	-6.36/-6.72	-7.02/-6.78	-5.83/-5.24	-5.39/-7.11	-9.54/-18.75
Θ(180°)	-10.09/-9.23	-9.21/-10.11	-9.63/-9.81	-8.82/-8.96	-8.76/-8.39	-9.09/-9.73	-11.9/-15.85	-17.4/-19.14	-18.9/-18.35	-18.4/-16.78	-13.7/-11.03	-8.94/-7.38	-6.37/-5.56	-4.79/-4.34	-4.9/-5.27	-6.22/-6.9	-1.7/-1.46	-8.16/-11.34	-12.12/-11.42	-10.91/-10.07	-9.6/-9.53	-10.46/-10.71	-10.32/-10.52	-10.27/-8.67
Freq(Hz)	5.785GPol.	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°)	-1.7/-1.67	-2.09/-2.94	-3.57/-4.05	-4.88/-5.05	-5.9/-5.68	-7.45/-8.7	-10.1/-10.05	-11.4/-10.81	-9.23/-7.89	-7.14/-6.23	-4.94/-3.94	-2.88/-2.27	-2.18/-2.62	-2.95/-2.94	-2.99/-2.89	-2.98/-3.96	-5.26/-6.64	-8.3/-9.41	-10.85/-11.19	-10.4/-9.02	-7.39/-6.27	-4.85/-3.38	-2.53/-2.04	-2.32/-3
Θ(7.5°)	-2.95/-3.35	-3.25/-3.65	-4.04/-4.27	-5.47/-5.63	-6.9/-6.82	-9.11/-9.29	-12.40/-11.55	-12.58/-11.51	-9.49/-7.85	-6.79/-6.84	-5.04/-4.22	-3.18/-3.08	-3.15/-3.36	-3.53/-3.6	-3.63/-4.23	-5.32/-7.07	-8.91/-10.38	-11.77/-12.05	-11.75/-10.19	-8.32/-7.16	-5.22/-4.01	-3.41/-2.82	-2.48/-2.43	
Θ(15°)	-4.61/-3.92	-4.12/-5.12	-7.16/-7.68	-9.24/-8.17	-9.47/-9.8	-11.12/-12.72	-12.41/-12.69	-13.96/-14.01	-12.45/-9.81	-7.74/-6.62	-6.11/-5.72	-5.53/-5.55	-4.9/-4.21	-3.85/-3.86	-4.22/-4.67	-4.94/-5.1	-6.21/-8.28	-11.83/-16.53	-17.88/-19.06	-17.06/-13.62	-10.75/-9.01	-7.45/-6.26	-6.05/-5.51	-4.94/-4.39
Θ(22.5°)	-7.32/-4.73	-6.3/-6.06	-7.43/-11.74	-15.95/-17.12	-17.12/-15.58	-15.76/-13.73	-11.28/-10.3	-11.1/-12.36	-12.49/-10.21	-7.54/-6.2	-5.69/-5.41	-5.62/-6.05	-5.64/-5.03	-4.49/-4.28	-4.96/-5.79	-6.52/-7.35	-8.81/-12.54	-17.52/-19.17	-16.11/-12.51	-10.19/-9.32	-8.7/-9.44	-9.77/-9.02	-8.02/-8.77	-7.45/-6.95
Θ(30°)	-3.98/-5.46	-7.67/-7.66	-7.09/-7.63	-9.08/-12.88	-15.99/-19.32	-18.19/-16.6	-18.02/-14.25	-10.55/-9.51	-9.9/-10.61	-9.41/-7.35	-5.75/-8.43	-8.9/-5.23	-5.23/-8.78	-6.43/-7.17	-8.24/-9.84	-10.45/-11.15	-12.34/-14.1	-16.15/-15.72	-11.74/-9.74	-10.42/-12.08	-11.99/-13.61	-16.32/-13.33	-8.19/-5.42	-3.89/-2.91
Θ(37.5°)	-7.17/-4.75	-3.49/-4.5	-4.98/-4.87	-5.26/-5.82	-6.1/-8.14	-9.52/-12.32	-13.61/-15.05	-13.52/-9.22	-6.98/-6.04	-5.8/-5.94	-5.89/-4.22	-3.21/-3.89	-4.67/-4.98	-5.71/-6.77	-8.79/-8.56	-10.3/-11.6	-13.79/-17.27	-18.99/-17.79	-13.31/-11.02	-11.13/-11.82	-13.22/-15.12	-10.73/-7.41	-4.98/-4.05	-5.06/-6.19
Θ(45°)	-14.36/-11.85	-8.28/-8.88	-9.88/-7.47	-7.58/-8.57	-8.75/-9.68	-12.21/-17.77	-19.1/-19.6	-18.32/-18.46	-13.62/-9.2	-6.37/-4.16	-3.9/-5.1	-6.22/-6.31	-4.63/-4.16	-6.3/-9.36	-10.88/-13.97	-14.58/-17.27	-17.87/-18.04	-16.26/-10.41	-7.65/-4.5	-8.07/-10.14	-14.47/-12.67	-8.02/-5.84	-7.18/-7.34	-6.73/-8.2
Θ(52.5°)	-17.86/-18.8	-18.03/-16.82	-16.53/-9.46	-7.64/-8.33	-10.82/-13.64	-16.3/-18.79	-13.28/-11.03	-11.35/-13.96	-6.82/-4.54	-3.12/-2.81	-4.23/-4.14	-3.12/-4.23	-5.74/-4.94	-5.8/-6.77	-10.65/-13.31	-16.24/-19.58	-13.34/-8.83	-7.62/-7.41	-8.75/-13.49	-18.65/-16.57	-13.06/-10.8	-7.81/-8.79	-12.56/-18.96	
Θ(60°)	-4.74/-5.42	-8.13/-12.75	-14.07/-11.98	-11.36/-17.3	-16.02/-11.17	-12.51/-17.82	-13.73/-9.27	-8.1/-12.66	-19.27/-15.71	-9.06/-6.53	-3.13/-2.98	-5.43/-7.54	-5.39/-5.35	-6.57/-7.65	-6.31/-5.44	-7.71/-9.85	-13.74/-17.9	-17.63/-14.2	-11.69/-9.55	-10.45/-12.69	-18.33/-10.13	-6.15/-6.63	-9.56/-9.52	-7.12/-6.68
Θ(6																								



Radiated Composite Gain Data of 5GHz UNII 1~UNII 3

Appendix B

Θ(67.5°)	-2.79/-5.16	-6.65/-8.07	-8.65/-6.18	-7.11/-11.79	-18.16/-13.87	-10.61/-13.16	-17.95/-16.18	-14.41/-16.98	-16.93/-14.36	-11.31/-11.93	-17.39/-17.14	-18.21/-12.83	-10.54/-11.87	-11.92/-13.81	-17.85/-18.53	-18.41/-18.69	-19.05/-18.51	-14.76/-12.44	-12.86/-13.78	-11.92/-11.72	-15.21/-12.55	-8.78/-8.68	-10.53/-6.89	-3.49/-2.17
Θ(75°)	-7.42/-10.54	-12.34/-9.09	-9.6/-10.16	-14.56/-11.75	-11.03/-10.56	-12.37/-16.24	-18.23/-13.69	-13.53/-12.71	-17.48/-15.54	-11.18/-11.69	-15.53/-19.18	-18.94/-19.27	-18.35/-17.68	-14.92/-15.31	-15.32/-18.04	-18.31/-19.13	-18.6/-18.72	-18.77/-15.03	-9.76/-8.2	-9.17/-10.54	-11.49/-10.37	-9.68/-9.68	-8.95/-7.87	-6.52/-6.63
Θ(82.5°)	-8.48/-9.57	-10.37/-8.33	-9.98/-10.34	-14.97/-17.34	-18.21/-15.13	-15.36/-18.72	-17.54/-11.61	-10.29/-9.4	-11.35/-16.23	-12.23/-10.58	-12.28/-16.01	-14.56/-17.81	-18.69/-17.7	-14.82/-12.89	-14.59/-18.76	-18.75/-18.17	-18.75/-11.49	-8.09/-8.65	-8.41/-6.58	-6.08/-8.06	-11.14/-16.33	-14.73/-7.22	-5.95/-7.99	
Θ(90°)	-9.92/-16.33	-17.79/-11.74	-10.65/-10.15	-13.61/-12.58	-15.54/-18.68	-18.23/-18.49	-18.33/-17.71	-16.53/-14.51	-14.77/-14.12	-13.36/-12.86	-16.73/-18.92	-11.31/-10.99	-12.79/-18.84	-17.69/-12.8	-11.21/-13.44	-17.36/-17.36	-17.3/-19.2	-15.51/-15.1	-16.45/-11.73	-9.86/-10.87	-10.21/-11.85	-12.3/-14.55	-15.88/-10.36	-9.42/-10.69
Θ(97.5°)	-12.32/-12.44	-10.72/-8.72	-13.51/-18.19	-18.02/-18.81	-17.64/-19.27	-17.8/-15	-13/-12.67	-13.08/-17.76	-15.56/-12.16	-13.75/-10.59	-11.05/-12.3	-13.96/-15.48	-15.81/-15.69	-12.6/-14.8	-11.8/-12.9	-14.97/-15.12	-18.69/-18.1	-17.04/-13.41	-10.08/-12.32	-10.42/-9.7	-10.53/-10.03	-12.2/-17.78	-18.99/-16.86	-12.87/-10.72
Θ(105°)	-12.36/-12.69	-12.17/-16.16	-18.01/-18.84	-18.75/-18.44	-18.36/-17.68	-17.82/-17.65	-18.56/-18.41	-18.09/-18.76	-18.46/-15.01	-13.99/-14.46	-16.04/-13.08	-11.75/-14.14	-12.33/-10.42	-11.15/-11.74	-11.56/-10.67	-12.88/-14.66	-16.18/-18.59	-15.07/-16.59	-16.09/-17.18	-17.06/-17.02	-16.86/-15.26	-16.46/-15.62	-18.38/-12.66	-14.12/-17.46
Θ(112.5°)	-15.6/-18.95	-18.04/-14.27	-10.58/-9.27	-8.93/-12.99	-13.89/-17.82	-18.99/-17.81	-18.77/-17.9	-16.37/-13.97	-16.08/-17.98	-11.24/-8.68	-14.06/-10.46	-13.42/-13.37	-6.89/-5.67	-8.6/-12.33	-14.43/-14.83	-12.45/-10.23	-12.63/-14.25	-18.12/-13.8	-11.97/-18.08	-19.09/-17	-18.42/-18.55	-18.07/-18.57	-14.94/-13.34	-15.13/-15.49
Θ(120°)	-9.4/-12	-11.59/-12.18	-10.32/-15.14	-18.73/-18.98	-19.02/-19.05	-18.81/-18.09	-18.17/-18.1	-17.8/-18.97	-17.41/-17.26	-11.8/-10.17	-8.85/-7.32	-13.64/-17.78	-14.5/-5.9	-4.42/-8.72	-13.19/-15.42	-11.73/-9.64	-10.93/-11.8	-18.08/-18.29	-14.98/-18.48	-18.52/-18.2	-18.89/-18.73	-18.72/-16.62	-10.89/-6.94	-4.75/-5.94
Θ(127.5°)	-8.88/-8.71	-7.2/-13.08	-16.57/-18.16	-18.02/-14.58	-12.07/-13.31	-14.1/-17.55	-12.5/-11.54	-18.89/-17.35	-15.71/-9.19	-9.1/-8.46	-6.23/-6.68	-8.35/-9.1	-6.3/-3.77	-4.6/-11.03	-18.25/-12.58	-10.1/-9.52	-6.33/-9.52	-11.45/-13	-16.07/-15.01	-15.58/-16.59	-15.01/-12.4	-14.18/-19.09	-13.18/-17.04	-14.32/-5.84
Θ(135°)	-6.78/-8.16	-8.84/-6.88	-9.87/-17.29	-15.97/-13.06	-12.15/-15.58	-18.41/-16.45	-15.87/-13.24	-12.17/-12.33	-11.37/-11.97	-11.93/-10.96	-8.52/-4.1	-4.41/-8.98	-7.6/-5.33	-6.66/-12.4	-18.72/-10.82	-7.15/-4.57	-4.9/-8.47	-11.52/-12	-11.25/-18.31	-18.19/-13.97	-11.68/-11.31	-9.31/-10.61	-13.9/-13.09	-11.52/-12.4
Θ(142.5°)	-5.2/-13.75	-8.31/-10.54	-12.43/-9.3	-11.41/-13.99	-16.61/-18.17	-17.05/-14.81	-11.53/-10.03	-13.23/-18.63	-17.76/-17.99	-10.19/-7.74	-13.58/-9.5	-7.84/-9.55	-12.37/-16.38	-7.35/-4.36	-5.48/-8.15	-6.42/-5.84	-5.71/-4.55	-5.03/-6.97	-10.85/-18.99	-17.88/-18.36	-17.79/-14.47	-13.5/-12.2	-6.27/-3.5	-2.96/-1.76
Θ(150°)	-3.47/-2.54	-3.85/-4.96	-4.06/-4.66	-6.67/-5.13	-12.03/-18.64	-17.47/-18.92	-19.02/-15.85	-11.81/-8.53	-7.1/-6.67	-11.54/-9.7	-7.66/-6.14	-10.89/-12.12	-4.54/-5.69	-7.66/-8.06	-9.13/-9.16	-6.96/-6.21	-9.01/-14.79	-17.81/-16.75	-14.21/-13.4	-16.73/-18.33	-12.98/-10.5	-9.27/-7.73	-11.12/-18.17	-10.83/-4.29
Θ(157.5°)	1.76/-0.37	-4.22/-8.22	-10.47/-14.35	-18.12/-17.45	-18.75/-18.52	-18.4/-18.97	-18.42/-13.92	-10.33/-7.68	-5.97/-4.99	-3.89/-4.1	-4.25/-3.51	-2.41/-1.44	-0.96/-1.24	-2.77/-5	-7.25/-8.19	-9.92/-13.23	-18.92/-17.7	-15.18/-14.76	-15.68/-19.07	-18.24/-18.57	-18.54/-16.87	-14.19/-9.76	-4.89/-1.08	1.69/-2.01
Θ(165°)	-10.77/-12.33	-8.2/-6.36	-5.99/-6.57	-7.54/-9	-11.23/-15.32	-18.49/-19.27	-18.59/-18.66	-18.18/-18.37	-10.19/-7.74	-5.61/-3.87	-2.27/-1.01	-0.37/-0.27	-0.6/-0.99	-1.5/-1.76	-2.79/-3.94	-5.2/-6.5	-8.27/-8.12	-8.01/-9.34	-11.15/-16.55	-18.31/-12.99	-8.3/-5.48	-3.53/-2.58	-2.1/-2.5	-4.26/-6.87
Θ(172.5°)	-3.92/-1.8	-1.74/-0.86	-1.47/-2.25	-3.36/-4.78	-6.67/-9.6	-13.92/-16.35	-15.82/-16.81	-18.49/-18.23	-14.77/-9.1	-5.63/-3.8	-2.33/-1.28	-0.66/-0.29	-0.31/-0.22	-0.14/-0.05	-0.15/-0.64	-1.53/-2.79	-4.2/-6.08	-8.22/-12.02	-18.05/-17.47	-10.91/-7.99	-6.04/-4.98	-4.68/-5.73	-9.02/-14.93	-14.07/-7.57
Θ(180°)	-4.25/-3.97	-4.83/-6.6	-8.65/-8.37	-7.89/-8.59	-9.81/-11.11	-11.29/-12.03	-13.3/-14.66	-16.07/-15.69	-13.07/-10.36	-8.26/-6.34	-4.69/-3.47	-2.6/-1.93	-1.71/-1.61	-1.49/-0.71	-0.81/-0.87	-1.25/-2	-3.59/-5.23	-6.97/-9.05	-10.68/-10	-8.86/-10.92	-13.79/-14.88	-17.12/-18.94	-12.71/-8.01	-6.11/-4.97
Freq(Hz)	5.3GPol	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°)	-17.78/-18.48	-12.1/-9.3	-7.62/-6.29	-5.8/-4.82	-3.85/-2.82	-2.72/-2.44	-2.17/-2.43	-2.92/-3.5	-4.32/-5.14	-6.85/-8.47	-10.84/-14.13	-18.37/-19.15	-16.96/-12.68	-9.8/-7.97	-5.33/-3.79	-2.8/-2.43	-2.14/-1.9	-1.51/-1.39	-1.47/-1.79	-2.2/-2.72	-3.68/-4.31	-5.42/-7.77	-10.2/-12.72	-16.88/-19.17
Θ(7.5°)	-17.13/-12.63	-9.64/-8.24	-6.95/-6.52	-4.95/-4.34	-3.67/-3.16	-2.9/-2.6	-2.36/-2.27	-2.39/-3.94	-5.11/-5.75	-6.55/-8.16	-10.6/-16.63	-19.05/-17.46	-13.32/-9.2	-6.61/-2.41	-2.9/-1.95	-1.04/-0.46	-0.27/-0.53	-0.46/-1.2	-1.61/-1.94	-1.94/-3.07	-3.88/-4.6	-5.91/-7.9	-10.51/-15.45	-14.31/-15.06
Θ(15°)	-18.46/-12.41	-9.46/-7.86	-6.67/-6.13	-4.49/-3.96	-3.36/-3.55	-3.21/-2.76	-2.17/-2.96	-3.41/-4.24	-5.32/-6.14	-7.14/-8.88	-11.89/-16.34	-12.54/-13.75	-12.54/-8.34	-5.22/-3.26	-1.04/-0.56	0.23/0.33	0.59/0.73	0.56/0.01	-0.74/-1.4	-1.93/-2.56	-3.57/-4.96	-6.58/-8.15	-10.39/-12.48	-17.37/-17.79
Θ(22.5°)	-14.36/-19.24	-15.02/-10.95	-9.59/-9.07	-8.88/-8.05	-5.81/-5.11	-3.98/-3.03	-2.61/-2.69	-3.18/-4.3	-5.97/-7.15	-8.68/-11.74	-19.42/-18.03	-17.06/-13.51	-11.08/-7.46	-4.56/-2.49	-1.33/-0.49	0.12/0.64	0.86/0.86	0.75/-0.05	-0.91/-1.11	-1.46/-2.58	-3.68/-4.53	-5.07/-5.24	-6.54/-7.63	-9.26/-11.52
Θ(30°)	-12.56/-18.53	-11.07/-10.42	-10.01/-9.06	-6.73/-6.08	-3.92/-2.69	-2.03/-2.67	-3.52/-3.98	-4.51/-5.12	-5.37/-5.53	-5.17/-3.2	-10.93/-18.66	-17.86/-12.65	-11.41/-11.15	-10.1/-8.6	-5.7/-2.89	-1.54/-0.81	-0.67/-0.54	-0.33/-0.27	0.02/4	-0.25/-1.18	-2.54/-1.49	-4.89/-5.7	-7.63/-9.75	-11.16/-11.6
Θ(37.5°)	-17.14/-18.63	-17.18/-18.86	-12.46/-7.96	-5.52/-3.84	-2.95/-3.27	-3.75/-5.09	-6.25/-6.93	-7.39/-7.67	-8.17/-22	-6.1/-6.25	-7.27/-10.21	-10.24/-8.36	-6.74/-5.22	-3.51/-3.27	-1.15/-1.21	-0.85/0.73	-1.11/-1.82	-1.31/-1.12	-2.06/-3.39	-4.65/-5.53	-4.72/-4.44	-5.86/-9.6		
Θ(45°)	-18.82/-17.92	-12.89/-12.01	-13.31/-13.55	-11.34/-9.72	-10.68/-11.96	-13.15/-14.42	-12.78/-10.12	-9.3/-10.24	-11.52/-11.36	-8.98/-8.81	-11.04/-12.76	-12.19/-15.05	-18.75/-16.35	-12.36/-10.86	-7.98/-5.52	-5.14/-4.92	-4.54/-4.59	-4.12/-3.12	-2.81/-2.78	-3.36/-3.19	-2.85/-3.22	-3.28/-3.17	-4.22/-7.52	-12.27/-17.89
Θ(52.5°)	-18.28/-10.53	-12.65/-16.55	-11.51/-7.04	-4.23/-3.4	-4.23/-6.08	-8.89/-10.68	-13.91/-14.69	-11.26/-8.65	-9.31/-13.18	-11.26/-8.13	-13.99/-14.8	-18.07/-13.81	-17.1/-10.51	-7.47/-6.38	-7.27/-7.48	-7.72/-6.33	-5.7/-5.88	-5.54/-8.7	-3.06/-2.41	-3.34/-6.43	-6.74/-5.31	-3.77/-4.98	-9.43/-14.98	
Θ(60°)	-14.53/-16.57	-14.77/-13.02	-9.22/-9.4	-8.91/-7.78	-8.09/-6.56	-8.8/-8.53	-6.99/-12.43	-18.3/-19.09	-11.57/-9.66	-11.24/-10.83	-6.64/-6.27	-10.73/-14.56	-15.98/-15.31	-10.75/-9.83	-10.52/-9.01	-7.51/-7.31	-7.76/-7.16	-5.31/-5.2	-5.36/-4.45	-4.55/-4.8	-7.64/-9.1	-8.26/-6.94	-9.6/-15.89	
Θ(67.5°)	-11.66/-10.51	-8.95/-8.95	-11.7/-9.26	-4.57/-3.98	-5.51/-8.77	-11.71/-10.41	-9.04/-8.77	-9.7/-9.75	-11.91/-8.81	-10.5/-16.03	-15.91/-9.66	-10.63/-12.87	-13.96/-13.49	-11.79/-9.52	-6.54/-6.04	-7.22/-6.86	-7.02/-7.64	-7.59/-7.22	-6.41/-4.7	-4.25/-6.16	-8.18/-6.43	-3.51/-4.21	-6.25/-8.21	-15.86/-12.12
Θ(75°)	-11.66/-11.72	-13.62/-10.6	-6.94/-5.11	-4.07/-3.58	-4.47/-6.29	-5.39/-3.51	-3.54/-5.88	-7.25/-5.5	-4.11/-4.83	-7.39/-9.94	-10.35/-13.73	-13.37/-11.98	-16.44/-17.9	-12.10/-0.99	-11.08/-12.22	-11.54/-9.85	-7.22/-7.46	-3.65/-2.11	-1.74/-2.04	-2.3/-8.7	-9.15/-8.52	-8.23/-11.1	-10.95/-8.9	-13.28/-18.17
Θ(82.5°)	-6.63/-7.58	-8.67/-8.7	-7.65/-6.11	-4.67/-3.75	-4.25/-6.19	-7.35/-5.45	-2.79/-2.59	-4.64/-8.06	-7.11/-4.74	-5.71/-3.68	-17.62/-11.54	-11.28/-13.78	-17.54/-10.96	-11.3/-12.12	-9.3/-8.66	-7.07/-4.53	-3.49/-3.13	-2.27/-0.74	-0.68/-1.4	-2.74/-6.35	-11.6/-7.7	-5.04/-6.08	-10.84/-12.8	-16.61/-6.86
Θ(90°)	-11.16/-8.12	-7.02/-6.99	-6.77/-4.52	-2.68/-2.03	-4.59/-12.05	-16.76/-11.47	-9.65/-9.98	-4.92/-5.12	-5.02/-4.21	-5.79/-9.61	-9.85/-9.2	-16.21/-18.52	-16.89/-15.44	-14.39/-11.42	-10.01/-8.57	-5.82/-4.38	-2.48/-1.18	-0.51/-0.5	-0.43/-1.3	-6.81/-12.7	-5.45/-5.46	-7.31/-6.01	-10.39/-14.75	-18.38/-13.68
Θ(97.5°)	-12.39/-10.92	-7.29/-6.94	-8.44/-7.18	-4.83/-4.28	-4.94/-7.95	-11.77/-13.4	-5.88/-6.84	-9.8/-7.69	-6.47/-7.33	-8.25/-11	-10.43/-13.31	-17.21/-15.72	-19.13/-14.35	-10.75/-15.01	-14.63/-9.62	-6.92/-3.89	-1.72/-0.12	-0.66/0.36	0.19/-1.23	-1.42/-4.35	-12.48/-9.21	-5.21/-5.56	-5.73/-9.53	-16.49/-15.27
Θ(105°)	-16.97/-8.21	-6.84/-6.3	-7.93/-9.77	-5.43/-5.14	-9.07/-17.67	-18.84/-14.37	-9.35/-9.37	-10.18/-12.06	-11.61/-9.3	-10.55/-9.5	-9.73/-13.96	-16.08/-11.46	-11.27/-13.92	-16.41/-18.86	-18.13/-10.23	-5.77/-3.92	-1.16/-0.77	0.62/0.18	-0.24/-0.73	-3.88/-5.68	-3.11/-2.95	-5.74/-9.94	-12.8/-13.2	-16.09/-17.8
Θ(112.5°)	-19.07/-6.41	-4.71/-7.57	-6.76/-4.54	-4.56/-6.24	-9.34/-15.83	-15.66/-9.98	-9.27/-10.73	-18.53/-13.4	-8.09/-8.54	-11.25/-12.56	-15.74/-12	-10.03/-15.38	-19.08/-16.42	-16.43/-18.17	-12.65/-1									



Radiated Composite Gain Data of 5GHz UNII 1~UNII 3

Appendix B

Θ(120°)	-11.16/-11.36	-7.93/-16.39	-12.87/-17.88	-16.13/-14.73	-12.83/-13.92	-18.61/-18.37	-17.78/-17.46	-12.34/-13.19	-14.99/-13.66	-6.43/-3.88	-10.68/-11.4	-12.29/-8.51	-5.72/-3.94	-2.93/-5.08	-7.86/-5.81	-3.81/-4.4	-7.24/-10.35	-18.11/-15.19	-7.52/-15.12	-12.07/-6.78	-6.49/-4.09	-6.33/-8.82	-8.2/-9.06	-18.49/-7.13
Θ(127.5°)	-12.19/-17.79	-12.61/-13.78	-15.1/-18.8	-18.48/-17.28	-12.74/-10.32	-8.39/-10.32	-16.33/-16.87	-18.12/-16.14	-13.57/-12.2	-8.63/-5.13	-5.37/-6.12	-4.64/-11.03	-10.16/-0.82	0.36/-2.78	-12.02/-8.81	-5.9/-7.61	-2.87/-7.46	-13.82/-8.96	-6.28/-15.59	-13.41/-7.48	-8.01/-7.21	-7.91/-14.05	-10.04/-4.83	-5.76/-18.05
Θ(135°)	-11.71/-8.97	-13.37/-5.24	-5.53/-7.08	-9.51/-11.68	-11.57/-12.67	-12.79/-18.31	-17.02/-18.18	-17.35/-19.12	-9.87/-6.03	-5.09/-5.23	-7.4/-8.28	-7.15/-37	-6.44/-3.51	-3.91/-9.82	-14.04/-3.84	-2.14/-2.24	-3.67/-11.38	-15.96/-10.6	-7.96/-15.62	-17.58/-8.76	-7.92/-6.13	-5.09/-6.97	-5.85/-4.34	-1.64/-6.21
Θ(142.5°)	-4.08/-7.62	-4.04/-6.12	-11.74/-11.6	-11.28/-11.18	-12.18/-11.35	-9.56/-8.6	-7.96/-7.32	-10.29/-18.19	-10.82/-10.95	-9.88/-11.92	-9.87/-4.54	-4.85/-8.28	-5.87/-3.08	-3.03/-6.96	-7.58/-4.82	-4.78/-4.6	-6.08/-11.75	-17.84/-10.81	-8.58/-10.75	-8.71/-5.52	-6.78/-6.75	-5.51/-8.17	-9.99/-6.66	-2.59/-0.53
Θ(150°)	-8.28/-5	-5.3/-7.25	-6.83/-6.4	-6.86/-7.46	-10.01/-13.48	-16.12/-18.79	-18.24/-17.26	-17.69/-15.29	-8.35/-4.16	-3.52/-7.41	-16.16/-15.28	-15.15/-8.97	-6.39/-2.31	-0.61/-1.2	-2.88/-4.28	-4.49/-4.34	-6.46/-12.02	-14.83/-12.96	-14.63/-12.9	-8.82/-7.92	-9.87/-10.3	-6.5/-5.2	-6.45/-8.64	-16.3/-9.14
Θ(157.5°)	1.95/-0.76	-4.67/-7.49	-7.53/-9.88	-18.13/-16.03	-15.02/-18.76	-17.12/-14.09	-11.84/-11.18	-11.46/-9.44	-6.01/-4.28	-4.19/-6.32	-6.88/-3.8	-0.73/-0.39	-0.82/-2.82	-5.15/-6.88	-7.1/-6.77	-7.65/-10.11	-16.36/-17.94	-17.62/-18.4	-17.58/-16.63	-15.09/-12.06	-10.83/-13.25	-18.51/-15.3	-6.62/-0.68	2.16/3.01
Θ(165°)	-5.1/-17.3	-8.35/-4.66	-3.59/-4.27	-4.49/-5.05	-6.55/-9.41	-14.17/-18.53	-17.99/-17.49	-12.75/-8.66	-5.92/-4.62	-3.57/-3.12	-2.7/-2.33	-1.83/-1.07	-0.40/-1.7	0.43/0.76	-1/-3.73	-6.71/-8.18	-8.61/-9.07	-9.14/-8.78	-9.46/-11.8	-17.46/-18.81	-12.03/-6.2	-2.92/-0.45	1.28/-1.87	0.83/-1.84
Θ(172.5°)	-9.66/-6	-4.47/-3.56	-3.34/-3.77	-4.22/-5.7	-7.9/-10.74	-13.54/-14.74	-15.74/-15.73	-13.15/-9.23	-6.06/-3.53	-1.17/-0.29	1.06/-1.06	0.68/0.31	-0.37/-0.82	-1.14/-1.36	-1.98/-2.91	-4.33/-5.56	-6.58/-7.62	-9.09/-12.14	-18.41/-18.01	-8.98/-5.37	-3.08/-1.72	-0.68/-0.64	-1.95/-5	-9.93/-12.69
Θ(180°)	-4.79/-4.88	-8.15/-11.85	-14.89/-13.45	-11.61/-11.27	-10.65/-9.69	-10.64/-13.92	-18.74/-18	-15.23/-10.46	-7.71/-5.47	-3.83/-2.52	-1.59/-0.88	-0.6/-0.25	-0.01/0.34	0.3/0.81	0.41/-0.01	-0.79/-1.91	-4.32/-7.28	-11.83/-19.02	-17.89/-10.58	-6.83/-6.4	-7.14/-8.18	-9.48/-11.7	-18.29/-11.56	-7.67/-5.61
Freq(Hz)	5.785GPol.	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°)	-9.89/-6.85	-4.8/-3.55	-2.18/-1.03	-0.71/-0.4	-0.16/0.25	0.57/0.84	0.5/0.12	-0.22/-1.08	-2.16/-3.64	-5.31/-7.54	-9.81/-12.26	-13.73/-9.48	-7.82/-6.27	-4.66/-4.04	-2.71/-1.63	-0.9/-0.57	-0.56/-0.61	-0.84/-0.89	-1.23/-1.9	-2.47/-3.12	-3.9/-5.05	-6.42/-9	-13.31/-18.52	-18.9/-15.82
Θ(7.5°)	-8.21/-5.63	-4.45/-3.46	-2.48/-1.8	-1.17/-1	-1.07/-1.35	-1.46/-1.21	-1.61/-2.37	-3.5/-4.88	-6.22/-8.11	-10.36/-13.14	-16.04/-17.85	-15.13/-11.61	-9.39/-7.42	-5.71/-4.19	-2.57/-1.48	-0.55/0.17	0.73/0.94	1.52/1.56	1.58/1.29	1.04/0.59	-0.14/-1.32	-2.39/-4.87	-7.63/-11.71	-14.46/-12.96
Θ(15°)	-12.87/-10.96	-8.6/-6.52	-4.89/-3.35	-2.19/-2.09	-1.83/-1.41	-1.16/-0.93	-0.73/-0.95	-1.54/-2.24	-3.52/-5.26	-7.17/-9.67	-13.86/-18.01	-18.26/-11.38	-8.56/-6.91	-5.35/-4.32	-3.24/-2.14	-1.05/-0.2	0.23/0.3	-0.07/-0.27	-0.09/-0.22	-0.27/-0.78	-1.09/-1.64	-2.45/-4.16	-6.39/-11.06	-17.94/-18.71
Θ(22.5°)	-18.24/-17.71	-14.41/-12.04	-9.13/-7.37	-5.56/-5.13	-4.65/-4.37	-4.86/-4.83	-4.71/-4.79	-5.99/-7.24	-8.92/-9.98	-10.38/-11.37	-15.74/-17.65	-13.44/-9.45	-7.45/-6.04	-4.53/-3.74	-3.58/-3.32	-3.55/-3.77	-4.2/-4.43	-3.85/-3.59	-2.86/-2.61	-2.93/-3.72	-4.35/-4.94	-5.66/-6.43	-8.27/-12.61	-19.3/-17.69
Θ(30°)	-8.16/-9.2	-17.76/-16.33	-10.12/-6.75	-4.45/-3.54	-3.21/-2.57	-2.58/-2.69	-2.89/-2.99	-2.9/-3	-4.32/-6.01	-8.31/-11.57	-16.14/-18.85	-17.35/-14.52	-10.82/-8.69	-7.44/-7.02	-6.61/-5.72	-5.57/-5.89	-6.05/-5.53	-5.02/-4.53	-4.23/-4.28	-4.67/-4.86	-5.42/-4.99	-5.32/-6.12	-8.43/-13.74	-12.02/-8.6
Θ(37.5°)	-18.33/-17.99	-17.21/-17.45	-13.4/-13.1	-10.63/-6.72	-4.85/-3.79	-3.73/-3.53	-3.44/-4	-5.18/-6.44	-6.4/-5.26	-4.52/-5.2	-7.1/-11.3	-17.95/-16.01	-11.12/-9.48	-8.28/-6.64	-6.43/-5.22	-5.97/-6.33	-5.82/-4.76	-3.72/-3.69	-4.49/-5.28	-6.14/-7.43	-4.78/-2.53	-1.47/-2	-4.73/-9.93	-15.7/-18.65
Θ(45°)	-9.06/-14.67	-18.72/-13.29	-7.02/-3.79	-2.9/-2.67	-2.61/-2.18	-3.39/-6.63	-10.03/-9.41	-7.9/-7.2	-6.59/-5.68	-5.26/-5.47	-5.55/-6.34	-10.92/-18.15	-18.28/-12.78	-9.02/-10.52	-8.33/-6.25	-4.98/-4.09	-3.86/-3.8	-3.5/-3.39	-2.79/-2.69	-3.23/-4.18	-4.78/-4.59	-3.57/-3.69	-5.6/-10.27	-9.68/-6.93
Θ(52.5°)	-9.01/-9.8	-17.2/-9.57	-4.52/-3.47	-4.92/-5.02	-3.97/-4.23	-4.51/-4.94	-7/-9.91	-8.57/-7	-6.89/-7.13	-6.62/-6.23	-5.49/-6.71	-12.72/-18.95	-18.98/-13.63	-8.92/-8.64	-8.82/-6.96	-6.67/-6.14	-4.13/-2.24	-1.31/-1.76	-2.62/-3.2	-3.74/-5.19	-5.42/-5.83	-8.32/-11.29	-8.39/-6.84	-11.29/-11.92
Θ(60°)	-15.29/-13.54	-10.32/-9.41	-13.21/-8.16	-3.74/-2.34	-2.14/-3.22	-5.28/-9.49	-12.94/-13.42	-11.39/-11.61	-17.51/-13.89	-7.93/-6.22	-7.06/-8.51	-11.25/-18.05	-17.3/-10.64	-10.79/-12.62	-9.1/-5.64	-6.03/-6.65	-6.45/-5.42	-3.82/-2.52	-1.88/-2.74	-3.95/-5.88	-7.53/-7.94	-11.53/-13.29	-12.29/-12.24	-12.2/-15.06
Θ(67.5°)	-8.96/-10.69	-12.5/-7.55	-3.55/-2.29	-3.27/-2.48	-1.23/-1.72	-2.02/-3.49	-5.44/-6.89	-11.55/-18	-11.25/-9.64	-13.34/-10.25	-5.84/-6.55	-9.8/-12.62	-17.69/-18.61	-15.14/-9.81	-7.89/-6.5	-9.72/-14.43	-10.8/-7.88	-5.34/-2.4	-3.09/-1.71	-1.62/-2.56	-3.94/-5.32	-8.35/-13.62	-14.6/-14.46	-18.25/-11.24
Θ(75°)	-12.8/-7.78	-6.59/-3.85	-2.44/-4.33	-3.21/-1.96	-1.6/-3.45	-5.33/-3.84	-1.89/-2.79	-5.44/-6.35	-5.52/-6.78	-12.42/-16.35	-10.76/-9.77	-10.42/-18.03	-15.17/-18.53	-18.23/-18.15	-11.64/-6.41	-12.42/-11.82	-8.75/-7.59	-3.04/-1.39	-0.24/-0.49	-0.39/-0.45	-0.77/-3.01	-15.02/-16.19	-13.36/-13.11	-10.7/-13.72
Θ(82.5°)	-13.37/-9.13	-5.52/-3.85	-2.9/-1.57	-1.32/-0.19	-0.64/-2.25	-2.78/-2.33	-2.05/-2.43	-4.14/-7.61	-5.66/-4.31	-7.2/-10.92	-7.6/-9.31	-11.44/-14.53	-12.99/-16.34	-15.11/-14.13	-15.02/-7.1	-4.98/-2.83	-3.89/-3.74	-3.25/-2.11	-2.18/-1.87	-0.45/0.77	-1.77/-5.79	-15.18/-8.39	-8/-8.34	-13.27/-18.69
Θ(90°)	-15.75/-10.61	-9.34/-5.98	-4.57/-4.33	-4.96/-3.69	-3.7/-7.09	-6.63/-3.03	-2.19/-2.13	-4.06/-7.77	-9.16/-6.33	-7.83/-10.08	-9.15/-11	-14.53/-14.29	-12.17/-18.27	-18.63/-18.13	-17.36/-8.75	-6.98/-3	-2.77/-3.59	-2.68/-0.35	10.14	-0.2/-0.5	0.1/-2.31	-6.07/-15.78	-8.83/-8.97	-13.1/-13.52
Θ(97.5°)	-17.58/-8.74	-8.21/-4.13	-3.77/-4.42	-5.26/-3.86	-5.69/-10.75	-10.16/-6.79	-5.39/-6.81	-8.15/-11.03	-9.61/-5.11	-6.16/-8.37	-8.48/-6.76	-10.69/-18.46	-17.69/-18.9	-17.22/-17.84	-12.88/-12.11	-5.86/-3.74	-2.93/-2.13	-1.13/-0.52	-0.18/-1.87	-2.53/-2.55	-1.74/-3.63	-10.86/-10.13	-6.76/-10.43	-9.76/-12.14
Θ(105°)	-10.36/-14.96	-10.28/-11.07	-8.62/-4.23	-3.01/-4.56	-6.32/-16.38	-12.82/-7.07	-4.6/-5.37	-10.04/-14.38	-4.78/-6.36	-11.66/-9.18	-7.53/-9.28	-11.91/-18.64	-16.56/-14.91	-13.5/-10.29	-18.8/-10.17	-8.05/-6.32	-3.52/-9.29	-3.45/-0.91	-2.72/-3.99	-2.81/-5.78	-5.09/-2.4	-3.64/-7.52	-7.62/-9.09	-9.18/-15.58
Θ(112.5°)	-9.1/-15.65	-7.29/-9.49	-9.52/-8.4	-5.57/-6.61	-5.35/-6.62	-15.5/-15.21	-10.37/-12.04	-16.94/-6.78	-5.45/-9.98	-9.18/-4.06	-4.1/-7.69	-8.2/-9.67	-12.33/-12.53	-16.72/-15.34	-17.73/-12.57	-6.51/-3.53	-1.64/-4.39	-4.69/-2.99	-2.23/-3.17	-3.71/-5.58	-5.97/-5.56	-3.71/-5.22	-10.01/-10.52	-10.01/-11.07
Θ(120°)	-18.67/-10.08	-4.71/-7.15	-10.99/-7.38	-7.03/-10.37	-12.26/-8.91	-7.66/-8.62	-11.35/-13.58	-13.2/-11.67	-8.44/-8.43	-7.73/-5.97	-5.34/-9.64	-8.8/-9.49	-12.14/-11.8	-18.62/-11.98	-11.48/-11.8	-5.18/-3.08	-1.67/-2.69	-5.05/-1.91	1.59/-0.19	-2.91/-2.38	-4.36/-3.68	-5.24/-4.76	-2.54/-4.87	-2.39/-5.14
Θ(127.5°)	-9.53/-7.74	-6.83/-8.33	-11.43/-9.58	-13.36/-8.73	-5.06/-5.7	-8.26/-8.36	-6.46/-6.6	-18.31/-18.84	-6.24/-4.84	-8.88/-7.27	-5.27/-3.69	-8.01/-11.66	-17.58/-8.75	-10.15/-9.29	-18.22/-5.35	-3.76/-0.6	-0.21/0.41	-2.91/-5	0.91/-0.15	-8.25/-2.62	-0.06/-2.83	-2.08/-9.88	-19.27/-18.07	-9.16/-5.84
Θ(135°)	-2.94/-6.29	-8.12/-18.34	-11.84/-13.64	-17.33/-14.2	-18.88/-17.6	-11.42/-6.92	-4.83/-3.78	-7.29/-17.46	-7.22/-6.09	-5.07/-9.99	-7.04/-3.97	-8.14/-13.11	-12.3/-9.42	-6.89/-14.01	-17.88/-9.58	-0.44/-1.07	1.59/2.42	-2.88/-5.1	1.52/1.04	-6.26/-14.93	-2.55/-0.45	-5.86/-4.37	-10.56/-16.44	-15.38/-6.77
Θ(142.5°)	-16.22/-10.09	-7.39/-6.84	-12.07/-17.8	-8.89/-4.98	-6.29/-8.92	-8.3/-5.56	-4.7/-6.5	-8.42/-9.45	-16.97/-11.67	-12.3/-19	-18.71/-16.1	-14.71/-18.14	-18.38/-15.63	-17.99/-18.31	-18.89/-8.34	-4.14/-2.72	-1/-3.79	-8.99/-8.83	-1.61/-0.63	-2.99/-7.06	-7.1/-1.93	-2.66/-3.93	-1.77/-4.02	-8.37/-12.61
Θ(150°)	-6.65/-6.29	-4.6/-4.21	-6.54/-13.29	-18.08/-15.08	-15.94/-17.3	-17.48/-14.64	-12.38/-12.27	-15.72/-18.41	-17.83/-17.78	-8.37/-4.77	-6.59/-13.49	-15.22/-10.17	-7.91/-9.4	-11.62/-15.56	-17.55/-16.07	-7/-2.5	-1.54/-2.29	-3.38/-2.67	0.1/0.7	0.05/-0.48	-9.64/-7.92	-8.65/-18.47	-8.88/-7.66	-5.95/-1.4
Θ(157.5°)	-3.45/-6.18	-7.07/-8.14	-10.43/-10.56	-9.8/-11.12	-14.27/-18.73	-13.45/-10.14	-8.66/-7.34	-6.97/-9.03	-12.13/-9.27	-6.37/-7.55	-10.36/-9.92	-6.84/-4.79	-5.34/-8.2	-8.96/-8.1	-7.88/-8.8	-10.68/-11.3	-8.52/-5.67	-4.62/-3.74	-2.95/-2.58	-4.05/-5.54	-4.67/-5.52	-5.68/-3.53	-2.28/-1.33	-0.34/-1.03
Θ(165°)	-17.4/-12.25	-9.96/-10.01	-9.96/-10.45	-10.62/-10.78	-10.92/-10.29	-9.58/-8.02	-6.48/-5.51	-4.95/-5.89	-7.98/-12.05	-17.63/-15.33	-14.28/-14.62	-14.21/-11.16	-6.95/-2.74	-0.66/0.4	1/1.42	1.43/1.62	1.04/0.53	-0.98/-0.16	-0.21/-1.68	-1.63/-0.06	0.16/-0.24	-0.14/-0.37	-1.66/-3.42	-5.91/-11.43
Θ(172.5°)	-18.1/-18.8	-18.64/-15.94	-13.17/-10.92	-8.68/-6.68	-5.18/-3.53																			