



Antenna Pattern of 2.4GHz and 5GHz U-NII 1 ~ U-NII 3

Appendix C

Θ(15°)	-5.01/-5.10	-5.75/-6.49	-7.06/-7.33	-8.22/-7.00	-6.54/-6.13	-6.23/-5.66	-4.70/-4.03	-3.31/-3.33	-3.48/-4.28	-4.16/-3.67	-3.33/-3.23	-3.32/-3.47	-3.41/-3.38	-3.13/-2.78	-2.41/-2.29	-2.13/-1.96	-1.92/-1.74	-1.79/-1.89	-2.15/-2.36	-2.81/-3.43	-3.50/-3.42	-3.46/-3.52	-4.26/-4.55	-4.78/-5.35
Θ(22.5°)	-3.08/-2.72	-2.93/-4.70	-6.28/-6.52	-6.11/-5.67	-5.63/-6.06	-7.54/-7.88	-10.09/-9.42	-7.33/-4.92	-2.99/-1.88	-1.41/-1.22	-1.63/-2.07	-2.21/-2.10	-1.95/-1.94	-1.92/-1.74	-1.51/-0.99	-0.63/-0.66	-0.84/-0.86	-0.74/-0.55	-0.28/-0.50	-1.58/-2.63	-2.83/-2.57	-1.82/-1.81	-2.55/-2.68	-3.38/-3.77
Θ(35°)	-2.24/-1.66	-1.75/-2.63	-4.14/-5.13	-4.89/-5.16	-5.64/-6.98	-8.59/-11.05	-11.94/-11.08	-8.10/-5.50	-2.63/-1.00	-0.070/37	0.01/-0.69	-1.41/-1.52	-1.54/-1.96	-2.85/-3.81	-2.52/-1.80	-0.94/-0.91	-0.02/-0.09	-0.05/-0.54	-0.76/-1.31	-1.67/-1.70	-1.23/-1.69	-1.00/-1.21	-2.26/-2.61	-3.23/-3.27
Θ(37.5°)	-4.34/-4.48	-4.45/-4.71	-6.20/-8.07	-6.57/-7.35	-8.73/-9.17	-9.74/-7.67	-5.61/-3.87	-3.30/-3.20	-3.11/-2.57	-1.87/-1.31	-0.74/-0.16	-0.12/-0.46	-0.48/-0.31	-0.82/-2.11	-2.85/-2.70	-2.25/-1.99	-1.58/-0.99	-0.81/-0.16	-0.33/-0.85	-0.85/-0.48	-0.87/-2.40	-3.27/-2.87	-1.50/-1.18	-2.27/-3.74
Θ(45°)	-4.78/-4.22	-4.69/-4.38	-6.68/-5.61	-4.66/-4.84	-6.05/-6.73	-8.35/-10.05	-8.80/-6.47	-4.17/-2.46	-2.19/-2.99	-3.96/-3.29	-1.14/-0.19	-0.30/-1.42	-1.34/-0.63	-4.37/-4.69	-4.68/-6.00	-6.61/-5.58	-4.53/-4.44	-3.76/-2.96	-3.78/-4.66	-4.72/-5.37	-6.43/-5.52	-3.89/-4.69	-5.86/-6.22	
Θ(52.5°)	-6.28/-4.92	-4.99/-6.40	-7.98/-11.27	-13.79/-14.09	-8.62/-6.03	-4.44/-4.91	-9.93/-7.48	-4.82/-3.56	-3.59/-4.05	-5.04/-4.98	-2.37/-1.09	-1.85/-2.23	-2.07/-2.07	-1.47/-2.30	-1.07/-10.33	-6.60/-3.94	-4.01/-5.35	-6.72/-6.73	-6.11/-3.99	-6.90/-6.62	-8.75/-4.73	-5.50/-6.13	-7.20/-7.65	
Θ(60°)	-8.38/-5.36	-4.38/-5.75	-4.79/-5.42	-8.12/-8.51	-5.56/-4.01	-3.92/-6.89	-10.26/-7.33	-4.71/-4.59	-4.26/-2.71	-2.53/-3.39	-1.82/-0.50	-2.47/-3.02	-2.74/-4.00	-3.89/-3.80	-6.34/-6.22	-5.58/-7.79	-10.08/-4.89	-3.32/-3.11	-4.64/-5.66	-6.55/-9.92	-13.08/-8.94	-8.99/-10.26	-5.47/-5.19	-5.55/-6.29
Θ(67.5°)	-7.03/-5.17	-3.46/-4.42	-2.76/-3.19	-3.45/-4.87	-3.98/-3.66	-3.82/-7.01	-8.99/-7.91	-5.98/-6.26	-6.04/-4.21	-3.02/-2.63	-3.41/-2.48	-2.23/-5.44	-4.62/-4.26	-6.18/-3.80	-4.77/-5.62	-5.13/-3.41	-0.860/34	-0.65/-2.63	-4.72/-4.45	-6.23/-5.25	-3.40/-5.03	-6.32/-6.06	-3.91/-4.18	
Θ(75°)	-5.15/-3.36	-1.33/-2.83	-0.48/-1.05	-1.43/-5.63	-6.20/-6.24	-8.76/-13.01	-9.06/-10.76	-11.31/-10.14	-11.15/-10.66	-12.16/-8.53	-5.38/-3.23	-4.06/-6.18	-1.44/-2.06	-4.05/-3.46	-0.28/-0.21	-0.22/-0.16	-1.71/-1.42	0.41/-0.06	-0.40/-1.21	-2.41/-1.57	-2.89/-4.58	-3.07/-2.92	-4.08/-3.24	-1.83/-1.20
Θ(82.5°)	-4.76/-3.66	0.02/-4.83	-1.91/-1.52	-1.72/-6.15	-7.14/-4.74	-8.36/-10.51	-15.00/-9.71	-6.51/-6.55	-8.24/-13.85	-8.14/-6.59	-3.81/-1.67	-4.33/-11.39	-2.19/-0.92	-1.62/-1.30	0.78/-1.65	1.33/-2.23	-0.74/-1.88	1.87/-0.27	-0.92/-0.07	-2.02/-1.60	-0.98/-1.78	-1.85/-1.03	-0.230/66	0.80/-1.51
Θ(90°)	0.02/-1.85	3.80/-1.20	1.67/-0.93	0.17/-3.80	-5.09/-4.98	-9.06/-8.37	-8.01/-10.07	-7.17/-7.01	-8.49/-11.91	-12.43/-4.38	-5.13/-1.77	-2.10/-9.14	-2.57/-5.04	0.12/-0.23	0.57/-0.83	2.27/-2.16	-1.24/-2.15	2.28/-0.77	1.11/-2.13	-2.04/-1.38	1.13/-1.27	0.55/-1.29	1.67/-0.57	0.46/-2.15
Θ(97.5°)	-1.11/-1.89	2.19/-0.04	0.97/-0.79	0.61/-5.46	-3.35/-2.28	-3.50/-3.69	-5.33/-5.29	-6.71/-8.85	-1.59/-7.62	-6.56/-4.32	-3.62/-1.77	-2.27/-4.30	-0.370/89	-1.23/-2.00	-2.14/-1.29	1.23/-1.69	2.43/-2.99	-1.55/-0.80	2.33/-0.00	2.53/-0.64	1.51/-0.54	1.81/-1.11		
Θ(105°)	-4.930/28	0.230/25	1.010/76	-1.54/-4.84	-1.960/47	-0.97/-5.08	-8.59/-8.69	-12.36/-13.59	-9.42/-6.48	-4.22/-4.68	-8.25/-4.28	-3.03/-4.14	-1.28/-0.84	-2.00/-6.55	-8.58/-1.12	1.952/52	-0.94/-1.66	1.40/-1.98	2.62/-1.77	1.100/50	2.582/12	1.24/-2.51	-1.01/-1.73	1.26/-2.01
Θ(112.5°)	-9.98/-4.80	-0.700/33	0.21/-0.35	-0.95/-3.67	-9.03/-8.35	-12.58/-13.72	-8.88/-7.65	-6.52/-7.66	-12.92/-2.82	-2.41/-3.26	-3.00/-4.51	-9.32/-6.88	-4.39/-7.11	-7.00/-4.00	2.302/44	0.11/-2.37	-0.40/-0.65	3.080/03	0.780/19	2.852/10	-1.94/-6.04	-7.00/-1.52	-2.33/-2.87	
Θ(120°)	-10.25/-11.95	-3.20/-3.22	-2.68/-1.87	-2.89/-8.38	-5.72/-5.88	-12.28/-11.29	-5.48/-5.68	-6.50/-8.18	-6.88/-2.79	-1.94/-1.80	-2.53/-8.67	-9.10/-5.76	-11.99/-7.18	-2.04/-7.59	-8.67/-3.27	3.701/89	-0.73/-2.45	-0.283/69	3.22/-3.95	-1.82/-2.64	0.721/83	-6.20/-5.65	-1.54/-0.69	-2.45/-14.98
Θ(127.5°)	-7.03/-8.78	-13.73/-15.29	-11.31/-13.26	-10.16/-7.46	-5.40/-5.41	-8.72/-10.01	-8.89/-8.36	-6.49/-4.06	-2.14/-1.74	-2.25/-1.28	-0.96/-2.42	-3.27/-6.34	-3.79/-2.29	-1.13/-2.24	-5.44/-1.92	0.66/-4.50	-4.71/-1.78	-1.67/-3.44	2.23/-5.46	-5.16/-3.95	-1.84/-0.14	-4.74/-11.27	-12.58/-4.22	-5.11/-8.02
Θ(135°)	-14.98/-6.32	-7.06/-11.33	-15.44/-15.86	-14.20/-10.94	-8.23/-7.04	-8.65/-11.51	-11.61/-9.15	-5.92/-3.81	-4.09/-4.78	-4.04/-2.13	-0.360/-23	-0.83/-0.76	-0.41/-1.20	-0.56/-0.56	-1.23/-2.66	-6.32/-10.39	-4.80/-2.34	-1.45/-1.41	-0.24/-6.91	-8.30/-3.81	-2.33/-4.68	-8.53/-4.37	-10.35/-8.46	-9.68/-10.11
Θ(142.5°)	-9.99/-8.35	-8.17/-10.56	-11.19/-8.53	-7.60/-6.94	-5.69/-5.36	-5.42/-6.06	-6.03/-5.57	-9.09/-7.36	-4.85/-3.95	-4.46/-3.37	-3.29/-4.14	-2.56/-3.87	-5.36/-6.78	-8.96/-6.28	-3.91/-4.00	-4.59/-4.19	-2.94/-4.11	-8.87/-5.82	-2.74/-2.44	-4.54/-4.51	-7.49/-8.38	-7.36/-7.26		
Θ(150°)	-7.70/-12.23	-12.82/-12.93	-11.54/-8.64	-6.39/-5.43	-5.53/-6.31	-8.78/-7.63	-8.43/-9.59	-13.40/-15.25	-12.74/-9.25	-6.95/-6.89	-8.08/-11.65	-9.93/-9.13	-11.34/-10.66	-9.08/-6.57	-5.09/-4.62	-3.56/-3.63	-4.99/-4.05	-1.29/-2.27	-5.96/-7.39	-4.65/-3.88	-4.38/-4.38	-6.92/-6.04	-3.83/-2.91	-2.20/-3.52
Θ(157.5°)	-7.68/-6.69	-10.85/-14.29	-14.50/-13.20	-14.09/-14.11	-13.10/-12.82	-11.64/-12.77	-13.33/-12.67	-10.90/-10.12	-8.77/-6.35	-4.73/-4.11	-4.08/-4.84	-5.97/-6.30	-4.92/-4.33	-3.46/-4.85	-6.32/-6.04	-5.82/-7.35	-8.54/-7.85	-6.60/-6.87	-5.83/-4.16	-3.22/-2.14	-1.74/-1.82	-1.18/-0.16	0.910/98	-0.56/-3.69
Θ(165°)	-13.93/-12.85	-9.77/-7.77	-6.77/-7.18	-8.57/-10.88	-12.09/-14.38	-14.34/-15.06	-15.58/-14.50	-11.20/-9.84	-10.57/-12.77	-15.48/-14.01	-9.82/-7.35	-6.00/-5.10	-4.26/-3.65	-3.58/-3.88	-4.10/-4.34	-4.22/-4.41	-4.54/-4.83	-6.74/-6.78	-6.76/-5.70	-4.49/-4.10	-4.09/-3.86	-3.46/-3.27	-3.51/-4.09	-6.28/-10.30
Θ(172.5°)	-9.88/-11.00	-11.58/-12.55	-16.14/-15.62	-16.14/-15.62	-14.89/-13.43	-12.81/-12.51	-13.54/-12.86	-12.31/-10.94	-10.28/-10.35	-10.15/-10.01	-9.61/-8.98	-8.87/-9.11	-9.16/-9.25	-9.66/-9.82	-9.49/-9.74	-9.54/-8.22	-7.07/-6.27	-5.75/-5.70	-5.96/-5.02	-6.41/-4.85	-4.42/-3.92	-3.95/-4.53	-5.58/-6.39	-7.28/-8.86
Θ(180°)	-8.84/-10.00	-9.77/-9.84	-10.17/-10.13	-9.37/-9.63	-9.23/-8.75	-8.91/-9.63	-10.38/-10.74	-10.44/-10.57	-10.53/-10.44	-10.07/-9.33	-9.45/-9.70	-9.83/-10.14	-9.85/-9.83	-9.89/-9.40	-8.94/-9.13	-9.88/-10.80	-11.61/-11.56	-11.29/-10.08	-9.14/-7.91	-7.15/-6.17	-5.69/-6.25	-7.31/-8.99	-10.26/-10.68	-10.47/-9.57
Freq(Hz)	2.450Pol	TotalAnt	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°)		-9.01/-8.31	-7.81/-6.74	-7.51/-8.79	-8.12/-8.37	-8.84/-9.43	-10.14/-10.85	-10.99/-11.01	-11.26/-11.70	-12.10/-12.30	-12.56/-12.98	-13.19/-13.53	-13.74/-13.64	-12.64/-12.38	-12.06/-12.02	-12.11/-12.53	-13.05/-12.32	-11.45/-16.60	-10.26/-9.60	-9.55/-9.79	-9.63/-9.47	-9.36/-9.47	-9.46/-9.23	
Θ(7.5°)	-11.59/-11.07	-10.51/-9.64	-8.99/-6.50	-8.50/-8.59	-8.76/-8.94	-9.17/-9.51	-9.44/-9.29	-9.38/-9.56	-9.68/-9.86	-10.01/-9.78	-9.35/-9.02	-8.94/-9.07	-9.42/-9.95	-10.42/-10.40	-10.82/-10.78	-10.91/-11.45	-12.34/-13.31	-12.60/-11.87	-11.49/-11.32	-11.42/-11.75	-11.99/-11.98	-12.23/-13.03	-13.16/-12.08	
Θ(15°)	-8.97/-8.74	-8.45/-6.21	-8.13/-8.13	-8.26/-8.55	-8.73/-8.67	-8.20/-8.03	-8.23/-8.23	-8.17/-8.04	-7.92/-7.61	-7.23/-6.73	-6.18/-5.71	-5.45/-5.46	-5.68/-6.08	-6.60/-7.09	-7.37/-7.60	-7.84/-8.10	-8.40/-8.82	-9.43/-10.22	-10.68/-10.80	-10.68/-10.48	-10.21/-9.87	-9.66/-9.62	-9.72/-9.74	-9.62/-9.40
Θ(22.5°)	-6.69/-6.75	-6.78/-6.66	-7.03/-7.37	-7.70/-7.91	-7.70/-7.04	-6.73/-6.74	-6.96/-7.24	-7.49/-7.80	-7.81/-7.29	-6.29/-5.18	-4.21/-3.52	-3.20/-3.24	-3.50/-4.00	-4.68/-4.52	-6.20/-6.81	-7.35/-7.71	-7.77/-7.75	-7.84/-8.02	-8.06/-7.99	-7.85/-7.67	-7.27/-6.68	-6.22/-6.20	-6.51/-6.70	-6.78/-6.73
Θ(30°)	-4.97/-5.11	-5.22/-5.47	-6.02/-6.75	-7.40/-7.58	-7.29/-6.99	-6.80/-6.76	-6.41/-6.43	-6.66/-7.19	-7.64/-7.55	-6.49/-4.93	-3.41/-2.36	-1.78/-1.64	-1.87/-2.51	-3.56/-5.04	-6.60/-6.20	-9.42/-9.98	-9.45/-8.99	-8.30/-8.04	-7.70/-7.39	-7.04/-6.59	-6.08/-5.35	-4.81/-4.61	-4.62/-4.55	-4.56/-4.73
Θ(37.5°)	-2.86/-2.87	-2.96/-3.22	-3.78/-4.52	-5.15/-5.55	-5.97/-6.47	-6.68/-6.28	-5.80/-5.39	-5.32/-5.58	-5.99/-5.86	-4.66/-2.92	-1.36/-0.30	-0.230/28	-0.13/-1.04	-2.38/-4.02	-5.64/-6.84	-7.95/-9.04	-9.73/-9.66	-9.18/-8.25	-7.28/-6.37	-5.51/-4.81	-4.17/-3.72	-3.59/-3.60	-3.33/-2.79	-2.82/-2.57
Θ(45°)	-1.08/-1.01	-1.03/-0.14	-1.09/-1.33	-1.67/-2.24	-3.04/-4.15	-4.91/-4.80	-4.23/-3.49	-2.83/-2.49	-2.40/-2.41	-2.02/-1.16	-0.090/85	1.401/44	0.970/00	-1.48/-3.05	-4.34/-5.10	-6.23/-7.77	-9.39/-10.29	-8.73/-7.96	-6.13/-4.66	-3.59/-2.80	-2.11/-1.64	-1.83/-2.27	-2.35/-1.79	-1.19/-0.95
Θ(52.5°)	0.010/01	-0.22/-0.13	0.260/59	0.690/34	-0.54/-1.66	-2.48/-2.74	-2.41/-1.69	-1.03/-0.64	-0.51/-0.55	-0.430/04	0.731/39	1.500/90	-0.37/-2.40	-4.83/-6.21	-6.20/-6.38	-7.13/-8.19	-9.60/-10.98	-12.09/-10.75	-8.53/-6.53	-5.15/-4.16	-3.11/-2.10	-1.45/-1.40	-1.50/-1.16	-0.53/-0.09
Θ(60°)	1.431/54	1.000/34	0.021/14	1.591/165	1.400/92	0.26/-0.57	-1.27/-1.45	-1.33/-1.35	-1.72/-1.95	-1.78/-1.26	-0.490/31	0.34/-0.96	-3.64/-7.08	-8.40/-6.30	-4.21/-3.62	-3.95/-4.65	-5.63/-6.67	-7.34/-7.44	-6.89/-6.85	-4.62/-3.59	-2.60/-2.98	0.500/71	0.941/21	
Θ(67.5°)	2.053/00	2.942/06	1.591/63	1.491/27	1.271/08	0.52/-0.21	-0.68/-0.73	-0.80/-1.35	-2.47/-3.37	-3.24/-2.61	-1.57/-0.66	-1.21/-3.80	-5.98/-3.45	-2.83/-2.00	-1.68/-2.27	-3.67/-5.29	-6.65/-6.97	-6.54/-5.96	-5.24/-4.06	-2.81/-1.70	-0.91/-0.36	0.060/21	0.330/72	1.0



Antenna Pattern of 2.4GHz and 5GHz U-NII 1 ~ U-NII 3

Appendix C

Θ(67.5°)	-0.000-42	0.330-46	-1.13/-3.70	-5.53/-6.06	-4.40/-4.01	-2.94/-2.48	-1.78/-1.31	-0.83/-0.34	0.14/-0.77	-1.27/-1.45	-2.10/-1.72	-1.55/-0.25	-0.69/-1.74	-1.10/-2.87	-3.24/-2.17	-1.28/-4.10	-8.30/-11.98	-11.80/-7.28	-3.06/-0.01	-0.11/-3.37	-5.80/-6.24	-6.22/-6.01	-4.30/-1.89	-0.30/-5.2
Θ(75°)	2.773-19	3.402-69	1.14/-1.19	-1.79/-1.64	-1.38/-0.83	-0.62/-0.15	0.38/0.65	1.29/1.58	2.16/2.08	1.29/-0.14	-0.37/0.03	0.31/1.18	0.99/-0.82	-5.47/-7.59	-3.35/-4.09	-7.42/-10.68	-8.26/-3.02	1.822-81	2.40/-0.00	-5.67/-7.41	-3.44/-1.49	-0.69/-3.3	2.46/2.45	
Θ(82.5°)	3.973-12	3.063-16	2.20/-0.37	-0.85/-0.75	-0.35/-0.09	0.93/-1.4	0.40/0.54	2.193-35	3.913-10	2.101/-14	1.08/0.96	1.87/1.55	1.05/-1.20	1.19/-1.04	-2.84/-4.15	-1.81/-1.14	-4.25/-8.58	-9.72/-7.26	-1.83/0.02	0.29/-2.27	-5.88/-8.37	-2.27/-0.78	0.892-71	4.06/3.51
Θ(90°)	2.322-52	4.024-29	2.330-27	0.36/-1.19	-0.66/0.51	2.04/2.66	2.46/0.86	0.08/1.01	3.18/3.78	2.69/2.85	0.73/-0.93	0.40/0.93	1.59/0.25	-0.55/-2.08	-3.71/-3.94	-2.39/0.51	0.84/-1.67	-0.97/-1.71	-2.57/-1.43	-3.63/-8.06	-6.65/-4.43	-1.55/-0.63	0.142-50	3.873-04
Θ(97.5°)	3.563-51	3.754-09	2.97/1.38	1.13/0.33	0.72/0.65	1.84/-1.87	1.57/-0.33	-3.00/-0.65	1.72/-2.49	2.37/2.92	0.74/-0.83	-1.19/-0.60	1.28/-2.13	-2.18/-4.43	-3.92/-4.83	-4.14/-1.02	0.50/-2.50	-4.24/-5.88	-6.90/-6.95	-7.83/-9.15	-8.96/-1.43	-2.07/-0.80	0.43/-2.8	2.14/3.73
Θ(105°)	-0.162-39	2.922-44	1.582-27	3.48/2.65	1.52/0.85	0.97/1.36	1.79/1.92	1.30/0.18	-0.38/0.13	0.11/0.38	-1.58/-2.56	-4.99/-2.34	-0.76/-2.27	-2.41/-4.07	-5.61/-9.23	-8.69/-4.73	-2.76/-7.51	-6.64/-3.91	-6.38/-6.94	-6.88/-7.84	-6.44/-4.36	-2.18/-1.25	-0.01/0.53	1.05/0.13
Θ(112.5°)	-2.03/-1.57	-0.87/-0.67	0.62/1.67	2.09/1.73	0.58/-0.19	-0.15/0.41	1.52/1.90	1.70/1.00	1.37/0.55	-1.07/-3.25	-6.52/-9.72	-8.55/-5.51	-4.81/-6.13	-6.81/-6.97	-9.06/-8.13	-5.29/-1.48	-3.96/-5.78	-3.55/-3.09	4.40/-7.11	-5.87/-11.52	-10.41/-4.87	-0.81/0.45	1.32/1.46	1.30/-1.32
Θ(120°)	-5.00/-2.68	-2.07/-4.26	-4.10/-3.15	-1.76/-0.83	-0.87/-0.68	-0.75/-0.52	0.51/1.54	2.26/1.59	0.77/-0.25	0.10/-0.30	-2.84/-11.68	-11.93/-9.05	-4.84/-1.96	-0.99/-0.80	-2.22/-4.29	-2.78/-0.78	-1.27/-1.49	0.06/-4.39	-3.21/-6.10	-5.99/-3.60	0.63/-2.62	-6.57/-4.10	-1.92/0.13	-0.95/-13.44
Θ(127.5°)	-6.49/-6.15	-6.15/-9.55	-7.96/-7.86	-5.83/-1.84	-0.48/-0.21	0.10/0.19	-0.18/-0.10	-0.27/0.29	0.72/0.16	0.16/-0.64	-3.00/-3.48	-1.42/-2.32	-4.28/-3.48	-0.15/-0.49	-7.20/-5.78	-3.28/-10.83	-8.15/-5.62	-5.30/-3.39	-5.90/-6.60	-0.38/-2.65	-3.81/-6.46	-7.26/-7.35	-7.59/-2.42	-4.39/-9.64
Θ(135°)	-4.32/-8.35	-10.70/-9.80	-9.29/-7.59	-6.12/-3.79	-2.11/-1.60	-1.39/-1.72	-1.67/-1.17	-0.57/-0.26	-0.20/-0.27	-0.03/-0.63	-0.36/-0.44	1.29/1.13	-0.64/-3.24	-2.42/-0.72	0.01/1.44	-0.99/-8.92	-9.90/-4.18	-3.18/-5.03	-8.10/-7.35	-11.13/-9.21	-5.93/-3.76	-2.32/-5.52	-9.47/-5.53	-4.36/-2.38
Θ(142.5°)	-4.44/-5.90	-6.49/-5.74	-4.02/-2.07	-1.50/-2.45	-3.03/-2.89	-2.32/-1.82	-1.67/-0.78	0.03/0.56	1.07/0.91	0.35/-0.39	-1.48/-2.18	-1.68/0.34	1.59/2.18	1.19/-0.69	-1.80/-3.32	-6.82/-10.59	-7.19/-3.36	-6.96/-9.57	-13.11/-14.19	-11.37/-6.39	-4.27/-1.90	-1.86/-3.73	-7.65/-15.87	-10.17/-0.51
Θ(150°)	-5.72/-6.49	-7.24/-6.50	-6.31/-6.40	-4.87/-3.49	-2.44/-1.70	-1.78/-1.83	-1.58/-1.44	-1.11/-0.45	0.21/0.55	0.57/0.03	-0.42/-1.85	-3.24/-2.84	-2.78/-3.03	-6.37/-7.66	-1.83/-0.54	-0.98/-0.91	0.30/-0.09	-2.70/-3.60	-3.28/-5.72	-3.65/-1.80	-2.75/-5.08	-8.40/-14.98	-9.71/-6.31	
Θ(157.5°)	-8.19/-10.98	-10.57/-8.90	-7.31/-6.04	-4.97/-3.03	-1.27/0.20	1.10/1.09	0.28/-0.65	-1.26/-1.69	-2.05/-3.31	-4.56/-4.74	-3.76/-2.89	-2.13/-1.56	-1.10/-1.05	-1.79/-2.89	-3.49/-3.53	-4.59/-5.37	-4.64/-5.32	-6.22/-6.09	-8.19/-12.63	-12.51/-9.58	-6.10/-3.95	-3.43/-4.02	-4.99/-6.00	-5.79/-6.12
Θ(165°)	-4.25/-2.27	-1.27/-0.75	-0.79/-0.80	-0.97/-1.30	-1.44/-1.41	-1.07/-1.25	-1.94/-2.75	-3.66/-4.71	-5.26/-5.16	-4.71/-4.48	-4.50/-4.79	-5.43/-6.86	-8.63/-10.10	-11.67/-11.94	-9.74/-7.68	-6.68/-5.21	-3.84/-4.07	-5.33/-7.26	-9.54/-11.96	-12.27/-11.78	-10.11/-8.62	-7.96/-7.65	-7.60/-7.74	-7.43/-5.76
Θ(172.5°)	-6.19/-4.47	-3.55/-2.56	-2.03/-1.58	-1.21/-1.34	-1.49/-1.91	-2.01/-2.42	-3.03/-3.33	-3.62/-3.87	-3.74/-3.61	-4.21/-5.65	-7.53/-9.17	-10.68/-10.66	-9.96/-9.47	-7.68/-6.02	-4.69/-3.75	-2.98/-2.41	-4.86/-6.17	-6.17/-5.79	-5.21/-5.08	-5.54/-7.38	-3.95/-10.25	-10.11/-9.75	-8.10/-6.94	
Θ(180°)	-4.81/-4.67	-5.01/-5.30	-6.16/-6.68	-7.20/-7.63	-7.59/-6.93	-6.74/-6.59	-6.45/-6.07	-5.66/-6.26	-7.80/-10.20	-12.78/-14.71	-14.50/-14.19	-12.46/-10.92	-10.02/-8.94	-8.01/-7.29	-7.14/-7.04	-7.17/-7.26	-8.05/-8.42	-7.75/-6.00	-5.04/-4.46	-3.85/-3.56	-3.96/-4.71	-5.33/-5.41	-5.11/-4.92	-4.23/-4.38
Freq(Hz)	5.785GPol.	TotalAnt.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°)	-2.70/-3.09	-3.45/-3.31	-2.91/-3.03	-3.02/-3.22	-3.95/-4.41	-4.64/-4.61	-4.55/-4.13	-4.00/-4.09	-4.16/-4.40	-4.70/-4.77	-4.93/-5.06	-5.19/-5.23	-5.12/-4.87	-4.42/-4.04	-3.55/-3.40	-3.53/-3.67	-3.95/-3.75	-3.59/-3.56	-3.66/-3.74	-3.77/-3.80	-3.76/-3.55	-3.75/-3.68	-3.19/-2.49	-2.21/-2.24
Θ(7.5°)	-3.05/-3.30	-3.16/-2.82	-2.82/-3.17	-3.30/-3.27	-3.29/-3.02	-3.49/-3.53	-3.66/-3.76	-3.40/-2.69	-2.54/-2.97	-3.31/-3.31	-3.28/-3.27	-3.38/-3.52	-3.62/-3.90	-4.31/-4.42	-4.41/-4.58	-4.82/-4.68	-4.16/-3.53	-3.24/-3.54	-3.71/-3.61	-3.89/-3.68	-3.35/-3.28	-3.14/-2.88	-2.70/-2.83	
Θ(15°)	-1.28/-1.23	-1.29/-1.43	-1.74/-1.96	-2.13/-2.09	-2.65/-3.46	-3.63/-3.46	-3.28/-3.12	-2.92/-2.94	-2.78/-2.70	-2.54/-2.11	-1.70/-1.45	-1.44/-1.73	-2.13/-2.60	-3.06/-3.91	-4.79/-5.66	-6.05/-6.53	-6.87/-6.82	-6.14/-5.32	-4.37/-4.07	-3.67/-3.33	-3.11/-2.31	-1.49/-0.79	-0.25/-0.42	-1.03/-1.34
Θ(22.5°)	-0.66/-0.61	-0.38/-0.51	-0.44/-0.39	-0.47/-1.62	-2.82/-3.48	4.58/-5.29	4.98/-4.44	-3.56/-2.95	-2.84/-2.76	-2.26/-1.65	-1.32/-0.29	-2.35/-2.28	-2.95/-4.26	-4.24/-2.49	-1.28/-1.17	-1.56/-2.32	-3.61/-5.38	-7.32/-7.98	-6.90/-5.80	-4.87/-2.98	-1.49/-0.06	1.02/1.02	0.18/-0.83	
Θ(30°)	-0.15/-0.30	0.32/0.50	0.11/-0.34	-0.68/-1.90	-1.39/-1.96	-3.23/-3.73	-3.96/-4.29	-4.74/-4.77	-3.77/-2.53	-1.66/-0.61	0.13/0.11	-0.40/-0.78	-1.66/-3.06	-3.68/-2.37	-0.50/-0.46	0.98/0.63	-0.77/-2.73	-4.52/-6.21	-6.32/-6.01	-6.66/-3.90	-2.13/-1.40	-1.26/-0.49	0.77/1.19	1.00/0.43
Θ(37.5°)	-1.62/-0.79	-0.07/0.19	-0.89/-1.39	-1.37/-1.10	-1.00/-1.98	-2.76/-4.20	-5.78/-5.85	-4.13/-3.01	-2.15/-1.36	-1.34/-1.94	-1.19/-0.24	-0.23/-0.27	-6.04/-8.29	-8.78/-5.79	-3.77/-1.55	-1.28/-2.47	-2.40/-2.79	-3.45/-2.98	-2.83/-2.54	-1.64/-0.91	-1.58/-1.94	-2.30/-3.05	-2.65/-1.97	-3.27/-3.53
Θ(45°)	-9.35/-6.60	-5.40/-3.69	-2.30/-1.56	-1.64/-2.72	-4.42/-7.18	-8.72/-9.38	-7.87/-5.79	-4.69/-3.49	-2.29/-1.63	-0.36/0.09	-0.54/-1.19	-0.63/-0.67	-3.41/-9.35	-7.01/-3.46	0.96/-0.13	-1.84/-2.80	-3.30/-1.41	-1.21/-2.40	0.00/-0.20	0.11/-1.49	-5.34/-10.75	-13.91/-10.63	-11.33/-10.54	
Θ(52.5°)	-7.38/-8.92	-8.34/-7.36	-7.51/-8.23	-9.71/-11.56	-10.64/-8.48	-6.98/-7.38	-6.86/-4.04	-1.55/-0.66	-0.59/-1.93	-2.57/-1.95	-1.96/-1.95	0.79/-1.09	-2.20/-4.99	-1.87/-0.58	-0.40/-0.82	-2.24/-6.21	-6.14/-7.04	-7.83/-4.83	-1.06/0.22	0.72/-1.40	-6.86/-3.99	-7.88/-8.95	-7.75/-6.62	-6.92/-7.69
Θ(60°)	-4.79/-4.79	-4.67/-3.87	-4.48/-5.37	-7.21/-10.27	-10.74/-8.16	-5.76/-4.06	-3.64/-3.00	-1.76/-0.41	0.42/0.05	-1.40/-2.47	-2.58/-3.21	0.22/1.21	-1.41/-3.98	-2.79/-2.75	-2.84/-0.24	-5.53/-7.28	-5.22/-2.03	-0.19/-1.31	1.30/-1.38	-3.82/-6.45	-7.68/-5.30	-4.42/-4.89	-6.64/-5.53	
Θ(67.5°)	0.69/0.22	0.30/-0.07	-0.96/-2.07	-3.15/-5.87	-7.41/-5.32	-3.42/-2.53	-2.52/-3.09	-2.53/-1.31	-0.16/0.25	-1.11/-2.23	-2.51/-2.35	-0.60/-0.76	-0.17/-2.14	-4.86/-5.12	-6.13/-2.70	-0.40/-3.91	-8.48/-9.19	-8.41/-3.73	-1.32/-2.62	-4.05/-6.95	-8.64/-4.76	-3.77/-2.88	-1.89/0.30	
Θ(75°)	3.13/2.27	2.40/2.06	1.16/-0.42	-1.53/-2.95	-3.87/-4.03	-2.67/-2.20	-2.82/-3.56	-2.92/-0.97	1.02/1.99	2.08/1.20	-0.65/-0.36	-0.62/-0.01	1.39/-0.40	-0.98/-0.73	-6.35/-10.69	-9.98/-6.04	-10.19/-9.55	-8.42/-3.73	-1.32/-0.25	-0.89/-5.29	-7.47/-12.05	-6.22/-0.93	0.40/0.69	0.37/1.95
Θ(82.5°)	2.953-10	2.803-02	1.61/0.26	0.58/-0.09	-1.74/-1.36	-0.60/-0.53	-0.43/-1.50	-3.01/-1.67	1.14/2.84	2.92/2.43	0.35/-0.79	-1.20/0.74	1.14/0.50	1.08/-1.85	-2.67/-6.95	-4.59/-2.13	-7.09/-12.51	-9.50/-8.98	-1.08/-0.45	-2.54/-8.99	-13.41/-8.82	-2.48/0.55	-0.62/0.78	1.19/2.22
Θ(90°)	3.63/3.80	2.62/1.66	0.72/0.17	0.56/1.07	0.74/0.56	1.72/2.00	1.51/0.22	-1.92/-2.80	-0.84/0.74	1.05/0.64	0.42/0.24	-0.45/-2.42	-0.92/-2.15	1.54/-2.45	-3.53/-5.63	-9.42/-4.35	-4.94/-5.32	-2.52/-4.51	-2.67/-2.24	-7.75/-12.27	-4.52/-2.21	0.77/-0.74	-2.33/-0.49	1.21/2.68
Θ(97.5°)	3.11/1.55	1.46/0.48	-0.01/0.94	2.18/1.51	0.69/0.54	0.98/1.27	1.43/0.42	-2.09/-5.54	-5.12/-3.08	-1.87/-0.35	0.07/-0.19	-1.72/-7.86	-1.06/-1.16	-1.99/-2.09	-5.14/-3.57	-6.94/-4.89	-0.11/0.19	-2.14/-4.98	-10.24/-12.60	-12.59/-5.53	-5.80/-1.71	-3.75/-0.91	-1.48/-1.06	2.24/4.04
Θ(105°)	2.32/2.27	0.87/-0.88	0.58/-1.99	2.58/0.00	1.95/0.34	-0.56/0.53	1.63/2.39	1.91/-0.71	-1.39/-1.64	-1.43/-3.28	-5.84/-5.39	-4.69/-6.87	-3.39/-1.89	-5.12/-6.77	-7.36/-6.29	-8.18/-7.56	-1.92/-4.27	-5.71/-4.07	-8.68/-6.56	-8.19/-7.59	-4.73/-4.61	-2.43/-0.91	-0.91/-2.01	0.56/2.37
Θ(112.5°)	-0.54/-0.64	-1.46/-2.80	-2.09/-0.66	1.04/1.57	1.93/1.18	0.61/0.26	1.25/2.13	2.07/2.48	1.44/0.75	-1.46/-3.25	-4.22/-8.00	-12.84/-10.66	-6.73/-6.35	-7.36/-7.75	-7.42/-6.04	-4.89/-5.08	-5.27/-3.98	-4.76/-8.16	-11.68/-8.48	-6.27/-5.21	0.59/1.68	0.79/0.31	0.31/-0.73	
Θ(120°)	0.18/-0.42	-4.69/-1.09	-6.25/-3.90	-0.87/1.33	2.07/1.47	-0.03/-0.75	-1.01/-3.33	2.87/2.94	2.28/2.12	1.31/-1.41	-0.50/-0.72	-1.25/-6.89	-6.39/-3.35	-1.83/-0.37	-2.61/-5.05	-3.06/-7.47	-2.24/-6.67	-1.41/-4.48	-3.04/-0.72	-4.14/-2.48	-1.73/-2.27	0.87/1.75	-0.62/-2.79	
Θ(127.5°)	-3.77/-2.41	-3.59/-6.35	-7.74/-5.75																					



Antenna Pattern of 2.4GHz and 5GHz U-NII 1 ~ U-NII 3

Appendix C

Θ (112.5°)	-1.30/-0.79	-1.43/-4.00	-9.05/-11.06	-9.86/-9.76	-9.98/-8.53	-6.42/-6.06	-6.63/-7.23	-7.57/-6.04	-5.40/-5.22	-4.69/-4.38	-4.10/-3.04	-1.52/-0.33	-2.56/-2.09	-1.70/-3.01	-5.46/-13.73	-8.23/-6.54	-4.35/-8.13	-8.05/-8.67	-8.76/-8.93	-5.75/-3.44	-1.85/-1.66	-2.75/-1.42	0.57/-0.17	-1.71/-1.53
Θ (120°)	-1.38/-1.07	-2.38/-4.48	-10.04/-15.61	-11.94/-13.88	-14.39/-13.10	-12.43/-9.19	-7.85/-9.97	-11.12/-10.35	-12.10/-11.17	-13.33/-10.24	-7.88/-2.57	-2.55/-2.77	-2.89/-4.26	-2.72/-3.21	-6.69/-9.39	-6.73/-8.31	-7.09/-8.88	-5.13/-6.37	-7.37/-7.45	-9.10/-5.22	-5.13/-5.14	-5.05/-3.55	-0.66/-0.31	-1.52/-0.62
Θ (127.5°)	-2.90/-3.84	-5.54/-7.90	-8.88/-11.37	-10.44/-10.11	-10.76/-9.65	-9.07/-11.20	-11.99/-9.82	-8.56/-8.85	-7.82/-7.93	-5.34/-5.81	-5.99/-7.93	-9.24/-6.68	-6.13/-6.61	-4.51/-2.59	-6.43/-8.56	-13.80/-4.97	-5.38/-7.33	-12.24/-12.17	-14.84/-10.17	-11.90/-7.58	-8.00/-5.53	-6.78/-2.12	-1.36/-0.66	-2.22/-2.05
Θ (135°)	-12.60/-10.55	-9.47/-9.78	-11.11/-14.81	-12.30/-9.64	-10.59/-12.08	-12.50/-15.95	-15.43/-14.92	-11.32/-8.52	-6.44/-3.39	-2.50/-3.85	-5.35/-7.68	-9.38/-9.70	-11.39/-10.86	-8.67/-5.24	-7.50/-7.35	-1.85/-6.09	-0.85/-2.34	-5.56/-12.54	-13.43/-7.84	-9.89/-5.51	-5.58/-7.54	-6.71/-9.48	-8.03/-7.62	-7.88/-11.27
Θ (142.5°)	-5.85/-5.85	-5.52/-5.52	-5.02/-7.20	-12.10/-15.38	-12.37/-14.22	-15.66/-14.88	-14.08/-12.25	-9.11/-6.50	-3.28/-2.68	-2.68/-1.81	-1.26/-2.08	-3.05/-4.72	-6.68/-6.36	-4.50/-4.72	-3.99/-2.86	-1.81/-1.64	-6.98/-7.69	-7.76/-6.63	-9.18/-10.46	-8.52/-11.35	-9.03/-9.12	-7.37/-7.37	-6.49/-5.60	
Θ (150°)	-7.14/-9.72	-11.15/-9.97	-7.78/-7.37	-7.04/-7.90	-9.19/-9.67	-10.54/-11.05	-10.26/-8.30	-6.57/-5.32	-5.07/-4.81	-3.95/-3.24	-3.69/-5.05	-7.61/-7.62	-3.85/-1.20	-0.16/-1.08	-2.13/-2.44	-4.23/-7.69	-11.32/-14.07	-12.66/-10.26	-11.09/-11.08	-7.81/-5.95	-4.22/-3.38	-3.53/-3.37	-3.92/-5.45	
Θ (157.5°)	-6.01/-8.29	-10.41/-10.03	-8.28/-8.13	-10.06/-12.54	-13.81/-9.43	-6.11/-4.79	-4.58/-4.59	-4.22/-3.92	-3.48/-2.91	-2.82/-3.42	-4.71/-6.52	-9.28/-11.25	-12.16/-9.95	-6.66/-4.28	-3.01/-2.02	-1.33/-1.77	-4.20/-7.70	-10.84/-12.59	-11.57/-9.76	-10.76/-12.73	-13.06/-9.29	-6.47/-4.41	-3.16/-2.68	-2.80/-4.12
Θ (165°)	-3.08/-3.90	-5.16/-5.96	-5.82/-5.76	-6.56/-7.22	-7.80/-7.33	-6.35/-5.66	-5.51/-5.06	-6.12/-6.32	-6.23/-6.16	-6.50/-7.04	-7.98/-9.23	-10.76/-11.41	-11.13/-10.30	-8.28/-6.18	-4.50/-3.60	-3.80/-5.17	-7.91/-10.39	-10.27/-9.70	-9.16/-8.24	-7.23/-6.13	-5.49/-4.43	-4.10/-3.90	-3.28/-3.09	-2.84/-3.07
Θ (172.5°)	-9.98/-9.20	-8.58/-7.73	-6.93/-6.29	-6.04/-6.07	-7.05/-8.05	-8.27/-8.03	-7.53/-7.09	-6.27/-5.79	-5.55/-5.71	-6.18/-6.80	-7.45/-8.42	-9.43/-10.34	-11.03/-11.24	-11.98/-13.37	-14.97/-15.65	-15.73/-14.09	-12.78/-12.02	-10.32/-8.97	-8.22/-8.17	-8.28/-8.31	-8.20/-8.14	-8.85/-9.57	-9.59/-9.70	-8.87/-9.98
Θ (180°)	-14.26/-13.24	-12.47/-11.36	-10.36/-9.95	-10.15/-10.63	-12.30/-14.19	-14.95/-15.53	-14.64/-13.32	-12.11/-10.95	-10.28/-10.20	-10.62/-11.45	-12.23/-13.00	-14.37/-14.70	-14.74/-14.54	-14.54/-15.85	-15.70/-16.02	-15.63/-14.63	-16.74/-15.05	-13.92/-13.66	-14.32/-13.99	-13.74/-13.79	-13.58/-13.08	-13.60/-13.97	-15.54/-16.19	-15.00/-14.44
Freq(Hz)	5.6GPol.	TotalAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-2.63/-2.85	-3.00/-3.00	-2.85/-2.94	-2.96/-3.06	-3.00/-3.08	-2.89/-2.54	-2.23/-2.04	-1.88/-1.81	-1.83/-1.94	-1.97/-1.82	-1.80/-1.69	-1.58/-1.43	-1.35/-1.33	-1.11/-0.95	-0.78/-0.77	-0.76/-0.78	-0.84/-0.68	-0.60/-0.56	-0.69/-1.00	-1.15/-1.17	-1.20/-1.25	-1.62/-2.06	-2.54/-2.51	-2.41/-2.28
Θ (7.5°)	-1.52/-1.58	-1.28/-1.01	-0.94/-0.83	-1.05/-1.00	-0.81/-0.90	-0.86/-0.56	-0.49/-0.59	-0.75/-0.87	-1.26/-1.52	-1.67/-1.71	-1.87/-2.12	-2.52/-2.79	-2.93/-3.00	-3.14/-3.41	-3.45/-3.47	-3.40/-3.35	-3.30/-3.29	-3.47/-3.57	-3.31/-2.94	-2.98/-2.98	-3.02/-2.95	-2.78/-2.43	-2.12/-1.96	-1.68/-1.34
Θ (15°)	-2.00/-1.58	-1.17/-0.90	-0.77/-1.03	-1.36/-1.44	-1.63/-1.64	-1.52/-1.26	-1.10/-1.03	-1.19/-1.53	-1.90/-2.57	-3.27/-3.82	-4.11/-4.24	-4.39/-4.70	-5.03/-5.56	-6.12/-6.32	-6.47/-6.46	-6.19/-5.83	-5.51/-5.35	-5.69/-5.68	-5.07/-4.36	-3.96/-3.85	-3.89/-3.62	-3.46/-3.03	-2.53/-2.18	-1.97/-1.92
Θ (22.5°)	-1.68/-1.88	-1.90/-1.41	-0.95/-0.90	-0.86/-0.87	-1.28/-1.57	-2.15/-2.62	-3.04/-4.01	-5.12/-5.69	-6.81/-6.25	-6.54/-6.92	-7.30/-8.00	-8.44/-8.25	-7.18/-6.32	-6.33/-6.79	-7.01/-7.06	-6.72/-6.48	-6.18/-5.87	-5.46/-4.62	-3.92/-3.13	-2.27/-1.76	-1.29/-0.85	-0.52/-0.25	-0.16/-0.21	-0.84/-1.46
Θ (30°)	-1.98/-3.16	-3.42/-3.06	-2.27/-1.77	-0.97/-0.62	-0.57/-1.25	-2.23/-3.27	-4.31/-4.82	-4.45/-3.60	-3.48/-4.14	-5.67/-7.65	-9.14/-10.51	-11.57/-12.49	-11.54/-9.81	-8.77/-8.59	-8.23/-7.49	-7.04/-7.34	-7.98/-8.03	-6.53/-4.32	-2.67/-1.62	-0.80/-0.50	-0.37/-0.06	0.140.38	0.330.34	-0.25/-0.80
Θ (37.5°)	-3.12/-4.51	-5.79/-5.54	-3.32/-1.49	-0.180.45	0.670.30	-0.49/-1.71	-2.27/-2.14	-1.57/-1.13	-1.22/-1.20	-3.70/-6.28	-8.68/-9.83	-9.08/-7.28	-5.98/-5.62	-5.47/-5.49	-5.81/-6.92	-7.81/-8.05	-7.63/-7.50	-6.85/-5.54	-5.42/-5.11	-4.08/-2.41	-1.03/-0.90	-1.05/-0.37	0.280.38	-0.28/-1.50
Θ (45°)	-1.75/-3.19	-4.01/-4.54	-3.05/-1.51	-0.700.50	1.020.68	0.25/-0.50	-0.91/-1.19	-1.02/-1.01	-1.23/-2.12	-3.51/-5.15	-6.04/-6.50	-5.41/-5.02	-4.33/-4.39	-3.92/-2.93	-3.12/-3.71	-4.99/-7.07	-9.70/-9.69	-8.81/-6.23	-3.63/-1.37	-0.86/-2.38	-3.19/-2.10	-2.03/-2.27	-1.65/-0.79	-0.42/-0.54
Θ (52.5°)	1.920.96	0.10/-1.51	-1.50/-1.55	-0.760.79	1.040.93	0.900.47	0.12/-0.32	-0.87/-1.53	-2.06/-2.69	-2.52/-2.56	-2.98/-3.89	-4.08/-4.47	-3.32/-1.76	-2.22/-2.50	-3.15/-2.93	-3.99/-5.58	-7.47/-11.66	-12.81/-10.06	-8.50/-8.59	-6.59/-3.98	-3.45/-2.54	-1.26/-1.29	-1.23/-0.24	0.51/-1.83
Θ (60°)	3.02/-2.35	1.56/-1.20	-2.63/-3.23	-1.11/-1.14	1.752.12	1.801.39	1.080.53	-0.78/-2.70	-4.06/-4.39	-1.330.09	0.62/-0.63	-1.08/-1.55	-0.550.66	-0.27/-0.79	-2.62/-4.04	-4.30/-8.13	-10.83/-10.16	-8.66/-6.06	-4.59/-4.50	-4.01/-3.41	-3.50/-3.12	-2.84/-2.27	-1.59/-0.19	1.002.67
Θ (67.5°)	3.503.61	2.601.49	0.46/-1.61	-1.99/-0.75	1.01/-1.78	1.43/-1.49	0.95/-0.71	-2.45/-1.42	1.372.96	2.971.29	-0.06/-0.66	-0.20/-0.45	-1.85/-4.47	6.00/-4.31	-4.84/-7.43	-9.20/-7.83	-5.37/-3.32	-3.14/-2.42	-1.52/-1.79	-1.82/-2.53	-2.69/-2.14	-0.390.41	1.64/-6.69	
Θ (75°)	3.262.57	2.081.51	0.84/-0.86	-2.24/-2.83	-1.80/-1.13	-0.96/-0.77	-0.500.34	1.150.34	-2.13/-3.35	-1.86/-0.49	-0.65/-1.06	-1.44/-0.65	-1.00/-0.66	-2.23/-5.21	-5.31/-4.71	-8.31/-14.08	-7.19/-4.29	-2.72/-2.30	-2.36/-3.04	-3.06/-1.03	-0.50/-0.14	-1.07/-1.54	-0.190.98	1.543.59
Θ (82.5°)	2.652.12	2.922.59	1.34/-1.30	-3.86/-4.01	-2.16/-1.79	-2.42/-3.20	-2.62/-2.91	-4.18/-3.36	-3.60/-2.60	-0.32/-0.05	-2.38/-4.39	-4.56/-1.01	1.160.89	-1.93/-4.47	-4.15/-6.33	-8.01/-12.42	-5.33/-1.69	-2.49/-2.52	-4.17/-3.16	-0.70/-0.55	-0.090.68	0.32/-2.44	0.722.69	2.752.61
Θ (90°)	2.353.37	4.533.79	1.45/-1.96	-4.32/-5.56	-4.26/-2.45	-3.48/-1.84	-1.79/-2.66	-1.52/-0.19	-0.390.08	0.21/-1.21	-4.72/-7.13	-2.980.59	3.070.58	-0.92/-8.04	-7.91/-4.72	-6.72/-13.24	-6.89/-3.34	-6.81/-6.34	-5.23/-4.41	-1.34/-0.28	0.160.21	0.930.22	0.580.96	0.920.63
Θ (97.5°)	0.562.27	1.423.33	0.28/-1.37	-4.91/-2.86	-2.78/-5.48	-5.85/-4.13	-4.45/-5.15	-6.59/-3.75	-2.25/-2.02	-2.40/-4.00	-7.47/-8.00	-2.840.04	-0.96/-0.96	-1.36/-3.24	-4.54/-9.91	-10.29/-4.53	-9.54/-5.26	-11.70/-7.65	-3.49/-4.72	0.64/-2.0	0.99/-0.60	-8.00/-4.6	0.19/-0.80	-2.44/-2.72
Θ (105°)	0.060.38	2.330.93	-1.30/-5.66	-5.76/-5.07	-4.63/-5.29	-8.54/-5.92	-5.75/-8.22	-6.57/-3.94	-3.96/-0.45	-5.91/-7.58	-8.18/-7.67	-2.94/-2.32	0.29/-0.91	-1.63/-2.59	-7.11/-6.56	-9.35/-8.14	-6.26/-3.74	-5.02/-3.55	-3.14/-7.44	-0.600.21	0.10/-0.93	-1.18/-0.05	1.330.71	-1.28/-1.76
Θ (112.5°)	-2.270.54	1.07/-0.61	-4.69/-11.49	-13.48/-11.51	-12.59/-11.57	-7.67/-7.53	-7.66/-7.71	-8.09/-7.31	-5.23/-5.18	-4.89/-4.76	-3.63/-2.35	-0.940.03	-0.44/-4.11	-4.05/-4.34	-6.19/-9.56	-8.21/-6.42	-4.41/-7.27	-7.49/-6.31	-7.95/-8.78	-2.05/-0.33	-0.03/-0.86	-1.770.30	1.040.08	-2.18/-2.77
Θ (120°)	-3.57/-0.56	0.57/-0.16	-4.85/-9.65	-12.62/-12.82	-11.68/-13.51	-7.23/-7.32	-7.85/-11.23	-14.01/-10.00	-7.03/-7.27	-7.04/-6.28	-4.00/-2.65	-0.35/-0.11	-0.31/-1.76	-4.19/-5.91	-6.14/-15.26	-6.31/-11.20	-5.82/-9.36	-4.75/-6.91	-8.07/-8.29	-3.62/-2.22	-1.72/-5.06	-3.39/-2.28	1.23/-1.40	-2.81/-2.77
Θ (127.5°)	-4.45/-2.24	-3.31/-3.25	-6.86/-8.29	-9.51/-13.80	-10.93/-7.91	-7.61/-9.48	-11.22/-11.31	-9.04/-7.73	-8.89/-10.18	-11.22/-5.51	-3.21/-1.23	-0.96/-2.89	-1.27/-6.75	-3.32/-0.77	-2.10/-11.06	-11.80/-6.10	-5.73/-7.19	-7.89/-4.98	-8.84/-10.36	-7.39/-3.51	-5.37/-4.95	-9.12/-6.04	-2.80/-3.36	-4.97/-4.57
Θ (135°)	-7.43/-5.22	-4.64/-4.14	-4.99/-7.70	-7.82/-8.41	-8.43/-9.67	-12.07/-14.56	-13.16/-8.77	-8.72/-9.38	-9.74/-8.32	-5.38/-4.67	-5.86/-8.08	-8.78/-8.68	-13.21/-10.12	-9.58/-3.11	-4.10/-10.04	-5.500.53	-3.00/-5.58	-5.46/-5.42	-7.20/-8.99	-8.78/-2.27	-6.33/-6.63	-9.10/-6.90	-5.53/-2.54	-7.45/-6.27
Θ (142.5°)	-5.95/-7.26	-6.62/-4.62	-3.45/-4.85	-7.87/-11.87	-12.83/-13.62	-14.14/-12.87	-10.84/-8.98	-7.64/-6.90	-5.24/-5.27	-6.34/-5.49	-4.61/-5.53	-7.26/-9.07	-6.19/-6.33	-5.52/-5.66	-7.08/-6.06	-2.46/-1.54	-3.83/-4.81	-6.55/-8.08	-10.23/-8.94	-8.95/-5.68	-7.46/-6.17	-5.23/-6.67	-6.98/-8.19	-7.60/-6.07
Θ (150°)	-9.34/-7.92	-6.89/-5.80	-5.19/-5.60	-6.55/-6.86	-6.16/-6.77	-8.70/-9.39	-9.01/-7.71	-5.88/-5.21	-5.78/-6.93	-5.10/-3.05	-2.89/-3.04	-2.41/-1.49	-2.40/-4.29	-2.34/-0.22	-0.09/-2.05	-6.14/-8.53	-8.62/-9.47	-11.17/-13.06	-13.76/-10.72	-14.41/-11.38	-6.88/-4.85	-4.04/-3.65	-4.19/-5.53	-7.81/-9.14
Θ (157.5°)	-4.04/-5.45	-7.45/-6.67	-9.25/-8.75	-9.80/-12.58	-15.54/-12.50	-9.59/-7.99	-7.25/-7.04	-7.04/-6.16	-4.34/-2.96	-2.62/-3.96	-6.84/-10.11	-9.61/-6.48	-5.23/-4.99	-4.43/-2.76	-1.19/-0.90	-1.95/-3.45	-6.23/-10.01	-14.11/-15.21	-12.24/-8.84	-8.65/-10.14	-9.29/-6.06	-3.82/-2.43	-1.61/-1.70	-2.34/-3.28
Θ (165°)	-3.43/-5.43	-7.72/-9.05	-8.28/-8.10	-8.44/-8.66	-9.68/-8.29	-6.81/-6.38	-6.36/-6.06	-5.65/-5.06	-4.42/-4.09	-4.22/-4.06	-6.01/-6.68	-6.34/-5.19	-4.17/-3.67	-3.31/-2.60	-2.10/-2.40	-3.73/-5.82	-8.84/-11.29	-11.5						

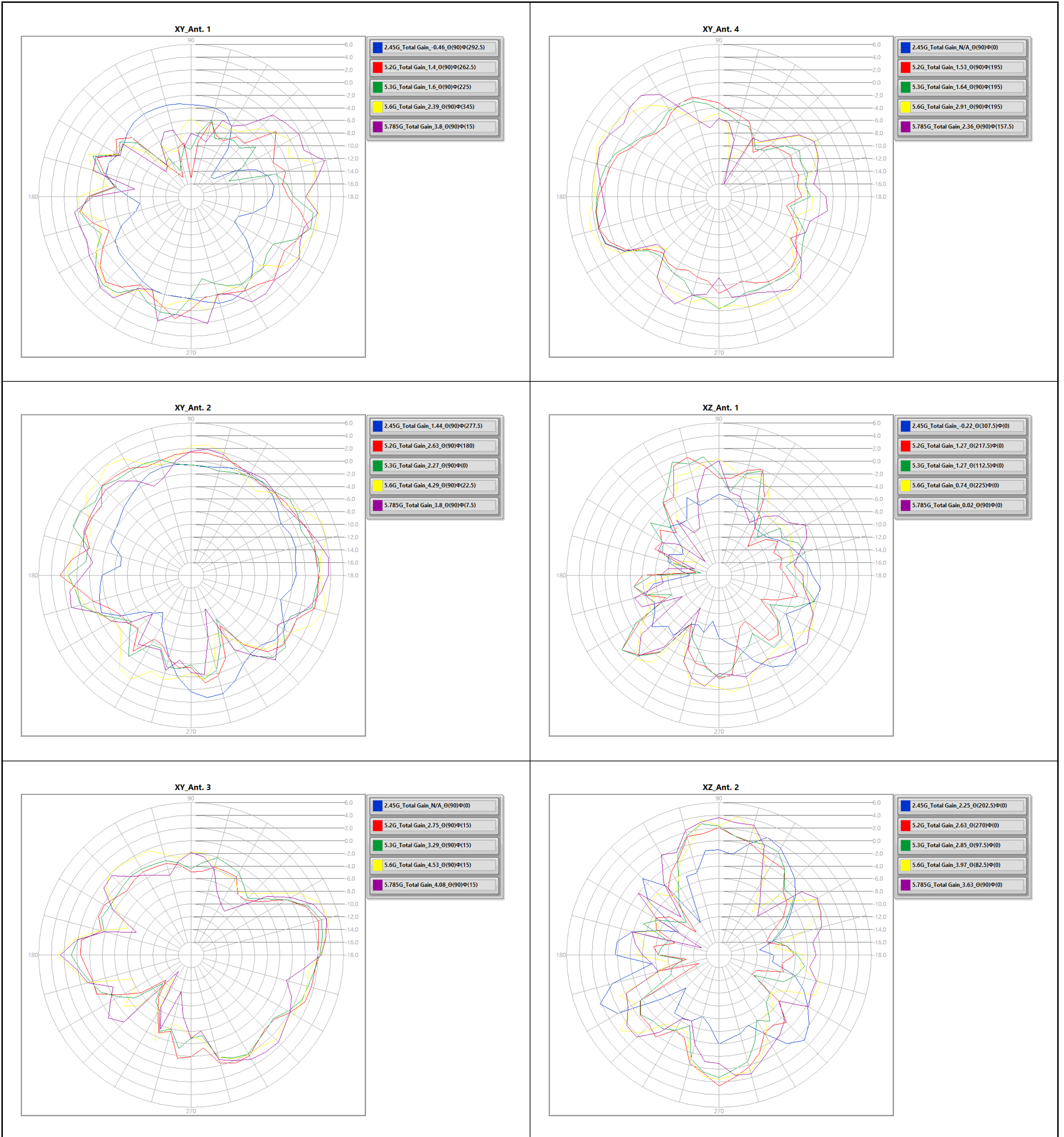


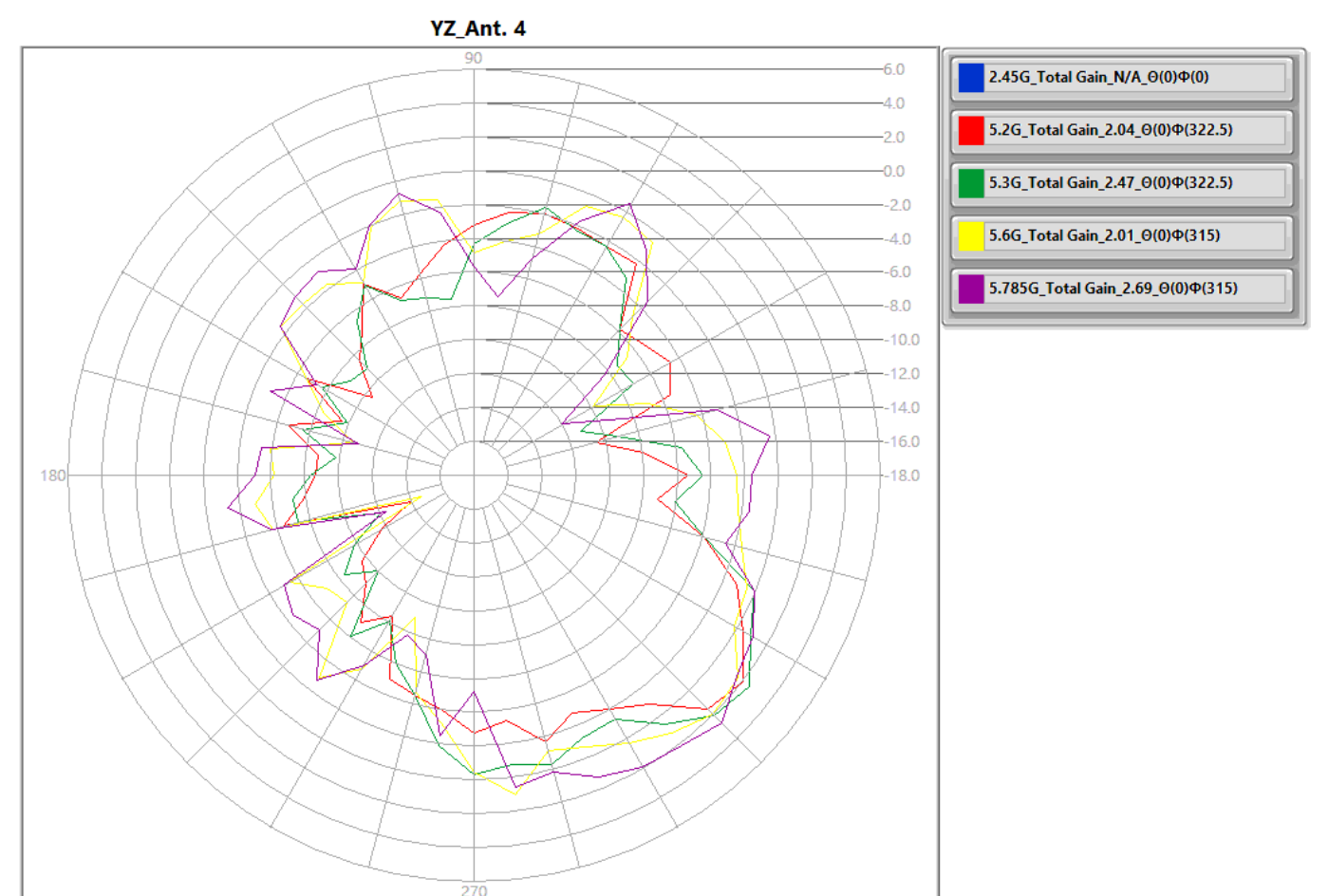
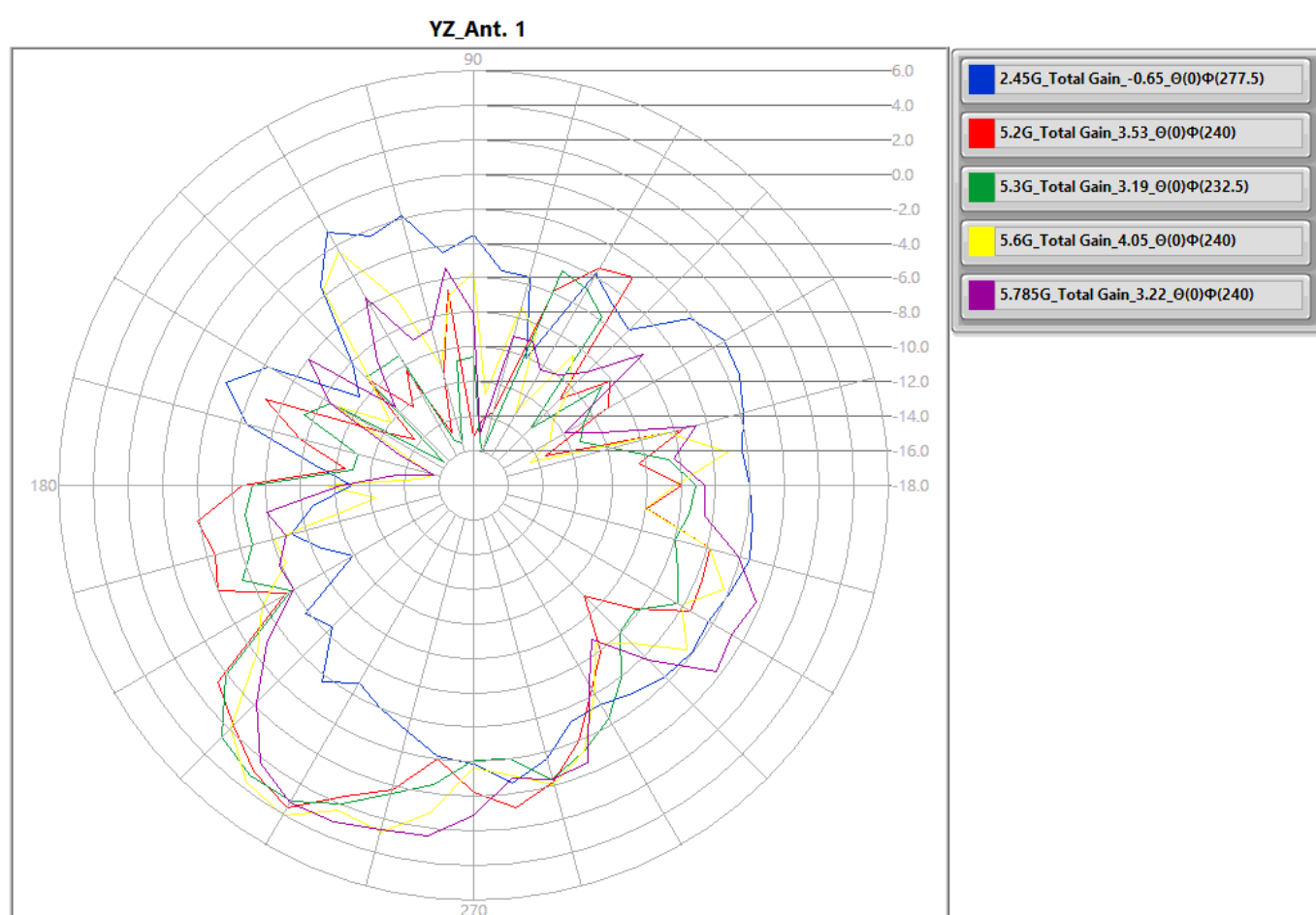
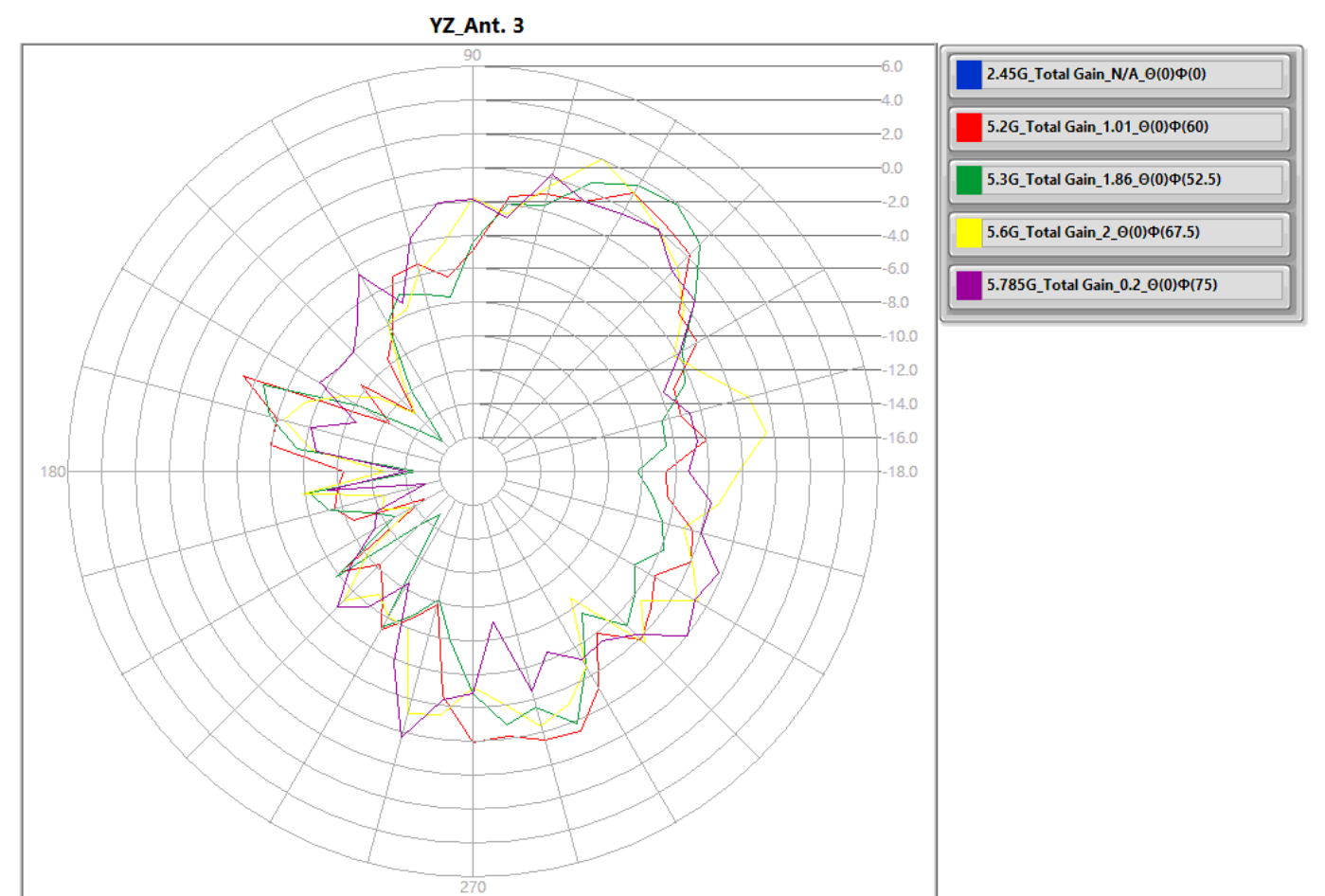
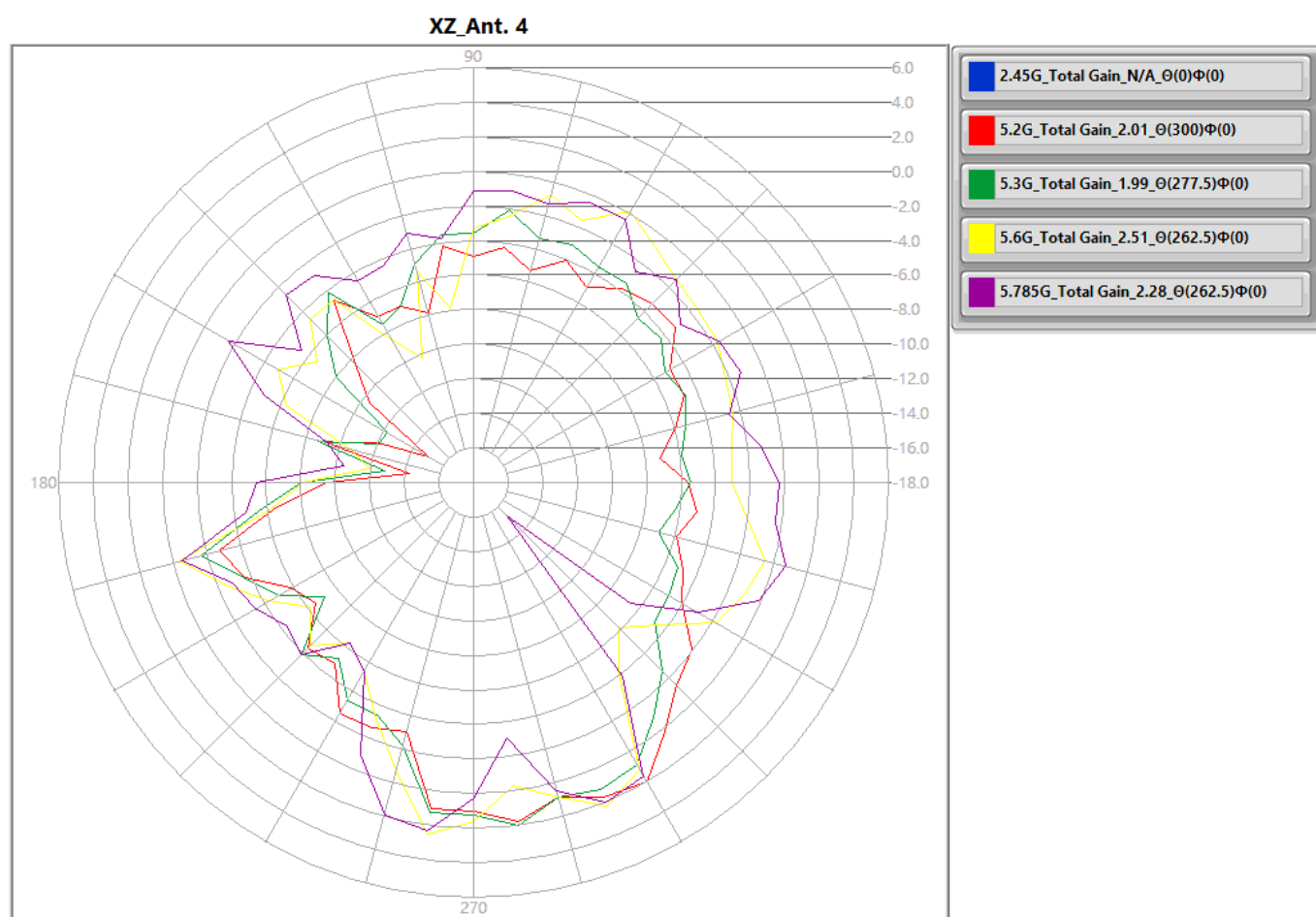
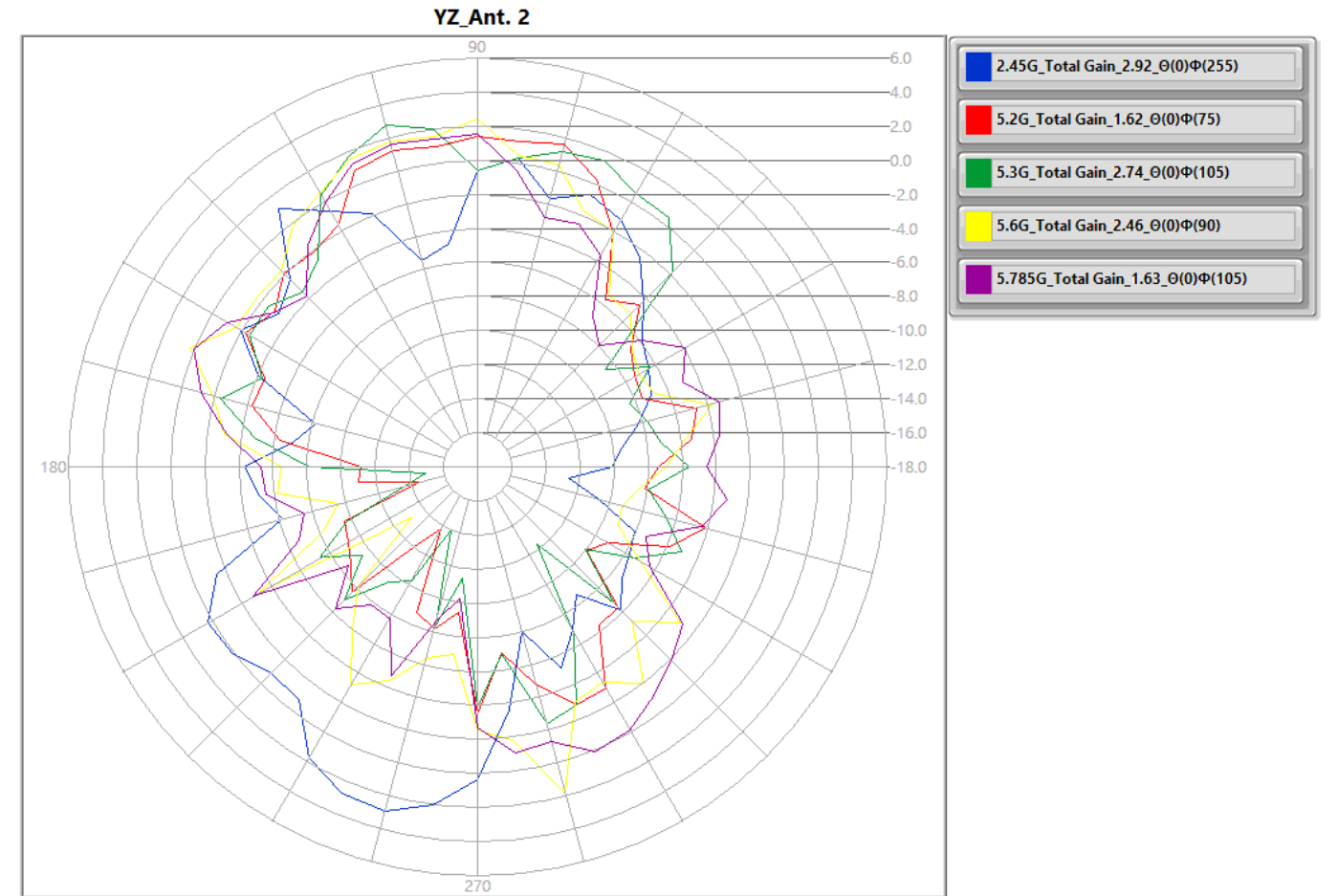
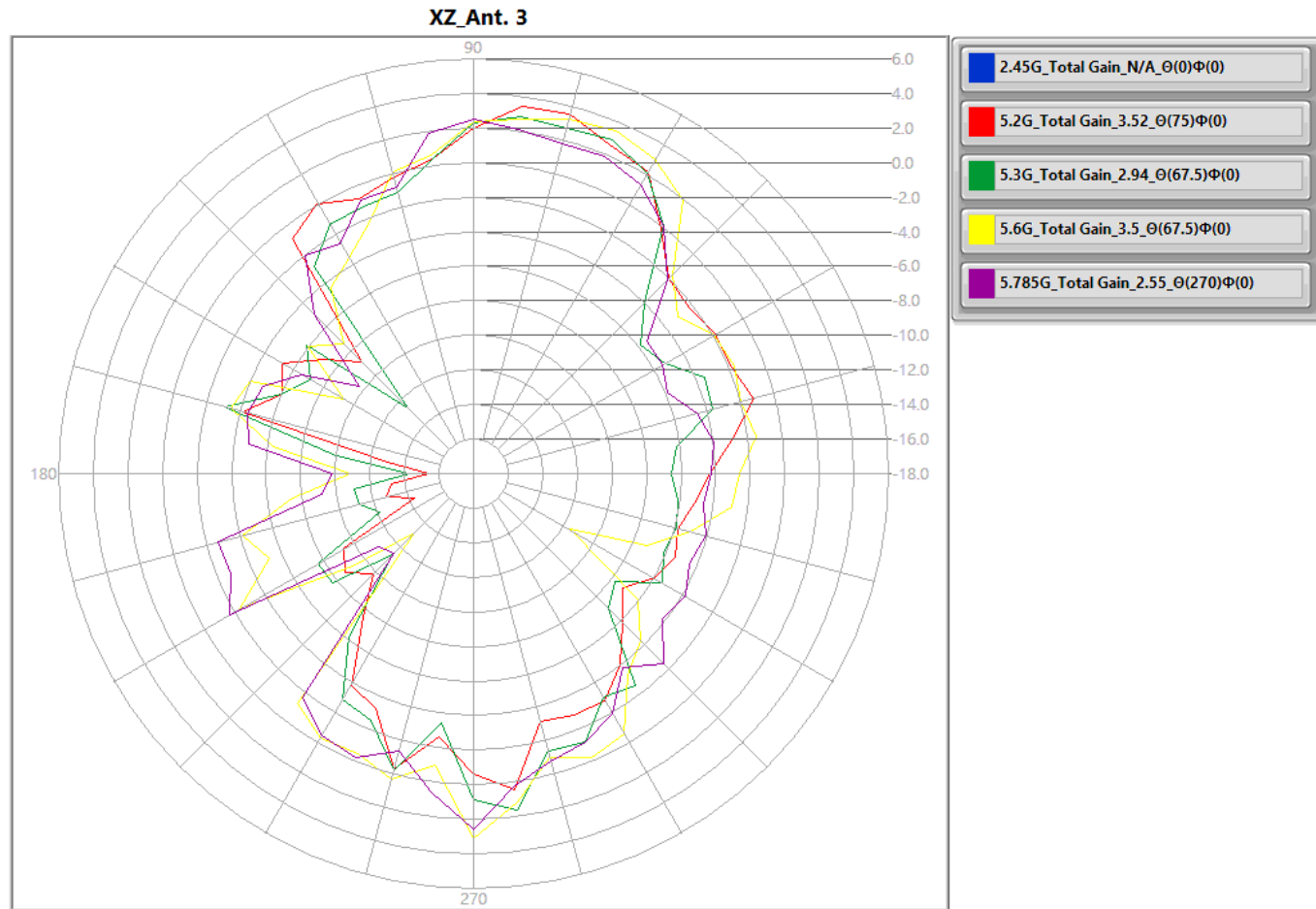
Antenna Pattern of 2.4GHz and 5GHz U-NII 1 ~ U-NII 3

Appendix C

Θ(150°)	-15.01/-11.87	-6.51/-6.03	-5.92/-5.01	-7.13/-12.55	-11.51/-9.20	-9.75/-8.22	-6.63/-5.24	-4.47/-4.41	-4.78/-4.92	-4.32/-3.52	-2.93/-2.77	-2.87/-3.62	-5.80/-9.40	-11.77/-11.32	-8.67/-10.04	-9.62/-8.95	-12.63/-15.44	-11.90/-10.91	-11.75/-12.44	-12.09/-9.57	-8.31/-8.91	-8.64/-8.04	-7.90/-8.03	-9.88/-12.55
Θ(157.5°)	-11.99/-8.56	-6.02/-5.95	-7.37/-7.51	-8.01/-11.12	-14.83/-12.26	-13.00/-12.24	-9.58/-7.50	-6.74/-6.33	-5.70/-4.71	-3.60/-2.53	-2.10/-2.07	-2.32/-2.98	-3.67/-4.85	-5.14/-4.11	-3.53/-3.37	-3.12/-4.53	-8.42/-14.12	-15.33/-15.42	-13.96/-13.37	-13.19/-11.92	-9.36/-6.85	-5.16/-4.60	-4.84/-5.59	-7.30/-9.79
Θ(165°)	-9.15/-9.15	-7.51/-6.87	-7.81/-9.21	-9.45/-9.83	-9.82/-8.79	-7.38/-6.90	-6.58/-5.85	-5.65/-5.38	-4.94/-4.00	-2.91/-2.06	-1.48/-1.29	-1.65/-2.23	-2.80/-3.27	-3.69/-4.10	-4.99/-6.63	-9.07/-11.58	-11.20/-8.36	-6.45/-6.06	-6.42/-7.50	-8.60/-9.14	-8.29/-6.69	-5.68/-5.49	-5.60/-6.12	-7.54/-8.94
Θ(172.5°)	-14.28/-13.64	-11.53/-10.95	-11.87/-12.66	-12.36/-11.58	-11.30/-10.27	-9.13/-8.73	-8.73/-8.04	-7.31/-6.63	-6.20/-5.90	-5.66/-5.42	-5.37/-5.28	-5.32/-5.68	-6.33/-7.18	-8.78/-10.45	-14.15/-14.84	-13.62/-10.62	-8.12/-6.74	-6.46/-6.83	-7.85/-9.38	-10.05/-10.38	-10.03/-9.53	-9.19/-9.61	-11.15/-13.09	-15.84/-15.26
Θ(180°)	-9.56/-9.35	-9.31/-9.60	-9.67/-8.93	-8.69/-9.62	-9.98/-9.69	-8.78/-8.55	-8.65/-8.52	-7.99/-7.44	-7.22/-7.15	-7.34/-7.77	-8.13/-8.51	-9.41/-10.70	-11.27/-12.18	-12.31/-11.98	-10.59/-9.77	-8.97/-8.76	-8.74/-8.88	-9.26/-10.23	-11.30/-11.93	-11.74/-11.03	-10.63/-10.59	-10.81/-11.47	-11.35/-10.83	-10.03/-9.89
Freq(Hz)	5.3GPol.	TotalAnt.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°)	-5.46/-5.63	-5.61/-5.46	-5.58/-5.75	-6.06/-5.79	-5.88/-5.50	-4.94/-4.63	-4.47/-4.51	-4.44/-4.61	-4.85/-4.93	-4.95/-5.08	-5.31/-5.45	-5.73/-5.89	-5.97/-6.17	-6.37/-6.43	-5.98/-5.66	-5.67/-5.53	-5.59/-5.63	-5.65/-5.72	-5.74/-5.44	-5.32/-4.99	-4.91/-5.13	-5.19/-5.21	-5.07/-5.08	-5.28/-5.59
Θ(7.5°)	-5.84/-5.92	-6.23/-6.37	-6.44/-7.07	-7.38/-7.09	-6.96/-6.81	-6.45/-6.16	-5.66/-5.76	-5.43/-5.54	-5.58/-5.64	-5.50/-5.34	-5.40/-5.53	-5.88/-6.09	-6.22/-6.54	-6.92/-6.77	-6.14/-5.62	-5.15/-4.90	-4.65/-4.47	-4.76/-5.43	-5.99/-6.43	-6.33/-5.95	-5.53/-5.46	-5.39/-5.06	-4.92/-4.90	-5.06/-5.42
Θ(15°)	-5.31/-5.35	-5.67/-6.60	-8.02/-8.85	-10.17/-11.25	-11.36/-10.87	-10.80/-10.53	-9.21/-8.23	-7.20/-6.59	-6.11/-5.56	-5.13/-5.00	-5.11/-5.50	-6.05/-6.66	-6.94/-7.21	-6.94/-6.09	-4.63/-4.08	-3.57/-3.26	-2.89/-2.74	-2.99/-3.61	-3.95/-4.18	-4.14/-3.49	-3.14/-3.01	-2.98/-2.97	-3.51/-4.25	-4.35/-4.81
Θ(22.5°)	-4.77/-5.28	-5.08/-5.91	-7.22/-8.29	-8.96/-10.29	-11.52/-11.54	-11.86/-11.80	-11.16/-9.00	-7.52/-6.16	-5.07/-4.27	-3.77/-3.59	-3.87/-4.04	-4.34/-4.79	-5.23/-5.50	-4.89/-3.76	-2.77/-1.96	-1.31/-0.75	-0.48/-0.46	-0.66/-0.55	-0.08/-0.26	0.53/-0.42	0.33/-0.09	-0.28/-0.74	-1.52/-2.53	-3.54/-4.35
Θ(30°)	-5.21/-5.68	-5.49/-5.30	-5.98/-6.75	-6.03/-4.89	-4.88/-6.02	-6.93/-7.30	-7.09/-6.54	-5.33/-3.88	-2.33/-1.24	-0.63/-0.64	-0.99/-1.55	-2.46/-3.70	-4.97/-5.32	-4.55/-3.42	-1.74/-0.40	0.34/-0.66	0.91/-1.21	1.47/-1.29	0.89/-0.51	0.33/-0.40	0.79/-0.95	0.88/-0.70	0.16/-0.77	-2.32/-4.32
Θ(37.5°)	-4.34/-4.71	-4.15/-4.30	-4.21/-4.34	-4.22/-3.92	-4.81/-6.65	-8.87/-9.14	-7.36/-5.78	-4.07/-2.71	-1.63/-0.73	-0.05/-0.12	-0.12/-0.57	-1.67/-3.55	-4.83/-4.80	-3.91/-2.50	-0.99/-0.36	0.05/-0.59	1.44/-1.71	1.44/-1.79	2.47/-2.76	2.34/-1.49	0.59/-0.03	-0.64/-1.17	-1.16/-1.20	-1.51/-2.82
Θ(45°)	-4.56/-4.71	-3.53/-3.92	-3.94/-3.62	-4.14/-5.71	-7.95/-8.50	-7.89/-7.40	-5.83/-4.30	-3.14/-2.39	-2.06/-1.55	-0.82/-0.29	-0.32/-0.35	-0.52/-1.41	-2.60/-2.80	-3.46/-3.31	-2.23/-0.99	0.50/-0.69	2.44/-8.1	2.91/2.60	2.03/-1.82	1.99/-1.79	0.88/-0.97	-2.44/-3.26	-3.00/-2.91	-3.34/-3.37
Θ(52.5°)	-3.46/-4.48	-3.67/-3.48	-3.72/-5.19	-7.89/-8.30	-6.52/-5.34	-4.02/-3.47	-3.26/-2.46	-2.02/-1.72	-1.26/-1.14	-1.57/-2.02	-2.33/-2.05	-0.53/-0.90	-0.90/-0.97	-4.16/-4.89	-4.81/-3.50	-1.80/-0.36	0.68/-0.74	0.77/-0.68	0.56/-0.68	0.46/-0.12	-2.94/-3.04	-2.98/-2.51	-3.03/-2.98	
Θ(60°)	-3.58/-3.21	-2.07/-1.98	-3.19/-5.00	-7.64/-6.92	-5.83/-5.16	-4.22/-3.34	-2.41/-1.29	-0.84/-0.38	-0.29/-0.08	0.09/-0.74	-1.41/-2.64	-1.77/-0.15	0.87/-1.74	-0.38/-3.65	-5.90/-4.15	-2.15/-1.10	-0.54/-0.46	-0.70/-0.99	-1.36/-2.05	-2.04/-1.93	-2.69/-3.77	-3.43/-1.31	0.12/-0.18	-1.88/-3.59
Θ(67.5°)	-3.12/-5.28	-2.79/-3.70	-6.46/-9.02	-8.86/-6.69	-6.14/-5.56	-4.85/-3.07	-2.31/-2.24	-1.73/-1.59	-1.84/-1.52	-0.78/-1.08	-1.66/-2.40	-2.07/-0.01	1.22/-2.49	0.49/-3.22	-7.99/-5.82	-3.65/-2.50	-1.62/-1.10	-0.83/-1.70	-1.22/-1.10	-2.27/-3.37	-3.62/-3.12	-1.55/-0.66	0.83/-0.31	-1.89/-1.53
Θ(75°)	-3.40/-2.67	-3.65/-4.98	-7.51/-9.18	-9.41/-8.64	-9.78/-8.01	-4.52/-2.68	-1.65/-1.21	-1.05/-2.35	-3.16/-3.07	-1.63/-0.12	0.62/-0.81	-0.22/-0.07	0.82/-1.17	2.22/-0.59	-3.05/-7.18	-6.14/-5.11	-3.73/-3.18	-2.45/-1.68	-0.27/-0.39	-0.29/-0.83	-1.51/-2.28	-2.03/-1.46	-0.99/-1.69	-3.45/-3.61
Θ(82.5°)	-2.14/-2.24	-2.56/-4.32	-5.74/-7.87	-8.67/-10.02	-8.49/-6.46	-5.14/-4.38	-3.04/-3.15	-2.91/-2.87	-2.70/-2.96	-2.11/-1.32	-0.31/-0.64	0.84/-0.98	1.99/-2.78	2.64/-1.91	-1.36/-4.79	-6.12/-3.63	-3.20/-2.57	-2.03/-1.57	-0.77/-0.29	-0.01/-0.91	-1.37/-1.38	-0.55/-1.11	-1.31/-2.00	-3.51/-3.82
Θ(90°)	-3.56/-4.29	-3.55/-4.02	-3.39/-4.85	-7.61/-8.63	-7.03/-6.01	-5.90/-5.04	-4.35/-2.22	-2.43/-2.46	-2.26/-3.15	-3.62/-2.65	-1.74/-0.27	0.43/-0.86	1.28/-1.57	1.64/-1.31	-0.96/-3.99	-4.91/-4.50	-3.95/-3.66	-1.96/-1.64	-0.30/-1.24	-2.29/-2.12	-2.09/-1.81	-1.41/-1.75	-2.78/-3.39	-5.24/-6.72
Θ(97.5°)	-5.43/-4.19	-2.56/-3.81	-4.29/-7.82	-7.43/-6.82	-7.50/-8.44	-8.55/-10.03	-7.46/-5.56	-3.93/-3.54	-3.40/-3.99	-4.00/-3.12	-2.23/-1.24	-0.73/-3.27	1.29/-1.71	1.10/-0.07	-1.82/-3.95	-4.90/-4.27	-3.65/-2.71	-2.81/-2.35	-1.87/-2.27	-3.56/-5.60	-4.49/-3.90	-2.89/-3.95	-5.30/-5.70	-5.91/-6.05
Θ(105°)	-4.93/-6.39	-3.88/-4.57	-5.41/-10.10	-8.46/-7.02	-6.57/-8.29	-10.45/-9.88	-7.14/-4.69	-2.65/-2.55	-2.39/-3.13	-4.03/-2.35	-1.89/-1.49	-2.29/-3.29	-2.22/-0.27	-0.09/-1.36	-3.18/-4.71	-5.52/-3.25	-1.91/-2.24	-2.86/-5.58	-4.51/-3.92	-5.97/-7.84	-6.59/-7.21	-8.19/-11.44	-5.26/-2.66	-2.74/-6.55
Θ(112.5°)	-7.01/-8.21	-4.21/-8.42	-5.92/-8.24	-6.87/-8.93	-6.59/-8.93	-8.79/-8.60	-6.82/-6.57	-5.13/-4.22	-3.58/-3.72	-3.03/-2.39	-1.37/-1.33	-0.23/-3.28	-3.41/-1.10	-0.79/-2.34	-1.80/-2.97	-7.35/-4.77	-2.77/-3.85	-4.50/-7.66	-5.94/-4.16	-5.12/-8.11	-7.48/-7.11	-3.84/-5.87	-5.47/-4.90	-5.85/-8.26
Θ(120°)	-7.41/-6.05	-3.64/-4.98	-6.58/-11.76	-10.09/-6.83	-7.25/-7.48	-7.49/-6.17	-5.08/-4.63	-3.56/-3.17	-3.47/-4.01	-3.93/-3.20	-2.20/-1.47	-1.90/-2.18	-3.42/-2.64	-2.83/-3.29	-2.03/-3.90	-10.32/-13.16	-5.06/-5.65	-4.13/-8.80	-8.05/-7.97	-7.52/-4.27	-4.50/-2.64	-3.84/-8.21	-6.14/-3.76	-9.44/-8.82
Θ(127.5°)	-4.18/-4.40	-3.51/-6.83	-12.27/-12.18	-6.99/-6.63	-5.89/-7.79	-7.22/-7.61	-6.62/-4.87	-3.99/-4.16	-4.33/-3.80	-3.64/-2.52	-2.15/-1.28	-1.40/-3.21	-5.21/-7.00	-5.78/-6.47	-4.67/-6.17	-6.83/-11.14	-9.30/-9.32	-8.47/-12.40	-5.99/-8.60	-10.65/-6.13	-4.27/-4.21	-4.31/-8.04	-13.18/-8.41	-8.54/-8.77
Θ(135°)	-6.07/-9.00	-9.09/-11.94	-11.36/-8.62	-4.55/-2.92	-4.22/-5.67	-7.82/-9.69	-9.06/-8.33	-6.88/-6.52	-4.92/-5.58	-5.69/-4.15	-2.54/-0.69	-0.86/-2.42	-3.95/-10.26	-9.61/-9.18	-7.40/-9.61	-5.27/-8.10	-6.30/-13.55	-14.35/-11.70	-9.98/-14.49	-12.86/-8.68	-5.26/-3.04	-4.42/-4.14	-13.26/-13.13	-11.36/-10.41
Θ(142.5°)	-7.94/-7.20	-8.66/-7.78	-5.68/-5.57	-6.67/-4.04	-3.67/-6.41	-7.95/-9.06	-8.82/-7.48	-5.61/-4.18	-3.96/-3.72	-3.96/-4.58	-4.04/-3.00	-1.13/-4.38	-7.11/-10.06	-10.47/-12.29	-10.87/-7.61	-8.08/-7.97	-5.13/-6.91	-7.64/-7.48	-8.40/-8.53	-6.46/-4.35	-4.47/-6.36	-7.86/-7.15	-10.41/-14.88	
Θ(150°)	-12.23/-10.87	-7.09/-7.03	-5.74/-4.66	-7.29/-11.28	-7.89/-7.48	-8.81/-8.30	-7.64/-6.50	-5.49/-5.50	-5.87/-6.00	-5.31/-4.15	-3.16/-2.80	-3.18/-3.67	-4.95/-7.95	-12.03/-12.30	-8.64/-9.34	-12.57/-11.82	-12.07/-11.85	-10.84/-10.53	-9.86/-9.52	-10.09/-9.43	-9.99/-11.02	-9.41/-8.11	-7.53/-8.15	-9.90/-10.90
Θ(157.5°)	-12.08/-7.73	-5.95/-6.24	-7.11/-6.81	-7.69/-11.41	-12.08/-11.28	-13.53/-13.64	-9.86/-7.76	-6.93/-6.74	-6.28/-9.41	-3.31/-2.03	-1.50/-1.57	-2.25/-2.93	-3.62/-3.52	-7.02/-6.09	-4.62/-4.18	-4.22/-5.59	-8.98/-13.55	-13.17/-13.32	-12.08/-11.16	-11.16/-11.14	-9.83/-7.33	-5.26/-4.23	-4.30/-5.33	-7.47/-10.77
Θ(165°)	-8.71/-7.92	-6.70/-6.31	-7.68/-9.08	-10.55/-11.24	-10.63/-8.86	-7.86/-7.99	-7.53/-7.27	-6.72/-6.19	-5.41/-4.48	-3.30/-2.15	-1.43/-1.00	-0.99/-1.28	-1.73/-2.44	-3.11/-3.71	-4.59/-6.07	-8.42/-11.39	-12.25/-9.80	-7.55/-6.75	-7.26/-8.47	-9.67/-9.59	-8.89/-7.18	-5.82/-5.07	-5.36/-6.05	-7.11/-8.39
Θ(172.5°)	-12.83/-11.96	-10.66/-10.45	-11.88/-12.51	-12.00/-11.52	-11.10/-10.73	-9.64/-10.08	-9.76/-9.09	-8.73/-8.29	-7.89/-7.67	-7.46/-7.11	-6.57/-6.14	-5.72/-5.46	-5.48/-5.90	-7.12/-8.95	-11.81/-13.56	-13.21/-10.09	-7.72/-6.58	-6.20/-6.54	-7.20/-7.93	-7.97/-8.25	-8.34/-8.08	-7.92/-8.41	-10.34/-12.82	-14.02/-13.24
Θ(180°)	-8.01/-7.38	-7.36/-7.75	-8.18/-7.40	-7.55/-8.58	-8.92/-8.98	-8.75/-8.48	-8.31/-7.98	-7.55/-7.04	-6.56/-6.51	-6.60/-7.04	-7.46/-7.77	-8.01/-8.29	-8.71/-8.90	-9.08/-9.69	-10.44/-10.48	-10.52/-10.15	-9.43/-8.88	-8.90/-9.27	-9.83/-10.14	-9.75/-9.54	-10.53/-11.64	-12.20/-11.94	-11.42/-10.41	-9.08/-8.38
Freq(Hz)	5.3GPol.	TotalAnt.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°)	-3.08/-2.76	-2.81/-2.56	-2.26/-2.29	-2.62/-2.22	-2.22/-2.15	-2.24/-2.12	-2.48/-2.44	-2.59/-2.65	-2.91/-3.01	-3.05/-3.04	-3.02/-3.09	-3.29/-3.48	-3.69/-3.87	-3.94/-3.83	-3.64/-3.36	-2.93/-2.63	-2.57/-2.56	-2.61/-2.88	-2.92/-2.62	-2.54/-2.78	-2.96			

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







Antenna Pattern of 6GHz U-NII 5 ~ U-NII 8

Appendix D

Total Gain Data

Freq(Hz)	6.175GPol.	TotalAnt. 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°)	-1.57/-1.80	-1.78/-1.39	-1.08/-0.64	-0.43/-0.54	-0.72/-0.86	-0.98/-0.89	-0.78/-0.51	-0.51/-0.54	-0.56/-0.48	-0.46/-0.38	-0.18/-0.01	0.07/0.11	0.03/-0.04	-0.14/-0.10	-0.02/-0.22	-0.39/-0.17	-0.22/-0.52	-1.20/-1.69	-1.69/-1.89	-1.98/-2.01	-1.73/-1.79	-1.59/-1.26	-1.16/-1.18	-1.10/-1.40
Θ(7.5°)	0.04/-0.15	-0.53/-0.76	-0.42/0.13	0.31/0.14	-0.45/-1.24	-1.68/-1.78	-1.53/-1.50	-1.95/-2.78	-3.48/-3.66	-3.27/-2.71	-2.21/-2.10	-2.09/-2.00	-1.76/-1.53	-1.29/-1.12	-0.92/-0.90	-0.93/-0.52	-0.07/0.07	-0.01/-0.02	0.10/-0.22	0.27/-0.04	-0.10/0.51	0.96/1.13	0.80/0.45	
Θ(15°)	0.87/0.86	0.46/-0.25	-0.27/0.07	0.03/-0.10	-0.78/-1.40	-2.12/-2.68	-2.63/-3.29	-4.33/-5.62	-6.12/-5.76	-5.59/-5.14	-4.77/-4.53	-4.27/-3.96	-3.94/-3.57	-2.91/-2.10	-1.33/-0.87	-0.45/-0.25	0.05/0.20	0.35/0.40	0.78/1.11	0.95/0.68	0.54/0.75	1.17/1.36	1.40/1.26	1.23/1.34
Θ(22.5°)	1.72/1.50	0.74/0.25	0.15/0.32	0.51/0.50	-0.23/-0.91	-1.58/-2.15	-3.15/-4.73	-6.93/-8.46	-8.87/-9.14	-9.04/-7.86	-6.89/-5.90	-5.13/-4.84	-5.32/-5.55	-4.56/-3.01	-1.45/-0.25	0.92/1.64	2.04/2.13	1.92/1.88	2.27/2.53	2.15/1.73	1.60/1.74	1.85/1.67	1.22/0.69	0.69/1.29
Θ(30°)	1.48/1.60	1.66/1.99	1.51/0.74	0.10/-0.59	-2.01/-3.46	-5.37/-6.94	-7.65/-7.51	-6.78/-6.04	-5.19/-4.86	-5.45/-5.87	-5.84/-4.41	-2.33/-0.95	-1.31/-2.53	-2.25/-0.72	0.67/1.14	1.49/1.85	2.05/2.15	2.22/2.45	2.93/2.23	2.99/2.64	2.10/1.32	1.01/1.14	1.24/1.39	1.28/1.43
Θ(37.5°)	2.41/3.00	3.19/2.99	2.91/2.46	1.54/-0.17	-1.98/-3.04	-3.00/-2.80	-2.95/-2.71	-2.85/-3.01	-3.08/-2.78	-2.21/-1.87	-2.36/-1.64	-0.03/-1.27	1.47/0.59	-0.16/0.99	1.96/1.80	1.44/1.17	1.10/1.65	1.91/1.93	2.06/1.94	1.85/1.64	1.92/2.23	2.32/2.62	2.70/1.69	1.46/1.84
Θ(45°)	3.60/3.84	3.80/3.61	3.08/1.61	-0.54/-2.46	-2.65/-2.75	-2.44/-2.10	-1.90/-1.84	-1.20/-1.36	-2.26/-3.06	-3.15/-2.49	-1.74/-0.07	0.83/1.07	2.10/2.68	1.27/0.37	0.99/0.98	0.65/0.69	1.22/2.27	2.89/2.60	2.60/3.12	3.30/1.56	-0.28/-0.34	1.73/0.05	3.46/2.92	2.70/3.24
Θ(52.5°)	4.034/2.8	3.49/1.96	0.51/-0.44	-0.70/-1.12	-0.10/-1.28	-2.51/-2.71	-2.71/-3.25	-3.04/-2.26	-6.19/-4.18	-1.21/-4.03	-1.93/1.41	1.43/0.66	1.69/1.45	-0.71/-1.15	0.46/0.94	1.37/1.89	1.55/1.33	1.62/1.92	2.01/1.79	1.58/0.95	1.14/1.45	1.14/1.61	2.71/3.17	3.08/3.32
Θ(60°)	3.43/3.07	1.55/0.25	0.23/-1.10	0.86/1.48	0.20/-1.29	-1.34/-1.61	-3.00/-3.82	-4.88/-6.46	-6.89/-3.26	-0.13/0.35	-1.56/1.11	3.18/1.74	0.27/0.45	-1.47/-2.65	-0.71/-0.98	-0.07/0.11	-1.40/-1.41	-0.58/0.99	1.64/1.21	0.65/0.48	-0.48/-0.04	-0.97/-1.08	1.29/2.14	2.14/2.49
Θ(67.5°)	1.99/-0.27	0.26/1.76	1.52/1.78	1.87/0.42	-2.20/-3.10	-1.76/-1.06	-2.30/-5.17	-6.64/-6.27	-6.69/-5.20	-0.91/1.04	-0.07/-1.50	2.53/-0.38	-2.53/-2.23	-4.83/-4.38	-1.66/-1.63	-2.16/-2.38	-1.94/-1.78	-1.13/-0.47	-0.02/-0.87	-1.58/-1.09	-1.37/-2.18	-2.76/-3.40	0.52/1.45	0.93/2.50
Θ(75°)	-1.13/-2.35	0.09/1.27	0.39/-0.21	-1.21/-3.09	-3.53/-0.82	0.35/-1.05	-3.65/-6.63	-5.80/-4.16	-2.64/-3.32	-4.74/-2.29	-1.62/-2.18	-0.24/-0.54	-4.00/-4.56	-3.11/-4.39	-6.30/-5.25	-4.68/-6.55	-5.94/-3.86	-2.14/-2.62	-3.99/-4.23	-6.48/-4.60	-2.56/-4.30	-4.06/-3.33	-0.65/1.21	0.62/0.34
Θ(82.5°)	-2.02/-1.11	0.26/0.93	0.43/-0.68	-3.86/-2.33	-0.46/0.35	-1.34/-4.65	-7.01/-7.05	-4.27/-1.06	-0.52/-1.26	-2.89/-1.58	-1.52/-5.41	-4.40/-2.19	-1.05/-0.97	-0.22/0.42	-0.99/-2.37	-3.32/-2.84	-3.85/-4.69	-3.58/-3.15	-3.78/-2.16	1.16/-1.33	-2.26/-2.28	-0.80/0.98	0.42/-0.81	
Θ(90°)	-2.12/-0.26	1.59/0.50	-1.93/-5.78	-7.71/-1.54	1.24/-0.47	-3.01/-2.10	-0.61/0.60	-3.71/-3.43	-0.38/-0.62	-3.41/-2.22	-2.65/-1.97	-8.10/-8.78	-6.01/-6.76	0.45/0.21	1.09/1.09	0.53/-0.04	-1.53/-4.36	-4.01/-3.22	-4.47/-3.70	-3.10/-1.76	0.38/-0.82	-2.56/-1.75	-0.34/-6.12	0.04/-1.60
Θ(97.5°)	-1.09/0.58	0.93/-5.32	-7.40/-4.65	-6.29/-1.60	1.44/-0.52	-3.28/-1.16	1.04/-0.13	-3.71/-3.45	-2.28/-2.56	-6.54/-4.29	-3.37/-9.77	-8.85/-6.25	-11.61/-0.25	1.59/1.10	1.91/3.27	3.28/3.05	0.06/-3.50	-2.81/-0.36	-2.79/-2.54	-7.46/-5.80	-3.42/-3.49	-7.77/-4.82	-1.52/-3.20	-4.51/-1.25
Θ(105°)	-2.65/-0.49	-1.03/-8.66	-3.97/-4.00	-5.64/0.06	2.45/-0.27	-3.72/-1.62	0.83/-0.14	-3.32/-1.61	-0.36/-0.11	-6.19/-4.83	0.47/-1.24	-2.82/-1.49	-8.78/-3.54	0.56/-1.89	-2.05/1.03	2.23/3.85	3.24/-0.67	-2.61/0.91	-1.43/-5.06	-8.90/-6.53	-4.01/-4.37	-8.98/-6.83	-7.51/-7.49	-3.90/-1.08
Θ(112.5°)	-3.92/-0.88	-1.21/-6.61	-8.45/-6.87	-5.62/-2.70	-1.62/-6.33	-7.08/-3.09	-1.78/-6.26	-11.60/-6.32	0.08/-1.08	-3.73/-5.79	-1.62/-3.29	0.37/0.50	-3.29/-2.17	-2.41/-6.57	-4.25/-1.80	-2.21/0.22	1.22/-1.47	-4.12/-0.76	-2.21/-5.25	-4.03/-6.48	-5.53/-7.90	-6.94/-7.95	-11.57/-9.70	-5.99/-5.00
Θ(120°)	-6.95/-2.84	-4.33/-1.51	-4.46/-5.92	-13.19/-4.70	-1.79/-3.59	-14.15/-4.69	-3.79/-8.28	-15.17/-5.98	-1.93/-3.03	-3.91/-3.42	0.23/-2.51	-2.61/0.87	-1.51/-3.70	-1.39/-6.03	-8.03/-5.25	-4.27/-3.02	-2.96/-3.63	-3.34/-3.65	-2.22/-3.22	-6.03/-5.44	-8.28/-5.88	-6.61/-9.18	-11.99/-9.11	-8.41/-8.89
Θ(127.5°)	-10.68/-11.29	-9.89/-7.22	-3.10/-6.84	-15.20/-11.83	-7.45/-8.86	-10.10/-6.94	-5.54/-7.53	-9.19/-4.69	-1.86/-1.65	-7.23/-2.70	1.79/0.72	-1.68/0.67	2.08/0.47	-0.12/-1.61	-3.79/-5.88	-8.15/-4.36	-6.08/-6.63	-0.94/-2.80	-7.65/-7.38	-6.08/-5.63	-2.46/-6.60	-10.01/-7.79	-6.22/-7.55	
Θ(135°)	-5.09/-6.74	-6.25/-5.95	-8.89/-9.29	-4.64/-2.77	-5.20/-9.39	-8.65/-6.82	-8.51/-8.82	-4.97/-1.03	0.66/-0.06	-2.66/-5.98	-1.41/0.86	0.22/0.88	2.77/2.84	0.27/-1.69	-3.22/-3.30	-4.63/-6.96	-7.08/-4.58	-7.89/-7.88	-5.07/-6.64	-9.52/-5.42	-9.10/-8.39	-7.89/-2.98	-4.14/-3.68	-2.98/-3.22
Θ(142.5°)	-8.07/-14.30	-8.65/-5.82	-7.16/-5.86	-5.83/-3.06	-3.79/-5.13	-3.44/-1.95	-0.82/-0.06	-1.05/-6.44	-7.23/-5.03	-3.84/-3.66	-4.63/-3.97	-5.12/-5.09	-1.92/0.22	-0.76/-6.11	-8.89/-6.63	-3.40/-2.97	-5.93/-7.32	-8.56/-6.14	-5.68/-6.81	-14.01/-9.04	-7.78/-11.84	-13.88/-10.96	-7.63/-6.60	-4.45/-1.15
Θ(150°)	-2.62/-7.15	-8.22/-7.73	-7.91/-8.18	-8.83/-8.39	-6.90/-5.13	-3.81/-5.67	-2.21/-3.32	-5.36/-1.52	-10.50/-10.84	-5.15/-2.30	-2.16/-1.93	-2.68/-4.70	-3.42/-0.05	-1.69/-1.39	-2.47/-4.88	-7.17/-8.55	-8.70/-9.01	-3.22/-6.61	-5.97/-10.10	-7.48/-8.51	-8.21/-6.46	-5.73/-5.07	-7.17/-6.12	
Θ(157.5°)	-8.87/-8.44	-4.84/-2.49	-1.13/-0.77	-1.49/-3.67	-8.12/-15.30	-12.81/-9.85	-10.51/-12.53	-13.40/-12.35	-9.72/-7.36	-2.48/0.39	1.35/1.13	-0.04/-1.72	-3.01/-3.97	-6.36/-7.55	-6.19/-4.54	-4.67/-7.41	-9.98/-8.67	-8.15/-6.94	-6.59/-8.31	-9.90/-9.84	-9.78/-7.28	-6.40/-4.57	-4.38/-6.12	-6.75/-6.96
Θ(165°)	-5.48/-5.84	-6.19/-7.27	-12.49/-15.47	-14.36/-10.72	-8.79/-7.52	-6.99/-6.74	-6.51/-6.14	-6.30/-1.47	-13.31/-14.79	-10.95/-5.71	-3.40/-2.03	-0.68/0.06	-0.02/-0.53	-1.33/-2.45	-3.46/-3.63	-3.50/-3.68	-4.35/-3.35	-6.68/-7.33	-6.34/-6.11	-5.41/-6.52	-5.65/-6.94	-9.43/-7.85	-5.64/-4.97	-4.98/-5.51
Θ(172.5°)	-12.50/-10.89	-9.70/-8.13	-5.96/-4.53	-10.42/-6.04	-4.73/-5.75	-6.70/-8.23	-7.80/-7.23	-6.64/-6.37	-5.72/-6.74	-4.19/-4.20	-4.10/-3.43	-6.29/-2.28	-2.36/-3.11	-4.30/-4.72	-4.34/-4.26	-4.33/-4.21	-4.34/-3.33	-3.05/-2.42	-2.08/-1.54	-7.13/-3.48	-6.95/-4.25	-9.98/-9.74	-11.37/-12.42	
Θ(180°)	-5.41/-5.56	-5.95/-7.97	-10.35/-12.45	-13.49/-13.89	-13.30/-12.97	-11.14/-9.98	-9.21/-8.65	-7.93/-8.00	-8.89/-10.51	-11.23/-11.56	-10.75/-10.21	-9.91/-9.66	-9.18/-8.72	-8.86/-9.28	-8.01/-6.75	-5.67/-4.94	-4.29/-4.17	-4.54/-4.55	-4.13/-3.90	-3.45/-3.43	-3.87/-5.07	-6.37/-8.45	-9.93/-8.99	-7.13/-5.81
Freq(Hz)	6.475GPol.	TotalAnt. 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°)	-1.85/-1.85	-1.56/-1.43	-1.45/-1.24	-0.85/-1.05	-1.15/-1.38	-1.28/-1.10	-1.24/-1.43	-1.47/-1.24	-0.79/-0.87	-1.17/-1.38	-1.18/-0.97	-1.08/-1.30	-1.47/-1.30	-1.05/-1.22	-1.56/-1.59	-1.25/-0.91	-0.84/-1.29	-1.98/-2.34	-2.16/-2.14	-2.22/-2.28	-2.43/-2.34	-2.33/-2.81	-3.02/-2.51	-1.72/-1.74
Θ(7.5°)	-0.80/-0.90	-0.76/-1.12	-1.46/-1.54	-1.48/-1.43	-1.33/-1.71	-1.87/-1.93	-2.19/-2.44	-2.38/-2.37	-2.28/-2.76	-2.95/-2.97	-2.92/-2.53	-2.81/-2.66	-2.33/-1.95	-1.51/-1.08	-0.76/-0.75	-0.92/-0.96	-0.83/-0.68	-0.86/-1.58	-1.87/-1.34	-0.91/-0.80	-1.11/-1.83	-1.66/-1.39	-0.93/-0.54	-0.51/-0.48
Θ(15°)	-1.20/-0.92	-0.70/-1.25	-0.99/-1.17	-1.62/-1.21	-1.64/-2.13	-2.10/-1.86	-2.03/-2.67	-3.17/-2.78	-2.29/-2.31	-2.98/-3.67	-3.91/-4.38	-4.42/-4.07	-3.85/-3.68	-2.35/-1.15	-0.25/0.18	0.70/0.22	0.54/0.92	0.82/0.50	0.35/0.37	0.39/0.55	0.24/-0.60	-0.17/-0.54	-0.71/-0.97	-1.22/-1.08
Θ(22.5°)	-0.38/-0.73	-1.02/-0.29	-0.27/-0.52	-0.86/-0.97	-1.44/-1.59	-1.87/-2.65	-3.82/-4.57	-5.67/-6.40	-6.05/-5.68	-5.91/-6.10	-6.03/-5.42	-4.83/-4.11	-3.85/-3.55	-2.63/-1.82	-1.18/-0.41	-0.04/0.13	0.53/0.95	1.26/1.40	1.27/0.76	0.79/1.42	1.19/0.38	-0.61/-0.81	-0.40/-0.10	-0.20/-0.26
Θ(30°)	-1.11/-0.46	0.10/0.84	0.94/1.06	1.30/1.17	0.78/0.27	-0.04/-0.84	-4.88/-5.47	-6.30/-9.96	-7.49/-7.04	-6.65/-5.50	-3.81/-2.39	-2.31/-2.91	-2.85/-1.86	-0.55/0.44	-0.55/0.44	1.23/1.60	1.85/2.04	2.23/2.03	1.84/1.70	1.73/1.44	0.55/-0.29	-0.39/0.29	0.68/0.29	-0.37/-0.91
Θ(37.5°)	-0.79/-0.81	-0.20/-3.32	1.14/1.32	1.50/0.45	-0.92/-2.02	-0.62/-3.38	-5.21/-5.77	-5.47/-5.04	-5.56/-5.16	-4.23/-2.64	-0.94/-0.02	-0.21/-1.28	-1.01/0.67	1.30/1.27	1.51/1.95	2.07/1.93	1.66/1.63	2.68/2.82	2.76/2.42	2.13/1.43	0.98/-0.24	-0.48/0.67	1.27/2.13	2.99/3.06
Θ(45°)	0.15/0.46	0.72/1.58	2.51/2.67	1.53/-0.70	-3.31/-4.28	-3.44/-2.33	-1.45/-0.72																	



Antenna Pattern of 6GHz U-NII 5 ~ U-NII 8

Appendix D

Θ(22.5°)	-3.48/4.18	-4.36/3.95	-3.19/-1.97	-0.80/-0.36	-0.11/0.07	0.05/-0.25	-0.47/-0.07	0.81/1.62	1.97/2.01	1.97/2.14	2.38/2.39	1.72/0.68	-0.03/-0.32	0.15/0.16	-0.36/-0.80	-1.03/-1.36	-1.85/-2.57	-3.03/-2.94	-2.51/-2.04	-1.61/-1.69	-1.82/-2.32	-2.82/-3.19	-3.76/-3.48	-2.99/-2.94
Θ(30°)	-5.24/-5.98	-5.84/-4.03	-2.46/-1.03	-0.11/-0.30	0.69/1.13	0.96/1.15	1.48/-1.87	2.08/-1.83	1.52/1.38	1.57/1.71	1.84/2.07	2.02/1.94	2.32/2.32	1.97/2.03	1.61/1.17	0.04/-1.10	-1.60/-1.84	-2.27/-3.23	-4.73/-5.74	-6.37/-6.52	-5.90/-4.66	-4.90/-6.18	-8.32/-9.33	-7.91/-5.96
Θ(37.5°)	-12.32/-10.21	-8.59/-5.05	-2.51/-1.57	-0.76/-0.50	0.22/0.88	1.48/2.11	1.48/2.11	1.87/1.49	1.24/1.31	1.41/1.71	1.88/2.52	2.56/2.04	1.59/0.70	1.03/1.18	0.67/0.39	0.46/2.72	1.18/1.30	1.37/1.67	1.55/0.90	-0.45/-2.56	-5.38/-8.14	-6.19/-4.88	-6.86/-11.63	-15.32/-13.08
Θ(45°)	-11.79/-12.06	-8.01/-5.78	-4.76/-3.50	-2.01/-0.94	0.49/1.14	1.81/2.27	2.23/2.11	1.98/1.80	1.68/1.26	0.83/0.76	0.97/1.67	1.80/1.41	0.82/0.61	1.46/1.41	1.70/1.06	0.91/1.18	0.91/1.05	0.14/0.01	0.97/1.16	0.45/-0.24	-2.15/-4.99	-8.95/-8.40	-8.31/-8.53	-8.97/-8.85
Θ(52.5°)	-11.57/-14.12	-13.03/-12.51	-11.80/-10.35	-6.72/-3.75	-1.91/-1.16	-0.76/-0.13	0.95/1.50	1.54/1.34	0.81/0.10	0.46/1.32	1.23/1.46	1.44/2.14	1.21/-0.06	0.14/0.66	-0.73/-0.21	1.26/1.32	-0.03/-1.04	-0.93/-1.57	-1.16/0.13	0.04/0.53	-0.73/-1.99	-3.00/-5.82	-9.27/-12.24	-12.61/-10.70
Θ(60°)	-9.63/-10.26	-8.30/-6.41	-6.55/-4.44	-4.04/-3.10	-2.50/-1.75	-0.52/1.09	1.99/2.82	2.97/2.79	2.51/1.27	0.96/1.55	1.95/2.04	2.38/3.41	1.87/1.06	0.98/0.12	-2.18/0.85	1.97/1.17	0.52/-0.73	-1.15/-2.02	-1.81/-2.00	-2.02/-2.42	-2.66/-2.43	-3.54/-6.38	-10.67/-10.33	-11.21/-11.55
Θ(67.5°)	-10.50/-7.68	-5.62/-3.88	-4.19/-3.03	-1.18/-0.57	-0.50/0.22	1.62/2.47	3.07/3.43	3.11/2.62	2.25/1.44	1.11/2.00	2.35/1.65	1.82/1.50	-0.21/1.09	0.31/2.63	0.78/1.16	0.44/-1.36	-0.32/-0.62	-0.62/-2.10	-2.42/-1.26	-0.88/-1.31	-3.37/-4.45	-5.49/-6.48	-9.51/-12.64	-11.57/-12.63
Θ(75°)	-11.10/-14.01	-9.41/-4.90	-4.91/-3.57	-1.82/-0.49	-0.32/-0.24	0.84/1.14	0.97/1.64	1.69/1.17	0.57/0.61	1.33/2.21	1.66/-0.45	-0.53/0.27	-2.71/-0.28	0.45/-0.57	1.37/0.03	-1.22/-1.68	-2.59/-1.96	-2.12/-2.24	-2.39/-2.51	-3.02/-3.14	-4.28/-5.83	-5.30/-4.48	-7.49/-13.86	-7.73/-8.07
Θ(82.5°)	-5.47/-5.33	-3.47/-2.34	-2.21/-2.37	-2.12/-0.61	0.50/1.45	1.80/1.19	0.90/0.47	0.72/0.63	-0.26/-1.00	0.29/0.79	-0.13/-0.27	-0.86/-2.72	-0.94/2.14	1.70/-0.99	0.23/-1.47	-3.55/-1.52	-1.89/-2.80	-3.51/-4.06	-5.96/-3.99	-3.71/-2.72	-2.83/-6.90	-6.84/-5.57	-7.67/-9.12	-4.64/-4.34
Θ(90°)	-0.87/-0.47	-0.82/-0.51	-1.54/-1.70	-0.99/-0.10	0.75/1.37	1.57/1.02	0.32/-0.22	0.59/0.33	-0.45/-1.75	-1.33/-0.76	-1.29/-2.47	-4.83/-3.07	-2.11/-1.39	-0.56/-5.76	7.25/-1.89	-2.85/-1.13	-0.95/-3.05	-5.23/-2.62	-2.87/-2.92	-2.02/-1.30	-2.68/-4.38	-4.95/-3.98	-7.10/-5.45	-3.79/-2.76
Θ(97.5°)	-0.06/-0.67	-2.55/-0.95	-0.74/-1.05	-0.54/-1.24	0.60/1.03	2.28/1.71	0.87/1.19	1.68/0.49	0.01/-1.49	-0.84/-0.97	-3.32/-3.18	-1.55/-3.07	-5.62/-1.88	-4.97/-5.81	-1.90/-3.66	-5.46/0.47	1.48/-0.26	-1.94/-2.18	-0.68/-1.66	-1.16/-0.00	-1.84/-7.70	-2.74/-0.68	-2.98/-2.29	-1.69/-2.19
Θ(105°)	-2.49/-0.35	-2.08/-1.87	-1.41/-1.50	0.37/0.93	-0.53/0.88	0.41/1.86	1.26/1.85	1.28/-1.71	-2.84/-2.61	-0.87/-1.87	-2.25/-1.59	-4.04/-4.43	-2.74/-1.78	-6.81/-8.02	-0.80/-1.67	-3.15/2.62	3.56/-1.71	-0.37/0.83	1.55/-1.43	0.61/1.92	2.55/-2.44	-4.01/-0.98	-5.28/-1.95	-0.70/-4.24
Θ(112.5°)	-3.34/-0.97	-1.41/-0.90	0.52/-0.93	-0.86/0.96	-0.12/0.06	-1.57/-0.88	0.16/-0.93	-2.83/-2.54	-4.15/-2.33	-3.09/-2.19	-2.42/-4.66	-5.52/-3.38	-4.44/-4.80	-7.79/-2.25	0.11/0.28	-4.15/1.25	1.75/-0.66	1.22/2.19	-1.55/-1.21	-5.34/-2.53	-0.78/-3.98	-8.05/-1.20	-4.75/-2.44	-1.75/-3.12
Θ(120°)	-0.14/0.76	0.53/-0.28	1.17/0.95	-0.12/-0.06	1.17/1.38	2.05/-1.69	0.80/-0.16	0.22/-1.06	-2.08/-3.36	-3.85/-6.38	-9.33/-8.36	-5.71/-4.49	-2.76/-2.02	-8.55/-3.05	-4.58/-0.97	-9.10/-4.79	-1.01/-5.31	-4.55/-0.32	-4.18/-2.85	-6.07/-4.91	-4.67/-5.25	-6.67/-4.08	-6.01/-1.19	-1.81/-0.26
Θ(127.5°)	-1.08/1.04	0.93/-0.36	0.36/1.77	-0.01/-1.99	-1.09/-0.93	-1.36/-1.10	-0.98/-1.19	-1.64/-1.25	-2.36/-4.11	-8.33/-9.20	-6.75/-6.89	-7.88/-2.55	-3.57/-4.21	-13.54/-6.81	-6.16/-10.63	-6.83/-5.31	-8.70/-14.50	-13.44/-8.81	-5.72/-10.58	-12.43/-4.16	-5.27/0.28	-12.43/-4.16	-5.27/0.28	0.68/1.08
Θ(135°)	-0.66/-0.86	-1.43/-2.38	-3.04/-1.33	-0.22/-0.64	-2.06/-4.43	-3.57/-2.74	-2.72/-3.21	-4.08/-4.08	-3.44/-3.64	-4.81/-7.61	-8.36/-5.06	-2.29/-0.84	-4.01/-8.33	-5.94/-2.93	-4.81/-4.96	-8.31/-12.77	-12.10/-4.12	-9.27/-6.31	-5.76/-9.13	-4.17/-4.06	-2.80/-7.67	-5.38/-3.85	-13.99/-3.66	-2.17/-0.31
Θ(142.5°)	-1.95/-0.43	-0.84/-1.25	-2.02/-2.14	-2.23/-1.69	-1.79/-2.74	-4.14/-4.93	-5.20/-5.43	-5.75/-5.41	-4.59/-4.40	-4.24/-5.52	-8.26/-13.85	-5.73/-6.19	-6.31/-3.39	-7.47/-11.83	-5.62/-5.17	-5.66/-6.16	-1.28/-7.09	-4.71/-5.28	-5.04/-5.33	-7.94/-14.98	-10.34/-9.50	-6.65/-5.01	-6.28/-5.50	
Θ(150°)	-5.39/-2.16	0.27/0.99	-0.15/-1.69	-3.99/-6.26	-6.88/-6.50	-5.10/-4.28	-4.54/-4.83	-5.23/-6.10	-6.42/-6.37	-7.13/-5.06	-5.72/-6.97	-9.43/-14.73	-13.40/-12.11	-10.13/-10.98	-11.76/-13.92	-8.97/-9.28	-13.17/-10.59	-9.23/-8.68	-10.47/-8.91	-5.42/-4.10	-2.97/-2.42	-3.01/-6.72		
Θ(157.5°)	-2.86/-4.51	-5.08/-2.41	-1.44/-1.91	-0.22/-3.17	-4.82/-6.31	-6.96/-7.97	-8.61/-8.44	-8.13/-7.65	-7.20/-6.12	-4.61/-3.35	-4.28/-5.45	-7.21/-12.24	-15.01/-13.30	-12.60/-11.52	-9.92/-7.02	-5.30/-5.84	-8.67/-11.71	-9.91/-8.00	-8.60/-12.73	-11.65/-5.06	-2.72/-2.33	-1.97/-0.87	0.86/1.44	0.60/-1.52
Θ(165°)	-1.92/-2.93	-2.91/-1.82	-0.17/0.53	0.84/0.95	0.68/0.24	-0.32/-0.87	-1.67/-2.16	-2.95/-4.21	-5.45/-6.27	-7.20/-8.20	-8.65/-7.66	-7.48/-8.49	-8.15/-8.52	-4.08/-5.30	-3.81/-4.20	-5.24/-7.02	-9.58/-11.44	-11.55/-10.59	-8.56/-6.01	-4.12/-3.50	-3.64/-3.72	-2.73/-3.73	-3.51/-2.70	-2.08/-1.58
Θ(172.5°)	-4.29/-4.16	-3.97/-3.95	-4.19/-4.29	-3.92/-3.15	-3.10/-4.07	-4.98/-5.19	-4.79/-4.37	-4.03/-4.47	-4.96/-5.34	-5.47/-5.37	-5.55/-6.33	-7.23/-7.83	-8.73/-8.49	-10.44/-13.28	-15.60/-14.00	-11.24/-9.35	-8.81/-9.18	-9.17/-8.19	-7.65/-7.13	-6.44/-5.28	-4.05/-3.14	-2.79/-3.05	-3.79/-4.48	-4.96/-5.11
Θ(180°)	-3.45/-3.36	-3.31/-3.60	-3.73/-3.91	-4.16/-4.51	-4.22/-3.81	-3.09/-2.78	-2.94/-2.76	-2.67/-2.77	-3.25/-4.24	-5.66/-7.35	-9.05/-9.51	-6.87/-8.95	-8.27/-6.63	-7.33/-7.46	-6.82/-8.03	-8.37/-8.68	-8.56/-8.54	-8.10/-7.59	-7.04/-6.50	-6.13/-5.39	-5.15/-5.46	-6.00/-6.26	-5.99/-4.98	-4.72/-3.89
Freq(Hz)	6.475GPol.	TotalAnt.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°)	-5.40/-5.55	-5.93/-6.55	-6.58/-6.46	-6.06/-5.85	-5.50/-5.25	-5.64/-6.17	-6.50/-5.60	-4.86/-3.45	-4.58/-5.21	-5.74/-6.24	-6.26/-6.10	-6.05/-6.01	-6.39/-6.82	-6.87/-6.88	-6.33/-5.80	-5.43/-5.39	-5.66/-5.93	-6.06/-5.63	-5.04/-5.10	-5.67/-6.89	-6.47/-6.97	-5.90/-5.37	-5.56/-5.85	-5.76/-5.45
Θ(7.5°)	-5.92/-6.15	-6.78/-8.17	-8.40/-8.20	-7.46/-6.71	-6.17/-5.86	-6.29/-6.58	-6.30/-5.88	-5.63/-4.95	-4.45/-3.49	-4.75/-5.41	-5.58/-5.33	-5.03/-4.59	-4.64/-4.79	-5.12/-5.12	-5.00/-5.22	-5.53/-5.78	-5.72/-6.56	-5.45/-5.06	-5.29/-5.32	-5.33/-5.57	-5.53/-5.50	-5.74/-5.66	-5.85/-5.88	-5.91/-5.87
Θ(15°)	-5.83/-6.06	-6.32/-7.56	-8.47/-8.63	-7.23/-7.45	-7.40/-7.14	-6.76/-6.48	-6.41/-5.41	-4.94/-3.65	-2.37/-1.89	-1.99/-2.45	-2.88/-2.83	-2.49/-2.19	-2.66/-3.38	-3.75/-3.31	-2.16/-2.17	-1.74/-1.53	-1.41/-1.59	-1.63/-1.54	-2.03/-3.14	-3.49/-4.26	-4.73/-4.68	-5.51/-5.69	-6.80/-6.09	
Θ(22.5°)	-5.86/-7.32	-8.11/-8.14	-7.94/-6.91	-6.67/-6.54	-5.52/-5.13	-5.08/-4.55	-3.70/-2.90	-2.62/-2.78	-2.89/-1.79	-0.56/-0.05	-0.54/-1.00	-0.82/-0.83	-1.16/-1.22	-0.63/-0.48	-1.16/-1.94	-2.16/-2.26	-2.61/-2.73	-2.96/-2.86	-2.73/-2.43	-1.97/-2.32	-3.14/-4.01	-4.71/-4.68	-4.62/-4.23	-4.53/-5.06
Θ(30°)	-7.77/-9.26	-9.40/-8.14	-7.52/-6.38	-5.12/-4.57	-3.42/-2.36	-2.11/-1.79	-1.69/-1.49	-1.51/-1.62	-1.51/-1.54	-1.34/-0.02	1.19/1.50	1.36/0.79	0.19/0.24	-0.12/-1.41	-1.90/-1.56	-1.76/-2.04	-2.85/-3.47	-3.43/-3.02	-3.04/-3.19	-2.85/-1.95	-1.38/-1.53	-2.65/-4.39	-5.12/-4.18	-4.91/-6.43
Θ(37.5°)	-7.81/-7.86	-5.46/-5.01	-4.94/-5.21	-3.99/-2.96	-2.05/-1.47	-1.53/-1.42	-1.60/-1.66	-1.14/-0.55	0.16/0.07	0.23/0.87	0.98/0.56	0.08/-0.24	0.33/0.08	0.26/1.45	2.00/1.73	1.04/-0.00	-0.29/-0.28	0.46/0.77	-0.01/-1.46	-3.28/-4.37	-5.05/-4.67	-4.56/-5.04	-6.67/-7.68	-7.59/-9.74
Θ(45°)	-11.00/-8.45	-5.28/-4.44	-4.49/-3.60	-2.02/-1.08	-0.78/-0.95	-1.26/-1.54	-1.64/-1.23	-0.61/-0.19	0.17/0.04	-0.09/0.40	-0.43/-0.09	-0.39/0.05	1.10/0.85	1.17/1.84	1.42/0.97	-0.84/-0.81	-0.19/0.39	0.18/0.90	0.66/-0.23	-0.83/-2.43	-6.61/-9.70	-6.66/-6.05	-8.03/-10.88	-12.92/-12.76
Θ(52.5°)	-13.39/-8.07	-6.27/-5.94	-6.38/-5.05	-2.91/-1.08	-0.37/-0.62	-0.90/-1.43	-1.20/-1.46	-1.22/0.20	0.97/1.00	-0.16/-0.70	0.42/1.14	1.15/0.50	0.56/1.37	1.49/1.32	0.65/-0.89	0.50/0.29	-0.67/-0.44	-1.07/-0.83	-0.43/-0.84	-0.85/-0.98	-1.76/-3.93	-8.89/-11.58	-10.70/-9.13	-12.46/-15.04
Θ(60°)	-13.00/-10.01	-10.12/-12.86	-10.92/-7.43	-5.35/-3.63	-2.08/-1.48	-1.20/-1.42	-1.29/-0.86	-0.38/0.36	1.33/1.29	0.24/0.27	0.57/1.01	1.15/0.98	1.02/0.79	-0.58/-1.65	-2.88/-2.01	-1.13/-0.22	-0.82/-1.78	-2.18/-2.27	-0.89/-0.55	-0.79/-0.68	-0.54/-1.98	-3.57/-5.70	-15.48/-10.68	-11.71/-14.62
Θ(67.5°)	-6.83/-7.98	-6.47/-6.13	-3.79/-1.97	-1.19/-0.52	-0.13/-0.30	-0.47/0.19	1.28/2.01	2.39/2.71	2.28/0.72	-0.43/0.75	1.63/1.52	1.11/1.69	1.31/-1.01	-0.37/-2.22	-2.68/-0.75	0.19/0.29	-1.18/-1.79	-2.13/-1.25	-1.21/-0.31	-0.20/-0.90	-2.01/-1.99	-2.27/-2.60	-12.25/-9.85	-13.82/-14.72
Θ(75°)	-14.93/-8.26	-5.07/-4.33	-1.20/0.48	0.31/0.39	1.04/1.07	0.80/1.18	1.54/1.56	1.44/1.51	0.92/-0.62	-1.74/-0.88	0.69/-1.22	1.00/0.22	-0.44/-2.49	-0.80/-1.34	-0.13/-1.12	0.96/-1.82	-1.30/-1.99	-3.67/-3.08	-2.94/-1.78	-0.83/-1.96	-5.35/-7.41	-5.35/-5.88	-7.	



Antenna Pattern of 6GHz U-NII 5 ~ U-NII 8

Appendix D

Θ(75°)	0.67/-0.38	-0.47/-1.41	-0.320/-46	-1.85/-6.63	-7.27/-6.66	-6.86/-5.31	-4.63/-4.03	-3.43/-2.91	-1.04/-0.71	-0.60/-0.52	-0.02/-0.78	-0.37/-1.61	-3.94/-4.82	-4.02/-3.62	-3.08/-1.56	0.01/-2.64	-3.44/-0.61	-0.93/-2.99	-2.71/-2.17	-4.78/-13.07	-9.34/-5.76	-1.56/-1.58	-0.43/-2.01	-2.210/29
Θ(82.5°)	-1.99/-2.15	0.61/-2.06	-3.300/-44	-0.95/-3.80	-4.43/-5.77	-7.84/-7.09	-6.48/-5.27	-3.64/-2.26	-0.78/-0.81	0.70/0.80	2.702/75	3.212/30	0.07/-1.05	-0.84/-3.09	-1.05/-1.22	-0.80/-2.22	-7.16/-3.14	1.25/-0.13	0.18/-1.64	-3.93/-5.81	-4.78/-3.34	-1.50/-2.02	1.07/-1.61	-2.59/-0.88
Θ(90°)	-1.11/-3.66	-0.560/-3.03	-5.70/-1.42	-1.92/-3.14	-4.94/-4.79	-5.66/-5.73	-6.35/-6.12	-4.99/-3.75	-1.22/-0.83	0.962/32	1.772/09	2.951/97	0.560/64	0.29/-0.10	-1.40/-0.40	-0.52/-5.55	-4.21/-7.0	2.31/0.92	-0.550/56	0.53/-3.93	-3.22/-1.07	-2.64/-1.11	2.07/-0.04	0.120/57
Θ(97.5°)	0.95/-1.21	-0.18/-3.44	-8.92/-4.85	-7.21/-7.19	-6.68/-3.83	-2.52/-1.70	-2.58/-3.55	-4.77/-3.74	-1.77/-1.26	-0.64/-0.08	-1.93/-2.08	0.06/-0.36	-0.212/13	1.30/-0.86	-0.36/-0.05	-0.15/-5.07	-3.10/-1.49	2.30/-0.34	0.27/-0.53	-2.06/-8.48	-1.68/-2.46	-3.34/-0.45	0.650/38	1.722/69
Θ(105°)	1.26/-1.43	-3.04/-2.08	-4.08/-7.04	-6.03/-6.55	-8.22/-10.44	-9.02/-2.33	-1.82/-3.07	-4.51/-0.99	0.740/64	0.79/-0.27	-3.65/-4.04	-2.04/-2.58	-3.07/-1.93	-2.34/-4.58	-3.06/-2.06	-0.42/-5.23	-4.15/-1.41	1.180/53	1.993/63	-0.83/-8.66	-2.05/-4.90	-11.41/-3.88	0.040/62	1.040/83
Θ(112.5°)	-0.08/-4.26	-3.15/-2.37	-0.63/-2.93	-4.87/-5.28	-6.53/-4.94	-6.18/-7.21	-5.33/-5.16	-2.66/-0.38	-0.53/-1.50	0.860/31	-1.46/-1.41	-1.81/-3.82	-5.58/-6.56	-4.21/-4.92	-5.00/-2.33	0.33/-3.97	-4.50/-1.48	0.20/-1.12	-3.96/-3.43	0.70/-6.95	-6.87/-1.50	-1.55/-0.22	0.10/-1.50	
Θ(120°)	-4.24/-4.74	-3.47/-0.57	-0.34/-1.98	-2.93/-2.71	-3.09/-3.17	-2.45/-5.24	-5.74/-3.42	-2.02/-1.26	0.88/1.77	2.782/17	1.08/1.75	1.70/-0.09	-1.20/-2.22	-4.89/-5.75	-3.720/31	0.86/-5.30	-7.49/-3.70	-3.67/-1.99	-6.71/-2.77	-0.86/-4.84	-9.35/-3.36	-4.56/-5.19	-5.21/-5.68	-4.48/-3.63
Θ(127.5°)	-4.39/-3.07	-1.18/-0.94	-1.86/-1.03	-2.15/-3.31	-2.74/-2.63	-3.25/-2.91	-4.17/-5.98	-5.52/-3.12	-1.650/13	0.680/95	1.85/-21	3.042/07	0.560/74	-1.24/-1.26	-1.32/-1.42	-4.14/-4.09	-7.61/-2.93	-3.42/-6.58	-12.91/-5.59	-0.95/-6.49	-8.34/-6.08	-9.37/-2.93	-7.44/-13.32	-11.62/-12.76
Θ(135°)	-3.05/-2.14	-0.80/-0.92	-1.54/-1.35	-1.92/-4.09	-5.52/-4.97	-3.46/-3.02	-3.80/-4.37	-4.23/-3.18	-2.60/-2.58	-1.49/-0.73	0.82/-1.51	2.232/10	2.112/81	2.02/-0.90	-4.70/-5.24	-3.76/-5.76	-4.81/-9.81	-4.71/-15.15	-12.69/-7.13	-7.78/-4.34	-3.79/-6.42	-12.15/-11.62	-8.72/-11.15	-10.62/-8.39
Θ(142.5°)	-3.81/-3.78	-2.77/-1.97	-2.43/-3.57	-4.02/-5.00	-5.67/-5.24	-4.35/-3.74	-2.90/-2.93	-3.86/-3.57	-2.85/-3.00	-3.12/-1.87	-0.16/-1.30	1.32/-1.00	1.23/-1.22	-0.03/-2.31	-1.87/-1.75	-2.83/-5.53	-6.97/-13.08	-10.28/-8.61	-7.32/-8.12	-11.02/-8.31	-3.56/-6.35	-6.50/-14.57	-12.86/-13.09	-10.05/-7.19
Θ(150°)	-8.07/-9.25	-8.19/-5.10	-3.48/-3.45	-4.81/-7.01	-7.26/-6.72	-7.17/-5.71	-5.05/-4.39	-4.40/-5.14	-0.58/-3.90	-2.56/-1.23	-0.30/-0.25	-0.99/-1.31	-1.78/-1.61	-2.74/-4.00	-3.26/-3.61	-5.04/-3.48	-2.71/-1.09	-5.00/-13.91	-14.43/-9.52	-11.45/-6.09	-2.78/-4.02	-6.80/-10.09	-10.14/-6.32	-4.80/-5.27
Θ(157.5°)	-4.80/-5.33	-2.71/-1.03	-0.49/-0.51	-3.13/-3.24	-5.72/-4.78	-2.65/-1.47	-0.60/-0.11	-0.20/-0.59	1.021/30	0.91/-0.03	-1.32/-3.29	-5.86/-7.96	-8.32/-4.18	-1.05/-0.54	-1.37/-1.80	-2.33/-3.04	-3.63/-4.86	-7.90/-11.95	-12.46/-11.73	-13.67/-9.98	-5.63/-3.93	-2.82/-2.62	-3.61/-4.06	-2.88/-2.91
Θ(165°)	-2.84/-2.04	-0.85/-0.33	0.070/25	0.16/-0.79	-2.25/-4.20	-6.25/-6.39	-5.33/-3.67	-1.76/-0.95	-0.79/-1.01	-1.23/-1.62	-2.20/-2.45	-2.33/-1.86	-1.59/-1.18	-0.84/-0.83	-1.13/-1.65	-3.43/-6.79	-10.21/-11.64	-14.04/-12.64	-10.70/-10.11	-13.10/-12.76	-8.07/-5.82	-4.58/-3.97	-4.20/-3.82	-3.24/-3.05
Θ(172.5°)	-7.43/-6.02	-5.06/-4.18	-3.42/-2.58	-2.42/-2.83	-3.61/-6.61	-5.38/-5.36	-5.23/-3.48	-3.50/-3.30	-3.65/-4.40	-4.63/-4.79	-5.58/-6.94	-8.05/-7.82	-7.23/-6.91	-6.86/-6.89	-7.09/-7.70	-9.29/-10.56	-11.14/-12.97	-15.06/-15.51	-15.54/-15.28	-15.38/-16.10	-15.09/-15.07	-12.70/-9.73	-7.13/-6.43	-6.70/-7.12
Θ(180°)	-9.82/-9.33	-10.79/-12.75	-14.24/-15.37	-13.50/-13.84	-13.36/-13.62	-13.09/-13.41	-14.41/-14.11	-13.51/-15.35	-12.32/-10.25	-9.92/-10.22	-11.21/-10.80	-10.16/-10.21	-9.65/-9.02	-8.24/-7.89	-8.02/-8.58	-9.14/-9.92	-11.05/-11.94	-11.18/-9.68	-8.66/-9.87	-11.22/-11.12	-12.07/-14.08	-14.70/-13.74	-12.74/-13.31	-11.91/-10.88
Freq(Hz)	6.475GPol.	TotalAnt 3	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.98/-8.27	-8.38/-8.56	-7.94/-7.98	-8.57/-8.69	-8.02/-6.52	-6.66/-6.14	-7.15/-7.42	-6.68/-5.74	-5.62/-6.48	-6.60/-5.94	-5.45/-5.75	-6.52/-7.42	-7.91/-7.84	-7.65/-7.52	-7.82/-6.67	-9.65/-10.12	-9.42/-8.14	-8.10/-8.79	-9.69/-10.11	-9.67/-9.99	-10.66/-9.24	-8.64/-8.23	-9.32/-10.10	-9.70/-8.87
Θ(7.5°)	-7.38/-7.25	-8.27/-8.80	-9.17/-9.44	-9.62/-9.21	-8.75/-8.75	-8.55/-8.53	-9.74/-10.63	-10.36/-9.42	-8.94/-9.31	-9.61/-9.39	-8.58/-7.96	-7.69/-7.83	-8.37/-8.96	-9.54/-8.90	-8.66/-8.27	-7.97/-7.86	-7.33/-6.67	-6.38/-6.29	-6.12/-6.29	-6.00/-6.04	-7.03/-6.99	-6.67/-6.20	-6.00/-7.05	-8.09/-7.38
Θ(15°)	-6.15/-4.76	-8.43/-9.78	-8.14/-8.77	-9.26/-9.17	-9.65/-10.02	-10.79/-10.53	-10.59/-10.91	-12.22/-13.49	-10.51/-8.04	-7.22/-7.15	-6.99/-6.39	-6.31/-7.22	-8.27/-8.50	-8.26/-7.90	-7.30/-6.71	-5.80/-6.89	-6.00/-6.15	-5.79/-5.53	-5.07/-4.82	-4.33/-3.94	-4.69/-5.71	-5.82/-4.77	-5.62/-5.84	-6.73/-5.96
Θ(22.5°)	-7.37/-7.71	-7.18/-7.69	-7.25/-6.69	-6.88/-7.99	-9.32/-12.93	-15.19/-12.95	-10.19/-10.01	-11.64/-11.63	-8.54/-8.89	-5.07/-4.90	-4.44/-3.78	-5.61/-6.05	-1.79/-2.90	-2.82/-2.29	-1.78/-2.04	-2.78/-3.21	-3.96/-3.81	-4.17/-4.86	-4.85/-5.00	-6.21/-7.44				
Θ(30°)	-3.46/-5.68	-6.11/-5.56	-5.17/-5.52	-7.53/-9.77	-11.57/-13.73	-10.69/-9.18	-7.62/-6.96	-6.71/-7.10	-6.27/-4.43	-3.87/-3.76	-3.19/-2.34	-2.25/-1.89	-1.41/-1.72	-2.06/-2.45	-2.40/-1.99	-1.86/-1.52	-1.21/-1.29	-1.01/-0.46	-0.41/-0.67	-0.96/-1.80	-2.72/-3.64	-3.56/-3.09	-2.92/-3.52	-3.83/-3.49
Θ(37.5°)	-3.48/-3.28	-3.26/-3.41	-4.49/-5.59	-7.31/-11.05	-14.42/-13.74	-14.40/-14.57	-13.15/-13.21	-9.26/-6.23	-4.03/-2.37	-2.48/-3.27	-1.81/-1.30	1.040/93	0.670/12	-0.33/-0.75	-0.52/-2.40	-0.13/-1.17	-1.65/-4.74	-0.39/-0.29	-0.50/-0.84	-2.57/-3.93	-4.55/-4.56	-2.87/-2.39	-4.80/-5.27	
Θ(45°)	-2.65/-2.82	-3.20/-2.49	-2.65/-3.49	-4.12/-5.77	-8.97/-11.69	-11.14/-9.07	-8.10/-8.29	-9.10/-8.00	-6.42/-3.84	-1.39/-0.37	0.440/63	1.041/52	1.671/56	1.501/21	1.040/69	0.24/-0.72	-1.46/-1.10	-0.480/73	0.15/-1.38	-1.63/-3.12	-4.57/-3.66	-4.28/-4.64	-3.20/-1.08	-1.41/-1.80
Θ(52.5°)	-1.83/-1.74	-1.95/-2.15	-2.55/-3.14	-3.63/-5.23	-6.71/-8.40	-9.22/-10.42	-9.23/-6.71	-5.27/-5.03	-4.71/-3.23	-1.55/-1.37	-1.220/05	1.391/44	1.111/69	2.282/05	2.211/58	-0.16/-0.90	-2.34/-2.09	-1.48/-0.62	0.29/-0.10	-1.52/-3.24	-4.13/-5.69	-4.92/-5.02	-4.04/-3.10	-3.72/-2.81
Θ(60°)	-0.29/-2.83	-3.26/-2.45	-2.61/-3.98	-5.27/-7.23	-7.17/-9.64	-11.24/-14.30	-14.99/-9.95	-6.16/-5.37	-5.33/-4.47	-3.13/-1.72	-1.55/-1.46	-0.460/82	0.590/72	1.372/12	3.052/72	2.090/71	-0.36/-0.95	-0.81/-1.24	-1.64/-1.60	-2.54/-3.17	-3.43/-3.63	-4.61/-5.69	-4.29/-2.43	-3.01/-0.72
Θ(67.5°)	0.620/39	0.49/-0.85	-1.77/-3.45	-5.23/-5.00	-5.43/-6.08	-9.38/-9.36	-12.33/-11.81	-7.78/-5.08	-3.68/-2.10	-2.64/-2.03	-0.79/-0.65	-2.23/-2.18	-0.510/11	0.031/99	2.191/52	1.851/45	-0.74/-3.35	-4.66/-8.98	-7.76/-6.54	-4.45/-6.04	-6.86/-6.08	-9.33/-6.48	-1.40/-0.70	
Θ(75°)	2.382/96	2.281/26	0.14/-2.16	-4.40/-3.79	-4.27/-3.31	-3.42/-4.21	-5.97/-5.65	-3.31/-2.08	-3.13/-1.88	-0.19/-0.27	0.220/78	-0.46/-2.38	-2.66/-5.01	-4.78/-1.99	-2.14/-1.43	0.49/-0.83	-2.63/-2.00	-2.71/-3.69	-7.65/-8.16	-7.46/-9.23	-7.39/-5.44	-6.75/-4.48	-4.60/-2.83	-0.11/1.84
Θ(82.5°)	1.592/28	0.271/00	0.360/78	-4.04/-3.87	-3.78/-4.88	-5.83/-5.07	-5.45/-5.05	-2.18/-1.77	-2.31/-0.98	-0.330/15	0.901/49	1.380/84	0.02/-0.22	-3.89/-5.06	-3.99/-2.73	-2.02/-2.01	-3.26/-3.73	-1.79/-2.17	-5.33/-7.11	-6.75/-10.23	-5.88/-5.43	-2.75/-1.91	-0.89/-2.09	-1.760/31
Θ(90°)	0.631/65	-0.28/-0.64	-0.26/-0.11	-2.78/-2.82	-3.18/-4.41	-7.31/-7.92	-5.81/-4.52	-2.13/-1.09	-1.040/27	0.901/33	2.312/41	2.613/82	3.461/32	-0.04/-1.92	-3.11/-3.04	-2.32/-3.43	-8.57/-0.76	-1.34/-1.64	-3.48/-0.44	-1.65/-4.23	-2.07/-3.40	-4.36/-1.92	1.46/-0.42	-0.83/-1.56
Θ(97.5°)	-0.170/63	-0.602/68	-2.81/-2.50	-3.46/-4.82	-5.48/-4.18	-3.72/-5.87	-7.06/-4.99	-2.78/-1.45	-1.54/-0.05	-0.24/-0.03	0.330/42	0.502/39	2.140/54	0.470/14	-3.29/-2.32	-0.89/-3.18	-7.40/-0.57	2.620/69	-4.47/-1.02	-1.11/-3.06	-1.95/-3.13	-5.27/-0.63	1.330/08	1.360/39
Θ(105°)	1.111/01	0.831/-91	-3.38/-3.58	-6.47/-9.63	-10.65/-6.04	-2.12/-4.00	-2.65/-1.32	0.28/-0.25	-0.06/-0.10	-1.12/-0.75	-0.87/-4.20	-5.40/-0.63	0.46/-0.92	-1.23/-0.62	-5.11/-3.89	-0.42/-1.35	-5.81/-3.99	3.73/-4.07	0.521/38	0.88/-3.57	-1.78/-6.07	-8.61/-0.31	1.041/63	1.251/24
Θ(112.5°)	-2.67/-2.07	-3.59/-1.76	-1.12/-3.62	-3.90/-4.21	-6.59/-8.09	-3.69/-2.98	-3.05/-1.61	-1.51/-1.04	1.400/58	1.380/82	0.32/-1.14	-3.44/-2.80	-3.51/-6.40	-5.06/-6.72	-6.43/-7.14	-1.59/-3.47	-6.21/-2.05	-0.44/-3.45	-5.73/-3.15	-0.66/-1.02	-6.56/-7.00	-6.41/-0.99	-1.69/-0.21	-0.54/-1.77
Θ(120°)	-6.72/-5.57	-3.27/-1.63	-0.34/-2.23	-2.21/-1.92	-2.96/-5.10	-6.78/-3.56	-1.22/-3.06	-1.284/-0.78	-1.051/29	2.213/10	2.932/39	-0.72/-0.35	-1.20/-4.75	-7.88/-9.28	-8.00/-1.63	-0.864/-2.3	-3.93/-3.80	-0.67/-2.78	-6.300/03	-1.26/-7.81	-3.17/-3.50	-5.76/-6.08	-3.86/-5.71	-3.92/-3.64
Θ(127.5°)	-4.95/-3.90	-2.82/-0.20	0.740/35	-1.18/-1.35	-1.53/-2.65	-2.63/-2.23	-2.66/-2.20	-2.76/-3.97	-1.680/24	1.992/63	2.913/04	2.110/99	0.18/-0.84	-1.72/-2.38	-2.52/-3.00	-5.56/-4.81	-6.24/-2.45	-6.78/-8.38	-8.37/-4.20	-1.65/-3.79	-5.79/-7.64	-5.97/-3.60	-4.59/-4.75	-5.52/-6.52
Θ(135°)	-3.40/-2.81	-0.710/25																						



Antenna Pattern of 6GHz U-NII 5 ~ U-NII 8

Appendix D

Θ(127.5°)	-3.830/11	-1.864/4.43	-12.67/-11.82	-7.70/-6.49	-7.57/-8.61	-9.32/-4.67	-1.68/-1.55	-0.99/-0.37	-0.92/-1.49	-4.03/-4.75	-2.98/-2.45	-3.62/-3.00	-2.32/-3.47	-4.18/-4.08	-3.20/-5.95	-7.08/-8.06	-12.48/-9.17	-6.74/-11.37	-2.34/-3.30	-3.80/-1.33	-1.15/-3.05	-4.26/-10.61	-3.60/-8.09	-8.58/-3.12
Θ(135°)	-4.42/-4.18	-6.33/-9.35	-9.33/-5.46	-3.51/-3.12	-4.59/-5.40	-5.47/-5.14	-4.53/-2.88	-2.52/-3.55	-3.67/-3.66	-3.62/-3.95	-4.54/-4.71	-6.69/-5.58	-4.47/-2.31	-2.02/-3.61	-8.60/-10.89	-8.48/-8.54	-12.46/-6.13	-11.06/-6.80	-4.40/-6.27	-8.00/-4.51	-0.74/-0.96	-3.36/-9.71	-6.18/-8.53	-6.46/-3.16
Θ(142.5°)	-5.87/-12.00	-12.57/-11.38	-10.25/-5.33	-1.68/-0.66	-1.20/-4.43	-9.06/-7.32	-5.18/-3.98	-3.51/-4.79	-7.26/-6.70	-4.49/-3.53	-4.04/-5.11	-7.31/-6.36	-6.07/-4.78	-7.65/-13.45	-8.23/-8.50	-5.03/-9.99	-9.79/-10.63	-12.36/-5.63	-4.36/-4.92	-5.37/-4.63	-2.20/-2.17	-5.17/-6.27	-5.10/-4.01	-7.21/-6.71
Θ(150°)	-4.20/-5.42	-7.17/-6.66	-8.44/-7.15	-3.05/-1.77	-2.30/-3.25	-6.99/-9.84	-6.31/-3.51	-2.45/-2.14	-2.95/-5.01	-7.03/-7.28	-6.55/-5.78	-4.54/-2.83	-2.79/-2.60	-2.91/-4.44	-5.72/-5.80	-4.60/-5.02	-4.65/-9.01	-14.48/-7.49	-6.28/-5.09	-2.69/-2.54	-5.74/-8.75	-9.36/-8.12	-6.59/-8.60	-13.78/-6.82
Θ(157.5°)	-4.01/-4.87	-5.97/-5.34	-6.86/-9.73	-8.27/-6.04	-5.82/-6.19	-7.84/-7.78	-6.06/-4.63	-3.78/-4.16	-5.48/-6.72	-6.29/-4.76	-3.57/-3.06	-2.70/-1.94	-1.46/-1.27	-1.61/-2.52	-4.19/-4.49	-4.73/-6.18	-6.61/-7.21	-6.21/-4.45	-3.80/-3.71	-3.71/-4.27	-5.02/-5.41	-4.75/-3.78	-4.48/-7.06	-11.95/-6.83
Θ(165°)	-7.55/-8.75	-8.52/-8.97	-10.13/-11.05	-12.13/-13.18	-13.19/-12.20	-8.89/-7.07	-5.98/-5.42	-5.58/-6.03	-7.18/-8.70	-9.40/-8.56	-6.41/-4.76	-3.22/-2.29	-2.17/-2.80	-3.49/-4.17	-4.62/-5.60	-7.26/-10.21	-12.07/-11.04	-8.78/-5.91	-3.91/-3.49	-4.19/-5.10	-5.22/-4.58	-4.17/-4.69	-6.39/-8.67	-8.36/-7.70
Θ(172.5°)	-12.33/-10.95	-9.54/-8.02	-6.85/-6.42	-6.47/-6.90	-7.49/-8.58	-8.48/-8.55	-8.55/-8.03	-7.56/-7.32	-6.92/-6.30	-5.65/-4.99	-4.26/-3.67	-3.00/-2.72	-2.77/-3.35	-4.13/-4.97	-5.71/-6.53	-6.90/-7.11	-7.50/-8.10	-8.56/-9.30	-9.38/-9.98	-10.07/-9.27	-7.77/-6.41	-5.50/-5.58	-6.64/-8.41	-9.70/-12.08
Θ(180°)	-13.59/-12.69	-12.05/-11.71	-11.97/-11.65	-10.92/-10.94	-11.43/-11.33	-10.48/-9.90	-10.03/-9.77	-9.96/-10.83	-11.77/-12.29	-11.86/-11.26	-10.66/-10.09	-9.69/-9.61	-9.92/-10.17	-10.26/-9.75	-9.07/-8.64	-8.03/-7.81	-8.06/-8.46	-8.65/-8.96	-9.25/-9.74	-9.69/-9.44	-9.83/-10.55	-11.19/-12.46	-13.86/-15.25	-15.65/-14.25
Freq(Hz)	6.475GPol.	TotalAnt. 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°)	2.56/0.60	2.51/2.77	2.78/2.77	2.69/2.92	2.92/2.80	3.00/3.11	3.15/2.99	2.93/2.93	2.85/2.73	2.43/2.29	1.99/2.02	1.88/1.64	1.31/1.12	0.73/0.39	0.36/0.36	0.24/0.18	0.23/0.46	0.58/1.00	1.28/1.41	1.42/1.31	1.38/1.42	1.55/1.68	1.76/1.85	2.06/2.36
Θ(7.5°)	1.39/1.28	1.22/1.26	1.11/1.02	0.90/0.93	0.67/0.82	0.99/0.99	0.98/0.98	1.07/1.06	1.12/1.27	1.46/1.68	1.91/2.02	2.13/2.30	2.53/2.65	2.61/2.75	2.82/2.92	3.00/3.03	3.01/2.89	2.96/3.15	3.33/3.26	3.18/2.93	2.78/2.63	2.39/2.15	1.85/1.45	1.50/1.49
Θ(15°)	-1.91/-2.34	-1.83/-1.35	-1.19/-1.09	-1.00/-1.01	-1.05/-1.02	-1.22/-1.51	-1.85/-2.17	-2.45/-2.26	-2.14/-2.13	-1.90/-1.47	-1.00/-0.56	0.20/1.19	2.20/3.05	3.43/3.63	3.59/3.51	3.45/3.55	3.59/3.27	2.85/2.77	2.59/2.34	1.90/1.43	1.43/1.31	0.88/0.39	0.19/-0.52	-1.10/-1.50
Θ(22.5°)	-6.49/-6.40	-5.75/-4.78	-3.75/-3.38	-3.26/-2.66	-2.05/-2.15	-1.97/-2.17	-2.46/-3.00	-3.89/-4.62	-4.88/-4.90	-4.87/-5.48	-5.08/-4.17	-3.25/-1.64	0.11/1.37	1.92/1.65	1.24/1.27	1.73/1.96	1.50/1.05	0.62/-0.27	-0.87/-1.65	-2.36/-2.98	-3.82/-4.46	-5.23/-5.72	-5.62/-5.44	-5.68/-6.21
Θ(30°)	-10.48/-9.10	-5.99/-5.04	-4.31/-4.09	-4.21/-4.21	-4.39/-4.52	-4.03/-3.84	-3.43/-3.06	-3.10/-3.64	-4.18/-4.23	-5.11/-6.87	-9.12/-7.62	-7.13/-4.80	-2.11/-0.85	-0.94/-1.02	-0.17/0.87	1.18/1.09	0.80/-0.24	-1.95/-3.04	-4.22/-4.28	-4.17/-4.03	-4.86/-6.97	-11.67/-15.14	-9.93/-9.20	
Θ(37.5°)	-6.54/-4.67	-3.65/-4.31	-3.80/-3.04	-4.09/-5.89	-8.49/-11.06	-11.52/-11.15	-9.47/-6.28	-4.05/-2.91	-2.62/-2.97	-3.70/-5.40	-8.45/-9.24	-6.88/-3.73	-1.34/-1.05	-1.52/-3.50	-4.76/-2.66	-0.62/1.17	0.86/0.74	0.14/-0.85	-0.47/0.06	-1.03/-2.00	-2.22/-2.88	-3.72/-4.90	-6.01/-7.18	-9.44/-8.78
Θ(45°)	-3.99/-1.96	-0.95/-0.57	-0.82/-1.02	-0.96/-0.51	-1.49/-1.53	-2.36/-4.11	-8.33/-13.67	-5.71/-1.99	-1.17/-0.27	-2.56/-3.59	-6.51/-7.37	-9.21/-9.28	-4.12/-1.53	-2.01/-2.76	-6.34/-4.27	-0.75/-1.47	2.28/2.21	1.43/1.10	-0.18/-0.98	-0.37/-1.16	-2.74/-4.27	-5.59/-4.73	-4.83/-4.31	-3.64/-3.90
Θ(52.5°)	0.07/0.97	0.15/-1.55	-1.32/-0.09	-0.00/-1.46	-2.37/-1.96	-1.98/-3.34	-7.54/-9.45	-3.87/-0.55	0.19/-1.32	-3.54/-3.16	-4.04/-6.16	-7.28/-6.44	-3.46/-2.46	-3.44/-2.94	-5.96/-7.64	-2.36/0.30	0.65/0.90	1.26/2.32	2.58/1.69	-0.00/-2.76	-3.93/-2.95	-2.02/-0.29	-1.30/-2.25	-1.30/-0.31
Θ(60°)	-0.00/0.50	-0.75/-2.31	-0.53/0.82	-1.52/-5.37	-7.19/-5.00	-4.46/-5.79	-9.73/-8.65	-3.24/-0.29	0.66/0.17	-2.55/-4.29	-5.43/-7.15	-6.63/-5.48	-2.52/-2.25	-5.17/-5.37	-5.05/-4.92	-5.97/0.11	1.66/2.39	1.68/0.98	-0.58/-1.72	-3.51/-3.37	-3.59/-1.92	0.78/2.49	1.93/0.25	-2.40/-0.94
Θ(67.5°)	-0.82/-1.01	-3.53/-4.40	-2.09/-1.97	-5.35/-6.59	-3.58/-2.61	-2.89/-7.77	-9.09/-6.16	-4.05/-1.01	0.29/1.08	-0.44/-0.53	-4.23/-6.09	-5.20/-7.11	-7.43/-7.45	-7.45/-9.58	-4.82/-2.29	-3.19/0.06	1.94/2.24	1.08/-1.55	-3.32/-2.52	-2.47/-2.51	-3.39/-1.69	-0.64/-1.27	0.64/-0.96	-2.60/-0.48
Θ(75°)	-1.42/-1.90	-3.60/-1.39	-0.50/-3.10	-3.69/-5.50	-3.69/-2.26	-7.29/-5.50	-0.83/-1.53	0.39/0.41	0.17/1.57	2.31/1.57	-2.00/-5.06	-2.31/-1.68	-4.55/-7.74	-3.41/-8.12	-0.36/-6.97	-4.10/0.18	2.77/2.33	0.81/2.92	-1.41/-1.90	-2.85/-1.51	-1.40/-0.64	0.43/0.55	-1.76/-3.06	-2.62/0.05
Θ(82.5°)	-1.90/-2.28	-2.09/-0.28	0.08/-3.77	-6.14/-5.96	-5.10/-8.44	-4.30/-0.66	2.51/3.28	2.40/1.55	1.71/1.74	1.85/0.47	-2.61/-3.80	-2.21/0.18	-1.42/-9.33	-5.75/-6.97	-4.63/-4.05	-2.12/-0.43	1.31/1.81	0.34/-1.65	-1.87/-1.35	-1.51/-0.60	0.80/1.81	2.29/0.39	-5.51/-4.23	-3.55/-1.06
Θ(90°)	-0.56/-0.28	-1.64/-2.01	-3.47/-6.64	-5.42/-8.93	-6.44/-7.99	-1.09/1.24	2.67/3.21	3.12/0.86	1.86/2.20	3.48/1.51	-0.54/-0.79	-0.15/-6.65	0.33/-5.04	-6.18/-11.86	-4.48/-2.21	-2.28/-4.25	-5.19/-1.41	-1.19/-5.48	-5.54/-2.29	-3.09/0.25	1.11/0.17	-0.28/-2.78	-5.41/-4.64	-2.97/-0.01
Θ(97.5°)	-0.74/-0.27	-3.92/-4.38	-4.12/-5.79	-4.59/-3.21	-2.68/-6.34	-3.16/-1.57	-1.29/0.09	1.81/0.56	2.54/2.27	3.20/1.48	0.18/-0.13	-0.60/-5.5	-0.23/-7.29	-6.88/-6.97	-4.07/-3.24	-3.88/-2.66	-7.05/-8.82	-4.41/-1.13	-10.45/-9.01	-9.57/-1.53	-2.84/-5.03	-5.44/-5.45	-4.81/-5.02	-5.63/-0.59
Θ(105°)	-0.67/-1.32	-4.92/-6.34	-5.94/-5.01	-3.77/-6.25	-3.00/-8.12	-5.69/-5.55	-3.01/-1.19	-0.70/1.01	1.86/1.91	2.46/1.91	0.27/-0.26	0.65/3.05	2.68/-1.05	-6.95/-6.00	-6.71/-7.94	-5.23/-5.98	-4.06/-2.84	-4.49/-14.95	-10.57/-4.77	-11.38/-3.22	-1.61/-2.63	-2.98/-3.95	-2.65/-10.19	-7.13/-2.27
Θ(112.5°)	-1.51/-1.42	-4.02/-6.11	-6.06/-3.05	-4.45/-4.79	-3.32/-3.63	-4.98/-5.68	-3.59/-2.49	-1.24/0.03	-0.66/0.51	0.67/-0.11	-2.68/-4.63	-2.20/2.15	3.04/-0.42	-6.94/-11.24	-8.50/-9.49	-12.88/-11.27	-6.76/-5.57	-2.04/-5.60	-3.53/-6.65	-15.36/-6.20	-2.33/0.59	-0.46/-2.91	-3.51/-6.60	-5.67/-2.68
Θ(120°)	-1.26/-4.76	-5.28/-6.08	-4.21/-3.11	-4.52/-7.79	-9.07/-4.24	-4.47/-3.89	-5.53/-2.21	-0.60/-0.20	-0.36/-0.37	-0.74/-1.55	-4.19/-6.28	-6.93/-2.86	-0.41/-1.75	-5.59/-6.68	-7.65/-5.00	-7.00/-13.38	-11.65/-6.72	-4.37/-8.73	-11.17/-7.75	-1.17/1.75	-1.91/-4.06	-5.33/-4.22	-5.15/-6.26	-0.86/0.87
Θ(127.5°)	-3.29/-0.27	-2.25/-3.83	-5.14/-8.20	-11.51/-11.34	-9.82/-8.41	-7.68/-6.91	-5.06/-2.74	-1.60/-1.09	-1.45/-2.02	-3.00/-5.02	-6.28/-8.42	-8.34/-6.99	-3.96/-3.09	-3.05/-3.97	-2.36/-2.46	-4.17/-6.04	-9.60/-5.22	-14.45/-9.47	-4.34/-3.23	-3.71/-0.86	-0.60/-2.32	-6.80/-11.49	-5.11/-10.97	-4.92/-3.06
Θ(135°)	-8.18/-4.79	-8.46/-9.19	-12.55/-14.76	-9.35/-7.53	-6.78/-5.06	-4.10/-4.88	-5.77/-6.06	-4.07/-2.63	-2.06/-1.93	-2.38/-2.02	-3.26/-5.06	-7.48/-8.46	-6.39/-5.49	-1.56/-2.87	-3.89/-7.74	-9.30/-7.81	-13.48/-5.83	-9.73/-8.23	-6.01/-9.05	-9.85/-4.84	-1.22/-2.62	-6.21/-9.67	-4.49/-7.75	-5.64/-4.34
Θ(142.5°)	-8.28/-8.41	-10.55/-13.39	-9.00/-6.00	-4.05/-4.53	-6.73/-10.67	-8.90/-5.86	-3.25/-3.03	-2.14/-2.46	-2.65/-3.24	-3.25/-3.32	-5.25/-8.49	-10.69/-7.39	-7.31/-10.45	-9.48/-9.17	-7.86/-5.95	-4.80/-5.22	-9.45/-7.60	-10.41/-8.53	-5.11/-5.17	-7.61/-9.65	-7.31/-7.85	-8.15/-8.94	-10.31/-7.99	-7.44/-6.06
Θ(150°)	-3.98/-6.20	-6.61/-6.65	-7.78/-3.36	-1.31/-1.53	-1.71/-4.19	-10.14/-8.06	-4.36/-3.02	-2.81/-2.98	-3.91/-5.51	-7.48/-8.38	-10.74/-12.86	-3.68/-4.10	-4.21/-5.97	-6.13/-10.18	-7.44/-7.45	-6.98/-10.27	-7.78/-5.16	-5.99/-6.62	-4.46/-3.31	-4.57/-6.95	-8.92/-8.75	-9.42/-8.70	-6.46/-3.70	
Θ(157.5°)	-4.24/-5.14	-5.41/-4.77	-14.85/-10.62	-6.50/-5.01	-5.54/-8.65	-13.86/-11.12	-8.74/-7.06	-5.63/-5.54	-6.57/-8.96	-9.18/-7.75	-6.19/-4.24	-3.06/-2.79	-2.18/-1.64	-2.16/-3.16	-3.58/-3.60	-3.08/-4.38	-6.89/-10.19	-14.36/-12.55	-11.77/-9.24	-6.83/-5.46	-5.57/-1.11	-9.74/-12.26	-11.15/-6.86	-4.13/-3.27
Θ(165°)	-9.33/-8.80	-8.50/-9.56	-10.07/-10.42	-9.77/-8.44	-6.92/-6.06	-5.60/-3.99	-2.82/-2.45	-2.44/-2.89	-3.71/-5.00	-5.48/-5.78	-4.70/-3.88	-2.95/-1.94	-1.62/-1.93	-2.28/-3.33	-2.41/-3.13	-4.87/-4.77	-11.78/-15.09	-13.81/-10.09	-7.88/-7.25	-6.54/-6.06	-6.89/-8.04	-8.41/-8.30	-8.15/-6.70	-7.78/-8.75
Θ(172.5°)	-13.32/-13.63	-10.89/-9.08	-8.45/-8.92	-9.24/-8.95	-8.38/-7.34	-6.76/-5.92	-6.55/-7.04	-7.44/-7.65	-7.12/-6.74	-6.11/-5.28	-4.61/-3.77	-3.38/-3.65	-3.75/-4.56	-5.29/-6.00	-7.05/-7.68	-8.22/-8.69	-9.59/-9.78	-9.37/-9.35	-9.52/-9.24	-7.91/-7.02	-7.59/-9.28	-11.55/-13.39		
Θ(180°)	-8.70/-8.65	-7.85/-6.45	-6.10/-5.66	-5.87/-6.17	-6.43/-6.34	-7.33/-8.73	-6.57/-8.37	-8.19/-7.64	-6.97/-6.26	-6.12/-6.28	-6.79/-7.01	-7.07/-7.35	-7.37/-7.90	-8.24/-8.49	-8.39/-8.09	-7.70/-7.08	-6.87/-7.13	-7.30/-8.09	-8.23/-8.29					

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

