

Total Gain Data

Freq(Hz)	245GPol.	TotalAnt.1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-				
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-1.46/-1.49	-1.75/-2.02	-2.28/-2.47	-2.55/-2.33	-2.16/-1.75	-1.38/-1.09	-0.87/-0.75	-0.62/-0.40	-0.02/-0.27	0.40/-0.41	0.42/-0.47	0.46/-0.37	0.09/-0.20	-0.47/-0.78	-1.14/-1.55	-1.89/-2.05	-2.12/-2.02	-1.79/-1.51	-1.35/-1.25	-1.15/-1.05	-0.90/-0.86	-0.77/-0.82	-1.15/-1.37	-1.50/-1.51
Θ(7.5°)	-1.84/-2.26	-2.82/-3.00	-3.62/-3.39	-3.98/-3.97	-3.45/-2.86	-2.39/-2.05	-1.75/-1.50	-1.38/-1.12	-0.71/-0.33	-0.04/-0.16	0.32/-0.48	0.55/-0.54	0.40/-0.08	-0.28/-0.53	-0.56/-0.53	-0.47/-0.42	-0.39/-0.38	-0.27/-0.10	0.13/-0.35	0.53/-0.58	0.55/-0.44	0.26/-0.06	-0.38/-0.66	-1.00/-1.46
Θ(15°)	-1.50/-2.35	-3.14/-3.53	-3.60/-3.59	-3.68/-3.78	-3.73/-3.54	-3.39/-3.16	-2.74/-2.27	-1.84/-1.45	-1.03/-0.63	-0.32/-0.00	0.32/-0.67	1.05/-1.31	1.43/-1.34	1.07/-0.80	0.67/-0.62	0.65/-0.70	0.67/-0.64	0.55/-0.55	0.75/-1.06	1.36/-1.58	1.70/-1.68	1.50/-1.13	0.71/-0.40	-0.03/-0.74
Θ(22.5°)	-0.76/-1.48	-2.01/-2.13	-1.91/-1.66	-1.65/-1.89	-2.14/-2.35	-2.66/-2.87	-2.64/-2.06	-1.41/-0.86	-0.47/-0.30	-0.27/-0.16	0.15/-0.63	1.11/-1.53	1.76/-1.76	1.65/-1.45	1.19/-0.97	0.86/-0.78	0.69/-0.63	0.50/-0.37	0.37/-0.60	0.97/-1.41	1.81/-2.00	1.80/-1.40	0.93/-0.66	0.41/-0.10
Θ(30°)	-0.44/-1.12	-1.79/-1.95	-1.49/-0.91	-0.66/-0.78	-1.07/-1.31	-1.66/-2.08	-2.27/-1.92	-1.19/-0.44	0.04/-0.06	-0.37/-0.86	-0.90/-0.29	0.47/-1.02	1.17/-0.98	0.63/-0.18	-0.32/-0.76	-0.94/-0.69	-0.68/-0.37	-0.22/-0.31	-0.54/-0.69	-0.46/-0.16	0.86/-1.34	1.28/-0.80	0.23/-0.02	0.09/-0.04
Θ(37.5°)	-0.88/-1.89	-2.78/-2.25	-1.50/-0.49	-0.05/-0.04	-0.27/-0.52	-0.86/-1.30	-1.74/-1.83	-1.32/-0.47	0.11/-0.00	-0.87/-1.97	-1.96/-0.92	0.05/-0.45	0.24/-0.50	-1.60/-2.75	-3.69/-4.09	-4.08/-3.61	-2.82/-1.83	-0.80/-0.20	-0.18/-0.71	-1.20/-1.19	0.63/-0.18	-0.33/-0.88	-1.27/-0.99	-0.38/-0.29
Θ(45°)	-0.61/-1.41	-1.51/-0.86	0.17/-0.91	1.12/-0.83	0.25/-0.31	-0.62/-0.74	-0.97/-1.36	-1.38/-0.72	0.04/-0.04	-1.00/-2.65	-3.35/-2.35	-1.23/-0.66	-0.62/-1.00	-1.83/-3.16	-4.85/-5.72	-5.37/-4.77	-4.33/-3.49	-1.78/-0.21	0.53/-0.22	-1.01/-2.44	-2.79/-2.41	-2.57/-3.00	-2.49/-1.18	-0.13/-0.07
Θ(52.5°)	0.45/-0.36	0.61/-0.14	1.74/-2.29	2.22/-1.38	0.26/-0.70	-1.08/-0.94	-0.79/-1.01	-1.11/-0.50	0.30/-0.44	-0.57/-2.64	-3.49/-2.80	-2.25/-1.90	-1.34/-0.84	-0.91/-1.73	-2.84/-3.40	-3.05/-2.72	-3.03/-3.07	-1.70/-0.14	1.15/-1.07	-0.29/-2.55	-3.44/-2.96	-3.20/-3.64	-2.46/-0.86	0.19/-0.58
Θ(60°)	0.95/-1.56	2.14/-2.35	2703.02	2.72/-1.62	0.41/-0.39	-0.88/-1.07	-1.18/-1.37	-1.53/-1.14	-0.37/-0.24	-0.15/-1.43	-2.02/-1.56	-1.55/-1.97	-1.62/-0.73	-0.43/-0.88	-1.51/-1.84	-1.44/-0.91	-1.08/-1.54	-0.91/-0.47	1.43/-1.67	0.65/-1.77	-3.23/-2.87	-3.46/-3.66	-2.16/-0.97	-0.33/-0.40
Θ(67.5°)	0.82/-1.65	2.22/-2.36	2.56/-2.66	2.08/-0.71	-0.20/-0.19	-0.05/-0.39	-1.13/-1.62	-1.58/-1.71	-1.46/-0.90	-1.17/-1.99	-1.40/-0.64	-0.98/-1.51	-0.80/-0.04	-0.19/-0.29	-0.70/-0.79	-0.38/-0.14	0.03/-0.68	-0.67/-0.23	1.08/-1.62	0.77/-1.68	-2.89/-2.33	-2.83/-2.5		



Antenna Pattern of 2.4GHz and 5GHz

Appendix D

Θ(22.5°)	-10.59/-8.51	-7.70/-7.80	-8.17/-8.26	-8.75/-10.08	-11.74/-12.28	-12.90/-12.81	-11.42/-10.68	-9.30/-8.47	-6.49/-4.18	-3.11/-3.03	-3.91/-4.83	-5.53/-6.88	-6.83/-5.03	-2.85/-1.62	-0.31/0.13	-1.08/-2.53	-2.51/-2.89	-4.54/-4.63	-2.68/-1.75	-2.36/-3.50	-5.04/-7.38	-9.78/-8.98	-7.14/-7.76	-10.89/-14.32
Θ(30°)	-11.56/-6.83	-4.47/-5.09	-6.48/-6.46	-7.20/-8.78	-9.80/-9.05	-9.04/-11.35	-9.22/-9.26	-11.91/-11.79	-7.35/-1.57	-6.82/-8.38	-4.29/-1.90	-1.96/-2.96	-2.58/-0.84	0.62/-1.35	2.12/2.20	1.81/-1.37	0.69/-0.34	-1.87/-2.04	-0.33/-0.59	0.41/-0.66	-0.53/-0.70	-1.68/-2.39	-3.55/-5.56	-7.98/-11.76
Θ(142.5°)	-9.88/-8.79	-5.99/-8.42	-6.55/-2.87	-3.13/-7.06	-11.34/-8.35	-4.89/-7.55	-4.96/-6.77	-8.91/-5.43	-4.23/-3.45	-4.80/-3.47	-1.00/-0.80	0.38/0.16	-0.50/-0.36	1.30/-1.87	1.80/-1.88	2.27/-7.73	2.85/-1.32	-0.53/-0.89	0.30/-1.08	0.77/-0.54	0.40/0.81	-1.81/-2.23	-2.85/-6.40	-5.44/-7.07
Θ(45°)	-3.77/-4.36	-9.41/-11.33	-9.66/-5.27	-5.02/-10.78	-10.88/-6.87	-4.85/-2.71	-1.30/-3.42	-4.11/-2.05	-2.28/-1.51	-0.43/-1.07	1.97/-1.21	0.90/-1.20	-0.22/-0.26	2.45/3.74	3.02/3.35	3.70/2.39	2.15/2.34	2.01/0.34	0.95/2.26	1.48/-0.16	0.18/0.44	-3.87/-3.74	-0.41/-3.21	-5.25/-5.05
Θ(52.5°)	0.36/-1.56	-2.09/-4.11	-8.68/-7.02	-8.57/-8.70	-5.24/-2.26	-1.92/-8.02	-0.30/-2.14	-1.22/-1.30	1.48/-1.17	1.21/-1.55	1.68/-2.22	2.49/-1.09	-0.89/-0.29	2.22/-4.2	2.96/-3.64	2.63/-1.40	1.59/-1.92	2.18/-1.26	1.67/-2.25	1.92/-0.29	-0.50/-0.59	-3.51/-0.68	-0.09/-2.13	-0.82/-1.23
Θ(60°)	0.20/-1.22	-2.14/-3.01	-6.65/-7.46	-10.45/-8.51	-5.10/-4.65	-0.48/-1.72	-2.59/-5.43	-4.76/-1.00	1.55/-1.84	1.49/-1.33	0.32/-1.05	-2.00/-0.13	-0.91/-1.00	0.95/-2.56	4.29/-4.90	2.46/-0.80	1.51/2.67	3.35/-4.25	3.01/0.79	-2.80/-2.47	-1.89/-1.95	-3.74/-1.13	0.96/-0.95	
Θ(67.5°)	-1.48/0.23	-1.23/-0.94	-4.34/-6.93	-10.69/-6.24	-2.13/-1.06	0.55/-1.65	-8.26/-7.31	-8.10/-1.43	-0.65/0.74	1.41/0.60	-0.08/0.94	2.17/0.50	0.51/-0.21	1.12/2.68	4.56/-1.49	0.98/-1.98	1.14/2.55	3.77/3.31	3.43/3.28	3.04/0.75	-2.65/-1.67	-1.52/-4.07	-8.58/-0.74	-0.11/-2.55
Θ(75°)	-4.24/0.04	-0.93/-0.32	-2.57/-3.63	-5.72/-3.61	0.55/-1.56	-1.10/-1.83	-9.30/-5.26	-7.36/-1.02	-1.65/-0.32	0.64/0.09	-0.29/-0.55	2.40/-1.54	2.36/0.44	0.91/0.51	3.01/3.14	-1.07/-2.92	-0.50/-1.47	3.60/-4.54	3.64/-3.11	2.86/-0.98	-1.18/-1.24	-1.92/-5.68	-5.36/-0.90	-1.51/-2.74
Θ(82.5°)	-5.61/-0.38	-3.04/-1.49	-5.08/-3.60	-3.00/-2.71	1.14/-1.39	-3.02/-2.07	-9.33/-4.40	-6.04/-0.15	-1.88/-1.65	-0.24/-0.62	-1.15/-0.17	1.73/-1.69	2.71/-0.32	1.24/-1.66	2.18/-1.14	-5.18/-5.44	-2.30/-1.12	3.01/2.20	2.48/-2.51	1.67/-0.28	-1.13/-1.29	-4.71/-5.07	-4.36/-2.69	-3.15/-3.32
Θ(90°)	-7.05/-3.16	-4.36/-3.46	-11.29/-6.78	-3.38/-3.73	-0.11/-0.49	-6.04/-5.32	-7.61/-4.72	-5.55/0.20	-2.56/-3.10	-2.10/-1.21	-0.77/-1.53	0.95/0.28	2.63/-0.80	0.28/-1.73	0.73/-0.01	-5.16/-6.03	-7.59/-0.67	0.20/-1.78	0.66/0.30	-0.56/-0.98	-1.68/-1.41	-5.97/-6.14	-4.88/-3.41	-8.01/-4.92
Θ(97.5°)	-8.61/-4.36	-3.51/-4.62	-15.15/-9.46	-5.02/-4.22	-1.80/-2.56	-8.20/-8.01	-6.41/-3.75	-5.11/-0.97	-3.39/-4.07	-2.90/-2.20	-1.36/-2.39	-0.60/-0.59	1.30/-3.82	-1.04/-3.67	-0.44/-0.38	-4.72/-7.64	-8.17/-1.37	-2.73/-1.87	-2.80/-2.91	-3.39/-3.13	-6.53/-10.16	-9.47/-6.07	-9.20/-6.33	
Θ(105°)	-10.92/-7.52	-4.45/-6.91	-14.41/-8.51	-14.01/-5.58	-3.54/-4.37	-13.40/-8.89	-7.03/-6.60	-5.67/-2.90	-5.03/-5.05	-5.41/-3.96	-3.10/-2.60	-2.57/-2.42	-1.34/-5.06	-5.01/-3.83	-3.00/-2.09	-3.33/-7.04	-7.11/-2.20	-3.56/-4.76	-6.42/-7.56	-3.62/-4.85	-7.13/-3.96	-6.73/-9.04	-8.42/-7.86	-10.29/-8.24
Θ(112.5°)	-7.85/-5.57	-7.87/-9.64	-10.77/-10.29	-8.41/-5.62	-6.20/-9.38	-11.88/-7.68	-8.24/-6.29	-6.54/-4.06	-6.08/-6.33	-6.75/-5.48	-4.31/-4.11	-4.27/-4.96	-4.67/-12.05	-7.06/-4.95	-5.10/-3.86	-4.14/-8.92	-5.86/-6.13	4.43/-4.25	-4.41/-7.86	-3.78/-4.96	-5.64/-6.14	-4.75/-8.58	-11.02/-11.32	-9.95/-7.97
Θ(120°)	-7.21/-9.70	-9.41/-8.44	-11.05/-14.95	-7.93/-4.49	-6.34/-12.78	-14.39/-11.95	-9.06/-12.82	-9.54/-8.11	-9.64/-12.13	-9.51/-8.32	-6.39/-7.51	-11.77/-6.39	-5.65/-4.97	-5.11/-8.81	-9.27/-11.07	-5.69/-5.20	-5.08/-8.09	-5.25/-5.94	-7.25/-8.10	-8.00/-9.20	-1.74/-12.24	-8.00/-9.20	-11.06/-10.07	-11.06/-10.07
Θ(127.5°)	-12.67/-10.31	-9.13/-12.01	-12.14/-14.40	-6.36/-4.21	-10.59/-7.47	-12.40/-10.69	-10.19/-10.37	-11.66/-10.32	-11.62/-8.50	-8.00/-6.56	-6.63/-9.59	-7.04/-9.45	-12.06/-6.38	-6.37/-10.73	-3.74/-10.69	-7.55/-10.80	-7.04/-4.58	-6.13/-4.21	-7.88/-8.62	-10.05/-6.52	-10.80/-14.43	-10.79/-14.82		
Θ(135°)	-8.73/-7.96	-9.57/-10.13	-8.09/-8.60	-6.21/-9.90	-13.99/-8.94	-13.86/-13.61	-16.03/-11.27	-14.88/-15.07	-12.73/-10.27	-8.78/-10.98	-10.20/-5.36	-11.50/-12.71	-11.69/-10.95	-13.29/-11.66	-6.62/-2.92	-3.00/-10.51	-9.84/-6.37	-7.83/-6.25	-9.28/-14.66	-7.65/-3.31	-3.32/-7.64	-15.35/-4.47	-5.46/-10.07	-8.40/-8.03
Θ(142.5°)	-6.74/-9.00	-11.74/-8.74	-7.91/-13.37	-10.18/-13.80	-13.70/-14.70	-11.86/-11.13	-13.47/-9.57	-12.83/-13.28	-11.73/-10.28	-8.15/-4.67	-8.04/-10.51	-7.86/-8.04	-8.98/-6.42	-9.15/-8.48	-7.37/-3.55	-4.88/-9.82	-11.19/-7.75	-5.09/-6.33	-10.06/-12.65	-14.44/-6.89	-4.39/-8.99	-7.14/-12.72	-13.06/-10.35	-10.99/-13.10
Θ(150°)	-15.74/-10.98	-10.03/-9.87	-8.50/-9.21	-11.07/-12.96	-13.37/-15.59	-12.29/-12.14	-11.02/-10.75	-11.34/-9.41	-8.77/-8.31	-8.49/-10.24	-6.28/-7.94	-6.42/-6.65	-7.83/-10.24	-4.93/-4.52	-6.54/-9.42	-9.31/-9.32	-5.09/-9.17	-11.46/-9.69	-10.08/-10.36	-8.60/-11.38	-15.24/-15.32	-15.48/-10.46	-7.35/-11.41	
Θ(157.5°)	-12.51/-12.65	-13.65/-14.95	-14.49/-12.54	-10.43/-12.62	-15.16/-12.69	-10.69/-11.21	-13.35/-11.31	-7.95/-7.20	-8.65/-8.26	-7.02/-7.89	-10.05/-8.92	-8.06/-9.42	-10.71/-12.65	-9.49/-9.92	-11.22/-11.45	-10.74/-7.60	-7.80/-7.42	-6.79/-8.84	-10.96/-10.16	-9.88/-10.24	-8.90/-9.70	-9.85/-9.95	-10.92/-11.53	-11.69/-12.18
Θ(165°)	-10.80/-11.27	-13.56/-13.81	-13.11/-15.43	-13.94/-11.29	-9.38/-8.86	-9.07/-10.89	-14.62/-13.60	-10.90/-10.78	-12.66/-12.79	-11.20/-9.48	-8.78/-6.82	-10.68/-12.91	-13.52/-13.87	-11.58/-9.24	-9.06/-8.90	-8.20/-9.49	-10.72/-7.82	-5.56/-7.82	-10.57/-11.94	-13.93/-13.45	-10.98/-11.20	-11.33/-11.35	-13.16/-14.61	-14.13/-11.59
Θ(172.5°)	-11.88/-11.61	-10.33/-9.67	-8.80/-7.92	-7.75/-8.08	-8.90/-9.79	-10.13/-10.31	-9.28/-8.51	-8.06/-7.62	-7.07/-7.31	-8.30/-10.52	-10.82/-11.28	-11.68/-11.34	-11.70/-11.01	-9.87/-9.64	-8.70/-8.42	-7.61/-6.79	-6.73/-7.37	-8.09/-8.59	-9.34/-9.57	-10.24/-11.12	-10.92/-10.09	-10.23/-10.83	-12.99/-13.54	-13.15/-12.02
Θ(180°)	-13.81/-14.79	-14.48/-13.94	-15.89/-14.47	-14.30/-13.64	-14.10/-13.96	-12.92/-12.57	-12.76/-13.16	-13.53/-13.52	-12.88/-13.85	-13.62/-13.90	-13.84/-13.29	-11.57/-10.28	-12.94/-12.99	-13.48/-12.82	-11.94/-12.33	-13.41/-13.01	-12.86/-14.07	-15.41/-15.03	-15.12/-15.29	-15.26/-15.31	-15.32/-15.47	-14.92/-14.82		
Freq(Hz)	2.45GPol	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°)	-0.93/-1.19	-1.61/-1.95	-2.11/-2.03	-1.90/-1.89	-1.98/-2.28	-2.54/-2.75	-2.68/-2.12	-1.28/-0.61	-0.34/-0.37	-0.50/-0.56	-0.50/-0.50	-1.75/-1.08	-1.42/-1.57	-1.65/-1.75	-1.97/-2.30	-2.61/-2.85	-2.91/-2.74	-2.28/-1.89	-1.70/-1.63	-1.56/-1.34	-1.02/-0.79	-0.73/-0.86	-0.99/-1.08	-1.02/-0.89
Θ(7.5°)	0.25/0.21	-0.09/-0.60	-1.20/-1.63	-1.80/-1.79	-1.57/-1.52	-1.67/-1.99	-2.19/-2.02	-1.45/-0.77	-0.37/-0.24	-0.23/-0.15	0.04/0.13	0.04/-0.18	-0.43/-0.65	-0.86/-1.08	-1.32/-1.52	-1.72/-1.96	-2.09/-2.21	-2.15/-1.86	-1.38/-0.97	-0.68/-0.42	-0.09/-0.20	0.38/0.37	0.22/0.06	-0.01/-0.11
Θ(15°)	1.68/-1.73	1.56/-1.21	0.73/0.20	-0.27/-0.60	-0.59/-0.42	-0.36/-0.40	-0.42/-0.32	0.04/0.56	0.92/-0.14	1.04/-1.12	1.34/-1.45	1.46/-1.46	1.41/-1.33	1.14/0.81	0.36/-0.12	-0.57/-0.88	-1.17/-1.31	-1.42/-1.54	-1.30/-0.64	0.13/0.72	1.07/-1.38	1.64/-1.78	1.68/-1.51	1.42/-1.53
Θ(22.5°)	1.94/-1.92	1.75/-1.50	1.27/-1.01	0.70/0.30	-0.04/-0.19	-0.23/-0.17	0.03/0.35	0.85/-1.46	1.95/-2.18	2.21/-2.22	2.24/-2.19	2.16/-2.14	2.12/-2.02	1.76/-1.29	0.64/-0.06	-0.60/-1.20	-1.48/-1.49	-1.44/-1.52	-1.50/-0.89	0.14/-1.06	1.56/-1.78	1.95/-2.04	2.04/-1.90	1.79/-1.84
Θ(30°)	1.16/-1.09	0.83/0.60	0.58/0.77	0.92/0.77	0.32/-0.35	-0.94/-1.05	-0.87/-0.34	0.39/-1.19	1.98/-2.53	2.72/-2.63	2.42/-2.27	2.25/-2.18	2.03/-1.86	1.59/-1.10	0.29/-0.50	-1.16/-1.61	-1.81/-1.67	-1.48/-1.43	-1.44/-0.99	0.02/-0.03	1.49/-1.37	1.13/-1.08	1.09/-1.04	0.99/-1.08
Θ(37.5°)	0.40/0.34	-0.04/-0.41	-0.33/0.24	0.82/-1.02	0.64/-0.34	-1.66/-2.47	-2.40/-1.66	-0.73/0.26	1.35/-2.20	2.52/-2.36	2.13/-2.21	2.34/-2.12	1.76/-1.46	1.25/0.96	0.54/0.09	-0.38/-0.74	-0.96/-1.03	-1.01/-1.04	-1.05/-0.50	0.57/-1.43	1.49/0.69	-0.63/-1.24	-1.17/-0.79	-0.32/0.16
Θ(45°)	-0.06/0.13	0.03/-0.27	-0.36/-0.01	0.53/0.91	0.73/-0.24	-2.00/-3.57	-3.43/-2.28	-1.52/-1.13	-0.04/-0.19	1.75/-1.64	1.57/-1.25	2.58/-2.34	1.61/-1.00	0.85/-1.06	1.28/-1.28	0.37/0.05	-0.41/-0.80	-0.80/-0.08	1.21/-2.13	2.02/0.71	-1.68/-3.76	-3.76/-2.56	-1.40/-0.51	
Θ(52.5°)	-0.38/-1.00	0.37/0.34	0.02/-0.34	-0.24/0.41	0.83/0.51	-0.97/-3.08	-3.31/-1.88	-1.19/-1.53	-1.21/0.27	1.11/0.93	1.21/-2.34	2.91/-2.40	1.30/0.38	0.32/0.79	1.29/-1.52	1.64/-1.69	1.69/-1.34	0.28/-0.96	-0.90/-0.25	1.62/-2.43	2.26/0.79	-1.99/-4.52	-4.33/-2.95	-1.77/-0.95
Θ(60°)	-0.41/0.19	0.71/0.82	0.23/-0.97	-1.70/-0.90	0.28/0.63	-0.38/-2.16	-2.80/-1.68	-0.83/-0.95	-1.18/-0.42	0.43/0.41	0.51/-1.73	2.62/-2.45	1.53/-0.35	-0.57/-0.47	0.08/0.62	1.41/-2.00	2.36/-2.40	1.41/-0.57	-1.12/0.04	1.34/-1.95	1.63/-0.11	-2.75/-4.96	-4.00/-2.61	-1.82/-1.13
Θ(67.5°)	-0.96/-0.27	0.33/0.62	0.02/-1.41	-2.47/-1.39	0.32/0.96	-0.09/-1.79	-2.82/-2.33	-1.62/-1.24	-0.97/-0.29	0.37/0.27	0.40/-0.66	2.51/-2.37	1.56/-1.01	-1.22/-1.28	-1.11/-0.71	0.56/-1.40	1.97/-2.36	1.63/-0.21	-0.72/0.21	1.00/-1.29	1.47/-1.15	-1.45/-6.21	-3.98/-2.33	-1.88/-1.70
Θ(75°)	-1.82/-0.91	-0.10/0.31	-0.17/-1.58	-2.78/-2.15	-0.31/0.63	0.12/-1.53	-3.10/-3.36	-3.00/-2.35	-1.56/-0.83	-0.31/-0.46	-0.66/0.67	1.86/-1.93	1.30/-0.0											

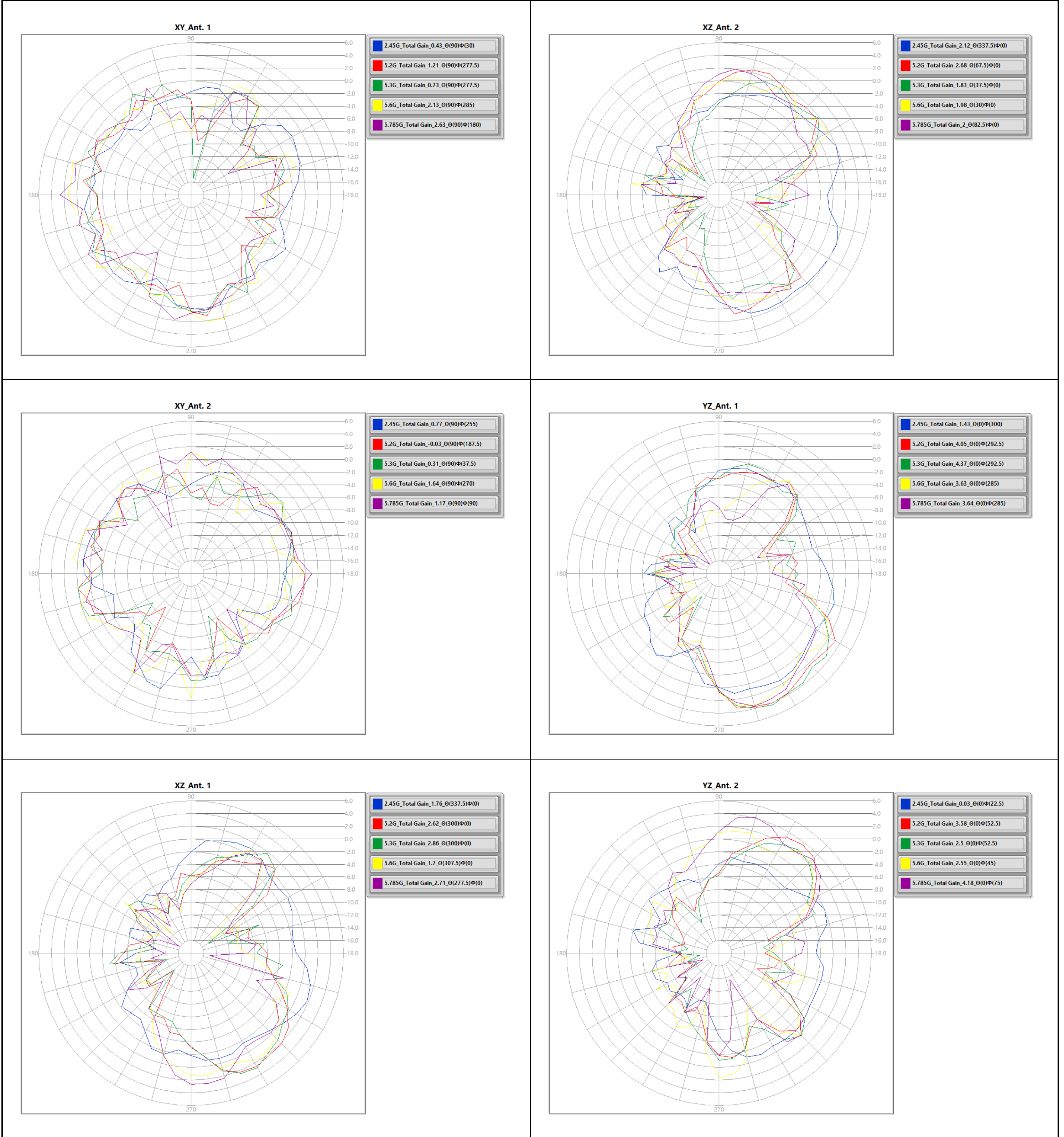


Antenna Pattern of 2.4GHz and 5GHz

Appendix D

Θ (75°)	0.36/0.06	-1.60/-0.93	1.83/2.22	0.14/-0.54	1.47/0.99	-0.78/2.02	1.65/-5.01	0.13/2.20	1.02/1.83	0.36/-0.08	-2.89/-1.05	-1.63/-1.08	-0.48/-0.23	3.12/4.81	2.64/-3.44	-9.86/-1.86	0.02/-1.96	-9.91/-0.13	-0.98/-5.08	-5.60/-0.30	-3.01/-2.24	-4.85/-3.42	-1.71/-1.19	-0.88/-2.39
Θ (82.5°)	0.69/-0.27	-2.87/-3.72	0.06/0.60	-1.31/-3.23	-0.06/0.89	-1.06/-1.12	1.30/-7.18	-0.77/-1.49	-0.79/1.06	-1.00/-3.12	-3.22/0.52	0.03/0.14	-1.27/-0.18	1.96/3.22	0.91/-2.62	-9.02/-2.02	1.33/-1.51	-6.29/0.57	1.08/-3.91	-3.59/-0.39	-5.59/-3.48	-4.23/-4.86	-2.77/-4.06	-1.63/-2.20
Θ (90°)	-0.31/-1.40	-4.23/-4.41	-0.91/0.14	-2.57/-6.15	-2.09/-0.71	-2.97/0.26	1.02/-5.72	-3.32/-0.08	-1.38/-0.26	-2.05/-3.32	-3.06/0.07	0.22/0.71	-2.01/-1.94	0.06/-0.02	-2.61/-3.30	-7.04/-5.60	0.38/-1.60	-4.52/-3.28	1.64/-4.29	-3.82/-2.62	-7.96/-3.14	-5.49/-8.83	-3.07/-4.89	-2.38/-3.11
Θ (97.5°)	-1.00/-3.17	-6.44/-6.54	-2.55/-2.01	-3.95/-6.92	-3.11/-2.47	-4.97/-1.93	-0.91/-5.48	-5.57/-0.94	-1.70/-1.49	-3.80/-4.46	-4.15/-0.55	-1.32/-0.99	-2.42/-1.23	-0.57/-2.41	-4.99/-3.69	-5.24/-10.93	-2.08/-3.01	-5.71/-3.81	-2.16/-6.04	-4.48/-4.68	-9.63/-4.27	-7.12/-8.53	-5.33/-5.06	-3.24/-2.18
Θ (105°)	-3.19/-3.70	-6.82/-6.33	-3.92/-3.78	-5.83/-9.54	-5.36/-4.21	-6.87/-2.80	-1.27/-6.83	-5.75/-2.59	-3.96/-1.65	-2.57/-7.20	-6.11/-2.49	-2.16/-1.86	-4.81/-4.72	-1.48/-2.35	-7.89/-8.42	-5.27/-7.45	-7.11/-6.61	-12.01/-5.51	-9.94/-7.72	-9.41/-9.76	-11.10/-5.37	-5.93/-9.42	-4.73/-7.68	-3.47/-2.65
Θ (112.5°)	-4.05/-6.55	-7.16/-7.07	-6.18/-4.35	-4.96/-8.05	-5.24/-4.84	-5.91/-3.09	-3.86/-6.62	-6.43/-3.92	-4.92/-2.43	-3.91/-9.91	-7.60/-3.97	-4.19/-3.31	-5.54/-10.25	-3.98/-2.90	-6.47/-13.37	-4.83/-6.55	-10.25/-5.52	-10.58/-4.76	-5.30/-9.84	-8.08/-14.92	-9.13/-8.40	-8.62/-10.14	-7.14/-3.71	-6.36/-3.39
Θ (120°)	-5.53/-9.31	-9.58/-9.14	-6.50/-4.14	-7.23/-6.88	-3.25/-4.21	-6.01/-2.81	-4.32/-7.61	-8.49/-6.98	-6.09/-5.15	-3.89/-7.39	-13.14/-7.69	-6.36/-3.57	-6.13/-10.10	-8.03/-6.75	-3.44/-9.25	-9.82/-6.09	-12.12/-5.57	-12.10/-8.48	-4.71/-9.14	-12.54/-15.09	-8.36/-6.60	-10.85/-6.28	-7.68/-4.82	-5.73/-7.76
Θ (127.5°)	-7.44/-9.79	-8.81/-6.46	-6.24/-7.77	-8.26/-4.18	-4.21/-6.98	-6.54/-4.17	-6.70/-8.07	-13.68/-6.18	-4.56/-10.94	-5.99/-5.04	-10.03/-13.44	-7.68/-6.42	-7.04/-10.24	-13.93/-9.45	-10.99/-12.16	-11.11/-6.96	-11.11/-12.33	-9.80/-6.65	-6.52/-11.74	-10.48/-8.59	-9.39/-7.79	-5.42/-9.22	-7.19/-7.03	-8.95/-6.11
Θ (135°)	-6.98/-8.72	-9.18/-8.66	-9.48/-8.26	-4.63/-3.64	-6.21/-7.13	-4.94/-5.73	-8.72/-5.96	-11.93/-9.02	-6.30/-9.04	-6.86/-7.58	-7.24/-9.59	-8.46/-6.11	-5.91/-7.45	-7.10/-6.16	-5.98/-6.04	-12.43/-9.62	-10.65/-15.80	-10.11/-8.52	-6.76/-10.92	-6.91/-11.69	-7.41/-10.02	-6.81/-7.30	-13.20/-7.11	-7.93/-8.84
Θ (142.5°)	-12.05/-10.17	-10.76/-8.15	-4.62/-3.20	-3.50/-3.92	-4.41/-4.51	-4.47/-5.37	-4.75/-4.41	-10.08/-8.22	-7.55/-11.42	-8.12/-8.32	-9.12/-9.52	-8.79/-10.24	-11.30/-7.18	-7.55/-9.32	-9.04/-6.42	-10.54/-12.56	-11.23/-15.05	-10.55/-10.75	-9.57/-14.10	-13.84/-12.21	-10.73/-9.01	-13.91/-10.71	-9.07/-13.02	-14.44/-12.85
Θ (150°)	-8.41/-8.10	-8.21/-6.43	-5.87/-6.57	-6.51/-6.16	-5.76/-5.42	-6.23/-7.82	-5.67/-5.18	-10.10/-10.63	-7.96/-11.19	-15.55/-9.64	-8.30/-10.65	-9.71/-7.06	-7.05/-9.52	-12.35/-12.09	-10.07/-12.95	-14.80/-15.17	-9.07/-8.07	-11.30/-11.78	-6.74/-10.62	-11.91/-8.93	-14.49/-12.23	-9.69/-13.01	-13.25/-11.69	-10.52/-8.89
Θ (157.5°)	-8.87/-7.31	-7.23/-6.22	-4.86/-5.29	-6.98/-7.58	-7.26/-6.24	-6.30/-6.45	-6.06/-6.39	-10.33/-11.52	-8.49/-8.91	-10.19/-11.77	-14.95/-13.49	-13.55/-14.07	-13.68/-14.65	-14.57/-13.70	-10.98/-8.50	-7.78/-11.17	-15.75/-14.77	-15.23/-10.33	-9.40/-14.57	-14.08/-11.11	-11.92/-11.14	-9.17/-11.42	-11.01/-10.73	-9.42/-8.83
Θ (165°)	-9.37/-10.16	-9.73/-9.21	-8.24/-7.81	-7.63/-7.47	-7.43/-8.19	-9.80/-8.93	-7.02/-6.61	-8.95/-14.32	-15.70/-11.66	-9.52/-9.48	-11.04/-12.27	-12.57/-11.05	-10.41/-12.01	-12.53/-10.69	-9.41/-9.43	-9.96/-9.11	-7.33/-6.23	-5.60/-5.74	-7.01/-9.19	-10.00/-10.48	-11.60/-12.65	-13.22/-13.92	-9.93/-8.06	-7.53/-7.67
Θ (172.5°)	-4.20/-6.06	-7.08/-6.87	-5.03/-5.59	-5.55/-5.41	-5.37/-5.72	-6.21/-6.73	-7.63/-8.48	-9.30/-10.36	-10.75/-10.18	-10.27/-11.37	-13.19/-13.35	-13.62/-14.39	-13.65/-12.72	-12.95/-13.96	-14.14/-13.90	-14.12/-15.83	-15.58/-15.28	-14.94/-14.58	-13.33/-11.12	-9.73/-9.85	-10.01/-9.77	-7.37/-5.48	-4.21/-4.05	-3.76/-3.61
Θ (180°)	-9.81/-9.60	-9.35/-10.29	-11.58/-11.24	-11.73/-11.49	-10.42/-10.30	-9.86/-9.43	-9.34/-9.84	-10.89/-11.90	-12.93/-12.77	-12.61/-12.65	-10.59/-8.44	-8.00/-8.75	-9.32/-8.39	-7.86/-8.41	-9.14/-9.11	-8.88/-8.39	-7.89/-8.44	-8.32/-7.57	-7.14/-6.93	-7.34/-8.67	-10.53/-10.74	-9.63/-8.92	-8.19/-8.18	-8.17/-9.16
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°)	-3.74/-3.82	-4.10/-4.78	-4.73/-4.77	-5.13/-4.56	-4.40/-5.37	-6.04/-5.34	-4.98/-4.96	-5.48/-5.77	-5.90/-6.09	-5.85/-5.71	-5.53/-5.40	-5.39/-5.62	-5.68/-5.73	-6.42/-5.93	-4.36/-4.92	-6.14/-5.20	-4.85/-5.75	-5.07/-4.82	-5.05/-4.76	-5.10/-4.74	-4.41/-4.46	-4.67/-4.43	-4.21/-4.17	-4.10/-3.71
Θ (7.5°)	-6.08/-6.35	-6.05/-6.73	-5.72/-4.92	-4.75/-4.65	-4.90/-5.61	-5.46/-4.84	-4.38/-3.83	-3.79/-4.12	-4.76/-5.05	-5.22/-6.04	-6.43/-6.56	-7.59/-8.19	-8.04/-7.93	-7.99/-8.23	-7.39/-7.22	-8.58/-9.50	-8.02/-7.78	-8.18/-7.30	-7.58/-6.90	-7.23/-6.70	-6.57/-6.30	-6.81/-7.07	-6.83/-7.16	-7.63/-7.05
Θ (15°)	-8.95/-9.62	-10.73/-9.82	-8.79/-8.04	-7.18/-6.85	-7.46/-9.36	-9.96/-8.44	-7.09/-5.98	-5.72/-6.83	-6.23/-7.59	-10.11/-12.51	-14.82/-15.17	-15.63/-15.34	-12.67/-10.30	-9.08/-8.86	-6.99/-5.08	-4.70/-4.15	-3.02/-3.34	-4.38/-4.56	-5.62/-4.43	-8.92/-7.97	-5.83/-4.64	-4.26/-4.57	-5.38/-5.81	-7.14/-7.89
Θ (22.5°)	-2.28/-3.30	-5.14/-5.68	-5.00/-4.22	-4.42/-5.67	-6.85/-6.53	-5.93/-4.20	-2.69/-2.94	-3.67/-4.77	-6.20/-7.59	-6.62/-5.27	-4.73/-6.49	-9.10/-9.34	-8.75/-9.46	-10.77/-11.12	-11.02/-10.70	-11.24/-12.08	-10.58/-8.43	-8.03/-7.22	-7.23/-7.63	-9.77/-8.13	-4.84/-2.68	-3.08/-4.12	-4.77/-4.01	-3.05/-1.96
Θ (30°)	-2.13/-3.98	-5.15/-4.45	-3.69/-3.63	-2.48/-0.70	-0.38/-1.77	-2.87/-0.89	0.22/-0.28	-0.55/-1.23	-1.55/-1.67	-2.08/-1.81	-3.51/-9.27	-8.44/-4.88	-4.18/-6.20	-9.31/-8.89	-9.77/-9.44	-8.27/-7.66	-9.71/-10.27	-8.31/-6.72	-8.43/-10.27	-7.35/-5.09	-4.07/-3.08	4.44/-9.23	-5.04/-2.11	-0.63/-0.49
Θ (37.5°)	-2.48/-1.87	-0.75/0.47	1.58/-1.69	1.18/2.16	3.31/2.25	1.00/2.44	2.17/1.79	1.62/0.60	0.90/-0.19	-3.51/-0.49	-0.82/-1.83	-0.94/-1.34	-3.36/-6.09	-6.06/-3.70	-4.54/-7.94	-11.00/-9.39	-6.21/-3.49	-2.55/-1.84	-1.88/-5.44	-4.39/-3.87	-5.88/-2.74	-3.60/-4.31	-1.20/-0.36	-0.28/-0.82
Θ (45°)	-1.24/1.07	2.31/2.17	1.45/2.23	3.09/2.80	3.31/3.84	1.87/2.28	2.96/3.30	3.32/1.55	1.99/1.25	-2.62/1.14	0.28/-2.56	-3.05/-4.44	-3.28/-4.64	-7.72/-6.41	-5.75/-6.66	-5.79/-6.20	-2.86/-0.48	1.56/0.84	0.27/-0.48	-2.37/-2.22	-5.90/-2.14	-2.13/-1.50	-1.80/-2.75	-1.79/-1.91
Θ (52.5°)	0.27/2.21	2.72/3.38	3.03/2.43	2.44/1.70	1.46/3.27	2.39/1.96	2.06/1.06	3.18/2.29	1.34/1.74	0.89/1.02	-0.22/0.34	1.01/1.46	0.66/-3.31	-8.85/-8.67	-6.22/-3.30	-2.01/-1.65	-1.46/-0.91	1.56/0.41	-0.37/-0.43	-3.06/-3.04	4.89/-1.26	-1.00/-2.57	-7.47/-4.53	-1.81/-3.43
Θ (60°)	-0.08/0.63	0.87/3.31	3.73/3.19	1.51/1.45	0.82/0.51	1.58/1.50	2.00/-1.05	0.86/0.40	0.56/2.25	2.48/0.54	0.29/1.33	1.92/0.70	-0.29/-2.10	-4.44/-7.63	-10.05/-6.26	-3.29/-4.87	-4.95/-3.33	-2.30/-3.63	-6.04/-5.01	-4.11/-3.70	-3.47/-1.90	-2.67/-5.00	-6.22/-3.25	-3.24/-3.94
Θ (67.5°)	1.12/1.03	0.82/1.25	1.85/1.85	-0.10/0.04	1.21/0.54	1.13/1.56	3.55/0.23	-0.57/-1.48	0.49/1.30	2.01/0.51	-0.44/-1.51	-3.47/-4.52	-1.24/-0.61	-0.48/-1.00	-3.90/-6.79	-3.28/-2.37	-7.20/-5.23	-5.27/-7.41	-13.46/-9.41	-4.58/-4.51	-2.21/-3.07	-4.39/-5.56	-3.89/-3.96	-4.45/-2.08
Θ (75°)	1.75/0.69	0.66/0.39	0.51/0.56	-0.91/-1.42	0.87/1.28	1.65/1.27	4.18/1.39	0.53/-4.79	0.47/-0.34	1.25/-1.56	-1.92/-3.16	-7.23/-4.07	-2.03/-0.35	1.17/1.40	0.82/-2.53	-4.16/-1.43	-2.16/-4.73	-5.56/-4.49	-10.05/-4.24	-4.45/-3.69	-1.27/-2.68	-6.84/-4.98	-2.42/-3.13	-2.85/0.46
Θ (82.5°)	2.00/0.40	-0.57/-1.02	-0.55/0.18	-1.18/-1.28	0.21/1.46	1.51/0.48	3.53/0.54	0.69/-6.58	-1.00/-0.86	0.09/-3.43	-3.05/-1.50	-5.25/-0.45	-2.56/-0.52	0.22/-0.09	-0.02/-3.75	-4.65/-0.37	-0.64/-5.19	-8.70/-2.44	-4.22/-1.10	-4.29/-3.17	-1.82/-3.94	-9.37/-4.12	-3.17/-2.44	-1.56/0.50
Θ (90°)	1.02/-0.98	-1.32/-1.56	-1.43/-1.54	-2.51/-1.25	-1.16/-0.33	0.77/-0.92	1.17/-0.58	1.10/-10.13	-1.53/-2.52	-1.27/-5.40	-3.38/-0.33	-3.52/-0.73	-2.37/-2.11	-0.82/-2.74	-2.73/-3.78	-4.90/-5.05	0.05/-5.88	-6.50/-4.10	-1.85/-1.77	-3.83/-4.64	-3.32/-4.67	-10.14/-3.38	-3.15/-2.40	-1.27/-0.36
Θ (97.5°)	-0.34/-2.91	-2.40/-2.64	-2.16/-1.85	-2.30/-2.22	-3.36/-1.13	-0.30/-2.36	-1.10/-1.90	-0.24/-8.85	-3.45/-3.25	-2.93/-6.14	-4.50/-1.15	-2.51/-1.68	-4.81/-1.92	-1.54/-4.14	-7.85/-4.89	-4.94/-7.54	-2.13/-5.21	-7.80/-3.17	-3.62/-5.12	-4.80/-6.92	-5.63/-7.79	-11.88/-5.27	-2.84/-2.96	-2.42/-1.91
Θ (105°)	-1.97/-4.58	-4.57/-4.12	-2.96/-3.07	-3.81/-5.20	-3.57/-3.07	-3.18/-3.52	-2.93/-3.64	-1.12/-10.44	-4.81/-4.14	-3.44/-7.01	-6.42/-2.66	-3.60/-3.39	-6.25/-5.10	-1.91/-2.03	-9.58/-6.25	-4.81/-6.18	-4.58/-6.93	-8.59/-6.72	-12.28/-7.20	-8.75/-9.37	-8.29/-7.57	-10.85/-3.26	-4.91/-3.25	-2.68/-3.48
Θ (112.5°)	-3.81/-5.78	-5.00/-4.73	-4.21/-3.70	-5.03/-5.71	-3.71/-4.24	-4.57/-6.65	-4.18/-5.14	-4.99/-6.82	-5.03/-3.83	-3.80/-8.13	-7.53/-4.96	-4.15/-4.66	-5.88/-6.16	-3.64/-2.48	-7.54/-9.29	-4.22/-3.53	-11.12/-7.91	-11.84/-7.87	-8.27/-9.11	-11.76/-12.17	-13.19/-11.22	-11.34/-5.74	-2.95/-6.90	-2.95/-4.35
Θ (120°)	-4.95/-7.47	-5.80/-6.30	-5.43/-3.65	-5.30/-7.11	-7.87/-5.77	-5.91/-7.07	-3.45/-4.68	-4.99/-7.80	-5.72/-5.25	-4.83/-6.03	-7.74/-9.13	-6.25/-5.16	-5.77/-8.34	-7.34/-6.62	-2.97/-14.36	-10.43/-3.48	-8.35/-9.99	-15.74/-9.90	-7.30/-10.93	-13.43/-13.60	-12.02/-11.82	-9.43/-5.93	-6.18/-4.46	-5.92/-6.86
Θ (127.5°)	-8.57/-10.08	-7.98/-6.16	-6.11/-5.10	-5.69/-6.35	-6.18/-4.97	-9.44/-6.03	-4.87/-7.87	-5.40/-8.02	-6.41/-7.27	-5.44/-6.19														

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

Appendix E

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°)	0.45/0.60	0.870/81	0.911/17	1.501/46	1.341/17	1.070/89	0.871/10	1.101/06	1.010/99	0.670/44	0.530/72	0.830/86	0.890/78	0.900/76	0.470/26	0.066/02	-0.15/-3.6	-0.36/-0.29	-0.380/02	0.19/-0.41	-0.14/-0.16	0.130/41	0.400/36	0.280/48
Θ(7.5°)	-0.39/-0.67	-0.93/-1.33	-1.38/-0.97	-0.88/-0.84	-0.77/-0.90	-0.68/-0.44	-0.220/17	0.680/97	1.391/65	1.902/04	2.071/91	1.721/62	1.481/59	1.571/53	1.691/83	1.621/56	1.971/95	1.751/58	1.361/21	1.200/85	0.740/55	-0.030/17	0.030/06	-0.220/-0.19
Θ(15°)	0.920/38	-0.76/-2.10	-3.31/-3.88	-3.89/-3.62	-3.78/-3.94	-4.06/-3.78	-2.90/-1.85	-0.930/15	1.331/78	1.922/29	3.133/77	4.144/08	3.612/92	1.931/24	0.750/37	0.130/08	0.300/60	1.161/71	2.032/18	2.202/34	2.332/24	1.892/06	2.282/46	2.091/59
Θ(22.5°)	0.982/32	-1.45/-2.85	-5.31/-7.21	-7.57/-7.46	-7.97/-8.75	-10.26/-10.41	-7.92/-5.62	-3.84/-1.48	0.630/20	2.552/81	3.594/69	5.045/02	4.854/07	2.761/64	1.972/37	2.880/55	4.254/62	4.854/85	4.514/19	3.843/81	3.773/27	2.641/58	1.241/96	2.572/06
Θ(30°)	0.06/0.40	-1.01/-3.61	-8.59/-13.25	-14.69/-9.49	-7.00/-7.56	-7.85/-6.11	-6.33/-4.80	-6.23/-1.89	0.280/99	1.382/02	2.614/18	4.554/53	4.233/52	2.972/93	2.572/02	1.431/33	1.973/39	4.915/19	4.342/98	1.921/51	1.620/-1.0	-2.49/-3.27	-0.970/60	0.670/37
Θ(37.5°)	0.54/-0.61	-0.62/-1.80	-6.16/-14.08	-10.68/-7.63	-7.94/-7.12	-3.76/-4.00	-6.90/-4.84	-1.09/-0.34	-1.00/-0.43	0.511/84	3.084/11	4.433/84	3.632/19	1.22/-0.08	1.503/57	4.172/98	0.760/50	2.824/17	3.842/65	2.292/25	2.642/53	0.13/-4.69	-5.67/-2.04	-0.460/38
Θ(45°)	-1.78/-0.43	-4.78/-4.12	-6.62/-13.99	-5.62/-4.23	-6.19/-5.91	-2.11/-3.38	-11.07/-5.96	-1.27/-0.60	-3.56/-2.06	1.452/63	3.493/57	2.832/63	3.062/46	1.770/53	0.721/86	2.693/15	2.391/52	0.711/06	0.961/55	2.932/99	2.322/09	0.27/-2.65	-3.27/-4.16	-2.37/-1.47
Θ(52.5°)	-2.91/-3.80	-4.87/-5.52	-8.47/-10.90	-4.33/-2.94	-4.67/-6.79	-5.33/-5.48	-14.30/-5.71	-4.91/-7.83	-7.53/-1.19	1.212/95	3.732/67	1.621/82	1.520/29	0.560/57	-0.03/-1.41	-4.26/-2.42	0.38/-0.18	-0.79/-1.40	-0.591/85	1.960/90	-0.700/25	-1.62/-3.88	-4.70/-3.32	-2.21/-2.10
Θ(60°)	-2.98/-2.75	-2.11/-2.59	-5.14/-5.30	-1.57/-1.76	-1.07/-4.38	-8.20/-4.54	-4.29/-3.17	-4.44/-5.61	-3.63/-1.96	-1.490/35	3.274/22	3.282/51	1.490/60	0.470/59	-0.503/35	1.962/01	-1.63/-1.52	-7.01/-7.01	-1.91/-3.36	-2.56/-0.89	-1.020/39	-0.21/-4.69	-7.36/-1.42	-0.72/-1.19
Θ(67.5°)	-6.08/-5.79	-2.42/-2.62	-5.01/-3.47	-0.57/-1.05	0.92/-2.11	-4.82/-1.54	-1.56/-0.96	-0.36/-2.87	-1.88/-1.33	-1.900/46	3.433/72	3.963/27	2.162/91	2.601/21	1.856/02	5.141/71	0.731/33	-3.98/-4.08	-2.50/-7.25	-2.320/61	-0.040/60	1.00/-1.29	-3.41/-0.93	0.17/-1.62
Θ(75°)	-6.48/-6.57	-5.24/-4.25	-5.44/-2.52	0.09/-0.62	1.28/-0.15	-3.270/65	1.150/41	-0.49/-2.28	-2.61/-1.16	-1.100/78	2.621/95	1.101/24	1.883/51	4.022/58	1.555/45	5.552/12	0.612/46	-0.27/-0.40	-0.60/-6.26	-0.910/61	0.960/75	0.05/-1.06	-2.11/-3.03	-1.67/-1.19
Θ(82.5°)	-6.20/-8.95	-6.60/-7.36	-6.39/-2.73	-0.63/-0.60	1.12/-0.42	-2.521/23	-0.111/88	-0.11/-4.71	-3.56/-1.24	-0.280/60	-0.14/-2.09	-1.53/-0.55	-0.611/95	3.452/48	0.073/15	3.571/41	0.010/90	0.630/92	-1.73/-4.20	-0.69/-0.63	0.071/-0.57	-2.00/-2.95	-3.65/-5.56	-4.23/-2.27
Θ(90°)	-5.91/-11.17	-8.11/-8.22	-7.34/-5.22	-2.83/-2.34	0.06/-2.66	-1.830/26	-2.581/14	-1.47/-7.86	-3.32/-2.02	-0.59/-1.82	-3.74/-0.67	-6.11/-4.92	-4.67/-0.85	1.402/12	-0.83/-1.83	-0.54/-0.40	-1.40/-2.40	-1.62/-0.36	-5.33/-3.22	-3.41/-2.02	-1.57/-2.41	-3.15/-6.25	-7.12/-8.15	-4.81/-2.93
Θ(97.5°)	-9.00/-10.55	-7.30/-8.51	-7.28/-3.84	-3.76/-2.61	-1.18/-4.72	-1.52/-1.75	-4.950/10	-4.41/-8.70	-3.20/-2.82	-2.42/-5.78	-7.58/-8.28	-8.40/-7.12	-7.61/-3.80	-1.960/75	-1.41/-4.24	-5.50/-2.85	-5.42/-3.16	-8.51/-3.96	-9.84/-9.44	-5.10/-6.31	-8.02/-5.48	-9.41/-9.78	-5.13/-5.76	
Θ(105°)	-9.45/-8.95	-6.49/-5.99	-6.74/-6.60	-5.33/-4.24	-3.89/-4.26	-2.35/-3.40	-5.301/-1.45	-7.91/-8.98	-2.91/-3.63	-4.55/-9.97	-12.56/-10.20	-9.80/-9.01	-9.71/-7.54	-5.95/-2.20	-2.40/-3.11	-10.00/-8.18	-5.86/-7.46	-11.68/-6.71	-13.26/-15.34	-10.33/-8.13	-11.03/-12.08	-5.19/-8.20	-15.16/-10.36	-5.68/-6.79
Θ(112.5°)	-8.31/-7.46	-6.89/-9.08	-10.57/-7.37	-5.54/-6.95	-5.23/-4.67	-5.02/-8.09	-5.02/-4.31	-10.37/-7.29	-4.28/-5.75	-8.45/-15.05	-15.74/-11.46	-8.75/-7.40	-10.51/-11.72	-10.26/-4.66	-4.63/-2.86	-8.44/-15.28	-6.34/-6.09	-9.92/-9.72	-13.22/-15.04	-13.57/-14.10	-10.78/-4.42	-12.81/-15.72	-9.74/-8.57	-9.72/-8.88
Θ(120°)	-11.32/-10.48	-7.98/-8.09	-9.97/-8.24	-5.98/-6.46	-6.27/-4.55	-9.10/-9.94	-5.26/-8.66	-11.35/-7.25	-6.07/-9.40	-10.59/-12.56	-11.65/-10.29	-11.37/-8.84	-8.84/-11.23	-10.18/-9.16	-8.91/-4.47	-4.56/-11.78	-14.70/-12.76	-8.59/-10.65	-14.85/-11.05	-12.24/-6.79	-7.98/-13.18	-9.57/-9.04	-14.02/-7.09	-10.63/-11.93
Θ(127.5°)	-10.25/-6.64	-8.94/-7.67	-8.11/-8.53	-5.77/-6.15	-8.22/-9.29	-13.24/-9.35	-7.99/-9.49	-13.38/-9.29	-8.29/-10.63	-12.05/-11.43	-11.82/-11.01	-10.57/-10.67	-9.71/-7.25	-9.64/-14.03	-8.27/-12.47	-4.37/-6.43	-7.47/-15.49	-15.82/-12.86	-15.47/-15.51	-13.58/-15.64	-11.63/-9.30	-6.69/-14.02	-12.92/-9.14	-11.58/-11.96
Θ(135°)	-9.27/-10.99	-12.94/-14.26	-13.86/-9.93	-6.13/-7.10	-7.43/-12.67	-12.44/-10.24	-11.43/-15.33	-11.86/-12.76	-13.03/-14.28	-14.84/-11.15	-8.98/-12.66	-15.01/-11.88	-8.67/-8.40	-7.20/-9.35	-15.13/-16.20	-9.71/-5.85	-4.57/-10.48	-15.47/-10.68	-8.25/-15.80	-15.11/-11.97	-9.05/-14.05	-11.79/-10.99	-15.15/-14.72	-15.37/-9.95
Θ(142.5°)	-7.63/-5.95	-7.18/-9.89	-8.40/-5.62	-5.47/-10.51	-14.99/-13.86	-9.60/-7.87	-10.22/-15.18	-11.13/-11.27	-11.34/-11.24	-13.44/-10.73	-7.85/-8.51	-10.73/-12.93	-12.09/-7.64	-7.27/-10.89	-15.05/-15.61	-12.34/-15.35	-12.40/-7.56	-3.94/-8.96	-10.92/-12.67	-5.94/-12.26	-15.60/-12.72	-12.77/-14.45	-15.21/-9.73	-7.40/-7.35
Θ(150°)	-10.09/-11.94	-12.44/-11.72	-8.31/-9.09	-14.79/-13.11	-10.49/-12.00	-9.92/-14.15	-13.73/-10.66	-8.25/-8.90	-14.52/-12.09	-9.47/-10.34	-10.57/-12.22	-12.90/-12.42	-9.26/-15.49	-16.16/-15.77	-15.74/-15.49	-15.38/-15.78	-14.68/-14.66	-14.89/-11.04	-12.73/-13.87	-12.48/-10.63	-14.64/-14.93	-14.89/-11.04	-9.64/-10.71	-7.40/-3.58
Θ(157.5°)	-10.46/-12.95	-15.68/-13.61	-11.20/-7.47	-4.99/-5.56	-9.98/-12.82	-10.27/-13.42	-12.99/-10.44	-9.90/-10.85	-11.87/-13.22	-13.19/-12.36	-10.81/-8.05	-7.42/-9.52	-11.77/-9.42	-11.18/-11.79	-12.38/-13.70	-13.67/-12.98	-12.72/-15.07	-14.83/-12.50	-9.73/-10.89	-14.07/-15.84	-14.20/-12.19	-12.46/-14.54	-12.34/-11.68	-11.66/-10.95
Θ(165°)	-7.10/-6.75	-5.52/-7.46	-10.89/-14.36	-15.42/-15.22	-15.48/-14.12	-15.31/-14.32	-8.94/-5.45	-4.75/-5.68	-8.13/-12.31	-16.10/-14.26	-11.90/-10.65	-10.30/-10.25	-8.92/-9.16	-8.90/-19.92	-10.68/-9.29	-8.62/-12.03	-15.61/-13.13	-15.40/-14.85	-15.41/-12.61	-15.29/-15.93	-13.06/-13.12	-14.35/-13.94	-12.03/-12.10	-11.24/-8.08
Θ(172.5°)	-8.80/-8.88	-10.13/-9.74	-8.97/-9.24	-8.97/-9.24	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74	-10.13/-9.74
Θ(180°)	-8.50/-8.37	-8.56/-7.82	-7.17/-7.49	-7.58/-7.71	-7.77/-7.37	-7.73/-8.49	-8.13/-7.65	-6.99/-6.42	-5.60/-5.19	-5.07/-5.26	-5.50/-6.07	-6.52/-7.11	-7.15/-7.07	-7.11/-7.64	-9.51/-10.99	-12.42/-13.56	-13.27/-13.04	-14.13/-14.71	-14.32/-12.37	-11.11/-11.32	-11.21/-10.78	-9.39/-8.63	-7.81/-7.93	-8.50/-8.48
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°)	-0.39/-0.35	-0.040/0.09	0.230/45	0.540/53	0.720/90	1.020/86	0.570/51	0.440/35	0.350/22	0.170/13	0.011/0.40	-0.65/-0.57	-0.49/-0.38	-0.25/-0.39	-0.41/-0.53	-0.37/-0.09	-0.07/-0.12	0.120/54	0.400/06	-0.07/-0.13	-0.32/-0.39	-0.31/-0.37	-0.31/-0.25	-0.46/-0.49
Θ(7.5°)	-0.59/-0.97	-1.20/-1.57	-1.56/-1.49	-1.25/-0.99	-0.50/-0.02	0.310/47	0.700/82	1.151/32	1.411/37	1.691/92	2.05/185	1.691/146	1.271/108	0.830/59	0.440/28	0.380/78	0.880/71	0.640/93	1.141/26	1.311/12	0.991/25	1.201/10	0.980/71	0.33/-0.10
Θ(15°)	0.760/06	-0.93/-2.21	-2.78/-2.91	-3.26/-4.14	-4.81/-4.79	-4.47/-3.58	-2.61/-1.42	0.451/48	2.042/10	2.072/27	2.703/10	3.803/54	3.693/45	3.192/88	2.472/31	2.031/59	0.980/38	0.330/104	1.772/36	2.272/04	2.532/39	2.321/96	1.771/16	
Θ(22.5°)	-0.46/-0.63	-1.75/-2.93	-3.12/-3.18	-3.75/-4.81	-5.70/-6.32	-5.62/-3.73	-2.11/-1.75	-2.05/-1.31	-0.171/18	2.413/36	3.894/73	5.185/05	4.423/91	2.831/64	1.001/32	2.273/42	3.943/63	2.812/34	3.114/36	4.594/04	3.292/59	1.790/71	0.210/40	0.37/-0.30
Θ(30°)	-1.31/-2.81	-4.00/-4.74	-5.11/-6.82	-7.67/-7.54	-8.07/-7.10	-4.77/-1.79	0.260/42	-1.04/-2.15	-0.459/18	2.423/01	3.284/02	4.955/11	4.964/39	3.423/01	2.300/57	0.161/93	3.964/29	4.073/53	3.634/23	3.972/36	0.53/-0.70	-0.280/36	0.521/-15	0.890/23
Θ(37.5°)	-0.11/-2.56	-2.32/-2.49	-3.65/-6.03	-6.84/-6.74	-4.96/-4.15	-3.62/-1.29	-0.701/-1.70	-1.350/80	1.611/27	0.761/30	2.793/52	3.993/13	1.721/77	1.952/03	1.620/73	0.321/06	2.172/01	2.203/50	3.421/93	0.370/20	-0.69/-2.74	-1.52/-1.75	2.621/81	
Θ(45°)	-1.72/-4.19	-3.85/-3.98	-4.09/-5.21	-7.12/-5.29	-2.61/-2.68	-2.68/-1.48	-3.31/-5.64																	

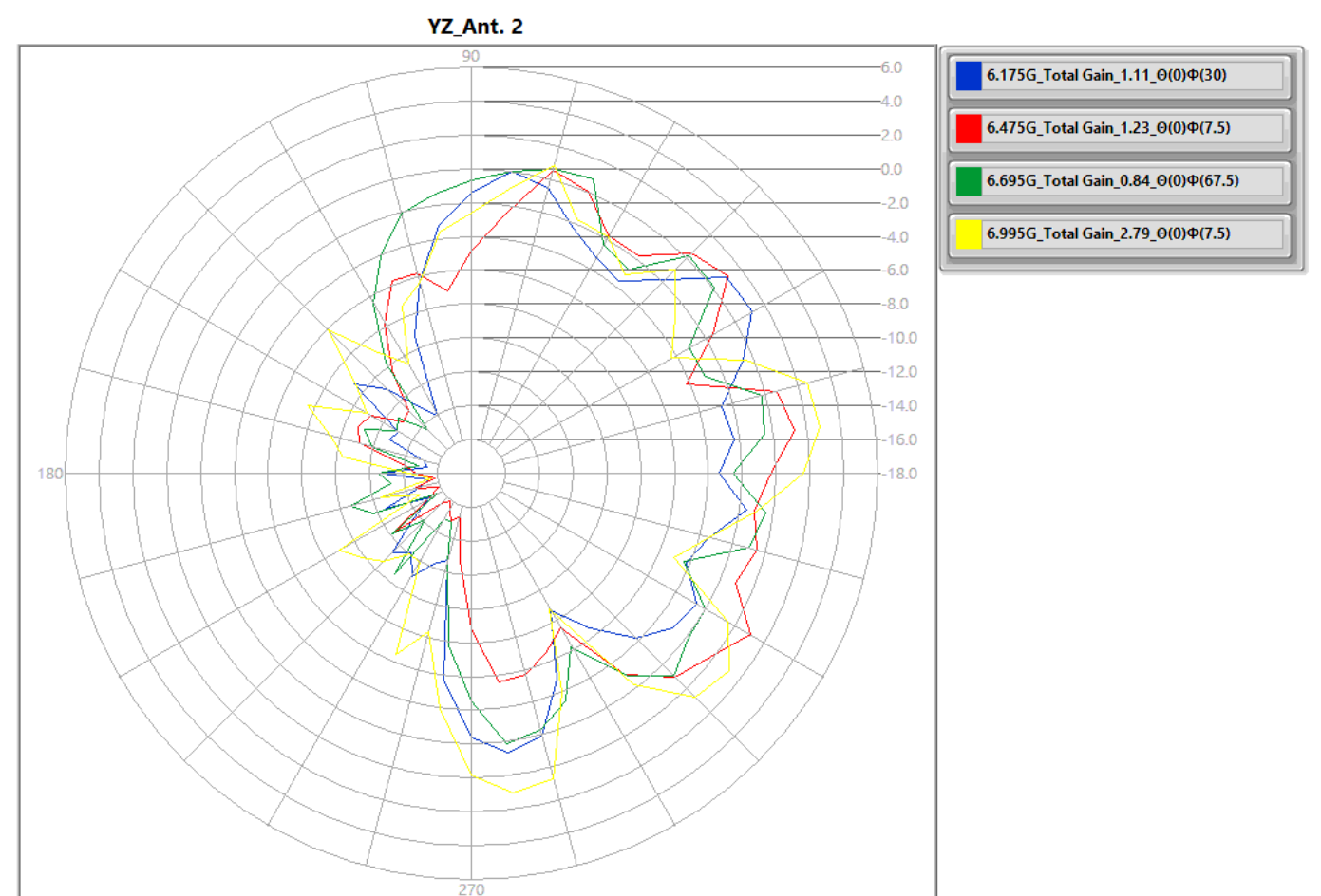
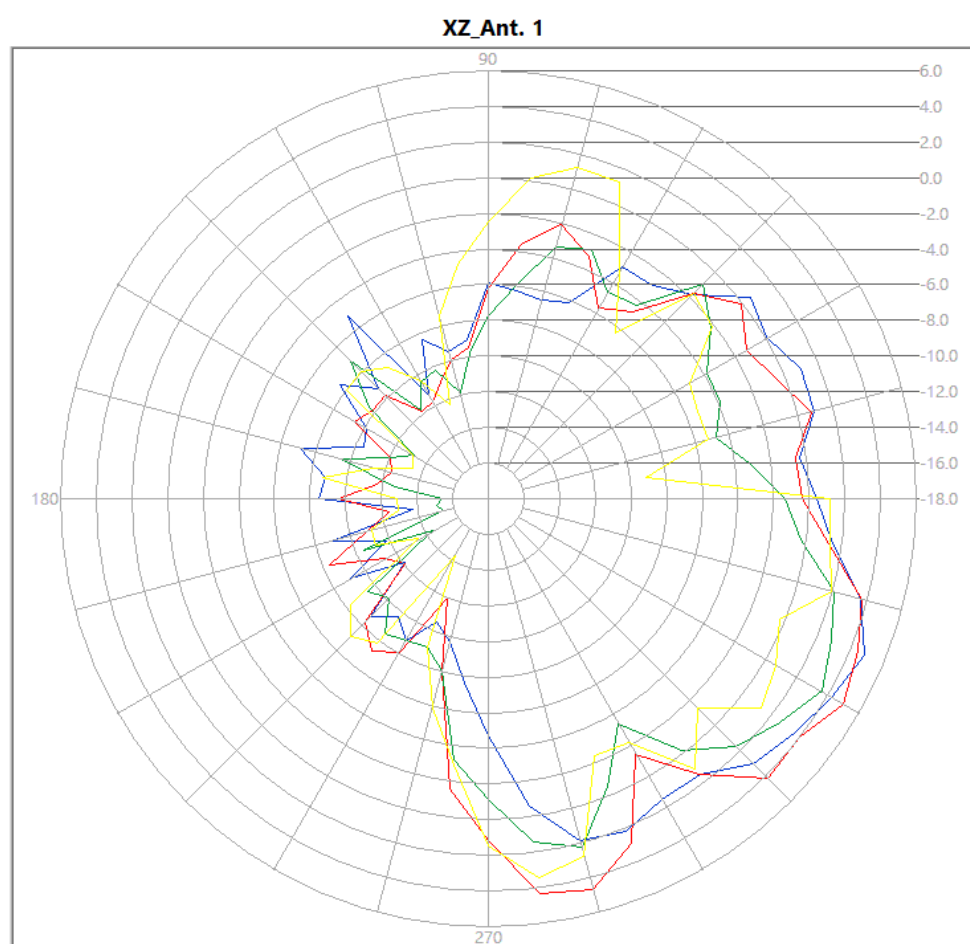
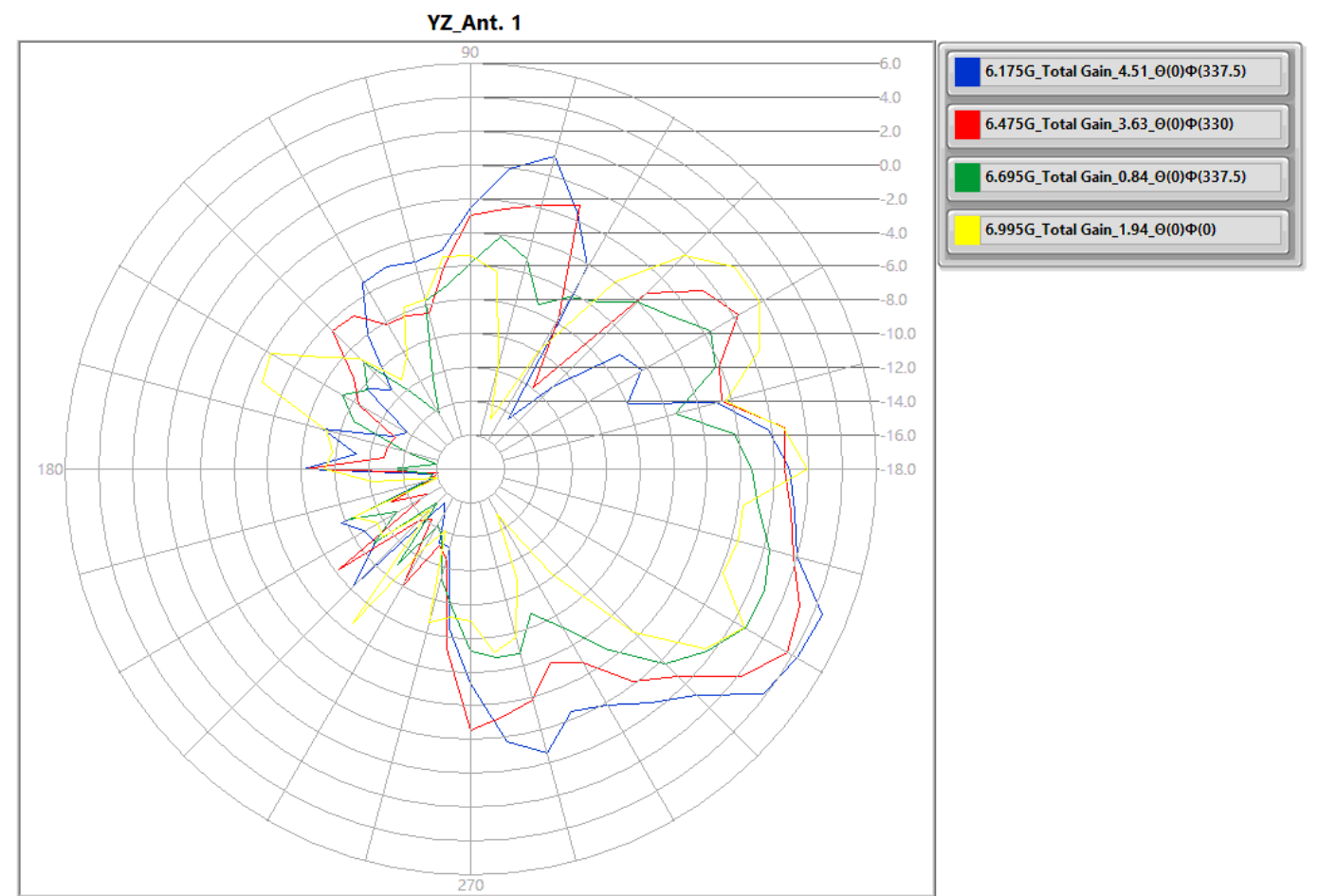
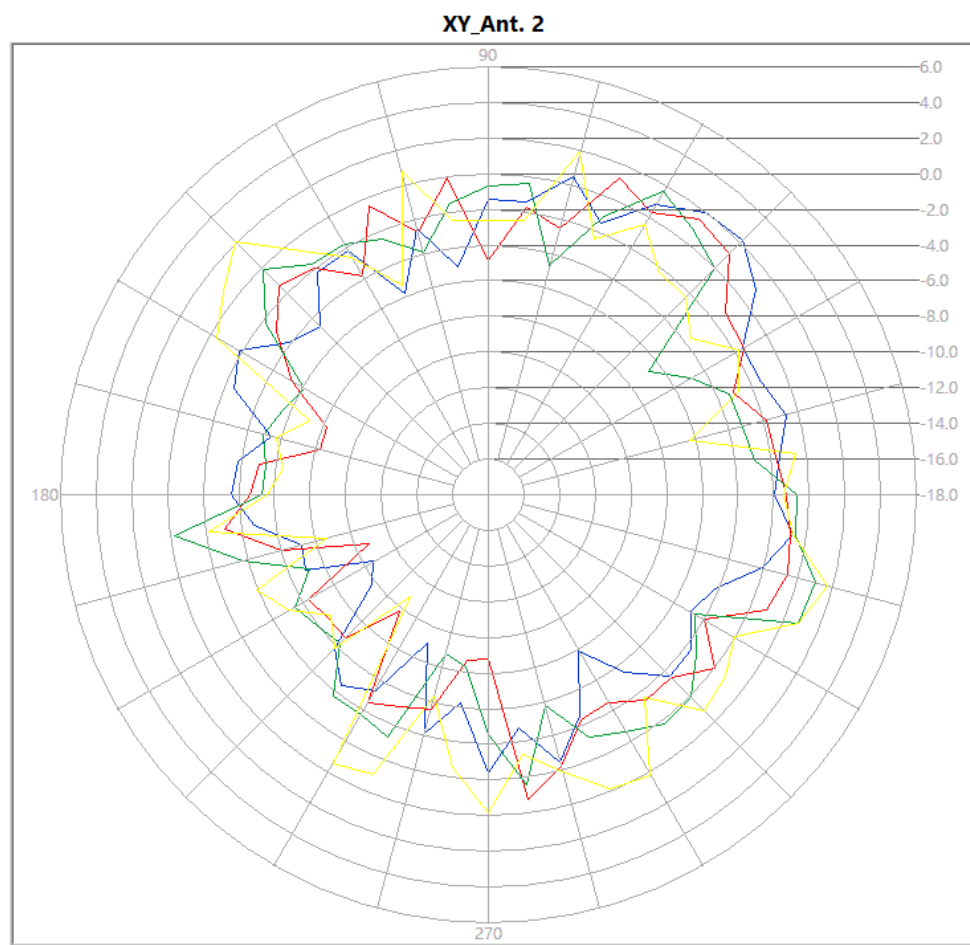
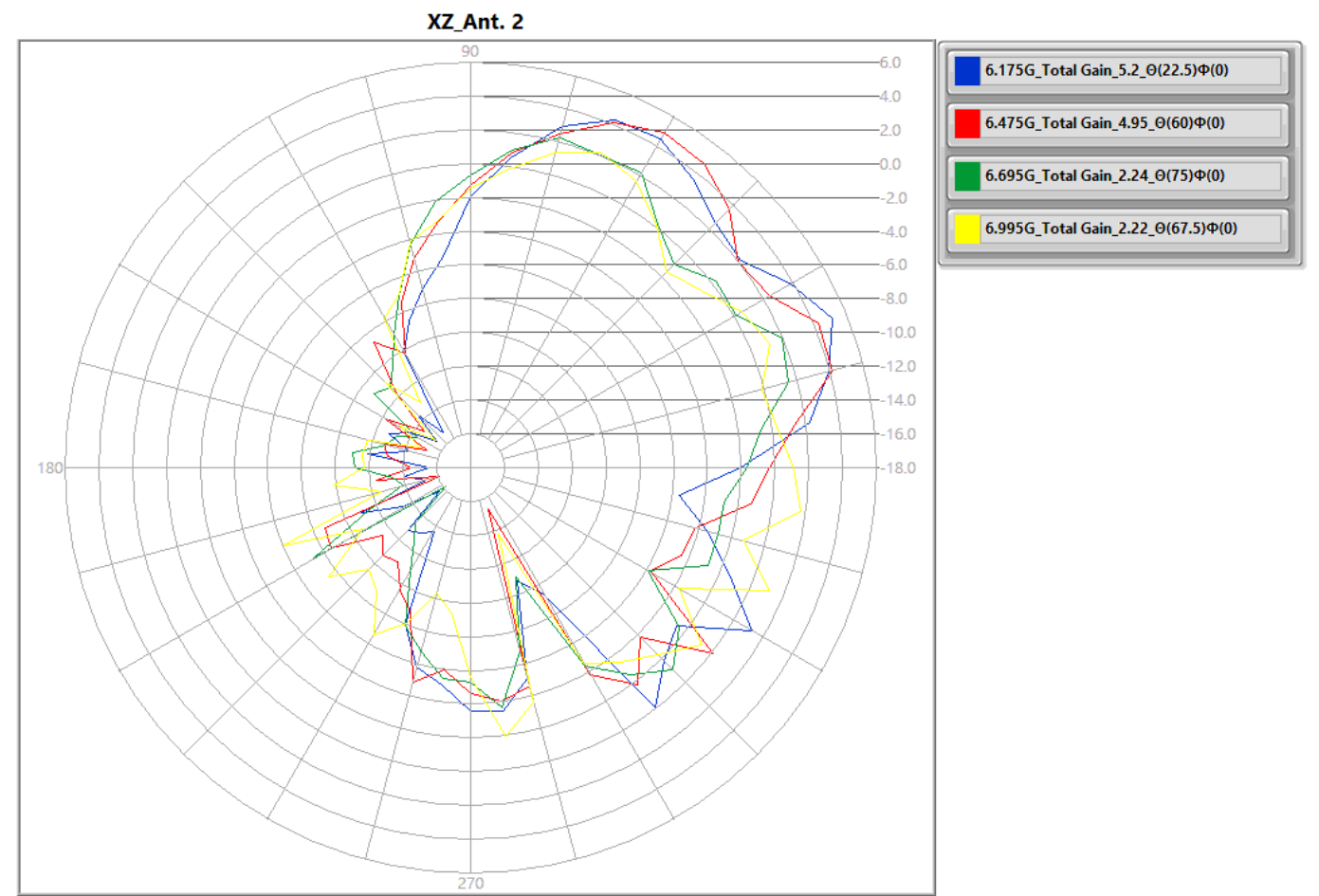
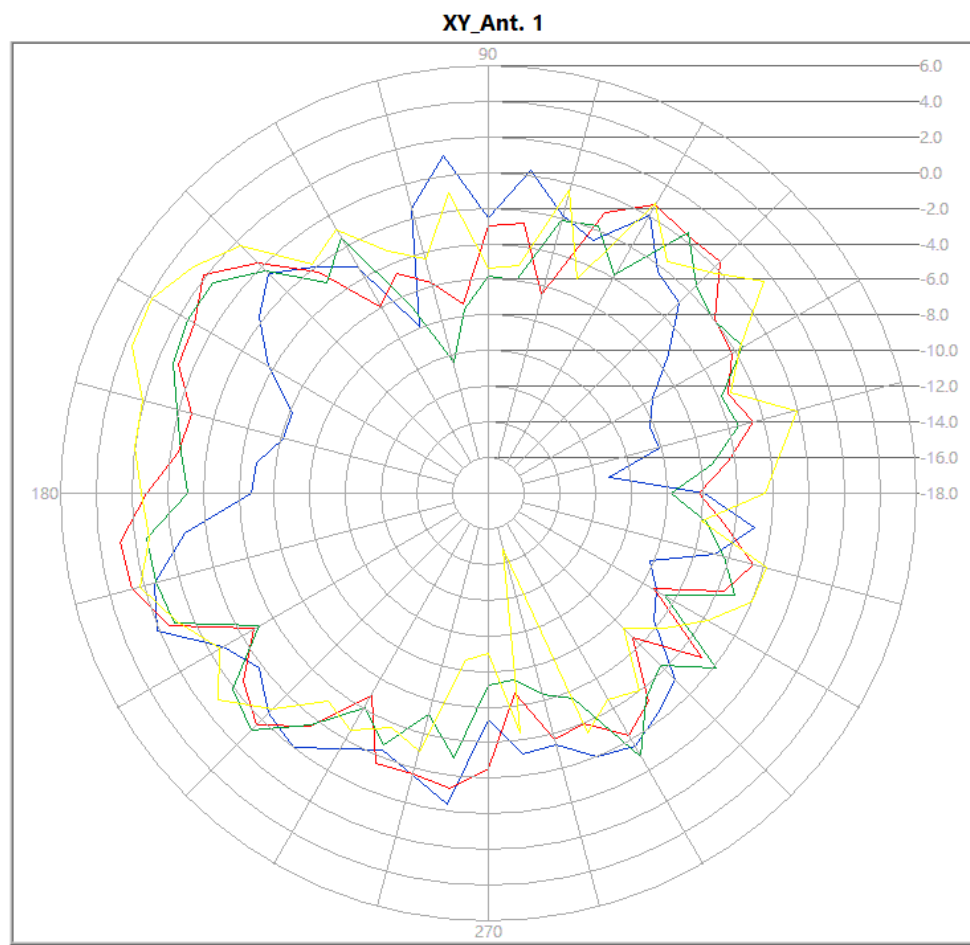


Antenna Pattern of 6GHz

Appendix E

Θ(22.5°)	5.204/85	4.484/17	4.104/26	4.193/52	2.120/44	-1.091/-137	-0.59/-0.08	0.230/11	0.02/-0.14	-0.34/-0.60	-1.22/-1.79	-1.45/-1.18	-1.41/-2.03	-3.14/-3.68	-3.60/-4.05	-5.46/-7.10	-8.39/-9.26	-10.00/-7.65	-4.25/-1.67	0.161/00	1.35/-1.55	2.032/71	3.544/32	4.915/19
Θ(30°)	3.79/3.27	2.86/3.06	3.66/4.37	5.105/50	5.123/92	2.78/1.84	1.110/71	-0.13/-1.26	-1.74/-1.71	-1.90/-2.89	-2.88/-2.00	-0.450/95	1.26/0.46	-1.03/-3.26	-4.58/-3.47	-3.83/-5.62	-7.74/-9.32	-7.72/-5.18	-2.60/-0.07	1.38/1.57	1.09/0.86	1.262/06	3.063/82	4.134/04
Θ(37.5°)	2.16/2.01	1.59/1.98	3.013/60	3.734/19	4.334/06	3.692/63	1.000/76	0.42/-0.47	-0.85/-1.38	-2.75/-5.16	-4.24/-4.31	-4.29/-3.55	-2.67/-1.75	-1.18/-3.08	-5.71/-4.94	-3.66/-4.29	-5.13/-6.24	-6.02/-4.79	-3.02/-1.21	-0.73/-0.95	-0.18/1.00	2.162/72	3.072/93	2.642/30
Θ(45°)	2.46/2.82	3.05/2.51	2.67/2.96	1.94/1.34	1.64/1.20	1.190/-49	-1.77/-1.43	-1.37/-0.37	-1.04/-2.56	-4.10/-4.77	-1.180/05	-0.65/-1.29	-1.77/-3.15	-3.20/-3.49	-5.77/-3.41	-1.86/-2.62	-4.32/-5.96	-7.34/-7.63	-4.25/-3.03	-4.58/-3.31	-0.58/-1.15	2.172/80	3.043/04	2.972/79
Θ(52.5°)	3.58/3.38	4.06/3.37	2.58/3.52	3.173/02	3.33/-1.44	0.51/-1.10	-3.68/-3.42	-4.07/-1.12	-3.48/-6.08	-6.45/-3.37	-0.92/0.06	0.09/-0.37	-0.09/-0.92	-2.42/-3.71	-7.72/-6.26	-3.80/-4.91	-5.89/-7.42	-10.52/-9.98	-6.48/-6.68	-6.46/-3.07	-0.57/-1.35	2.242/39	2.873/46	3.853/72
Θ(60°)	4.48/3.77	4.07/3.85	3.14/4.39	4.884/61	5.133/78	2.87/0.46	-3.27/-3.46	-4.33/-1.12	-5.61/-13.77	-9.69/-8.19	-4.40/-2.76	-2.95/-5.69	-9.36/-8.19	-6.56/-5.44	-6.34/-8.95	-7.48/-9.16	-10.53/-9.35	-8.24/-10.97	-8.68/-8.03	-4.16/-2.57	-0.29/-1.33	2.45/-1.62	1.992/79	3.754/47
Θ(67.5°)	4.28/3.84	3.98/3.99	3.51/4.59	5.89/5.50	5.60/4.46	3.26/0.68	-2.30/-2.91	-2.42/0.06	-4.74/-6.99	-6.81/-5.58	-4.76/-6.15	-9.53/-14.00	-10.76/-8.48	-5.74/-5.76	-3.38/-6.33	-5.50/-6.87	-7.76/-8.17	-3.93/-7.34	-4.81/-2.55	-0.95/-1.14	-0.41/0.47	1.20/-0.26	0.29/1.72	2.953/97
Θ(75°)	2.89/2.69	2.57/2.87	2.65/4.15	5.46/4.82	4.77/3.47	1.69/0.81	-0.57/-1.06	-2.05/-0.66	-2.59/-2.21	-3.80/-3.54	-2.72/-4.55	-10.44/-6.93	-5.05/-3.22	-2.87/-4.77	-4.31/-4.31	-3.36/-4.69	-5.41/-10.11	-1.88/-5.26	-1.96/-1.44	0.06/-0.99	-2.41/-0.78	0.20/-1.78	-0.88/-0.08	1.602/65
Θ(82.5°)	0.48/0.67	0.97/1.36	1.11/2.61	3.91/3.78	3.41/1.01	0.81/0.21	-0.04/-2.28	-1.37/-3.28	-2.37/-2.35	-3.21/-2.11	-1.00/-2.74	-6.13/-3.37	-3.45/-2.49	-4.08/-6.30	-6.01/-5.46	-2.54/-3.42	-5.27/-11.16	-1.63/-4.64	-1.34/-2.32	-0.09/-2.85	-3.62/-3.01	-1.96/-2.53	-3.23/-2.42	0.15/-1.19
Θ(90°)	-1.98/-1.53	-0.72/-1.45	-1.52/0.96	2.19/1.97	0.78/-1.52	0.48/-1.45	-1.45/-5.09	-2.51/-5.80	-2.19/-2.25	-4.67/-3.97	-1.86/-2.52	-5.36/-3.80	-3.57/-4.76	-7.19/-6.92	-10.57/-9.74	-5.79/-4.47	-5.34/-9.02	-4.12/-6.20	-2.37/-4.81	-2.44/-4.57	-7.89/-5.46	-3.59/-3.69	-4.91/-4.27	-2.07/-0.79
Θ(97.5°)	-5.38/-4.32	-3.18/-5.04	-4.14/-2.21	-0.39/-0.91	-1.00/-5.02	-1.39/-4.09	-3.24/-7.75	-3.34/-7.81	-3.36/-4.99	-7.53/-6.62	-3.73/-5.11	-7.60/-5.44	-5.07/-9.03	-9.30/-9.70	-12.83/-11.37	-8.08/-6.23	-9.09/-9.50	-6.77/-7.71	-5.74/-8.65	-5.92/-7.29	-11.43/-7.69	-5.75/-6.35	-5.28/-5.86	-4.08/-3.19
Θ(105°)	-6.98/-5.95	-6.50/-4.96	-5.41/-4.11	-1.83/-4.35	-3.45/-5.40	-2.98/-6.30	-6.26/-9.26	-5.55/-9.23	-4.79/-5.43	-8.91/-9.41	-5.73/-5.29	-8.25/-9.49	-5.78/-8.12	-10.30/-10.92	-15.17/-14.56	-11.52/-10.91	-10.82/-12.88	-10.72/-9.41	-10.04/-10.83	-12.65/-11.03	-5.96/-6.30	-7.49/-8.66	-6.58/-4.95	
Θ(112.5°)	-8.57/-7.48	-7.31/-7.67	-6.47/-6.09	-4.83/-6.10	-5.01/-4.93	-6.92/-7.28	-9.27/-8.08	-6.80/-9.40	-8.36/-9.89	-14.16/-9.00	-6.09/-6.48	-8.74/-8.76	-7.98/-7.91	-11.51/-9.96	-13.86/-13.44	-8.13/-10.74	-10.99/-14.83	-9.09/-10.79	-12.19/-11.72	-10.80/-8.99	-14.67/-8.52	-7.36/-11.66	-10.05/-8.66	-8.02/-9.57
Θ(120°)	-10.11/-8.46	-8.58/-7.86	-7.67/-8.80	-8.66/-5.80	-7.32/-6.70	-8.76/-8.79	-10.02/-10.41	-8.51/-9.82	-8.83/-10.38	-14.91/-10.37	-8.92/-8.17	-10.54/-11.71	-13.66/-9.36	-11.09/-10.06	-11.41/-16.05	-13.53/-13.21	-13.17/-14.35	-10.98/-10.36	-9.29/-11.62	-11.85/-12.55	-10.86/-7.97	-14.22/-13.05	-9.65/-11.69	
Θ(127.5°)	-15.37/-13.16	-9.74/-9.55	-12.75/-10.67	-11.51/-10.46	-7.35/-7.47	-7.81/-9.20	-13.16/-11.84	-11.79/-10.96	-9.48/-12.99	-12.64/-11.34	-8.93/-10.57	-12.73/-12.77	-13.10/-10.53	-9.30/-10.92	-14.15/-15.68	-14.76/-11.64	-15.07/-14.35	-11.50/-13.71	-12.10/-13.71	-11.62/-11.29	-15.40/-10.03	-13.13/-15.14	-13.60/-12.24	-13.34/-14.02
Θ(135°)	-13.57/-11.25	-10.46/-10.92	-7.80/-10.22	-14.20/-9.09	-9.83/-9.70	-7.41/-11.16	-10.91/-13.69	-13.57/-13.52	-9.19/-10.30	-13.79/-11.97	-11.70/-13.65	-13.83/-14.94	-12.79/-11.66	-9.87/-14.42	-15.93/-15.22	-15.40/-10.92	-14.77/-14.15	-11.22/-10.87	-11.43/-13.00	-11.99/-12.05	-10.16/-14.98	-12.97/-12.49	-14.73/-15.34	-14.64/-15.41
Θ(142.5°)	-15.43/-12.57	-10.16/-8.75	-12.38/-15.88	-9.90/-11.58	-12.17/-10.82	-12.71/-15.40	-9.32/-12.07	-15.40/-14.23	-9.96/-10.63	-14.76/-12.71	-12.94/-14.27	-15.15/-15.10	-13.65/-11.47	-10.06/-14.51	-13.71/-14.33	-15.13/-12.66	-14.19/-13.38	-13.98/-11.92	-13.65/-14.50	-12.33/-14.42	-13.13/-14.83	-15.18/-15.88	-15.55/-15.45	-15.19/-14.47
Θ(150°)	-13.91/-11.37	-11.19/-13.08	-12.80/-10.90	-10.35/-8.03	-6.33/-6.63	-12.58/-12.26	-13.54/-15.83	-15.54/-12.31	-13.54/-13.89	-14.13/-11.01	-11.32/-15.08	-13.35/-9.83	-10.62/-14.74	-12.89/-13.71	-15.28/-14.91	-15.04/-14.92	-15.44/-14.77	-15.18/-15.58	-15.29/-14.26	-12.67/-13.35	-15.12/-16.23	-14.58/-15.10	-14.58/-15.10	-15.34/-14.57
Θ(157.5°)	-12.77/-13.97	-14.64/-15.19	-15.76/-13.62	-10.04/-9.66	-11.28/-11.15	-8.71/-8.88	-12.79/-14.87	-15.38/-15.13	-13.95/-13.99	-14.41/-15.22	-15.92/-13.32	-11.50/-10.93	-10.99/-13.69	-15.59/-14.71	-15.46/-16.02	-14.70/-13.17	-14.71/-12.92	-12.54/-14.69	-14.46/-14.61	-15.23/-15.15	-15.54/-15.06	-13.54/-15.36	-15.34/-15.36	-15.34/-13.74
Θ(165°)	-14.20/-14.47	-14.41/-14.29	-14.31/-14.94	-15.62/-14.41	-11.87/-11.04	-11.58/-13.96	-15.04/-15.54	-13.40/-13.63	-15.00/-15.70	-14.84/-15.68	-15.13/-15.18	-15.36/-15.15	-15.21/-14.93	-14.12/-11.42	-9.95/-12.12	-15.20/-15.12	-12.74/-11.48	-12.91/-15.43	-14.87/-15.42	-14.40/-15.15	-15.43/-15.19	-13.68/-12.65	-13.53/-14.25	-15.79/-15.05
Θ(172.5°)	-11.87/-11.64	-12.59/-14.57	-15.56/-15.23	-13.09/-13.62	-13.89/-13.20	-13.14/-14.32	-15.37/-14.90	-14.63/-14.71	-13.59/-14.70	-15.43/-14.69	-15.44/-14.67	-13.70/-12.99	-14.06/-14.93	-14.71/-15.29	-16.12/-15.65	-15.42/-14.86	-14.10/-13.78	-13.92/-13.69	-13.47/-13.06	-13.09/-12.41	-12.18/-11.98			
Θ(180°)	-15.55/-14.78	-15.30/-14.85	-13.93/-13.78	-14.52/-14.47	-14.73/-14.50	-14.36/-13.71	-12.70/-12.00	-11.43/-11.26	-11.17/-11.24	-11.31/-11.81	-12.10/-12.86	-13.98/-14.47	-13.97/-13.95	-13.79/-13.38	-14.32/-15.21	-14.91/-14.91	-14.90/-15.00	-15.56/-15.36	-15.42/-14.65	-14.09/-15.13	-14.94/-14.84	-15.64/-15.51	-14.69/-15.06	
Freq(Hz)	6.475/6Pol.	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°)	-0.29/-0.62	-0.76/-0.60	-0.53/-0.81	-0.68/-0.71	-0.56/-0.33	-0.36/-0.39	-0.35/-0.37	-0.40/-0.41	-0.52/-0.72	-1.10/-1.31	-1.38/-1.18	-1.19/-1.18	-1.37/-1.65	-1.56/-1.28	-0.96/-0.60	-0.41/-0.16	0.00/0.23	0.44/0.53	0.68/0.74	0.86/1.03	0.94/0.80	0.71/0.58	0.30/0.22	0.40/-0.20
Θ(7.5°)	1.35/1.42	1.70/2.10	2.35/2.71	3.043/26	3.192/88	2.39/1.91	1.23/0.67	0.04/0.49	-0.87/-1.34	-1.82/-2.04	-1.84/-1.62	-1.64/-1.47	-1.29/-1.35	-1.48/-1.35	-1.14/-0.60	-0.48/-0.76	-1.31/-1.44	-1.38/-1.25	-1.17/-0.90	-0.53/-0.07	0.00/0.38	0.550/75	0.89/1.12	1.21/-1.25
Θ(15°)	4.17/4.11	4.12/4.31	4.48/4.49	4.34/4.42	4.38/4.16	3.49/2.16	-2.91/-3.39	-2.58/-1.99	-1.76/-2.05	-2.68/-3.13	-2.39/-3.72	-4.26/-5.16	-6.14/-5.96	-1.40/-3.10	-1.92/-1.39	-1.30/-1.29	-1.53/-1.39	-0.51/0.73	1.75/2.32	2.36/2.38	2.28/2.20	2.68/2.29	3.84/4.18	
Θ(22.5°)	4.30/4.10	3.90/3.89	4.01/3.91	3.70/3.71	3.72/3.10	1.42/-1.24	-4.25/-5.02	-3.49/-2.23	-1.79/-1.76	-2.30/-3.18	-4.49/-5.42	-5.63/-5.11	-4.49/-3.59	-2.96/-2.14	-2.14/-2.98	-4.00/-4.16	-4.06/-4.21	-4.39/-2.98	-1.10/0.34	1.17/1.57	2.10/2.65	2.91/3.08	3.41/3.69	4.06/4.28
Θ(30°)	2.39/2.42	2.09/1.81	1.87/2.72	3.81/4.55	4.80/4.31	2.87/0.61	-1.52/-1.14	-0.25/-0.65	-1.94/-2.69	-3.29/-4.14	-4.63/-4.24	-3.03/-2.73	-5.77/-12.44	-9.47/-5.33	-3.87/-4.00	-4.17/-5.14	-7.38/-8.51	-5.60/-1.17	1.06/1.68	1.87/1.94	2.60/3.31	4.12/4.40	4.14/5.58	3.06/2.33
Θ(37.5°)	1.99/1.40	1.19/1.50	1.88/3.09	4.19/4.45	4.75/5.11	4.26/2.89	1.15/0.26	0.50/-0.95	-2.09/-1.76	-1.73/-3.54	-4.91/-3.13	-0.25/0.79	0.12/-2.61	-5.37/-6.64	-6.58/-6.52	-3.90/-5.37	-10.13/-10.62	-4.09/-0.93	-0.21/-0.23	0.52/1.15	1.32/1.96	2.99/3.64	3.35/3.08	3.21/2.77
Θ(45°)	3.65/2.30	1.17/1.58	1.09/1.53	2.79/2.02	0.87/1.18	0.30/0.27	0.40/-1.34	-0.72/-1.07	0.39/1.23	0.40/-2.04	-5.27/-3.71	-3.32/-4.43	-3.84/-1.52	-0.32/-1.71	-5.68/-11.05	-5.68/-4.83	-9.09/-10.51	-6.00/-1.54	-0.99/-0.64	-0.39/-1.62	-2.69/-0.55	1.59/2.87	3.34/3.68	4.06/4.27
Θ(52.5°)	4.66/4.29	2.78/2.63	2.12/0.67	1.66/0.68	-0.34/-0.24	-3.18/-2.05	-1.78/-2.37	-0.71/-0.92	0.45/0.63	0.44/0.33	0.91/1.40	-0.07/-0.86	-1.76/-0.97	0.08/-1.16	-5.48/-12.20	-11.97/-10.99	-9.56/-8.72	-8.10/-4.19	-3.06/-2.74	-1.82/-1.79	-1.64/0.85	2.08/2.35	2.44/3.00	3.53/4.32
Θ(60°)	4.95/5.28	3.92/2.62	2.93/1.69	3.29/3.40	2.14/2.89	0.25/-0.29	-1.77/-1.44	0.64/0.23	-2.53/-4.35	-3.40/-2.42	-2.31/-1.25	-3.10/-4.01	-3.88/4.10	-3.10/-4.33	-5.72/-14.88	-12.24/-10.35	-6.20/-9.68	-10.12/-9.25	-7.42/-3.62	-1.97/-0.08	-0.18/1.07	2.00/1.60	1.08/1.29	2.86/3.99
Θ(67.5°)	4.14/4.56	3.66/2.02	2.94/2.71	4.74/4.98	3.50/3.70	1.88/2.39	-0.02/-0.05	0.74/-0.27	-3.24/-7.97	-4.79/-4.85	-4.03/-2.35	-4.66/-13.59	-15.31/-13.19	-9.39/-6.14	-5.52/-8.04	-5.72/-4.10	-11.20/-9.65	-6.48/-0.77	0.23/-0.10	1.08/1.34	1.54/0.96	-1.02/3.53	2.30/3.06	
Θ(75°)	2.43/2.76	2.21/0.48	1.67/2.20	4.45/4.63	3.37/3.22																			

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 Scan Radio and BLE

Appendix F

Total Gain Data

Freq(Hz)	2.45G/Pol.	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°)	-2.06/-1.86	-1.95/-2.26	-2.21/-2.38	-2.58/-2.76	-2.95/-3.08	-3.08/-3.08	-2.53/-2.87	-4.59/-3.08	-1.63/-1.30	-1.17/-1.13	-1.24/-1.50	-1.33/-1.33	-1.19/-1.16	-1.84/-2.28	-1.37/-1.20	-1.68/-1.70	-1.84/-2.28	-2.15/-1.80	-1.37/-1.20	-2.95/-3.31	-3.14/-2.47			
Θ(7.5°)	-1.25/-0.98	-0.95/-1.20	-1.72/-2.32	-2.90/-3.43	-3.81/-4.04	-4.11/-3.96	-3.74/-3.66	-3.43/-3.18	-2.76/-2.27	-1.80/-1.45	-1.33/-1.51	-1.80/-1.98	-1.89/-1.64	-1.44/-1.41	-1.48/-1.58	-1.61/-1.58	-1.47/-1.41	-1.45/-1.53	-1.59/-1.57	-1.39/-1.03	-0.83/-0.29	-0.18/-0.35	-0.77/-1.18	-1.51/-1.51
Θ(15°)	-0.06/-0.06	0.09/-0.12	-0.66/-1.36	-2.05/-2.63	-3.02/-3.16	-2.98/-2.73	-2.63/-2.69	-2.70/-2.55	-2.21/-1.72	-1.18/-0.64	-0.36/-0.43	-0.67/-0.89	-0.95/-0.79	-0.64/-0.60	-0.67/-0.80	-0.94/-1.04	-1.15/-1.38	-1.77/-2.20	-2.50/-2.60	-2.47/-2.16	-1.70/-1.18	-0.56/-0.05	0.30/-0.41	0.27/-0.01
Θ(22.5°)	0.36/-0.27	0.26/-0.15	-0.13/-0.46	-0.67/-0.80	-0.89/-0.83	-0.61/-0.47	-0.50/-0.58	-0.57/-0.51	-0.36/-0.22	0.05/-0.43	0.66/-0.59	0.40/-0.10	-0.18/-0.29	-0.30/-0.41	-0.52/-0.55	-0.52/-0.61	-0.83/-1.19	-1.69/-2.11	-2.29/-2.37	-2.39/-2.28	-1.00/-0.31	0.29/-0.69	0.82/-0.62	
Θ(30°)	0.18/-0.08	-0.30/-0.32	-0.22/-0.02	0.35/-0.63	0.74/-0.78	0.82/-0.80	0.74/-0.76	0.82/-0.93	0.93/-0.81	0.67/-0.59	0.60/-0.65	0.87/-1.01	0.78/-0.33	-0.20/-0.69	-1.03/-0.88	-0.47/-0.17	-0.10/-0.28	-0.51/-0.50	-0.18/-0.15	0.35/-0.32	0.14/-0.06	-0.13/-0.06	0.12/-0.25	0.41/-0.40
Θ(37.5°)	-0.12/-0.06	-0.28/-0.53	-0.43/-0.04	0.61/-0.95	0.95/-0.84	0.62/-0.41	0.29/-0.34	0.49/-0.72	0.85/-0.87	0.74/-0.41	0.02/-0.04	0.53/-1.13	1.18/-0.65	-0.09/-0.77	-1.26/-1.00	-0.26/-0.50	1.00/-0.97	0.78/-0.88	1.30/-1.74	1.93/-1.81	1.48/-1.10	0.76/-0.39	0.03/-0.33	-0.48/-0.38
Θ(45°)	0.14/-0.61	0.58/-0.00	-0.42/-0.18	0.21/-0.24	-0.11/-0.35	-0.60/-0.87	-1.18/-1.34	-1.15/-0.69	-0.26/-1.10	0.30/-0.24	-0.14/-0.56	-0.41/-0.19	0.61/-0.54	0.16/-0.39	-1.00/-1.13	-0.28/-1.09	1.96/-1.97	1.62/-1.51	1.95/-2.47	2.69/-2.51	2.06/-1.62	1.32/-1.06	0.77/-0.45	0.07/-0.17
Θ(52.5°)	0.93/-1.19	1.36/-0.70	-0.23/-0.45	-0.41/-0.85	-1.36/-1.50	-1.44/-1.78	-2.34/-2.48	-1.95/-1.28	-0.83/-0.48	-0.05/-0.26	0.18/-0.38	-0.94/-0.89	-0.51/-0.33	-0.33/-0.48	-0.83/-1.18	-0.06/-1.67	2.52/-2.49	2.14/-2.04	2.51/-3.14	3.46/-3.21	2.47/-1.65	1.24/-1.27	1.49/-1.75	1.71/-1.19
Θ(60°)	1.30/-1.36	1.60/-0.97	-0.33/-1.20	-1.48/-1.80	-1.60/-1.05	-1.14/-1.84	-2.58/-2.47	-1.56/-0.78	-0.51/-0.54	-0.42/-0.05	0.13/-0.30	-1.20/-1.66	-1.57/-1.52	-1.42/-1.03	-0.85/-1.35	-0.50/-1.23	2.24/-2.45	2.27/-2.20	2.57/-3.23	3.67/-3.35	2.24/-0.82	-0.06/-0.08	0.84/-1.66	2.12/-1.73
Θ(67.5°)	0.81/-0.94	1.23/-0.73	-0.52/-1.87	-3.01/-3.12	-1.38/-0.62	-1.24/-2.34	-2.82/-2.34	-1.26/-0.36	-0.11/-0.48	-0.86/-0.62	-0.28/-0.41	-1.01/-1.51	-2.21/-3.04	-2.76/-1.66	-1.39/-1.82	-0.99/-0.62	1.68/-1.93	1.87/-1.84	2.14/-2.84	3.43/-3.07	1.70/-0.14	-1.70/-1.78	-0.42/-0.87	1.57/-1.29
Θ(75°)	0.07/-0.13	0.35/-0.19	-1.10/-2.23	-3.88/-4.04	-1.67/-1.10	-2.29/-3.30	-3.36/-3.10	-2.10/-0.81	-0.24/-0.59	-1.32/-1.40	-0.78/-0.43	-1.01/-2.01	-3.49/-5.13	-4.72/-2.98	-2.35/-2.62	-1.96/-0.62	0.38/-0.60	0.91/-1.26	1.46/-2.30	3.19/-2.90	1.40/-0.65	-2.69/-3.22	-1.44/-0.21	0.88/-0.58
Θ(82.5°)	-1.14/-0.91	-0.53/-1.13	-2.13/-3.18	-4.71/-4.17	-1.88/-2.11	-4.03/-4.08	-3.42/-3.30	-2.41/-1.15	-0.53/-0.17	-2.11/-2.52	-1.89/-1.83	-2.60/-3.67	-4.96/-6.04	-5.17/-3.53	-2.72/-2.46	-2.25/-1.82	-1.35/-1.10	0.11/-0.69	0.57/-1.42	2.38/-1.82	-0.15/-2.79	-5.44/-5.57	-2.98/-0.90	-0.22/-0.59
Θ(90°)	-3.03/-2.73	-1.95/-2.02	-2.85/-4.12	-5.83/-4.41	-1.95/-2.58	-6.01/-5.62	-3.65/-3.24	-2.61/-1.47	-0.84/-1.30	-2.66/-3.83	-3.53/-2.78	-2.82/-3.62	-5.41/-7.12	-7.73/-4.92	-2.96/-2.63	-3.14/-3.58	-3.92/-3.43	-1.11/-0.34	-0.96/-0.05	1.18/-0.65	-1.46/-4.40	-9.47/-9.61	-5.26/-2.88	-1.94/-2.20
Θ(97.5°)	-5.37/-5.36	-4.19/-3.65	-3.72/-5.11	-7.47/-4.81	-1.89/-2.36	-6.17/-7.07	-5.19/-4.68	-3.78/-2.63	-2.10/-2.47	-4.05/-4.90	-3.76/-2.73	-3.42/-5.75	-7.67/-8.96	-6.72/-3.73	-3.04/-3.90	-4.87/-5.78	-6.26/-4.18	-1.57/-1.20	-2.18/-1.06	0.16/-0.69	-2.94/-5.87	-12.36/-13.66	-7.35/-4.85	-3.71/-4.03
Θ(105°)	-6.13/-7.55	-7.44/-7.17	-5.62/-5.69	-8.38/-6.21	-2.77/-2.50	-5.27/-7.75	-6.87/-5.85	-4.79/-3.83	-3.41/-3.44	-4.08/-4.48	-4.04/-3.81	-5.23/-6.13	-8.31/-7.48	-5.99/-4.27	-4.44/-5.68	-6.15/-6.97	-7.23/-5.40	-3.00/-3.94	-5.10/-3.94	-2.06/-2.72	-4.31/-5.77	-9.08/-12.74	-11.49/-8.10	-5.37/-6.47
Θ(112.5°)	-5.52/-6.01	-1.85/-2.02	-8.99/-7.24	-8.32/-6.21	-2.76/-2.18	-4.28/-6.38	-5.97/-4.94	-3.98/-3.23	-3.13/-3.48	-5.65/-5.62	-5.94/-6.11	-7.25/-7.61	-6.33/-5.41	-4.82/-5.34	-7.78/-9.44	-10.19/-10.33	-7.68/-6.93	-4.80/-6.09	-10.05/-6.36	-4.00/-4.37	-4.50/-4.48	-5.89/-8.12	-10.65/-10.52	-7.59/-6.53
Θ(120°)	-8.09/-6.23	-4.96/-6.13	-8.22/-8.71	-10.45/-7.84	-3.06/-1.45	-2.54/-4.69	-5.52/-4.52	-3.33/-2.74	-3.00/-3.93	-5.29/-6.20	-6.31/-6.07	-6.90/-7.66	-6.56/-5.81	-6.34/-8.52	-9.49/-7.41	-6.40/-6.29	-7.88/-7.23	-5.88/-7.22	-8.04/-5.00	-4.08/-5.64	-6.39/-5.90	-6.50/-7.96	-8.95/-7.80	-7.22/-7.95
Θ(127.5°)	-11.84/-9.80	-6.62/-6.38	-6.82/-7.13	-9.22/-10.50	-5.32/-2.61	-2.66/-4.54	-5.59/-4.79	-3.64/-3.33	-3.86/-4.71	-5.31/-5.54	-5.77/-6.87	-8.97/-8.83	-7.26/-6.71	-8.05/-9.15	-8.67/-8.95	-9.56/-11.46	-11.80/-8.12	-6.35/-7.05	-6.81/-9.44	-4.60/-6.00	-6.85/-6.81	-7.66/-9.06	-8.84/-8.63	-5.59/-5.75
Θ(135°)	-9.47/-11.20	-11.02/-10.01	-8.27/-7.14	-7.79/-9.14	-7.79/-9.14	-3.83/-4.61	-6.07/-6.20	-5.20/-4.62	-4.72/-5.02	-5.18/-5.52	-6.61/-6.89	-9.57/-7.86	-6.24/-6.41	-8.29/-10.44	-12.09/-14.35	-15.02/-11.93	-9.06/-9.63	-6.38/-7.26	-7.55/-6.43	-5.97/-6.38	-6.62/-6.93	-8.33/-10.02	-10.24/-7.39	-5.96/-7.02
Θ(142.5°)	-9.74/-10.17	-10.18/-8.64	-6.47/-5.51	-6.41/-8.62	-8.71/-6.99	-5.82/-5.49	-6.04/-5.56	-6.47/-6.16	-6.07/-5.92	-5.99/-6.66	-8.09/-8.61	-6.44/-8.71	-11.88/-11.80	-9.89/-9.87	-8.56/-9.38	-9.56/-9.07	-9.21/-8.90	-8.44/-8.22	-8.70/-9.47	-9.52/-10.08	-12.92/-15.33	-12.82/-9.75	-10.66/-8.86	
Θ(150°)	-11.92/-11.73	-9.82/-6.99	-4.52/-4.30	-3.82/-5.76	-9.05/-11.82	-10.75/-9.17	-7.90/-7.11	-6.64/-6.38	-6.27/-6.12	-5.88/-6.01	-6.45/-6.73	-6.98/-7.70	-9.26/-11.08	-10.86/-9.20	-7.87/-7.42	-7.68/-8.52	-9.67/-10.83	-12.00/-12.80	-13.03/-15.19	-14.51/-12.12	-10.12/-6.67	-8.44/-8.93	-8.10/-8.87	-9.09/-10.29
Θ(157.5°)	-9.54/-9.38	-8.09/-6.20	-4.41/-3.28	-3.09/-3.91	-5.56/-7.85	-9.83/-10.64	-10.57/-10.25	-9.42/-8.53	-7.57/-6.86	-6.52/-6.73	-7.40/-6.39	-9.81/-10.91	-10.77/-9.84	-9.11/-8.65	-8.23/-7.70	-7.17/-6.80	-6.97/-7.66	-8.97/-11.48	-14.38/-15.06	-13.37/-9.80	-7.61/-6.33	-5.74/-5.87	-6.61/-7.48	-7.98/-8.39
Θ(165°)	-10.89/-9.36	-8.09/-7.08	-6.12/-5.27	-4.83/-4.88	-5.47/-6.33	-7.18/-7.84	-8.48/-9.00	-8.89/-8.09	-7.16/-6.80	-7.10/-8.02	-8.72/-8.98	-9.38/-9.30	-9.52/-10.34	-11.69/-12.24	-10.90/-9.03	-7.59/-6.84	-6.58/-6.74	-7.41/-8.61	-10.32/-11.56	-11.38/-10.98	-10.13/-9.68	-9.66/-10.23	-11.40/-12.57	-13.06/-12.29
Θ(172.5°)	-10.56/-9.18	-8.34/-7.89	-7.65/-7.32	-7.20/-7.20	-7.58/-8.03	-8.33/-8.32	-8.23/-8.02	-7.66/-7.40	-7.45/-7.79	-8.27/-8.22	-8.20/-7.99	-8.10/-8.81	-9.86/-10.29	-10.82/-9.91	-8.79/-9.98	-7.59/-7.48	-7.54/-7.77	-8.25/-9.00	-9.96/-11.01	-11.71/-12.11	-12.57/-13.14	-13.81/-14.44	-14.84/-14.67	-13.96/-11.97
Θ(180°)	-7.68/-7.24	-7.22/-7.37	-7.40/-7.24	-7.23/-7.29	-7.71/-8.27	-8.87/-8.95	-8.44/-7.99	-7.60/-7.44	-7.56/-7.92	-8.41/-8.72	-8.85/-8.97	-9.18/-9.48	-9.74/-9.75	-9.06/-8.51	-8.34/-8.69	-9.29/-9.68	-9.67/-9.69	-9.97/-10.36	-10.81/-11.02	-11.10/-10.92	-10.43/-9.75	-9.00/-8.32	-7.91/-8.09	-8.19/-7.98
Freq(Hz)	5.2G/Pol.	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°)	0.09/-0.02	0.06/-0.12	0.32/-0.37	0.51/-0.76	1.08/-0.96	0.91/-1.02	0.81/-0.98	1.21/-1.18	0.98/-1.06	1.05/-0.91	0.76/-0.37	0.27/-0.44	0.20/-0.15	0.47/-0.52	0.73/-0.90	0.98/-0.95	0.94/-0.96	0.92/-0.96	1.23/-1.34	1.23/-1.29	1.09/-1.04	0.87/-0.67	0.56/-0.57	0.50/-0.60
Θ(7.5°)	2.07/-1.63	0.77/-0.28	0.27/-0.32	-0.05/-0.14	-0.11/-0.58	-0.66/-0.58	-0.81/-0.41	0.23/-0.61	1.02/-1.06	1.31/-1.52	1.80/-1.79	1.32/-1.15	1.07/-0.98	0.66/-0.33	0.26/-0.06	-0.68/-1.04	-1.40/-1.57	-1.40/-0.83	-0.16/-0.14	0.14/-0.74	1.21/-1.29	1.34/-1.84	1.98/-1.78	1.87/-2.30
Θ(15°)	2.41/-2.46	1.55/-0.02	-1.20/-1.01	-0.84/-0.09	0.29/-0.12	-0.50/-1.16	-1.18/-0.20	0.48/-0.10	1.56/-1.79	1.58/-1.61	2.05/-2.21	1.93/-1.70	1.43/-0.69	-0.29/-1.09	-1.73/-2.26	-2.58/-2.42	-2.64/-2.30	-1.60/-1.08	-0.74/-0.55	-0.40/-0.27	0.93/-0.75	0.59/-1.17	1.21/-1.65	
Θ(22.5°)	3.06/-2.35	2.77/-1.51	0.31/-0.11	-1.02/-0.39	-0.12/-0.03	-0.21/-0.63	0.54/-1.77	2.67/-2.91	2.61/-2.01	0.98/-0.88	1.87/-2.35	2.38/-2.71	2.52/-1.16	-0.91/-2.53	-3.90/-5.67	-4.88/-2.76	-1.76/-1.39	-0.98/-0.39	0.38/-0.37	-0.03/-0.42	-0.77/-0.40	0.82/-1.60	1.81/-1.81	1.86/-2.13
Θ(30°)	0.95/-2.42	2.16/-0.48	-0.02/-0.51	-0.06/-0.48	0.04/-0.32	-0.43/-0.15	0.91/-1.63	1.78/-1.29	0.03/-1.57	-2.81/-3.44	-2.29/-1.12	-0.10/-0.92	0.30/-1.85	-2.69/-2.22	-3.14/-6.13	-5.28/-2.13	-1.14/-0.88	-0.69/-0.85	-0.15/-0.33	1.04/-2.11	2.88/-3.10	2.72/-2.05	2.29/-2.64	2.03/-0.59
Θ(37.5°)	-0.57/-0.92	1.65/-0.44	-1.04/-2.36	-1.19/-1.81	1.17/-0.81	-0.97/-1.23	1.92/-0.96	-0.76/-2.65	-1.73/-1.14	-4.77/-6.51	-7.53/-3.38	-0.18/-0.22	-2.79/-8.33	-6.15/-3.29	-5.70/-10.13	-6.01/-3.03	-2.26/-2.29	-1.09/-1.40	-0.26/-2.49	1.94/-6.23	2.72/-2.06	1.63/-1.70	1.30/-1.89	2.44/-0.89
Θ(45°)	-0.11/-1.30	0.33/-0.42	-1.22/-3.53	1.29/-2.46	1.75/-0																			



Antenna Pattern of Scan Radio and BLE

Appendix F

Θ(22.5°)	-0.32/-2.32	-3.23/-2.38	-1.61/-0.12	0.91/1.19	1.40/2.01	2.41/3.03	3.09/2.81	2.10/1.13	0.35/-0.35	-0.74/-0.71	-0.95/-0.73	0.65/1.77	2.49/3.22	3.27/2.44	0.95/-1.61	-4.30/-4.12	-2.50/-2.48	-2.70/-2.15	-0.85/0.48	1.11/0.45	0.20/0.94	0.99/0.62	1.01/0.66	0.44/-1.16
Θ(30°)	0.95/-0.52	-3.44/-5.92	-3.98/0.04	1.43/1.28	0.43/1.83	3.70/3.97	2.74/1.69	0.50/-0.69	-0.99/-1.01	-1.35/-1.40	-1.75/-2.70	-2.44/-1.35	-2.29/-2.39	-2.45/-1.94	-0.94/-2.38	-6.03/-4.32	-0.97/-0.12	0.06/-0.13	0.19/0.97	0.99/0.53	1.15/1.87	2.21/2.83	2.98/2.19	1.80/1.33
Θ(37.5°)	2.52/2.66	-1.12/-4.29	-3.32/-0.71	0.25/0.64	0.03/0.18	2.25/2.27	0.36/-0.70	-1.43/-0.59	0.71/0.25	-1.06/-0.29	-0.05/-1.42	-3.05/-3.93	-7.03/-5.33	-1.01/-1.99	-4.00/-4.49	-7.43/-2.60	1.16/-1.12	0.10/-0.16	-0.82/-0.17	0.80/1.80	2.90/2.80	1.02/-0.35	0.28/-1.42	1.81/0.31
Θ(45°)	1.98/0.40	1.40/-2.32	-1.47/0.47	-0.72/-0.72	-1.01/0.15	1.53/1.00	-1.46/-1.93	-1.29/-0.62	-0.48/-2.34	-2.19/0.50	1.06/-0.69	-3.12/-5.36	-4.93/-4.99	-13.82/-15.48	-8.60/-4.64	-9.64/-5.43	-0.33/-0.48	-1.75/-0.08	0.66/1.81	1.67/2.46	3.18/1.93	2.08/0.31	2.57/2.09	1.87/1.80
Θ(52.5°)	-1.15/-0.10	0.83/-1.02	-1.15/0.39	-1.03/-2.89	-0.56/-1.72	1.98/-0.26	-1.65/-0.46	-0.92/-0.63	-1.01/-2.24	-1.24/-0.81	-1.13/-1.77	-3.10/-2.00	-2.85/-4.85	-12.01/-10.89	-7.28/-4.66	-10.02/-4.30	-2.58/-4.98	-0.03/-0.49	0.96/2.12	1.80/3.16	4.09/4.68	5.08/3.71	1.33/0.03	0.46/0.84
Θ(60°)	1.13/-1.79	-2.09/-1.52	-1.58/-1.32	-1.94/-1.68	0.54/0.48	1.87/0.40	0.61/0.81	0.09/1.06	0.16/-0.07	-0.96/-4.72	-4.78/-4.41	-5.04/-2.77	-1.18/-2.73	-4.67/-6.56	-7.35/-2.26	-3.23/-1.79	-1.18/-2.74	-2.82/0.71	0.59/0.67	1.21/1.73	0.81/2.78	4.06/1.73	-2.52/-1.29	0.96/1.13
Θ(67.5°)	1.67/0.83	-3.99/-1.48	-2.32/-3.38	-1.98/0.07	-0.06/-2.20	1.90/1.21	1.41/0.64	1.15/1.66	0.18/1.25	-0.25/-3.81	-6.32/-6.93	-6.49/-3.47	-3.10/-5.20	-2.64/-5.36	-3.74/-1.46	-1.47/0.26	0.37/-0.83	-0.01/0.03	1.48/1.27	1.88/2.62	1.45/3.34	3.26/-0.04	-2.01/-1.49	0.77/1.26
Θ(75°)	1.76/1.50	-3.30/-1.02	-3.75/-4.25	-2.52/-0.20	-1.58/-4.82	1.37/1.09	0.16/-1.32	0.52/0.73	-0.02/-1.65	0.88/-0.80	-5.43/-6.70	-5.85/-4.30	-3.98/-6.80	-3.08/-3.75	-2.57/-1.04	-0.68/0.65	0.35/-0.49	1.87/4.47	2.89/1.81	1.96/4.46	4.04/3.55	2.19/-0.77	-1.86/-2.65	-0.88/0.36
Θ(82.5°)	0.93/0.59	-2.85/-1.29	-5.51/-5.35	-3.22/-2.05	-4.93/-5.30	0.17/-0.31	-2.06/-2.21	-0.41/-0.62	-0.19/1.03	-0.06/0.85	-6.03/-6.84	-4.75/-5.38	-4.42/-7.60	-3.22/-4.43	-2.24/-1.05	-0.33/-0.37	-1.03/-0.59	1.48/4.29	3.04/2.29	0.84/4.86	4.94/2.96	1.37/-1.67	-4.63/-5.27	-2.24/-0.28
Θ(90°)	-0.42/-1.05	-4.51/-3.22	-8.37/-8.38	-4.23/-3.55	-8.38/-5.33	-1.29/-1.92	-4.62/-3.96	-2.26/-2.28	-1.16/0.12	-1.70/-1.84	-4.86/-6.08	-4.89/-5.52	-2.80/-7.74	-4.07/-3.78	-3.15/-1.76	-0.45/-1.55	-2.31/-2.17	-0.13/-1.49	2.14/1.17	-2.79/2.93	4.52/1.58	-1.71/-4.34	-7.94/-4.85	-3.51/-0.84
Θ(97.5°)	-3.87/-5.01	-6.69/-5.67	-9.41/-8.68	-5.40/-5.04	-10.32/-5.63	-2.02/-2.96	-6.22/-4.96	-3.67/-3.57	-2.39/-1.09	-3.02/-3.36	-5.01/-5.34	-6.15/-4.23	-9.22/-8.05	-4.99/-4.85	-3.65/-2.44	-1.48/-3.41	-3.86/-3.49	-2.69/-2.98	-1.18/-1.81	-6.12/-0.93	1.37/-0.49	-6.49/-7.13	-8.78/-9.33	-1.45/-0.98
Θ(105°)	-8.78/-7.84	-5.63/-7.54	-7.84/-8.96	-6.57/-5.70	-12.11/-7.51	-4.51/-1.11	-8.86/-8.57	-5.86/-6.31	-4.66/-4.11	-3.07/-4.88	-5.25/-4.34	-6.15/-5.81	-6.25/-6.99	-5.16/-4.11	-5.74/-6.56	-2.16/-4.88	-3.50/-7.96	-3.31/-6.47	-10.07/-7.79	-6.31/-3.00	-6.29/-10.36	-8.21/-4.96	-6.10/-6.29	
Θ(112.5°)	-6.77/-6.36	-6.73/-6.70	-10.29/-7.28	-6.05/-9.33	-10.11/-9.49	-6.39/-5.34	-9.40/-8.50	-5.56/-6.09	-5.93/-5.62	-4.00/-5.29	-6.60/-6.79	-9.69/-2.75	-5.02/-7.58	-5.08/-7.63	-5.71/-5.02	-6.35/-6.43	-3.34/-1.98	-6.11/-3.85	-4.90/-5.04	-8.27/-6.12	-6.92/-5.21	-6.08/-12.27	-7.99/-8.64	-11.06/-12.00
Θ(120°)	-7.41/-8.07	-10.77/-11.25	-10.78/-10.95	-7.86/-12.50	-9.32/-9.94	-8.64/-5.39	-9.80/-6.62	-6.63/-5.32	-6.85/-8.31	-6.22/-4.96	-3.67/-3.57	-2.39/-1.09	-3.02/-3.36	-5.01/-5.34	-6.15/-4.23	-9.22/-8.05	-4.99/-4.85	-3.65/-2.44	-1.48/-3.41	-3.86/-3.49	-2.69/-2.98	-1.18/-1.81	-6.12/-0.93	1.37/-0.49
Θ(127.5°)	-13.86/-10.11	-11.05/-12.06	-8.89/-15.01	-7.76/-11.06	-10.56/-10.50	-9.17/-6.96	-13.26/-8.00	-5.58/-5.74	-7.80/-4.27	-5.82/-7.00	-6.77/-5.40	-7.12/-6.40	-6.38/-11.50	-10.09/-9.41	-8.62/-12.77	-15.23/-12.31	-11.55/-13.03	-10.45/-9.72	-11.37/-9.70	-11.32/-8.78	-9.61/-12.42	-14.20/-11.38	-9.28/-12.16	-13.55/-8.99
Θ(135°)	-11.01/-10.95	-13.53/-15.17	-10.15/-8.83	-8.38/-13.15	-13.57/-8.82	-10.03/-6.40	-12.55/-8.37	-8.26/-7.28	-4.94/-7.16	-5.18/-7.97	-8.56/-11.11	-8.03/-7.26	-4.68/-10.40	-8.99/-10.86	-9.74/-10.81	-7.68/-13.36	-15.27/-13.07	-15.15/-13.63	-14.15/-9.91	-6.73/-7.53	-13.83/-11.87	-11.94/-6.32	-8.71/-12.47	-12.33/-9.30
Θ(142.5°)	-11.13/-10.88	-10.63/-11.97	-8.47/-9.79	-15.68/-8.49	-7.86/-12.52	-8.58/-7.81	-9.29/-7.38	-4.37/-5.58	-4.67/-6.10	-8.58/-8.53	-12.82/-11.33	-8.65/-4.77	-10.09/-9.41	-8.62/-12.77	-15.23/-12.31	-11.55/-13.03	-10.45/-9.72	-11.37/-9.70	-11.32/-8.78	-9.61/-12.42	-14.20/-11.38	-9.28/-12.16	-13.55/-8.99	
Θ(150°)	-12.82/-11.60	-11.74/-11.56	-10.93/-9.74	-9.09/-8.58	-10.85/-10.51	-8.49/-7.62	-7.56/-9.45	-8.44/-10.11	-14.44/-11.34	-4.82/-8.36	-8.11/-10.26	-11.18/-9.20	-10.61/-10.50	-10.06/-11.61	-10.48/-10.85	-14.41/-12.31	-15.41/-15.34	-14.92/-14.59	-16.10/-15.70	-12.60/-15.18	-12.86/-15.04	-15.26/-15.15	-15.21/-12.16	-10.13/-12.44
Θ(157.5°)	-10.77/-12.63	-11.99/-11.76	-13.23/-14.27	-13.99/-12.43	-9.71/-9.13	-10.00/-9.36	-9.43/-10.70	-11.21/-8.84	-8.22/-9.57	-11.11/-12.32	-11.93/-9.14	-7.77/-9.57	-12.76/-13.57	-13.74/-12.51	-11.91/-12.70	-12.86/-11.83	-14.40/-14.60	-14.39/-15.28	-15.62/-14.87	-12.50/-13.80	-15.70/-16.07	-13.51/-13.70	-14.64/-15.38	-13.48/-10.87
Θ(165°)	-14.39/-14.49	-11.57/-11.24	-10.59/-10.26	-10.99/-11.13	-11.14/-12.97	-11.92/-9.70	-8.82/-10.49	-13.73/-15.84	-15.13/-15.24	-13.75/-12.74	-11.80/-10.94	-11.52/-14.85	-15.40/-15.08	-11.23/-10.01	-11.30/-14.95	-15.95/-15.80	-15.28/-15.30	-11.57/-15.10	-13.44/-14.57	-15.79/-15.51	-15.66/-15.33	-15.16/-11.67	-11.20/-12.06	-12.23/-15.67
Θ(172.5°)	-13.97/-13.51	-11.98/-12.25	-12.25/-12.96	-13.83/-15.30	-12.18/-10.70	-8.90/-8.40	-8.67/-9.38	-11.28/-12.93	-12.99/-14.31	-13.86/-13.41	-12.50/-13.00	-13.88/-11.26	-11.40/-13.67	-13.50/-11.70	-11.75/-11.67	-11.14/-10.03	-9.42/-9.54	-9.88/-9.93	-11.06/-13.34	-12.77/-12.97	-12.86/-13.52	-12.41/-11.92	-12.29/-13.84	-10.63/-15.06
Θ(180°)	-10.16/-10.14	-9.38/-9.04	-10.14/-11.30	-11.37/-11.07	-11.30/-12.44	-13.65/-12.40	-11.32/-11.61	-13.10/-14.03	-13.65/-12.78	-12.41/-12.64	-12.51/-12.48	-11.79/-13.06	-12.63/-11.02	-10.92/-12.03	-11.21/-12.45	-14.08/-14.67	-14.08/-12.36	-11.60/-11.33	-10.90/-10.52	-10.51/-9.99	-9.69/-10.30	-11.45/-10.99	-10.75/-11.36	
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°)	2.29/2.14	2.50/2.81	2.76/2.43	2.49/2.41	2.39/2.30	2.31/2.53	2.22/1.87	2.14/2.36	2.12/2.05	2.18/2.20	2.31/2.48	2.35/2.28	2.25/2.12	2.13/2.03	1.94/1.94	1.97/1.97	2.03/1.95	1.71/0.86	2.30/2.51	2.05/2.18	2.47/2.16	2.26/2.64	2.27/2.28	2.53/2.36
Θ(7.5°)	0.20/0.02	0.49/0.80	0.90/0.91	1.65/2.24	2.78/3.18	3.44/3.59	3.60/3.13	2.95/3.06	2.95/2.62	2.44/2.42	2.34/2.43	2.22/2.05	2.09/2.01	2.14/2.20	2.20/2.29	2.34/2.45	2.58/2.77	2.91/3.05	3.25/3.32	2.91/2.10	2.02/1.89	1.18/0.84	0.65/0.29	0.76/0.46
Θ(15°)	1.17/0.88	0.76/0.77	0.50/-0.12	0.56/1.49	2.33/3.21	4.01/3.32	4.42/3.95	3.21/2.77	2.05/-1.42	1.14/0.98	1.38/1.97	2.46/3.01	4.00/4.69	5.23/5.37	4.51/2.98	0.79/-1.05	1.06/0.19	0.82/0.62	-0.07/-0.54	-1.23/-1.97	-1.90/-0.70	0.41/0.89	1.41/1.69	1.03/1.05
Θ(22.5°)	-1.16/-0.86	-0.78/-0.74	0.59/1.19	1.40/1.45	1.59/1.94	2.53/3.01	2.69/1.32	-0.66/-1.40	-0.91/-0.81	-1.34/-1.61	-2.14/-2.90	-2.46/-2.46	-0.76/-1.41	2.43/3.48	3.96/3.28	1.48/-0.89	-1.34/-0.42	0.17/0.14	-0.18/0.07	0.96/1.85	2.15/1.10	-0.11/-0.84	-1.34/-0.65	0.84/0.30
Θ(30°)	0.08/-3.00	-1.21/-0.54	1.57/1.43	-0.26/-0.58	0.84/-1.52	0.86/0.12	-0.86/-2.08	-1.35/0.59	1.61/1.38	1.35/1.80	2.31/1.92	1.17/0.92	-1.05/-1.92	-1.64/-3.34	-1.45/-0.67	-1.20/-3.31	-2.96/-0.57	0.59/0.88	1.19/1.69	1.78/1.42	0.75/0.39	1.79/3.54	3.84/-1.72	0.64/2.36
Θ(37.5°)	-0.82/-4.57	-4.62/-0.92	2.15/1.03	-1.32/-2.29	-1.30/0.38	0.61/-1.35	-2.45/-1.47	-0.72/0.26	0.42/0.47	1.23/1.63	1.59/1.67	0.67/0.17	0.18/-2.67	-4.57/-5.70	-3.27/4.90	-3.22/-4.53	-0.78/1.18	1.09/0.61	0.96/0.68	1.53/2.58	2.70/2.41	2.05/2.50	3.15/2.44	1.72/1.27
Θ(45°)	1.57/-0.61	-4.79/-2.22	1.42/-0.62	-2.42/-1.48	-0.48/-0.20	-0.84/-1.37	-0.12/0.26	-0.97/-0.60	-0.38/-0.43	-0.43/-0.52	-0.22/0.54	-0.16/-1.30	-1.57/-1.16	-0.06/-4.45	-4.26/-4.94	-2.43/-5.38	-1.61/1.70	0.36/0.75	1.98/1.47	2.21/2.62	3.23/2.80	-0.11/-0.73	1.28/1.14	2.57/3.42
Θ(52.5°)	0.50/-0.20	-0.31/-2.46	-0.26/-1.17	-1.12/0.41	0.63/0.11	-0.18/0.88	1.95/1.69	0.44/0.97	0.17/-0.94	-4.13/-5.80	-3.49/-2.92	-2.91/-2.89	-3.17/-5.04	-2.31/-0.78	-3.19/-3.36	-2.25/-6.30	-2.02/0.40	-0.31/0.73	3.08/3.42	2.49/2.37	4.83/4.08	2.22/1.60	2.59/1.83	0.60/1.83
Θ(60°)	0.17/1.08	0.34/-0.82	-2.77/-1.86	-0.47/1.89	-0.95/1.23	0.67/1.38	0.92/1.58	0.59/1.34	1.11/-0.30	-2.54/-5.06	-6.38/-1.06	-5.76/-2.35	-1.59/-4.11	-0.32/0.36	-4.16/-4.85	-3.88/-3.13	-1.32/1.19	-1.10/0.38	0.98/1.80	1.63/0.07	2.23/1.64	2.20/1.36	-0.92/-3.20	-2.36/0.40
Θ(67.5°)	3.29/0.05	-0.19/0.47	-3.12/-2.27	0.20/1.63	-1.84/1.77	0.32/-0.32	0.07/0.28	0.09/0.98	1.59/-0.06	-1.95/-5.44	-7.99/-6.70	-5.42/-2.34	-2.08/-4.60	-1.52/-1.01	-1.59/-2.37	-1.09/0.05	0.12/2.51	1.50/2.14	1.21/2.43	3.54/3.23	1.50/0.74	1.88/0.33	-4.65/-6.50	-0.22/0.32
Θ(75°)	3.51/1.51	0.14/0.84	-2.67/-2.74	-0.59/-0.87	-0.63/0.08	0.86/-2.66	-2.23/-1.97	-0.38/-0.48	0.79/-0.16															



Antenna Pattern of Scan Radio and BLE

Appendix F

θ(75°)	0.11/1.52	0.81/4.99	-2.43/-0.93	-5.42/-0.94	0.15/0.70	-0.14/-0.08	0.82/4.05	-3.80/-1.62	0.56/1.22	0.88/0.35	-5.20/0.66	-2.50/-2.20	-4.60/-3.74	-2.93/-3.54	-5.38/-5.86	-2.29/-1.20	-1.50/-0.03	2.97/2.57	1.73/3.58	4.74/1.98	0.31/1.60	1.18/2.31	-0.01/-1.67	0.31/1.41
θ(82.5°)	-1.02/0.57	-1.00/-4.30	-3.33/-1.58	-7.19/-2.79	-3.40/0.82	-1.18/0.79	0.43/-3.42	-2.70/-2.82	0.54/0.69	0.20/-0.91	-5.77/-1.76	-5.01/-1.78	-5.97/-5.38	-3.86/-4.89	-6.69/-5.09	-2.82/1.62	-2.23/-1.70	3.73/2.99	1.78/4.34	4.75/4.37	2.59/2.62	1.70/1.19	-0.38/-5.41	0.50/0.90
θ(90°)	-2.70/-1.23	-4.83/-5.04	-3.87/-2.74	-9.63/-4.12	-0.93/-3.28	-0.49/-0.79	-1.68/-6.45	-2.40/-1.79	-0.91/-0.72	-2.30/-2.03	-6.51/-3.44	-6.41/-4.43	-7.31/-5.61	-1.25/-5.98	-5.76/0.73	-1.60/-7.33	1.92/2.00	1.05/2.89	3.31/4.14	1.85/0.35	0.25/-1.67	-0.96/-7.28	-0.64/-1.91	
θ(97.5°)	-4.44/-1.45	-7.94/-6.38	-5.71/-3.49	-7.58/-5.22	-2.78/-7.72	-1.21/-3.02	-3.89/-8.08	-4.63/-2.76	-2.47/-2.62	-4.75/-4.03	-4.20/-6.09	-8.59/-4.86	-6.37/-5.89	-9.51/-7.56	-7.34/-7.31	-5.75/-2.86	-3.56/-9.99	-1.36/-2.11	-2.44/-1.04	0.56/1.23	-0.43/-4.56	-3.18/-2.70	-3.01/-6.99	-3.51/-3.35
θ(102.5°)	-5.00/-5.02	-7.66/-11.95	-6.81/-7.11	-9.62/-6.01	-5.43/-5.15	-4.96/-5.01	-4.33/-9.93	-5.10/-5.28	-3.72/-0.57	-7.59/-1.77	-6.40/-6.17	-9.04/-6.68	-10.35/-8.16	-12.56/-7.19	-9.64/-12.40	-9.47/-6.72	-6.19/-8.25	-5.56/-6.43	-6.60/-5.47	-4.49/-4.77	-4.87/-8.42	-7.21/-2.35	-6.30/-5.23	-0.69/-5.53
θ(115°)	-5.59/-5.04	-7.73/-9.06	-9.51/-8.65	-11.13/-7.31	-6.77/-7.38	-5.03/-8.21	-8.63/-12.52	-10.91/-4.55	-3.22/-8.33	-6.86/-7.07	-7.01/-8.25	-10.24/-6.70	-10.67/-7.07	-7.82/-9.38	-13.48/-14.02	-12.33/-9.73	-8.61/-6.74	-4.58/-8.39	-4.90/-5.75	-3.35/-3.54	-6.73/-9.93	-5.22/-4.79	-6.45/-7.57	-9.67/-10.72
θ(120°)	-5.08/-5.90	-10.49/-12.15	-12.85/-7.96	-9.75/-7.40	-6.30/-10.80	-6.80/-7.78	-7.59/-10.25	-6.43/-3.85	-8.19/-7.63	-9.89/-9.46	-15.19/-11.81	-9.81/-8.66	-11.43/-6.11	-8.13/-13.39	-14.45/-15.68	-12.27/-12.54	-8.53/-8.40	-9.60/-11.02	-8.30/-6.14	-6.57/-7.25	-4.81/-9.38	-5.10/-6.48	-8.12/-12.23	-12.61/-7.18
θ(127.5°)	-6.79/-7.31	-11.58/-8.82	-11.84/-9.28	-9.08/-8.29	-9.79/-6.64	-7.93/-10.65	-8.64/-8.91	-10.76/-7.06	-7.83/-7.16	-9.83/-13.98	-12.78/-10.43	-12.06/-9.42	-10.96/-8.53	-11.55/-11.79	-13.63/-13.14	-14.03/-8.25	-14.93/-14.20	-9.35/-15.17	-13.03/-10.99	-5.01/-6.90	-7.77/-8.84	-9.15/-10.68	-9.10/-12.49	-14.53/-7.47
θ(135°)	-8.59/-9.43	-12.75/-8.51	-13.84/-8.76	-12.01/-10.28	-10.28/-7.37	-8.03/-9.25	-7.45/-13.10	-7.79/-7.45	-4.81/-8.98	-14.93/-15.41	-12.07/-10.36	-13.76/-11.82	-8.96/-8.68	-9.03/-15.97	-15.10/-10.21	-13.26/-6.35	-6.51/-14.21	-8.53/-9.62	-7.30/-8.36	-3.50/-4.34	-9.87/-8.39	-3.62/-9.01	-14.45/-10.57	-9.15/-7.41
θ(142.5°)	-9.43/-9.59	-8.99/-9.17	-11.87/-8.42	-14.92/-9.18	-8.95/-8.86	-10.72/-10.25	-8.16/-11.11	-10.14/-9.34	-11.63/-10.90	-9.86/-12.17	-15.51/-11.85	-11.83/-15.93	-9.58/-8.59	-12.35/-13.04	-15.27/-10.97	-13.67/-10.25	-14.20/-11.59	-10.40/-10.73	-10.57/-16.10	-9.28/-5.38	-10.33/-14.18	-14.21/-10.41	-13.76/-10.90	-13.46/-13.61
θ(150°)	-4.75/-12.58	-14.59/-10.70	-14.66/-10.80	-13.17/-9.17	-11.01/-13.06	-8.77/-9.33	-9.95/-10.12	-13.69/-9.37	-8.12/-9.39	-12.82/-14.08	-11.50/-10.06	-15.67/-15.53	-15.10/-10.82	-11.16/-12.12	-14.72/-11.63	-15.14/-15.49	-15.84/-15.12	-15.44/-14.68	-9.19/-8.86	-10.21/-9.25	-11.65/-15.42	-15.90/-14.11	-8.08/-8.59	-10.88/-7.85
θ(157.5°)	-13.93/-12.32	-9.77/-12.26	-13.76/-11.32	-10.35/-8.10	-9.73/-13.26	-11.77/-11.13	-14.29/-13.76	-12.51/-11.24	-12.28/-11.65	-12.11/-12.93	-13.58/-14.11	-11.39/-8.40	-11.44/-14.78	-9.39/-10.94	-15.17/-15.22	-15.84/-15.80	-14.67/-11.94	-14.27/-15.83	-15.28/-15.04	-12.66/-14.77	-14.77/-10.49	-12.10/-11.98	-13.14/-11.93	
θ(165°)	-8.28/-10.25	-12.31/-16.23	-14.61/-11.12	-9.52/-10.38	-14.42/-13.22	-11.35/-9.93	-9.92/-10.98	-12.93/-15.80	-15.43/-13.68	-12.92/-11.96	-11.23/-13.34	-15.28/-15.48	-16.15/-13.56	-12.06/-11.67	-12.38/-15.68	-13.74/-13.10	-15.50/-16.02	-15.12/-15.65	-15.31/-15.33	-15.93/-14.30	-15.56/-11.91	-7.15/-6.77	-11.44/-16.10	-9.88/-8.59
θ(172.5°)	-16.20/-12.39	-10.70/-11.48	-11.62/-13.13	-13.39/-13.16	-10.80/-10.41	-9.85/-9.85	-9.89/-10.65	-12.82/-14.87	-16.45/-15.21	-15.55/-15.06	-15.75/-15.76	-14.93/-14.35	-14.25/-13.81	-14.22/-14.85	-15.73/-15.19	-15.09/-10.99	-14.50/-14.03	-15.53/-15.67	-15.44/-14.26	-15.21/-14.27	-13.33/-12.66	-11.81/-11.18	-11.84/-12.61	-12.71/-14.27
θ(180°)	-12.95/-13.53	-11.93/-12.27	-14.33/-13.83	-13.84/-14.71	-15.58/-15.33	-15.01/-15.01	-15.82/-14.18	-12.79/-13.37	-13.37/-13.82	-14.91/-14.02	-14.33/-13.41	-11.87/-11.66	-12.48/-13.79	-13.14/-15.15	-15.46/-15.76	-15.87/-14.89	-15.32/-14.85	-12.88/-13.14	-12.76/-11.81	-12.17/-12.50	-12.42/-13.42	-13.92/-13.70	-13.34/-14.14	-14.77/-14.28
Freq(Hz)	2.45GPol.	Total/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
θ(0°)	2.70/2.70	2.68/2.64	2.51/2.32	2.13/1.97	1.87/1.73	1.51/1.33	1.17/1.02	0.86/0.91	1.14/1.32	1.36/1.23	1.02/0.86	0.94/1.22	1.50/1.73	1.89/1.98	1.89/1.68	1.47/1.39	1.31/1.16	0.99/0.91	0.85/0.85	0.93/1.03	1.14/1.24	1.42/1.78	2.11/2.33	2.46/2.56
θ(7.5°)	2.352/4.7	2.472/3.29	2.201/1.96	1.79/1.73	1.78/1.80	1.82/1.79	1.77/1.68	1.56/1.59	1.73/1.91	1.99/1.97	1.80/1.62	1.58/1.73	1.97/2.20	2.37/2.41	2.31/2.08	1.89/1.78	1.57/1.33	1.10/1.02	0.96/0.87	0.82/0.82	0.87/0.91	1.01/1.18	1.39/1.62	1.86/2.12
θ(15°)	2.782/5.6	2.157/1.72	1.270/0.98	0.98/1.18	1.46/1.70	1.82/1.84	1.80/1.70	1.63/1.66	1.80/1.90	1.95/1.94	1.99/1.90	1.77/1.66	1.70/1.93	2.20/2.47	2.60/2.60	2.52/2.35	2.07/1.80	1.61/1.59	1.73/1.93	2.19/2.43	2.68/2.85	2.92/3.91	2.84/2.78	2.77/2.83
θ(22.5°)	3.012/4.29	1.81/1.08	0.35/-0.11	0.00/0.48	0.98/1.30	1.39/1.21	0.91/0.59	0.35/0.34	0.50/0.67	0.76/0.87	1.07/1.20	1.06/0.71	0.47/0.50	0.92/1.49	1.99/2.33	2.45/2.37	2.10/1.87	1.79/1.99	2.37/2.79	3.18/3.51	3.73/3.83	3.84/3.78	3.69/3.59	3.47/3.33
θ(30°)	2.38/1.69	1.07/0.55	-0.04/-0.54	-0.51/-0.00	0.60/1.00	1.04/0.67	0.10/-0.59	-1.18/-1.46	-1.32/-0.99	-0.75/-0.57	-0.35/-0.12	-0.02/-0.09	-0.30/-0.50	-0.45/-0.09	0.59/1.27	1.79/1.97	1.84/1.60	1.57/1.95	2.52/2.99	3.26/3.32	3.22/3.04	2.90/2.94	3.09/3.25	3.26/2.97
θ(37.5°)	1.70/0.87	0.40/0.24	0.05/-0.25	-0.37/-0.06	0.53/1.05	1.20/0.91	0.37/-0.34	-0.95/-1.16	-1.11/-1.08	-1.15/-1.36	-1.77/-2.23	-2.32/-1.94	-1.30/-0.82	-0.75/-0.88	-0.70/-0.05	0.78/1.18	1.17/0.85	0.78/1.35	2.07/2.39	2.21/1.67	1.17/0.86	0.92/1.33	1.90/2.51	2.78/2.47
θ(45°)	1.10/0.23	-0.16/0.01	0.35/0.45	0.34/0.37	0.77/1.31	1.50/1.27	0.76/0.10	-0.36/-0.37	-0.26/-0.43	-0.84/-1.36	-2.27/-3.74	-5.15/-5.07	-3.43/-2.03	-1.55/-1.96	-2.66/-2.73	-1.88/-1.01	-0.63/-0.77	-0.59/0.60	1.72/1.90	1.04/-0.36	-1.24/-1.03	-0.24/0.63	1.37/1.99	2.27/1.94
θ(52.5°)	0.93/0.05	-0.40/0.06	0.89/1.26	1.13/0.84	0.97/1.41	1.54/1.18	0.55/-0.09	-0.37/-0.18	-0.03/-0.29	-0.69/-0.98	-1.79/-3.05	-3.92/-3.84	-2.89/-1.86	-1.45/-1.84	-2.87/-3.91	-3.86/-2.83	-1.92/-1.71	-1.01/0.74	2.02/2.07	0.92/-0.76	-1.47/-0.70	0.32/0.99	1.43/1.75	1.90/1.64
θ(60°)	0.62/-0.36	-0.63/0.07	0.91/1.11	0.87/0.53	0.51/0.88	1.16/1.03	0.58/0.24	0.10/0.17	-0.01/-0.61	-0.08/-0.93	-1.28/-2.36	-2.93/-2.78	-2.41/-1.75	-1.31/-1.65	-2.62/-3.93	-4.17/-2.52	-0.92/-0.55	-0.40/0.85	2.04/2.16	1.36/0.51	0.48/1.06	1.52/1.66	1.68/1.72	1.73/1.43
θ(67.5°)	-0.35/-1.29	-1.22/-0.57	0.10/0.42	0.43/0.39	0.48/0.87	1.40/1.39	0.97/0.75	0.82/0.73	0.02/-1.33	-2.03/-1.73	-2.32/-3.29	-2.94/-2.25	-1.71/-1.16	-0.96/-1.24	-2.07/-3.52	-4.46/-3.01	-1.20/-0.56	-0.28/0.96	2.06/1.96	1.18/0.75	1.05/1.56	1.82/1.71	1.35/1.09	0.98/0.54
θ(75°)	-1.02/-1.75	-1.72/-0.91	0.11/0.49	0.19/-0.08	-0.09/0.13	0.80/1.12	0.57/0.22	0.42/0.41	-0.58/-2.73	-4.26/-3.40	-3.65/-4.40	-3.63/-2.49	-1.69/-0.74	-0.16/-0.14	-0.62/-1.68	-3.05/-3.32	-2.05/-1.14	-0.92/0.34	1.74/1.97	1.39/0.87	0.89/1.14	1.25/0.74	-0.33/-0.97	-0.67/-0.46
θ(82.5°)	-0.86/-1.85	-1.83/-0.87	-0.40/-0.80	-1.59/-1.32	-0.88/-0.55	0.61/1.28	0.77/0.35	0.41/0.10	-1.60/-5.10	-6.20/-4.29	-4.30/-5.09	-3.78/-2.63	-2.17/-1.19	-0.72/-0.98	-1.18/-1.58	-2.11/-2.00	-1.08/-0.64	-0.89/-0.06	1.10/1.49	1.29/0.74	0.40/0.26	1.02/-0.63	-1.91/-2.41	-0.29/-0.46
θ(90°)	-0.97/-2.30	-2.66/-1.97	-1.57/-1.71	-2.04/-1.57	-1.39/-1.45	0.24/1.19	0.42/-0.26	-0.16/-0.44	-2.38/-6.61	-8.35/-4.75	-3.53/-4.04	-2.96/-2.27	-2.69/-2.52	-2.14/-2.20	-1.45/-0.94	-1.16/-1.25	-0.78/-0.64	-0.85/-0.01	0.86/0.97	0.68/0.03	-0.72/-1.22	-1.29/-1.42	-1.97/-2.42	-1.57/-0.51
θ(97.5°)	-0.82/-2.23	-3.56/-3.43	-2.39/-2.23	-3.01/-2.73	-2.65/-2.57	0.02/0.93	-0.36/-1.72	-1.01/-1.69	-4.55/-9.73	-11.63/-5.96	-4.51/-5.04	-4.10/-4.32	-5.33/-4.51	-3.92/-3.94	-2.90/-1.45	-1.41/-0.91	0.11/0.26	-0.23/0.29	0.77/0.71	0.39/-0.62	-1.86/-2.54	-2.82/-2.65	-2.38/-2.31	-1.69/-0.64
θ(105°)	-1.26/-2.15	-3.42/-3.23	-2.58/-2.96	-3.82/-3.03	-2.88/-4.02	-2.22/-1.50	-3.29/-3.73	-2.46/-3.32	-7.60/-13.25	-15.78/-8.45	-5.88/-6.03	-5.18/-5.35	-6.54/-5.50	-4.64/-5.70	-4.37/-3.10	-3.68/-3.20	-1.16/-0.28	-0.83/-0.81	-0.22/0.30	0.65/-0.17	-1.84/-2.82	-3.42/-3.47	-2.82/-2.02	-1.79/-1.37
θ(112.5°)	-1.99/-2.24	-2.50/-2.34	-2.76/-4.04	-5.62/-5.80	-6.46/-8.25	-4.54/-3.21	-4.47/-3.74	-2.63/-4.23	-9.42/-12.54	-11.17/-7.09	-6.95/-9.39	-10.20/-11.60	-8.29/-5.09	-6.04/-9.71	-7.48/-7.52	-5.64/-4.31	-1.84/-0.91	-1.35/-1.87	-2.70/-2.98	-1.61/-1.22	-2.38/-3.53	-4.10/-4.56	-3.91/-2.57	-2.15/-2.18
θ(120°)	-3.29/-3.43	-3.73/-3.72	-4.12/-5.21	-6.38/-7.49	-9.64/-11.37	-7.53/-6.34	-9.76/-9.86	-7.43/-9.57	-14.66/-11.35	-10.08/-10.57	-15.08/-12.03	-10.90/-11.44	-10.65/-7.72	-8.70/-14.10	-12.38/-13.32	-13.52/-8.32	-3.88/-2.50	-2.07/-1.01	-0.99/-2.73	-3.73/-2.99	-3.11/-4.00	-4.61/-5.41	-5.68/-4.11	-3.00/-2.95
θ(127.5°)	-3.31/-4.16	-5.54/-6.00	-5.68/-5.92	-6.73/-8.22</																				



Antenna Pattern of Scan Radio and BLE

Appendix F

Θ(165°)	-12.34/-10.96	-8.88/-8.93	-10.48/-11.22	-9.82/-8.64	-8.76/-8.80	-7.83/-8.07	-8.68/-10.41	-14.58/-15.01	-14.84/-14.83	-14.76/-14.32	-14.57/-13.72	-15.95/-14.84	-14.75/-12.44	-8.38/-6.38	-5.89/-7.21	-8.71/-10.23	-12.38/-12.41	-11.27/-9.11	-8.44/-9.82	-12.87/-15.07	-15.11/-15.66	-15.50/-11.07	-9.69/-10.32	-11.64/-11.40
Θ(172.5°)	-13.31/-11.93	-10.99/-10.84	-10.12/-9.83	-9.56/-9.82	-9.84/-9.15	-8.47/-7.96	-7.89/-8.89	-10.03/-11.14	-12.57/-13.68	-14.59/-14.41	-14.16/-11.80	-9.71/-9.43	-11.39/-13.72	-13.18/-15.07	-15.51/-14.71	-15.03/-14.75	-14.68/-15.65	-15.70/-14.08	-15.48/-15.35	-15.47/-15.14	-15.14/-13.47	-12.84/-11.87	-12.74/-14.38	-14.42/-14.13
Θ(180°)	-9.58/-10.30	-11.96/-13.46	-12.23/-10.21	-9.47/-10.46	-10.57/-9.92	-11.52/-11.45	-12.23/-11.93	-11.81/-11.66	-13.13/-13.37	-12.15/-12.09	-12.09/-13.37	-12.60/-11.85	-12.03/-12.75	-12.17/-11.23	-10.58/-12.11	-12.53/-13.24	-12.28/-11.95	-11.78/-11.64	-11.19/-10.42	-9.97/-10.27	-10.09/-9.19	-8.52/-8.87	-9.56/-10.39	-9.84/-10.05
Freq(Hz)	6.995GPol.	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°)	2.28/2.22	2.42/2.46	2.16/1.57	1.44/1.81	2.00/2.07	2.03/2.23	2.23/2.16	2.29/2.39	2.51/2.02	2.97/2.93	2.49/2.41	2.68/2.63	2.42/2.39	2.24/2.12	1.87/2.05	2.36/2.47	2.42/2.21	2.24/2.38	2.44/2.53	2.24/2.38	2.50/2.61	2.68/2.64	2.50/2.38	2.30/2.44
Θ(7.5°)	1.70/1.11	1.26/1.46	1.31/1.19	1.36/1.37	1.64/1.71	1.75/1.72	1.68/1.67	1.84/1.84	2.11/2.52	2.69/2.61	2.38/2.43	2.68/2.63	2.42/2.31	2.10/1.82	1.89/2.11	2.21/2.42	2.25/2.19	2.32/2.42	2.64/2.81	3.02/3.25	3.47/3.53	3.62/3.36	2.72/2.62	2.47/2.24
Θ(15°)	1.78/1.12	0.97/1.02	0.61/0.20	0.32/0.78	0.88/0.48	-0.26/-0.70	-0.65/-0.78	-0.92/-0.79	-0.15/0.84	1.48/1.87	2.03/2.46	3.07/3.56	3.21/2.62	1.94/1.26	0.96/1.15	1.30/1.61	1.65/1.49	1.55/1.80	2.13/2.35	2.41/2.27	2.19/2.16	1.88/1.87	1.43/1.32	2.00/2.05
Θ(22.5°)	1.50/0.81	1.07/1.30	1.26/0.76	0.35/0.84	1.39/1.34	0.61/-0.26	-0.75/-0.85	-0.68/-0.58	-0.52/-0.67	-0.83/-0.96	-1.92/-1.90	-0.20/1.46	1.57/1.41	1.46/1.26	0.98/1.08	1.19/1.05	1.31/1.59	1.61/1.67	1.51/1.09	0.59/0.02	-0.85/-1.77	-1.90/-1.53	-0.22/1.06	1.95/2.09
Θ(30°)	1.83/1.39	1.29/1.53	1.94/2.27	2.39/1.50	-0.12/-1.18	-1.75/-2.16	-0.87/0.33	0.28/-0.35	-0.14/0.18	0.72/1.42	0.15/-1.89	-2.17/-0.16	0.22/-0.53	0.63/2.37	2.65/1.30	-0.41/-1.78	-1.20/-0.51	-0.48/-0.17	-1.03/-3.25	-2.58/-2.40	-2.62/-0.35	1.12/0.79	0.01/0.35	1.53/2.19
Θ(37.5°)	1.56/1.34	1.33/1.03	0.64/1.18	1.86/1.41	-1.31/-3.68	-2.47/0.34	1.62/2.47	2.97/2.53	2.16/1.58	0.84/0.41	0.50/0.80	-0.17/-2.00	-1.60/-0.50	-1.73/0.63	1.81/-0.52	-1.53/-0.96	0.47/1.18	1.14/1.08	-0.96/-2.96	-4.58/-7.08	-4.00/-0.88	0.45/0.58	0.23/0.19	1.05/1.99
Θ(45°)	0.03/0.19	1.94/1.21	-0.54/0.19	0.55/0.22	-1.44/-3.15	-4.52/0.64	1.56/2.71	2.63/1.01	0.57/0.96	2.29/1.89	1.67/1.30	-0.06/-2.12	-1.51/-1.26	-2.09/-3.73	0.80/-1.46	0.24/0.99	0.72/0.77	1.71/3.63	3.28/2.67	-1.42/-1.28	-1.86/0.41	-1.91/-3.13	-0.43/-0.14	-1.06/-1.44
Θ(52.5°)	-0.35/-0.23	1.71/0.26	-1.92/-0.56	-0.06/-1.18	-1.74/-1.51	-4.83/0.72	2.62/2.97	1.47/0.04	-0.69/-1.00	0.86/0.54	1.10/2.28	0.49/-3.93	-2.40/-3.56	-1.89/-1.51	1.45/-1.73	0.78/0.09	-0.91/-0.12	1.94/-0.19	-3.22/-5.58	-4.48/-0.94	-2.75/-2.65	-3.87/-3.09	-2.98/-5.46	-3.87/-1.73
Θ(60°)	-0.49/0.81	1.53/-0.75	-0.37/-1.41	-1.08/-1.33	-3.34/-3.67	-4.31/0.08	3.50/3.16	1.68/0.24	1.21/1.27	1.62/3.10	2.54/1.51	1.52/-2.68	-3.66/-2.86	-1.43/-1.08	-0.06/-0.58	-0.69/-0.99	-1.80/1.30	2.56/1.55	-3.26/-4.10	-2.40/-0.04	-3.82/-3.07	-3.31/-2.86	-2.68/-3.81	-5.25/-2.14
Θ(67.5°)	-0.18/1.00	1.48/-0.35	-0.29/-2.93	-2.02/-2.48	-5.32/-4.78	-2.76/-0.72	0.50/-0.80	-0.66/0.08	-3.27/-0.90	-2.53/1.15	0.07/-3.00	-3.68/-5.15	-3.69/-5.07	-3.21/-3.83	-1.77/-0.49	0.19/0.97	1.71/3.63	3.28/2.67	-1.42/-1.28	-1.86/0.41	-1.91/-3.13	-0.43/-0.14	-1.06/-1.44	-4.47/-2.39
Θ(75°)	0.15/0.40	1.91/0.05	-2.00/-3.00	-2.21/-3.79	-5.39/-7.00	-4.41/-2.50	-1.50/-1.47	-1.61/0.92	-6.91/-4.60	-11.21/-7.06	-3.00/-5.85	-5.12/-3.91	-2.06/-5.06	-7.88/-8.61	-6.25/-0.91	-0.04/0.52	3.02/4.86	4.26/2.22	-0.65/-0.28	-1.46/0.62	-1.58/-1.30	0.67/1.01	-0.48/-2.18	-4.00/-1.98
Θ(82.5°)	-0.14/0.83	0.83/-0.26	-3.16/-5.05	-2.64/-4.01	-7.35/-9.85	-4.13/-1.34	-1.45/-0.02	-2.63/0.57	-1.76/-3.30	-4.06/-2.93	-2.02/-5.68	-1.47/-2.84	-2.36/-3.31	-7.77/-14.75	-9.16/-1.14	-0.16/0.52	3.52/4.88	3.05/0.38	-1.27/-0.31	-1.08/0.17	-1.36/-0.77	0.61/1.06	-0.32/-2.95	-5.49/-2.03
Θ(90°)	-2.12/0.03	-0.86/-1.56	-6.20/-5.03	-3.11/-5.06	-8.76/-12.09	-4.73/-1.84	-1.72/-0.14	-2.18/-3.42	1.47/-4.41	-3.57/-1.42	-2.01/-5.26	-4.03/-1.50	-5.21/-2.62	-5.55/-13.91	-10.27/-3.15	-2.85/-1.43	1.12/2.70	1.20/-3.91	-3.82/-2.77	-2.49/-1.41	-2.55/-1.20	-1.04/-0.13	-1.94/-4.20	-6.84/-2.66
Θ(97.5°)	-3.15/-1.79	-3.02/-2.34	-8.32/-5.64	-4.25/-5.91	-7.77/-14.12	-8.39/-4.02	-3.06/-3.44	-3.24/-5.51	0.76/-7.58	-4.60/-2.36	-4.47/-5.86	-4.97/-3.26	-7.61/-4.84	-8.02/-15.46	-8.58/-8.05	-7.46/-4.79	-2.97/-1.52	-3.09/-7.61	-9.10/-5.33	-4.51/-4.49	-2.77/-1.77	-2.63/-2.57	-4.04/-6.48	-7.78/-2.56
Θ(105°)	-5.21/-3.12	-3.76/-4.51	-6.14/-8.53	-6.60/-8.12	-10.55/-12.22	-11.27/-5.63	-4.98/-4.68	-5.32/-6.31	-1.94/-7.63	-7.94/-3.59	-5.11/-8.34	-4.04/-6.69	-7.41/-11.67	-5.87/-16.15	-8.33/-9.82	-8.75/-6.88	-6.65/-4.34	-3.06/-8.94	-9.04/-5.86	-6.54/-8.32	-3.02/-3.32	-4.10/-5.16	-6.09/-6.54	-7.87/-5.42
Θ(112.5°)	-5.53/-5.71	-4.18/-5.53	-7.22/-10.60	-9.97/-8.10	-10.97/-10.54	-8.84/-8.81	-6.53/-6.15	-4.67/-10.33	-4.23/-9.88	-4.99/-4.84	-8.50/-11.10	-5.65/-7.33	-12.72/-9.23	-9.08/-12.91	-11.02/-6.69	-6.62/-5.66	-5.49/-2.35	-3.77/-9.58	-6.30/-4.56	-6.91/-9.54	-5.73/-3.92	-5.65/-7.87	-7.35/-10.36	-5.71/-6.73
Θ(120°)	-4.79/-7.93	-4.68/-4.99	-7.41/-11.02	-12.12/-9.05	-12.57/-15.18	-12.41/-8.37	-8.17/-11.02	-9.18/-10.53	-4.55/-12.16	-9.10/-7.33	-9.17/-10.47	-11.53/-10.19	-11.56/-7.07	-9.64/-15.00	-12.84/-9.82	-10.13/-6.06	-7.08/-7.00	-6.59/-11.87	-6.46/-7.60	-7.01/-10.44	-6.20/-4.94	-8.54/-10.56	-7.90/-13.69	-5.29/-7.78
Θ(127.5°)	-6.43/-7.07	-5.12/-5.81	-8.18/-13.78	-12.22/-15.13	-11.34/-13.07	-15.16/-12.13	-9.23/-9.06	-8.67/-9.77	-11.10/-8.29	-11.67/-9.79	-14.49/-14.32	-7.42/-9.16	-5.93/-14.50	-12.30/-8.49	-11.51/-10.54	-5.32/-4.28	-6.54/-4.58	-7.69/-10.06	-4.47/-5.94	-7.38/-7.68	-13.68/-12.43	-7.92/-10.99	-10.00/-9.02	-10.00/-9.02
Θ(135°)	-8.07/-6.11	-10.27/-6.96	-10.92/-11.47	-10.79/-13.37	-14.85/-11.77	-15.45/-10.88	-10.89/-9.63	-10.19/-12.06	-11.44/-11.18	-11.13/-8.72	-10.62/-13.13	-12.76/-13.58	-10.37/-13.13	-10.51/-13.34	-12.61/-11.03	-4.38/-8.39	-8.90/-3.75	-7.28/-9.88	-6.59/-7.33	-6.68/-15.83	-13.34/-7.60	-8.20/-8.22	-6.43/-10.61	-9.44/-9.17
Θ(142.5°)	-12.08/-8.97	-8.56/-9.14	-7.00/-10.08	-15.61/-11.26	-13.76/-12.09	-14.62/-12.01	-8.85/-7.62	-9.63/-9.99	-11.09/-14.87	-12.04/-15.87	-14.34/-9.07	-9.07/-9.05	-10.83/-15.12	-10.87/-11.65	-11.82/-12.02	-10.74/-11.20	-10.06/-7.10	-14.95/-14.30	-13.52/-13.99	-13.87/-15.91	-14.50/-11.43	-8.66/-9.78	-7.19/-8.30	-10.19/-8.92
Θ(150°)	-9.18/-9.44	-8.46/-7.50	-8.60/-9.12	-8.13/-12.46	-10.96/-8.76	-11.83/-12.42	-13.87/-12.53	-12.81/-10.84	-9.10/-9.44	-8.37/-13.89	-12.94/-14.88	-11.88/-9.16	-10.70/-6.89	-6.44/-14.74	-11.01/-11.06	-13.15/-12.93	-10.70/-8.16	-10.75/-10.71	-10.59/-8.45	-10.02/-12.16	-12.27/-12.91	-11.97/-10.85	-12.67/-11.39	-9.42/-9.71
Θ(157.5°)	-14.34/-15.23	-12.23/-11.15	-9.59/-11.26	-12.54/-11.05	-14.34/-15.86	-10.90/-10.60	-13.76/-13.07	-10.59/-12.99	-14.97/-15.30	-15.75/-14.20	-12.84/-11.04	-10.21/-9.06	-10.04/-13.59	-15.06/-13.00	-13.00/-10.94	-12.76/-14.76	-14.77/-13.08	-14.92/-12.00	-10.48/-8.83	-8.46/-12.34	-14.81/-14.12	-13.05/-13.38	-13.28/-13.21	
Θ(165°)	-11.39/-11.87	-12.89/-11.63	-11.90/-10.68	-9.21/-8.39	-9.09/-9.13	-9.35/-10.20	-11.93/-12.47	-15.06/-14.34	-13.07/-14.92	-15.80/-14.63	-12.62/-9.68	-9.04/-11.46	-12.48/-10.84	-10.41/-11.25	-11.61/-9.81	-10.10/-12.79	-15.46/-15.44	-15.03/-14.58	-14.94/-15.09	-15.38/-15.36	-15.12/-14.94	-11.19/-10.36	-9.08/-9.58	-11.84/-11.64
Θ(172.5°)	-11.02/-11.03	-10.74/-11.31	-13.11/-15.11	-13.89/-11.82	-11.31/-11.36	-11.58/-13.07	-13.43/-12.98	-13.17/-12.85	-12.44/-11.76	-11.91/-11.08	-10.07/-9.51	-10.72/-10.92	-11.51/-13.37	-15.46/-15.69	-14.38/-12.38	-12.12/-11.36	-11.53/-11.75	-12.30/-12.29	-11.52/-10.59	-9.84/-9.01	-9.00/-9.10	-10.28/-10.30	-10.10/-12.48	-12.58/-11.38
Θ(180°)	-10.65/-10.56	-11.01/-10.22	-9.88/-9.65	-9.95/-10.83	-11.04/-11.63	-12.53/-13.76	-13.27/-13.06	-12.14/-11.16	-10.51/-10.05	-9.52/-9.43	-9.81/-10.46	-10.21/-10.34	-11.84/-11.34	-11.80/-11.63	-11.68/-12.54	-14.86/-15.89	-14.94/-14.74	-13.27/-13.08	-11.78/-10.78	-11.84/-11.81	-12.59/-13.05	-11.50/-11.67	-11.28/-11.38	-10.34/-10.25
Freq(Hz)	2.45GPol.	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°)	4.94/4.93	4.96/5.02	5.12/5.29	5.48/5.68	5.87/6.02	6.14/6.24	6.31/6.36	6.39/6.34	6.26/6.13	5.96/5.77	5.59/5.41	5.23/5.08	5.00/4.98	5.03/5.13	5.27/5.45	5.65/5.84	6.02/6.16	6.29/6.38	6.45/6.39	6.37/6.38	6.25/6.08	5.88/5.65	5.44/5.25	5.10/5.01
Θ(7.5°)	4.95/4.84	4.78/4.79	4.84/4.95	5.12/5.31	5.50/5.68	5.81/5.91	5.99/6.05	6.05/6.01	5.92/5.76	5.57/5.40	5.26/5.17	5.10/5.07	5.08/5.18	5.34/5.53	5.17/5.88	6.05/6.21	6.35/6.46	6.55/6.63	6.61/6.46	6.45/6.38	6.47/6.42	6.23/6.00	5.77/5.54	5.31/5.11
Θ(15°)	5.11/4.85	4.65/4.54	4.49/4.54	4.63/4																				

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 $\Theta(0-180)\Phi(270)$

