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Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.95	4.32	3.56	4.48
Ant. 2 Max Gain (dBi)	4.99	4.02	3.1	5.27
Ant. 3 Max Gain (dBi)	4.67	4.49	3.33	5.53
Ant. 4 Max Gain (dBi)	5.14	5.61	5.13	4.74
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/97.5/307.5	Theta/90/307.5	Theta/90/300	Theta/97.5/315
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Phi/67.5/315	Phi/90/75	Phi/97.5/300	Phi/97.5/90
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Phi/105/127.5	Phi/105/120	Phi/105/112.5	Phi/97.5/105
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/97.5/262.5	Theta/97.5/337.5	Theta/97.5/337.5	Theta/97.5/330
Max Gain (dBi)	5.14	5.61	5.13	5.53
DG [1SS] (dBi)	6.12	6.04	5.52	6.48
DG [2SS] (dBi)	5.14	5.61	5.13	5.53
DG [4SS] (dBi)	5.14	5.61	5.13	5.53



Radiated Composite Gain Data 6GHz

Appendix A.2

DG 1SS Result

Freq(Hz)	6.175GPol.	Phi+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(7.5°)	-2.44/-2.51	-2.57/-2.53	-3.05/-3.03	-2.59/-2.26	-2.54/-2.98	-2.61/-1.81	-1.23/-1.51	-2.53/-2.89	-2.68/-3.21	-4.26/-5.01	-5.03/-5.02	-5.48/-5.98	-5.89/-4.84	-3.95/-3.7	-2.57/-1.37	-0.9/-0.46	0.61/1.26	1.09/0.64	0.65/0.6	0.1/-0.68	-1.14/-1.47	-1.64/-1.53	-1.35/-1.35	-1.44/-1.83
Θ(15°)	-0.52/-0.65	-0.71/-0.47	-0.87/-1.07	-1.74/-2.95	-4.19/-4.55	-3.95/-4.31	-3.93/-3.54	-3.19/-3.01	-2.96/-3.11	-3.41/-3.98	-4.59/-5.01	-5.43/-5.58	-5.75/-5.92	-6.18/-6.21	-4.92/-3.5	-2.09/-0.87	-0.22/0.22	0.74/0.92	0.54/0.08	-0.21/-0.35	-1.34/-2.67	-3.4/-3.25	-2.12/-1.16	-0.79/-0.72
Θ(22.5°)	-0.57/-0.38	-0.47/-0.7	-0.85/-1.83	-3.76/-3.6	-2.68/-2.27	-2.03/-1.56	-1.92/-2.6	-2.66/-1.88	-1.77/-2.89	-1.63/-1.85	-1.69/-1.92	-1.71/-1.72	-2.73/-4.1	-3.13/-1.5	-0.87/-0.83	-1.03/-1.01	-1.03/-0.99	-1.26/-1.86	-2.7/-2.97	-3.09/-3.58	-3.94/-4.45	-4.17/-3.03	-1.72/-1.01	
Θ(30°)	-2.01/-1.25	-0.22/-0.71	-1.69/-2.75	-4.13/-4.17	-3.98/-4.05	-4.46/-5.27	-4.81/-4.6	-4.45/-4.16	-2.82/-1.59	-0.77/-0.23	0.36/-0.09	-1.14/-1.09	0.10/0.5	-0.43/-1.48	-1.12/-0.98	-2.26/-3.68	-2.85/-1.47	-0.74/-0.69	-1.62/-2.79	-3.75/-3.52	-3.23/-2.22	-2.43/-3.43	-3.64/-2.66	-1.93/-2.32
Θ(37.5°)	-0.67/-0.03	-0.48/-1.86	-3.63/-5.26	-4.93/-3.93	-3.75/-5.13	-5.58/-5.89	-5.75/-6.15	-5.98/-4.69	-2.55/-0.87	0.51/-1.6	1.71/-39	0.35/0.8	1.53/1.64	0.61/-0.24	-0.58/-2.94	-4.7/-2.21	-1.49/-1.8	-1.95/-2.22	-2.52/-3.3	-3.87/-4.38	-2.54/-0.4	1.57/1.79	0.46/-0.65	-1.05/-1.06
Θ(45°)	-0.14/0.54	-0.69/-1.49	-3.53/-4.28	-3.86/-3.23	-3.83/-4.22	-3.29/-2.73	-2.41/-2.73	-2.63/-2.16	1.23/0.7	1.49/1.85	1.69/1.87	0.96/-1.41	2.27/2.9	2.37/2.9	2.33/-0.75	-4.05/-4.46	-5.43/-5.72	-3.45/-2.87	-3.49/-2.83	-2.04/-0.92	-0.89/-0.21	1.55/2.82	2.83/2.42	1/-1.58
Θ(52.5°)	0.61/0.41	0.28/0.49	-3.89/-3.88	-1.83/-1.9	-2.12/-2.51	-1.4/-1.04	-0.79/-0.97	-0.55/-0.52	-0.22/-0.07	1.42/0.6	1.56/1.56	0.93/0.81	2.22/2.1	2.43/2.49	1.54/-0.97	-4.35/-4.88	-2.94/-1.24	-1.14/-1.34	-2.76/-1.9	0.52/1.71	3.43/2.94	1.88/2.6	3.14/3.7	3.03/0.02
Θ(60°)	1.84/1.61	1.01/-0.14	-2.74/-2.14	-0.37/-0.03	-0.86/-0.95	-0.33/0.04	0.16/-0.03	-0.24/-0.18	1.35/1.74	1.14/1.6	1.26/1.03	1.79/-1.91	1.56/1.67	1.46/1.31	0.59/-0.43	-0.86/0.47	1.65/-1.85	-0.5/-0.51	-1.19/-1.99	-0.51/-2.46	4.52/4.88	3.73/2.72	3.33/2.27	2.97/2.41
Θ(67.5°)	2.81/2.21	1.53/0.16	-2.46/-1.24	1.12/1.93	0.76/-0.32	-0.11/-1.62	-2.21/-0.45	-0.04/-0.54	0.92/1.69	0.76/1.83	2.20/1.9	1.01/1.18	1.07/2.18	1.64/1.79	0.14/-0.69	-0.69/-2.23	1.34/-0.01	-1.43/-2.04	-2.24/-2.53	2.39/4.16	4.984.11	3.78/3.12	1.86/2.89	
Θ(75°)	3.08/2.11	2.61/2.13	-0.09/-1.23	1.23/2.94	3.12/0.89	-0.58/-1.64	-1.72/-0.67	-0.23/0.16	1.43/2.47	1.95/1.27	2.33/0.55	0.33/2.32	1.39/1.45	0.27/0.19	0.13/-0.35	-0.38/0.05	0.74/-0.76	-1.32/-3.95	-6.92/-5.72	-4.48/-0.39	2.38/3.91	4.67/3.95	3.39/2.71	1.52/84
Θ(82.5°)	3.46/3.39	2.43/1.35	-0.67/-0.45	2.64/4.43	3.32/1.35	1.02/1.35	0.79/0.8	0.41/0.29	1.50/2.78	2.61/1.32	1.48/-0.02	0.69/1.14	-0.43/-0.06	1.17/-0.19	1.62/2.44	1.69/-0.8	-2.54/-5.81	-6.2/-5.27	-4.28/-0.26	2.28/3.52	4.3/3.5	2.77/1.2	0.72/23	
Θ(90°)	3.59/4.35	2.51/2.1	-1.28/-0.49	1.61/1.9	1.91/2.05	2.64/2.12	1.88/1.61	0.41/-1.04	-0.05/2.09	2.02/0.92	2.72/1.52	-2.13/-0.93	-0.46/1.2	1.24/0.21	-0/-1.61	0.9/2.6	2.96/2.1	-3.83/-5.37	-4.1/-0.88	1.79/3.14	3.43/3.12	3.01/2.26	1.02/1.37	
Θ(97.5°)	3.39/3.99	2.03/0.66	-0.97/0.46	2.4/2.6	2.01/0.97	1.08/1.86	2.11/2.36	1.43/1.4	1.21/3.59	3.07/0.51	1.1/-0.27	-2.77/-0.37	0.48/-1.07	-0.95/0.14	-0.01/0.19	1.75/3.79	2.91/1.7	0.18/-0.82	-1.37/-1.76	-0.57/0.33	1.23/3.33	2.72/2.86	1.33/1.41	2.36/2.4
Θ(105°)	2.69/2.41	1.47/-0.46	-1.9/-0.92	1.65/1.9	1.87/0.53	-0.60/0.74	2.27/2.88	2.14/2.98	1.82/3.67	3.72/0.26	-0.07/-1.25	-2.1/-0.11	-0.56/-2.27	-0.45/-0.22	-0.29/-1.09	-0.97/0.06	1.61/0.7	1.39/-0.28	0.48/0.19	-0.02/0.15	0.69/3.4	2.68/1.98	1.64/1.11	2.26/1.73
Θ(112.5°)	2.63/0.88	0.27/-1.89	-2.35/-2.54	-0.74/-0.17	-0.27/-0.95	-0.54/-1.76	-2.0/0.7	2.15/1.85	1.43/1.36	2.26/-0.03	0.53/-1.26	-3.65/-2.33	-0.71/-3.87	-1.48/-1.33	-2.59/-3.21	-2.31/-0.16	1.38/1.71	1.37/0.22	2.81/0.51	0.8/-0.34	0.62/8.5	1.5/0.8	0.98/1.65	2.21/0.73
Θ(120°)	0.98/-1.62	-1.37/-1.48	-2.55/-4.39	-2.61/-1.54	-1.63/-0.79	-1.06/-1.03	-0.48/1.42	2.33/1.2	0.81/9.1	1.32/0.29	-0.76/-2.35	-2.95/-2.42	-1.11/-3.77	-2.53/-0.47	-2.7/-3.38	-1.13/-2.72	0.36/1.16	-1.24/-0.65	0.89/-2.26	-0.87/0.19	-0.19/-1.84	-1.51/-1.48	-2.83/0.11	1.52/0.92
Θ(127.5°)	-0.26/-5.23	-3.51/-1.2	-3.26/-2.14	-2.38/-2.28	-1.19/0.51	0.99/-0.09	-0.75/-0.19	-0.71/-1.5	0.52/1.19	0.44/0.13	-0.44/-3.8	-3.92/-2.32	-3.84/-3.35	-3.13/-0.3	-1.08/-0.79	-5.08/-3.94	0.62/-1.23	-2.15/-2.53	-3.45/-4.13	-1.66/-1.74	-1.37/-3.6	-2.96/-0.63	-3.4/-3.79	-2.97/0.07
Θ(135°)	-1.86/-8.15	-7.55/-3.87	-5.75/-5.87	-4.94/-2.45	-0.41/0.33	-2.75/-6.2	-3.55/-0.62	-0.95/-0.97	0.53/1.27	-0.27/-2.87	-2.71/-4.26	-3.85/-4.37	-6.78/-6.85	-0.87/-0.12	-1.81/-0.75	-3.78/-3.42	-1.03/1.93	-0.5/-3.44	-5.14/-2.19	-2.32/-3.03	-5.78/-0.89	-2.13/-5.62	-6.75/-5.91	-4.18/-2.46
Θ(142.5°)	-7/-10.57	-7.22/-8.12	-8.18/-5.76	-4.57/-4.27	-2.61/-2.06	-3.3/-3.88	-3.05/-3.01	-2.83/-1.69	-0.27/-0.77	-1.21/-2.25	-3.83/-4.04	-4.31/-2.84	-4.22/-10.12	-3.74/-4.02	-2.38/-3.83	-3.63/-1.3	0.58/1.8	-3.02/-3.54	-4.44/-1.33	-1.59/-4.36	-4.9/-4.87	-5.97/-3.9	-5.13/-4.29	-5.26/-3.65
Θ(150°)	-7.12/-6.41	-5.13/-4.01	-5.31/-6.23	-5.29/-7.27	-7.68/-6.5	-6.06/-5.07	-3.63/-2.69	-3.04/-3.79	-4.39/-5.04	-4.94/-2.76	-2.29/-2.6	-2.47/-3.24	-7.14/-1.95	-6.74/-5.36	-5.41/-6.11	-7.61/-7.84	-4.09/-5.22	-7.25/-6.09	-5.48/-4.38	-1.86/-1.7	-4.84/-3.37	-7.85/-6.27	-6.15/-6.67	-4.97/-4.92
Θ(157.5°)	-7.11/-6.53	-4.69/-4.63	-6.8/-9.7	-8.49/-8.1	-6.13/-5.22	-4.31/-3.47	-2.59/-1.96	-2.24/-3.15	-3.87/-5.31	-7.75/-7.76	-7.51/-6.72	-5.95/-4.71	-4.4/-3.84	-4.07/-5.44	-3.83/-1.86	-2.16/-3.42	-4.61/-7.17	-7.57/-7.59	-8.21/-6.24	-4.78/-2.94	-1.47/-1.89	-2.92/-3.35	-3.36/-4.59	-6.22/-6.44
Θ(165°)	-8.44/-8.12	-7.39/-6.2	-5.39/-5.4	-4.74/-5.14	-5.63/-5.09	-5.42/-4.78	-4.53/-4.37	-3.58/-2.95	-3.04/-2.95	-3.21/-3.46	-3.52/-3.39	-1.99/-0.56	0.16/-0.23	-0.91/-2.21	-3.74/-5.66	-6.69/-6.66	-5.41/-6.88	-8.77/-6.39	-5.27/-5.2	-4.86/-5.04	-5.43/-4.41	-2.89/-3.03	-4.41/-6.89	-7.17/-9.5
Θ(172.5°)	-10.03/-7.92	-7.17/-7.33	-8.14/-8.02	-7.55/-7.65	-6.71/-4.82	-2.89/-1.8	-1.96/-2.1	-1.65/-1.55	-1.76/-2.01	-2.03/-1.65	-1.25/-1.05	-0.96/-1.29	-2.23/-8.99	-5.68/-8.17	-9.72/-8.66	-6.63/-5.27	-5.09/-4.87	-3.9/-3.15	-3.16/-2.8	-2.75/-3.04	-3.93/-4.09	-3.84/-4.13	-4.84/-7.14	-9.44/-10.86
Θ(180°)	-4.96/-5.57	-6.66/-8.28	-8.9/-9.16	-9.01/-8.51	-7.4/-5.79	-4.45/-2.87	-1.62/-1.16	-0.77/-0.48	-0.17/-0.12	-0.23/-0.34	-0.55/-0.9	-1.44/-2.27	-3.36/-4.93	-6.35/-7.51	-8.58/-10.04	-11.61/-12.28	-11.78/-9.3	-7.36/-6.68	-6.02/-4.7	-3.46/-3.34	-2.76/-2.54	-2.91/-3.5	-3.43/-3.02	-2.74/-4.01
Freq(Hz)	6.175GPol.	Theta+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+	-+
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-0.18/-0.49	-0.75/-1.27	-1.58/-2.36	-3.6/-1.3	-4.52/-4.16	-4.25/-4.75	-4.85/-4.59	-4.34/-3.91	-3.05/-2.36	-1.71/-1.47	-1.17/-0.97	-0.73/-0.55	-0.34/-0.5	-0.71/-1.18	-1.97/-2.09	-2.28/-2.45	-2.5/-2.29	-2.38/-2.78	-3.18/-3.54	-3.87/-3.93	-3.66/-3.27	-2.9/-2.37	-1.53/-1.12	-0.8/-0.59
Θ(7.5°)	-0.47/-0.85	-1.1/-1.59	-2.08/-2.44	-2.58/-1.74	-1.49/-1.65	-2.48/-3.42	-3.62/-4.12	-5.08/-6.06	-5.88/-5.1	-3.99/-3.08	-2.42/-1.93	-1.61/-0.95	-0.56/-0.42	-0.74/-1.24	-1.38/-1.77	-2.77/-4.21	-5.73/-5.61	-5.08/-5.27	-4.18/-2.7	-1.47/-0.75	-0.1/-0.22	-0.28/-0.47	-0.24/-0.11	-0.2/-0.35
Θ(15°)	-1.26/-1.84	-2.81/-3.97	-4.41/-3.05	-1.64/-0.79	-0.89/-1.36	-1.5/-0.86	-0.82/-1.59	-3.01/-4.45	-3.8/-4.49	-3.62/-3.63	-2.87/-2.4	-2.15/-1.66	-1.08/-0.64	-0.51/0.26	0.50/0.5	-1.53/-3.6	-5.01/-5.11	-5.74/-5.49	-4.53/-3.42	-3.29/-2.87	-1.67/-0.92	-0.14/-0.01	-0.3/-0.57	-1.04/-1.09
Θ(22.5°)	-2.02/-2.36	-2.56/-3.01	-3.05/-1.12	-0.02/0.53	0.59/0.5	0.2/-0.27	-0.30/-4.5	0.09/-1.53	-3.24/-4.09	-5.01/-5.14	-2.41/-1.28	-1.08/-1.45	-1.01/-0.88	0.18/1.07	0.77/0.85	-2.29/-3.52	-4.78/-4.93	-3.81/-3.13	-2.49/-1.64	-1.29/-1.53	-1.73/-1.22	-1.31/-1.24	-1.42/-1.64	-1.52/-1.53
Θ(30°)	0.51/0.71	-0.35/-1.93	-1.69/0.02	0.43/-0.29	-1.05/-0.13	1.33/2.15	2.07/1.74	1.62/0.9	-0.21/-2.1	-3.28/-2.87	-3.57/-2.63	-1.46/-0.89	-0.34/-0.45	0.88/1.87	0.99/-0.85	-2.08/-3.17	-4.36/-5.74	-6.35/-5.35	-3.58/-2.2	-1.16/-0.24	-0.23/-0.85	-1.37/-1.54	-0.33/0.32	0.30/1.3
Θ(37.5°)	0.74/0.67	-0.0/-1.6	-0.39/-1.17	-1.39/-0.59	0.41/1.68	2.11/1.79	1.41/-1.66	2.32/2.45	1.36/-0.03	-1.69/-2.33	-2.64/-0.97	0.41/0.65	-0.15/-0.83	-0.3/-0.4	-1.98/-2.47	-1.83/-2.01	-2.92/-2.66	-0.63/0.9	0.88/1.22	1.67/1.37	1.33/1.88	0.94/0.57	1/1.63	0.96/0.36
Θ(45°)	1.29/1.1	0.61/-0.19	-1.75/-1.85	-1.59/-1.16	0.35/1.36	2.22/1.8	1.63/1.51	2.09/2.64	2.86/1.95	0.26/-0.55	0.14/0.52	0.98/1.39	0.74/-0.06	-2.18/-1.41	-0.55/-0.99	0.35/1.28	0.91/1.43	1.47/1.09	1.65/2.79	2.52/2.11	2.47/1.36	1.17/2.26	2.55/1.6	
Θ(52.5°)	1.13/4.3	0.54/-1.46	0.14/-0.56	-0.89/-0.52	-0.39/-0.03	0.91/8.5	2.12/2.27	2.35/2.22	2.12/2.45	1.75/0.36	2.14/1.6	1.55/1.92	0.94/-0.28	-1.04/-0.72	-1.0/-2.6	1.48/1.83	1.64/0.92	-0.19/-1.34	0.12/2.16	3.14/3.37	2.			



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Appendix A.2

Θ(22.5°)	-3.98/-3.39	-3.01/-3.19	-3.4/-2.24	-1.15/-1.21	-2.26/-2.49	-1.86/-2.24	-2.55/-2.84	-2.64/-1.82	-1.32/-1.01	-0.91/-1.26	-2.4/-3.35	-3.85/-4.27	-4.62/-5.18	-6.27/-9.04	-10.18/-8.42	-5.23/-3.36	-2.9/-2.44	-2.38/-2.64	-3.44/-5.08	-6.21/-6.03	-5.77/-3.67	-2.23/-1.7	-2.53/-3.61	-4.79/-4.13
Θ(30°)	-0.69/-0.57	-1.79/-1.88	-1.39/-1.45	-2.11/-2.83	-3.73/-3.12	-3/-3.47	-2.74/-2.43	-2.8/-3.13	-2.87/-1.67	-0.78/-0.83	-0.85/-0.2	-0.82/-3.02	-3.51/-4.12	-3.71/-4.33	-6.83/-7.42	-3.83/-2.11	-1.7/-1.19	-1.34/-1.77	-2.04/-2.14	-2.67/-3.88	-6.23/-6.78	-3.89/-2.05	-0.53/-0.11	-0.79/-1.33
Θ(32.5°)	-0.14/-1.96	-4.04/-3.89	-2.91/-3.43	-4.43/-5.39	-3.66/-6.38	-8.31/-8.85	-7.97/-4.54	-3.66/-4.71	-4.34/-2.34	0.020/0.3	0.23/-0.11	-1.16/-4.16	-3.68/-2.86	-2.36/-3.67	-4.81/-1.71	-2.14/-3.43	-3.16/-2.28	-3.62/-3.22	-2.52/-2.2	-1.04/-0.8	-1.81/-3.17	-5.36/-4.21	-1.72/-1.23	-0.780/-0.7
Θ(45°)	0.13/-1.83	-2.09/-1.98	-2.61/-2.28	-2.99/-3.95	-2.17/-1.9	-2.29/-2.83	-3.33/-5	-5.62/-3.98	-3.86/-4.35	-2.77/-1.06	-0.42/-0.11	-0.55/-3.88	-4.09/-2.24	-1.25/-2.65	-3.42/-3.58	-5.71/-4.43	-3.69/-3.39	-2.53/-2.63	-1.02/-1.75	-2.81/-2.03	-1.89/-1.77	-2.91/-3.95	-3.47/-1.66	-0.730/-6
Θ(52.5°)	-0.19/-0.51	-1.42/-0.97	0.5/-0.06	-1.590/-1.4	0.02/-1.41	-1.1/-0.24	-0.14/-0.52	-1.16/-1.84	-1.99/-1.31	-1.52/-2.29	-2.53/-1.47	-1.97/-4.27	-3.83/-1.62	-0.14/-0.49	-0.29/-0.15	-2.52/-7.25	-5.42/-4.1	-1.01/-1	-0.92/-0.57	-1.4/-2.72	-2.35/-2.55	-3.54/-5.1	-1.7/-0.76	-0.320/-61
Θ(60°)	0.74/-0.49	-3.74/-1.16	-0.95/-2.32	-0.47/-0.06	-1.39/-1.28	-1.07/-0.75	-0.02/-0.16	-0.370/-22	-0.58/-1.51	-1.9/-3.58	-5.03/-1.68	-0.48/-2.61	-4.38/-1.6	0.870/-91	1.32/-15	-2.71/-2.92	-2.05/-2.93	-2.46/-3.12	-2.74/-2.05	-1.85/-0.68	-0.12/-0.49	-1.54/-2.44	-1.770/-42	0.270/-52
Θ(67.5°)	0.44/-1.07	-3.25/-0.96	-1.72/-2.01	-1.54/-0.16	-0.07/-0.24	-0.85/-1.98	-1.91/-1.81	-1.04/-1.24	-1.32/-1.18	-2.36/-3.69	-5.29/-1.27	-0.37/-2.13	-4.16/-2.15	0.271/-23	1.650/-44	-0.6/-0.49	-0.45/-1.18	-2.25/-1.73	-1.28/-0.51	-0.25/-0.41	-0.45/-1.21	-0.2/-0.21	-0.290/-98	1.33/-0.31
Θ(75°)	0.12/-1.79	-3.67/-3.19	-1.93/-1.95	-1.78/-0.93	0.471/-1.5	1.750/-99	-0.63/-1.67	-0.64/-0.13	-0.49/-0.71	-2.01/-3.45	-4.85/-1.73	0.12/-0.7	-3.44/-1.78	-1.660/-27	0.510/-32	-1.25/-0.27	-0.73/-2.19	-3.94/-1.71	-1.47/-0.88	-1.24/-1.49	0.422/-85	2.48/-1.2	1.071/-27	1.720/-47
Θ(82.5°)	-0.72/-0.35	0.99/-0.22	0.5/-2.22	-3.21/-2.21	0.43/-1.81	2.472/-46	2.131/-29	0.410/-95	0.630/-0.7	-0.37/-2.35	-3.45/-2.47	-1.450/-0.3	-3.14/-0.78	-2.210/-25	-0.49/-1.66	-1.74/-0.36	-0.72/-2.17	-2.57/-0.52	-0.74/-0.4	-0.060/-54	1.251/-9	2.250/-26	0.291/-11	0.5/-1.32
Θ(90°)	1.27/-0.31	1.660/-77	1.35/-0.66	-1.010/-17	-0.380/-76	3.894/0.1	3.64/-35	1.581/-96	2.330/-17	-0.79/-2.11	-2.51/-1.27	-0.57/-2.23	-4.23/-1.4	-5.61/-1.43	-1.01/-2.35	-2.22/-1.04	0.61/-1.7	-0.270/-63	-0.45/-0.51	0.61/-54	0.980/-7	2.44/-0.84	-0.71/-0.3	0.45/-0.47
Θ(97.5°)	2.531/-34	2.752/-26	1.43/-1.41	-2.440/-06	0.040/-85	2.943/-08	2.841/-94	1.162/-58	2.541/-15	-0.5/-2.89	-2.88/-2.83	-0.74/-1.76	-3.38/-0.62	-5.07/-2.69	-1.74/-3.39	-2.440/-46	1.17/-1.91	1.34/-1.47	0.240/-08	0.121/-7	2.160/-3	0.66/-0.57	-1.30/-31	-1.891/-38
Θ(105°)	1.170/-56	0.792/-14	2.28/-0.3	-3.25/-1.1	-3.84/-0.2	2.42/-91	1.91/-84	3.172/-83	3.132/-39	-0.58/-4.29	-3.67/-1.76	-1.6/-3.02	-5.17/-0.67	-5.15/-4.52	-1.38/-1.99	-1.31/-2	2.441/-43	2.862/-53	2.431/-08	-1.060/-68	0.710/-58	-0.47/-2.33	-1.73/-1.6	-2.010/-8
Θ(112.5°)	0.89/-0.31	-0.31/-1.16	0.43/-2.55	-3.48/-0.74	-3.1/-0.13	0.831/-04	0.090/-46	-0.120/-65	0.72/-96	-0.68/-5.7	-4.66/-4.17	-1.6/-2.18	-3.48/-3.97	-5.18/-5.64	-0.82/-1.57	-2.090/-86	1.59/-0.78	1.782/-87	2.141/-36	-0.84/-0.7	0.360/-99	-2.09/-9.23	-3.46/-4.44	-1.04/-1.27
Θ(120°)	-1.02/-1.83	-3.14/-2.21	-0.89/-3.21	-3.48/-2.45	-1.22/-2.89	-0.43/-0.7	-0.67/-1.53	-1.52/-0.9	0.621/-4	-0.91/-4.16	-3.89/-4.75	-0.66/-3.09	-2.76/-2.31	-5.61/-3.21	-3.52/-4.28	-5.09/-1.41	0.96/-0.49	-0.341/-25	-0.54/-1.84	-1.1/-1.67	-1.49/-1.53	-2.5/-3.08	-3.04/-6.04	-3.62/-2.44
Θ(127.5°)	-4.74/-4.98	-5.71/-4.77	-3.93/-4.97	-3.04/-0.81	-1.22/-0.31	-0.58/-1.3	1.30/-38	-1.35/-1.32	0.660/-43	-2.35/-1.88	-1.57/-1.93	-1.88/-4.99	-2.86/-3.49	-3.21/-2.25	-2.12/-4.11	-3.63/-1.02	-1.110/-74	-2.82/-2.99	-2.05/-3.27	-3.94/-1.3	-0.76/-3.44	-6.85/-4.42	-5.1/-5.87	-5.12/-5.72
Θ(135°)	-5.12/-6.73	-6.02/-6.67	-9.67/-8.18	-6.43/-5.97	-1.9/-2.19	-5.86/-6.63	-3.77/-2.71	-2.09/-3.43	-2.95/-2.19	-3.54/-3.51	-6/-3.12	-2.61/-6.61	-4.79/-2.42	-5.14/-1.11	-4.02/-4.22	-4.37/-2.61	-1.55/-0.89	-3.41/-5.68	-2.68/-4.2	-2.26/-2.89	-0.62/-3.46	-4.82/-2.42	-5.16/-8.49	-8.19/-9.13
Θ(142.5°)	-8.79/-11.88	-9.33/-7.4	-8.01/-6.12	-2.98/-2.65	-2.97/-2.09	-1.95/-2.63	-4.09/-4.77	-3.37/-3.28	-4.48/-4.78	-1.79/-1.58	-2.86/-5.1	-5.8/-6.58	-6.55/-4.13	-5.99/-3.52	-6.41/-7.93	-4.37/-0.78	-0.58/-1.04	-5.77/-8.44	-4.65/-3.9	-3.06/-5.53	-2.63/-4.11	-2.58/-5.13	-7.62/-5.25	-5.81/-10.21
Θ(150°)	-5.55/-6.58	-5.46/-5.61	-5.22/-5.88	-4.61/-4.84	-5.85/-4.18	-3.93/-3.94	-4.42/-4.23	-3.19/-4.17	-7.21/-9.66	-8.72/-5.65	-4.6/-4.76	-6.23/-6.64	-7.65/-7.26	-6.89/-7.21	-7.64/-8.79	-9.09/-6.15	-3.65/-5.06	-5.51/-5.16	-5.44/-5.28	-4.17/-6.12	-7/-6.45	-4.8/-3.9	-3.65/-6.43	-10.46/-7.11
Θ(157.5°)	-4.62/-4.88	-4.4/-4.82	-5.12/-5.6	-6.14/-4.26	-3.09/-1.31	-0.81/-1.57	-2.68/-3.74	-4.21/-3.15	-2.44/-2.85	-5.45/-8.65	-7.82/-6.87	-7.13/-7.79	-7.75/-5.96	-5.61/-6.15	-6.92/-3.94	-2.48/-4.39	-5.68/-5.32	-5.05/-4.89	-5.31/-6.04	-5.86/-5.13	-4.32/-4.17	-4.05/-4.21	-6.08/-8.88	-7.96/-5.5
Θ(165°)	-7.71/-9.31	-7.95/-7	-6.67/-5.97	-4.94/-3.63	-3.41/-4.04	-3.97/-3.29	-2.43/-1.68	-0.71/-0.27	-0.44/-1.14	-2.36/-3.76	-3.45/-4.23	-2.38/-2.9	-4/-5.15	-5.85/-6.4	-5.14/-2.91	-2.02/-2.68	-3.43/-3.85	-5.91/-8.62	-9.39/-8.59	-7.43/-6.95	-6.2/-5.04	-4.89/-5.27	-5.17/-5.15	-5.72/-5.98
Θ(172.5°)	-6.85/-8.29	-8.18/-7.65	-7.28/-6.68	-6.21/-6.66	-7.12/-6.17	-5.25/-4.84	-4.78/-3.66	-2.97/-2.71	-2.97/-3.21	-3.62/-4.1	-5.08/-5.63	-5.9/-6.25	-6.44/-6.56	-6.69/-7.48	-8.53/-9.43	-8.88/-7.71	-6.38/-6.34	-6.58/-6.64	-5.62/-4.34	-3.13/-2.56	-2.01/-2.17	-2.19/-2.46	-2.78/-3.54	-4.66/-4.86
Θ(180°)	-8.09/-9.63	-10.05/-10.02	-9.5/-8.03	-8.31/-8.17	-6.52/-5.35	-4.49/-4.1	-4.74/-4.76	-4.67/-5.3	-5.63/-5.61	-5.27/-5.07	-4.79/-4.75	-4.82/-4.5	-4.73/-5.63	-6.27/-5.63	-5.39/-5.37	-5.5/-5.82	-6.97/-7.54	-6.62/-5.98	-5.88/-5.85	-4.79/-4.46	-4.86/-5.01	-4.91/-5.33	-6.02/-5.99	-6.37/-7.38
Freq(dB)	6.995dPol.	Theta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-0.94/-1.43	-1.82/-1.96	-2.15/-2.97	-4.22/-5.28	-4.86/-4.88	-5.4/-5.27	-4.06/-3.3	-3.66/-3.83	-3.34/-2.13	-1.64/-1.19	-0.89/-0.25	-0.13/-0.09	0/-0.28	-0.8/-1.78	-3.27/-4.27	-4.37/-5.2	-6.2/-6.25	-1.48/-1.75	-3.77/-3.01	-2.56/-1.98	-1.44/-1.16	-0.92/-0.58	-0.67/-0.43	-0.33/-0.53
Θ(7.5°)	-1.4/-1.87	-2.53/-2.6	-2.76/-3.31	-4.3/-5.16	-5.26/-4.87	-4.37/-4.16	-3.78/-3.37	-3.12/-2.91	-2.7/-2.73	-2.56/-2.38	-2.24/-2.11	-1.88/-1.29	-0.7/-0.22	-0.09/-0.17	-0.57/-1.02	-1.76/-2.37	-3.58/-4.66	-4.87/-5.26	-4.9/-4.58	-4.36/-3.32	-2.45/-1.5	-0.66/-0.12	-0.19/-0.3	-0.52/-0.88
Θ(15°)	-1.53/-1.38	-1.43/-1.68	-1.71/-1.3	-1.53/-1.88	-1.96/-1.9	-1.39/-3.23	-3.87/-3.88	-3.54/-3.2	-3.28/-3.12	-2.76/-2.92	-3.51/-4.24	-4.04/-3.21	-1.61/-0.72	-0.21/-0	-0.28/-0.82	-1.76/-2.17	-2.62/-3.19	-3.31/-2.41	-1.94/-1.49	-0.78/-0.32	-0.5/-0.69	-1.12/-1.09	-1.75/-2.12	
Θ(22.5°)	-2.44/-2.91	-2.7/-1.72	-0.54/-0.72	-1.01/-1.52	-2.28/-2.61	-2.94/-3.47	-3.76/-3.89	-3.93/-4.11	-3.94/-3.05	-2.14/-1.86	-2.33/-2.35	-1.98/-1.85	-1.06/-0.44	-1.22/-1.37	-1.31/-1.75	-2.16/-3.7	-4.96/-4.38	-3.15/-1.61	-0.98/-0.22	0.91/-93	2.482/-46	2.271/-77	0.920/-03	-0.46/-1.43
Θ(30°)	-0.96/-0.25	-1.5/-0.18	0.450/-77	-0.08/-1.33	-1.22/-0.56	-0.89/-1.24	-0.95/-0.81	-0.51/-0.69	-1.05/-1.22	-0.860/-29	0.430/-19	-0.76/-1.78	-0.94/-0.16	-0.67/-1.49	-2.23/-1.39	-0.250/-15	-0.150/-45	0.010/-06	-0.150/-24	0.781/-25	1.962/-4	2.081/-6	1.361/-26	1.05/-108
Θ(37.5°)	-0.48/-1.89	-0.64/-1.81	1.560/-58	-1.27/-1.84	-0.89/-0.36	-0.85/-1.17	-1.42/-1.5	-0.590/-09	0.340/-54	0.751/-3	1.861/-93	0.72/-0.81	-0.48/-0.24	-1.24/-2.29	-1.47/-0.33	-0.86/-1.9	-3.12/-1.55	0.270/-9	0.90/-94	0.70/-24	0.050/-1	0.951/-19	1.662/-31	1.61/-11
Θ(45°)	1.31/-0.82	0.161/-91	0.26/-1.04	-0.64/-0.96	-0.4/-0.33	-0.66/-0.32	-0.020/-04	0.110/-11	-0.63/-1.28	0.391/-44	2.061/-81	1.830/-84	-0.010/-15	-1.13/-2.69	-0.75/-0.58	-2.56/-2.75	-0.412/-02	2.42/-64	2.331/-49	0.820/-63	0.951/-12	0.810/-45	1.142/-17	1.441/-29
Θ(52.5°)	2.230/-03	1.5/-2.45	0.510/-51	0.24/-0.62	-0.98/-1.19	-0.870/-02	0.160/-96	1.942/-22	1.640/-69	-0.21/-08	2.622/-78	2.291/-07	-1.14/-1.34	-2.66/-0.56	0.19/-2.81	-4.11/-0.05	1.581/-51	0.40/-37	-0.08/-0.39	0.972/-22	3.053/-56	2.641/-59	2.84/-22	1.86/-2.5
Θ(60°)	1.820/-44	1.170/-76	-0.230/-04	-0.52/-1.11	-1.28/-1.79	-0.6/-0.17	-0.55/-0.95	0.52/-04	3.032/-25	0.650/-81	3.022/-65	212/-11	-0.48/-1.49	-1.660/-36	0.671/-29	-2.590/-85	0.49/-1.05	-1.58/-0.55	0.120/-13	0.31/-33	3.354/-05	3.060/-46	1.631/-69	3.012/-38
Θ(67.5°)	1.441/-13	0.91/-1.42	0.20/-94	-0.590/-04	-0.07/-1.74	-0.28/-1.28	-0.110/-1	0.431/-82	2.773/-69	2.471/-02	2.782/-92	21/-64	-1.01/-0.51	-0.520/-64	0.71/-2.4	-2.22/-1.85	-1.97/-1.61	0.741/-8	1.510/-7	0.531/-34	2.593/-86	2.361/-28	1.763/-53	2.913/-63
Θ(75°)	1.511/-34	-0.14/-1.13	0.340/-66	-1.69/-1.04	-2.4/-3.48	-3.12/-1.19	0.350/-35	-1.550/-29	2.093/-57	3.651/-89	2.5/-4	2.15/-1	-0.51/-1.29	0.291/-02	0.39/-2.15	-0.7/-4	-1.7/-0.4	1.04/-2	1.931/-37	1.812/-4	2.153/-31	3.350/-23	2.63/-31	2.883/-35
Θ(82.5°)	2.92/-03	2.341/-17	2.111/-4	-0.24/-0.46	-1.27/-0.81	0.91/-11	2.172/-52	1.12/-0.16	2.083/-2	3.372/-89	1.663/-22	2.041/-04	-1.15/-0.66	0.361/-68	0.34/-2.66	-0.35/-1.8	-1.46/-0.83	0.430/-18	-0.060/-29	-0.430/-08	2.793/-44	3.942/-46	3.694/-72	4.014/-14
Θ(90°)	3.582/-99	3.132/-75	2.942/-66	-0.800/-32	-0.3																			

Gain Result

[illegible]



Radiated Composite Gain Data 6GHz

Appendix A.2

Θ(22.5°)	-7.15/-7.85	-8.2/-10.16	-11.44/-9.64	-7.17/-7.18	-9.13/-10.04	-10.32/-8.89	-6.79/-6.44	-7.18/-7.23	-6.58/-6.97	-8/-8.2	-8.13/-9.03	-11.43/-15.71	-18.14/-14.29	-12.37/-12.2	-11.97/-10.87	-11.44/-14.76	-18.62/-17.74	-18.73/-18.47	-18.66/-19.35	-14.4/-11.82	-9.88/-5.8	-3.39/-2.74	-3.15/-4.23	-6.27/-6.64
Θ(30°)	-3.76/-4.2	-6.17/-7.13	-6.49/-9.7	-8.25/-10.46	-14.43/-11.99	-9.4/-7.98	-6.27/-5.59	-6.41/-8.22	-9.72/-9.61	-8.84/-8.9	-7.74/-6.39	-7.1/-13.31	-18.86/-15.47	-10.38/-9.99	-12.45/-17.57	-17.45/-15.69	-18.48/-17.47	-18.47/-17	-12.24/-9.29	-7.91/-8.77	-8.99/-7.45	-4.94/-2.98	-1.79/-2.21	-2.82/-3.5
Θ(37.5°)	-6.51/-11.32	-14.93/-9.59	-7.77/-10.69	-16.55/-15.82	-13.62/-11.33	-11.23/-10.35	-8.61/-5.58	-6.7/-10.57	-13.44/-11.73	-6.88/-5.08	-5.62/-5.32	-6.36/-13.47	-19.11/-13.31	-10.99/-11.28	-13.45/-13.33	-13.47/-14.42	-10.76/-11.37	-17.23/-15.75	-17.29/-15.27	-7.81/-4.59	-4.85/-7.27	-9.04/-5.25	-3.09/-4.92	-8.24/-13.85
Θ(45°)	-9.43/-18.67	-10.56/-10.46	-18.4/-12.98	-13.44/-13.8	-7.74/-4.94	-4.09/-4.89	-7.26/-8.52	-6.96/-7.89	-11.73/-14.02	-11.99/-6.47	-4.8/-6.37	-8.76/-14.02	-18.11/-14.8	-14.54/-17.64	-13.9/-10.22	-10.87/-13.83	-10.07/-11.21	-12.84/-11.32	-10.06/-14.18	-18.83/-10.56	-7.63/-6.15	-7.65/-14.93	-12.17/-12.45	-12.21/-9.58
Θ(52.5°)	-17.4/-11.06	-5.98/-11.4	-9.21/-11.31	-14.21/-6.64	-8.51/-10.28	-6.85/-5.08	-5.33/-6.58	-7.16/-9.21	-18.46/-15.09	-12.28/-11.73	-7.17/-6.82	-9.6/-15.49	-17.76/-18.81	-17.44/-13.73	-13.01/-11.02	-18.45/-19.1	-17.68/-18.94	-18.48/-16.93	-13.02/-13.48	-16.08/-16.76	-17.98/-19.14	-18.15/-18.73	-17.77/-18.4	-7.14/-5.08
Θ(60°)	-13.59/-9.87	-13.46/-9.63	-11.49/-15.8	-7.8/-8.05	-16.95/-14.8	-12.18/-11.23	-11.44/-10.33	-9.9/-7.99	-8.74/-14.85	-13.99/-11.93	-11.16/-6.76	-8.27/-14.99	-13.93/-11.9	-11.36/-14.42	-10.21/-11.01	-17.32/-18.73	-19.04/-19.18	-18.76/-18.89	-17.24/-14.86	-13.51/-10.55	-11.99/-15.09	-18.28/-14.76	-18.32/-12.28	-6.94/-9.27
Θ(67.5°)	-11.83/-12.66	-19.1/-12.64	-17.1/-14.61	-9.85/-9.83	-18.79/-19.16	-12.22/-18.31	-12.05/-11.2	-8.42/-8.24	-9.37/-7.97	-11.88/-19.07	-18.11/-11.39	-15.19/-17.43	-17.22/-17.66	-12.25/-10.09	-11.22/-12.78	-18.06/-17.82	-17.94/-13.44	-18.58/-17.88	-17.6/-13.04	-10.34/-11.12	-13.38/-9.46	-16.73/-10.71	-10.82/-9.72	-6.87/-15.32
Θ(75°)	-10.77/-11.83	-17.08/-15.76	-12.7/-16.08	-10.59/-11.81	-18.6/-8.95	-8.05/-13.82	-13.04/-13.93	-11.29/-11.04	-14.73/-11.88	-13.68/-18.25	-17.05/-12.37	-16.5/-19.28	-18.78/-15.46	-15.18/-16.6	-18.81/-18.08	-18.82/-17.22	-18.75/-19.27	-18.56/-17.6	-18.85/-16.99	-13.38/-13.61	-10.17/-6.71	-5.21/-7.77	-9.12/-9.24	-4.59/-18.62
Θ(82.5°)	-8.72/-13.15	-7.93/-19.19	-6.16/-9.82	-18.96/-18.52	-13.99/-9.23	-8.03/-13.27	-13.54/-12.38	-6.08/-6.6	-9.31/-11.3	-9.42/-15.36	-17.63/-13.89	-18.46/-10.98	-18.83/-10.02	-17.62/-18.16	-18.3/-17.9	-16.37/-17.55	-18.83/-18	-17.93/-17.6	-15.46/-9.94	-8.35/-12.48	-18.56/-7.41	-4.95/-6.96	-9.42/-8.91	-9.57/-18.69
Θ(90°)	-10.72/-10.28	-5.4/-18.27	-2.52/-7.3	-17.29/-14.35	-15.79/-8.43	-4.3/-6.04	-9.08/-9.29	-15.74/-12.45	-8.97/-16.84	-17.49/-11.22	-12.07/-13.67	-18.96/-15.48	-13.54/-12.67	-12.89/-18.37	-17.68/-15.69	-19.06/-15.21	-13.7/-14.36	-17.07/-15.77	-17.98/-15.48	-7.24/-7.68	-18.1/-9.39	-4.34/-8.34	-11.61/-8.33	-5.52/-16.55
Θ(97.5°)	-10.36/-6.01	-4.08/-8.02	-1.9/-7.78	-13.7/-18.54	-15.24/-11.36	-8.43/-8.31	-14.73/-11.53	-8.58/-11.79	-12.3/-10.82	-14.97/-18.11	-13.15/-15.06	-10.16/-10.57	-9.46/-7.03	-11.29/-18.05	-13.5/-9.16	-18.25/-10.97	-8.27/-13.16	-17.67/-16.94	-14.25/-9.7	-6.01/-11.9	-14.94/-8.75	-19.05/-14.26	-17.99/-5.47	-16.69/-3.81
Θ(105°)	-18.32/-8.23	-9.26/-9.71	-3.52/-5.89	-8.75/-15.39	-17.92/-14.24	-11.13/-13.76	-11.07/-17.85	-3.31/-8.99	-15.15/-5.64	-13.16/-14.25	-15.42/-13.58	-16.57/-11.91	-13.15/-7.66	-11.37/-17.14	-9.81/-8.44	-13.72/-9.89	-7.23/-7.33	-14.65/-19.03	-11.85/-7.28	-7.58/-9.1	-11.43/-5.67	-5.8/-7.71	-14.54/-19.09	-11.56/-4.01
Θ(112.5°)	-13.41/-7.57	-5.69/-5.93	-5.5/-8.69	-17.06/-8.08	-12.28/-11.26	-11.4/-18.73	-13.62/-7.03	-8.95/-18.63	-6.9/-3.74	-9.6/-15.03	-12.39/-17.62	-13.89/-14.63	-13.17/-14.33	-18.04/-17.91	-7.62/-6.04	-8.25/-11.26	-14.05/-12.01	-13.01/-12.36	-10.66/-7.65	-6.88/-6.84	-13.89/-7.46	-8.38/-18.98	-16.97/-13.07	-5.98/-2.83
Θ(120°)	-7.58/-6.65	-6.43/-7.98	-5.42/-5.32	-17.68/-9.28	-10.1/-19.19	-18.85/-17.99	-9.52/-7.26	-10.12/-14.78	-7.1/-4.23	-9.92/-13.23	-8.82/-13.9	-6.81/-18.8	-13.88/-6.67	-13.57/-15.84	-10.28/-11.01	-8.31/-8.34	-18.85/-16.47	-8.65/-4.68	-4.36/-2.92	-3.15/-8.4	-7.21/-5.34	-5.67/-14.18	-18.2/-13.02	-7.79/-5.47
Θ(127.5°)	-8.8/-6.99	-9.2/-6.12	-5.4/-16.16	-16.8/-19.15	-14.31/-6.09	-6.18/-6.25	-8.13/-9.78	-9.94/-7.82	-4.7/-5.85	-10.46/-6.09	-8.45/-8.4	-4.79/-11.46	-7.29/-5.17	-8.14/-8.41	-5.46/-4.57	-6.83/-6.54	-9.25/-19.1	-11.35/-9.96	-12.26/-16.03	-10.42/-7.59	-12.83/-18.49	-14.35/-6.71	-12.07/-6.75	
Θ(135°)	-5.57/-12.02	-13.43/-6.99	-11.87/-18.37	-14.53/-11.07	-7.3/-9.87	-18.86/-19.13	-11.67/-6.7	-5.85/-8.5	-13.34/-8.96	-6.04/-7.92	-13.1/-7.73	-7.52/-18.55	-10.61/-7.24	-18.91/-5.79	-8.08/-10.88	-10.21/-4.12	-3.8/-1.82	-6.64/-10.74	-3.19/-1.73	-3.5/-10.11	-5.02/-7.07	-16.42/-6.52	-8.24/-11.52	-14.94/-13.97
Θ(142.5°)	-11.29/-8.81	-18.16/-14.08	-11.59/-13.62	-10.77/-15.24	-13.94/-17.62	-18.62/-13.71	-13.61/-13.39	-18.06/-18.05	-12.86/-7.31	-6.71/-9.36	-11.58/-16.17	-10.46/-17.22	-10.91/-7.21	-9.84/-18.1	-15.57/-18.6	-9.71/-5.04	-3.22/-4.39	-8.22/-12.04	-6.8/-1.66	-1.95/-8.62	-7.36/-5.68	-13.08/-10.65	-9.98/-6.06	-8.48/-13.66
Θ(150°)	-6.38/-9.98	-12.32/-11.28	-12.35/-14.27	-18.56/-18.45	-18.67/-15.47	-17.25/-18.52	-18.88/-17.76	-16.21/-18.52	-11.73/-15.83	-6.16/-11.03	-15.03/-17.81	-18.5/-17.41	-12.74/-18.67	-18.17/-18.78	-16.1/-10.04	-6.31/-5.47	-8.22/-16.14	-14.14/-8.86	-9.96/-14.97	-13.54/-15.04	-13.48/-5.96	-7.53/-15.62	-17.94/-9.08	
Θ(157.5°)	-5.68/-8.94	-11.52/-11.64	-11.81/-14.79	-14.77/-14.42	-18.95/-17.49	-19.13/-18.79	-18.82/-18.09	-17.9/-17.04	-14.73/-14.39	-18.44/-18.41	-18.28/-19.36	-16.92/-12.79	-14.79/-14.13	-10.87/-9.39	-11.48/-8.25	-7.85/-12.55	-13.03/-13.87	-18.52/-18.89	-17.88/-17.76	-18.8/-15.84	-10.57/-9.09	-7.09/-5.46	-6.84/-9.67	-4.89/-5.98
Θ(165°)	-11.05/-16.67	-18.7/-17.95	-18.52/-17.9	-17.83/-16.17	-16.32/-15.07	-13.34/-11.86	-11.89/-12.3	-9.9/-7.9	-6.86/-6.88	-8.9/-12.52	-11.42/-9.03	-8.28/-8.75	-10.87/-15.8	-17.92/-12.89	-7.25/-4.75	-4.72/-6.32	-7.61/-8.53	-11.59/-12.22	-15.09/-9.84	-8.63/-9.17	-11.4/-9.59	-7.51/-7.04	-6.93/-7.46	-8.67/-8.32
Θ(172.5°)	-11.19/-14.97	-17.89/-16.98	-16.8/-18.91	-17.6/-18.15	-17.48/-16.56	-13.18/-12.23	-13.21/-11.2	-10.94/-11.81	-9.81/-8.9	-8.42/-7.58	-7.35/-7.85	-9.4/-10.29	-10.16/-10.08	-9.62/-10.24	-9.55/-8.42	-9.12/-10.59	-12.01/-16.59	-18.7/-14.34	-9.54/-7.97	-6.31/-4.86	-3.78/-3.46	-3.9/-4.97	-6.49/-7.53	
Θ(180°)	-15.46/-14.32	-14.74/-15.33	-18.14/-17.63	-19.12/-17.78	-15.99/-17.95	-18.32/-17.67	-15.64/-12.36	-11.61/-12.87	-12.91/-10.88	-9.08/-8.45	-8.36/-8.64	-7.64/-6.38	-6.33/-7.29	-7.73/-7.34	-11.04/-11.23	-12.56/-14.44	-13.43/-11.52	-10.74/-10.66	-9.51/-9.07	-10.14/-10.53	-9.83/-10.14	-13.34/-16	-18.47/-14.83	
Freq(Hz)	6.995GPol.	ThetaAnt. 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°)	-8.8/-9.7	-9.48/-8.63	-8.39/-8.9	-9.29/-9.64	-9.49/-10.53	-12.89/-14.73	-16.43/-18.2	-19.05/-19.17	-16.98/-13.67	-11.89/-10.38	-10.11/-8.85	-8.79/-9.06	-7.76/-6.7	-6.68/-7.25	-7.73/-7.45	-7.12/-9.05	-10.33/-8.8	-8.78/-11.24	-11.07/-9.9	-10.62/-12.64	-13.37/-12.08	-10.85/-8.77	-7.98/-7.69	-7.05/-7.14
Θ(7.5°)	-11.28/-10.22	-9.2/-8.69	-8.55/-9.11	-10.12/-10.02	-8.62/-8.46	-8.71/-10.51	-11.34/-11.43	-12.84/-13.1	-12.62/-12.56	-11.61/-10.57	-9.62/-8.93	-8.56/-7.09	-6.16/-5.76	-5.95/-6.15	-6.02/-6.52	-7.03/-7.1	-7.59/-8.68	-9.31/-10.28	-12.07/-13.41	-17.35/-19.15	-18.53/-18.45	-15.3/-12.5	-11.31/-10.27	-9.48/-10.46
Θ(15°)	-11.05/-9.32	-9/-8.22	-6.88/-5.12	-4.66/-4.18	-3.86/-4.1	-5.34/-8.59	-12.96/-17.47	-17.87/-15.46	-12.09/-11.72	-11.21/-9.9	-8.05/-7.41	-6.7/-6.71	-5.86/-4.69	-3.75/-3.12	-3.04/-3.14	-3.33/-3.64	-4.25/-4.78	-4.69/-4.64	-5.24/-4.92	-4.79/-5.22	-7.3/-9.83	-15/-18.85	-18.2/-18.25	-15.01/-12.54
Θ(22.5°)	-10.14/-9.08	-9.63/-7.71	-4.36/-3.65	-4.17/-4.05	-4.71/-6.24	-7.91/-11.61	-12.62/-17.68	-13.6/-9.42	-8.69/-8.91	-8.75/-9.03	-6.82/-4.92	-3.23/-3.13	-2.25/-1.42	-1.16/-1.17	-1.16/-1.55	-2.32/-3.43	-3.81/-3.83	-3.86/-4.12	-4.49/-3.02	-2.27/-3.38	-4.98/-6.73	-9.48/-11.91	-11.64/-11.44	
Θ(30°)	-9.33/-8.32	-9.15/-5.67	-3.92/-3.56	-5.95/-8.31	-10.93/-12.54	-13.09/-16.71	-17.94/-18.58	-11.51/-7.18	-4.5/-3.73	-5.03/-5.99	-6.21/-2.67	-0.69/-1.56	-1.92/-0.85	-0.26/-0.78	-1.45/-1.2	-0.82/-0.87	-1.02/-1.02	-1.43/-2.63	-3.48/-3.66	-4.5/-4.61	-3.45/-2.8	-3.75/-5.11	-5.72/-5.55	-8.64/-12.37
Θ(37.5°)	-8.68/-9.51	-8.43/-4	-4.08/-3.78	-11.14/-10.72	-9.83/-8.4	-8.21/-8.68	-10.68/-12.03	-8.99/-6.31	-3.66/-1.29	-1.26/-2.88	-4.73/-1.76	-0.54/-3.09	-3.22/0.03	0.04/-1.96	-2.1/-1.14	-1.01/-2.06	-3.95/-4.68	-3.7/-2.48	-1.82/-3.22	-3.87/-6.16	-7.44/-5.98	-4.35/-5.04	-3.78/-1.58	-3.79/-9.44
Θ(45°)	-3.59/-9.11	-6.32/-2.99	-6.65/-14.17	-13.94/-13.48	-15.78/-14.57	-11.69/-7.09	-5.42/-5.61	-4.15/-2.25	-3.13/-3.91	-0.88/0.23	-2.3/-3.79	-0.16/-1.59	-5.74/-1.22	-1.87/-4.49	-2.04/-1.16	-2.56/-4.9	-4.12/-1.94	-1.38/-1.97	-1.36/-0.45	-0.75/-1.9	-3.88/-4.49	-3.14/-4.34	-3.83/-1.29	-2.12/-3.78
Θ(52.5°)	-2.49/-5.47	-1.19/-1.72	-10.91/-8.62	-7.59/-10.95	-12.12/-12.34	-8.97/-5.33	-3.87/-1.95	-0.71/-0.15	-0.01/-1.92	-2.96/-0.48	-1.69/-3.75	-0.8/-2.54	-6.34/-2.11	-2.73/-1.51	0.15/-3.28	-5.4/-2.05	-1.17/-1.85	-3.27/-4.26	-4.21/-2.56	-0.47/-0.15	0.22/0.47	0.71/0.23	-0.04/-0.96	-3.86/-2.39
Θ(60°)	-4.1/-3.07	-0.7/-5.61	-5.74/-4.82	-11.41/-18.41	-15.82/-13.56	-7.73/-4.57	-5.03/-5.83	-1.87/0.83	2.05/1.08	-1.78/-1.27	-0.04/-3.32	-1.52/-2.39	-7.45/-1.81	-2.14/0.62	1.28/-4.08	-3.38/-0.85	-1.76/-2.52	-4.56/-4.38	-5.22/-4.64	-3.15/-1.08	1.55/2.62	1.1/-0.64	0.22/-0.65	-3.71/-2.82
Θ(67.5°)	-3.43/0.16	-2.21/-5.57	-1.18/-1.56	-18.41/-9.1	-8.22/-12.1	-14.59/-8.21	-4.83/-3.96	-3.66/-1.03	1.61/0.95	-2.06/-2.93	-0.5/-3.18	-2.21/-1.73	-6.12/-0.48	-2.9/-0.61	-0.21									



Radiated Composite Gain Data 6GHz

Appendix A.2

Θ(75°)	2.05/2.53	2.53/1.76	-0.61/-2.52	-0.28/1.92	2.25/0.14	-2.87/-6.35	-12.55/-9.68	-10.66/-17.73	-6.26/-1.53	-2.28/-3.53	0.14/0.64	-0.79/0.63	1.09/1.39	0.98/-0.67	-3.21/-5.79	-6.04/-2.87	-2.25/-1.97	-3.11/-5.33	-10.44/-10.55	-6.97/-2.05	2.21/3.85	4.67/4.11	3.28/0.8	-2.05/0.25
Θ(82.5°)	2.61/88	2.53/0.62	-3.32/-2.53	1.26/2.76	1.55/-0.06	-0.69/-6.69	-2.49/-7.07	-11.99/-17.9	-6.96/-1.43	-2.17/-4.25	-1.16/-1.09	-2.73/-0.54	0.52/0.17	-1.08/-2.59	-3.96/-5.93	-2.24/-1.6	-1.07/-3.23	-5.47/-7.84	-10.18/-8.68	-4.75/-1.34	1.74/2.94	3.98/3.98	3.15/0.27	-1.52/0.73
Θ(90°)	1.62/1.35	2.51/-0.36	-5.83/-2.83	-0.72/-0.29	-1.6/-0.69	1.12/0.4	-0.5/-2.94	-6.91/-13.24	-10.18/-2.82	-2.72/-4.62	-0.45/0.23	-3.16/-2.18	-1.83/-1.23	-1.27/-2.89	-3.64/-5.31	-1.73/-0.83	1.31/0.4	-2.36/-6.75	-10.56/-12.28	-6.91/-2.69	1.36/2.82	3.66/3.66	2.58/-0.31	-2.22/0.25
Θ(97.5°)	1.61/97	2.42/-0.73	-1.75/-0.23	-0.75/-1.91	-2.3/-2.51	0.37/0.39	-1.24/-3.02	-6.17/-10.05	-11.48/-2.36	-1.51/-7.45	-1.71/-0.72	-4.82/-2.5	-0.91/-2.12	-2.08/-2.03	-5.01/-3.84	-1.15/0.28	1.1/-0.62	-3.31/-5.07	-4.08/-4.44	-1.71/-0.06	2.12/3.15	2.73/1.6	-1.76/-2.43	-0.80/2.9
Θ(105°)	1.91/1.74	2.17/0.5	-1.77/-1.84	-1.16/-3.94	-3.64/-6.18	-5.52/-3.04	-2.57/-3.19	-5.27/-9.47	-12.14/-4.4	-0.51/-4.11	-2.95/-6.13	-4.43/-2.35	-0.65/-2.97	-3.47/-7.3	-6.73/-8.23	-4.36/-2.69	-0.91/-1.82	-1.41/-5.15	-2.34/-2.15	-3.27/0.23	2.42/3.32	1.5/-0.55	-4.18/-4.79	-0.83/0.53
Θ(112.5°)	1.2/0.1	2.02/-3.05	-3.84/-4.67	-5.62/-13.18	-13.28/-8.05	-11.32/-8.23	-6.23/-4.17	-4.53/-7.44	-12.64/-3.81	-0.56/-3.59	-1.18/-1.44	-5.58/-8.61	-2.94/-5.72	-4.51/-4.84	-7.29/-11.41	-9.13/-4.09	-1.75/-1.69	-2.97/-1.13	-3.46/-7.88	-8.54/-1.06	2.54/2.85	0.33/-3.75	-6.37/-3.76	-1.29/-0.93
Θ(120°)	0.09/-1.93	-2.34/-3.33	-5.08/-5.16	-3.68/-2.93	-8.51/-11.58	-9.84/-7.36	-4.28/-2.29	-3.62/-10.85	-19.37/-4.9	-3.27/-2.75	-1.66/-2.16	-6.1/-12.86	-6.52/-7.14	-5.71/-4.18	-5.73/-8.59	-9.47/-7.23	-6.25/-3.17	-8.7/-6.5	-5.01/-17.74	-8.02/-2.13	-0.78/-2.95	-10.59/-17.14	-8.82/-4.27	-3.37/-1.96
Θ(127.5°)	-2.56/-5.74	-4.26/-2.45	-3.42/-3.12	-6.19/-7.91	-13.02/-9.96	-8.05/-7.62	-6.85/-8.28	-17.92/-18.45	-7.42/-4.52	-5.14/-3.98	-2.16/-2.12	-7.33/-16.08	-18.17/-8.62	-6.54/-2.91	-3.6/-5.14	-7.63/-9.47	-3.81/-8.26	-5.73/-5.73	-9.46/-10.84	-7.66/-7.31	-6.37/-6.65	-15.18/-18.89	-17.62/-14.64	-7.09/-3.09
Θ(135°)	-1.72/-7.96	-8.23/-6.8	-5.36/-7.4	-8.1/-4.94	-2.69/-4.02	-10.69/-18.78	-6.88/-4.09	-8.33/-11.78	-4.04/-0.66	-2.14/-4.96	-4.88/-7.81	-10/-15.88	-15.92/-12.79	-5.88/-2.22	-5.99/-12.94	-1.1/-4.85	-4.41/-5.91	-8.52/-19.11	-14.82/-6.93	-16.06/-9.39	-15.51/-9.45	-17.86/-17.64	-17.92/-12.77	-17.95/-10.33
Θ(142.5°)	-10.48/-16.97	-15.58/-14.99	-18.24/-18.57	-19.21/-13.04	-10.27/-9.98	-13.27/-17.18	-13.84/-12.94	-17.26/-11.97	-5.79/-6.28	-6.44/-6.2	-9.19/-10.72	-18.46/-10.21	-11.63/-18.09	-12.31/-5.14	-6.43/-8.41	-7.5/-4.78	-5.57/-3.06	-6.57/-9.64	-14.18/-9.73	-12.38/-15.65	-12.44/-18.15	-17.69/-19.15	-10.89/-8.16	-11.38/-8.28
Θ(150°)	-8.59/-12.75	-15.72/-12.12	-11.54/-12.27	-12.67/-18.17	-18.59/-15.58	-15.15/-12.03	-9.7/-10.56	-12.8/-11.81	-9/-8.89	-12.31/-13.64	-11.63/-11.46	-12.83/-11.04	-12.4/-18.62	-17.45/-10.9	-6.65/-6.62	-8.08/-8.66	-7.59/-10.02	-7.74/-8.83	-8.96/-6	-4.63/-6.16	-11.1/-7.82	-11.99/-13.3	-11.7/-16.59	-13.83/-8.09
Θ(157.5°)	-15.94/-15.46	-12.75/-10.87	-11.8/-14.13	-14.41/-13.29	-12.58/-12.96	-10.63/-8.78	-7.61/-6.21	-5.05/-6.46	-6.53/-10.21	-15.22/-18.78	-15.8/-12.96	-15.02/-14.58	-12.44/-10.86	-11.81/-15.22	-12.62/-7.94	-5.76/-4.72	-6.25/-10.15	-9.37/-8.51	-8.62/-8.25	-7.82/-9.78	-11.97/-8.76	-11.89/-15.69	-16.12/-17.75	-17.95/-14.61
Θ(165°)	-10.13/-8.99	-10.5/-11.44	-10.88/-11.52	-12.52/-13.05	-13.13/-12.44	-13.83/-17.46	-17.38/-19.12	-15.04/-13.11	-11.64/-11.07	-12.56/-14.85	-15.6/-13.86	-9.41/-6.03	-4.43/-4.14	-5.07/-7.46	-10.69/-14.06	-13.11/-11.4	-11.61/-15.93	-18.35/-13.77	-12.14/-15.26	-18.74/-18.76	-15.64/-14.03	-12.19/-14.64	-19.2/-19.33	-14.35/-11.78
Θ(172.5°)	-16.12/-13.97	-13.43/-13.43	-12.43/-13.87	-16.74/-18.34	-18.43/-18.11	-16.74/-13.66	-13.93/-16.47	-18.13/-19.16	-19.58/-18.19	-18.59/-18.49	-18.25/-16.01	-13.04/-10.17	-8.96/-8.87	-10.39/-14.41	-18.04/-18.44	-15.65/-14.32	-15.99/-18.61	-18.53/-17.16	-18.5/-18.52	-19.44/-15.23	-13.47/-11.43	-10.51/-10.37	-10.65/-10.65	-10.89/-14.17
Θ(180°)	-15.98/-16.18	-17.98/-18.13	-18.57/-16.84	-14.43/-12.99	-12.54/-11.89	-11.65/-10.62	-9.27/-8.43	-7.73/-7.45	-7.31/-7.3	-7.51/-7.89	-8.68/-9.37	-10.29/-11.12	-11.71/-12.23	-11.85/-11.85	-11.89/-13.29	-15.81/-18.53	-18.99/-18.4	-17.2/-17.26	-16.71/-12.18	-10.03/-9.36	-9.17/-8.58	-8.84/-10.35	-11.91/-13.08	-12.69/-14.34
Freq(Hz)	6.175GPdL	ThetaAnt. 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°)	-5.99/-6.77	-8.28/-9.75	-11.6/-14.76	-19.12/-17.17	-16.12/-12.27	-10.55/-8.82	-7.81/-5.92	-4.72/-3.87	-3.19/-2.89	-2.74/-2.69	-2.75/-3.13	-3.62/-4.28	-5.24/-7.15	-9.46/-12.5	-17.03/-18.67	-19.02/-16.14	-11.8/-9.11	-7.55/-6.54	-5.38/-4.17	-3.39/-2.74	-2.56/-2.89	-3.39/-4.22	-4.55/-5.13	-5.15/-5.21
Θ(7.5°)	-5.75/-7.79	-10.16/-13.8	-18/-17.21	-14.48/-10.76	-8.29/-6.69	-6.2/-6.09	-5.25/-4.94	-4.73/-4.55	-4.75/-4.87	-4.77/-4.63	-4.77/-5.16	-5.37/-5.41	-5.95/-6.73	-7.39/-8.21	-8.51/-9.38	-11.07/-15.43	-18.02/-17.77	-12.74/-10	-7.03/-5.13	-3.39/-2.6	-1.86/-1.61	-1.59/-2.01	-2.6/-3.18	-3.5/-4.24
Θ(15°)	-7/-8.68	-11.77/-13.74	-19.34/-12.71	-7.84/-5.47	-4.51/-3.72	-3.76/-3.51	-3.4/-3.42	-4.06/-4.45	-4.99/-5.59	-5.79/-6.02	-6.56/-7.03	-6.83/-6.13	-5.68/-4.7	-4.34/-4.15	-4.57/-5.69	-7.76/-10.93	-16.41/-17.64	-18.11/-12.45	-9.41/-6.8	-5.43/-4.3	-3.4/-3.1	-2.93/-3.25	-3.69/-3.83	-4.92/-5.51
Θ(22.5°)	-8.81/-12.34	-12.65/-13.8	-14.63/-9.27	-5.83/-3.68	-3.26/-2.95	-2.83/-2.8	-2.78/-2.85	-3.79/-2.57	-7.04/-8.29	-7.18/-6.52	-7.39/-8.67	-8.49/-7.1	-5.03/-3.11	-1.81/-1.84	-3.59/-7.12	-11.49/-16.17	-19.14/-17.51	-12.83/-9.37	-7.43/-6.36	-6.17/-6.13	-6.21/-5.99	-5.74/-5.55	-5.43/-5.25	-5.71/-7.1
Θ(30°)	-11.59/-10.99	-19.34/-17.84	-12.46/-7.66	-5.32/-4.83	-4.86/-3.95	-2.99/-2.35	-2.38/-2.87	-3.73/-5.52	-8.63/-13.42	-13.02/-7.85	-6.89/-9.08	-8.06/-6.35	-5.76/-8.43	-3.58/-3.12	-5.53/-10.02	-10.74/-8.87	-9.25/-12.1	-12.58/-10.21	-7.26/-5.09	-3.84/-4.36	-6.35/-8.6	-9.12/-8.87	-8.12/-7.32	-8.17/-10.98
Θ(37.5°)	-12.78/-11.67	-15.12/-12.56	-9.45/-9.9	-7.44/-5.64	-4.67/-4.16	-5.16/-5.68	-5.75/-6.92	-5.41/-4.2	-4.75/-6.17	-12.48/-12.93	-7.61/-8.44	-8.92/-8.38	-2.56/-4.51	-10.83/-8.88	-8.58/-10.31	-18.29/-17.83	-9.39/-8.15	-2.87/-3.2	-3.69/-5.16	-8.44/-9.66	-8.1/-6.44	-8.1/-6.44	-8.05/-11	
Θ(45°)	-18.7/-15.9	-18.52/-12.01	-9.3/-9.22	-7.7/-7.34	-7.14/-7.63	-7.47/-6.87	-6.51/-6.51	-7.58/-7.9	-5.56/-6.68	-6.71/-13.4	-14.43/-11.37	-9.44/-9.3	-6.45/-3.14	-3.95/-9.02	-12.83/-8.42	-9.48/-19.25	-9.78/-5.92	-5.51/-7.42	-9.37/-9.27	-7.33/-5.18	-5.81/-8.11	-9.49/-10.15	-8.27/-5.86	-5.42/-10.25
Θ(52.5°)	-16.94/-13.53	-10.61/-10.42	-13.01/-11.71	-9.55/-10.9	-10.57/-9.14	-7.37/-6.43	-5.57/-4.24	-3.69/-5.66	-9.81/-8.41	-6.94/-9.88	-16.78/-15.34	-10.77/-9.22	-6.09/-4.93	-8.3/-16.78	-13.14/-9.93	-18.01/-10.12	-4.62/-4.59	-5.51/-7.34	-10.32/-10.59	-7.85/-8.54	-4.95/-6.83	-11.58/-17.18	-10.52/-6.1	-5.5/-11.03
Θ(60°)	-18.59/-18.07	-10.23/-13.74	-9.56/-7.75	-8.89/-11.1	-8.51/-8.05	-9.47/-10.11	-9.93/-8.77	-5.46/-4.71	-6.77/-7.59	-16.22/-18.24	-18.82/-13.27	-8.99/-8.37	-7.12/-15.56	-12.35/-16.77	-11.7/-15.01	-5.11/-5.19	-5.78/-8.2	-10.05/-15.49	-11.74/-6.94	-4.96/-5.1	-8.22/-11.55	-12.36/-8.26	-9.4/-13.14	
Θ(67.5°)	-13.94/-19.14	-18.3/-18.21	-9.97/-9.35	-10.94/-11.16	-11.65/-10.73	-14.08/-13.97	-18.94/-11.89	-6.67/-5.67	-10.04/-17.61	-10.21/-10.66	-16.91/-17.38	-17.91/-12.58	-8.65/-10.45	-18.96/-19.02	-11.76/-14.3	-7.94/-7.28	-5.28/-8.24	-7.58/-6.68	-12.55/-13.22	-8.25/-6.69	-6.06/-6.26	-7.66/-10.02	-11.54/-13.76	-18.97/-15.94
Θ(75°)	-12.34/-17.32	-11.09/-11.6	-11.18/-11.3	-9.31/-7.45	-9.44/-14.69	-13.07/-9.22	-8.09/-7.34	-8.35/-7.34	-8.15/-13.79	-10.75/-7.19	-10.51/-18.02	-14.97/-13.01	-18.57/-11.38	-16.69/-13.68	-9.29/-9.16	-6.07/-5.15	-8.2/-3.87	-9.75/-11.23	-18.6/-12.61	-8.13/-5.06	-5.42/-6.26	-5.04/-5.3	-7.9/-13.11	-18.66/-11.96
Θ(82.5°)	-10.17/-8.42	-9.02/-15.15	-19.16/-19.02	-9.86/-10.85	-12.24/-13.62	-15.98/-14.74	-10.01/-7.43	-6.11/-7.32	-13.61/-18.04	-14.61/-10.51	-13.46/-18.55	-15.4/-11.85	-12.25/-10.91	-13.16/-13.61	-12.08/-9.69	-3.02/-7.77	-9.34/-13.01	-15.05/-11.61	-8.3/-3.57	-3.16/-4.2	-4.24/-5.19	-5.93/-4.07	-6.39/-7.18	-10.24/-10.19
Θ(90°)	-7.47/-8.73	-6.65/-8.25	-10.16/-13.76	-10.05/-7.22	-8.23/-9.31	-16.37/-15.38	-10.8/-8.01	-7.18/-7.33	-7.45/-12.26	-18.36/-10.95	-8.08/-11.41	-10.98/-7.29	-10.11/-8.79	-10.15/-10.14	-6.48/-7.31	-7.43/-11.63	-8.32/-12.62	-13.66/-9.51	-3.18/-2.55	-1.98/-1.67	-2.33/-2.79	-6.87/-5.99	-8.27/-6.83	-7.63/-7.03
Θ(97.5°)	-8.58/-7.23	-5.96/-12.11	-9.8/-10.14	-8.57/-7.33	-11.07/-11.55	-18.56/-18.89	-18.27/-13.49	-11.26/-10.16	-14.31/-19.09	-18.82/-15.48	-14.32/-14.43	-17.22/-7.92	-7.32/-7.92	-9.66/-14.9	-12.32/-10.41	-7.75/-8.42	-5.6/-7.87	-6.65/-2.63	0.060/8.1	-0.38/-0.89	-3.14/-3.61	-5.3/-3.72	-6.68/-6.35	-7.38/-8.54
Θ(105°)	-12.53/-9	-8.48/-8.04	-6.65/-10.9	-1.52/-6.41	-10.52/-6.1	-14.14/-8.9	-7.12/-8.99	-10.4/-8.75	-10.02/-10.57	-13.22/-10.55	-7.3/-7.06	-8.59/-5.9	-6.76/-6.85	-7.76/-11.92	-13.64/-11.42	-6.54/-4.24	-1.59/-1.93	-2.36/-3.36	-1.63/-2.72	-2.08/-2.21	-3.64/-9.99	-7.14/-4.95	-4.82/-6.52	-6.56/-7.3
Θ(112.5°)	-8.45/-6.79	-4.58/-7.81	-6.25/-14.54	-12.44/-5.66	-3.29/-9.23	-11.75/-14.25	-17.62/-17.85	-13.57/-13.7	-13.89/-17.38	-17.84/-13.02	-7.89/-9.44	-9.67/-5.61	-6.25/-8.82	-9.45/-11.55	-5.82/-1.97	-1.56/-3.45	-6.46/-4.49	-4.09/-6.14	-5.05/-9.27	-8.21/-10.2	-8.69/-7.42	-8.17/-12.53	-6.52/-13.96	
Θ(120°)	-7/-5.69	-11.27/-9.32	-5.5/-11.62	-15.87/-8.86	-8.83/-9.01	-6.13/-4.39	-5.34/-9.43	-12.39/-9.22	-5.82/-7.62	-16.17/-11.95	-2.55/-2.85	-5.87/-3.06	-5.95/-8.31	-11.25/-18.48	-18.66/-12	-3.2/-3.58	-13.21/-9	-9.38/-12.04	-13.75/-15.55	-13.12/-10.76	-9.79/-10.59	-13.26/-6.5	-9.58/-10.12	
Θ(127.5°)</																								



Radiated Composite Gain Data 6GHz

Appendix A.2

Θ(120°)	-6.07/-3.42	-5.8/-5.68	-1.78/-5.33	-4.93/-8.4	-6.05/-9.71	-5.11/-6.58	-9.46/-10.54	-6.48/-9	-6.6/-6.42	-3.75/-5.75	-3.44/-6.44	-5.62/-4.29	-4.23/-6.17	-13.87/-14.95	-11.54/-13.41	-7/-1.56	1.86/-1.71	0.29/-1.98	-0.26/-1.95	-6.47/-4.76	-2.42/-4.87	-18.5/-9.97	-7.03/-9.38	-11.02/-11.28	
Θ(127.5°)	-13.11/-11.34	-17.19/-18.05	-10.75/-1.73	-4.89/-2.25	-7.38/-11.59	-6.81/-9.97	-0.5/-1.6	-6.14/-9.76	-5.34/-3.4	-6.02/-4.27	-1.89/-5.58	-7.43/-6.03	-7.79/-17.58	-8.92/-6.34	-10.13/-17.16	-15.87/-3.85	-2/-0.41	-8.06/-9.75	-4.52/-11.58	-11.16/-2.65	-4/-8.57	-18.36/-16.33	-13.08/-15.68	-8.96/-18.93	
Θ(135°)	-15.89/-11.98	-10.33/-13.45	-15.91/-10.28	-12.2/-17.1	-7.91/-8.32	-14.65/-18.58	-14.74/-17.61	-13.95/-13.63	-4.81/-4.77	-7.17/-4.43	-5.62/-5.17	-5.24/-8.69	-11.37/-7.05	-6.3/-5.98	-13.73/-19.01	-5.94/-6.66	-3.82/-10.38	-15.21/-11.8	-6.71/-17.92	-15.75/-8.13	-11.71/-14.18	-11.78/-9.35	-14.58/-13.75	-10.38/-18.05	
Θ(142.5°)	-14.25/-16.86	-11.51/-13.38	-17.66/-14.55	-11.83/-19.03	-18.7/-9.75	-9.33/-10.8	-14.38/-18.47	-6.98/-5.2	-7.71/-13.95	-5.5/-3.43	-6.25/-11.07	-8.14/-9.78	-17.33/-14.8	-15.71/-2.97	-8.13/-8.81	-11.83/-7.65	-7.01/-6.21	-12.32/-15.51	-9.62/-13.22	-16.94/-12.99	-11.47/-7.06	-6.47/-11.45	-17.58/-13.12	-12.19/-17.77	
Θ(150°)	-10.9/-19.13	-18.54/-19.32	-14/-11.57	-9.14/-9.47	-9.18/-17.54	-7.18/-8.31	-12/-18.36	-18.1/-15.4	-17.86/-18.55	-14.69/-7.71	-8.65/-13.7	-19.23/-17.98	-16.01/-13.81	-8.25/-12.66	-19.22/-18.75	-18.93/-15.77	-11.23/-10.59	-13.72/-12.85	-7.4/-11.56	-17.56/-15.67	-16.27/-12.7	-13.79/-11.43	-15.86/-11.55		
Θ(157.5°)	-11.36/-9.56	-10.73/-10.67	-7.05/-6.35	-5.75/-6.21	-6.73/-6.28	-6.89/-9.41	-11.98/-18	-19.52/-9.16	-5.6/-6.23	-9.03/-10	-7.05/-5.77	-7.7/-12.36	-15.65/-12.71	-12.89/-17.37	-15.38/-9.38	-7.44/-8.22	-9.04/-11.1	-12.77/-12.56	-11.6/-11.47	-12.01/-12.96	-15.95/-12.77	-18.2/-18.99	-18.63/-14.8		
Θ(165°)	-11.34/-11.2	-9.04/-7.2	-6.54/-6.36	-7.18/-8.94	-11.73/-18.86	-19.13/-15.82	-11.1/-8.13	-6.23/-5.82	-6.8/-8.69	-11.35/-13.74	-11.13/-8.54	-9.65/-11.42	-11.12/-11.14	-13.04/-15.13	-15.21/-13.73	-10.82/-7.84	-5.82/-5.47	-7.52/-11.42	-17.09/-18.36	-12.82/-10.11	-8.93/-9.06	-12.85/-14.22	-10.46/-9.21	-10.09/-10.5	
Θ(172.5°)	-10.01/-8.69	-7.89/-7.3	-7.66/-8.14	-10.03/-13.74	-16.4/-14.45	-14.74/-16.27	-17.5/-15.05	-13.04/-11.41	-11.38/-12.93	-15.31/-16.67	-18.43/-17.42	-15.06/-13.72	-13.35/-14.14	-15.21/-17.54	-18.8/-17.46	-18.83/-19.23	-18.11/-17.57	-16.63/-14.28	-12.23/-10.84	-10.36/-9.52	-9.02/-10.63	-11.31/-17	-12.01/-12.61	-12.49/-10.76	
Θ(180°)	-11.83/-12.86	-12.99/-13.03	-12.52/-12.46	-11.77/-11.87	-10.48/-8.06	-6.89/-6.72	-7.33/-12.02	-10.65/-12.06	-12.2/-12.12	-12.7/-13.18	-12.14/-10.16	-9.8/-9.69	-8.82/-9.31	-9.84/-9.91	-9.85/-10.18	-10.5/-11.23	-12.1/-13.22	-14.4/-15.23	-14.96/-14.39	-12.63/-12.54	-13.64/-13.17	-15.57/-12.58	-11.25/-10.33	-10.12/-11.76	
Freq(Hz)	6.895GPol.	ThetaAnt. 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°)	-5.4/-6.35	-6.99/-8.18	-8.38/-10.42	-13.56/-19.21	-12.24/-16.35	-12.02/-8.89	-8.07/-6.9	-6.18/-5.83	-5.2/-6.68	-4.29/-3.79	-4.2/-3.93	-4.58/-5.65	-7.1/-8.61	-11.39/-16	-17.83/-17.7	-17.8/-15.69	-10.72/-8.42	-6.92/-5.74	-5.13/-4.45	-3.82/-3.33	-2.55/-2.33	-3.04/-3.36	-4.02/-4.74		
Θ(7.5°)	-7.37/-9.4	-11.84/-11.54	-11.55/-13.37	-17.24/-18.22	-17.93/-12.56	-8.8/-6.33	-5.41/-4.66	-4.14/-4.11	-3.9/-3.78	-3.78/-4.02	-4.28/-4.28	-4.48/-4.76	-5.28/-6.03	-7.21/-8.28	-11.01/-13.59	-17.17/-18.02	-19.12/-14.78	-11.43/-9.81	-8.47/-7.67	-6.64/-5.63	-5.16/-4.13	-3.45/-3.8	-4.29/-4.66	-5.53/-6.61	
Θ(15°)	-7.37/-8.45	-10.23/-14.04	-17.73/-18.09	-18.36/-15.22	-12.14/-9.75	-7.35/-6.21	-5.48/-5.41	-4.78/-4.33	-4.16/-3.92	-3.86/-4.1	-4.93/-6.54	-7.15/-7.58	-7.49/-8.3	-9.95/-12.68	-16.95/-18.9	-16.59/-11.99	-10.46/-9.55	-9/-8.51	-7.66/-7.23	-6.65/-6.89	-6.88/-6.45	-6.81/-7.32	-7.09/-6.36	-7.75/-7.73	
Θ(22.5°)	-12.36/-14.84	-16.24/-19.07	-17.82/-15.1	-9.74/-7.71	-6.86/-6.06	-6.5/-6.88	-7.85/-8.95	-10.27/-10.17	-8.36/-6.1	-4.94/-4.36	-4.76/-5.67	-7.16/-7.62	-8.35/-9.58	-12.33/-14.21	-12.32/-10.01	-9.58/-12.31	-18.55/-18.44	-16.69/-11	-7.8/-5.71	-4.54/-3.93	-3.94/-4.75	-6.17/-7.74	-7.55/-6.69	-7.17/-8.91	
Θ(30°)	-9.81/-11.81	-11.4/-10.83	-7.88/-4.75	-3.38/-3.02	-2.42/-1.52	-2.06/-2.83	-4.1/-5.59	-7.47/-10.04	-11.32/-7.77	-4.85/-3.41	-3.71/-6.17	-11.06/-11.67	-11.49/-9.5	-11.37/-12.91	-12.01/-10.1	-9.93/-10.31	-13.91/-16.38	-10/-7.59	-6.97/-6.13	-5.13/-4.76	-4.76/-5.39	-6.61/-8.85	-8.65/-7.45	-6.17/-7.43	
Θ(37.5°)	-4.83/-7.95	-5.57/-3.29	-2.76/-2.17	-3.29/-4.22	-3.99/-4.01	-4.69/-5.19	-6.19/-7.45	-7.78/-8.88	-12.9/-13.16	-4.66/-1.59	-0.41/-3.2	-8.24/-11.85	-10.37/-11.82	-12.73/-8.86	-6.63/-6.59	-10.98/-13.93	-13.18/-12	-9.62/-9.61	-9.9/-9.47	-9.59/-10.06	-4.88/-9.41	-10.29/-8.86	-9.98/-7.35	-4.95/-8.26	
Θ(45°)	-4.84/-5.81	-4.9/-2.1	-3.04/-3.79	-5.5/-5.99	-4.71/-4.03	-5.01/-6.96	-9.53/-12.18	-13.6/-12.85	-13.1/-17.04	-10.54/-14.14	-1.14/-1.66	-5.89/-15.25	-17.31/-15.1	-14.1/-9.95	-10.81/-10.43	-13.86/-12.06	-14.07/-12.97	-14.76/-10.1	-8.3/-9.95	-12.83/-17	-18.6/-11.88	-15.52/-18.24	-10.26/-7.84	-7.73/-5.61	
Θ(52.5°)	-5.65/-7.16	-4.7/-2.1	-2.96/-4.61	-5.59/-4.6	-4.89/-5.38	-6.79/-7.72	-7.8/-8.12	-8.47/-7.95	-6.08/-6.82	-11.94/-7.33	-2.74/-2.05	-4.73/-10.74	-18.95/-17.91	-17.54/-16.28	-14.12/-18.67	-18.45/-13.31	-14.46/-17.99	-16.44/-12.1	-10.76/-10.39	-11.25/-12.66	-12.58/-9.16	-11.09/-15.33	-12.18/-9.1	-9.23/-8.7	
Θ(60°)	-9.2/-10.94	-9.63/-4.56	-6.25/-17.8	-6.66/-3.7	-5.32/-5.1	-4.93/-8.59	-7.48/-9.74	-12.72/-15.17	-9.48/-8.66	-10.29/-11.66	-4.90/-3.32	-3.04/-5.36	-10.12/-18.74	-16.58/-16.17	-17.95/-18.47	-14.59/-9.24	-12.87/-18.81	-15.41/-9.84	-9.51/-12.51	-16.32/-10.27	-11.41/-16.01	-16.41/-18.3	-17.32/-13.14		
Θ(67.5°)	-17.49/-18.67	-12.06/-12.41	-1.4/-9.31	-6.95/-9.1	-5.93/-7.05	-8.53/-9.52	-8.44/-6.78	-7.58/-9.63	-9.29/-4.7	-5.16/-13.35	-10.78/-9.08	-7.49/-6.23	-9/-18.72	-10.78/-12.89	-13.71/-12.82	-15.55/-17.71	-13.63/-11.01	-9.28/-8.48	-7.37/-7.19	-8.93/-14.14	-18.53/-18.56	-11.15/-14.55	-11.27/-15.76		
Θ(75°)	-8.58/-15.69	-17.57/-14.97	-14.53/-11.86	-11.68/-8.82	-11.18/-10.06	-9.99/-10.44	-11.33/-11.18	-10.32/-12.82	-18.58/-10.21	-8.56/-14.09	-12.82/-7.9	-6.6/-5.76	-7.64/-17.23	-9.69/-10.47	-12.1/-12.22	-12.69/-11.06	-14.51/-12.26	-10.12/-7.68	-7.92/-7.73	-7.73/-8.14	-9.58/-10.29	-10.78/-14.94	-14.51/-12.4	-9.94/-9.03	
Θ(82.5°)	-4.6/-11.49	-11.65/-9.39	-9.96/-7.98	-10.19/-10.48	-15.17/-11.61	-9.93/-8.15	-7.37/-8.87	-10.53/-12.01	-11.55/-9.26	-8.7/-12.14	-19.09/-12.28	-11.49/-12.51	-10.05/-14.89	-13.51/-9.93	-12.33/-17.75	-14.4/-10.17	-9.66/-9.42	-11.17/-9.02	-9.86/-7.37	-5.87/-4.44	-3.13/-4.68	-4.57/-8.77	-8.33/-6.51	-7.42/-5.22	
Θ(90°)	-2.88/-10.22	-6.14/-4.74	-8.03/-6.78	-10.01/-12.19	-8.54/-18.59	-9.64/-10.01	-9.9/-8.39	-8.84/-19.31	-17.83/-13.15	-11.46/-11.65	-17.92/-7.91	-5.52/-13.52	-16.61/-17.57	-14.77/-10.72	-8.51/-11.35	-10.44/-12.17	-5.91/-7.54	-9.53/-8.44	-6.86/-5.72	-2.72/-1.87	-1.383/-3.89	-4.57/-4.71	-11.15/-7.03	-4.81/-4.3	
Θ(97.5°)	-2.05/-12.6	-7.88/-6.23	-3.61/-3.94	-6.18/-10.94	-6.79/-14.91	-12.05/-10.62	-5.67/-5.05	-8.89/-19.04	-14.7/-12.88	-16.72/-12.55	-12.89/-14.39	-4.26/-3.74	-14.05/-10.8	-17.75/-11.14	-10.73/-12.73	-8.92/-7.15	-5.49/-7.95	-8.8/-10.51	-6.19/-5.01	-4.3/-0.83	0.13/-0.37	-1.99/-6.75	-8.34/-4.02	-2.73/-3.74	
Θ(105°)	-1.87/-8.2	-8.41/-7.04	-4.89/-8.46	-9/-7.66	-6.54/-6.29	-18.18/-16.68	-13.24/-13.03	-13.71/-14.59	-18.78/-18.76	-16.56/-11.06	-6.34/-6.57	-5.62/-6.7	-12.31/-14.2	-9.46/-10.34	-19.61/-14.71	-9.3/-9.94	-12.17/-16.4	-14.13/-17.39	-14.95/-12.46	-13.03/-15.31	-19.01/-17.86	-18.82/-18.56	-15.91/-13.25	-10.96/-8.87	-8.79/-9.56
Θ(112.5°)	-5.65/-12.51	-12.75/-7.9	-4.3/-3.56	-6.89/-10.52	-8.75/-9.22	-7.67/-8.8	-10.66/-11.7	-12.52/-13.09	-17.42/-15.29	-4.33/-6.66	-6.63/-5.75	-9.5/-7.53	-6.82/-17.14	-19.34/-19.22	-11.13/-8.94	-5.55/-9.01	-9.13/-15.75	-7.19/-17.05	-11.58/-5.47	-4.12/-6.39	-8.45/-11.84	-5.62/-6.96	-12.56/-9.25		
Θ(120°)	-12.33/-15.98	-12.99/-9.62	-8.2/-4.12	-9.25/-11.23	-5.23/-6.91	-6.5/-6.59	-7.7/-10.75	-13.62/-13.76	-13.95/-13.34	-18.06/-10.2	-6.44/-12.98	-4.66/-2.6	-10.09/-6.81	-6.02/-8.86	-17.26/-18.59	-11.58/-9.12	-11.45/-16.07	-17.93/-18.19	-13.5/-11.64	-11.45/-10.58	-11.21/-14.46	-17.22/-13.28	-10.78/-14.68	-19.27/-11.63	
Θ(127.5°)	-13.13/-13.96	-10.68/-13.69	-18.18/-11.79	-4.43/-12.2	-19.29/-8.25	-4.69/-4.52	-7.8/-14.21	-13.47/-1.1	-3.75/-5.95	-16.31/-5.08	-1.81/-8.56	-3.14/-5	-17.05/-6.27	-6.93/-8.27	-9.91/-10.63	-16.51/-18.75	-18.53/-17.61	-18.39/-19.52	-17.84/-19.08	-14.69/-13	-10.56/-14.21	-15.49/-14.62	-13.86/-16.67	-17.34/-17.65	
Θ(135°)	-9.99/-14.57	-18.43/-9.05	-11.83/-15.38	-17.92/-19.24	-18.98/-9.45	-6.92/-8.73	-16.31/-15.97	-9.39/-9.28	-14.79/-15.02	-12.91/-3.23	-9.92/-6.01	-4.51/-0.74	-5.44/-5.22	-1.630/-0.8	-13.73/-15.22	-15.66/-18.14	-9.04/-18.46	-13.83/-10.57	-8.71/-11.39	-7.77/-6.1	-7.58/-10.09	-18.85/-15.07	-8.58/-12.47	-15.86/-18.6	
Θ(142.5°)	-10.68/-18.8	-18.51/-10.06	-7.76/-7.8	-10.4/-18.57	-17.81/-16.35	-13.52/-10.81	-9.41/-9.54	-12.03/-17.49	-13.31/-12.78	-12.93/-5.51	-4.61/-6.52	-5.8/-3.34	-8.08/-17.92	-10.57/-6.11	-7.08/-18.82	-13.68/-12.48	-8.68/-18.28	-14.82/-6.96	-9.81/-15.21	-9.01/-6.63	-16.58/-11.73	-17.65/-12.03	-18.44/-18.26	-14.63/-11.94	
Θ(150°)	-12.58/-10.45	-13.14/-13.29	-9.83/-14.25	-16.74/-18.28	-15.29/-13.41	-10.47/-9.21	-8.88/-9.69	-11.78/-13.48	-12.89/-10.02	-11.77/-18.93	-11.64/-7.49	-10.89/-8.77	-5.41/-5.84	-7.6/-5.09	-5.74/-8.45	-18.65/-16.32	-18.2/-10.6	-13.71/-16.21	-14.41/-8.96	-6.47/-10.74	-18.02/-17.91	-18.67/-17.41	-13.3/-11.87	-11.8/-15.68	
Θ(157.5°)	-8.47/-10.04	-7.9/-7.25	-7.68/-6.19	-6.88/-10.33	-11.95/-13.08	-12.03/-10.36	-8.98/-18.2	-8.89/-9.77	-6.55/-4.4	-4.85/-6.14	-7.32/-6.86	-7.07/-12.05	-17.73/-13.12	-7.01/-4.85	-8.91/-11.43	-12.34/-16.28	-16.71/-13.99	-14.72/-19.07	-18.01/-17.96	-16.18/-18.15	-18.5/-18.7	-15.89/-8.99	-7.75/-9.47	-2.7/-3.79	
Θ(165°)	-8.3/-8.56	-7.3/-8.59	-14.11/-17.58	-16.4/-14.85	-13.24/-13.03	-13.71/-14.59	-18.78/-18.76	-16.56/-11.06	-6.34/-6.57	-5.62/-6.7	-12.31/-14.2	-9.46/-10.34	-19.61/-14.71	-9.3/-9.94	-12.17/-16.4	-14.13/-17.39									



Radiated Composite Gain Data 6GHz

Appendix A.2

Θ(05°)	-18.78/-19.18	-17.51/-12.4	-10.56/-11.19	-13.18/-16.37	-16.37/-11.94	-9.99/-8.78	-7.43/-6.57	-5.25/-5.33	-6.03/-6.37	-6.07/-6.17	-6.84/-7.26	-6.33/-5.36	-4.46/-4.26	-4.47/-5.1	-6.15/-8.28	-11.65/-10.74	-9.24/-10.39	-12.9/-15.55	-18.88/-18.21	-15.59/-14.39	-12.1/-9.22	-7.91/-8.45	-9.56/-10.7	-13.19/-16.64
Θ(172.5°)	-18.83/-19.31	-17.24/-13.98	-13.6/-12.98	-12.73/-11.61	-10.83/-9.91	-8.35/-6.07	-5.16/-4.59	-4.68/-5.4	-6.1/-7.3	-8.26/-8.56	-8.27/-15.9	-8.41/-6.06	-6.62/-8.4	-10.68/-12.92	-12.69/-10.03	-8.01/-6.9	-6.72/-7.3	-7.78/-7.91	-8.32/-9.74	-12.48/-15.46	-18.56/-18.67	-18.28/-15.84	-13.18/-13.4	-16.43/-17.96
Θ(180°)	-13.39/-13.8	-14.91/-18.19	-13.57/-18.59	-18.11/-14.68	-12.89/-11.74	-10.5/-8.64	-7.68/-7.69	-8.02/-8.26	-6.31/-8.35	-8.31/-8.85	-9.2/-10.4	-10.45/-10.44	-10.45/-13.56	-15.48/-17.76	-16.85/-17.36	-18.51/-19.43	-19.26/-17.49	-16.85/-17.9	-11.59/-11.32	-11.59/-13.42	-11.83/-12.84	-13.55/-15.23	-11.2/-9.58	-9.28/-10.83
Freq(Hz)	6.175GPol.	ThetaAnt. 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-9.36/-9.82	-9.48/-10.24	-10.87/-11.4	-12.23/-11.9	-11.51/-10.94	-10.9/-10.81	-10.09/-10.89	-11.09/-11.39	-9.93/-9.83	-9.93/-9.19	-12.22/-12.51	-12.15/-11.44	-11.18/-11.59	-12.04/-11.73	-10.74/-9.99	-9.71/-10.02	-11.18/-11.26	-12.59/-14.48	-18.78/-18.74	-18.24/-18.92	-17.5/-14.41	-10.99/-9.47	-9.47/-9.51	-10.34/-10.72
Θ(7.5°)	-9.98/-10.91	-11.42/-13.02	-13.68/-14.2	-14.37/-13.72	-13.36/-14.01	-15.29/-15.65	-17.11/-17.75	-17.99/-17.65	-16.69/-15.58	-13.29/-11.72	-11.46/-10.72	-10.59/-10.26	-10.01/-9.37	-9/-8.45	-7.57/-7.19	-7.47/-7.85	-8.6/-8.81	-9.18/-9.68	-9.5/-10.3	-10.88/-9.57	-8.07/-7.54	-7.2/-7.52	-7.1/-7.26	-8.2/-9.09
Θ(15°)	-10.99/-13.2	-16.85/-18.98	-17.26/-13.69	-12.49/-12.49	-13.24/-15.46	-16.43/-17.29	-16.86/-16.25	-15.62/-15.67	-14.26/-14.04	-14.29/-15.19	-14.2/-12.17	-12.41/-12.52	-12.48/-11.5	-10.02/-8.25	-7.72/-7.51	-8.17/-8.89	-9.13/-9.83	-10.88/-11.19	-11.45/-12.03	-13.95/-13.86	-13.38/-12.71	-12.1/-12.13	-10.59/-9.47	-10.59/-10.57
Θ(22.5°)	-13.92/-12.57	-15.37/-18.27	-19.08/-12.69	-9.23/-8.9	-10.77/-13.85	-18.14/-18.54	-13.77/-11.34	-11.01/-11.62	-13.07/-15.52	-19.27/-18.51	-13.3/-10.54	-9.93/-12.07	-15.54/-17.32	-14.03/-10.62	-9.22/-10.06	-11.97/-13.12	-15.06/-17.41	-18.65/-18.78	-15.12/-13.31	-12.59/-14.48	-17.44/-18.65	-18.78/-18.74	-18.24/-18.92	-17.5/-14.41
Θ(30°)	-10.79/-7.49	-7.36/-10.23	-12.81/-9.93	-8.53/-12.2	-18.55/-14.34	-8.24/-5.44	-4.7/-4.89	-5.33/-6.37	-7.41/-9.72	-15.32/-17.7	-19.26/-15.74	-10.76/-10.18	-11.71/-16.09	-14.31/-9.98	-9.38/-11.08	-13.4/-16.61	-18.51/-19.19	-18.08/-15.62	-13.1/-13.04	-12.71/-11.61	-10.85/-10.96	-10.68/-9.81	-10.83/-14.71	-17.56/-16.98
Θ(37.5°)	-6.64/-6.79	-6.84/-7.33	-10.27/-11.8	-14.79/-17.43	-12.44/-6.54	-3.62/-2.95	-3.24/-3.73	-4.22/-8.45	-5.96/-8.16	-12.57/-17.75	-16.91/-13.54	-9.36/-7.74	-10.37/-10.17	-19.19/-14.98	-14.89/-15.88	-13.18/-12.89	-13.71/-12.92	-12.21/-11.99	-7.54/-7.03	-6.41/-5.15	-5.43/-5.85	-6.04/-8.74	-11.98/-11.51	
Θ(45°)	-6.47/-5.26	-6.64/-10.17	-19.13/-17.61	-18.11/-16.75	-10.37/-7.42	-6/-5.77	-6.08/-6.39	-6.4/-6.23	-6.67/-8.31	-9.44/-10.81	-12.43/-10.63	-9.87/-12.13	-12.81/-12.25	-13.25/-14.32	-12.45/-12.4	-10.75/-9.71	-8.14/-7.72	-8.76/-10.15	-12.58/-11.64	-10.08/-7.37	-4.86/-4.93	-5.18/-6.33	-7.02/-8.39	
Θ(52.5°)	-7.57/-6.02	-10.21/-19.2	-18.03/-14.78	-13.32/-12.94	-13.03/-11.18	-8.58/-6.97	-6.36/-5.69	-6.17/-7.31	-8.78/-9.91	-10.32/-10.49	-10.75/-9.19	-8.52/-9.03	-10.57/-15.08	-8.77/-9.25	-13.74/-17.98	-14.22/-9.46	-5.82/-3.95	-4/-5.3	-9.1/-13.92	-11.66/-8.49	-9.89/-9.22	-8.65/-6.83	-7.4/-7.02	-8.25/-11.42
Θ(60°)	-12.82/-10.87	-11.38/-8.49	-14.9/-18.01	-15.03/-16.85	-16.67/-15.33	-15.73/-13.74	-11.29/-8.92	-6.9/-7.08	-8.74/-11.48	-13.45/-9.85	-7.55/-5.92	-7.76/-11.34	-10.02/-10.18	-6.65/-7.74	-13.05/-12.14	-15.89/-8.96	-12.93/-9.25	-8.3/-9.08	-17.98/-16.96	-8.06/-4.79	-6.8/-8.92	-14.17/-16.88	-18.04/-16.33	-15.74/-16.59
Θ(67.5°)	-12.56/-18.29	-10.27/-8.42	-14.61/-19.01	-13.02/-14.96	-14.89/-13.02	-9.7/-10.26	-10.57/-9.32	-7.83/-7.18	-7.42/-10.17	-15.43/-15.53	-10.78/-7.72	-7.4/-10.17	-8.78/-7.41	-7.13/-6.51	-7.53/-8.6	-11.12/-13.96	-14.96/-17.34	-19.12/-19.31	-13.71/-7.29	-4.61/-3.88	-4.8/-7.78	-13.13/-16.68	-18.76/-18.7	-15.93/-12.76
Θ(75°)	-6.39/-9.88	-9.86/-6.32	-8.66/-14.96	-12.88/-11.5	-14.49/-18.58	-13.15/-10.56	-8.21/-6.22	-4.89/-4.62	-5.28/-7.77	-11.27/-10.14	-8.95/-7.79	-11.92/-10.34	-7.11/-6.15	-7.38/-6.44	-10.72/-17.67	-16.35/-17.64	-13.57/-12.97	-18.14/-18.13	-15.48/-10.18	-7.42/-7.06	-6.5/-8.44	-10.51/-10.01	-9.72/-10.11	-10.09/-5.82
Θ(82.5°)	-3.45/-6.42	-6.48/-4.58	-6.05/-11.21	-13.99/-10.48	-10.24/-8.75	-7.68/-8.8	-10.85/-8.58	-7.52/-7.08	-7.52/-11.01	-13.62/-12.35	-8.32/-6.72	-11.91/-8.08	-6.63/-8.13	-11.94/-6.31	-6.51/-13.39	-14.14/-11.73	-9.59/-9.04	-14.95/-18.05	-18.89/-16.93	-9.56/-9.95	-9.04/-13.12	-13.58/-11.88	-5.5/-4.29	-4.32/-3.38
Θ(90°)	-2.87/-4.14	-6.22/-5.98	-5.02/-8.05	-11.39/-9.18	-5.89/-6.93	-7.81/-8.13	-8.06/-8.12	-6.98/-5.68	-5.45/-7.78	-9.63/-13.83	-15.56/-9.04	-11.07/-11.01	-15.95/-10.16	-11.39/-19.45	-11.07/-17.57	-8.91/-17.72	-14.5/-18.8	-13.82/-12.96	-6.79/-5.94	-7.04/-11.91	-12.14/-8.56	-4.75/-6.82	-5.36/-4.45	
Θ(97.5°)	-3.05/-2.51	-4.62/-8.16	-6.56/-8.56	-12.12/-11.02	-6.12/-4.78	-4.68/-7.18	-11.7/-14	-10.75/-7.75	-8.95/-12.96	-16.15/-10.06	-6.8/-10.61	-18.52/-10.62	-14.01/-18.19	-12.65/-7.91	-9.87/-11.95	-13.7/-8.34	-8.01/-10.79	-8.16/-7.15	-9.76/-14.19	-10.83/-7.99	-7.09/-10.79	-17.83/-9.55	-4.04/-2.24	-1.31/-1.24
Θ(105°)	-1.48/-4.33	-8.22/-13.16	-15.03/-13.98	-9.47/-12.02	-11.13/-6.26	-5.98/-8.88	-11.98/-14.84	-13.59/-11.42	-11.77/-16.21	-17.05/-13.32	-10.32/-15.54	-10.83/-10.64	-19.04/-15.56	-10.17/-8.84	-11.82/-13.91	-11.97/-9.63	-6.21/-5.62	-4.85/-6.64	-13.74/-13.15	-13.39/-10.15	-8.09/-9.59	-14.59/-16.38	-8.75/-7.81	-4.31/-3.51
Θ(112.5°)	-6.59/-6.42	-14.43/-18.66	-16.81/-11.31	-6.19/-9.52	-10.15/-6.01	-7.03/-8	-11.96/-11.96	-10.1/-12.85	-13.54/-17.87	-18.63/-12.42	-8.01/-14.85	-13.53/-11.18	-8.18/-11.71	-14.02/-18.09	-14.43/-8.93	-8.77/-5.8	-4.33/-8.85	-3.92/-4.29	-18.14/-12.91	-12.72/-8.22	-16.46/-4.66	-12.73/-19.74	-9.1/-3.98	-5.75/-5.18
Θ(120°)	-8.43/-8.11	-12.65/-16.11	-9.34/-8.51	-7.04/-5.99	-14.55/-14.13	-9.08/-10.77	-14.13/-18.1	-18.54/-18.71	-18.75/-18.2	-15.44/-14.79	-18.45/-13.61	-7.85/-9.69	-10.74/-7.79	-8.63/-15.31	-11.91/-11.31	-10.1/-8.8	-10.04/-9.25	-3.53/-7.4	-6.55/-13.96	-5.95/-11.24	-8.68/-6.25	-15.36/-12.88	-15.18/-8.03	-9.53/-12.82
Θ(127.5°)	-18.67/-12.4	-18.12/-8.03	-4.54/-5.21	-4.51/-3.58	-6.25/-10.03	-9.08/-6.34	-5.9/-6.22	-7.13/-12.12	-15.03/-14.75	-10.99/-8.21	-8.22/-13.52	-8.36/-7.04	-8.58/-9.92	-10.69/-12.62	-17.74/-8.33	-10.92/-14.23	-10.78/-5.73	-5.55/-5.3	-7.82/-5.74	-1.53/-12.36	-5.32/-18.86	-8.46/-11.12	-15.14/-3.05	-1.56/-6.54
Θ(135°)	-9.16/-17.99	-17.43/-7.01	-3.95/-5.15	-9.57/-10.59	-12.79/-16.92	-10.56/-6.03	-5.75/-8.39	-9.78/-11.69	-12.98/-17.72	-15.65/-8.62	-8.73/-16.46	-10.69/-6.94	-8.92/-5.76	-5.77/-7.69	-17.32/-19.31	-9.38/-12.81	-8.75/-12.22	-15.57/-10.54	-18.35/-10.28	-3.05/-2.91	-17.32/-7.16	-7.72/-8.22	-4.66/-2.03	0.59/-3.66
Θ(142.5°)	-14.78/-17.91	-17.85/-9.29	-4.93/-4.38	-6.54/-8.09	-9.62/-15.62	-17.1/-14.03	-11.6/-10.94	-8.49/-7.35	-9.86/-13.53	-16.84/-17.77	-17.32/-11.75	-9.91/-11.85	-18.64/-11.8	-10.85/-15.1	-15.98/-18.98	-13.22/-12.43	-12.71/-11.33	-11.58/-12.49	-9.89/-5.37	-2.35/-3.67	-10.89/-10.78	-6.09/-6.79	-3.77/-3.93	-5.06/-11.99
Θ(150°)	-13.3/-17.98	-14.82/-6.41	-4.33/-2.48	-4.31/-9.54	-18.57/-12.43	-8.14/-6.14	-4.85/-4.07	-3.8/-4.21	-5.81/-8.7	-13.39/-18.43	-16.54/-15.25	-18.12/-8.68	-10.84/-7.35	-6.08/-7.53	-11.08/-19.16	-18.27/-13.68	-15.08/-7.93	-9.08/-16.89	-18.87/-16.59	-10.1/-8.08	-7.62/-9.21	-13.17/-9.31	-5.43/-2.56	-4.82/-9.55
Θ(157.5°)	-6.15/-8.07	-11.59/-17.79	-13.17/-7.31	-6.96/-8.38	-10.64/-16.19	-18.66/-15.88	-13.34/-10.92	-11.51/-17.11	-16.82/-11.2	-7.88/-5.18	-6.59/-11.68	-13.51/-14.68	-15.78/-10.63	-9.92/-8.09	-9.94/-15.59	-18.9/-10.68	-6.37/-5.6	-7.44/-10.1	-11.18/-13.35	-12.75/-7.69	-5.77/-7.82	-15.45/-7.55	-3.03/-1.66	-1.29/-3.26
Θ(165°)	-12.36/-10.55	-8.78/-8.74	-11.04/-14.85	-16.22/-13.81	-13.31/-13.99	-12.88/-12.67	-15.33/-18.6	-18.51/-18.7	-17.15/-13.87	-10.93/-10.82	-12.07/-13.78	-18.52/-13.34	-10.55/-10.09	-11.86/-18.01	-17.77/-12.12	-8.47/-7.69	-9.42/-15.26	-19.18/-27	-17.31/-10.75	-8.11/-6.54	-6.33/-5.23	-3.64/-2.99	-5.58/-8.46	
Θ(172.5°)	-13.3/-10.9	-10.7/-10.3	-11.03/-11.64	-10.38/-8.74	-7.89/-7.6	-8/-7.52	-8.04/-8.5	-8.64/-9.01	-9.11/-8.91	-8.63/-8.5	-8.65/-8.93	-9.67/-11.49	-14.32/-16.18	-16.48/-16.12	-17.85/-19.01	-18.29/-18.19	-12.39/-9.84	-9.47/-11.06	-11.85/-10.7	-8.53/-7.15	-7.15/-7.75	-9.17/-10.11	-10.06/-11.17	-13.97/-14.01
Θ(180°)	-11.89/-12.08	-10.7/-10.07	-9.18/-9.02	-9.69/-9.72	-9.51/-9.96	-9.49/-9.1	-10.32/-11.51	-12.96/-13.82	-14.04/-14.49	-14.87/-14.65	-14.19/-13.72	-14.17/-15.12	-18.05/-19.02	-17.3/-19.43	-19.38/-18.03	-15.92/-15.25	-15.02/-14.96	-14.72/-13.44	-12.14/-12.02	-14.91/-19.22	-17.88/-16.62	-13.73/-13.67	-16.84/-17.44	-13.97/-13.04
Freq(Hz)	6.175GPol.	PhiAnt. 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-18.41/-18.91	-18.54/-18.64	-18.61/-18.62	-17.61/-15.39	-14.25/-15.22	-16.3/-19.12	-18.73/-15.76	-12.9/-12.83	-13.29/-14.36	-14.8/-15.83	-17.49/-19.31	-18.39/-19.08	-18.05/-18.24	-18.06/-17.45	-15.66/-15.64	-15.98/-16.37	-18.43/-15.48	-14.25/-13.42	-13.61/-15.55	-18.15/-17.66	-18.37/-18.31	-18.82/-19.17	-18.26/-18.69	-18.75/-18.92
Θ(7.5°)	-15.48/-16.21	-14.52/-13.72	-12.73/-13.58	-13.16/-12.81	-13.7/-16.85	-19.1/-18.31	-19.15/-17.66	-18.14/-17.97	-18.37/-17.67	-17.25/-17.47	-18.87/-17.42	-												



Radiated Composite Gain Data 6GHz

Appendix A.2

Θ(7.5°)	-4.95/-4.95	-5.39/-5.4	-6.03/-6.68	-7.58/-9.5	-10.65/-12.25	-13.64/-14.64	-14.35/-13.47	-11.92/-10.52	-9.24/-9.12	-8.66/-7.68	-7.24/-7.18	-7.48/-8.69	-9.23/-8.72	-7.8/-7.3	-7.34/-7.61	-8.92/-10.65	-14.38/-18.55	-17.3/-17.56	-13.22/-9.78	-7.25/-5.24	-4.01/-3.17	-2.94/-3.12	-3.98/-4.18	-4.26/-4.57
Θ(15°)	-6.76/-6.12	-5.71/-5.34	-5.36/-5.4	-6.14/-7.42	-8.96/-11.5	-14.18/-17.8	-18.37/-17.8	-18.82/-17.4	-17.94/-16.6	-13.22/-11.63	-11.63/-13.68	-17.07/-17.94	-13.37/-10.13	-7.79/-6.85	-7.17/-8.81	-11.99/-16.21	-18.05/-18.07	-15.39/-10.55	-8.09/-6.88	-5.26/-4.35	-3.86/-3.31	-3.09/-2.82	-3.18/-4.36	-6.34/-8.01
Θ(22.5°)	-9.09/-10.92	-9.74/-7.31	-6.18/-6.93	-6.45/-11.12	-15.71/-14.35	-12.91/-14.98	-11.54/-10.89	-12.01/-16.42	-19.23/-18.28	-14.69/-10.73	-9.86/-11.37	-13.3/-15.04	-15.71/-13.48	-13.6/-13.38	-11.21/-17.5	-17.69/-19.21	-13.04/-9.96	-7.78/-6.57	-7.78/-5.46	-5.3/88	-2.68/-1.53	-1.11/-1.21	-1.88/-3.34	-5/-6.99
Θ(30°)	-8.69/-12.52	-10.48/-7.59	-6.99/-7.91	-10.33/-13.57	-11.49/-9.44	-9.77/-8.66	-8.15/-8.1	-8.13/-9.09	-11.73/-17.28	-15.62/-8.26	-6.65/-7.04	-8.58/-10.5	-9.2/-10.88	-14.07/-18.2	-18.27/-14.93	-7.56/-5.34	-4.42/-4.36	-4.88/-5.27	-5.95/-6.16	-5.88/-5.02	-4.43/-4.11	-3.72/-3.33	-2.78/-3.15	-1.16/-6.75
Θ(37.5°)	-17.88/-18.76	-13.48/-7.91	-6.87/-9.06	-19.83/-16.34	-10.62/-10.32	-13/-15.99	-14.7/-13.2	-12.37/-10.7	-9.6/-10.49	-18.76/-12.81	-6.84/-5.78	-7.81/-9.69	-8.01/-9.5	-13.35/-14.27	-11.79/-6.94	-5.66/-6.18	-7.85/-6.39	-2.98/-2.68	-3.33/-3.86	-3.74/-4.49	-4/-4	-3.48/-5.33	-7.6/-10.14	
Θ(45°)	-18.95/-18.84	-16.41/-11.26	-10.77/-15.28	-18.52/-10.25	-9.12/-12	-15.76/-13.11	-13.13/-8.75	-9.78/-14.03	-16.38/-18.58	-17.93/-18.83	-11.31/-9.44	-7.02/-4.96	-10.97/-15.62	-6.6/-5.97	-7.97/-8.46	-4.2/-1.26		-1.87/-3.87	-6.29/-6.13	-4.48/-3.29	-3.76/-2.8	-3.5/-4.88	-9.28/-19.38	
Θ(52.5°)	-8.75/-13.71	-16.14/-8.38	-7.46/-9.7	-10.08/-11.53	-14.53/-18.25	-15.44/-11.35	-10.05/-9.09	-8.97/-10.77	-16.65/-17.84	-18.73/-17.83	-10.55/-8.36	-8.57/-7.67	-6.49/-7.89	-14.7/-6.75	-4.69/-7.41	-9.87/-5.28	-1.39/-0.57	-0.89/-3.09	-4.84/-6.37	-5.73/-3.53	-2.74/-3.4	-4.92/-5.01	-2.46/-3.32	-3.85/-5.48
Θ(60°)	-5.15/-10.43	-13.4/-7.83	-10.17/-12.24	-10.1/-10.95	-16.65/-19.09	-14.96/-12.17	-10.6/-9.12	-9.16/-10.14	-12.11/-18.25	-18.2/-17.39	-10.71/-8.92	-12.73/-10.85	-8.25/-8.04	-10.19/-6.44	-5.64/-10.33	-13.46/-5.34	-1.94/-2.06	-3.35/-4.9	-3.29/-3.47	-5.18/-4.75	-4.4/-4.36	-10.65/-6.27	-5.85/-4.97	
Θ(67.5°)	-6.02/-11.88	-9.07/-13.79	-12.29/-6.1	-7.57/-13.31	-17.37/-19.16	-16.92/-15.54	-12.41/-11.21	-11.2/-10.55	-12.83/-11.8	-9.98/-11.74	-9.94/-6.55	-7.65/-11.07	-12.09/-13.97	-10.98/-5.11	-6.57/-13.42	-18.23/-9.54	-6.28/-4.85	-4.53/-3.97	-2.92/-3.46	-3.8/-2.88	-4.11/-3.49	-4.81/-6.23	-13.07/-6.67	-4.37/-5.29
Θ(75°)	-11.36/-10.08	-8.87/-16.5	-7.51/-5.54	-9.25/-16.17	-16.85/-19.22	-17.54/-14.77	-13.21/-13.07	-14.53/-15.99	-14.13/-10.51	-9.07/-10.16	-10.39/-7.22	-7.81/-11.93	-11.67/-12.53	-10.78/-5.03	-5.15/-10.91	-17.8/-7.19	-5.47/-7.44	-7.5/-6.08	-4.19/-3.41	-3.2/-4.51	-8.17/-8.59	-7.66/-7.12	-10.24/-11.35	-8.23/-11.56
Θ(82.5°)	-13.47/-10.18	-6.66/-7.49	-5.25/-5.82	-8.66/-12.48	-16.1/-18.7	-15.03/-11.26	-12.02/-14.31	-18.28/-18.47	-17.87/-11.64	-6.31/-7.3	-11.96/-8.35	-7.94/-12.06	-13.07/-13.97	-8.33/-5.21	-7.41/-18.88	-15.58/-17.84	-13.82/-9.19	-6.97/-6.87	-10.99/-8.32	-9.77/-9.12	-10.06/-8.34	-6.12/-5.41	-7.03/-9.96	-7.28/-10.17
Θ(90°)	-7.76/-5.64	-3.84/-4.59	-3.8/-5.49	-3.97/-17.61	-16.38/-19.04	-18.29/-11.09	-10.2/-10.49	-16.73/-17.94	-18.7/-15.57	-10.91/-11.18	-10.24/-8.82	-9.61/-11.94	-8.15/-10.13	-18.39/-11.76	-9.74/-16.93	-16.45/-10.08	-11.32/-12.85	-11.48/-9.54	-11.5/-7.62	-7.87/-10.98	-16.71/-18.83	-19.22/-18.16	-13.56/-4.59	-4.7/-6.21
Θ(97.5°)	-8.76/-6.45	-3.75/-4.04	-8.43/-10.03	-12.16/-12.69	-11.12/-12.67	-17.79/-16.94	-11.63/-10.32	-11.83/-19.24	-17.94/-12.08	-8.89/-11.59	-13.87/-8.34	-10.81/-16.44	-13.66/-11.91	-17.77/-17.09	-10.82/-17.4	-15.47/-9.77	-11.8/-11.58	-12.9/-18.69	-10.53/-10.96	-12.41/-6.87	-6.83/-9.41	-17.23/-10.9	-8.49/-4.8	-4.28/-5.95
Θ(105°)	-5.39/-2.99	-2.01/-3.51	-5.93/-8.83	-18.22/-17.95	-16.63/-12.43	-9.77/-8.96	-11.75/-18.32	-18.19/-17.1	-14.79/-18.14	-17.95/-18.98	-15.56/-19.42	-13.18/-16.98	-17.63/-10.9	-13.69/-11.49	-19.23/-18.37	-11.76/-5.98	-6.29/-9.75	-8.49/-8.03	-11.93/-8.44	-5.17/-5.12	-9.03/-14.79	-14.82/-6.83	-3.02/-4.47	
Θ(122.5°)	-7.41/-8.04	-6.7/-6.7	-14.24/-18.43	-13.24/-11.34	-10.57/-10.76	-15.52/-12.53	-10.27/-10.24	-11.73/-8.99	-18.39/-19.32	-13.67/-18.29	-10.82/-13.56	-18.53/-17.46	-18.92/-19.23	-17.1/-12.18	-19.16/-16.64	-19.23/-12.37	-9.2/-8.05	-3.54/-4.02	-0.41/-4.02	-10.43/-5.1	-4.02/-6.63	-13.08/-10.79	-10.08/-11.06	-9.07/-6.34
Θ(120°)	-5.84/-5.25	-9.26/-8.27	-9.66/-13.95	-9.97/-11.3	-9.6/-15.66	-15.76/-14.48	-10.11/-7.68	-4.97/-6.71	-9.05/-17.94	-19.05/-14.33	-6.21/-9.69	-18.04/-11.75	-18.4/-18.86	-10.98/-15.36	-13.92/-18.58	-15.11/-18.76	-8.2/-5.16	-2.26/-5.18	-4.98/-6.77	-8.75/-7.77	-12.61/-10.47	-9.4/-10.86	-10.61/-10.66	-10.73/-9.58
Θ(127.5°)	-12/-10.16	-14.93/-19.18	-18.7/-10.97	-7.77/-7.78	-13.2/-11.99	-16.79/-14.62	-10.03/-6.68	-7.67/-12.01	-18.6/-15.12	-16.11/-14.45	-9.46/-12.99	-11.29/-8.83	-10.95/-10.75	-13.92/-9.89	-16.21/-17.45	-8.68/-18.41	-6.33/-4.01	-4.29/-7.37	-3.25/-2.72	-2.5/-6.7	-16.03/-8.77	-8.5/03	-6.82/-5.72	-7.26/-7.81
Θ(135°)	-2.61/-3.23	-4.43/-13.4	-11.28/-8.79	-5.82/-5.52	-7.88/-17.8	-13.52/-9.07	-8.35/-8.53	-9.36/-15.1	-13.55/-17.21	-15.17/-7.45	-6.02/-9.1	-10.18/-7.76	-7.29/-5.72	-12.87/-8.87	-16.27/-12.54	-12.12/-12.65	-12.47/-7.17	-5/-2.81	-2.78/-14.11	-11.64/-8.43	-7.54/73	-15.07/-3.2	-2.29/-3.85	
Θ(142.5°)	-2.65/-2.23	-3.74/-5.38	-7.4/-9.5	-9.23/-9.67	-11.88/-18.23	-13.72/-10.15	-10.59/-10.65	-9.68/-9.08	-6.99/-18.33	-12.25/-6.32	-9.61/-12.74	-12.03/-11.91	-10.25/-18.72	-18.35/-15.96	-10.76/-8.82	-11.66/-18.18	-9.06/-17.7	-19.37/-9.07	-7.23/-6.13	-2.74/-5.4	-10.71/-7.95	-6.83/-6.4	-6.17/-3.59	-4.2/-3.55
Θ(150°)	-10.02/-15.01	-15.32/-10.28	-6.3/-5.19	-4.75/-6.12	-9.73/-13.1	-18.38/-17.5	-11.6/-6.62	-4.61/-4.8	-7.38/-11.93	-11.58/-7.57	-6.28/-16.47	-17.5/-11.84	-9.47/-8.34	-3.92/-5.12	-7.24/-10.28	-14.02/-14.73	-11.34/-12.81	-18.08/-13.92	-14.98/-18.88	-9.91/-10.04	-6.95/-6.56	-18.19/-12.25	-5.8/-4.11	-6.48/-10.88
Θ(157.5°)	-8.33/-6.38	-9.02/-7.53	-6.18/-5.95	-5.3/-5.8	-8.92/-14.07	-19.03/-15.88	-10.17/-6.72	-4.38/-3.35	-3.15/-3.22	-3.36/-3.8	-5.2/-7.7	-8.56/-6.58	-7.29/-13.95	-14.1/-13.45	-18.82/-9.04	-6.12/-6.13	-5.91/-7.05	-10.85/-18.76	-17.32/-13.93	-12.09/-8.33	-5.49/-6.12	-8.03/-3.24	-1.09/-1.73	-5.55/-10.38
Θ(165°)	-5.13/-7.77	-11.4/-11.32	-9.34/-10.02	-9.72/-8.91	-9.64/-13.57	-17.28/-17.98	-13.4/-10.56	-8.96/-7.59	-6.73/-6.69	-8/-10.84	-17.28/-17.36	-8.4/-5.97	-6.91/-9.53	-10.13/-9.24	-10.65/-14.73	-18.26/-19.17	-18.05/-17.55	-17.77/-18	-17.76/-14.75	-14.15/-17.92	-14.82/-8.53	-7.29/-4.45	-2.69/-3.51	-4.92/-4.98
Θ(172.5°)	-8.48/-8.79	-9.45/-8.78	-8.47/-8.4	-8.9/-10.1	-10.47/-9.35	-8.6/-8.38	-8.03/-9.67	-11.8/-13.4	-15.34/-14.24	-12.84/-10.88	-8.99/-7.56	-6.87/-11.1	-8.47/-10.75	-14.09/-14.11	-11.38/-10.05	-10.34/-11.58	-12.81/-14.12	-16.79/-19.02	-18.92/-18.21	-17.01/-11.86	-7.67/-5.4	-5.38/-6.57	-6.23/-6.41	-7.88/-8.78
Θ(180°)	-16.96/-15.98	-15.2/-15.83	-18.07/-16.32	-18.38/-18.37	-17.79/-17.8	-18.09/-18.13	-18.15/-18.38	-17.89/-18.34	-17.86/-17.85	-18.71/-17.98	-18.52/-19.17	-17.39/-16.98	-14.98/-13.09	-11.38/-10.14	-9.62/-10.39	-11.77/-13.07	-14.19/-14.57	-13.2/-13.05	-12.87/-14.51	-17.92/-17.73	-17.46/-17.67	-17.84/-19.04	-18.51/-18.17	-19.12/-18.77
Freq(Hz)	6.995GHz	PhiAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-6.56/-5.53	-4.47/-6.41	-4.18/-4	-4/-5.1	-5.28/-5.3	-5.86/-7.08	-7.71/-8.7	-10.95/-13.23	-13.78/-16.71	-16.76/-13.5	-10.97/-9.02	-7.54/-6.62	-5.72/-5.25	-4.36/-3.7	-3.72/-3.84	-4/-4.01	-4.3/-4.76	-5.07/-5.97	-6.76/-8.3	-10.76/-13.8	-16.36/-17.6	-18.23/-18.8	-13.66/-11.43	-10.77/-8.41
Θ(7.5°)	-3.85/-3.08	-2.97/-3.54	-3.36/-3.28	-3.29/-4.41	-5.95/-8.54	-6.09/-6.83	-7.19/-8.03	-8.27/-9.25	-10.1/-12.54	-15.42/-13.95	-18.72/-17.89	-15.61/-12.97	-11.73/-8.58	-6.77/-5.26	-6.48/-9.35	-3.2/-2.57	-2.01/-1.68	-1.64/-1.93	-2.64/-3.64	-4.83/-6.32	-8.29/-10.63	-13.82/-10.21	-8.08/-6.67	-5.77/-4.46
Θ(15°)	-3.98/-3.57	-3.42/-3.79	-3.66/-3.11	-2.42/-2.41	-2.21/-2.31	-2.77/-3.33	-3.67/-4.6	-6.2/-7.17	-5.84/-5.43	-5.87/-6.62	-7.67/-9.31	-9.6/-9.88	-10.04/-9.95	-9.36/-7.77	-6.22/-5.21	-4.12/-3.98	-2.96/-2.7	-2.58/-2.46	-4.02/-5.58	-7.25/-9.42	-11.73/-13.22	-10.49/-7.86	-5.64/-4.16	
Θ(22.5°)	-4.74/-5.19	-4.71/-3.29	-2.88/-1.99	-0.690/-3	0.380/-2.6	0.190/-0.4	-0.32/-0.96	-2.1/-3.57	-4.5/-4.51	-4.31/-4.53	-5.06/-5.22	-5.26/-6.27	-8.97/-11.49	-9.09/-7.05	-5.67/-4.39	-3.45/-2.9	-2.89/-3.73	-4.26/-4.76	-5.16/-5.32	-5.56/-5.64	-6.12/-6.6	-12.97/-16.88	-13.97/-8.64	-6.42/-4.56
Θ(30°)	-5.88/-5.43	-5.06/-4.42	-3.44/-3.44	-3.45/-3.12	-3.09/-2.56	-1.87/-2.06	-1.98/-1.27	-0.55/-0.62	-1.89/-4.18	-6.47/-6.84	-6.14/-6.15	-6.88/-8.24	-10.18/-8.49	-5.27/-3.83	-3.67/-3.61	-4.72/-6.09	-6.07/-6.6	-6.84/-6.43	-6.96/-6.87	-6.84/-7.97	-10.44/-14.22	-16.68/-16.88	-10.66/-10.79	-12.48/-7.63
Θ(37.5°)	-15.01/-13.24	-6.36/-3.42	-3.47/-7.19	-17.91/-12.24	-11.05/-12.44	-16.64/-18.09	-15.17/-7.93	-3.63/-1.5	-0.430/-0.49	-1.94/-4.41	-3.3/-1.23	-1.12/-1.96	-5.17/-5.81	-4.2/-4.2	-5.68/-9.26	-6.83/-4.29	-4.48/-4.87	-2.51/-0.59	-0.56/-0.94	-2.2/-4.27	-7.36/-16.3	-12.92/-6.36	-5.07/-4.18	-7.06/-14.03
Θ(45°)	-9.51/-6.13	-1.79/-1.21	-1.43/-5.96	-14.66/-13.43	-15.57/-13.69	-9.99/-8.68	-10.29/-9.34	-6.76/-4.62	-2.35/-2.1	-2.84/-4.97	-6.93/-8.42	-2.4/-3.6	-4.95/-5.29	-4.13/-7.43	-9.87/-3.95	-1.25/-2.35	-4.41/-3.7	0.96/-0.03	-0.52/-0.82	-4.3/-10.19	-9.59/-8.62	-3.06/-3.67	-4.71/-8.76	
Θ(52.5°)	-7.43/-3.59	0.552/-1.46	0.9/-1.5	-5.6/-11.24	-8.03/-5.18	-2.59/-3.49	-7.52/-10.52	-9.7/-6.48	-4.36/-4.02	-3.69/-3.59	-4.93/-3.91	-1.44/-2.44	-6.02/-7.39	-8.03/-10.9	-8.87/-3.93	-0.83/-3.41	-6.16/-5.47	2.1403	2.661/-5.9	-0.02/-0.25	-2.45/-4.65	-6.93/-7.66	-4.22/-3.06	-4.82/-4.44
Θ(60°)	-5.53/-1.32																							



Radiated Composite Gain Data 6GHz

Appendix A.2

Θ(60°)	1.43/1.76	0.22/0.78	0.17/-0.34	1.07/1.31	0.87/0.2	-0.39/-1.01	-1.47/-0.98	-0.95/-1.87	-1.43/0.12	0.11/-0.3	0.35/-1.88	-1.45/-1.51	-4.6/-4.08	-7.74/-12.1	-10.56/-10.89	-12.45/-18.57	-13.13/-14.07	-8.81/-4.09	-2.22/-3.28	-6.31/-4.75	0.23/1.76	0.03/-2.1	-0.01/-1.24	1.96/1.17
Θ(75°)	1.92/1.94	0.99/0.87	0.85/0.48	1.43/0.88	0.68/0.48	0.26/-0.3	-0.17/0.69	0.75/0.14	0.31/1.7	1.18/1.63	2.14/-0.05	-0.1/-1.61	-3.79/-3.05	-6.5/-8.18	-5.22/-3.69	-8.46/-13.7	-19.09/-5.42	-2.59/-1.32	-2.24/-3.67	-2.4/-2.27	-1.87/1.74	1.35/-0.3	-1.09/-1.76	1.83/0.82
Θ(82.5°)	2.49/1.96	0.68/1.06	1.64/1.95	2.44/2.61	2.84/2.3	1.94/0.38	-2.60/1.04	2.47/1.85	1.31/8.6	1.78/1.86	2.87/0.97	-0.81/-1.34	-3.02/-3.95	-7.27/-9.45	-3.72/-6.88	-5.79/-10.86	-16.69/-7.3	-4.65/-4.1	-5.88/-6.54	-6.8/-8.22	-3.05/-0.93	1.40/5.6	-0.52/-5.6	2.93/1.88
Θ(90°)	1.77/1.13	0.02/-0.06	1.35/1.32	0.82/2.2	2.75/1.41	1.21/0.41	0.65/0.24	0.82/1.36	1.92/2.02	2.21/1.95	2.47/0.02	-0.7/1.35	-4.89/-5.67	-13.02/-12.55	-2.71/-4.01	-9.02/-9.8	-15.98/-5.2	-3.25/-2.23	-7.68/-5.24	-1.61/-4.19	-6.78/-2.21	0.87/1.52	0.4/3.8	3.48/2.21
Θ(90°)	2.92/0.1	1.0/-1.2	1.48/1.89	-0.1/1	1.83/1.36	1.42/0.46	-1.18/-2.45	-0.55/2.35	1.82/1.36	1.82/1.24	1.83/0.39	-2.26/-1.16	-4.82/-5.68	-8.5/-12.47	-4.76/-1.21	-4.12/-6.82	-7.66/-16.16	-1.61/0.14	-3.76/-6.85	-2/-3.08	-7.59/-0.42	1.55/1.44	1.36/3.74	43.09
Θ(97.5°)	3.97/2.54	-0.44/-0.78	0.37/1.69	1.41/1.32	1.88/0.93	1.45/-0.87	-3.38/-3.67	0.48/0.95	-0.73/-0.74	0.75/0.48	2.31/-1.27	-4.1/-1.42	-4.75/-14.8	-6.97/-15.73	-5.25/-2.46	-8.36/-2.32	-4.23/-0.98	4.26/5.14	2.43/-2.59	1.06/-1.44	-1.39/-1.22	-0.15/-0.47	1.84/5.9	3.18/1.97
Θ(105°)	2.57/1.82	0.18/0.09	0.88/1.89	1.65/0.67	0.62/0.18	-2.32/-2.35	-5.31/-3.5	-1.12/-1.06	-0.02/0.17	-0.39/-0.81	0.15/-2.69	-1.44/-0.75	-5.29/-7.46	-12.41/-15.82	-6.42/-4.07	-12.09/-8.63	-2.1/-6.92	2.89/2.21	-2.85/-6.4	-1.43/-2.33	-6.29/0.36	0.56/-0.14	0.37/3.47	1.85/0.72
Θ(112.5°)	3.06/2.21	0.67/0.04	0.48/0.88	1.41/0.55	0.37/-0.37	-1.71/-3.01	-3.31/-3.33	-2.14/-1.27	-2.21/-2.12	-0.91/-1.83	-0.96/-4.36	-4.13/-2.36	-7.43/-10.56	-16.04/-18.9	-10.75/-3.99	-11.5/-12.06	-3.55/-6.46	-2.27/-1.31	-5.14/-6.55	-3.07/-9.19	-7.65/-1.97	-0.42/-1.06	-0.77/2.43	1.56/1.45
Θ(120°)	0.12/1.28	1.10/-29	-0.74/-0.82	-0.45/-0.94	-1.81/-2.85	-3.68/-5.62	-7.68/-6.2	-4.46/-3.8	-4.68/-3.42	-4.37/-5.4	-13.11/-10.53	-17.69/-13.53	-16.67/-5.85	-9.31/-16.91	-13.14/-6.53	-17.15/-3.55	-4.42/-4.79	-1.71/-2.98	-7.23/-6.1	-2.3/-3.09	-1.12/-0.84	0.81/-0.59		
Θ(127.5°)	2.31/6.7	0.13/0.01	-0.11/-1.01	-2.63/-3.69	-5.25/-6.17	-6.81/-6.04	-4.7/-4.11	-4.23/-3.76	-2.53/-3.06	-3.81/-3.16	-4.82/-6.75	-4.51/-6.57	-10.61/-13.64	-14.03/-16.49	-8.6/-14.48	-9.99/-8.74	-12.66/-10.63	-3.43/-10.45	-17.81/-7.4	-5.01/-6.19	-7.31/-1.72	-0.64/-2.28	-1.44/0.74	2.38/1.45
Θ(135°)	1.68/0.3	-0.92/-1.77	-3.15/-4.46	-5.06/-5.64	-5.49/-5.53	-5.13/-4.39	-3.98/-4.51	-4.48/-3.42	-2.84/-3.37	-4.58/-4.98	-6.59/-6.85	-10.94/-12.06	-14.77/-18.69	-15.78/-17.79	-19.03/-19.3	-5.67/-5.9	-8.9/-9.55	-6.05/-7.53	-7.94/-7.64	-11.22/-11.5	-9.86/-4.4	-1.15/-1.46	-1.65/-1.61	-0.45/0.12
Θ(142.5°)	0.25/-0.06	-1.22/-1.73	-3/-4.95	-6.84/-7.62	-8.49/-9.09	-8.91/-8.53	-9.53/-10.53	-8.33/-6.02	-6.79/-10.43	-10.53/-9.37	-13.62/-18.16	-12.34/-12.23	-17.52/-11.77	-19.57/-13.67	-13.99/-18.38	-14.82/-13.85	-10.87/-8.45	-14.75/-17.82	-18.93/-16.97	-13.09/-8.33	-4.13/-4.92	-2.49/-3.64	-2.35/-4.29	-2.71/-1.98
Θ(150°)	-4.32/-4.72	-5.96/-6.35	-5.49/-3.98	-4.47/-4.74	-4.43/-5.09	-6.59/-9.79	-12.25/-10.81	-9.34/-8.39	-6.91/-5.18	-5.3/-8.18	-18.14/-10.08	-8.24/-7.27	-9.38/-10.81	-7.36/-9.53	-16.09/-19.26	-18.16/-11.91	-7.35/-7.14	-11.58/-17.66	-15.49/-8.71	-7.73/-7.75	-4.1/-5.23	-6.71/-6.66	-6.07/-4.94	-2.78/-2.62
Θ(157.5°)	-10.14/-7.56	-7.36/-8.4	-8.04/-7.76	-7.07/-7.35	-9.19/-14.13	-19.08/-18.99	-15.47/-15.86	-14.31/-10.74	-8.39/-8.1	-10.26/-12.31	-10.21/-7.73	-7.74/-9.25	-15.75/-18.55	-18.45/-18.61	-15.99/-10.43	-6.73/-7.36	-11.25/-15.49	-14.82/-11.21	-9.64/-8.48	-6.65/-5.89	-5.93/-6.95	-11.13/-18.14	-14.37/-11.46	
Θ(165°)	-11.86/-12.54	-14.21/-14.04	-13.68/-16.31	-17.78/-17.9	-18.97/-19.08	-16.89/-14.52	-14.01/-13.42	-12.35/-11.81	-11.78/-12.73	-14.16/-16.84	-17.15/-16.2	-13.84/-12.33	-12.46/-14.87	-18.79/-17.67	-14.84/-15.52	-18.91/-15.51	-11.44/-9.17	-9.5/-11.45	-12.54/-11.22	-9.02/-8.74	-8.68/-8.86	-8.76/-9.86	-12.08/-14.9	-13.11/-1.89
Θ(172.5°)	-7.64/-8.46	-8.94/-9.11	-9.25/-9.98	-9.88/-9.95	-9.77/-9.98	-9.75/-11.65	-13.58/-14.23	-14.82/-16.17	-16.93/-14.16	-12.66/-12.79	-13.42/-12.79	-12.44/-13.2	-15.42/-17.4	-16.15/-13.18	-12/-12.93	-16.46/-18.52	-18.73/-18.04	-17.49/-17.3	-17.43/-13.04	-10.36/-8.87	-8.37/-7.42	-6.17/-5.33	-5.57/-5.82	-6/-6.43
Θ(180°)	-7.43/-8.63	-7.43/-7.49	-7.69/-8.62	-8.71/-9.46	-9.41/-9.31	-10.06/-9.93	-9.14/-8.89	-10.02/-11.06	-11.73/-11.96	-12.77/-15.37	-18.54/-19.09	-16.36/-13.24	-11.32/-10.06	-9.94/-10.59	-12/-12.46	-10.83/-9.01	-8.25/-8.72	-9.2/-9.77	-10.75/-12.81	-15.14/-17.2	-18/-18.27	-19.06/-17.06	-13.62/-11.42	-11.94/-11.38
Freq(Hz)	6.475GPdL	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-8.96/-9.1	-9.04/-11.22	-18.56/-18.78	-17.42/-17.72	-16.49/-13.38	-8.61/-6.14	-5.28/-5.07	-5.21/-4.42	-4.46/-4.74	-5.16/-5.02	-5.01/-5.06	-5.33/-6.22	-7.02/-8.1	-10.02/-12.19	-15.7/-17.77	-18.39/-18.8	-19.01/-13.89	-10.07/-10.16	-9.6/-8.18	-7.4/-6.87	-5.87/-5.52	-6.05/-6.65	-6.76/-6.56	-7.17/-8.51
Θ(7.5°)	-9.88/-10.77	-11.02/-11.52	-14.4/-13.39	-11.98/-10.53	-10.58/-12.36	-15.34/-14.71	-14.18/-12.31	-12.54/-12.18	-10.69/-6.67	-5.88/-7.65	-6.65/-5.74	-7.92/-10.45	-13.27/-10.7	-18.79/-18.72	-14.04/-16.16	-8.17/-10.8	-6.25/-5.18	-4.5/-3.96	-3.42/-3.37	-3.56/-3.52	-3.64/-4.53	-5.37/-6.28	-7.17/-8.51	
Θ(15°)	-11.29/-12.8	-13.77/-14.09	-12.32/-9.57	-8.16/-8.07	-8.08/-8.36	-9.44/-9.9	-9.38/-9.04	-10.4/-9.71	-10.11/-11.35	-11.04/-9.88	-8.66/-7.87	-7.62/-8.75	-11.23/-15.23	-19.14/-17.96	-17.62/-15.65	-16.12/-17.45	-16.86/-15.4	-12.95/-11.14	-11.46/-11.74	-11.2/-10.02	-9.49/-8.41	-6.98/-6.56	-7.13/-8.08	-9.21/-10.44
Θ(22.5°)	-16.45/-14.48	-14.58/-13.27	-10.84/-9.15	-9.16/-10.7	-11.4/-11.9	-12.48/-15.86	-11.69/-9.39	-9.09/-8.88	-7.77/-5.63	-4.91/-6.21	-8.54/-8.1	-7.4/-9.61	-12.6/-12.32	-12.49/-15.59	-18.95/-16.43	-10.57/-6.43	-4.67/-3.52	-3.25/-3.6	-4.1/-4.82	-6.02/-7.41	-9.39/-13.97	-18.9/-14.37	-10.32/-10.7	-13.68/-16.87
Θ(30°)	-14.87/-14.64	-14.08/-14.19	-12.31/-9.7	-10.08/-12.68	-12.88/-18.1	-19.41/-18.75	-17.26/-8.76	-6.39/-5.34	-4.93/-4.13	-2.97/-2.79	-4.32/-6.16	-8.64/-8.19	-9.08/-15.49	-17.96/-9.18	-5.84/-5.21	-5.34/-5.17	-4.64/-5.18	-6.9/-7.91	-8.26/-9.21	-10.68/-13.79	-18.49/-18.32	-12.35/-9.92	-10.34/-13.21	
Θ(37.5°)	-17.85/-17.51	-15/-19.23	-18.22/-17.18	-18.57/-11.45	-11.38/-13.57	-13.77/-19.29	-15.12/-8.46	-5.81/-5.82	-6.08/-4.62	-3.12/-2.54	-3.94/-5.76	-8.04/-8.91	-10.19/-5.52	-5.76/-10.36	-12.68/-8.63	-9.88/-13.41	-6.61/-3.96	-3.57/-3.54	-5.78/-8.01	-8.35/-8.63	-9.21/-10.28	-13.75/-18.37	-14.94/-9.18	-9.16/-13.92
Θ(45°)	-16.12/-19.62	-18.2/-18.84	-18.85/-13.51	-12.69/-13.31	-15.91/-14.8	-12.86/-18.53	-18.48/-12.06	-7.84/-6.98	-9.89/-9.53	-5.59/-5.17	-7.73/-8.29	-10.68/-14.37	-12.08/-9.39	-6.35/-8.33	-9.13/-9.75	-13.67/-9.55	-6.18/-4.41	-9.99/-8.04	-4.84/-6.07	-10.52/-12.11	-10.2/-11.26	-14.09/-18.28	-17.39/-14.52	-10.68/-12.71
Θ(52.5°)	-16.64/-18.54	-18.86/-18.09	-17.19/-11.8	-14.69/-17.28	-18.32/-18.56	-19.13/-17.53	-18.62/-16.56	-12.72/-10.62	-9.12/-10.84	-12.23/-13.07	-11.79/-4.6	-13.75/-17.16	-10.34/-6.69	-5.76/-5.57	-10.25/-8.56	-15.24/-11.24	-13.16/-17.49	-12.28/-9.09	-5.36/-5.57	7.08/-7.6	-10.89/-13.29	-13.38/-13.58	-17.14/-18.79	-16.07/-13.38
Θ(60°)	-16.36/-17.82	-19/-18.17	-15.76/-17.75	-18.89/-18.58	-18.52/-13.7	-12.93/-17.76	-16.47/-13.07	-13.69/-11.25	-7.44/-6.32	-12.2/-10.8	-12.3/-16.78	-13.03/-14.21	-14.68/-9.96	-6.12/-7.06	-5.38/-5.59	-13.10/-10.78	-9.84/-16.2	-14.14/-9.38	-8.49/-7.81	-6.08/-5.29	-6.64/-10.19	-13.67/-11.51	-18.15/-14.1	-12.08/-14.13
Θ(67.5°)	-16.08/-18.37	-19.03/-18.05	-19.43/-18.09	-19.31/-19.7	-13.83/-12.45	-17.59/-15.9	-13.86/-13.89	-15.39/-12.22	-10.71/-6.6	-6.4/-7.88	-7.14/-9.21	-11.45/-9.22	-15.62/-14.11	-8.06/-9.9	-6.3/-2.99	-6.07/-5.41	-8.36/-17.47	-16.31/-10.81	-8.72/-10.13	-10.08/-8.25	-5.74/-7.13	-8.66/-7.59	-11.36/-14.27	-13.94/-14.73
Θ(75°)	-18.2/-13.88	-15.84/-15.22	-16.53/-9.3	-12.54/-18.78	-18.26/-17.77	-16.65/-18.18	-15.51/-14.48	-14.21/-15.19	-15.09/-6.94	-5.41/-7.85	-7.33/-4.27	-9.73/-8.03	-12.68/-14.76	-17.17/-10.6	-6.66/-5.89	-6.38/-3.17	-6.25/-10.3	-18.85/-12.15	-9.27/-10.54	-9.73/-7.4	-4.63/-3.79	-3.76/-4.78	-9.64/-15.6	-18.61/-17.7
Θ(82.5°)	-18.55/-12.09	-17.99/-13.36	-17.17/-13.66	-17.7/-11.86	-12.24/-17.65	-10.31/-8.03	-8.15/-8.28	-9.87/-10.56	-9.97/-9.63	-5.98/-5.61	-5.78/-3.66	-8.52/-5.56	-14.04/-10.98	-12.83/-9.85	-13.32/-4.56	-6.3/-3.88	-5.93/-11.89	-16.76/-12.29	-12.42/-19.26	-14.24/-6.18	-4/-5.75	-4.73/-4.7	-9.42/-12.47	-11.66/-17.88
Θ(90°)	-14.51/-6.82	-15.24/-10.4	-11.8/-9.77	-13.76/-18.66	-18.24/-12.53	-10.14/-5.88	-6.88/-5.52	-6.54/-8.71	-11.67/-10.59	-6.08/-6.02	-9.23/-4.62	-6.85/-7.19	-15.02/-9.24	-18.05/-8.57	-19.12/-5.9	-7.99/-10.4	-7.36/-12.28	-18.02/-12.73	-10.04/-12.13	-19.04/-12.24	-7.44/-9.5	-9.37/-5.25	-7.72/-19.94	-13.76/-11.48
Θ(97.5°)	-9.53/-6.29	-12.69/-7.97	-14/-6.3	-12.29/-14.84	-18.26/-16.26	-12.32/-9.26	-6.19/-4.7	-5.8/-6.58	-11.1/-10.54	-6.78/-9.82	-11.95/-7.17	-12.98/-10.73	-18.73/-12.09	-15.72/-9.25	-18.04/-7.92	-16.07/-10.35	-9.21/-16.13	-14.74/-13.17	-18.19/-18.55	-10.91/-6.17	-5.51/-12.2	-8.32/-4.58	-12.19/-10.89	-8.37/-11.03
Θ(105°)	-8.85/-6.98	-11.33/-7.8	-16.93/-9.44	-11.66/-18.4	-16.36/-9.95	-6.38/-6.29	-7.12/-3.31	-4.5/-5.18	-9.34/-9.82	-6.43/-11.05	-11.13/-9.41	-14.55/-10.99	-15.66/-15.06	-16.46/-8.97	-9.09/-13.08	-13.43/-17.68	-11.48/-8.99	-9.47/-18.51	-15.45/-11.52	-14.32/-13.51	-11.07/-18.4	-15.24/-10.93	-14.79/-16.78	-9.62/-11.8



Radiated Composite Gain Data_6GHz

Appendix A.2

Θ(00°)	0.250/0.61	-0.78/-2.51	0.840/0.18	-0.36/-0.23	0.02/-1.55	-4.84/-2.5	-3.13/-1.15	-0.47/-1.02	1.610/0.83	1/-0.05	-1.72/-0.32	-3.37/-4.67	-5.71/-15.22	-7.57/-10.82	-13.99/-2.85	-10.82/-3.97	-2.44/-5.15	1.54/-0.74	-16.99/-5.62	-0.23/-13.12	-0.86/-2.82	-1.32/0.4	2.81/4.2	0.96/0.96
Θ(112.5°)	1.320/0.5	0.77/-0.32	1.131/0.34	0.33/-0.82	-1.03/-3.13	-4.43/-5.92	-2.08/-1.62	-3.69/-1.1	1.570/0.2	-1.4/-1.18	-2.26/-2.14	-4.51/-4.35	-7.86/-11.96	-8.01/-12.12	-11.35/-5.37	-7.5/-8.25	-1.04/-4.96	-3.54/-4	-7.41/-8.12	-11.45/-6.49	-1.78/-0.21	0.61/-1.79	2.71/3.86	1.41/2.37
Θ(120°)	0.670/0.04	0.790/0.05	-0.090/0.04	-0.36/-1.27	-2.36/-2.55	-2.98/-1.93	-3.76/-5.55	-3.8/-0.19	-0.53/-1.41	-1.68/-1.48	-4.05/-2.97	-8.67/-6.7	-8.81/-15.14	-10.53/-11.41	-18.99/-8.09	-8.58/-14.03	-13.29/-6.21	-6.51/-2.8	-6.85/-5.15	-3.64/-4.61	-9.87/-5.11	-0.85/-1.45	2.28/2	0.91/2.15
Θ(127.5°)	-0.85/-1.27	-1.23/-2.55	-1.91/-1.84	-2.27/-3.09	-4.61/-6.56	-8.74/-11.74	-11.46/-8.19	-5.31/-5.06	-4.79/-4.15	-2.48/-4.35	-5.01/-5.5	-6.88/-3.92	-5.5/-11.34	-8.46/-14.85	-17.19/-15.75	-6.44/-6.46	-9.14/-18.34	-7.5/-7.28	-18.05/-10.07	-18.55/-7.32	-5.59/-4.65	-1.53/-3.36	1.370/0.58	1.8/2.6
Θ(135°)	0.39/-0.56	-1.51/-3.09	-2.45/-1.72	-2.93/-6.71	-9.04/-11.23	-13.25/-10.86	-6.8/-5.17	-5.04/-5.04	-5.07/-3.5	-2.86/-4.01	-6.56/-8.06	-10.65/-6.4	-7.3/-11.9	-8.64/-6.89	-17.19/-16.68	-5.62/-4.67	-8.53/-13.76	-4.73/-6.95	-15.29/-16.08	-17.43/-10.78	-10.77/-4.22	-2.17/-2.6	-1.99/-1.48	1.35/1.98
Θ(142.5°)	-2.79/-3.37	-2.88/-3.53	-7.21/-6.01	-4.46/-4.36	-7.04/-8.21	-9.08/-8.81	-9.01/-11.72	-14.76/-14.18	-9.67/-7.44	-8.59/-11.44	-11.07/-13.68	-18.56/-17.35	-14.01/-17.21	-13.72/-13.99	-18.35/-19.22	-12.19/-9.01	-9.7/-8.18	-12.45/-17.9	-18.41/-12.35	-13.42/-7.75	-11.56/-7.89	-4.24/-2.25	-3.4/-1.91	-0.75/-0.47
Θ(150°)	-7.56/-5.8	-3.21/-1.93	-3.03/-5.41	-7.6/-7.67	-6.35/-6.3	-7.85/-8.88	-10.43/-14.09	-12.49/-9.35	-8.83/-7.33	-6.97/-6.83	-7.15/-10.01	-15.24/-10.08	-8.22/-8.9	-15.47/-10.08	-10.4/-17.03	-19.7/-18.79	-9.43/-8.93	-14.37/-18.12	-14.71/-12.53	-13.7/-6.28	-5.53/-3.55	-3.34/-2.5	-2.32/-3.29	-1.78/-3.78
Θ(157.5°)	-10.94/-14.47	-13.85/-10.27	-9.31/-10.57	-13.41/-12.24	-10.99/-8.87	-9.61/-11.92	-12.86/-11.59	-11.15/-11.04	-11.4/-13.86	-17.14/-17.6	-14.94/-13.1	-13.36/-11.81	-9.19/-9.43	-12.91/-16.79	-14.09/-11.23	-14.45/-13.25	-8.25/-9.64	-18.61/-17.82	-17.93/-18.1	-11.76/-6.99	-4.64/-4.96	-5.63/-6.33	-10.95/-9.21	-6.26/-7.53
Θ(165°)	-17.89/-19.08	-18.68/-17.65	-19.01/-18.88	-14.04/-12.33	-12.45/-13.1	-14.71/-13.96	-13.91/-15.53	-15.61/-18.69	-19.08/-18.84	-18.23/-16.98	-16.11/-12.16	-9.6/-9.23	-10.57/-13.9	-18.05/-18.31	-16.96/-17.58	-16.91/-14.54	-11.54/-11.3	-13.48/-14.64	-13.5/-11.92	-10.34/-8.15	-7.89/-9.33	-11.84/-12.93	-14.68/-17.2	-17.65/-18.19
Θ(172.5°)	-9.11/-9.14	-9.78/-10.78	-10.86/-11.1	-11.56/-12.07	-11.83/-12.72	-14.75/-15	-17.5/-18.1	-19.19/-18.45	-19.35/-17.42	-15.01/-13.13	-12.29/-10.55	-10.04/-11.33	-13.81/-18.28	-18.4/-16.23	-14.75/-14.96	-18.65/-18.34	-18.01/-18.49	-18.06/-17.4	-14.66/-11.58	-8.97/-7.93	-7.69/-7.41	-7.99/-9.53	-10.08/-10.45	-10.91/-10.02
Θ(180°)	-6.77/-6.2	-6.22/-6.54	-7.02/-7.06	-7.6/-8.07	-8.71/-10.71	-14.09/-18.95	-18.06/-18.29	-18.68/-16.21	-12.64/-11.27	-10.79/-10.42	-10.19/-10.71	-11.73/-12.95	-12.98/-13.59	-15.4/-16.13	-17.45/-17.19	-14.29/-13.77	-15.22/-18.1	-18.4/-17.54	-17.81/-16.02	-14.65/-14.8	-17.12/-15.81	-11.99/-10.34	-10.09/-9.68	-8.42/-7.07
Freq(Hz)	6.995/GPol.	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-9.76/-8.11	-7.65/-6.81	-6.52/-7.86	-8.62/-8.16	-7.23/-7.51	-10.61/-14	-13.85/-11.48	-12.74/-14.83	-16.26/-16.87	-17.1/-18.49	-17.99/-18.16	-15.3/-13.52	-11.99/-11.77	-11.26/-9.77	-7.86/-6.48	-5.46/-4.91	-4.9/-4.74	-4.64/-4.49	-5.39/-6.46	-7.89/-9.02	-10.68/-12.89	-16.03/-18.15	-18.36/-18.58	-14.48/-12.12
Θ(7.5°)	-12.87/-10.19	-7.35/-5.52	-4.95/-4.72	-4.72/-3.75	-2.44/-2.1	-3.08/-6.53	-4.9/-4.44	-6.6/-9.33	-10.72/-10.7	-15.24/-17.1	-15.43/-11.64	-10.87/-10.43	-10.7/-11.18	-11.8/-12.09	-11.89/-13.99	-14.07/-15.8	-18.79/-18.9	-18.53/-18.45	-18.26/-18.53	-18.53/-18.3	-15.92/-16.13	-14.59/-16.1	-16.71/-15.56	
Θ(15°)	-11.77/-9.99	-7.14/-5.07	-4.32/-4.28	-5.14/-5.57	-5.01/-4.2	-4.52/-6.57	-7.71/-7.85	-8.98/-10.74	-11.26/-8.24	-7.22/-6.83	-5.93/-5.26	-5.78/-7.29	-8.55/-8.48	-8.34/-9.57	-13.67/-16.7	-11.86/-7.96	-5.49/-5.17	-5.07/-4.98	-4.99/-6.23	-8.33/-9.56	-10.59/-13.82	-17.86/-17.66	-17.31/-19.1	-17.15/-14.68
Θ(22.5°)	-18.95/-11.91	-6.83/-4.27	-3.9/-6.28	-8.52/-9.83	-8.66/-6.52	-4.74/-5.4	-6.66/-7.7	-9.26/-10.94	-9.37/-7.84	-6.71/-4.55	-2.83/-4.23	-2.96/-4.2	-6.49/-7.64	-8.7/-12.3	-17.32/-15.66	-12.83/-10.59	-8.12/-8.33	-9.93/-12.4	-13.89/-14.3	-14.45/-14.16	-14.13/-13.36	-10.57/-9.11	-11.87/-18.53	-16.47/-15.75
Θ(30°)	-16.74/-18.72	-12.29/-7.56	-7.76/-10.02	-9.46/-7.64	-5.74/-7.2	-4.69/-6.38	-6.74/-9.78	-13.64/-17.28	-11.54/-7.47	-7.08/-6.35	-3.87/-2.96	-3.32/-4.92	-7.47/-8.11	-9.13/-10.59	-11.1/-13.36	-19.29/-18.06	-18.92/-16.92	-16.33/-14.32	-10.64/-8.39	-8.25/-9.24	-9.13/-11.15	-11.87/-8.84	-8.16/-11.17	-16.51/-16.67
Θ(37.5°)	-17.94/-18.57	-12.88/-10.92	-12.5/-12.33	-10.28/-11.57	-11.48/-11.68	-14.01/-11.45	-11.7/-13.68	-15.82/-15.76	-13.53/-10.15	-8.86/-9.2	-6.92/-4.14	-3.72/-7.04	-9.34/-8.66	-8.38/-8.28	-10.52/-18.98	-14.83/-14.8	-15.33/-11.83	-10.59/-10.86	-14.07/-17.12	-18.33/-10.63	-9.58/-15.13	-17.26/-10.06	-8.76/-10.44	-18.43/-18.35
Θ(45°)	-18.15/-18.1	-13.71/-13.74	-17.06/-18.44	-18.01/-13.86	-13.52/-18.19	-18.15/-18.07	-17.73/-14.35	-10.97/-11.54	-16.17/-11.12	-11.46/-12.62	-9.96/-7.31	-5.46/-9.8	-10.28/-9.08	-11.2/-8.26	-12.81/-18.8	-14.65/-16.08	-7.85/-7.61	-8.46/-6.67	-9.47/-15.99	-14.67/-10.62	-13.72/-13.25	-14.84/-17.03	-15.78/-14.53	-18.26/-19.3
Θ(52.5°)	-18.97/-17.05	-17.31/-17.98	-18.9/-18.4	-17.52/-15.81	-14.06/-10.31	-12.62/-9.55	-8.97/-10.08	-9.96/-12.73	-16.14/-14.58	-14.88/-18.46	-17.01/-12.76	-12.19/-13.81	-8.23/-7.51	-11.19/-10.07	-17.95/-18.01	-10.51/-7.66	-7.62/-5.37	-6.09/-9.8	-8.84/-8.03	-10.41/-12.45	-12.41/-17.8	-17.38/-13.97	-12.77/-18.42	
Θ(60°)	-13.65/-18.82	-18.15/-17.88	-12.25/-15.22	-18.08/-14.34	-12.65/-12.68	-8.94/-7.31	-8.08/-10.8	-12.05/-12.79	-18.2/-15.43	-13.44/-18.38	-14.64/-13.8	-18.59/-14.23	-16.42/-18.48	-9.64/-8.2	-6.91/-8.07	-7.69/-13.58	-18.31/-15.51	-8.92/-6.03	-8.24/-9.41	-4.68/-3.68	-5.63/-7.65	-10.54/-15.76	-16.66/-19.05	-17.48/-18.36
Θ(67.5°)	-18.14/-18.35	-17.52/-13.82	-10.92/-16.72	-18.82/-11.51	-13.21/-15.25	-9.42/-10.19	-9.43/-13.4	-14.73/-12.33	-13.01/-14.53	-18.92/-11.45	-10.18/-12.91	-8.55/-9.76	-16.97/-18.17	-10.36/-10.55	-11.5/-5.53	-5.29/-11.35	-15.15/-13.21	-10.42/-6.33	-9.42/-14.11	-8.05/-4.08	-3.84/-5.58	-5.8/-8.52	-9.98/-16.94	-18.2/-17.67
Θ(75°)	-16.4/-18.86	-12.98/-9.16	-8.62/-14.28	-17.77/-11.2	-15.8/-19.3	-19.13/-16.41	-18.79/-11.43	-9.57/-7.72	-4.97/-7.02	-17.18/-8.16	-6.5/-7.82	-5.74/-6.82	-9.83/-18.91	-18.64/-14.44	-6.22/-5.52	-8.2/-7.89	-7.64/-17.41	-11.81/-9.44	-8.44/-14.35	-12.11/-6.71	-3.06/-2.92	-6.39/-7.81	-8.15/-12.02	-15.44/-13.76
Θ(82.5°)	-17.97/-12.34	-11.92/-7.22	-9.76/-14.04	-18.45/-11.38	-19.48/-18.3	-16.15/-14.9	-11.28/-9.14	-9.67/-7.55	-5.29/-5.82	-14.23/-9.01	-6.46/-7.39	-5.96/-7.33	-10.95/-13.03	-17.5/-6.34	-4.87/-10.9	-10.03/-4.03	-5.63/-11.18	-13.89/-15.4	-12.23/-17.69	-9.83/-3.76	-4.76/-5.02	-6.68/-7.41	-8.38/-11.63	-11.59/-12.36
Θ(90°)	-10.12/-9.75	-5.43/-5.84	-8.51/-15.83	-11.19/-9.87	-17.44/-12.22	-17.97/-10.67	-6.8/-5.37	-6.73/-6.8	-3.38/-5.07	-9.5/-8.18	-7.12/-9.48	-7.24/-7.97	-10.83/-12.36	-9.55/-4.07	-3.31/-5.88	-7.71/-7.78	-8.46/-10.19	-9.38/-14.05	-19.24/-13.55	-10.22/-6.5	-6.52/-11.04	-13.74/-9.32	-13.36/-9.31	-8.72/-15.25
Θ(97.5°)	-8.53/-10.65	-4.63/-6.56	-9/-13.28	-7.88/-7.84	-10.95/-8.56	-8.27/-6.92	-6.05/-3.31	-2.66/-2.54	-3.39/-7.32	-13.16/-11.36	-8.75/-13.04	-11.84/-11.39	-12.28/-14.75	-9.09/-3.53	-2.36/-4.26	-5.91/-12.68	-9.94/-9.88	-10.96/-12.13	-10.88/-12	-10.39/-10.26	-7.93/-12.45	-18.87/-18.8	-15.05/-9.47	-6.75/-8.31
Θ(105°)	-6.51/-11.84	-6.81/-11.56	-12.62/-17.83	-9.06/-10.57	-8.39/-12.34	-5.69/-10.58	-6.44/-6.46	-5.22/-3.3	-5.15/-7.27	-7.92/-11.76	-18.3/-17.87	-17.83/-13.76	-19.1/-13.2	-6.84/-4.05	-5.05/-3.08	-5.66/-10.56	-12.3/-9.61	-18.97/-7.76	-7.27/-11.53	-12.33/-18.85	-18.32/-16.45	-10.63/-13.88	-13.93/-7.89	-6.49/-6.5
Θ(112.5°)	-8.17/-16.55	-12.07/-16.74	-14.02/-17.96	-17.16/-10.63	-6.61/-5.8	-7.15/-4.95	-3.66/-3.87	-3.51/-3.3	-4.84/-6.47	-8.49/-13.53	-18.35/-18.48	-17.68/-19.16	-18.44/-16.58	-10.51/-7.35	-4.56/-3.16	-7.26/-13.52	-7.4/-13.64	-17.19/-15.67	-13.87/-8.22	-11.63/-9.52	-8.27/-7.89	-7.67/-15.61	-11.99/-11.85	-8.86/-6.76
Θ(120°)	-13.74/-17.07	-14.63/-18.07	-12.78/-18.56	-18.39/-11.47	-9.92/-8.76	-6.36/-4.52	-3.19/-5.47	-6.46/-7.28	-7.53/-8.52	-18.94/-18.62	-16.16/-16.27	-11.83/-17.73	-13.12/-10.78	-14.79/-8.62	-10.38/-9.44	-15.5/-8.05	-7.32/-9.32	-11.13/-4.71	-17.31/-11.35	-6.32/-6.6	-7.76/-5.69	-3.57/-3.95	-14.01/-19.23	-15.87/-11.14
Θ(127.5°)	-18.31/-14.91	-15.32/-17.33	-15.19/-17.52	-18.41/-9.99	-5.68/-6.38	-3.95/-3.22	-2.2/-3.62	-3.91/-4.09	-6.14/-9.89	-13.51/-14.45	-17.13/-14.45	-12.89/-16.56	-10.52/-10.84	-15.52/-9.05	-5.73/-17.84	-6.93/-13.49	-7.62/-5.58	-6.64/-2.61	-10.91/-10.21	-3.77/-2.48	-3.1/-6.82	-5.83/-6.51	-17.58/-17.89	-15.92/-12.72
Θ(135°)	-18.55/-17.31	-18.23/-18.21	-18.48/-16.98	-11.94/-16.57	-10.55/-10.36	-9.83/-13.35	-14.34/-11.47	-9.71/-9.84	-11.32/-16.12	-11.08/-16.33	-15.73/-18.36	-12.59/-16.27	-14.74/-9.6	-18.04/-15.9	-17.97/-11.41	-12.83/-9.4	-16.82/-13.27	-7.81/-7.13	-12.08/-16.94	-5.39/-4.49	-3.98/-7.04	-8.74/-13.17	-14.9/-19.13	-18.14/-17.69
Θ(142.5°)	-19/-12.53	-12.83/-18.05	-17.49/-18.13	-9.57/-6.45	-8.86/-7.71	-6.92/-9.52	-12.1/-10.62	-9.49/-9.48	-9.96/-14.19	-17.35/-13.82	-13.84/-17.26	-18.41/-14.74	-11.44/-18.53	-11.04/-9.41	-16.85/-16.24	-9.11/-9.08	-14.78/-17.58	-14.81/-11.81	-6.11/-8.9	-15.59/-11.13	-8.81/-8.89	-7.2/-10.94	-14.08/-14.26	-18.93/-17.87
Θ(150°)	-12.07/-7.26	-18.73/-15.09	-18.18/-17.88	-18.85/-14.23	-10.19/-12.53	-18.45/-6.59	-6.74/-6.84	-7.39/-6.84	-5.9															