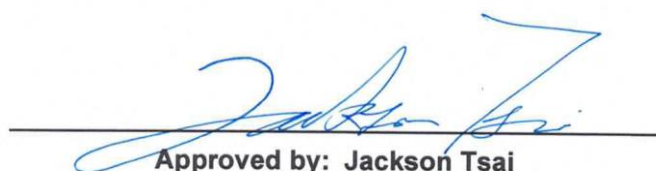




Antenna Composite Gain Test Report

Equipment	Access Point
Brand Name	Extreme Networks
Model Name	AP3020W
Applicant	Extreme Networks, Inc. 2121 RDU Center Drive Morrisville North Carolina United States 27560
Manufacturer	Extreme Networks Inc. 2121 RDU Center Drive Morrisville North Carolina United States 27560
Standard	KDB 662911 D03 v02
Sample Received	Jan. 16, 2026
Start Test Date	Jan. 27, 2026
Final Test Date	Jan. 27, 2026



Approved by: Jackson Tsai

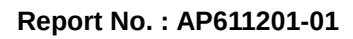
SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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[illegible]

1. Operation Mode and Antenna Information

Antenna Position	RF Port	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
2G 5G Ant1	1	WNC	95XPAM15.GAD	Dipole	I-Pex	2.4GHz, 5GHz
2G 5G Ant2	2	WNC	95XPAM15.GAC	Dipole	I-Pex	2.4GHz, 5GHz
BLE 6G Ant1	1	WNC	95XPAM15.GAF	Dipole	I-Pex	6GHz, Bluetooth
BLE 6G Ant2	2	WNC	95XPAM15.GAE	Dipole	I-Pex	6GHz, Bluetooth

Note:

2.4GHz and 5GHz Operation Mode (2TX/2RX)

2G 5G Ant1~2G 5G Ant2 can be used as transmitting/receiving antenna.

6GHz Operation Mode (2TX/2RX)

BLE 6G Ant1~ BLE 6G Ant2 can be used as transmitting/receiving antenna.

2. Test Frequency

The listed frequency of each bands are selected to represent each frequency bands

Band [MHz]	Test Frequency [MHz]
2400-2483.5	2450
5150-5250	5200
5250-5350	5300
5470-5725	5600
5725-5850	5785
5925-6425	6175
6425-6525	6475
6525-6875	6695
6875-7125	6995



3. Testing Location

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Wen 33rd.St.	ADD:	No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)		
	TEL: 886-3-318-0787	FAX: 886-3-318-0287		
Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	05CH03-HY	Vivi Jiang	23.5~24.5°C / 54~65%	27/Jan/2026

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

4. Test Facility and Configuration

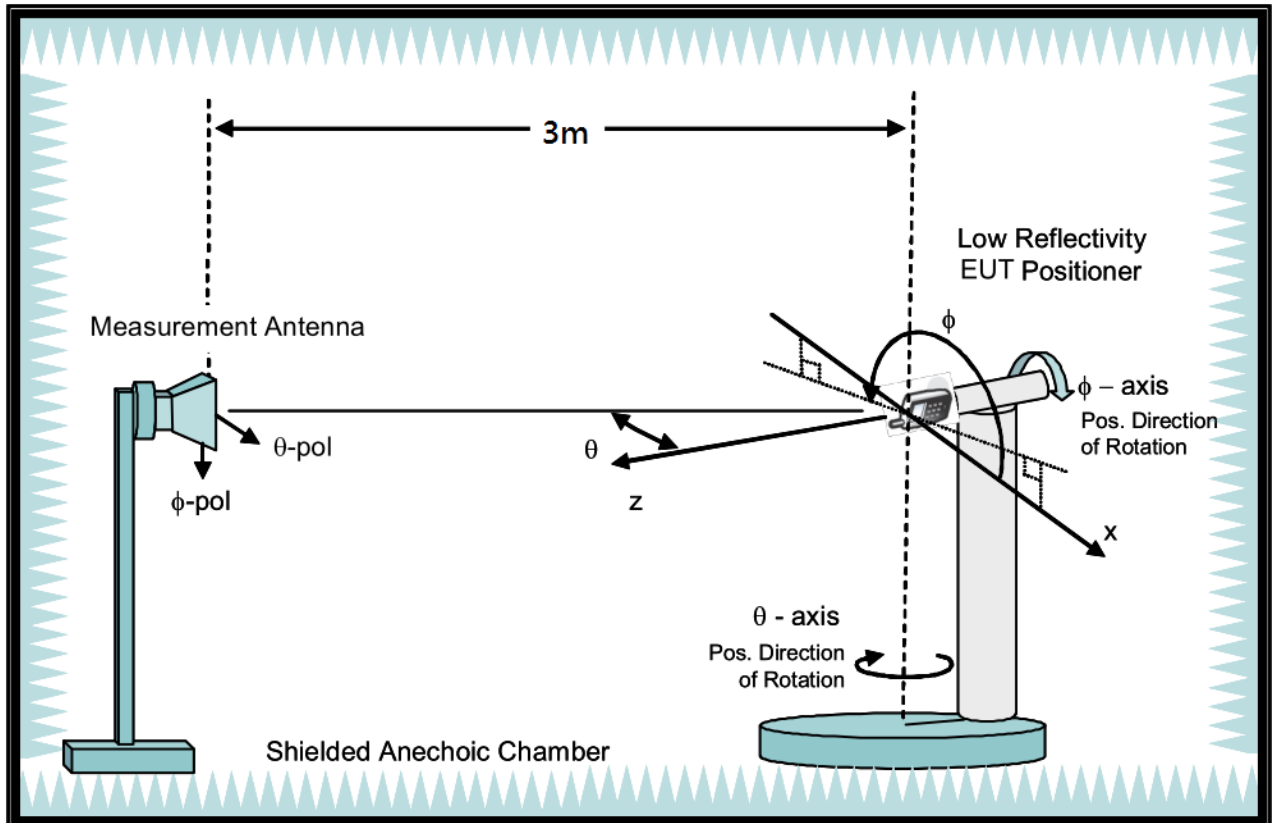
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

Turntable: Multi-axis positioner (Theta and Phi angle).

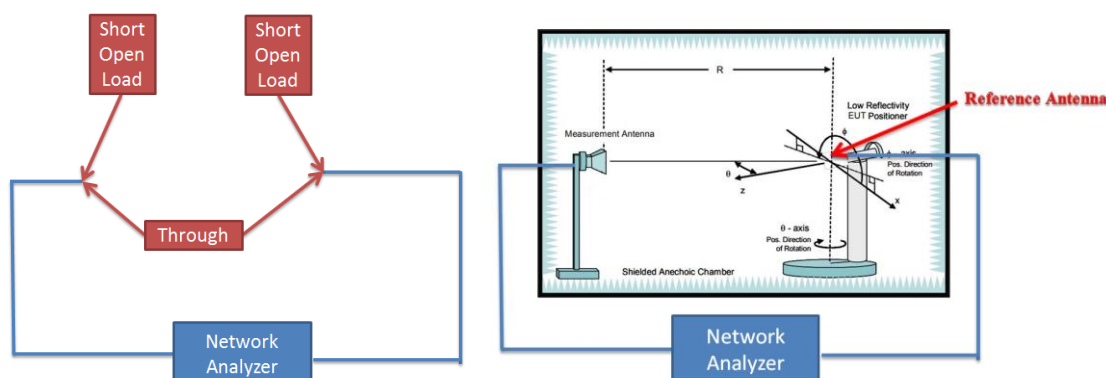
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



5. Reference Calibration

Connected cables to VNA calibration kit and use network analyzer internal function to do calibration. Do short, open and load to each side. Then connect through to both side and calibrate G values. The cable loss is calibrated and set inside the network analyzer.

Measurement Antenna is connected to port1 of Network analyzer and reference antenna connected to port 2 of Network Analyzer. Record G values and used with reference antenna gain to calculate gain factor.



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7200
G(theta) reading (dB)	-32.12	-32.48	-32.45	-34.55	-34.56	-34.78	-34.94	-34.89	-34.99	-35.16	-35.32	-35.68	-35.88	-35.97
G(phi) reading (dB)	-32.35	-32.11	-32.43	-34.12	-33.95	-34.23	-34.56	-34.68	-34.78	-35.32	-35.45	-35.67	-35.86	-36.11
Reference gain (dBi)	10.2	10.2	10.2	11	11.3	11.6	12	11.6	11.4	11.3	11.4	11.1	11	10.3
Factor(theta) (dB)	42.32	42.68	42.65	45.55	45.86	46.38	46.94	46.49	46.39	46.46	46.72	46.78	46.88	46.27
Factor(phi) (dB)	42.55	42.31	42.63	45.12	45.25	45.83	46.56	46.28	46.18	46.62	46.85	46.77	46.86	46.41

Note:

$G \text{ reading (dB)} = 20 \cdot \log(V_2/V_1) = 10 \cdot \log(P_2/P_1)$

V2 is the voltage of VNA port2 is measured, V1 is the voltage of VNA port1 is the reference source.

P2 is the power of VNA port2 is measured, P1 is the power of VNA port1 is the reference source.

Factor = gain factor + power gain conversion= (Reference antenna gain)-(G reading)

6. Test Method

EUT set on multi-axis positioner and adjust EUT's physical center to measurement reference center. Measurement antenna set at phi polarization and 1.5 meter height. Port 1 of Network analyzer connect to antenna 1 of EUT. Record G value every 7.5 degree from 0 to 352.5 degree on Phi angle and 0 to 180 on theta angle of multi-axis positioner. Then set measurement antenna to theta polarization and repeat process. Repeat process to each antenna of EUT.

DG steps:

1. Each Phi and Theta polarization antenna gain are measured for all test angles.
2. Composite Phi and Theta antenna gain are computed, using formula in KDB662911 D01 d) (i) and e) (ii), for all angles.
3. Composite antenna gain are examined for all angles to determine max gain and Phi/Theta position. Max gain and phi/theta position are listed in section 7 tables.

Note: Antenna gain = G reading + factor, The factor of chapter five includes reference antenna gain factor and power gain conversion.

7. Measured Values and Calculation of Maximum Gain Positions

<2G5G Ant1, 2G5G Ant2 >

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	4.91	3.66	4.24	4.44	5.38
Ant. 2 (dBi)	-6.17	-1.46	-0.92	-1.02	-3.04
DG [1SS] (dBi)	4.04	4.48	5.05	5.14	5.16
Polarization	Phi	Phi	Phi	Phi	Phi
$\Theta(^{\circ})$	37.5	22.5	30	30	22.5
$\Phi(^{\circ})$	277.5	270	277.5	300	277.5

Note: The DG 1SS max value position is the maximum value of section 11 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [$10^{(G/20)}$]	$10^{(4.91/20)}$	$10^{(3.66/20)}$	$10^{(4.24/20)}$	$10^{(4.44/20)}$	$10^{(5.38/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-6.17/20)}$	$10^{(-1.46/20)}$	$10^{(-0.92/20)}$	$10^{(-1.02/20)}$	$10^{(-3.04/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.76	1.524	1.629	1.667	1.858
Ant. 2 [$10^{(G/20)}$] value	0.491	0.845	0.899	0.889	0.705
Sum All Antenna [Amax]	2.251	2.369	2.529	2.556	2.562
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	4.04	4.48	5.05	5.14	5.16

Note:

Directional Gain (1SS) is the max value of every look angle. Each position value is calculated by KDB662911 D01 d) (i).

Directional gain (1SS) = $10 \cdot \log(10^{(G_{ant1}/20)} + 10^{(G_{ant2}/20)} + 10^{(G_{ant3}/20)} + 10^{(G_{ant4}/20)} + \dots)^{1/2/N_{ant}}$

< BLE 6G Ant1, BLE 6G Ant2>
DG_1SS max value position

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	4.56	5.14	1.65	4.78
Ant. 2 (dBi)	-4.9	-3.29	1.6	-2.84
DG [1SS] (dBi)	4.07	4.92	4.64	4.79
Polarization	Phi	Phi	Theta	Phi
$\Theta(^{\circ})$	82.5	90	0	82.5
$\Phi(^{\circ})$	232.5	232.5	15	240

Note: The DG 1SS max value position is the maximum value of section 11 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(4.56/20)}$	$10^{(5.14/20)}$	$10^{(1.65/20)}$	$10^{(4.78/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-4.9/20)}$	$10^{(-3.29/20)}$	$10^{(1.6/20)}$	$10^{(-2.84/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.69	1.807	1.209	1.734
Ant. 2 [$10^{(G/20)}$] value	0.569	0.685	1.202	0.721
Sum All Antenna [Amax]	2.259	2.492	2.411	2.455
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	4.07	4.92	4.64	4.79

Note:

Directional Gain (1SS) is the max value of every look angle. Each position value is calculated by KDB662911 D01 d) (i).

Directional gain (1SS) = $10 \cdot \log(10^{(G_{ant1}/20)} + 10^{(G_{ant2}/20)} + 10^{(G_{ant3}/20)} + 10^{(G_{ant4}/20)} + \dots)^2 / N_{ant}$

8. Summary of Test Result

<2G5G Ant1, 2G5G Ant2 >

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	5.69	5.76	6.36	6.16	6.7
Ant. 2 Max Gain (dBi)	4.65	5.1	4.93	4.79	3.37
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/75/262.5	Phi/75/270	Phi/75/277.5	Phi/75/262.5	Phi/75/277.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/45/82.5	Phi/82.5/90	Phi/82.5/67.5	Phi/82.5/82.5	Phi/75/82.5
Max Gain (dBi)	5.69	5.76	6.36	6.16	6.7
DG [1SS] (dBi)	4.04	4.48	5.05	5.14	5.16
DG [1SS] (dBi) Revised	5.69	5.76	6.36	6.16	6.7
DG [2SS] (dBi)	5.69	5.76	6.36	6.16	6.7

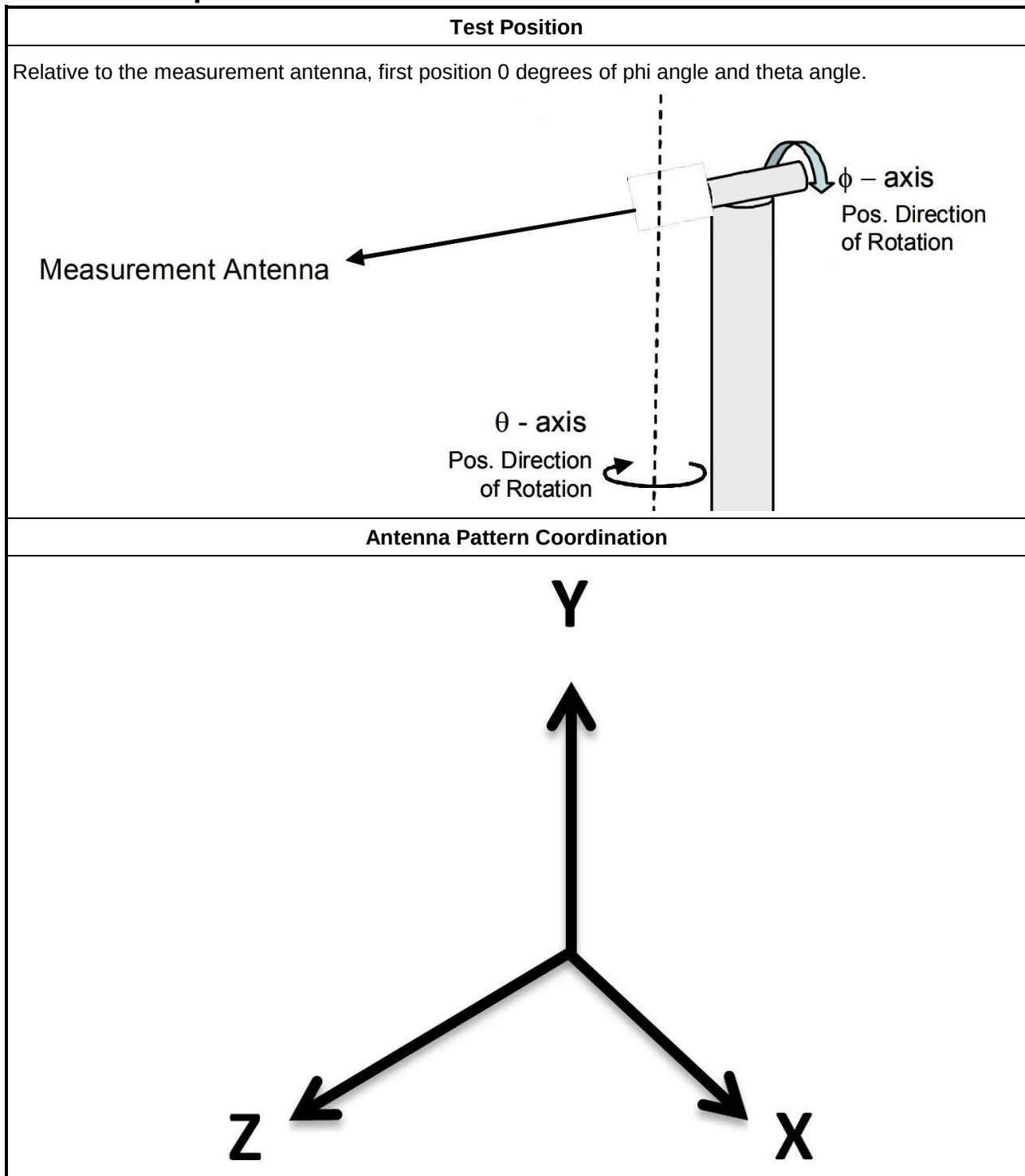
< BLE 6G Ant1, BLE 6G Ant2>

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	5.05	5.37	4.67	5.57
Ant. 2 Max Gain (dBi)	4.15	5.2	4.36	4.9
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/82.5/285	Phi/82.5/240	Phi/82.5/232.5	Phi/82.5/247.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/75/127.5	Phi/97.5/105	Phi/97.5/112.5	Phi/75/150
Max Gain (dBi)	5.05	5.37	4.67	5.57
DG [1SS] (dBi)	4.07	4.92	4.64	4.79
DG [1SS] (dBi) Revised	5.05	5.37	4.67	5.57
DG [2SS] (dBi)	5.05	5.37	4.67	5.57

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles.
2. The max gain is the max value of all antennas.
3. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii).
4. Directional Gain (2SS) = Directional Gain (1SS) – 3dB

9. Test Setup



Note:

Photos of Test Position: Please refer to the test photos in the appendix.



10. Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1531	1GHz~18GHz	Dec. 19, 2025	Dec. 18, 2026
Dual Polarization Horn Antenna	Sporton	S0209DP	S0209DP-001	2GHz~9GHz	N.C.R.	N.C.R.
ENA Series Network Analyzer	AGILENT	E5071C	MY46419477	100kHz~8.5GHz	Aug. 06, 2025	Aug. 05, 2026
VNA Calibration Kit	TS RF	TS85033E-F	-	DC~9GHz	N.C.R.	N.C.R.
Multi-axis positioner	Sporton	MAPS01	MAPS01-001	Theta / Phi axis	N.C.R.	N.C.R.
Test Software	SPORTON	SENSE-RDG	V1.0.8	-	N.C.R.	N.C.R.

Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.



11. Test Results

Please refer to the appendix.

Appendix A.1 – Radiated Composite Gain of 2G5G.....	Page 15
Appendix A.2 – Radiated Composite Gain of 6G.....	Page 24
Appendix B.1 – Antenna Pattern of 2G5G.....	Page 31
Appendix B.2 – Antenna Pattern of 6G.....	Page 35
Appendix C – Test Photos.....	Page 38

————THE END————



Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	5.69	5.76	6.36	6.16	6.7
Ant. 2 Max Gain (dBi)	4.65	5.1	4.93	4.79	3.37
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/75/262.5	Phi/75/270	Phi/75/277.5	Phi/75/262.5	Phi/75/277.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/45/82.5	Phi/82.5/90	Phi/82.5/67.5	Phi/82.5/82.5	Phi/75/82.5
Max Gain (dBi)	5.69	5.76	6.36	6.16	6.7
DG [1SS] (dBi)	4.04	4.48	5.05	5.14	5.16
DG [1SS] (dBi) Revised	5.69	5.76	6.36	6.16	6.7
DG [2SS] (dBi)	5.69	5.76	6.36	6.16	6.7



Radiated Composite Gain Data of 2G5G

Appendix A.1

DG 1SS Result

Freq(Hz)	2.45G/Pol	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(0°)	-11.6/-9.89	-6.98/-4.5	-2.42/-0.79	0.51/5.14	2.33/2.96	3.42/3.71	3.85/8.34	3.67/3.38	2.91/2.23	1.36/0.21	-1.2/-0.33	-5.53/-9.11	-12.34/-10.72	-7.3/-4.59	-2.53/-0.9	0.47/1.52	2.37/2.99	3.45/3.76	3.9/3.88	3.68/3.41	2.8/2.13	1.17/-0.09	-1.66/-3.56	-6.96/-1.58
Θ(7.5°)	-12.79/-9.85	-6.55/-3.93	-1.89/-0.35	0.81/1.7	2.36/2.9	3.63/3.54	3.31/2.97	2.51/1.88	1.03/-0.06	-1.51/-3.38	-5.83/-8.98	-11.08/-9.59	-6.95/-4.61	-2.67/-1.06	0.31/3.37	2.24/2.9	3.43/3.74	3.9/3.93	3.78/3.39	3.03/2.31	1.26/-0.1	-1.86/-4.01	-7.02/-10.97	
Θ(15°)	-15.62/-11.15	-6.99/-4.06	-1.92/-0.35	0.77/1.62	2.24/2.76	3.14/3.31	3.32/3.19	2.92/2.57	2.14/1.68	1.07/0.2	-1.06/-2.8	-5.08/-8.12	-10.46/-9.47	-6.77/-4.47	-2.68/-1.25	-0.05/-0.9	1.78/2.51	3.07/3.46	3.68/3.78	3.76/3.54	3.09/2.33	1.22/-0.2	-2.01/-4.18	-7.21/-11.61
Θ(22.5°)	-15.37/-14.65	-8.7/-9.4	0.58/1.46	2.06/2.56	2.89/3.04	3.03/2.9	2.65/2.31	1.93/1.59	1.22/0.59	-0.47/-2.14	-4.56/-8.09	-11.26/-9.57	-6.31/-3.87	-2.2/-0.98	-0.05/0.67	1.35/2.01	2.61/3.08	3.44/3.65	3.67/3.45	2.92/2.08	0.96/-0.38	-2.05/-4.08	-6.67/-10.19	
Θ(30°)	-14.7/-19.66	-11.55/-6.24	-3.11/-1.07	0.32/1.31	1.95/2.42	2.74/2.87	2.85/2.71	2.44/2.07	1.73/1.54	1.38/1.03	0.21/-1.32	-3.78/-7.67	-12.95/-12.19	-7.32/-4.25	-2.3/-0.89	0.16/0.9	1.45/1.9	2.42/2.97	3.47/3.79	3.81/3.5	2.88/1.99	0.97/-0.15	-1.53/-3.23	-5.45/-6.68
Θ(37.5°)	-11.57/-16.73	-13.25/-7.54	-4.11/-1.82	-0.22/0.94	1.71/2.27	2.62/2.74	2.69/2.49	2.04/1.54	1.25/1.35	1.51/3.4	0.62/-0.9	-3.42/-7.68	-15.75/-16.75	-8.83/-5.1	-2.75/-1.01	0.36/1.35	2.11/2.61	2.98/3.42	3.85/4.04	3.9/3.47	2.76/1.93	1.08/0.23	-0.92/-2.49	-4.57/-7.38
Θ(45°)	-9.86/-13.04	-13.63/-9.84	-6.41/-3.78	-1.76/-2.03	0.87/1.73	2.23/2.36	2.19/1.82	1.19/0.55	0.37/0.8	1.35/1.49	1.05/-0.1	-2.1/-5.43	-11.23/-24.86	-12.62/-7.33	-4.28/-1.99	-0.16/-1.25	2.27/2.86	3.17/3.45	3.74/3.77	3.5/3.04	2.46/1.82	1.22/0.52	-0.56/-2.18	-4.4/-7.03
Θ(52.5°)	-7.67/-9.99	-12.43/-14.87	-10.6/-6.59	-3.72/-1.52	0.11/1.34	2.22/2.65	2.51/1.92	1.07/0.31	0.11/0.48	0.78/0.73	0.32/-0.71	-2.64/-5.97	-11.52/-18.59	-12.06/-7.29	-4.1/-1.67	0.22/1.57	2.52/2.98	3.12/3.98	2.82/2.63	2.38/2.01	1.58/1.03	0.04/-1.47	-3.47/-5.58	
Θ(60°)	-6.92/-9.31	-12.16/-14.59	-11.52/-7.23	-2.26/-1.89	-0.09/1.17	1.99/2.65	2.93/2.76	2.16/1.38	0.90/8.3	0.53/-0.25	-1.2/-2.36	-4.37/-7.78	-12.41/-14.86	-11.53/-7.94	-4.8/-2.15	-0.1/57	2.64/3.17	2.86/2.82	2.66/2.74	3.01/3.03	2.37/1.43	0.77/0.26	-0.54/-1.62	-3.07/-4.86
Θ(67.5°)	-7.78/-10.02	-12.4/-14.43	-12.65/-8.2	-5/-2.39	-0.66/0.22	1.4/2.44	2.62/2.26	1.69/1	0.39/0.04	-0.5/-1.48	-2.66/-4.7	-7.49/-11.93	-15.98/-14.4	-11.86/-9.48	-6.92/-4.09	-1.31/0.76	2.07/2.76	3.07/3.41	3.12/3.11	3.12/3.11	-0.39/-1.12	-1.81/-2.62	-3.91/-5.75	
Θ(75°)	-9.71/-10.91	-12.17/-13.41	-12.3/-8.57	-4.98/-2.28	-0.74/0.48	2.3/3.34	3.38/2.51	1.21/0.2	-0.65/-1.35	-2.2/-3.2	-4.01/-5.54	-8.31/-12.12	-17.56/-17.3	-12.98/-10.35	-8.17/4.84	-1.69/0.51	1.91/3.03	3.59/3.99	3.67/3.3	3.68/3.59	2.94/1.88	0.99/0.42	-0.66/-2.41	-4.77/-7.58
Θ(82.5°)	-9.77/-10.39	-10.79/-11.15	-10.31/-7.64	-4.07/-1.28	0.06/0.29	1.39/2.52	2.72/2.14	1.22/0.7	-1.42/-2.83	-4.14/-5.16	-5.01/-5.91	-8.08/-11.29	-14.92/-16.32	-12.49/-10.16	-8.26/-4.1	-1.14/0.7	1.81/2.72	3.27/3.66	3.4/3.12	3.46/3.49	2.89/1.72	0.57/-0.2	-1.71/-4.11	-6.96/-8.83
Θ(90°)	-8.31/-8.83	-8.94/-8.67	-7.72/-6.07	-4.26/-2.09	-0.72/-0.52	-0.03/0.97	1.03/0.56	-0.05/-1.05	-2.63/-3.54	-3.97/-5.11	-6.01/-6.93	-9.53/-14.16	-18.79/-18.35	-14.26/-10.99	-8.53/-5	-1.93/-0.04	1.13/2.09	3.03/3.43	3.23/2.77	2.84/2.95	2.32/0.67	-1.23/-2.1	-3.03/-4.3	-5.81/-7.29
Θ(97.5°)	-11.36/-10.92	-10.29/-9.36	-7.74/-6.62	-6.11/-3.05	-1.27/-0.8	0.35/0.98	0.55/-0.35	-1.68/-0.35	-4.41/-5.21	-6.5/-8.69	-10.88/-13.9	-20.23/-26.68	-25.63/-23.74	-15.41/-10.74	-7.95/-5.41	-2.43/-0.35	1.21/2.46	3.39/3.76	3.4/2.62	2.32/2.28	1.65/0.06	-2.07/-3.24	-4.4/-6.26	-8.75/-10.87
Θ(105°)	-10.76/-10.1	-9.89/-9.56	-8.66/-7.71	-4.74/-1.71	-0.29/-0.48	-0.28/0.73	0.71/0.04	-1.53/-3.8	-5.38/-6.21	-7.85/-9.4	-9.08/-10.83	-14.66/-19.69	-23.57/-27	-16.77/-10.81	-7.47/-5.35	-3.63/-1.66	-0.18/0.86	1.95/2.66	2.65/2.11	1.69/1.5	0.93/-0.44	-2.11/-3.05	-4.57/-6.77	-8.75/-10.29
Θ(112.5°)	-10.22/-9.49	-9.39/-9.36	-8.39/-6.68	-3.52/-0.82	0.24/-0.42	-2.5/-1.52	-1.08/-1.41	-2.58/-3.63	-4.18/-4.99	-6.75/-9.51	-11.16/-12.3	-15.38/-21.12	-23.29/-20.75	-14.04/-8.6	-5.66/-4.24	-3.35/-1.52	-0.13/0.46	1.01/1.71	2.01/1.95	1.88/1.58	0.59/-1.32	-3.57/-4.01	-4.83/-6.41	-8.08/-9.7
Θ(120°)	-13.67/-12.05	-10.71/-9.61	-8.01/-6.06	-3.55/-1.4	-0.71/-1.53	-3.12/-2.63	-2.31/-3.07	-3.71/-4.23	-5.99/-8.59	-13.27/-19.2	-17.5/-14.34	-16.43/-18.91	-17.27/-15.8	-15.1/-9.14	-5.99/-4.66	-4.16/-3.33	-2.19/-1.72	-1.06/-0.32	-0.07/-0.31	-0.34/-0.3	-0.95/-2.77	-5.84/-7.37	-7.48/-8.76	-10.8/-12.96
Θ(127.5°)	-10.74/-10.13	-10.43/-8.15	-6.38/-5.14	-4.09/-3.12	-3.02/-3.95	-4.34/-5.2	-4.31/-5.1	-5.53/-5.24	-5.74/-7.62	-9.35/-8.76	-9.36/-11.26	-13.5/-16.61	-17.54/-15.57	-12.19/-8.03	-5.29/-3.67	-2.47/-1.61	-1.51/-2.62	-2.09/-1.08	-0.49/-0.31	-0.09/0.13	-0.32/-0.02	-5.29/-8.43	-9.05/-10.03	-12.23/-14.52
Θ(135°)	-12.73/-11.26	-9.2/-7.38	-6.02/-5.23	-4.75/-4.5	-4.29/-3.54	-2.81/-2.76	-3.64/-8.6	-5.29/-4.59	-4.22/-4.66	-5.31/-5.43	-6.01/-7.91	-11.03/-14.54	-16.8/-16.39	-13.6/-9.82	-6.76/-4.54	-2.82/-1.74	-1.52/-2.31	-2.6/-1.75	-1.19/-0.89	-0.5/-0.22	-0.71/-2.43	-5.86/-11.37	-13.47/-12.59	-12.36/-12.89
Θ(142.5°)	-13.9/-13.65	-12.52/-11	-9.45/-7.93	-6.57/-5.57	-4.9/-3.4	-3.95/-3.83	-3.83/-3.67	-3.44/-3.29	-3.41/-3.96	-4.83/-5.49	-6.27/-8.17	-10.28/-14.15	-20.35/-22.62	-16.25/-12.45	-9.23/-6.67	-4.83/-3.99	-4.14/-4.73	-4.57/-4.26	-4.08/-3.7	-2.81/-2.04	-2/-3.09	-5.59/-9.57	-13.66/-16.1	-13.66/-13.34
Θ(150°)	-13.45/-13.18	-12.44/-10.99	-9.67/-9.99	-5.36/-4.2	-3.56/-3.2	-2.04/-2.77	-2.42/-0.9	-2.09/-2.56	-3.58/-5.1	-6.93/-6.69	-9.9/-10.99	-13.06/-16.81	-20.77/-16.5	-12.9/-15	-9.29/-6.51	-4.38/-3.78	-3.48/-3.33	-3.3/-3.32	-3.4/-3.28	-2.79/-2.39	-5.01/-3.94	-5.01/-3.94	-10.13/-12.85	-14.42/-14.5
Θ(157.5°)	-10.79/-9.74	-8.81/-7.82	-6.69/-5.51	-4.45/-3.56	-2.97/-2.61	-2.41/-2.29	-2.25/-2.37	-2.82/-3.73	-5.35/-7.85	-11.33/-15.52	-17.23/-16.31	-15.44/-14.79	-13.86/-12.47	-10.63/-8.82	-7.34/-6.27	-5.44/-4.77	-4.24/-4.03	-4.08/-4.27	-4.46/-4.65	-4.84/-5.11	-5.68/-6.57	-7.84/-9.4	-11.11/-12.67	-13.37/-12.27
Θ(165°)	-10.69/-10	-9.62/-9.38	-8.81/-8.03	-7.16/-6.18	-5.48/-5.08	-4.96/-5.06	-5.3/-5.72	-6.35/-7.28	-8.64/-10.6	-13.44/-16.94	-15.27/-13.75	-12.83/-12.24	-11.95/-11.78	-11.49/-11.04	-10.59/-10.38	-10.14/-9.57	-9.03/-8.89	-9.02/-9.2	-9.42/-9.86	-10.58/-11.58	-12.72/-13.69	-14.24/-14.46	-14.52/-14.22	-13.08/-11.7
Θ(172.5°)	-15.34/-15.2	-15.54/-16.02	-15.61/-14.21	-12.5/-11.61	-9.65/-9.06	-8.93/-9.9	-10.96/-12.15	-14.93/-14.73	-15.34/-14.95	-14.42/-14.01	-13.91/-14.13	-12.83/-14.13	-13.65/-10.7	-12.73/-12.8	-12.88/-12.7	-11.88/-10.96	-10.19/-9.3	-8.78/-8.58	-8.68/-9.26	-10.32/-12.02	-14.11/-15.97	-16.98/-17	-16.24/-15.61	
Θ(180°)	-18.55/-20.83	-21.87/-20.33	-17.04/-14.54	-12.32/-10.54	-9.38/-8.72	-8.31/-8.13	-8.14/-8.46	-9.17/-10.17	-11.28/-12.25	-13.28/-14.29	-15.33/-16.34	-17.56/-19.61	-22.08/-23.89	-23.53/-21.46	-19.15/-17.31	-15.84/-14.22	-12.45/-10.84	-9.46/-8.43	-7.73/-7.38	-7.39/-7.72	-8.55/-9.89	-11.54/-13.12	-14.28/-15.02	-15.53/-16.76
Freq(Hz)	2.45G/Pol	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°)	-0.95/-0.98	-1.17/-1.49	-1.99/-2.6	-3.39/-4.4	-5.76/-7.55	-9.9/-13.1	-17.02/-17.25	-14.13/-10.96	-8.35/-6.41	-4.94/-3.85	-2.97/-2.23	-1.65/-1.24	-0.99/-0.91	-1.01/-1.36	-1.93/-2.74	-3.76/-4.94	-6.41/-8.2	-10.88/-14.18	-18.52/-17.3	-12.85/-9.61	-7.25/-5.51	-4.22/-3.25	-2.48/-1.87	-1.45/-1.09
Θ(7.5°)	-0.84/-0.84	-1.05/-1.42	-1.98/-2.67	-3.55/-4.68	-6.12/-7.95	-10.38/-13.89	-18.97/-17.28	-14.95/-12.01	-9.31/-7.3	-5.7/-4.5	-3.52/-2.76	-2.21/-1.81	-1.59/-1.52	-1.62/-1.9	-2.36/-3.07	-4.06/-5.22	-6.78/-8.4	-11.05/-13.98	-16.84/-16.18	-12.2/-0.93	-6.68/-4.96	-3.69/-2.78	-2.07/-1.55	-1.14/-0.91
Θ(15°)	-1.03/-1.05	-1.25/-1.62	-2.17/-2.93	-3.83/-4.96	-6.32/-7.97	-10.05/-12.86	-16.66/-17.89	-17.93/-14.77	-11.43/-8.97	-6.91/-5.32	-4.01/-2.99	-2.26/-1.86	-1.69/-1.75	-1.94/-2.25	-2.74/-3.38	-4.33/-5.59	-7.36/-9.52	-11.37/-12.96	-14.76/-15.28	-11.43/-8.37	-6.24/-4.6	-3.46/-2.68	-2.09/-1.66	-1.34/-1.1
Θ(22.5°)	-1.71/-1.72	-1.9/-2.26	-2.77/-3.46	-4.36/-5.44	-6.71/-8.15	-9.9/-12.1	-15.11/-19.06	-22.59/-18.9	-14.2/-10.57	-7.75/-5.57	-3.91/-2.78	-2.07/-1.74	-1.75/-2.02	-2.41/-2.89	-3.46/-4.14	-5.09/-6.36	-7.96/-9.17	-10.27/-11.71	-13.51/-14.11	-10.19/-7.64	-5.82/-4.58	-3.72/-3.14	-2.74/-2.42	-2.15/-1.88
Θ(30°)	-2.99/-3.22	-3.18/-3.52	-3.94/-4.44	-5.16/-6.14	-7.29/-8.6	-9.98/-11.52	-13.51/-16.02	-19.43/-21.46	-18.32/-13.03	-9.21/-4.69	-4.5/-3.21	-2.44/-2.12	-2.21/-2.56	-3.02/-3.57	-4.17/-4.83	-5.65/-6.44	-7.25/-8.27	-9.6/-11.2	-13.01/-13.04	-9.77/-7.57	-6.16/-5.28	-4.72/-4.34	-4.1/-3.83	-3.55/-3.21
Θ(37.5°)	-4.51/-4.56	-4.91/-5.27	-5.48/-5.66	-6.09/-6.84	-7.72/-8.75	-9.73/-10.76	-11.97/-13.34	-14.73/-15.82	-16.84/-14.16	-10.45/-7.57	-5.35/-3.88	-3.07/-2.77	-2.81/-3.08	-3.54/-0.1	-4.53/-5.04	-5.47/-5.97	-6.8/-8.01	-9.59/-11.5	-13.34/-12.2	-9.63/-7.99	-6.96/-6.34	-5.03/-5.79	-5.57/-5.3</	



Radiated Composite Gain Data of 2G5G

Appendix A.1

Θ(15°)	-4.02/-3.3	-2.63/-2.76	-3.19/-3.14	-2.61/-1.77	-1.35/-1.46	-1.74/-1.79	-2.04/-2.08	-1.22/-0.16	0.76/1.13	1.080.37	-1.1/-2.9	-4.44/-5.14	-5.85/-5.07	-4.07/-3.05	-1.7/-0.2	0.79/1.51	2.37/3.2	3.94.31	4.37/3.92	3.03/2.1	1.65/1.41	0.88/0.32	-0.62/-1.63	-2.95/-4.04
Θ(22.5°)	-3.92/-2.76	-2.2/-1.94	-1.8/-1.76	-1.56/-1.23	-0.85/-0.79	-0.97/-1.26	-2.56/-3.30	-2.99/-1.44	-0.53/-0.25	-0.56/-1.85	-4.31/-7.08	-9.35/-10.81	-11.12/-8.88	-4.23/-1.29	0.5/1.65	2.38/2.82	3.18/3.52	3.77/4.32	4.77/4.61	3.88/2.91	2.59/2.66	2.18/1.04	-0.84/-2.84	-4.22/-4.51
Θ(30°)	-3.36/-3.53	-3.45/-3.08	-3.07/-3.31	-2.76/-1.63	-0.64/-2.22	-0.68/-1.60	-0.79/-3.25	-3.15/-1.81	-1.01/-0.87	-1.07/-3.9	-7.18/-8.4	-7.47/-7.79	-9.75/-11.12	-7.26/-2.25	1.01/2.7	3.33/3.56	3.82/3.91	3.57/3.92	4.18/2.9	2.46/2.67	2.24/0.8	-1.91/-4.02	-3.55/-2.92	
Θ(37.5°)	-6.38/-7.41	-8.84/-9.04	-9.4/-7	-4.06/-1.12	0.73/1.45	0.94/0.37	-0.17/-1.66	-2.4/-0.78	-0.39/-1.51	-3.54/-5.2	-5.73/-5.39	-5.99/-8.31	-7.26/-6.14	-5.1/-2.99	-0.49/1.22	2.13/2.92	4.14/6.9	3.84/2.2	3.52/4.37	3.8/2.04	1.93/0.4	2.98/1.25	-1.08/-1.7	-2.81/-5.08
Θ(45°)	-10.3/-10.25	-11.3/-9.52	-5.92/-3.38	-1.58/0.32	1.29/1.4	1.01/0.94	0.28/-1.42	-2.07/-5.62	-1/-2.6	-2.94/-2.79	-4.03/-5.78	-7.54/-11.91	-9.64/-7.6	-6.02/-4.96	-4.08/-2.58	-0.64/-2.1	2.46/3.35	3.63/2.74	2.42/3.51	3.13/1.48	0.71/1.82	1.31/-1.41	-1.43/-0.99	-3.43/-9.12
Θ(52.5°)	-9.76/-8.18	-6.41/-5.3	-4.1/-2.49	-0.54/1.51	2.59/2.4	1.32/0.79	0.19/-2.57	-2.93/0.49	0.24/-2.52	-5/-5.73	-6.52/-9.65	-14.84/-14.98	-11.71/-8.64	-7.74/-5.85	-4.9/-5.23	-2.58/0.83	2.77/3.87	3.95/2.79	2.28/3.36	3.54/2.21	1.32/1.71	0.21/-2.77	-1.43/-1.45	-5.47/-11.7
Θ(60°)	-6.67/-7.01	-4.86/-3.65	-2.56/-2.02	-1.45/-0.07	1.62/2.3	1.18/0.75	2/0.44	-2.3/0.05	-0.16/-3.57	-4.34/-4.95	-6.57/-12.14	-13.46/-8.63	-8.07/-9.07	-7.98/-5.82	-4.91/-4.52	-3.02/0.79	2.22/3.33	4.39/3.76	3.09/4.02	4.1/3.14	2.03/2.25	0.32/-2.08	-1.9/-3.05	-8.22/-6.58
Θ(67.5°)	-5.96/-6.4	-4.82/-3.41	-3.07/-2.4	-1.22/-0.31	1.28/2.92	2.39/1.32	1.39/0.05	0.16/1.81	-0.22/-3.36	-4.22/-8.13	-7.71/-12.28	-10.42/-7.08	-7.23/-7.5	-8.06/-8.3	-5.81/-5.32	-2.76/0.63	1.65/1.89	3.12/2.99	2.77/3.53	3.22/2.47	1.75/2.47	0.52/-1.43	-2.97/-6.43	-6.44/-4.47
Θ(75°)	-5.66/-8.76	-6.18/-3.35	-1.66/-0.74	-1.10/0.1	0.63/2.42	2.51/1.47	1.49/0.29	-0.59/1.99	-0.71/-2.52	-5.33/-8.72	-7.46/-8.22	-6.46/-5.39	-6.42/-9.58	-6.54/-3.25	-1.08/-0.96	1.29/2.85	4.05/3.66	3.74/4.9	3.92/2.92	2.69/2.4	0.02/-2.24	-4.11/-7.61	-3.81/-2.48	
Θ(82.5°)	-6.72/-7.45	-6.88/-3.99	-1.07/-0.13	0.24/0.03	0.56/2.3	1.63/0.14	1.74/0.77	0.25/1.88	0.05/-2.55	-4.87/-8.51	-7.29/-10.88	-11.28/-8.85	-8.3/-5.94	-7.87/-13.51	-8.65/-3.84	-0.63/-0.55	1.4/2.51	3.23/3.92	3.64/3.5	3.73/2.81	1.74/1.78	-0.61/-3.11	-5.88/-10.07	-5.93/-4.56
Θ(90°)	-7.71/-6.33	-6.43/-4	-2.58/-1.52	-0.56/-0.28	-0.65/1.6	1.94/-1.36	1.04/0.6	-0.39/1.51	-0.18/-1.8	-3.31/-8.59	-7.84/-9.05	-13.32/-13.82	-14.42/-9.97	-8.25/-11.67	-12.77/-5.48	-2.16/-1.67	-0.25/1.54	2.16/2.87	3.93/3.31	3.19/2.62	1.89/1.15	-1.31/-5.05	-6/-7.88	-8/-7.58
Θ(97.5°)	-10.04/-7.8	-6.76/-4.93	-3.58/-2.18	-0.6/-0.52	-0.63/1.4	0.68/0.18	1.44/1.03	-0.57/1.39	-1.13/-2.3	-2.42/-7.01	-9.1/-12.99	-16.93/-12.73	-14.17/-9.58	-7.67/-11.75	-0.41/-0.33	-0.65/-1.74	-0.41/0.33	2.66/3.66	2.69/1.81	0.79/0.47	-0.64/-1.44	-3.37/-7.32	-10.55/-10.98	-8.61/-6.18
Θ(105°)	-11.97/-12.05	-7.55/-5.75	-3.39/-2.78	-1.46/-0.87	-0.14/1.03	0.61/-0.42	0.69/0.35	-0.74/1.05	-0.25/-2.66	-2.62/-6.4	-8.74/-10.42	-15.2/-11.58	-10.17/-10.71	-9.56/-9.63	-13.94/-8.27	-3.21/-2.06	-0.67/-0.24	-0.99/0.16	1.92/1.3	-0.26/-1.24	-1.55/-2.87	-2.82/-5.69	-13.12/-20.18	-12.95/-8.94
Θ(112.5°)	-11.15/-12.29	-6.19/-6.28	-4.87/-3.64	-2.13/-2.3	-1.13/0.22	-0.47/-0.68	-0.19/-0.6	-2.26/-0.25	-1.13/-3.21	-3.32/-7.69	-9.08/-13.65	-11.81/-11.09	-12.23/-11.63	-11.87/-11.71	-14.75/-7.36	-2.64/-2.27	0.55/0.04	0.13/1.5	2.37/1.19	-0.94/-1.02	-1.49/-2.31	-2.95/-4.87	-9.44/-19.83	-15.26/-7.98
Θ(120°)	-14/-12.85	-6.14/-5.1	-4.61/-4.74	-4.14/-2.03	-1.24/-1.59	-2.22/-1.97	-0.34/-0.63	-3.25/-1.96	-2.15/-3.61	-3.05/-5.38	-7.96/-11.68	-11.39/-9.97	-13.22/-12.86	-11.69/-12.99	-14.71/-8.04	-3.69/-3.06	-1.06/-1.25	-2.25/0.13	2.92/2.15	-1.35/-1.5	-1.61/-1.86	-3.34/-4.84	-10.29/-16.24	-9.25/-10.06
Θ(127.5°)	-12.23/-12.06	-6.91/-5.97	-5.89/-3.96	-3.23/-2.68	-1.6/-1.37	-2/-2.17	-1.34/-2.58	-0.77/-1.51	-2.58/-6.89	-4.84/-8.02	-6.95/-10.25	-12.01/-9.51	-9.99/-9.74	-10.46/-12.91	-12.2/-8.52	-5.38/-3.1	-2.21/-1.94	-2.9/-0.89	1.81/1.15	-1.08/-4.12	-2.69/-1.41	-4.22/-6.82	-10.45/-19.36	-13.12/-9.15
Θ(135°)	-12.61/-11.78	-8.09/-6.97	-7.19/-6.09	-5.14/-0.45	-2.88/-3.32	-3.87/-2.78	-4.12/-3.41	-2.95/-3.52	-2.9/-7.9	-6.07/-5.1	-8/-09	-14.59/-14.14	-10.07/-9.66	-10.42/-16.19	-4.18/-2.71	-1.59/-4.24	-3.49/-3.07	0.73/-0.12	-2.27/-4.59	-6.27/-2.62	-3.15/-7.2	-10.11/-13.37	-14.97/-13.08	
Θ(142.5°)	-11.45/-14.94	-6.16/-10.32	-8.13/-7.53	-6.16/-4.66	-6.86/-5.5	-5.55/-6.17	-5.34/-1.5	-6.62/-3.74	-3.3/-8.9	-7.12/-7.84	-15.58/-13.63	-13.61/-20.57	-22.33/-19.16	-16.29/-13.93	-10.23/-5.44	-2.94/-2.89	-2.92/-3.96	-5.49/-1.87	-0.52/-0.88	-1.48/-3.28	-4.95/-5.38	-6.29/-3.14	-15.51/-15.45	-15.72/-12.25
Θ(150°)	-13.19/-13.32	-11.56/-8.89	-7.36/-6.18	-4.87/-4.1	-4.07/-4.52	-4.71/-3.97	-5.15/-5.76	-3.23/-1.54	-3.58/-8.65	-7.24/-7.18	-10.64/-14.09	-11.21/-10.35	-10.29/-10.7	-11.82/-12.88	-13.99/-11.43	-8.49/-6.69	-7.15/-6.57	-3.95/-3.48	-4.45/-4.52	-5.61/-5.95	-6.33/-9.27	-11.27/-11.88	-12.83/-11.41	-10.78/-12.05
Θ(157.5°)	-16.82/-14.25	-11.74/-11.01	-9.05/-7.87	-7.63/-7.79	-8.58/-9.43	-9.56/-9.81	-9.62/-6.89	-4.47/-4.42	-6.79/-10.16	-9.86/-8.45	-8.01/-9.6	-13.94/-15.66	-14.37/-13.99	-14.59/-13.34	-11.42/-10.87	-11.11/-11.58	-9.11/-6.89	-6.64/-6.41	-5.47/-5.68	-6.79/-7.14	-7.47/-7.78	-9.45/-9.8	-11.62/-13.94	-17.05/-20.63
Θ(165°)	-19.39/-16.93	-14.8/-12.38	-9.74/-7.99	-7.07/-6.52	-6.91/-7.57	-7.59/-6.25	-4.59/-3.4	-2.67/-2.92	-4.04/-5.99	-8.41/-10.43	-12.42/-13.74	-15.22/-17.6	-20.37/-20.59	-19.66/-19.94	-20.64/-17.6	-14.77/-12.57	-9.84/-7.5	-5.62/-4.55	-4.23/-6.43	-5.26/-6.13	-7.08/-8.29	-9.73/-10.42	-11.94/-15.3	-22.84/-27.57
Θ(172.5°)	-19.26/-21.36	-17.84/-15.89	-14.47/-12.9	-10.28/-8.56	-7.23/-6.49	-5.45/-4.8	-4.99/-5.74	-6.53/-7.53	-4.88/-9.66	-9.95/-10.21	-10.88/-12.42	-14.45/-17.18	-19.74/-19.59	-15.01/-12.57	-11.14/-9.15	-6.93/-6.62	-4.78/-4.62	-4.3/-3.59	-3.43/-3.49	-3.77/-4.39	-5.55/-6.87	-8.13/-9	-10.18/-12.38	-15.66/-18.12
Θ(180°)	-20.73/-26.36	-29.06/-21.86	-17.28/-13.88	-12.11/-11.28	-10.34/-8.77	-7.55/-7.28	-8.02/-8.65	-8.69/-8.43	-8.36/-8.06	-8.5/-9.73	-11.87/-13.93	-16.36/-21.57	-25.97/-20.31	-15.85/-13.5	-11.39/-3.94	-7.77/-6.68	-5.94/-5.61	-5.47/-5.16	-4.64/-4.5	-4.73/-5.76	-6.99/-8.59	-10.17/-11.28	-12.87/-15.16	-17.4/-19.1
Freq(Hz)	5.3GPdL	ThetaL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
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°)	-0.51/-0.45	-0.21/-0.45	-0.79/-1.19	-1.58/-2.21	-2.94/-3.96	-5.37/-7.39	-10.34/-11.58	-9.81/-8.18	-6.69/-5.52	-4.46/-3.44	-2.08/-0.87	-0.28/0.01	0.08/0.3	0.64/0.62	0.19/-0.6	-1.33/-1.87	-2.79/-3.43	-6.24/-8.09	-10.6/-8.91	-8.48/-6.87	-5.58/-4.41	-3.31/-2.44	-1.93/-1.5	-1.12/-0.66
Θ(7.5°)	-0.88/-0.41	0.01	-0.07/-0.52	0.94/-1.81	-2.91/-4.3	-6.04/-8.41	-12.1/-16.83	-15.39/-13.35	-10.59/-8.4	-6.44/-4.73	-2.97/-1.6	-0.75/-0.4	-0.22/0.09	0.66/1.1	1.1/0.49	-0.34/-0.99	-1.87/-3.36	-5.71/-8.76	-12.33/-9.97	-18.7/-6.4	-5.36/-4.83	-4.29/-3.75	-3.74/-3.38	-2.45/-1.53
Θ(15°)	1.03/-1.42	1.922/-1.1	1.74/1	-0.17/-0.82	-2/-3.89	-6.07/-8.63	-13.27/-18.4	-15.23/-13.19	-11.52/-9.7	-8.63/-7.74	-6.12/-4.79	-4.15/-3.68	-3.52/-3.66	-3.08/-1.55	-0.37/0.1	-0.15/-0.62	-1.2/-2.35	-4.39/-7.16	-11.25/-14.81	-11.55/-8.11	-6.71/-5.92	-4.79/-3.52	-2.31/-1.24	-0.51/0.35
Θ(22.5°)	-0.45/0.21	1.05/1.29	0.98/0.13	-1.26/-2.07	-2.59/-3.09	-4.04/-5.67	-8.58/-11.6	-11.27/-10.7	-10.64/-10.61	-10.36/-8.76	-7.53/-7.58	-8.86/-9.3	-5.66/-4.05	-3.21/-2.99	-2.92/-4.28	-2.12/-1.93	-2.05/-2.57	-3.52/-5.15	-8.23/-12.85	-13.08/-6.63	-6.43/-5.65	-5.02/-3.25	-1.88/-1.24	-1.16/-0.81
Θ(30°)	-3.02/-2.05	-1.41/-1.34	-2.24/-3.73	-4.68/-5.17	-5.21/-4.47	-7.31/-5.5	-5.17/-6.2	-8.69/-9.38	-9.8/-10.42	-9.7/-8.12	-7.4/-7.98	-8.72/-7.16	-4.76/-3.12	-1.95/-1.62	-2.48/-3.2	-3.16/-2.81	-3.01/-3.24	-3.35/-3.85	-5.81/-10.91	-14.48/-8.06	-5.11/-4.38	-4.25/-2.81	-1.62/-1.87	-3.03/-3.53
Θ(37.5°)	-3.04/-2.67	-2.35/-2.71	-3.5/-4.39	-4.55/-4.94	-6.53/-7.4	-6.06/-4.57	-5.17/-6.67	-12.12/-12.45	-11.71/-12.91	-11.77/-8.98	-7.89/-7.54	-6.78/-6.46	-6.74/-6.93	-5.7/-4.84	-4.87/-5.75	-6.95/-5.66	-3.9/-3.13	-3.34/-4.25	-6.41/-10.66	-13.32/-7.54	-4.66/-4.29	-4.33/-2.76	-2.09/-3.36	-4.88/-3.2
Θ(45°)	-3.58/-3.62	-3.09/-2.58	-3.35/-4.17	-3.52/-3.31	-5.7/-8.81	-6.89/-5.63	-6/-6.9	-12.15/-11.47	-8.57/-8.8	-9.78/-9.9	-6.92/-6.97	-6.72/-7.33	-10.66/-13.21	-12.29/-9.94	-7.85/-7.63	-8.25/-10.85	-6.98/-5.1	-4.03/-3.96	-5.83/-12.14	-17.05/-8.98	-6.21/-5.94	-5.89/-4.85	-5.01/-5.8	-3.68/-2.85
Θ(52.5°)	-9.45/-7.64	-4.71/-3.84	-4.55/-5.93	-5.4/-5.41	-6.41/-7.45	-9.02/-8.54	-7.06/-9.36	-16.87/-11.04	-8.19/-8.81	-9.35/-7.56	-8.36/-11.81	-12.07/-12.89	-10.77/-13.1	-8.83/-6.95	-8.11/-10.65	-9.02/-9.72	-9.77/-6.08	-4.56/-5.21	-7.72/-12.92	-20.42/-12.33	-9.56/-9.37	-8.6/-7.1	-7.72/-7.46	-4.51/-6.16
Θ(60°)	-10.1/-7.64	-5.95/-5.37	-5.66/-6.01	-5.23/-5.14	-5.07/-7.33	-11.5/-10.82	-9.53/-12.33	-16.99/-11.61	-7.31/-7.72	-10.4/-10.56	-12.96/-16.75	-15.19/-15.81	-14.05/-10.24	-11.08/-8.1	-9.91/-18.19	-13.78/-12.73	-14.76/-9.69	-5.48/-4.66	-7.48/-12.77	-19.59/-22.72	-14.12/-4.9	-10.88/-11.7	-14.93/-8.65	-6.53/-8.79
Θ(67.5°)	-14.4/-9.48	-8.85/-9.27	-8.96/-6.97	-5.33/-5.26	-5.29/-7.09	-10.47/-10.75	-11.85/-12.53	-15.39/-10.87	-6.11/-6.88	-11.1/-10.29	-12.17/-13.93	-13.1/-13.68	-13.78/-15.21	-11.84/-10.1	-13.5/-14	-15.95/-17.69	-15.99/-11.44	-6.58/-5.12	-6.86/-11.77	-18.62/-18.04	-15.99/-11.55	-9.		



Radiated Composite Gain Data of 2G5G

Appendix A.1

Θ(67.5°)	-2.47/-3.93	-4.77/-2.84	-2.41/-2.7	-2.19/-0.24	0.90/29	-0.40/53	0.12/-0.89	-1.52/-2.81	-0.35/0.65	-2.5/-5.14	-6.95/-7.76	-7.73/-8.08	-6.43/-6.21	-7.94/-6.42	-3.68/-3.91	-6.47/-1.57	-0.97/0.43	2.49/3.53	3.73/4.29	3.62/2.84	1.76/0.79	0.28/-4.83	-10.17/-10.09	-4.77/-2.11
Θ(75°)	-1.58/-3.37	-3.75/-1.38	-1.24/-2.4	-3.02/-1.18	0.97/1.17	1.1/0.95	0.52/0.08	-0.91/-1.94	-0.68/0.31	-2.2/-4.21	-5.5/-5.21	-4.94/-6.82	-7.09/-6.36	-7.02/-7.16	-5.42/-4.03	-4.78/-1.05	0.24/1.05	2.83/3.97	4.56/4.38	3.88/3.41	2.73/1.32	0.86/-1.91	-7.2/-9.08	-5.15/-2.05
Θ(82.5°)	-3.22/-2.91	-2.89/-0.44	-0.64/-1.64	-2.62/-1.28	1.37/1.87	1.45/1.4	0.16/0.46	0.49/-1.16	-0.65/0.2	-1.45/-1.82	-4.77/-6.12	-6.1/-8.27	-8.62/-8.25	-8.46/-9.38	-6.81/-4.18	-3.45/-1.68	-0.03/0.85	2.63/3.99	4.19/4.05	3.25/2.58	1.79/1.41	-0.28/-1.43	-4.88/-7.33	-6.89/-4.59
Θ(90°)	-3.84/-4.72	-3.53/-1.46	-1.73/-2.49	-2.1/-0.49	1.58/1.42	1.42/1.42	0.54/0.2	0.43/-0.21	-1.1/0.12	-1.2/-2.6	-5.1/-6.08	-5.63/-6.99	-7.42/-8.38	-8.26/-7.59	-8.3/-5.18	-2.48/-3.39	-0.56/0.48	1.37/2.54	3.35/4.13	3.87/2.28	0.5/0.7	-2.61/-1.97	-6.25/-9.89	-5.98/-3.46
Θ(97.5°)	-4.69/-6.16	-3.85/-3.19	-2.99/-3.55	-2.98/-0.26	1.06/1.15	1/0.92	0.56/-0.55	0.28/-0.28	-1.41/-0.15	-1.19/-2.35	-5.2/-7.06	-6.98/-8.15	-9.68/-12.03	-11.08/-8.36	-10.1/-6.5	-3.13/-3.71	-1.32/-1.81	-0.92/0.31	1.45/1.76	1.26/-0.57	-0.64/-0.08	-3.88/-3.05	-6.55/-10.26	-5.8/-3.33
Θ(105°)	-9.32/-6.96	-5.87/-4.36	-3.49/-3.92	-3.86/-2.2	0.44/0.17	-0.31/0.51	0.98/-0.85	-0.7/-0.94	-2.44/-2.07	-1.47/-3.06	-4.05/-5.75	-6/-6.12	-7.56/-10.07	-7.93/-7.51	-10.39/-9.96	-4.69/-2.47	-3.09/-2.96	-2.27/0.07	1.85/1.87	1.18/-1.22	-2.53/-1.18	-3.4/-3.86	-7.38/-8.43	-5.01/-4.43
Θ(112.5°)	-9.16/-7.7	-6.45/-6.45	-6.76/-6.83	-4.06/-1.99	-0.98/-1.29	-1.07/0.42	1.2/-1.06	-1.49/-0.98	-2.89/-2.42	-2.7/-5.44	-5.31/-7.58	-9.18/-7.76	-8.5/-11.56	-13.95/-11.03	-11.55/-9.38	-2.37/-2.47	-3.17/-2.87	-1.19/-0.03	2.65/1.7	-0.37/-2.4	-0.8/-1.01	-3.74/-3.51	-6.97/-9.98	-5.93/-5.39
Θ(120°)	-9.02/-8.61	-9.01/-7.48	-6.97/-6.71	-5.56/-3.06	-1.97/-1.28	-0.16/-0.3	0.38/-0.74	-1.11/-1.48	-2.89/-3.21	-3.37/-3.55	-6.06/-6.5	-9.41/-12.15	-12.09/-9.74	-10.57/-9.36	-14.16/-11.55	-4.03/-3.96	-5.22/-1.06	-2.76/-0.82	3.02/1.22	-2.22/-2.49	-2.25/-3.2	-4.38/-6.22	-10.81/-10.32	-5.9/-5.6
Θ(127.5°)	-11.48/-12.61	-8.87/-10.96	-7.67/-7.79	-4.29/-3.28	-3.09/-2.42	-2.32/-2.1	-1.85/-2.09	-2.97/-2.38	-2.39/-4.42	-5.96/-6.01	-6.79/-8.12	-10.45/-16.15	-14.06/-12.42	-10.45/-10.72	-16.11/-8.7	-3.34/-4.83	-3.52/-2.77	-6.7/-2.93	1.35/-0.6	-5.1/-3.48	-1.26/-3.83	-4.93/-4.63	-11.98/-12.06	-9.47/-10.66
Θ(135°)	-15.56/-11.92	-11.01/-8.82	-10.58/-6.73	-6.17/-5.69	-3.89/-4.06	-4.18/-2.9	-1.73/-2.35	-2.54/-1.37	-2.88/-5.49	-5.76/-6.45	-8.56/-10.51	-10.91/-13.09	-14.74/-15.73	-15.68/-15.84	-13.1/-7.38	-3.84/-4.37	-2.78/-3	-5.8/-3.76	0.14/-0.81	-4.69/-5.67	-1.66/-1.95	-5.64/-6.88	-8.62/-18.72	-15.37/-18.11
Θ(142.5°)	-13.23/-12.69	-12.22/-10.36	-7.81/-6.44	-5.31/-5.28	-5.28/-4.94	-5.25/-4.69	-4.42/-4.93	-5.02/-5.55	-7.04/-8.15	-8.34/-7.11	-9.43/-13.3	-14.38/-13.69	-15.3/-16.43	-16.32/-20.09	-12.67/-8.12	-6.55/-5.59	-5.08/-6.87	-7.16/-3.66	-2.03/-1.92	-4.25/-7.24	-6.79/-7.03	-10.02/-17	-15.27/-15.92	-14.85/-13.26
Θ(150°)	-15.87/-12.24	-9.79/-9.84	-9.39/-7.31	-6.58/-7.04	-7.73/-6.92	-5.02/-4.28	-4.67/-5.8	-6.54/-7.51	-6.47/-5.87	-6.46/-7.23	-9.53/-13.03	-18.16/-20.89	-18.33/-18.05	-16.07/-14.43	-13.54/-15.04	-15.11/-13.02	-13.51/-13.32	-11.15/-8.2	-4.48/-3.93	-5.99/-9.2	-10.04/-9.81	-11.44/-13.03	-11.91/-10.58	-10.92/-13.64
Θ(157.5°)	-14.63/-14.34	-14.6/-14.6	-12.9/-10.98	-9.82/-8.04	-7.64/-6.71	-6.22/-5.6	-5.32/-5.39	-5.64/-6.23	-7.27/-10.6	-12.79/-14.22	-14.02/-14	-16.71/-22.54	-24.85/-20.85	-15.48/-11.65	-10.52/-10.13	-8.81/-8.45	-9.39/-10.81	-9.65/-6.75	-5.11/-4.97	-5.49/-6.07	-6.81/-7.5	-7.85/-8.37	-9.78/-12.44	-15.07/-15.33
Θ(165°)	-20.81/-16.68	-12.53/-10.64	-9.18/-4.44	-7.61/-7.3	-7.77/-8.03	-7.08/-6.42	-6.27/-6.73	-7.62/-8.9	-9.83/-11.27	-13.98/-15.51	-16.51/-17.15	-17.16/-18.46	-21.21/-25.07	-19.88/-15.53	-13.66/-12.55	-10.87/-10.07	-9.45/-8.29	-6.94/-5.96	-5.43/-5.33	-5.56/-5.63	-5.76/-6.45	-7.12/-8.56	-11.03/-14.71	-21.9/-22.44
Θ(172.5°)	-26.49/-19.03	-15.83/-13.93	-12.26/-9.68	-7.99/-6.84	-6.23/-5.42	-5.02/-4.56	-4.31/-4.91	-6.17/-7.81	-8.64/-10.02	-12.02/-13.67	-13.59/-14.6	-16.51/-19.39	-19.49/-17.5	-15.82/-13.58	-11.29/-9.72	-6.97/-5.09	-4.38/-4.13	-3.68/-3.04	-2.68/-2.83	-3.49/-4.08	-4.74/-5.96	-7.39/-9.28	-10.89/-13.22	-17.77/-25.69
Θ(180°)	-21.33/-24.53	-22.2/-16.48	-13.5/-10.61	-8.72/-7.19	-5.9/-5.19	-4.33/-3.73	-3.62/-3.76	-4.18/-4.18	-4.38/-4.77	-5.57/-6.77	-8.24/-10.74	-13.67/-16.39	-19.17/-18.68	-13.45/-10.42	-9.16/-8.15	-6.42/-5.22	-4.78/-4.71	-4.41/-4.11	-4.01/-4.25	-4.27/-4.72	-5.54/-6.71	-8.23/-11.19	-14.65/-18.22	-19.36/-19
Freq(Hz)	5.785GPol.	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°)	1.87/1.89	1.69/1.58	1.44/1.63	1.26/0.43	-0.5/-1.94	-3.98/-6.55	-9.78/-14.45	-17.33/-14.62	-10.17/-7.08	-4.83/-3.11	-2.17/-1.43	-0.8/-0.27	0.24/0.91	1.36/1	0.51/-0.07	-0.23/-0.59	-1.38/-2.64	-4.36/-6.69	-9.54/-13.95	-15.52/-12.54	-8.42/-5.88	-3.63/-2.05	-0.96/0.03	1.01/1.58
Θ(7.5°)	3.12/3.25	3.22/2.96	2.39/2.15	1.62/0.3	-1.07/-3.25	-5.85/-8.99	-11.51/-11.77	-12.21/-11.9	-10.4/-8.11	-6.77/-5.81	-5.03/-3.97	-2.9/-2.33	-2.21/-1.71	-1.08/-0.87	-1.07/-1.48	-1.52/-1.85	-2.7/-3.9	-5.42/-7.34	-9.74/-10.83	-9.2/-6.97	-4.79/-3.15	-1.67/-0.45	0.53/-1.49	2.26/2.71
Θ(15°)	2.82/2.96	3.02/2.55	1.85/0.86	-0.11/-1.66	-2.85/-4.93	-6.8/-8.58	-9.75/-9.21	-8.98/-8.87	-8.54/-8.21	-7.32/-5.98	-5.11/-4.34	-3.4/-3.13	-3.21/-2.96	-2.48/-1.73	-1.33/-1.17	-2.36/-3.76	-6.21/-8.83	-9.99/-9.91	-6.5/-4.62	-2.92/-1.45	-0.17/0.57	1.19/1.53	1.72/2.04	
Θ(22.5°)	1.06/1.7	2.18/2.2	1.46/-0.34	-2.27/-4.12	-5.59/-6.98	-8.16/-9.08	-8.94/-9.08	-7.37/-7.31	-8.12/-9.18	-8.29/-6.44	-5.62/-4.96	-4.25/-3.6	-3.29/-3.41	-3.8/-3.85	-3.57/-2.87	-2.42/-2.37	-2.65/-3.38	-5.55/-10.04	-10.8/-10.37	-6.8/-4.98	-3.97/-2.21	-0.71/0.09	0.67/0.44	0.40/6.2
Θ(30°)	0.03/0.26	0.87/0.71	-0.13/-1.7	-3.96/-5.58	-6.26/-8.07	-10.36/-13.25	-10.73/-7.93	-6.42/-6.9	-8.57/-10.59	-8.24/-5.68	-4.69/-4.5	-5.02/-5.48	-5.59/-5.87	-6.48/-6.92	-6.13/-4.29	-3.38/-3.34	-4.36/-4.4	-3.84/-5.72	-12.35/-10.38	-5.91/-4.6	-4.8/-4.19	-2.84/-1.35	-0.53/-0.13	0.2/0.15
Θ(37.5°)	-1.56/-0.85	-0.37/-0.55	-1.55/-2.67	-2.73/-3.16	-4.11/-6.69	-12.02/-16.6	-15.23/-11.32	-8.89/-9.05	-11.95/-10.65	-7.44/-5.23	-4.35/-5.09	-7.01/-7.13	-7.34/-8.56	-9.97/-9.44	-6.81/-5.66	-4.49/-3.65	-4.3/-5.35	-4.54/-5.69	-11.31/-10.77	-6.45/-6.15	-7.79/-7.8	-5.72/-2.33	-0.63/-0.47	-0.45/-1.3
Θ(45°)	-2.46/-2.26	-1.99/-3.23	-4.41/-3.24	-2.71/-3.44	-4.72/-6.12	-7.59/-11.01	-15.67/-9.84	-8.57/-11.76	-21.09/-11.93	-8.76/-6.2	-5.55/-6.26	-8.66/-7.84	-7.01/-6.14	-7.1/-9.33	-8.37/-8.08	-7.68/-4.96	-3.17/-4.22	-6.83/-7.66	-10.32/-12.02	-9.73/-8.34	-9.34/-10.53	-7.33/-3.52	-2.45/-2.44	-2.2/-2.37
Θ(52.5°)	-4.58/-5.29	-5.27/-4.77	-5.81/-4.75	-3.86/-4.55	-6.53/-7.78	-7.36/-9.95	-12.81/-10.2	-8.62/-11.64	-12.5/-9.84	-11.1/-10.3	-9.17/-9.27	-11.61/-13.44	-10.6/-6.58	-6.33/-10.34	-8.75/-8.67	-10.1/-7.37	-5.59/-5.89	-6.33/-7.6	-10.07/-10.59	-10.48/-11.61	-12.21/-12.4	-7.7/-3.64	-2.45/-3.69	-4.54/-4.44
Θ(60°)	-6.08/-7.67	-8.01/-6.55	-5.33/-4.15	-2.92/-3.9	-6.71/-7.31	-6.65/-8.05	-9.44/-8.64	-6.96/-9.72	-11.85/-8.11	-12.03/-14.03	-11.19/-14.48	-12.62/-14.99	-24.97/-13.2	-8.19/-10.11	-10.37/-10.64	-12.88/-10.04	-6.82/-6.17	-6.16/-10.23	-10.93/-10.7	-14.76/-14.86	-15.2/-15.99	-8.17/-5.85	-4.54/-5	-5.4/-5.58
Θ(67.5°)	-5.58/-9.16	-12.71/-9.88	-7.14/-5.15	-3.44/-4.75	-6.55/-7.82	-8.02/-6.34	-7.53/-7.96	-6.87/-8.37	-8.99/-6.97	-11.11/-11.8	-7.64/-11.02	-10.51/-12.46	-16.15/-20.78	-13.41/-9.89	-8.34/-8	-11.3/-10.61	-8.68/-5.7	-5.65/-8.97	-10.2/-8.3	-15.42/-16.13	-13.71/-12.68	-8.56/-7.47	-8.13/-8.67	-8.54/-5.8
Θ(75°)	-7.98/-11.09	-14.84/-10.11	-9.42/-8.38	-5.49/-5.32	-6.03/-8.31	-8.11/-6.77	-8/-7.97	-5.69/-6.86	-7.92/-5.86	-8.99/-11.26	-6.22/-7.57	-9.43/-9.99	-9.96/-13	-16.4/-10.56	-7.55/-6.17	-9.01/-14.23	-9.82/-5.73	-5.22/-7.04	-8.71/-6.52	-11.23/-20.21	-16.28/-14.8	-12.24/-9.26	-8.69/-10.19	-9.27/-6.92
Θ(82.5°)	-10.23/-15.02	-17.91/-11.89	-10.73/-11.05	-7.6/-7.41	-7.15/-9.84	-10.26/-8	-7.53/-8.77	-6.61/-6.59	-8.06/-5.25	-7.12/-8.81	-5.55/-5.74	-7.87/-9.38	-7.38/-8.57	-10/-10.19	-7.32/-6.11	-9.91/-16.16	-8.94/-6.19	-5.22/-7.19	-7.97/-6.04	-9.75/-17.55	-18.96/-14.21	-15.05/-11.73	-11.17/-12.3	-7.94/-6.9
Θ(90°)	-9.04/-14.75	-15.57/-17.84	-10.37/-13.47	-10.54/-8.16	-8.13/-11.35	-11.94/-8.36	-7.65/-10.4	-6.41/-4.62	-7.49/-5.58	-6.57/-7.23	-5.97/-6.2	-6.7/-8.93	-6.72/-6.97	-7.73/-9.55	-8.82/-7.14	-11.2/-12.24	-8.82/-7.48	-5.67/-7.1	-9.13/-6.74	-9.83/-14.55	-16.53/-11.2	-12.77/-11.56	-12.01/-9.51	-6.55/-6.12
Θ(97.5°)	-7.92/-11.73	-13.46/-12.37	-10.74/-9.54	-9.72/-10.1	-9.18/-12.27	-14.04/-8.74	-8.97/-9.05	-7.39/-4.93	-6.55/-5.86	-4.86/-6.28	-7.19/-6.3	-7.95/-9.66	-8.08/-8	-7.99/-8.12	-7.83/-8.71	-9.48/-9.44	-8.35/-9.33	-8.51/-10.59	-9.85/-7.75	-9.5/-15.18	-12.58/-8.98	-10.81/-10.01	-9.88/-8.07	-6.08/-5.46
Θ(105°)	-7.65/-10.73	-10.1/-9.77	-8.7/-7.19	-9.02/-12.26	-9.48/-11.99	-15.09/-9.42	-9.69/-8.78	-9.55/-5.05	-6.65/-5.44	-4.62/-4.88	-5.82/-6.71	-7.98/-11.38	-9.74/-7.72	-7.18/-7.52	-10.02/-9.89	-8.41/-7.74	-9.04/-13.05	-12.65/-10.62	-10.93/-9.2	-10.6/-13.71	-11.37/-8.37	-7.56/-8.58	-10.43/-9.41	-8.65/-5.63
Θ(112.5°)	-8.85/-10.65	-7.29/-6.16	-7.96/-6.9	-8.07/-10.12	-12.54/-13.81	-13.97/-10.85	-10.1/-10.86	-10.91/-5.71	-5.86/-5.41	-4.89/-5.75	-5.92/-7.04	-9.01/-12.19	-12.38/-10.14	-12.69/-10.59	-9.52/-7.62	-6.1/-6.64	-11.41/-13.12	-12.99/-10.34	-9.52/-9.43	-9.27/-14.24	-9.12/-7.23	-8.23/-8.67	-9.19/-7.32	-4.35/-5.17
Θ(120°)	-8.72/-10.67	-8.32/-6.82	-6.82/-7.6	-10.23/-9.92	-10.52/-14.94	-17.93/-10.48	-9.74/-9.96	-11.91/-7.04	-5.96/-6	-6.24/-7.61	-7.06/-6.87	-7.01/-8.26	-8.64/-8.37	-9.										

Gain Result

[illegible]



Radiated Composite Gain Data of 2G5G

Appendix A.1

Θ(22.5°)	-25.59/-14.75	-9.37/-6.1	-3.93/-3.21	-3.62/-4.76	-4.74/-4.33	-3.97/-3.26	-2.99/-3.11	-3.95/-4.54	-5.15/-5.57	-6.22/-7.88	-10.96/-14.47	-13.28/-14.47	-19.14/-24.14	-12.36/-6.78	-3.2/-0.79	0.86/2.06	3.03/3.7	3.82/3.79	3.75/3.61	3.62/3.52	3.23/2.52	1.11/-0.98	-4.23/-8.62	-14.79/-24.59
Θ(30°)	-17.88/-16.22	-12.4/-7.87	-5.07/-4.19	-4.79/-5.32	-5.93/-5.32	-4.22/-3.29	-3.28/-3.04	-3.53/-4.81	-6.5/-6.68	-6.36/-7.89	-11.71/-13.53	-14.46/-17.8	-25.19/-21.12	-10.68/-5.96	-2.99/-0.95	0.35/1.43	2.48/3.41	3.97/4.25	4.41/4.24	3.95/3.69	3.37/2.71	1.5/-0.38	-3.9/-8.72	-11.91/-13.73
Θ(142.5°)	-19.72/-17.85	-18.44/-12.87	-9.18/-7.26	-6.24/-4.41	-3.23/-3.22	-4.71/-5.6	-5/-4.1	-3.82/-4.67	-6.34/-7.43	-7.38/-8.58	-11.64/-13.24	-15.66/-28.67	-16.86/-9.86	-6.35/-4.14	-0.42/-1.33	-0.42/0.48	1.83/3.01	3.64/3.67	3.76/3.75	3.58/3.46	3.082/53	1.980/78	-1.41/-4.92	-10.87/-19.29
Θ(45°)	-14.46/-12.67	-13.51/-11.09	-8.07/-6.56	-6.24/-4.85	-4.03/-3.98	-4.71/-6.22	-8.71/-8.1	-6.41/-6.26	-7.89/-8.72	-8.62/-10.18	-12.88/-15.27	-17.59/-31.98	-12.5/-8.47	-7.46/-6.04	-4.56/-3.69	-2.78/-1.06	0.52/1.71	2.83/4	3.73/3.52	2.85/2.18	1.92/1.49	0.77/0.66	-2.49/-4.66	-9.8/-16.66
Θ(52.5°)	-16.13/-16.33	-14.09/-12.01	-11.08/-9.81	-7.9/-5.74	-5.2/-6.09	-7.35/-9.06	-11.59/-12.12	-12.3/-10.14	-9.98/-11.32	-12.31/-14.09	-13.9/-19.03	-24.55/-20.35	-11.42/-9.48	-9.23/-9.67	-4.77/-4.2	-2.19/0.55	2.06/3.1	3.72/3.98	4.2/4.12	3.91/3.32	2.52/1.26	0.04/-1.65	-3.43/-5.81	-8.08/-14.25
Θ(60°)	-9.93/-13.46	-11.82/-11.03	-10.06/-10.74	-11.25/-10.69	-10.18/-9.81	-9.08/-9.59	-11.71/-11.4	-11.84/-10.7	-11.67/-14.96	-16.64/-14.77	-16.79/-23.28	-22.37/-17.97	-13.46/-11.33	-10.25/-7.76	-5.48/-4.92	-2.24/1.27	2.69/3.61	5.88/5.88	5.37/4.6	5.37/4.6	1.52/-1.75	-4.35/-4.95	-8.49/-9.51	
Θ(67.5°)	-8.03/-12.63	-12.27/-10.5	-12.33/-14.87	-13.81/-14.46	-16.27/-12.69	-10.22/-10.16	-13.03/-11.88	-10.29/-12.6	-17.41/-15.95	-17.18/-26.58	-20.26/-26.44	-21.69/-20.04	-14.8/-10.56	-9.55/-8.23	-6.57/-6.24	-1.09/2.13	2.93/1	3.91/4.66	5.59/5.27	4.31/4.12	3.65/3.29	1.86/0.81	-5.21/-6.44	-7.16/-6.85
Θ(75°)	-6.93/-18.52	-16.48/-11.34	-9.02/-10.67	-11.28/-12.3	-16.94/-16.22	-12.92/-14.56	-24.49/-21.83	-10.92/-11.4	-16.43/-16.93	-23.36/-32.04	-35.68/-21.12	-24/-28.02	-16.08/-9.45	-8.99/-11.23	-8.13/-5.86	-1.12/1.71	3.06/4.57	5.51/5.39	6.26/6.36	5.16/5.22	4.89/3.92	1.86/-1.29	-4.78/-7.39	-5.73/-3.82
Θ(82.5°)	-7.13/-16.75	-29.35/-16.44	-8.76/-10.95	-13.09/-14.74	-25.37/-22.1	-22.62/-19.32	-17.58/-20.05	-11.9/-14.75	-19.51/-17.66	-34.14/-19.43	-19.11/-21.61	-15.12/-19.79	-15.59/-8.48	-8.57/-12.17	-8.32/-4.2	-0.18/1.5	3.33/4.52	5.25/5.7	5.74/5.57	5.19/4.97	4.25/3.98	1.25/-1.53	-5.56/-9.32	-7.8/-5.42
Θ(90°)	-8.85/-13.74	-22.35/-14.1	-12.73/-15.62	-15.61/-16.32	-31.01/-21.99	-31.64/-16.61	-28.99/-19.77	-17.33/-15.46	-32.28/-17.97	-35.53/-21.66	-20.99/-17.83	-15.4/-16.79	-19.94/-10.96	-8.33/-12.24	-12.02/-4.31	-2.12/-0.65	2.43/4.46	4.45/4.8	6.01/5.42	4.2/4.65	4.26/3.12	0.39/-2.78	-3.97/-7.16	-9.25/-6.91
Θ(97.5°)	-10.03/-13.05	-17.12/-16.35	-15.83/-22.04	-16.69/-16.08	-24.1/-17.38	-28.57/-23.44	-17.05/-17.12	-13.3/-12.76	-22.63/-24.9	-20.21/-17.69	-15.22/-18.43	-16.28/-15.23	-17.26/-10.33	-7.34/-13.77	-16.21/-7.14	-4.88/-1.23	1.62/1.84	2.48/2.98	4.94/4.3	1.76/2.27	2.1/1	-2.04/-6.18	-8.94/-10.72	-9.41/-7.4
Θ(105°)	-11.42/-21.18	-18.12/-18.27	-17.38/-27.76	-17.34/-13.59	-14.77/-14.22	-17.32/-15.47	-15.34/-14.42	-18.47/-21.18	-24.28/-19.1	-15.83/-17.96	-16.97/-13.81	-17.71/-12.85	-9.38/-10.48	-14.9/-9.33	-4.54/-1.55	0.54/1.26	1.82/2.24	4.14/3.59	0.98/0.17	0.34/0.25	-1.77/-6.69	-13.81/-22.94	-11.27/-10.4	
Θ(112.5°)	-8.67/-16.13	-11.4/-20.39	-25.61/-27.51	-19.26/-18.96	-16.43/-18.39	-23.06/-25.14	-26.22/-16	-15.88/-19.67	-26.83/-24.12	-23.85/-17.74	-17.73/-18.41	-15.98/-15.11	-17.08/-13.35	-11.18/-13.03	-26.5/-8.41	-3.05/-0.75	0.61/1.51	1.47/2.58	4.46/2.95	-0.19/0.19	0.24/-1.14	-2.85/-5.03	-9.61/-22.31	-14.21/-8.32
Θ(120°)	-15.03/-21.34	-15.62/-18.64	-26.8/-29.7	-20.69/-12.51	-14.16/-20.58	-25.23/-22.77	-15.47/-17.28	-23.91/-20.35	-19.9/-18.37	-28.45/-21.77	-18.82/-19.17	-19.17/-16	-19.18/-14.18	-9.93/-12.76	-21.26/-11.25	-4.17/-1.45	0.11/1.21	1.1/-11.071	4.16/2.49	-1.89/-0.85	0.54/-1.83	-3.67/-5.84	-12.27/-20.64	-8.62/-8.88
Θ(127.5°)	-14.73/-22.44	-16.32/-23.6	-28.03/-16.23	-16.76/-20.83	-14.77/-14.12	-14.16/-11.36	-11.71/-13.03	-12.22/-11.25	-14.33/-17.65	-17.81/-21.05	-21.22/-17.76	-14.2/-18.14	-19.24/-12.2	-13.18/-16.39	-3.62/-2.86	0.01/0.95	-3.28/-7.06	1.85/0.72	-2.26/-4.27	-1.27/-1.07	-5.31/-7.04	-10.44/-20.66	-12.67/-8.06	
Θ(135°)	-13.71/-15.7	-17.76/-18.76	-25.38/-17.81	-19.29/-24.95	-22.13/-20.67	-26.05/-23.66	-20.12/-13.67	-10.94/-11.36	-15.35/-26.48	-23.25/-29	-19.34/-19.68	-20.32/-21.76	-22.33/-16.3	-17.26/-34.15	-15/-6.57	-3.38/-1.23	0.02/-2.5	1.580/97	-2.22/-6.07	-5.14/-1.85	-2.59/-5.87	-8.23/-13.14	-21.44/-18.07	
Θ(142.5°)	-16.26/-26.77	-24.91/-39.95	-29.63/-19.26	-17.89/-16.84	-20.79/-21.35	-26.95/-20.08	-27.08/-20.35	-25.41/-17.98	-13.85/-15.93	-13.2/-15.55	-26.65/-26.35	-20.95/-21.2	-29.9/-17.6	-18.64/-15.82	-10.48/-6.33	-2.94/-1.34	-2.04/-3.45	-3.05/-1.61	0.15/0.74	-0.7/-4.32	-7.71/-5.56	-2.02/-19.78	-17.24/-15.47	
Θ(150°)	-14.67/-19.52	-17.71/-18.28	-18.81/-28.06	-15.26/-15.24	-18.74/-22.13	-11.78/-13.92	-11.31/0.91	-7.3/-9.8	-8.77/-14.12	-16.25/-17.05	-17.75/-16.4	-17.12/-20.68	-18.94/-14.86	-13.75/-14.62	-15.45/-11.55	-8.54/-7.76	-6.91/-5.74	-4.88/-4.37	-4.21/-4.25	-5.45/-8.16	-11.7/-1654	-14.16/-11.15	-12.34/-12.58	-10.99/-11.27
Θ(157.5°)	-25.21/-32.5	-29.38/-35.77	-22.14/-18.35	-16.83/-19.5	-22.39/-31.74	-30.24/-21.64	-16.89/-15.24	-14.61/-16.3	-20.01/-24.59	-21.67/-17.38	-13.4/-12.53	-13.8/-17.51	-20.19/-18.32	-15.81/-13.62	-12.08/-11.21	-12.03/-14.36	-11.99/-8.24	-6.41/-5.88	-6.04/-6.14	-7.09/-9.69	-11.54/-12.02	-11.16/-10.62	-11.27/-12.85	-16.92/-24.59
Θ(165°)	-21.47/-25.56	-27.06/-22.69	-17.26/-14.19	-12.38/-10.48	-9.86/-10.4	-10.21/-9.47	-8.76/-8.25	-7.54/-7.24	-7.28/-8.04	-9.93/-12.39	-15.75/-19.18	-23.17/-26.57	-28.48/-30.49	-25.84/-21.57	-20.6/-18.85	-16.46/-14.1	-11.53/-9.15	-7.36/-6.1	-5.74/-6.44	-8.17/-10.6	-12.47/-13.63	-15.76/-16.27	-16.4/-19.52	-30.15/-26
Θ(172.5°)	-20.19/-22.46	-23.89/-25.01	-33.05/-28.16	-19.49/-16.55	-14.95/-14.43	-12.15/-10.41	-9.68/-9.19	-8.57/-8.41	-8.06/-8.33	-8.91/-10.05	-11.05/-12.85	-15.3/-19.54	-25.18/-28.95	-20.1/-15.14	-11.99/-9.63	-7.95/-7.13	-6.16/-5.47	-4.9/-4.42	-4.99/-5.71	-6.46/-7.11	-8.22/-9.43	-10.83/-12.23	-14.15/-17.58	-23.02/-23.61
Θ(180°)	-20.92/-28.31	-33.28/-22.69	-17.08/-13.08	-11.18/-10.55	-10/-9.01	-7.82/-7.19	-6.85/-6.21	-6.34/-6.4	-6.74/-7.15	-8.17/-9.58	-11.28/-13.36	-16.38/-20.95	-28/-30.04	-23.32/-18.82	-15.43/-13.18	-11.39/-10.1	-8.82/-7.91	-7.36/-7.33	-7.37/-7.46	-7.77/-8.7	-9.45/-10.53	-12.18/-14.43	-17.57/-19.79	-20.13/-20.47
Freq(Hz)	5.3GPol	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°)	-0.83/-0.94	-0.76/-1.11	-1.59/-2.23	-2.8/-3.81	-5.22/-7.11	-9.52/-13.74	-22.66/-25.26	-15.45/-11	-7.85/-9.37	-4.53/-3.56	-2.63/-1.94	-1.59/-1.26	-1.11/-1.13	-1.46/-1.99	-2.46/-3.14	-4.19/-3.53	-7.05/-9.45	-12.86/-17.17	-27.14/-19.11	-13.84/-9.78	-7.18/-5.28	-3.94/-2.92	-2.11/-1.57	-1.10/-0.84
Θ(7.5°)	-2.36/-1.98	-1.54/-1.63	-1.99/-2.44	-2.68/-3.6	-4.7/-6.25	-8.35/-11.66	-17.97/-26.97	-17.61/-12.68	-9.13/-6.91	-5.53/-4.27	-3.57/-2.94	-2.58/-2.29	-2.14/-2.23	-2.54/-2.9	-3.09/-3.59	-4.41/-5.58	-7.34/-9.54	-13.78/-18.53	-28.73/-18.73	-14.05/-10.02	-7.53/-6.21	-5.27/-4.19	-3.81/-3.38	-2.81/-2.45
Θ(15°)	-2.25/-1.93	-1.37/-1.52	-2.43/-3.66	-4.98/-6.36	-7.79/-10.09	-12.64/-14.84	-20.84/-31.33	-19.57/-16.48	-14.09/-10.65	-8.25/-7.14	-6.39/-5.74	-5.36/-4.72	-4.1/-3.7	-3.18/-2.54	-2.19/-2.23	-2.72/-3.56	-4.77/-6.58	-9.3/-12.75	-19.37/-26.39	-16.62/-10.65	-7.85/-6.11	-4.8/-3.99	-3.7/-3.18	-3.13/-2.7
Θ(22.5°)	-2.23/-2.24	-1.69/-2.06	-2.9/-5.18	-7.97/-10.29	-11.64/-12.97	-14.56/-17.06	-24.56/-30.29	-17.6/-13.95	-12.54/-10.37	-8.6/-7.04	-6.54/-6.62	-7.13/-7.03	-6.34/-5.15	-3.86/-2.98	-2.52/-2.38	-2.63/-3.14	-4.22/-5.95	-8.34/-11.18	-15.23/-22.57	-26.62/-14.23	-8.77/-5.44	-3.57/-2.78	-2.57/-2.58	-3.19/-3.05
Θ(30°)	-2.67/-2.68	-1.33/-3.87	-5.62/-8.28	-10.27/-11.42	-13.13/-14.69	-15.56/-16.13	-22.04/-30.47	-17.71/-14.26	-13.16/-12.08	-9.23/-6.84	-6.17/-6.62	-6.73/-8.04	-7.31/-6.31	-5.22/-4.32	-4.12/-3.92	-4.18/-4.89	-6.15/-7.39	-10.02/-10.66	-15.25/-17.41	-25.53/-14.81	-8.84/-5.65	-6.31/-2.54	-2.03/-2.1	-2.46/-2.56
Θ(37.5°)	-4.47/-5.42	-6.06/-7.89	-10.59/-13.34	-12.99/-11.14	-12.38/-17.13	-24.84/-23.46	-22.77/-28.91	-24.47/-16.6	-15.62/-16.14	-13.26/-9.34	-7.3/-6.74	-7.15/-7.99	-9.38/-9.65	-7.99/-6.1	-5.4/-5.4	-5.82/-6.6	-7.23/-8.05	-9.64/-11.61	-13.56/-16.02	-23.76/-15.21	-9.48/-6.64	-4.59/-3.35	-2.93/-2.78	-2.67/-3.06
Θ(45°)	-6.54/-7.7	-7.7/-8.27	-11.66/-15.1	-12.35/-16.56	-14.3/-19.97	-18.71/-20.3	-25.26/-20.69	-20.87/-16.27	-13.07/-14.2	-15.99/-12.52	-10.18/-9.41	-8.37/-9.7	-10.12/-14.29	-13.09/-8.31	-7.02/-8.69	-9.24/-8.29	-8.59/-9.18	-9.17/-10.18	-12.34/-17.67	-29.92/-16.5	-11.23/-8.3	-6.82/-7.14	-6.84/-4.9	-3.32/-2.26
Θ(52.5°)	-14.01/-13.39	-9.53/-9.94	-13.5/-21.83	-17.93/-18.95	-27.12/-20.81	-20.42/-37.88	-24.42/-20.88	-18.61/-14.34	-11.99/-14.1	-17.84/-13.77	-11.77/-14.01	-14.83/-11.76	-11.24/-14.82	-17.38/-10.91	-10.6/-16.9	-13.92/-10.93	-9.42/-9.2	-8.48/-10.47	-12.42/-15.53	-24.91/-17.36	-13.78/-10.81	-8.54/-8.58	-8.23/-5.29	-4.41/-1.94
Θ(60°)	-12.43/-11.53	-10.2/-11.07	-13.79/-20.82	-19.08/-19.75	-16.98/-17.88	-21.82/-44.96	-41.53/-29.26	-18.66/-16.28	-15.15/-13.93	-15.29/-17.74	-17.04/-16.35	-23.18/-18.12	-14.75/-15.02	-34.43/-17.19	-17.71/-31.81	-14.92/-14.07	-13.46/-9.91	-7.88/-8.65	-10.39/-12.45	-17.11/-28.06	-18.28/-14.99	-9.57/-10.76	-13.31/-7.63	-5.8/-9.46
Θ(67.5°)	-14.18/-19.3	-14.0/-12.56	-17.11/-19.97	-14.59/-15.75	-14.61/-17.27	-19.49/-23.33	-39.11/-30.14	-20.81/-18.01	-15.37/-13.69	-16.28/-20.7	-19.15/-16.27	-25.48/-23.19	-20.99											



Radiated Composite Gain Data of 2G5G

Appendix A.1

Θ(67.5°)	-4.19/-7.21	-11.08/-9.83	-11.57/-15.87	-16.93/-13.45	-12.53/-14.56	-20.29/-18.05	-11.47/-13.44	-18.24/-15.02	-13.33/-15.68	-17.74/-18.43	-20.01/-16.81	-18.12/-19.15	-11.97/-7.88	-7.26/-7.93	-4.42/-3.27	-5.04/-0.33	0.56/1.32	3.07/4.98	5.75/6.08	5.32/5.21	3.97/3.46	2.21/-3.56	-10.29/-9.67	-5.13/-5.53
Θ(75°)	-3.29/-8.38	-11.18/-7.81	-9.49/-14.64	-19.74/-22.67	-17.17/-13.05	-12.12/-19.63	-13.98/-10.33	-19.21/-20.08	-16.34/-19.78	-27.57/-18.16	-18.58/-14.68	-14.66/-16.39	-11.96/-8.12	-7.09/-8.79	-7.46/-3.96	-3.1/-19	1.97/2.64	3.93/5.78	6.36/6.7	6.19/6.35	5.33/4.13	3.09/-0.79	-7.29/-9.95	-7.81/-4.17
Θ(82.5°)	-5.91/-8.1	-10.41/-5.66	-7.77/-11.41	-17.14/-22.67	-13.04/-10.7	-9.99/-13.27	-26.01/-11.92	-12.81/-15.83	-25.46/-43.27	-20.53/-13.06	-18.34/-15.34	-14.47/-16.27	-11.33/-8.56	-7.6/-9.62	-7.5/-3.81	-1.08/0.94	1.66/2.7	3.65/6.69	6.16/6.45	5.63/5.35	4.54/6.84	2.2/-0.52	-4.52/-8.83	-13.8/-9.71
Θ(90°)	-6.77/-13.49	-12.16/-7.98	-10.69/-13.61	-11.5/-12.75	-11.81/-13.54	-11.01/-11.75	-17.02/-13.96	-13.8/-15.12	-21.35/-19.76	-14.64/-12.89	-18.25/-15.06	-13.59/-13.86	-9.94/-10.13	-9.55/-7.99	-10.18/-5.43	-1.31/-1.28	1.47/1.71	2.93/4.51	5.72/6.29	6.17/4.36	3.33/2.82	0.08/-1.27	-6.39/-13.31	-11/-6.5
Θ(97.5°)	-7.42/-18.98	-13.54/-13.56	-14.51/-17.12	-15.38/-10.7	-10.89/-12.16	-12.6/-17.42	-14.67/-18.8	-15.89/-19.29	-26.77/-17.67	-13.29/-11.66	-15.7/-12.56	-14.18/-12.74	-10.36/-12.81	-10.22/-7.08	-11.74/-5.78	-2.52/-8.23	0.09/-0.21	1.25/2.85	3.97/4.1	3.36/1.89	1.57/1.59	-1.65/-3.48	-6.78/-14.93	-10.1/-6.07
Θ(105°)	-17.31/-19.81	-22.61/-18.89	-13.84/-14.45	-17.6/-22.35	-11.6/-15.51	-10.89/-15.95	-10.89/-18.88	-23.83/-23.92	-22.22/-25.04	-12.21/-16.74	-14.93/-13.87	-11.1/-11.81	-12.05/-12.66	-8.44/-6.89	-3.42/-1.99	-1.16/-1.24	0.54/2.61	4.24/4.29	2.94/0.73	-0.47/0.17	-1.33/-3.15	-8.09/-10.79	-7.53/-7.81	
Θ(112.5°)	-16.21/-17.78	-19.71/-26.79	-23.25/-27.08	-16.66/-16.47	-15.91/-23.07	-21.47/-11.05	-6.89/-13.56	-17.49/-17.99	-38.41/-24.85	-17.05/-27.24	-14.01/-13.37	-12.17/-11.89	-12.51/-14.52	-12.97/-8.94	-9.66/-8.63	-1.07/-0.83	-1.78/-0.33	0.89/2.59	4.73/8.4	1.46/0.52	0.19/-0.44	-1.54/-2.92	-8.6/-11.2	-7.38/-8.47
Θ(120°)	-16.75/-14.39	-20.26/-17.61	-15.91/-20.44	-25.4/-17.4	-18.25/-17.95	-11.74/-11.25	-8.31/-9.96	-11.89/-14.6	-15.08/-18.05	-22.35/-17.09	-22.33/-18.44	-15.52/-17.15	-17.82/-13.03	-10.73/-8.02	-11.89/-10.44	-2.09/-1.4	-3.3/-0.54	4.52/2.94	4.52/2.94	-0.76/-0.39	-0.67/-2.3	-2.66/-1.81	-12.85/-10.69	-6.05/-7.39
Θ(127.5°)	-18.3/-21.14	-14.95/-26.94	-19.64/-26.8	-13.68/-12.85	-16.86/-16.47	-14.89/-15.38	-13.63/-13.57	-14.42/-16.94	-12.61/-15.19	-20.89/-16.99	-19.13/-27.89	-28.25/-30.52	-20.62/-15.81	-9.8/-8.68	-17.18/-8.13	-1.14/-2.49	-2.3/-1.2	-5.38/-1.62	2.96/1.01	-4.47/-2.37	-0.04/-2.88	-2.38/-2.83	-12.34/-11.11	-9.48/-12.09
Θ(135°)	-20.69/-16.94	-17.88/-16.66	-33.07/-15.87	-16.59/-19.83	-12.91/-12.96	-13.19/-12.39	-12.51/-11.37	-8.36/-7.76	-11.18/-22.44	-21.38/-18.51	-14.29/-20.17	-24.19/-28.54	-21.07/-16.27	-18.48/-17.34	-14.54/-4.75	-1.79/-2.46	-0.23/-0.69	-4.09/-1.17	2.61/1.65	-2.7/-4.31	-0.12/-0.07	-3.91/-4.65	-6.8/-21.61	-15.37/-19.13
Θ(142.5°)	-15.03/-23.75	-25.4/-24.32	-19.32/-15.37	-14.2/-16.59	-19.19/-18.21	-20.3/-17.7	-15.1/-15.53	-14.07/-27.8	-28.02/-23.29	-18.01/-13.25	-13.43/-16.76	-26.55/-30.87	-26.26/-19.3	-16.22/-21.02	-13.15/-8.84	-6.65/-4.12	-3.62/-5.53	-5.16/-1.65	0.72/-0.05	-3.19/-6.96	-5.99/-5.26	-7.62/-15.1	-16.1/-20.7	-19.67/-14.56
Θ(150°)	-18.48/-16.08	-15.04/-18.96	-24.06/-18.71	-17.74/-20.58	-28.37/-28.43	-17.42/-16.92	-20.43/-13.97	-13.61/-16.32	-13.99/-12.4	-12.33/-12.71	-15.19/-17.09	-23.16/-18.34	-14.83/-4.12	-11.89/-14.42	-15.72/-13.1	-13.63/-15.62	-11.64/-6.65	-3.68/-3.63	-6.53/-12.22	-12.33/-11.08	-15.12/-12.91	-11.21/-10.61	-13.35/-18.18	
Θ(157.5°)	-15.84/-16.72	-21.66/-28.99	-26.15/-23	-29.36/-29.29	-33.76/-19.33	-13.49/-10.86	-10.73/-11.13	-10.87/-11.17	-13.35/-22.19	-27.76/-30.25	-22.54/-18.16	-20.04/-24.92	-27.14/-23.44	-16.39/-11.69	-9.93/-9.08	-7.98/-8.14	-9.34/-10.68	-8.94/-6.48	-5.49/-5.91	-6.91/-7.9	-8.96/-9.58	-9.59/-9.64	-11.01/-12.57	-14.21/-16.01
Θ(165°)	-24.82/-18.88	-13.72/-11.53	-10.27/-9.8	-9.4/-8.96	-9.34/-10.21	-10.6/-11.19	-11.64/-12.76	-15.48/-17.37	-18.54/-20.25	-25.32/-22.72	-20.01/-18.87	-18.3/-18.9	-20.4/-26.46	-24.33/-18.53	-15.1/-12.62	-10.34/-9.28	-8.87/-7.87	-8.66/-8.14	-7.96/-7.48	-6.96/-6.84	-7.41/-8.49	-9.05/-10.45	-13.19/-17.01	-22.63/-23.53
Θ(172.5°)	-29.94/-21.54	-17.09/-15.09	-13.55/-10.28	-8.43/-7.63	-7.44/-6.8	-6.85/-6.72	-6.56/-7.02	-7.58/-12.7	-8.1/-8.78	-9.81/-11.55	-12.96/-16.62	-19.73/-27.79	-22.05/-19.66	-15.31/-11.79	-9.2/-7.1	-5.44/-4.08	-3.23/-2.85	-2.65/-2.31	-2.01/-1.96	-2.49/-3.23	-4.13/-5.5	-7.24/-9.92	-12.75/-16.07	-21.89/-30.2
Θ(180°)	-19.39/-25.91	-28.68/-17.98	-13.83/-10.46	-8.56/-6.89	-5.32/-4.49	-3.39/-2.53	-2.12/-1.79	-1.74/-1.84	-2.22/-2.8	-3.82/-5.2	-6.54/-9.03	-12.55/-16.46	-20.03/-16.99	-12.43/-9.63	-7.46/-6.04	-4.86/-3.86	-3.36/-3.27	-3.14/-3.1	-3.09/-3.37	-3.29/-3.58	-4.33/-5.49	-7.15/-10.16	-13.78/-18.21	-19.9/-18.47
Freq(Hz)	5.785GPol	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°)	-0.57/-1.02	-1.86/-1.77	-1.9/-1.41	-1.75/-2.42	-3.24/-4.95	-8.03/-12.01	-16.49/-23.14	-20.82/-13.04	-9.46/-7.04	-5.29/-3.91	-3.19/-2.47	-1.83/-1.33	-1.05/-0.87	-0.9/-1.32	-1.61/-2.18	-2.98/-3.95	-4.92/-6.26	-8.1/-11.57	-16.42/-24.59	-18.35/-12.15	-8.67/-6.54	-4.66/-3.73	-3.11/-2.3	-1.21/-0.64
Θ(7.5°)	0.21/0.2	0.0/-0.43	-1.54/-1.81	-2.23/-3.73	-5.21/-8.15	-12.22/-19.62	-23.55/-15.77	-12.33/-9.74	-7.81/-6.14	-5.19/-4.66	-4.13/-3.64	-3.15/-2.78	-2.63/-2.5	-2.57/-2.92	-3.27/-3.56	-3.81/-4.74	-6.18/-7.17	-9.82/-13.45	-20.95/-21.77	-13.65/-9.74	-7.51/-5.85	-4.38/-3.41	-2.49/-1.35	-0.36/-0.1
Θ(15°)	1.05/1.03	0.97/0.12	-1.17/-2.86	-4.17/-6.86	-8.51/-12.1	-16.5/-22.6	-24.53/-16.77	-13.36/-13.9	-9.21/-9.72	-7.33/-6.54	-6.14/-5.88	-5.31/-5.22	-5.25/-4.94	-4.73/-4.34	-3.91/-3.26	-2.77/-2.98	-3.58/-4.95	-10.60/-10.33	-16.77/-23.26	-11.35/-7.34	-5.08/-3.6	-2.41/-1.95	-1.27/-0.65	-0.22/0.07
Θ(22.5°)	-1.07/-0.35	0.38/0.59	-0.59/-3.56	-6.54/-9.21	-10.68/-13.04	-15.29/-17.82	-20.89/-33.92	-18.03/-13.52	-11.46/-9.63	-7.96/-6.77	-6.24/-6.41	-6.74/-6.99	-6.43/-5.29	-4.52/-4.16	-3.9/-3.38	-2.97/-2.57	-2.69/-3.69	-5.71/8.37	-12.84/-22.63	-13.01/-7.58	-4.92/-2.87	-1.55/-1.05	-0.47/-0.72	-1.11/-1.22
Θ(30°)	-2.53/-2.22	-1.38/-1.61	-2.87/-4.91	-8.59/-11.21	-12.67/-11.71	-17.24/-19.44	-26.77/-16.23	-17.08/-16.37	-11.18/-9.45	-8.3/-6.31	-5.38/-5.92	-6.81/-7.3	-7.08/-6.55	-6.01/-6.03	-4.81/-4.84	-4.58/-3.85	-3.91/-4.18	-4.45/-5.69	-10.47/-16.39	-11.6/-7.06	-5.04/-3.31	-2.52/-1.47	-1.12/-1.25	-1.55/-2.09
Θ(37.5°)	-4.85/-4.14	-3.05/-2.78	-4.4/-5.7	-5.92/-7.18	-9.75/-15.04	-13.96/-26.61	-31.89/-33	-20.21/-14.59	-12.44/-10.66	-8.73/-6.42	-5.47/-6.26	-4.82/-6.16	-8.98/-10.13	-10.71/-7.86	-6.36/-6.81	-6.52/-5.74	-5.66/-5.15	-4.79/-3.37	-14.28/-14.92	-10.42/-9.18	-8.66/-7.18	-4.53/-2.66	-1.51/-4.3	-1.98/-9.12
Θ(45°)	-7.11/-7.01	-6.14/-9.3	-14.61/-11.59	-10.35/-10.66	-12.58/-18.54	-21.15/-17.76	-18.5/-20.55	-23.05/-25.75	-19.44/-15.94	-12.96/-9.85	-8.48/-9.47	-13.08/-10.99	-10.02/-10.48	-13.88/-14.08	-10.21/-10.86	-11.47/-8.53	-5.78/-5.15	-7.01/-10.34	-14.94/-20.35	-21.09/-14.83	-12.6/-10.02	-6.45/-5.04	-4.49/-3.31	-2.82/-4.85
Θ(52.5°)	-8.72/-10.17	-10.56/-11.5	-22.89/-24.66	-20.54/-30.23	-21.52/-26.66	-22.25/-24.56	-20.94/-17.91	-18.54/-17.91	-14.34/-15.61	-11.77/-16.59	-14.42/-13.04	-10.77/-19.43	-17.92/-13.69	-14.81/-13.12	-16.37/-9.66	-6.38/-6.51	-6.48/-9.84	-16.88/-16.23	-16.4/-17.46	-16.01/-11.46	-7.63/-8.51	-4.2/-3.33	-4.45/-6.95	
Θ(60°)	-6.96/-9.21	-10.67/-10.8	-11.34/-11.97	-10.42/-14.4	-20.58/-17.81	-17.45/-20.01	-17.59/-14.07	-14.96/-16.62	-14.69/-13.49	-19.53/-24.18	-18.12/-19.45	-10.69/-14.77	-27.79/-24.25	-13.74/-22.41	-25.58/-16.43	-12.87/-13.22	-7.77/-6.52	-9.49/-10.61	-17.04/-16.35	-20.4/-15.26	-8.26/-7.94	-6.33/-9.99	-4.38/-9.54	
Θ(67.5°)	-4.24/-7.32	-11.93/-11.11	-9.31/-7.88	-8.94/-12	-14.92/-13.37	-16.66/-16.62	-16.49/-16.16	-15.72/-16.31	-14.51/-13.95	-19.17/-18.76	-12.61/-15.36	-12.52/-18.71	-23.28/-22.2	-18.03/-18.42	-21.19/-14.67	-17.23/-12.17	-8.88/-5.54	-6.35/-10.14	-12.7/-12.3	-18.15/-20.32	-11.12/-12.68	-9.05/-8.86	-9.73/-9.12	-10.52/-7.53
Θ(75°)	-8.86/-10.79	-13.87/-15.5	-9.77/-9.58	-7.92/-10.74	-12.88/-13.57	-16.83/-19.65	-21.66/-16.41	-15.27/-16.89	-15.12/-15.35	-16.9/-17.59	-11.9/-12.88	-15.09/-22.7	-19.65/-15.4	-19.9/-18.24	-16.38/-12.31	-14.76/-20.76	-10.33/-7.53	-6.76/-8.8	-10.48/-9.56	-12.18/-22.46	-20.17/-18.84	-11.54/-8.62	-8.3/-11.57	-14.01/-10.14
Θ(82.5°)	-14.68/-18.06	-16.61/-10.89	-11.34/-12.91	-10.33/-13.87	-14.02/-15.6	-20.66/-28.34	-19.29/-19.99	-26.87/-18.73	-16.61/-18.46	-16.33/-13.99	-11.75/-10.68	-13.18/-22.91	-16.08/-13.51	-16.14/-15.63	-12.73/-10.8	-14.86/-18.94	-7.94/-6.45	-7.38/-6.79	-9.86/-8.34	-11.38/-22.46	-22.53/-19.1	-15.52/-12.04	-11.73/-14.35	-12.41/-11.55
Θ(90°)	-13.42/-23.16	-17.36/-27.81	-12.02/-17.82	-14.34/-13.78	-15.07/-14.86	-23.22/-25.87	-21.37/-23.14	-21.68/-16.71	-19.9/-20.97	-18.52/-10.95	-13.91/-12.55	-11.42/-17.14	-13.95/-12.34	-12.74/-13.61	-12.06/-10.77	-17.03/-13.85	-6.99/-6.8	-7.55/-9.48	-9.86/-8.01	-11.88/-14.54	-19.06/-15.74	-15.11/-14.49	-12.52/-11.91	-10.81/-10.91
Θ(97.5°)	-10.92/-20.14	-20.29/-17.96	-18.65/-14.76	-15.93/-15.76	-13.18/-14.87	-25.3/-20.18	-28.03/-18.79	-22.96/-16.47	-18.47/-30.41	-16.34/-11.21	-14.22/-10.99	-12.74/-18.49	-14.78/-12.62	-12.49/-12.48	-12.21/-13.36	-14.2/-10.41	-7.26/-8.78	-9.98/-10.77	-9.83/-8.21	-11.78/-15.4	-12.77/-11.01	-12.69/-12.67	-10.76/-10.56	-9.21/-8.34
Θ(105°)	-10.61/-22.34	-13.77/-14.73	-14.86/-11.85	-16.27/-11.65	-10.95/-12.07	-27.71/-19.32	-37.93/-16.29	-34.31/-15.52	-20.94/-20.81	-15.61/-11.69	-12.91/-13.36	-13.22/-15.93	-15.75/-13.28	-11.39/-13.64	-20.62/-14.44	-11.74/-10.4	-9.22/-13.03	-12.79/-9.56	-9.38/-8.87	-12.39/-14.8	-12/-8.76	-7.18/-9.08	-11.73/-15.58	-14.52/-9.12
Θ(112.5°)	-13.17/-21.71	-10.22/-8.83	-14.66/-13.56	-13.9																				



Radiated Composite Gain Data of 2G5G

Appendix A.1

Θ(120°)	-17.03/-11.3	-7.02/-4.37	-3.69/-3.35	-2.44/-0.05	0.60/32	0.71/1.4	2.610/12	-0.50/-6.64	-1.11/-1.63	-0.98/-7.66	-10.82/-17.9	-15.11/-9.88	-10.87/-18.37	-17.49/-12.93	-10.91/-10.32	-11.56/-16.72	-10.11/-17.88	-16.51/-8.45	-9.79/-7.28	-10.11/-9.63	-18.12/-9.03	-11.58/-14.01	-15.03/-24.6	-15.42/-13.77
Θ(127.5°)	-16.79/-9.74	-6.56/-4.2	-2.87/-1.92	-1.24/-0.71	0.26/-0.03	-1.87/-0.56	-0.77/-0.55	0.33/-2.33	-3.94/-5.7	-3.15/-7.89	-5.26/-9.14	-21.15/-8.39	-6.46/-8.95	-20.55/-12.66	-10.9/-9.76	-17.86/-11.32	-19.61/-6.71	-9.06/-8.95	-6.49/-6.29	-7.18/-14.7	-14.44/-9.11	-10.44/-14.58	-15.64/-27.98	-17.31/-14.47
Θ(135°)	-12.64/-12.86	-8.66/-6.73	-4.9/-3.32	-1.37/-0.22	-0.83/-1.38	0.390/12	-3.29/-3.56	-5.3/-2.42	-2.95/-5.34	-2.67/-5.54	-7.59/-8.54	-16.03/-16.19	-9.26/-9.54	-14.71/-14.22	-11.83/-16.5	-12.85/-15.11	-13.73/-18.53	-10.16/-22.29	-7.02/-9.71	-11.54/-14.32	-15.38/-15.98	-12.22/-19.23	-20.63/-44.61	-18.05/-13.85
Θ(142.5°)	-11.13/-9.49	-8.33/-7.09	-6.15/-6.76	-6.02/-5.07	-3.04/-2.11	-3.08/-2.98	-1.17/-2.39	-3.73/-2.51	-7.44/-17.21	-8.03/-13.24	-15.75/-11.87	-14.69/-23.7	-23.46/-20.86	-16.04/-12.95	-11.67/-7.81	-7.39/-9.15	-8.81/-11.05	-23.83/-9.86	-7.39/-15.28	-11.85/-11.42	-8.19/-9.64	-18.96/-36.62	-16.55/-14.77	26.31/-16.3
Θ(150°)	-16.62/-14.51	-11.21/-6.65	-6.62/-4.69	-3.45/-3.1	-3.27/-3.53	-3.15/-3.32	-6.21/-7.34	-3.56/-4.28	-11.03/-8.39	-5.73/-8.08	-16.49/-13.43	-9.6/-9.01	-10.08/-11.62	-14.6/-18.11	-15.29/-12.41	-11.05/-9.95	-12.22/-13.2	-8.1/-7.54	-12.07/-12.44	-11.32/-14.47	-7.95/-7.38	-12.01/-18.7	-40.29/-20.4	-17.12/-12.07
Θ(157.5°)	-18.85/-14.56	-11.67/-9.9	-8.42/-7.22	-3.63/-5.53	-4.96/-0.51	-6.29/-8.66	-6.91/-4.08	-3.73/-6.29	-14.59/-8.92	-17.53/-14.93	-15.53/-15.61	-15.73/-15.84	-16.75/-13.93	-13.41/-13.11	-11.19/-14.03	-12.82/-21.72	-15.21/-11.39	-12.61/-11.23	-7.88/-7.68	-10.03/-13.27	-16.44/-19.5	-19.94/-20.54		
Θ(165°)	-21.01/-16.35	-13.38/-11.71	-11.24/-11.55	-12.63/-14.42	-14.42/-12.05	-8.62/-5.46	-3.66/-3.26	-4.4/-6.5	-9.18/-11.11	-11.91/-12.98	-14.96/-16.92	-15.55/-14.93	-16.09/-19.6	-21.7/-19.17	-17.54/-15.5	-14.46/-14.48	-17.21/-19.55	-14.97/-11.46	-9.62/-9.45	-9.22/-7.76	-6.68/-6.98	-8.18/-9.53	-11.25/-14.59	-22.28/-35.49
Θ(172.5°)	-19.22/-16.89	-15.34/-13.75	-11.92/-9.94	-8.18/-6.9	-6.2/-5.81	-5.61/-5.45	-5.96/-7.29	-9.87/-13.65	-18.46/-23.83	-25.76/-20.53	-18.08/-18.15	-20.72/-23.1	-20.38/-18.58	-19.04/-18.98	-17.31/-15.85	-13.94/-12.55	-11.22/-9.47	-8.06/-7.57	-8.09/-8.83	-8.79/-8.19	-8.1/-9.18	-11.27/-12.87	-12.91/-13.57	-15.65/-19.09
Θ(180°)	-28.38/-24.4	-20.71/-19.51	-19.5/-18.36	-16.66/-15.85	-16.33/-18.12	-21.01/-26.55	-31.33/-24.19	-18.85/-16.19	-15.6/-16.32	-16.66/-16.17	-16.17/-17.28	-20.86/-25.32	-12.22/-22.49	-17.05/-13.99	-12.69/-11.74	-10.48/-9.51	-9.75/-11.02	-11.37/-10.74	-9.9/-9.86	-9.49/-9.86	-11.01/-13.14	-15.91/-19.04	-20.98/-20.61	-21/-24.08
Freq(Hz)	5.2GPol.	ThetaAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-5.78/-5.77	-5.85/-5.59	-5.32/-5.36	-5.71/-6.05	-6.62/-7.34	-7.82/-8.09	-8.37/-8.53	-8.58/-8.4	-8.13/-4.99	-6.81/-6.09	-5.57/-5.7	-6.47/-4.14	-2.84/-2.35	-2.8/-3.34	-3.37/-3.3	-3.82/-5.1	-6.14/-6.35	-6.68/-7.39	-7.88/-8.02	-7.65/-7.08	-6.99/-6.94	-6.66/-6.11	-5.42/-5.25	-5.14/-5.58
Θ(7.5°)	-8.25/-6.91	-6.06/-5.84	-5.86/-5.73	-5.62/-5.76	-6.59/-7.81	-8.72/-9.9	-11.12/-12.85	-13.98/-14.17	-13.72/-13.02	-11.68/-10.27	-9.09/-8.27	-5.68/-4.24	-2.41/-1.75	-2.2/-5.68	-2.4/-1.86	-1.92/-2.94	-1.14/-4.9	-5.8/-7.03	-8.25/-8.98	-8.92/-8.52	-8.54/-8.79	-8.65/-8.62	-8.47/-8.45	-8.6/-8.99
Θ(15°)	-3.79/-2.58	-1.87/-1.73	-1.67/-1.61	-1.74/-2.22	-3.22/-4.56	-6.38/-8.72	-11.85/-16.17	-21.04/-24.13	-22.53/-18.46	-15.82/-14.17	-14.2/-14.79	-14.31/-11.76	-9.59/-8.39	-7.74/-7.99	-7.68/-6.13	-4.92/-4.69	-4.85/-5.1	-5.46/-6.37	-7.81/-8.23	-9.86/-9.82	-10.29/-12.33	-14.36/-12.5	-9.4/-6.88	-5.49/-4.69
Θ(22.5°)	-3.97/-3	-2.19/-1.79	-1.46/-1.41	-1.55/-1.98	-2.75/-3.77	-5.11/-6.61	-8.45/-10.63	-12.97/-14.86	-16.12/-16.2	-14.86/-13.22	-13.56/-17.01	-24.47/-16.96	-11.43/-8.99	-8.14/-8.74	-10.04/-11.39	-10.3/-8.79	-7.32/-5.95	-5.35/-5.74	-6.75/-8.1	-8.79/-8.38	-8.29/-10.4	-14.18/-12.2	-6.64/-5.87	-4.42/-4.09
Θ(30°)	-6.41/-5.35	-4.51/-3.82	-3.61/-3.66	-3.91/-4.49	-4.98/-5.02	-4.77/-4.69	-5.57/-5.56	-10.39/-12.55	-13.49/-13.89	-14.15/-28	-18.73/-29.92	-18.84/-10.61	-7.35/-5.75	-4.76/-4.69	-5.32/-6.71	-7.74/-7.8	-7.73/-7.4	-6.56/-5.79	-6.32/-7.88	-8.43/-7.4	-7.13/-8.72	-12.11/-11.47	-8.46/-6.86	-6.99/-7.24
Θ(37.5°)	-9.75/-7.63	-6.24/-5.39	-4.73/-4.8	-3.99/-4.46	-7.21/-6.92	-5.56/-4.66	-5.21/-7.68	-11.16/-12.6	-12.27/-11.87	-11.99/-13.96	-18.42/-25.52	-18.89/-14.34	-13.31/-11.92	-9.75/-9.11	-10.09/-13.1	-15.65/-12.8	-8.09/-5.88	-6.13/-5.53	-7.5/-10.69	-11.03/-8.17	-7.19/-8.72	-10.54/-9.39	-8.25/-9.06	-13.53/-14.37
Θ(45°)	-11.66/-8.6	-6.55/-6.55	-4.86/-4.41	-4.15/-4.01	-4.71/-6.23	-6.39/-5.08	-5.41/-9.24	-15.14/-13.39	-12.49/-12.31	-11.7/-12.74	-21.31/-20.06	-14.76/-14.9	-21.78/-29.31	-18.72/-20.12	-19.48/-16.72	-20.33/-25.31	-12.58/-9.34	-7.53/-6.55	-7.81/-12.97	-15.12/-10.5	-9.35/-10.39	-12.17/-11.57	-10.77/-13.08	-26.08/-14.97
Θ(52.5°)	-11.11/-8.9	-6.96/-6.25	-5.95/-5.51	-4.35/-3.23	-3.15/-5.07	-7.59/-5.8	-5.61/-11.88	-21.32/-11.52	-7.91/-7.19	-9.03/-12.79	-14.43/-11.39	-11.4/-27.34	-13.76/-11.13	-12.82/-15.42	-12.16/-24.11	-17.09/-12.08	-9.62/-7.88	-10.36/-19.94	-23.37/-15.27	-12.92/-14.75	-18.07/-19.69	-17.82/-19.31	-18.41/-12.87	
Θ(60°)	-13.3/-9.66	-7.54/-6.61	-6.37/-5.71	-4.4/-3.83	-3.94/-5.91	-6.52/-6.23	-6.58/-12.88	-20.9/-9.28	-6.24/-7.98	-12.75/-16.54	-32.14/-14.46	-12.07/-18.62	-19/-13.54	-12.8/-15.88	-16.18/-13.61	-12.02/-14.88	-38.37/-18.05	-13.12/-9.83	-11.04/-17.65	-27.03/-24.62	-17.84/-15.53	-13.21/-21.22	-17.91/-17.43	-17.24/-16.45
Θ(67.5°)	-13.56/-11.4	-10.22/-9.94	-8.42/-6.86	-5.22/-4.24	-3.76/-5.81	-9.34/-7.94	-9.41/-11.76	-14.53/-9.83	-6.35/-8.74	-13.84/-13.34	-16.33/-13.43	-12.76/-18.05	-23.82/-18.59	-16.59/-16.72	-20.66/-31.03	-18.15/-16.47	-22.73/-18.89	-17.26/-10.68	-12.3/-17.94	-21.27/-15.55	-17.97/-11.7	-11.12/-12.54	-16.35/-18.18	-18.38/-14.46
Θ(75°)	-17.02/-17.31	-17.22/-17.34	-15.12/-11.11	-8.45/-6.42	-5.62/-8.15	-10.14/-8.04	-8.93/-13.34	-13.55/-7.66	-3.97/-6.98	-15.57/-10	-12.18/-15.09	-11.38/-11.69	-15.77/-19.7	-13.68/-13.72	-13.08/-16.77	-15.73/-17.44	-19.67/-14.84	-16.74/-10.66	-11.92/-15.9	-19.76/-13.31	-15.6/-11.65	-7.95/-9.72	-14.78/-21.88	-22.78/-17.46
Θ(82.5°)	-16.16/-14.82	-17.07/-32.81	-13.22/-14.98	-10.17/-7.1	-7.45/-9.52	-12.94/-9.19	-9.64/-11.62	-12.12/-9.12	-3.94/-6.93	-13.7/-96	-14.88/-18.11	-12.4/-10.88	-14.88/-16.53	-16.64/-14.51	-14.27/-15.56	-19.34/-21.87	-18.12/-14.8	-17.75/-10.12	-14.5/-16.08	-19.32/-10.72	-13.8/-9.77	-6.53/-8.37	-15.85/-25.3	-20.67/-34
Θ(90°)	-14.78/-11.14	-11.07/-16.92	-23.49/-26.84	-17.6/-12.4	-9.51/-9.8	-16.19/-10.91	-11.66/-10.3	-11.9/-33	-3.98/-5.65	-15.84/-7.68	-9.61/-16.49	-10.96/-7.9	-8.82/-13.42	-16.7/-18.92	-20.75/-24.55	-21.53/-28.13	-15.71/-13.16	-22.8/-13.89	-16.36/-13.28	-21.37/-9.02	-10.96/-11.23	-6.91/-8.42	-14.98/-16.67	-18.68/-29.23
Θ(97.5°)	-12.73/-9.63	-8.68/-11.55	-15.08/-21.13	-27.97/-16.6	-11.72/-13.17	-15.57/-12.22	-13.75/-9.54	-8.35/-11.82	-4.2/-5.44	-13.35/-7.36	-9.15/-15.32	-12.11/-6.78	-7.64/-19.29	-21.94/-29.48	-30.01/-36.68	-17.7/-10.87	-29.32/-18.52	-14.33/-12.91	-20.82/-8.25	-11.82/-11.9	-7.82/-10.33	-13.32/-18.25	-17.95/-22.59	
Θ(105°)	-13.24/-8.96	-7.26/-8.95	-10.41/-11.68	-16.55/-22.86	-14.63/-15.54	-14.55/-10.67	-8.41/-12.34	-5.73/-5.49	-9.55/-8.72	-9.11/-11.88	-15.72/-7.48	-5.3/-9.09	-15.43/-20.46	-20.89/-21	-16.82/-15.39	-17.88/-24.22	-20.88/-24.2	-14.21/-13.12	-30.71/-11.26	-12.34/-14.03	-8.33/-8.74	-12.35/-13.53	-15.85/-25.3	-20.67/-34
Θ(112.5°)	-10.38/-7.02	-6.33/-7.92	-9.55/-10.82	-10.41/-12.74	-15.96/-20.46	-18.52/-14.9	-14.54/-10.35	-7.93/-12.94	-7/-3.99	-9.11/-14.08	-10.86/-8.82	-17.77/-9.74	-6.69/-11.49	-17.07/-22	-18.85/-13.18	-13.47/-15.14	-22.32/-14.99	-20.89/-32.16	-13.52/-12.48	-29.17/-12.75	-11.41/-13.73	-9.75/-12.46	-14.33/-11.21	-17.39/-20.62
Θ(120°)	-12.26/-9.6	-9.11/-9.66	-12.12/-13.99	-15.65/-11.61	-11/-19.06	-21.6/-17.1	-17.98/-11.01	-8.18/-10.93	-10.24/-5.8	-8.91/-9.75	-10.19/-6.86	-7.88/-13.63	-12.07/-12.13	-14.83/-21.2	-20.06/-14.79	-13.58/-17.89	-16.86/-18.34	-26.16/-19.53	-15.18/-13.41	-20.39/-16.14	-12.03/-19.61	-8.9/-12.49	-14.4/-10.33	-12.88/-16.74
Θ(127.5°)	-16.18/-9.95	-10.69/-9.97	-10.51/-9.9	-9.4/-12.14	-21.04/-14.84	-16.41/-16.24	-31.35/-12.34	-12/-12.85	-12.07/-5.7	-8.12/-11.9	-17.12/-14.38	-5.72/-8.42	-13.57/-18.1	-23.36/-25.57	-18.82/-17.15	-19.47/-14.79	-16.78/-28.01	-21.36/-23.35	-20.53/-13.04	-26.04/-12.69	-15.39/-17.31	-7.91/-8.49	-14.38/-10.91	-13.78/-14
Θ(135°)	-9.91/-7.54	-6.64/-8.04	-9.41/-10.78	-10.64/-10.24	-12.44/-23.82	-17.54/-17.18	-20.53/-21.99	-12.48/-1.04	-18.24/-6.91	-6.92/-9.06	-9.92/-7.03	-13.05/-8.87	-8.05/-8.91	-10.93/-14.58	-19.36/-17.6	-15.93/-18.84	-14.51/-18	-14.04/-30.05	-19.94/-18.04	-21.53/-17	-14.27/-24.44	-10.58/-10.53	-14.1/-21.29	-16.68/-11.62
Θ(142.5°)	-7.26/-5.25	-3.98/-4.4	-5.91/-7.4	-10.18/-13.17	-12.66/-11.9	-13.8/-22.75	-27.63/-14.9	-9.42/-11.84	-20.96/-11.3	-11.15/-8.91	-8.18/-10.02	-15.69/-12.51	-8.5/-8.83	-9.14/-9.15	-9.88/-10.83	-12.34/-12.87	-15.94/-15.93	-17/-17.03	-15.11/-20.24	-19.4/-11.36	-7.9/-11.36	-15.45/-19.04	-17.37/-16.65	-20.04/-13.07
Θ(150°)	-9.9/-9.1	-9.21/-9.06	-8.62/-8.24	-8.55/-10.07	-13.68/-21.97	-19.44/-18.06	-25.71/-18.46	-15.28/-17.72	-14.45/-10.36	-8.95/-8.82	-8.72/-9.39	-10.82/-15.52	-26.84/-14.87	-10.94/-11.23	-13.72/-15.51	-13.87/-13.12	-15.48/-17.47	-15.69/-16.59	-23.62/-24.39	-34.27/-15.47	-10.55/-12.5	-11.6/-9.16	-12.03/-15.18	-16.31/-6.68
Θ(157.5°)	-10.11/-11.71	-12.93/-13.69	-13.33/-12.9	-13.21/-14.05	-14.17/-15.47	-18.82/-23.55	-19.96/-18.09	-18.71/-17.52	-14.1/-12.03	-11.56/-12.97	-18.19/-23.73	-14.35/-11.91	-12.13/-13.71	-13.83/-12.95	-12.59/-12.52	-14.77/-17.34	-16.34/-15.08	-16.35/-22.07	-27.53/-23.07	-22.38/-14.74	-11.16/-11.41	-13.96/-12.43	-10.96/-10.57	9.2/-9
Θ(165°)	-8.41/-6.89	-9.08/-9.71	-10.98/-10.39</																					



Radiated Composite Gain Data of 2G5G

Appendix A.1

Θ(165°)	-30.25/23.25	-18.61/15.77	-14.55/13.85	-12.86/-10.9	-8.85/-7.38	-6.72/-6.92	-7.95/-9.46	-9.7/-8.87	-8.82/-9.93	-12.39/-14.93	-15.88/-15.33	-15.88/-17.32	-18.99/-20.11	-20.96/-20.26	-20.13/-19.91	-19.59/-19.66	-17.48/-15.07	-12.43/-11.03	-9.91/-9.46	-7.37/-7.4	-8.43/-8.79	-8.43/-8.82	-10.45/-13.96	-20.3/-38.27
Θ(172.5°)	-26.69/-26.26	-23.48/-21.94	-21.73/-21.93	-20.66/-18.63	-17.77/-16.92	-15.01/-13.51	-12.4/-12.49	-13.28/-15.61	-19.14/-22.12	-21.91/-19.87	-18.15/-17.32	-17.24/-18.72	-19.34/-18.2	-17.57/-18.96	-24.72/-24.39	-20.56/-20.87	-16.26/-12.5	-10.95/-10.5	-10.18/-9.49	-9.07/-9.78	-11.63/-13.22	-13.81/-13.96	-14.57/-16.27	-20.36/-27.24
Θ(180°)	-22.16/-23.95	-21.32/-18.13	-17.74/-16.22	-14.48/-12.95	-12.51/-12.98	-14.83/-17.6	-20.94/-27.33	-18.37/-13.38	-11.44/-11.09	-12.44/-14.49	-16.19/-16.84	-17.99/-19.53	-20.93/-23.42	-24.63/-24.66	-22.37/-19.81	-17.46/-16.83	-15.18/-14.03	-14/-15.7	-17.22/-17.94	-17.21/-16.79	-17.5/-17.74	-18.98/-21.05	-21.81/-21.85	-21.3/-20.8
Freq(Hz)	5.6GPol	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°)	-4.21/3.53	-3.12/-2.97	-2.85/-2.8	-3.04/-3.45	-4.34/-5.36	-6.3/-7.01	-7.96/-9.94	-12.92/-16.27	-18.56/-17.57	-13.52/-10.37	-8.7/-8.09	-8.59/-10.45	-9.17/-6.59	-5.24/-5.51	-7.41/-7.38	-5.96/-6.19	-5.64/-6.76	-7.98/-8.7	-9.24/-10.5	-13.33/-17.37	-16.56/-14.14	-11.76/-9.38	-7.84/-6.88	-5.99/-4.94
Θ(7.5°)	0.43/0.62	0.97/1.12	0.97/0.61	0.17/0.65	-1.85/-3.19	-4.32/-5.43	-6.97/-9.36	-12.75/-15.72	-17.5/-16.67	-12.98/-9.65	-7.51/-6.15	-5.42/-5.31	-5.16/-4.61	-3.34/-2.56	-3.09/-4.24	-5.42/-6.05	-6.84/-8	-9.59/-11.24	-12.65/-13.31	-14.66/-13.3	-9.42/-6.54	-4.47/-3.05	-2.17/-1.49	-0.48/-0.29
Θ(15°)	-0.45/-0.41	-0.32/-0.32	-0.41/-0.62	-1.08/-1.82	-2.54/-3.1	-3.79/-4.82	-5.91/-7.59	-9.84/-11.9	-12.58/-11.32	-9.21/-7.67	-6.79/-6.1	-6.25/-6.68	-6.46/-5.23	-3.57/-2.14	-1.5/-1.57	-2.46/-3.78	-5.42/-7.21	-9.48/-12.26	-15.77/-15.72	-14.46/-13.1	-9.22/-5.5	-3.18/-2.08	-1.71/-1.58	-0.96/-0.61
Θ(22.5°)	-3.68/-2.71	-2.01/-1.84	-1.84/-2.15	-3.2/-4.75	-5.61/-5.7	-5.55/-5.27	-5.64/-6.79	-8.9/-11.41	-12.71/-10.49	-8.88/-8.26	-7.68/-7.25	-8.25/-11.06	-15.34/-20.04	-18.4/-12.4	-7.74/-4.83	-3.53/-3.55	-4.42/-5.79	-7.66/-10.49	-16.3/-14.35	-11.41/-12.33	-13.02/-9.13	-6.06/-5.14	-5.74/-6.24	-5.65/-4.65
Θ(30°)	-3/-1.57	-0.87/-0.65	-0.73/-1.2	-2.15/-3.28	-4.83/-7.39	-9.31/-8.7	-6.8/-6.19	-7.36/-10.71	-16.89/-15.8	-13.71/-13.14	-12.39/-13.69	-17.57/-16.28	-11.52/-9.34	-9.3/-11.53	-14.98/-12.98	-9.97/-8.12	-7.28/-6.88	-7.43/-9.84	-13.61/-14.82	-11.11/-10.13	-13.47/-13.26	-10.8/-13.89	-18.05/-11.14	-7.04/-4.62
Θ(37.5°)	-3.8/-2.11	-1.3/-1.25	-1.4/-1.81	-2.21/-2.6	-4.06/-7.14	-10.08/-8.84	-6.88/-6.5	-8.79/-16.49	-15.16/-9.83	-9.19/-9.27	-9.62/-10.48	-9.64/-10.68	-14.09/-17.81	-11.74/-10.39	-14.68/-24.82	-13.79/-8.58	-7.73/-8.61	-8.08/-8.71	-12.94/-10.75	-9.91/-11.06	-11.15/-12.09	-13.13/-16.79	-13.82/-9.45	-7.08/-5.43
Θ(45°)	-5/-3.67	-3.42/-3.61	-3.13/-2.44	-2.14/-2.47	-3.96/-6.08	-9.32/-11.16	-9/-8.04	-10.07/-21.98	-13.71/-8.86	-8.25/-8.48	-8.62/-10.14	-11.14/-10.12	-9.05/-9.07	-12.7/-19.38	-17.91/-12.69	-17.23/-16.83	-8.66/-7.71	-8.23/-8.61	-10.18/-11	-14.54/-15.46	-12.88/-10.62	-11.2/-12.42	-10.2/-8.59	-8.24/-7.2
Θ(52.5°)	-5.96/-4.62	-3.77/-3.32	-3.07/-1.99	-1.06/-1	-2.59/-5.94	-10.7/-10.46	-9.73/-10.29	-13.39/-21.79	-11.41/-7.16	-5.73/-6.19	-7.2/-10.71	-12.03/-9.94	-6.45/-4.54	-5.15/-6.23	-9.25/-10.32	-11.17/-17.45	-11.55/-11.25	-10.25/-10.82	-11.76/-11.79	-16.12/-23.6	-14.44/-12.51	-12.15/-11.2	-8.8/-8.9	-10.36/-8.83
Θ(60°)	-10.34/-8.87	-6.83/-5.71	-4.37/-2.87	-1.81/-1.73	-2.88/-5.44	-8.71/-9.2	-10.01/-10.56	-14.99/-14.86	-9.93/-6.4	-5.66/-6.54	-9.94/-16.65	-19.53/-21.09	-13.33/-8.28	-5.83/-4.35	-4.79/-7.8	-10.45/-12.18	-16.28/-13.72	-9.85/-9.84	-14.78/-10.48	-15.62/-24.84	-18.84/-17.56	-17.2/-14.55	-10.25/-11.59	-14.78/-14.05
Θ(67.5°)	-21.31/-18.92	-14.89/-12.08	-9.1/-6.09	-4.13/-3.41	-4.25/-6.05	-7.65/-9.74	-8.29/-7.63	-13.01/-12.14	-9.38/-5.52	-5.13/-6.26	-7.55/-11.26	-12.42/-11.51	-15.7/-15.87	-9.12/-4.92	-4.33/-7.5	-11.25/-13.26	-17.18/-15.68	-10.15/-8.77	-13.42/-18.11	-24.74/-15.63	-14.69/-13.5	-13.44/-13.65	-16.72/-18.79	
Θ(75°)	-14.9/-19.2	-22.75/-24.12	-15.68/-10.59	-7.37/-6.57	-6.97/-6.43	-6.09/-8.18	-7.55/-7.67	-9.24/-9.08	-9/-6.29	-5.86/-7.04	-5.57/-6.19	-8.19/-9.27	-10.49/-15.88	-13.65/-8.77	-6.3/-6.5	-9.67/-12.91	-16.97/-15.61	-10.71/-6.64	-15.46/-12.16	-17.27/-16.84	-21.38/-13.31	-14.3/-15.21	-19.12/-19.63	-15.11/-13.51
Θ(82.5°)	-11.51/-13.32	-16.45/-15.71	-15.38/-15.37	-12.17/-11.24	-11.95/-9.4	-6.27/-7.08	-7.39/-6.22	-8.3/-6.07	-8.2/-4.96	-5.99/-7.09	-3.99/-5.11	-6.67/-6.45	-5.75/-9.59	-10.79/-10.21	-8.66/-9.29	-12.68/-15.26	-13.6/-11.67	-9.98/-7.92	-16.45/-14.14	-17.72/-13.87	-14.17/-15.65	-15.24/-18.72	-28.13/-20.21	-15.14/-10.7
Θ(90°)	-10.56/-10.82	-10.85/-10.87	-10.9/-15.02	-10.64/-18.84	-17.3/-11.89	-7.19/-6.95	-6.79/-6.87	-7.8/-7.1	-6.04/-5.51	-5.37/-9.96	-4.28/-4.74	-7.9/-8.87	-6.36/-7.92	-9.18/-10.18	-10.86/-10.58	-13.58/-17.39	-13.45/-14.47	-10.98/-9.22	-19.22/-16.46	-15.32/-14.29	-11.09/-9.48	-19.21/-17.34	-22.87/-21.07	-13.19/-9.96
Θ(97.5°)	-9.59/-9.77	-10.58/-8.82	-9.21/-12.21	-17.27/-30.58	-37.26/-14.85	-8.89/-8.44	-7.42/-6.94	-7.76/-4.07	-5.75/-4.71	-5/-10.18	-6.18/-5.59	-9.92/-13.07	-7.13/-9.91	-8.46/-8.4	-9.46/-10.57	-12.31/-15.37	-13.53/-18.94	-13.29/-14.72	-16.5/-33.14	-13.9/-16.21	-9.35/-10.15	-19.58/-17.7	-18.98/-14.87	-10.84/-7.96
Θ(105°)	-9.01/-9.88	-9.2/-7.5	-7.37/-9.94	-15.63/-17.41	-15.98/-13.6	-10.78/-10.55	-8.32/-7.76	-8.82/-5.42	-5.29/-7.43	-4.36/-7.32	-7.73/-6.94	-10.48/-13.25	-7.36/-6.68	-7.52/-7.66	-9.27/-12.13	-9.44/-9.93	-16.96/-16.66	-15.91/-18.38	-11.94/-12.47	-16.88/-10.62	-11.35/-13.1	-20.38/-14.32	-24.03/-16.84	-8.81/-6.03
Θ(112.5°)	-7.02/-7.98	-10.06/-8.6	-8.75/-9	-10.29/-11.48	-14.36/-15.79	-12.77/-10.04	-8.59/-9.99	-8.53/-4.21	-5.69/-7.52	-4.81/-7.81	-7.47/-7.1	-7.93/-14.79	-16.35/-11.04	-9.83/-7.27	-9.02/-9.47	-11.57/-11.65	-19.26/-14.06	-24.06/-21.16	-17.84/-16.88	-13.11/-13.09	-13.22/-18.81	-23.84/-13.32	-8.25/-7.38	
Θ(120°)	-5.86/-7.12	-8.71/-8.56	-8.16/-8.8	-9.72/-10.7	-12.18/-16.24	-16.34/-12.38	-10.34/-12.92	-9.91/-6.14	-5.03/-6.9	-4.87/-6.01	-6.23/-11.04	-6.68/-8.55	-11.95/-18.39	-14.89/-14.92	-16.48/-15.31	-14.69/-18.43	-13.36/-20.62	-14.67/-13.91	-13.03/-22.72	-16.22/-16.36	-19.52/-13.37	-15.99/-15.33	-17.46/-15.05	-8.15/-6.29
Θ(127.5°)	-6.18/-6.26	-6.54/-7.38	-6.22/-6.39	-7.31/-9.93	-12.15/-14.47	-16.88/-15.07	-14.33/-15.91	-14.48/-7.98	-5.99/-8.04	-6.64/-6.21	-5.41/-7.7	-7.35/-4.29	-5.96/-5.8	-10.38/-16.43	-14.65/-12.19	-16.88/-12.31	-12.73/-16.07	-18.71/-19.68	-13.24/-17.92	-15.86/-12.48	-17.01/-15.65	-12.92/-21.18	-16.88/-6.61	-11.88/-7.27
Θ(135°)	-7.02/-6.7	-6.38/-5.72	-5.79/-6.19	-7.27/-8.1	-12.18/-16.92	-18.07/-16.8	-17.36/-16.37	-13.71/-10.76	-7.07/-7.99	-6.27/-4.77	-4.61/-5.86	-10.93/-10.26	-6.09/-4.53	-4.89/-6.76	-12.77/-13.86	-16.98/-19.24	-15.63/-15.79	-21.32/-34.13	-21.21/-19.72	-20.89/-13.55	-34.65/-18.1	-14.69/-13.26	-8.25/-7.38	
Θ(142.5°)	-6.21/-6.63	-6.67/-6.4	-6.14/-6.74	-7.29/-8.3	-10.62/-15.51	-22.12/-22.23	-16.74/-14.44	-18.88/-12.81	-9.04/-9.36	-10.98/-10.94	-8.4/-6.21	-5.99/-8.01	-10.4/-11.01	-12.45/-11.01	-9.21/-9.75	-11.49/-15.68	-41.64/-16.97	-14.76/-16.61	-22.22/-29.67	-18.51/-15.56	-25/-13.49	-19.24/-18.22	-18.9/-10.21	-7.13/-6.11
Θ(150°)	-5.5/-5.06	-5.01/-4.86	-4.97/-5.64	-7.35/-10.33	-15.11/-21.86	-33.82/-23.72	-19.61/-19.15	-17.54/-13.96	-10.61/-8.62	-8.52/-8.31	-8.64/-10.56	-12.25/-11.5	-10.91/-11.51	-13.07/-15.67	-19.53/-17.35	-15.5/-12.72	-12.47/-15.94	-22.04/-20.98	-15.9/-15.92	-22.34/-13.43	-13.85/-11.97	-10.26/-11.93	-9.06/-6.63	
Θ(157.5°)	-7.46/-7.32	-7.34/-7.45	-7.48/-7.7	-8.41/-10.01	-13.47/-21.26	-25.95/-16	-14/-14.94	-20.25/-23.68	-15.02/-12.77	-12.76/-13.02	-13.33/-14.88	-15.37/-13.82	-12.83/-12.18	-11.86/-12.51	-13.82/-16.54	-19.97/-23.91	-31.53/-34.81	-28.03/-21.14	-17.84/-16.56	-16.98/-8.75	-6.12/-6.29	-5.12/-6.9	-8.79/-8.05	
Θ(165°)	-8.28/-9.17	-10.71/-12.6	-14.16/-14.24	-14.24/-14.67	-15.43/-16.13	-16.72/-17.29	-20.23/-26.69	-29.4/-20.28	-16.01/-14.28	-14.21/-14.38	-14.96/-15.61	-15.99/-17.64	-21.34/-27	-19.14/-16.53	-14.48/-15.49	-19.88/-27.8	-26.8/-19.22	-18.59/-23.93	-28.87/-20.68	-18.39/-17.16	-15.37/-12.54	-9.41/-7.1	-5.5/-4.85	-5.51/-7.26
Θ(172.5°)	-14.5/-14.62	-14.67/-15.96	-17.49/-18.15	-19/-20.74	-22.48/-22.75	-22.67/-24.61	-31.3/-34.35	-28.18/-28.05	-24.37/-24.29	-23.91/-24.3	-24.26/-25.57	-26.33/-21.64	-17.65/-15.22	-15.51/-16.03	-15.79/-15.42	-13.78/-13.32	-13.59/-15.47	-19.62/-25.78	-28.18/-24.16	-21.47/-20.02	-18.84/-18.72	-16.89/-14.84	-13.39/-12.32	-12.07/-13.19
Θ(180°)	-13.54/-13.6	-13.73/-13.28	-13.43/-14.59	-15.56/-15.95	-17.25/-19.04	-19.56/-19.37	-20.05/-22.07	-27.08/-40.05	-24.21/-18.95	-16.2/-14.63	-13.4/-12.77	-12.98/-14.01	-14.99/-16.75	-19.21/-21.62	-22.01/-24.86	-23.99/-23.3	-22.01/-22.6	-30.09/-42.86	-35.92/-31.06	-33.94/-31.74	-25.06/-22.06	-19.27/-17.71	-15.84/-15.37	-14.13/-13.54
Freq(Hz)	5.785GPol	PhiAnt. 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°)	-10.51/-14.18	-17.43/-18.21	-13.66/-9.94	-7.23/-5.55	-4.46/-3.74	-3.32/-2.82	-2.21/-1.81	-1.61/-1.69	-2.03/-2.48	-2.91/-3.66	-4.36/-4.62	-4.84/-6.28	-9.27/-14.99	-17.24/-16.52	-23.77/-21.65	-12.02/-8.78	-7.21/-5.75	-4.21/-2.84	-2.07/-1.84	-1.65/-1.32	-0.95/-1.03	-1.62/-2.52	-1.33/-1.43	-5.57/-7.56
Θ(7.5°)	-6.89/-8.09	-8.41/-7.61	-5.91/-4.15	-2.81/-1.7	-1.11/-0.89	-1.07/-1.34	-1.3/-1.42	-1.9/-2.74	-3.87/-4.89	-5.62/-6.1	-6.69/-7.09	-6.97/-6.71	-6.74/-7.99	-10.33/-12.17	-11.71/-11.38	-11.61/-11.23	-9.17							



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Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	5.05	5.37	4.67	5.57
Ant. 2 Max Gain (dBi)	4.15	5.2	4.36	4.9
Ant. 1 Polarization/Θ(°)/Φ(°)	Phi/82.5/285	Phi/82.5/240	Phi/82.5/232.5	Phi/82.5/247.5
Ant. 2 Polarization/Θ(°)/Φ(°)	Phi/75/127.5	Phi/97.5/105	Phi/97.5/112.5	Phi/75/150
Max Gain (dBi)	5.05	5.37	4.67	5.57
DG [1SS] (dBi)	4.07	4.92	4.64	4.79
DG [1SS] (dBi) Revised	5.05	5.37	4.67	5.57
DG [2SS] (dBi)	2.09	2.71	1.96	2.63

DG 1SS Result

Freq(Hz)	6.175GPol.	PhiL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-6.05/-5.59	-5.22/-4.51	-2.72/-1.23	-0.20/-4	1.15/1.86	2.11/2.2	2.29/2.43	2.46/2.27	1.95/1.53	0.82/-0.09	-0.98/-1.73	-3.04/-4.93	-6.53/-7.54	-7.51/-6.42	-5.01/-3.14	-1.60/-2.9	0.86/1.65	2.17/2.48	2.72/2.79	2.84/2.43	1.91/1.08	-0.04/-0.93	-1.93/-3.73	-5.52/-12.32
Θ(7.5°)	-8.14/-8.28	-6.4/-4.18	-1.81/-0.3	0.69/1.3	1.88/2.16	1.95/2	1.79/1.74	1.52/1.29	1.10/1.74	-0.16/-1.15	-2.16/-2.5	-3.32/-4.37	-5.63/-7.36	-9.06/-10.67	-10.33/-8.73	-6.48/-4.38	-2.51/-1.07	-0.04/0.58	1.04/1.11	1.18/0.81	0.45/0.09	-0.43/-1.47	-2.17/-2.87	-4.74/-7.01
Θ(15°)	-7.44/-9.3	-8.81/-6.64	-3.52/-1.21	0.03/0.97	1.87/1.92	1.73/1.81	1.57/1.36	1.74/2.04	1.66/0.66	-0.92/-2.82	-4.71/-6.13	-7.35/-6.63	-5.36/-4.44	-4.26/-4.9	-5.99/-7.83	-8.93/-9.34	-6.59/-3.59	-1.73/-0.47	0.13/0.21	0.03/-0.32	-0.21/-0.08	-0.05/-1.46	-1.01/-2.21	-3.5/-4.84
Θ(22.5°)	-14.9/-12.86	-10.3/-17.29	-4.66/-3.26	-2.13/-0.32	0.99/1.51	1.81/1.67	1.62/2.1	2.84/2.64	1.57/0.03	-2.21/-4.6	-6.27/-9.8	-13.55/-12.2	-8.24/-5.88	-4.66/-3.73	-3.31/-3.56	-4.14/-5.2	-4.88/-2.72	-1.3/-0.14	0.51/0.45	0.13/-0.26	-0.81/-1.15	-1.89/-2.83	-4.21/-7.6	-13.35/-15.93
Θ(30°)	-11.8/-11.28	-8.67/-6.5	-4.98/-3.43	-2.84/-1.25	-0.18/0.45	1.25/1.17	1.33/2.37	2.71/1.64	-0.37/-1.22	-1.37/-2.82	-4.89/-9.21	-15.36/-15.73	-13.64/-12.44	-10.47/-6.75	-3.59/-2.36	-1.63/-2.32	-3.89/-3.06	-0.33/-1.31	1.47/0.8	0.36/-0.32	-0.92/-1.18	-2.47/-3.86	-6.04/-10.09	-11.66/-11.9
Θ(37.5°)	-8.14/-9.38	-7.98/-7.26	-3.98/-3.01	-3.29/-1.99	-1.49/-0.77	0.68/0.68	1.55/2.44	1.71/-0.19	-0.29/0.7	0.18/-2.44	-7.78/-15.97	-10.55/-8.17	-10.38/-6.55	-2.98/-1.62	-1.81/-2.51	-3.2/-0.21	-0.71/0.54	0.85/-0.22	-0.87/-1.23	-2.06/-2.29	-2.75/-4.01	-4.71/-4.84	-4.71/-5.97	-4.27/-5.59
Θ(45°)	-7.7/-7.1	-7.52/-6.43	-4.89/-3.71	-2.33/-0.8	-1.78/-2.74	-0.9/-0.82	1.39/2.45	1.42/1.01	1.63/-1.39	-0.55/-4.87	-4.07/-2.87	-5.87/-5.25	-3.12/-3.3	-3.43/-0.74	-0.32/-0.86	-2.26/-1.63	-0.70/2.2	-0.33/-1.59	-1.09/-0.65	-2.51/-2.85	-2.25/-2.65	-3.45/-3.37	-4.22/-5.61	-4.22/-5.61
Θ(52.5°)	-6.57/8.44	-6.22/5.26	-4.31/-2.91	-2.68/-0.6	-0.66/-1.17	-0.91/-0.26	1.48/1.93	2.04/2.49	2.29/1.13	-0.44/-3.8	-5.09/-5.17	-2.27/-2.63	-3.09/-1.75	-1.02/-3.13	-6.28/-2.27	-0.01/-0.07	-0.80/-0.55	-1.06/-0.37	-0.2/-1.87	-1.18/0.45	-1.72/-3.6	-2.88/-2.45	-1.59/-2.47	-3.81/-5.95
Θ(60°)	-6.45/-8.09	-4.96/-4.68	-5.24/-2.18	-1.77/0.67	0.96/0.4	-0.01/0.41	1.36/1.98	2.43/2.64	1.58/0.82	0.37/-0.71	-1.66/-3.79	-2.99/-3.21	-0.96/-0.55	-0.08/-2.07	-4.79/-14.3	0.92/1.74	0.94/0.61	0.61/0.91	1.09/0.1	-1.04/-0.06	-0.65/-1.49	-1.61/-1.03	-1.14/-1.88	-5.74/-7.44
Θ(67.5°)	-8.45/-8.43	-6.95/-6.43	-3.49/-1.86	-1.81/-3.4	1.68/0.37	-1.17/-1.34	0.31/3.4	2.18/2.1	1.79/1.78	1.89/0.17	-2.17/-5.29	-2.57/-0.91	0.61/-0.09	-0.68/-1.44	-1.33/0.21	1.33/2.73	2.66/2.15	1.31/8.2	0.57/0.65	0.26/0.25	-0.47/-1.58	-1.59/-0.23	0.33/-2.1	-5
Θ(75°)	-10.61/-8.1	-5.69/-7.11	-4.11/-2.65	-1.26/2.07	3.03/1.97	-0.27/0.98	-0.09/1.21	1.14/0.44	1.64/1.91	1.68/0.17	-3.42/-4.36	-1.72/0.87	1.52/0.19	-2.26/-1.24	0.27/2.65	2.52/3.66	3.1/2.8	2.16/1.6	1.68/1.32	2.51/1.57	1.36/-0.55	-1.56/-0.63	0.39/-2.56	-9.87/-9.3
Θ(82.5°)	-9.61/-4.68	-3.87/-4.29	-4.03/-3.53	-0.67/1.36	2.32/2.19	0.12/-0.18	1.98/1.72	1.42/0.84	1.99/1.2	1.69/-0.95	-4.65/-2.19	-3.38/-1.46	1.02/-0.13	-2.11/-2.77	0.78/3.64	3.624.07	2.912.65	2.36/1.96	2.32/2.02	2.92/2.1	1.54/0.61	-0.13/-2.25	-0.96/-3	-6.4/-6.72
Θ(90°)	-5.25/-5.56	-5.33/-3.72	-6.17/-2.87	-0.27/0.41	2.59/1.91	0.28/0.61	0.98/1.78	1.41/0.57	1.78/0.88	1.72/-0.91	-3.21/-4.26	-6.24/-2.92	0.09/-0.62	-3.8/-9.9	-0.19/0.15	2.71/2.34	2.952.65	2.08/1.86	1.97/2.47	2.87/2.28	1.47/0.93	-0.92/-2.62	-0.68/-1.71	-5.48/-6.18
Θ(97.5°)	-4.67/4.82	-5.38/-4.15	-5.87/-3.83	-1.56/-3.08	1.32/0.56	0.02/0.52	0.85/2.06	1.59/1.22	1.49/0.73	1.44/-1.01	-5.56/-7.14	-6.89/-6.35	-1.91/-1.36	-6.64/-9.66	-2.38/0.51	0.06/-0.22	0.03/1.26	1.34/0.63	1.73/1.26	0.64/-0.41	-2.54/-2.76	-3.52/-1.81	-4.33/-6.77	
Θ(105°)	-5.16/-7.08	-5.63/-4.78	-5.87/-4.59	-2.07/-1.34	0.72/0.99	0.63/0.57	1.67/2.78	1.51/-0.02	-0.2/-0.04	0.83/0.12	-4.31/-11.96	-8.72/-8.67	-2.87/-2.99	-7.09/-8.68	-3.22/-0.47	-1.02/-1.34	-1.18/1.06	0.98/0.42	-0.31/0.45	1.21/0.31	0.98/-2.61	-3.13/-2.76	-2.31/-2.92	-4.74/-5.91
Θ(112.5°)	-7.38/0.68	-7.83/-6.62	-5.84/-5.19	-3.43/-2.19	-1.47/-0.91	0.46/0.07	0.86/0.99	0.08/1.32	-0.48/-0.28	-1.63/-2.07	-5.69/-2.22	-8.46/-8.59	-3.18/-3.58	-6.75/-7.02	-3.73/-1.74	-1.52/-0.61	-1.07/1.71	1.27/1.09	-0.38/0.16	2.09/0.41	-1.52/-3.07	-5.01/-4.39	-3.28/-3.62	-5.67/-1.11
Θ(120°)	-9.34/-6.73	-8.35/-9.38	-6.26/-5.3	-4.56/-2.52	-2.57/-1.32	-0.57/-1.09	-1.71/-0.78	-0.05/0.39	-1.37/-1.49	-2.07/-3.3	-5.8/-11.97	-7.05/-7.99	-6.13/-5.56	-10.37/-9.18	-6.63/-4.14	-2.73/-3	-3.87/1.63	0.61/3.63	-1.1/-1.14	1.71/-1.39	-1.68/-2.63	-7.25/-5.63	-5.39/-4.81	-5.42/-10.27
Θ(127.5°)	-11.35/-8.14	-10.56/-10.41	-7.16/-7.08	-6.18/-3.61	-2.77/-1.33	-1.35/-1.87	-0.91/-0.43	-1.58/-1.08	-3.33/-3.11	-3.57/-4.83	-5.69/-13.7	-10.14/-8.75	-15.62/-10.2	-7.51/-7.29	-8.55/-4.09	-3.34/-2.96	-1.62/8.3	-0.75/-5.24	-2.26/0.62	0.37/3.61	-1.36/-7.24	-9.29/-9.76	-4.05/-5.25	-8.16/-14.28
Θ(135°)	-13.92/-12.48	-9.08/-8.72	-6.15/7	-6.67/-3.78	-4.57/-2.82	-2.86/-3.07	-2.85/-3.92	-6.08/-2.87	-5.91/-9.37	-3.91/-8.99	-14.18/-8.53	-1.91/-10.02	-10.89/-14.99	-7.98/-4.94	-1.46/-4.99	0.66/1.32	-2.81/-8.44	-1.46/-4.05	-2.81/-1.77	-4.78/-3.19	-8.17/-10.12	-6.79/-6.52	-8.16/-10.97	-10.88/-13.62
Θ(142.5°)	-12.54/-14.24	-14.4/-11.19	-9.53/-8.11	-7.53/-5.96	-4.47/-3.66	-2.34/-3.22	-1.83/-1.31	-4.59/-7.47	-5.72/-4.92	-8.16/6.3	-4.54/-7.31	-15.05/-14.37	-11.08/-10.41	-10.82/-9.09	-7.87/13.25	-12.81/5.37	-2.88/-4.25	-6.53/-10.86	-7.41/-4.22	-4.6/-3.35	-4.25/-9.15	-11.91/-12.54	-7.59/-8.91	-11.08/-11.05
Θ(150°)	-12.41/-12.43	-13.16/-14.16	-12.43/-11.3	-8.16/-5.12	-5.97/-5.94	-4.62/-5.17	-3.77/-4.22	-6.23/-4.35	-2.61/-5.21	-10.16/-62	-4.6/-8.55	-9.95/-15.7	-12.81/-6.08	-13.16/-14.12	-12.27/-10.14	-9.7/-8.6	-4.81/-6.26	-7.74/-10.01	-11.77/9.54	-8.06/-8.29	-9.69/-11.35	-10.74/-10.18	-9.51/-10.06	-10.88/-13.62
Θ(157.5°)	-15.76/-15.2	-12.05/-11.77	-10.49/-8.55	-6.1/0.2	-2.9/-2.42	-3.05/-5.95	-9.69/-9.34	-7.38/-6.03	-2.75/-11.2	-12.71/-8.25	-6.39/-8.62	-8.21/-10.84	-10.51/-8.91	-7.51/-7	-9.38/-10.28	-9.27/-3.11	-7.48/-8.1	-7.91/-6.75	-5.98/-5.45	-8.12/-6.61	-9.24/-10.6	-10.21/-10.56	-14.16/-13.5	-13.77/-13.97
Θ(165°)	-15.92/-14.97	-15.33/-13.75	-13.52/-12.6	-10.12/-9.32	-11.19/-13.56	-12.9/-11.71	-10.71/-9.95	-9.89/-9.69	-10.37/-13.2	-13.99/-12.33	-10.51/-9.12	-10.38/-11.92	-14.48/-14.2	-12.13/-10.63	-9.92/-9.36	-9.57/-11.43	-13.42/-12.54	-10.75/-9.74	-8.54/-7.19	-6.62/-6.88	-7.78/-8.62	-11.38/-13.79	-14.13/-14.19	-15.35/-15.82
Θ(172.5°)	-14.51/-15.82	-16.72/-12.53	-11.94/-11.74	-11.68/-10.57	-9.27/-7.69	-6.67/-6.47	-5.43/-7.86	-8.94/-10.23	-12.09/-14.63	-15.96/-15.45	-15.14/-14.99	-15.19/-14.99	-15.67/-15.44	-15.53/-15.35	-15.13/-15.68	-15.01/-13.6	-11.64/-10.91	-11.12/-11.05	-11.61/-12.03	-10.62/-11.15	-13.84/-14.98	-14.67/-15.55	-13.45/-14.17	-13.45/-14.17
Θ(180°)	-15.49/-15.88	-15.62/-12.57	-11.94/-11.74	-14.91/-15.88	-14.87/-14.98	-14.56/-14.89	-15.73/-15.11	-15.43/-15.45	-15.18/-14.46	-15.18/-14.46	-15.18/-14.46	-14.34/-13.34	-15.22/-14.34	-13.96/-13.91	-14.58/-14.02	-13.47/-13.07	-12.06/-12.61	-12.14/-11.36	-12.78/-12.06	-13.05/-14.67	-14.14/-14.64	-15.17/-15.19	-15.14/-15	-15.14/-15
Freq(Hz)	6.175GPol.	ThetaL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	1.84/1.94	1.64/1.49	1.34/0.91	0.32/-0.58	-4.86/-5.3	-5.95/-6.72	-7.24/-6.8	-5.49/-3.93	-2.85/-1.56	-0.63/0.26	1.02/1.62	1.94/2.01	1.87/1.8	1.66/1.24	0.59/2.28	-1.16/-2.38	-3.82/-3.55	-6.72/-7	-6.15/-4.61	-3.17/-2.35	-1.05	1.45/1.97	2.01/1.98	
Θ(7.5°)	2.12/0.2	1.73/1.49	0.98/0.79	-0.16/-1.44	-2.91/-4.62	-6.02/-6.02	-6.18/-7.19	-9.22/-11.32	-12.78/-9.95	-6.89/-4.89	-3.62/-2.78	-1.98/-1.89	-1.71/-1.19	-1/-0.86	-0.66/-0.76	-1.02/-1.43	-1.3/-3.05	-4.53/-5.59	-6.49/-7.29	-6.96/-6.47	-5/-3.94	-2.73/-0.98	0.47/1.34	1.65/1.56
Θ(15°)	1.81/1.54	0.87/0.81	1.33/1.47	0.88/-0.16	-1.86/-3.43	-5.38/-0.49	-3.93/-5.24	-8.05/-9.28	-7.39/-5.28	-4.18/-3.88	-1.61/-0.63	-0.1/-0.05	-0.36/-1.47	-3.26/-4.76	-5.47/-5.11	-4.58/-4.17	-4.43/-3.12	-6.35/-7.1	-7.67/-7.12	-8.2/-8.32	-7.36/-6.64	-4.92/-1.76	-0.1/-0.18	0.01/2.14
Θ(22.5°)	0.71/0.55	-0.07/0.12	0.98/1.4	1.49/1	-0.45/-2.91	-4.66/-3.25	-4.07/-7	-7.67/-4.35	-2.25/-1.58	-1.91/-3.09	-4.07/-4.07	-2.62/-1.55	-1.48/-2.46	-3.24/-4.3	-3.78/-4.41	-5.89/-6.81	-6.68/-7.67	-9.26/-11.11	-10.49/-9.42	-8.72/-9.77	-9.6/-4.1	-3.78/-1.37	-0.12/-0.17	-0.31/0.1
Θ(30°)	-1.44/-1.29	-2.23/-3.05	-3.53/-2.09	-0.47/0.03	-0.87/-3.11	-4.68/-3.81	-4.06/-6.88	-5.87/-0.41	-4.14/-15	-4.12/-6.24	-10.69/-10.97	-10.92/-11.02	-8.81/-7.08	-6.37/-6.7	-6.65/-6.62	-6.25/-7.27	-7.81/-7.51	-7.62/-9.25	-12.31/-13.12	-10.79/-11.24	-12.55/-7.3	-4.3/-2.27	-0.47/-0.52	-1.54/-2.56
Θ(37.5°)	-1.89/-1.21	-0.45/-1.09	-2.45/-5.25	-0.59/-3.69	-3/-3.9	-5.06/-3.29	-2.84/-5.8	-4.84/-3.73	-6.53/-12.58	-11.17/-57	-5.21/-4.17	-5.91/-11.79	-12.14/-13.33	-12.04/-8.5	-8.25/-6.95	-5.93/-6.88	-7.2/-6.73	-7.37/-3.36	-12.7/-13.34	-13.56/-12.7	-10.27/-6.47	-4.08/-2.25	-1.46/-1.81	-2.21/-1.82
Θ(45°)	-1.19/-1.12	-1.23/-1.05	-0.83/-3.27	-1.71/9.35	-5.63/-5.09	-6.34/-6.61	-2.17/-3.56	-4.54/-5.55	-8.49/-13.6	-3.84/-8.08	-9.79/-10.3	-9.21/-9.27	-9.28/-9.88	-13.39/-11.										



Radiated Composite Gain Data of 6G

Appendix A.2

Θ(22.5°)	-2.95/4.98	-6.4/-6.73	-4.41/-2.63	-1.37/0.04	0.98/1.85	2.62/3	1.62/1.66	2.17/1.95	1.48/0.49	-1.25/-3.21	-3.93/-2.98	-1.75/-1.95	-3.33/-6.51	-10.12/-5.69	-4.03/-3.56	-3.41/-2.62	-2.49/-2.49	-2.31/-2.88	-3.26/-2.5	-0.81/0.34	1.37/1.68	1.23/0.68	0.57/0.38	-0.9/-2.05
Θ(30°)	-3.98/-5.59	-5.91/-6.81	-5.57/-4.73	-4.06/-2.69	-1.86/-0.25	0.94/0.2	-0.47/0.37	1.62/1.33	0.26/-1.22	-2.74/-2.07	-1.86/-2.7	-3.66/-4.14	-4.56/-9.09	-9.83/-5.34	-2.77/-2	-2.89/-3.7	-3.47/-2.22	-1.07/-0.65	-0.34/-0.59	-0.65/0.13	0.66/0.71	0.37/-0.23	-1.14/-1.93	-4.22/-3.88
Θ(37.5°)	-2.86/-3.65	-5.44/-7.07	-9.04/-9.61	-8.5/-6.54	-4.62/-1.39	-0.55/-1.89	-1.61/0.59	1.71/0.83	-1.74/-2.67	-0.24/0.17	-1.76/-5.02	-8.43/-9.86	-10.69/-12.55	-12.63/-5.53	-2.05/-1.74	-4.28/-6.04	-4.78/-6.27	-1.38/-0.85	-1.93/-2.67	-2.18/-1.26	-1.1/-1.19	-2.99/-5.08	-7.26/-7.01	-7.22/-4.74
Θ(45°)	-3.89/-5.03	-9.11/-11.21	-9.9/-8.88	-7.94/-6.16	-6.31/-3.72	-2.89/-3.03	-1.93/-0.33	0.52/-1.35	-5.08/-2.12	0.18/-0.28	-2.34/-2.49	-3.94/-8.31	-11.62/-6.14	-4.86/-4.08	-3.35/-3.27	-3.29/-4.83	-6.33/-5.18	-2.4/-1.03	-0.79/-1.18	-1.24/-2.14	-1.21/-1.53	-1.9/-4.12	-1.91/-0.01	-1.85/-3.66
Θ(52.5°)	-5.22/-8.03	-11.5/-12.04	-11.06/-11.32	-10.77/-8.68	-7.23/-5.98	-5.85/-3.48	-3.1/-1.68	-0.81/-8.38	-3.17/-2.44	-1.23/-1.36	-0.8/-8.89	-1.64/-5.23	-8.7/-4.33	-1.91/-2.75	-4.46/-5.06	-3.32/-3.78	-6.27/-6.02	-3.5/-3.36	-4.7/-2.96	-3.33/-2.88	-2.61/-2.1	-3.29/-1.69	-0.41/-1.12	-0.25/-2.26
Θ(60°)	-4.01/-6.9	-9.7/-12.53	-15.76/-13.7	-9.11/-7.55	-5.71/-5.61	-5.41/-3.19	-2.52/-2.07	-1.63/-2.95	-1.23/-2.91	-2.51/-0.86	-0.21/-1.45	-2.4/-5.63	-3.54/-0.34	0.13/-1.95	-8.31/-5.52	-1.55/-1.09	-2.22/-2.38	-0.7/-0.86	-1.21/-0.99	-1.4/-3.07	-2.1/-3.97	-4.5/-1.61	-0.56/-0.26	-1.03/-3.72
Θ(67.5°)	-4.78/-5.89	-9.73/-8.32	-9.56/-11.37	-6.32/-5.79	-6.44/-5.72	-4.9/-0.37	-1.27/-0.73	0.49/-0.48	0.15/-3.22	-1.56/0.53	-0.16/-2.67	-4.75/-5.58	-0.56/3.08	2.11/-0.49	-5.43/-2.02	1.06/2.97	1.5/0.44	1.38/-0.95	-0.53/-0.62	-2.51/-2.05	-1.73/-4.39	-3.2/-1.91	-1.02/-2.01	-2.33/-2.82
Θ(75°)	-3.15/-5.55	-10.5/-4.92	-5.63/-7.68	-4.09/-5.29	-5.88/-3.13	-1.82/0.6	-0.89/-0.81	0.98/0.54	-1.21/-3.68	-0.92/1.81	0.82/-0.73	-3.14/-6.27	1.46/3.18	1.4/-0.9	-1.91/-1.5	2.26/3.32	2.07/0.53	1.02/0.08	0.38/0.38	-0.62/-0.36	-1.65/-2.76	-1.97/-3.01	-1.41/-0.73	-2.5/-3.68
Θ(82.5°)	-4.44/-6.81	-8.08/-5.16	-5.65/-6.37	-3.9/-2.9	-5.54/-2.67	-3.37/0.65	0.25/-0.36	1.54/1.36	-1.74/-2.61	-0.17/2.06	0.82/-1.07	-3.4/-3.84	1.99/2.11	0.34/0.15	0.29/2.84	2.24/3.72	2.47/2.85	1.97/0.53	1.77/1.06	1.85/0.86	-1.11/-1.3	-0.85/-3.59	-1.68/-0.55	-3.43/-4.49
Θ(90°)	-4.75/-7.14	-6.7/-6.4	-6.1/-6.76	-3.52/-3.21	-4.84/-1.71	-1.47/1.83	1.31/0.93	1.45/2.05	0.07/-1.88	-0.54/0.67	0.46/-1.19	-4.8/-5.44	0.19/2.1	1.23/-1.02	-1.43/-1.95	1.39/3.86	2.77/1.8	1.98/-0.88	0.61/-0.08	1.67/0.87	-1.32/-2.88	-0.9/-4.84	-1.92/-0.82	-4.57/-5.33
Θ(97.5°)	-4.99/-6.46	-5.92/-5.73	-5.79/-6.45	-4.72/-2.78	-5.58/-4.6	-3.75/0.07	-0.6/-0.45	1.46/2.15	-0.59/-2.39	-0.66/-0.73	0/-2.49	-8.33/-5.12	-1.39/-1.08	-0.87/-0.51	0.84/1.8	-0.41/0.91	1.55/-0.87	-0.09/0.07	1.34/0.12	-2.95/-2.85	-1.44/-4.83	-2.25/-0.83	-3.77/-6.64	
Θ(105°)	-6.4/-5.42	-7.79/-4.65	-5.8/-6.52	-5.08/-3.44	-3.45/-4.21	-3.51/-1.85	-3.11/-0.76	1.65/2.62	0.82/-3.18	-2.35/-2.95	-1.09/-2.29	-9.1/-10.12	-1.56/0.8	-2.77/-6.57	-3.38/-0.3	0.37/1.27	-0.59/1.63	1.17/-0.27	-1.8/-0.66	1.01/0.07	-3.55/-4.29	-3.56/-3.51	-4.02/-3.21	-2.78/-6.54
Θ(112.5°)	-5.75/-6.35	-9.05/-5.35	-9.15/-6.67	-5.38/-4.25	-3.35/-2.39	-1.32/-1.91	-1.31/0.94	1.93/1.45	-0.13/-2.98	-4.23/-4.2	-1.6/-3.96	-9.78/-10.14	-3.98/-1.68	-6.25/-10.14	-3.83/-1.01	1.68/-1.11	-1.33/2.98	0.42/0.27	-3.14/0.02	0.45/0.29	-3.61/-7.46	-5.91/-2.26	-3.68/-4.02	-5.79/-7.73
Θ(120°)	-7.08/-11.15	-8.74/-7.54	-8.95/-6.36	-5.63/-5.65	-5.31/-3.01	-2.47/-1.09	-1.63/-0.6	-0.01/-1.12	-0.42/-3.21	-4.8/-5.41	-2.63/-3.53	-11.4/-10.52	-13.31/-4.08	-3.76/-9.82	-6.91/-3.43	-2.33/2.52	-1.29/-1.93	-3.88/-0.57	-1.7/0.71	-5.44/-8.65	-4.76/-5.48	-4.7/-4.66	-7.01/-7.94	
Θ(127.5°)	-8.86/-12.57	-11.56/-10.09	-12.95/-9.11	-7.18/-6.88	-5.62/-7.3	-7.22/-4.6	-3.71/-2.65	-0.83/-0.61	-1.85/-1.91	-5.71/-7.57	-4.73/-3.55	-6.76/-12.51	-9.83/-5.49	-9.49/-9.19	-7.6/-0.85	-0.54/-4.22	1.23/3.19	-0.98/-1.5	-2.44/-0.43	-1.75/-2.45	-11.05/-5.07	-4.64/-6.06	-12.37/-11.52	
Θ(135°)	-11.46/-14.3	-10.49/-12.49	-10.59/-7.67	-8.18/-10.56	-10.27/-6.84	-5.79/-5.3	-5.3/-2.94	-2.91/-2.02	-1.51/-4.14	-5.09/-6.87	-6.48/-2.71	-5.95/-13.37	-9.07/-6.15	-7.03/-11.51	-9.64/-5.64	-9.24/-8.67	-0.29/2.37	-1.43/-4.18	-2.69/-2.08	-2.19/-2.96	-3.52/-5.6	-14.99/-7.8	-4.26/-6.06	-9.62/-14.16
Θ(142.5°)	-10.71/-12.78	-14.43/-14.89	-15.49/-12.24	-8.64/-8.28	-8.27/-9.2	-7.43/-6.69	-6.17/-6.82	-5.43/-3.04	-3.75/-5.25	-6.17/-9.34	-8.17/-5.38	-5.83/-9.65	-9.32/-11.07	-10.57/-10.57	-8.31/-12.11	-15.02/-9.09	-2.52/-2.73	-6.54/-11.45	-5.88/-5.48	-7.59/-6.9	-5.32/-10.78	-11.4/-8.65	-5.72/-8.03	-13.77/-15.49
Θ(150°)	-14.63/-16.19	-14.72/-15.92	-13.85/-14.78	-15.28/-11.36	-8.4/-4.48	-5.94/-4.48	-5.92/-7.17	-3.67/-3.35	-6.44/-6.24	-4.04/-6.8	-14.94/-9.26	-6.44/-6.46	-8.07/-12.06	-12.74/-12.7	-11.73/-10.26	-8.5/-6.5	-6.15/-6.57	-1.66/-8.1	-8.4/-6.62	-4.57/-6.39	-7.77/-8.15	-7.56/-7.19	-11.45/-11	-12.58/-16.11
Θ(157.5°)	-13.98/-16.11	-15.04/-13.95	-14.59/-11.91	-8.48/-8.17	-8.51/-9.35	-9.25/-8.72	-7.34/-7.64	-8.91/-8.85	-5.93/-3.86	-4/-7.86	-15.05/-10.43	-8.14/-8.89	-11.51/-15.03	-13.91/-9.41	-7.69/-5.99	-6.48/-9.59	-13.48/-14.1	-10.44/-6.21	-5.91/-7.12	-6.83/-7.69	-10.07/-13.49	-12.78/-10.43	-9/-9.13	-16.09/-15.98
Θ(165°)	-13.58/-13.71	-15.35/-15.73	-14.07/-15.21	-12.45/-11.35	-9.19/-8.05	-6.94/-6.48	-6.92/-7.44	-7.01/-5.78	-5.11/-5.07	-5.5/-6.24	-8.48/-11.44	-14.63/-15.61	-14.08/-12.11	-9.89/-8.38	-7.93/-8.26	-8.62/-7.49	-6.47/-5.78	-5.93/-6.29	-6.58/-6.64	-7.58/-8.32	-9.46/-10.04	-8.86/-9.33	-12.89/-14.55	-13.04/-13.06
Θ(172.5°)	-15.29/-14.74	-14.71/-15.39	-14.98/-14.21	-13.72/-13.93	-16.27/-14.86	-15.75/-14.31	-13.02/-11.83	-11.1/-10.82	-10.74/-10.16	-10.42/-10.77	-11.18/-11.46	-12.39/-14.05	-15.16/-15.52	-15.9/-14.93	-15.38/-11.77	-10/-10.08	-9.72/-9.18	-8.89/-7.69	-7.33/-8.18	-9.18/-9.19	-10.41/-11.44	-12.27/-12.64	-13.39/-14.07	-15.86/-15.16
Θ(180°)	-13.2/-14.55	-15.05/-15.36	-15.27/-15.11	-13.44/-11.59	-16.99/-10.21	-8.81/-8.08	-7.37/-6.45	-6.43/-7.41	-9.18/-10.36	-10.55/-10.13	-11.52/-12.61	-13.44/-13.91	-14.89/-15.78	-14.55/-14.18	-12.55/-10.75	-10.12/-9.95	-9.42/-9.33	-9.08/-8.99	-10.55/-11.54	-9.85/-8.79	-8.23/-7.61	-8.71/-10.31	-11.48/-12.3	
Freq(Hz)	6.995GPol.	ThetaL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	3.99/4.2	4.64/4.55	4.31/3.78	3.32/84	2.17/0.97	-0.25/-1.84	-3.08/-3.21	-2.73/-2.67	-2.44/-2.14	-1.08/-0.11	0.94/2.08	2.96/3.47	3.58/3.62	3.63/64	3.49/2.26	2.86/2.19	1.19/0.15	-1.13/-2.56	-4.16/-5.66	-6.85/-7.1	-5.93/-3.2	-1.39/-0.13	1.65/3.06	3.59/3.84
Θ(7.5°)	4.14/4.25	4.07/4.12	3.98/3.75	3.26/2.64	1.39/0.14	-1.84/-3.81	-6.01/-4.64	-2.54/-1.15	-0.25/0.37	0.96/1.42	1.9/2.52	2.94/3.29	3.53/3.33	2.99/2.4	1.68/0.83	-0.27/-1.63	-2.84/-0.47	-5.63/-7.53	-11.2/-14.9	-4.64/-2.25	-0.87/0.19	1.69/2.78	3.18/3.98	
Θ(15°)	2.72/2.64	2.22/2.27	2.38/2.53	2.41/2.21	1.2/0.51	-2.73/-6.07	-7.94/-6.92	-5.06/-2.95	-1.35/-0.43	0.10/3.9	0.59/0.83	1.72/0.1	2.58/2.7	2.05/0.87	-1.24/-3.51	-5.2/-5.57	-5.32/-5.8	-5.35/-4.93	-4.49/-5.32	-6.27/-6.47	-5.24/-1.1	-3.04/-2.53	-1.60/3.9	0.97/2.14
Θ(22.5°)	0.29/-0.62	-0.64/0.05	-0.14/-0.53	-1.23/-0.63	-0.82/-1.67	-3.8/-5.17	-3.55/-2.68	-3.95/-6.11	-5.09/-2.69	-0.93/-0.14	-0.11/-0.12	-0.16/-0.33	-0.17/-0.92	-2.49/-5.54	-7.86/-5.38	-2.11/-1.63	-1.89/-2.44	-2.58/-2.12	-2.28/-3.6	-5.77/-8.83	-10.12/-7.81	-4.57/-3.08	-2.85/-1.26	-10.36/0.7
Θ(30°)	-1.35/-2.07	-4.53/-5.97	-3.76/-6.42	-8.24/-6.55	-4.58/-4.36	-6.74/-7.7	-3.39/-1.47	-2.75/-5.71	-9/-8.56	-4.59/-2.54	-1.51/-1.55	-2.56/-3.05	-2.89/-3.93	-5.52/-8.84	-14.4/-6.04	-2.71/-2.34	-3.97/-4.24	-3.75/-4.64	-4.93/-5.06	-6.24/-9.15	-9.9/-7.1	-5.42/-3.74	-1.9/-1.85	-2/-1.5
Θ(37.5°)	-7.19/-5.48	-5.33/-4.73	-8.97/-7.48	-8.71/-11.21	-9.44/-7.78	-8.5/-15.63	-8.17/-3.52	-3.88/-3.93	-3.8/-4.77	-8.33/-6.66	-5.09/-3.22	-3.02/-4.99	-6.63/-9.85	-9.38/-10	-7.12/-5.14	-4.04/-4.74	-6.96/-6.89	-7.28/-9.5	-10.17/-9.15	-6.2/-5.49	-7.3/-9.01	-5.48/-4.22	-3.71/-4.95	-7.21/-7.71
Θ(45°)	-7.52/-8	-9.79/-15.62	-10.12/-7.19	-10.1/-6.86	-5.97/-4.17	-3.25/-7.23	-9.38/-8.1	-7/-5.24	-3.9/-5.6	-13.14/-9.58	-4.93/-3.94	-6.47/-7.08	-9.07/-11.18	-10.22/-8.7	-7.64/-6.35	-6.31/-7.15	-6.66/-6.15	-6.34/-8.84	-12.17/-11.44	-6.47/-4.84	-7.51/-13.34	-8.24/-4.83	-5.83/-6.39	-5.48/-6.31
Θ(52.5°)	-11.02/-12.59	-8.45/-7.09	-6.31/-4.21	-6.57/-6.04	-4.81/-3.71	-1.82/-3.27	-5.01/-7.09	-14.05/-8.85	-8.4/-10.7	-11.48/-15.28	-7.2/-5.58	-5.88/-5.28	-5.99/-5.99	-6.49/-7.25	-7.97/-6	-8.4/-8.63	-6.82/-7.3	-7.97/-7.66	-10.33/-11.41	-9.22/-5.25	-6/-11.15	-12.7/-6.69	-6.35/-5.98	-7.02/-7.32
Θ(60°)	-15.95/-10.6	-5.68/-4.15	-3.59/-2.23	-3.21/-3.73	-2.61/-2.9	-0.76/-1.56	-4.11/-5.42	-11.85/-14.96	-15.5/-10.9	-8.82/-13.87	-8.09/-4.51	-3.34/-2.74	-3.42/-4.2	-5.15/-8.86	-10.33/-8.55	-14.52/-11.63	-6.56/-7.38	-8.42/-7.79	-11.15/-13.15	-9.96/-5.51	-7.43/-10.15	-10.82/-6.49	-3.7/-4.3	-9.58/-12.55
Θ(67.5°)	-9.64/-8.14	-4.61/-4.09	-4.63/-3.35	-2.35/-2.98	-1.57/-4.38	-3.56/-5.26	-6.88/-12.74	-15.73/-8.27	-6.56/-9.61	-6.65/-3.24	-5.51/-5.31	-3.45/-5.69	-6.79/-8.7	-12.09/-9.51	-11.68/-14.9	-6.37/-8.83	-6.63/-7.32	-12.03/-14.94	-8.26/-8.34	-8.1/-7.88	-6.83/-4.72	-2.5/-4.63	-9.36/-13	
Θ(75°)	-7.43/-6	-3.49/-4.14	-6.5/-5.01	-2.74/-2.49	-0.95/-4.59	-5.65/-2.57	-3.49/-4.41	-6.29/-9.41	-15.24/-10.63	-5.87/-5.97	-8.69/-5.6	-4.97/-6.88	-7.45/-7.27	-7.68/-6.83	-9.01/-13.49	-7.09/-14.82	-8.4/-9.33	-4.8/-4.51	-14.78/-11.13	-6.72/-8.65	-9.3/-8.6	-4.3/-2.47	-3.71/-3.39	-6.43/-6.99
Θ(82.5°)	-7.44/-4.92	-2.56/-4.58	-8.54/-8.15	-4.98/-3.96																				



Radiated Composite Gain Data of 6G

Appendix A.2

Gain Result

Freq(Hz)	6.175GPol.	PhiAnt.1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)		
Θ(0°)	-6.68/-7	-5.54/-25	-2.8/-1.98	-1.45/-1.34	-0.85/-0.57	-0.98/-1.26	-1.33/-1.52	-1.96/-2.79	-3.64/-4.21	-4.9/-5.98	-7.25/-8.15	-10.05/-12.43	-13.33/-18.81	-15.71/-18.5	-18.94/-15.87	-11.37/-7.67	-3.2/-2.84	-3.94/-6.16	-6.76/-5.19	-4.91/-4.19	-3.83/-4.31	-4.97/-5.58	-5.87/-5.81	-6.98/-8.06	-7.96/-10.98	-18.44/-16.05
Θ(7.5°)	-17.98/-16.01	-9.87/-6.06	-3.37/-2.08	-1.3/-0.93	-0.53/-0.89	-2.1/-2.49	-3.17/-3.65	-5.25/-6.8	-7.29/-7.41	-8.48/-9.28	-10.63/-10.24	-11.34/-12.19	-13.44/-15.75	-17.92/-19.34	-14.53/-10.63	-7.74/-5.33	-3.37/-1.99	-1.07/-0.71	-0.64/-1.17	-1.65/-2.87	-3.62/-3.89	-4.75/-7.04	-7.66/-8.02	-11.27/-17.12		
Θ(15°)	-13.32/-16.66	-16.01/-11.02	-6.15/-3.29	-1.91/-0.84	0.16/-0.38	-1.29/-1.79	-2.94/-4.09	-3.88/-3.55	-4.55/-7.2	-11.16/-15.27	-17.99/-14.77	-18.2/-12.53	-8.73/-6.89	-6.38/-6.64	-7.58/-9.03	-11.37/-11.97	-9.02/-6.52	-4.07/-3.27	-3.25/-3.89	-4.88/-6.01	-6.21/-6.09	-5.49/-5.17	-5.45/-6.34	-7.21/-8.82		
Θ(22.5°)	-17.11/-13.89	-12.05/-11.02	-7.41/-6.39	-5.34/-2.22	-0.48/-0.52	-1.33/-2.74	-3.55/-2.41	-0.77/-1.07	-3.24/-7.22	-13.81/-16.96	-15.71/-18.5	-18.94/-15.87	-11.37/-7.67	-5.55/-4.17	-3.2/-2.84	-3.94/-6.16	-6.76/-5.19	-4.91/-4.19	-3.83/-4.31	-4.97/-5.58	-5.87/-5.81	-6.98/-8.06	-7.96/-10.98	-18.44/-16.05		
Θ(30°)	-15.73/-14.76	-11.11/-9.64	-9.06/-7.5	-7.03/-3.57	-1.61/-1.86	-2.31/-3.93	-4.17/-1.81	-0.81/-2.65	-7.06/-8.63	-7.31/-8.36	-9.15/-14.45	-18.75/-18.24	-18.31/-16.37	-14.02/-7.85	-2.8/-0.52	-0.23/-1.65	-3.59/-3.17	-1.91/-1.21	-1.69/-2.92	-3.34/-4.44	-5.52/-5.05	-5.79/-6.17	-7.74/-13.54	-18.59/-17.99		
Θ(37.5°)	-14.12/-12.47	-18.64/-18.69	-9.47/-7.25	-7.84/-4.38	-2.73/-3.04	-3.37/-5.6	-3.46/-1	-2.35/-7.56	-6.98/-3.39	-3.06/-6.05	-10.52/-19.14	-12.02/-11.05	-14.55/-14.05	-10.26/-5.53	-1.74/0.03	0.31/-0.49	-1.24/-1.35	-1.81/-1.69	-2.08/-3.66	-3.73/-3.52	-4.53/-4.23	-3.54/-3.99	-5.06/-6.71	-8.59/-11.09		
Θ(45°)	-10.32/-12.73	-18.59/-18.78	-14.8/-10.23	-6.92/-4.22	-4.85/-5.53	-4.97/-7.98	-3/-1.08	-3.74/-5.06	-3.13/-2.95	-5.94/-11.9	-17.11/-11.46	-7.12/-5.89	-8.74/-7.4	-3.99/-2.73	-1.97/-0.41	0.61/-0.26	-1.54/-1.83	-1.89/-1.33	-2.77/-5.09	-3.77/-2.68	-4.29/-3.27	-1.6/-1.95	-3.24/-4.38	-6.81/-9.77		
Θ(52.5°)	-14.09/-18.59	-13.98/-14.21	-14.15/-8.9	-8.82/-6.15	-6.22/-5.15	-6.02/-6.48	-3.36/-3.51	-3.38/-2.49	-3.63/-6.38	-9.97/-19.03	-11.69/-10.14	-7.38/-9.62	-9.04/-4.85	-2.46/-3.04	-4.92/-3.45	-1.3/-0.86	-0.6/-0.22	-1.98/-1.81	-1.66/-6.04	-5.42/-0.44	-1.45/-1.95	-1.31/-1.22	-2.59/-5.07	-8.29/-12.04		
Θ(60°)	-9.98/-19.15	-9.12/-9.75	-17.34/-8.57	-9.45/-7.76	-7.7/-5.1	-5.03/-5.62	-5.35/-5.91	-4.45/-2.75	-5.69/-10.65	-13.05/-12.02	-7.81/-12.23	-12.38/-17.81	-7.89/-4.57	-3.74/-2.83	-3.3/-3.47	-1.71/-2.25	1.66/-2.11	1.91/-1.76	1.54/-0.02	-2.36/-1.91	1.44/-0.55	-0.31/-1.2	-2.6/-4.59	-12.68/-10.81		
Θ(67.5°)	-10.67/-18.34	-17.39/-13.97	-10.64/-9.85	-14.98/-7.81	-8.61/-9.97	-12.61/-13.37	-9.96/-9.48	-5.45/-4.79	-8.87/-13.11	-9.44/-10.3	-8.92/-15.68	-18.78/-11.96	-3.45/-3.53	-3.86/-2.14	-1.42/-0.23	1.23/-1	4.124/-76	3.363/-41	2.031/-26	0.732/-06	1.790/-6	0.190/-38	-0.38/-5.5	-9.95/-8.06		
Θ(75°)	-10.46/-17.23	-18.77/-17.64	-9.74/-12.52	-12.98/-6.85	-6.76/-7.8	-14.94/-17.92	-17.93/-14.24	-11.81/-12.12	-10.16/-16.46	-13.69/-12.28	-11.86/-14.05	-13.11/-9.91	-1.81/-3.61	-6.2/-2.03	1.073	2.834/-33	4.534/-92	4.593/-68	3.272/-89	4.443/-18	3.31/-68	-0.13/-0.08	0.79/-4.3	-10.18/-6.99		
Θ(82.5°)	-10.53/-9.07	-13.32/-10.88	-11.7/-18.14	-9.86/-9.03	-10.14/-8.05	-15.11/-14.5	-12/-12.54	-12.01/-14.5	-10.57/-17.58	-10.03/-14.43	-18.37/-17.3	-18.04/-6.46	-2.63/-6.01	-5.61/-1.57	1.773/-91	3.764/-56	4.334/-5	4.924/-36	3.254/-44	5.053/-3.78	1.66/-1.52	-0.92/-2.65	-5.24/-4.38			
Θ(90°)	-6.42/-9.68	-18.68/-8.13	-17.68/-13.58	-9.85/-15.78	-8.42/-10.91	-18.56/-13.68	-14.45/-15.87	-17.81/-14.71	-8.2/-18.88	-9.61/-18.95	-18.48/-9.62	-5.62/-7.24	-5.38/-4.57	0.113/-21	3.333/-41	4.274/-6	3.934/-26	2.753/-98	4.944/-02	3.682/-88	1.177/-15	-2.090/-38	-7.07/-16.1			
Θ(97.5°)	-5.72/-10.23	-17.97/-7.94	-17.61/-18.24	-13.37/-18.33	-12.27/-16.34	-18.11/-14.02	-18.45/-10.77	-11.75/-12.17	-10.52/-18.64	-8.73/-17.82	-18.44/-12.99	-15.55/-14.93	-9.39/-6.07	-9.65/-9.06	-1.850/-71	0.970/-92	1.383	2.972/-66	0.732/-9	3.313/-58	2.861/-04	-0.56/-3.14	-1.90/-28	-6.47/-15.17		
Θ(105°)	-6.53/-15.4	-12.43/-8.97	-17.99/-18.15	-13.46/-17.2	-9.93/-10.73	-12.38/-11.53	-9.04/-8	-11.96/-16.8	-19.14/-17.28	-15/-12.5	-19.03/-14.38	-16.34/-16.21	-9.91/-8.69	-8.89/-7.94	-2.52/-0.66	-1.32/-0.54	0.423/-34	2.92/-18	0.512/-67	3.211/-74	1.83/-0.66	-1.66/-1.92	-0.88/-1.8	-7.72/-8.42		
Θ(112.5°)	-8.83/-9.52	-15.43/-18.87	-12.78/-18.8	-15.85/-18.98	-17.69/-14.48	-8.29/-12.92	-13.06/-11.41	-15.87/-9.31	-10.45/-16.5	-18.13/-14.16	-18.38/-18.2	-18.41/-9.84	-7.34/-6.76	-14.13/-7.37	-1.95/-0.4	-1.5/-0.56	-0.913/-81	2.50/-42	0.222/-33	4.491/-79	-0.25/-1.12	-4.58/-3.28	-1.59/-2.64	-6.53/-9.06		
Θ(120°)	-10.49/-10.31	-14.38/-18.19	-17.83/-18.06	-13.33/-13.71	-18.04/-18.17	-18.19/-17.29	-18.75/-15.36	-17.37/-17.93	-16.24/-17.48	-17.24/-17.78	-16.24/-17.78	-8.32/-10.11	-17.35/-8.51	-5.29/-3.71	-2.87/-2.65	-2.753/-19	0.97/-5.19	-0.490/-58	4.1/-0.06	-0.93/-3.03	-6.45/-4.05	-4.11/-3.45	-6.45/-10.96			
Θ(127.5°)	-11.99/-11.19	-17.97/-18.04	-14.56/-18.04	-16.55/-14.59	-17.6/-9.76	-9.39/-12.69	-10.16/-7.35	-9.99/-9.91	-17.63/-18.44	-11.98/-14.12	-17.56/-17.82	-18.11/-11.5	-19.12/-18.52	-10.01/-8.77	-7.56/-3.79	-3.76/-4.74	-1.284/-02	-0.58/-6.68	-0.421/-2	2.55/-2.78	-1.15/-5.97	-8.35/-9.65	-2.7/-3.74	-11.52/-16.03		
Θ(135°)	-15.83/-16.86	-13.35/-17.83	-14.09/-13.74	-18.71/-10.34	-15.94/-10.54	-12.03/-14.28	-17.86/-14.48	-18.09/-16.51	-18.79/-18.58	-19.02/-16.59	-17.95/-14.53	-18.7/-13.32	-12.01/-9.85	-12.6/-17.63	-7.3/-4.85	-9.33/-4.38	1.73/-18	-1.37/-5.68	-0.041/-77	1.110/-28	-3.14/-3.16	-13.2/-9.57	-5.56/-5.45	-8.07/-10.83		
Θ(142.5°)	-15.52/-17.64	-18.81/-18.64	-19.2/-16.47	-17.64/-17.78	-18.5/-14.18	-8.52/-11.24	-8.84/-9.42	-18.88/-16.39	-18.76/-16.44	-15.84/-17.48	-15.65/-17.56	-16.46/-16.12	-11.86/-10.39	-11.05/-8.29	-6.72/-14.1	-14.01/-6.02	-1.55/-2.58	-6.21/-11.18	-7.22/-2.73	-3.26/-2.63	-3.9/-8.64	-13.84/-13.65	-7.36/-8.51	-11.09/-11.96		
Θ(150°)	-19.24/-18.03	-17.84/-18.77	-17.4/-18.47	-13.11/-9.6	-12.27/-12.92	-10.15/-14.31	-12.58/-13.38	-19.18/-16.5	-11.44/-14.9	-19.14/-15.98	-18.16/-18.95	-18.96/-18.48	-14.27/-13.1	-16.5/-18.97	-18.03/-13.64	-13.3/-9.06	-5.95/-6.19	-7.11/-9.95	-11.26/-10.21	-11.48/-13.68	-12.44/-11.46	-10.51/-9.84	-10.54/-9.93	-11.45/-19.13		
Θ(157.5°)	-18.21/-18.15	-13.81/-17.64	-18.26/-15.64	-12.43/-10.31	-9.28/-7.78	-7.85/-12.27	-19.53/-17.79	-17.97/-17.93	-19.02/-19.29	-18.79/-18.56	-18.65/-18.15	-14.18/-11.52	-10.63/-9.57	-7.9/-6.67	-6.58/-7.4	-9.01/-10.28	-8.81/-7.06	-17.1/-9.1	-9.85/-17.4	-6.55/-6.02	-6.24/-6.95	-7.29/-8.72	-6.58/-10.96	-14.45/-15.98		
Θ(165°)	-18.71/-8.01	-18.61/-17.75	-18.47/-16.68	-11.9/-10.65	-14.04/-18.82	-18.96/-17.16	-18.86/-19.23	-17.18/-18.41	-17.63/-18.96	-18.11/-15.42	-18.67/-17.67	-18.66/-17.26	-12.41/-10.65	-7.89/-8.92	-9.28/-11.33	-14.74/-13.64	-13.69/-17.23	-18.29/-14.78	-10.12/-7.75	-6.69/-7.98	-11.46/-15.85	-15.91/-16.48	-19.09/-18.49			
Θ(172.5°)	-18.45/-18.92	-18.48/-13.89	-12.68/-12.4	-12.91/-12.67	-11.3/-9.54	-9.06/-10.28	-12.04/-12.18	-12.74/-13.51	-14.97/-16.37	-18.48/-18.79	-17.58/-17.58	-18.42/-18.69	-18.64/-17.91	-18.83/-18.25	-18.27/-18.55	-17.51/-18.6	-17.35/-14.73	-18.18/-18.95	-18.36/-16.7	-13.05/-11.62	-10.59/-12.53	-15.37/-17.71	-17.68/-17.9	-18.45/-17.96		
Θ(180°)	-17.88/-19.09	-18.67/-18.29	-17.94/-17.82	-17.83/-19.4	-18.17/-17.92	-16.83/-17.6	-18.72/-18.54	-18.16/-18.65	-17.91/-18.63	-19.03/-18.98	-18.78/-18.83	-17.52/-18.71	-18.75/-18.07	-18.99/-17.07	-16.66/-15.69	-16.73/-16.57	-14.84/-14.2	-13/-13.74	-14.72/-15.34	-18.07/-17.63	-17.68/-18.53	-16.05/-16.55	-17.6/-18.98	-18.28/-17.95		
Freq(Hz)	6.175GPol.	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°)	-2.05/-2.07	-3.06/-3.62	-4.02/-4.63	-5.31/-7.44	-9.65/-12.25	-13.8/-12.3	-10.78/-9.57	-8.46/-7.38	-6.22/-5.05	-4.69/-3.83	-3.44/-2.71	-2.03/-1.58	-1.15/-1.25	-1.67/-1.78	-2.22/-2.99	-4.07/-5.3	-6.75/-8.57	-10.31/-11.56	-10.98/-8.88	-6.62/-4.75	-3.58/-3.31	-2.22/-0.75	-0.11/-0.04	-0.62/-1.35		
Θ(7.5°)	-1.04/-1.37	-1.8/-23.1	-3.48/-3.46	-4.81/-7.4	-10.29/-14.98	-19.22/-15.08	-12.67/-12.78	-17.14/-15.99	-18.39/-14.96	-11.54/-9.86	-8.49/-7.85	-6.9/-6.82	-6.56/-6.12	-6.29/-6.42	-5.89/-5.92	-6.4/-7.12	-7.74/-9.57	-11.45/-11.18	-10.38/-8.85	-6.48/-5.13	-3.85/-3.61	-3.47/-2.3	-1.12/-0.49	-0.76/-1.67		
Θ(15°)	-2.05/-2.36	-3.4/-2.88	-1.39/-0.69	-1.48/-3.27	-6.41/-12.53	-15.2/-9.9	-15.53/-17.07	-11.27/-6.67	-4.56/-4.35	-2.35/-1.66	-1.37/-1.38	-1.78/-3.1	-5.72/-9.37	-13.33/-15.12	-16.21/-13.9	-13.46/-14.69	-12.67/-8.2	-7.13/-7.33	-7.69/-6.63	-9.68/-6.59	-3.39/-4.6	-5.08/-2.92				
Θ(22.5°)	-3.12/-2.94	-5.27/-3.73	-1.63/-0.81	-0.52/-1.28	-4.14/-10.73	-17.88/-9.98	-10.01/-15.68	-15.03/-6.5	-2.87/-1.56	-1.39/-2.68	-4.75/-5.67	-4.25/-2.3	-1.42/-1.86	-3.28/-5.01	-6.51/-9.2	-16.01/-18.88	-16.49/-17.91	-19.34/-19.14	-13/-8.71	-7.95/-9.38	-10.05/-8.88	-7.75/-5.77	-4.71/-5.29	-5.98/-4.97		
Θ(30°)	-7.13/-9.52	-5.08/-6.79	-8.1/-4.82	-2.28/-1.95	-4.27/-10.46	-18.42/-12.67	-10.89/-18.87	-12.15/-6.15	-4.85/-4.94	-5.98/-97	-19.09/-16.1	-16.15/-14.86	-10.35/-8.35	-6.67/-5.49	-5.59/-7	-8.67/-13.15	-15.38/-15.54	-16.71/-13.83	-10.68/-11.52	-13.3/-6.11	-4.69/-4.9					



Radiated Composite Gain Data of 6G

Appendix A.2

Θ(22.5°)	-8.96/-11.57	-13.95/-12.85	-9.69/-5.78	-3.83/-2.34	-1.79/-1.08	0.29/0.18	-1.52/-2.27	-1.57/-1.62	-1.76/-3.16	-6.28/-10.95	-15.35/-14.5	-11.31/-10.64	-10.6/-10.48	-10.1/-10.75	-11.29/-9.71	-6.3/-2.8	-1.13/-0.49	-0.42/-1.01	-1.4/-1.57	-1.05/-1.19	-1.24/-2.29	-4.73/-7.38	-7.14/-6.17	-8.71/-9.91
Θ(30°)	-11.5/-18.21	-17.75/-15.96	-8.77/-5.24	-4.8/-4.7	-5.68/-3.02	-0.1/-0.72	-3.14/-3.31	-1.41/-1.6	-3.62/-8.06	-17.89/-15.22	-10.9/-9.51	-8.85/-8.09	-7.08/-9.37	-10.99/-10.48	-7.96/-6.16	-5.8/-3.54	-1.55/-1.12	-1.41/-1.64	-1.7/-2.07	-1.73/-8.05	-0.87/-1.83	-4.13/-5.35	-6.35/-7.46	-13.22/-11.3
Θ(37.5°)	-9.65/-12.97	-15.89/-14.62	-11.83/-9.13	-8.78/-8.11	-8.71/-2.87	-1.05/-1.49	-2.86/-0.66	0.37/-1.22	-7.36/-18.79	-12.35/-12.07	-15.57/-17.21	-17.85/-15.96	-13.21/-17.97	-15.36/-6.48	-2.24/-1.62	-3.89/-6.68	-3.7/-1.56	-1.31/-2.18	-4.22/-4.63	-4.01/-3.9	-4.49/-4.34	-5.56/-7.26	-7.39/-5.77	-6.22/-8.52
Θ(45°)	-6.82/-7.77	-12.28/-13.79	-12.12/-9.98	-9.08/-8.56	-11.49/-4.43	-1.7/-3.98	-3.56/-0.89	0.13/-2.95	-12.39/-9.12	-7.86/-12.87	-17.47/-8.85	-7.61/-10.4	-15.72/-12.21	-10.09/-6.25	-2.84/-2.22	-2.84/-3.88	-5.55/-4.59	-3.14/-3.52	-5.7/-5.98	-3.41/-4.54	-5.59/-6.05	-5.83/-7.66	-4.9/-1.84	-3.17/-5.72
Θ(52.5°)	-5.8/-7.17	-11.64/-13.48	-15.33/-19.35	-13.43/-8.36	-9.16/-6.13	-5.9/-6.77	-6.44/-2.47	-2.35/-6.82	-6.5/-8.79	-13.58/-19.33	-18.18/-5.16	-4.9/-7.85	-16.13/-12.55	-7.75/-5.92	-3.78/-3.52	-3.17/-4.01	-6.38/-5.85	-4.74/-5.23	-10.56/-8.4	-4.77/-3.58	-5.98/-6.03	-4.81/-3.42	-2.41/-0.21	-0.73/-3.77
Θ(60°)	-5.57/-5.63	-9.93/-16.24	-19.31/-15.55	-13.58/-7.72	-6.76/-5.96	-6.76/-5.96	-6.94/-5.41	-7.08/-12.08	-4.48/-7.79	-18.88/-15.65	-8.38/-7.98	-8.48/-12.57	-7.24/-5.77	-7.03/-8.46	-1.08/-0.61	-3.16/-1.96	-2.35/-2.5	-1.08/-0.61	-1.17/-2.68	-2.18/-1.66	-3.98/-5.01	-3.61/-1.28	-0.47/-0.72	0.2/-0.48
Θ(67.5°)	-5.74/-5.8	-10.25/-15.24	-17.5/-17.79	-12.57/-6.44	-9.07/-7	-6.19/-3.94	-6.26/-5.23	-7.35/-11.79	-4.23/-9.54	-15.75/-11.95	-12.91/-14.24	-11.68/-11.89	-3.73/-1.26	-4/-4.14	-6.32/-5.06	0.08/2.64	1.9/1.2	2.16/0.39	0.06/0.3	-2.25/-0.24	-1.84/-2.56	-1.75/-0.78	0.04/0.11	-0.59/-3.24
Θ(75°)	-4.66/-6.87	-12.37/-8.51	-13.56/-14.66	-12.56/-12.91	-11.84/-7.16	-3.41/-2.68	-7.29/-8.62	-10.55/-15.83	-13.17/-12.61	-11.38/-8.66	-17.55/-14.92	-7.54/-13.04	-1.63/-0.67	-3.7/-2.41	-2.64/-0.53	1.39/3.65	3.57/2.48	2.69/1.3	0.27/2.32	-0.02/-1.82	-0.13/-0.78	-1.57/-1.22	0.32/0.84	-0.47/-0.41
Θ(82.5°)	-5.14/-8.35	-9.85/-9.26	-18.12/-12.47	-15.83/-8.53	-15.51/-8.26	-6.45/-3.72	-6.28/-9.7	-13.34/-14.05	-19.62/-10.98	-10.36/-9.83	-19.2/-11.22	-5.77/-9.07	-0.89/-2.47	-3.59/-1.1	0.13/2.4	2.75/4.67	4.26/4.13	4.34/1.93	2.57/3.29	3.49/3.22	-0.96/-2.11	-0.96/-2.1	0.18/1.13	-1.62/-5.57
Θ(90°)	-6.05/-8.53	-8.15/-11.13	-16.71/-18.66	-18.67/-14.04	-18.38/-8.85	-6.12/-1.87	-3.28/-5.86	-13.48/-12.41	-13.43/-9.72	-8.95/-12.83	-18/-13.99	-8.29/-7.77	-2.04/-3.97	-4.18/-3.63	-0.49/1.66	1.48/4.07	3.19/2.74	3.78/0.9	1.19/0.63	4/2.74	0.37/-0.89	-0.15/-3.54	-0.55/0.48	-3.01/-4.37
Θ(97.5°)	-6.65/-9.47	-7.68/-10.53	-14.34/-17.05	-19.09/-12.06	-17.84/-18.21	-13.01/-5.99	-9.38/-11.54	-17.89/-15.92	-17.92/-13.84	-7.44/-15.97	-17.26/-14.09	-11.85/-5.29	-6.36/-8.43	-5.67/-7.1	-1.29/-0.66	-0.09/1.86	0.08/2.36	2.34/2.17	0.18/-0.07	3.22/2.08	-0.94/-0.99	0.54/-3.27	-0.29/0.35	-3.14/-5.38
Θ(105°)	-7.5/-7.64	-12.49/-8.45	-11.96/-17.51	-15.71/-16.65	-12.24/-19.25	-13.57/-9.23	-15.85/-13.04	-10.22/-8.45	-17.74/-15.53	-10.47/-18.73	-18.34/-15.94	-12.92/-10.09	-5.16/-5.34	-12.02/-8.66	-2.94/-1.43	-1.48/0.49	0.31/3.66	1.86/1.11	-1.22/0.24	2.43/1.75	-1.7/-2.47	-1.63/-1.61	-2.25/-2.56	-2.9/-5.6
Θ(112.5°)	-9.67/-8.03	-13.83/-8.76	-17.17/-17.9	-15.44/-13.83	-10.57/-8.71	-8.13/-10.92	-8.25/-5.67	-8.28/-13.29	-10.16/-17.5	-14.32/-19.11	-17.15/-18.07	-15.29/-9.81	-5.66/-7.2	-16.95/-15.45	-4.27/-1.7	0.61/-2.09	-1.24/4.43	0.33/1.03	-3.1/1.67	2.58/0.66	-1.73/-6.35	-4.66/-1.97	-1.87/-3.9	-5.23/-8.94
Θ(120°)	-7.81/-11.68	-11.68/-10.98	-18.12/-17.96	-18.09/-17.73	-17.87/-9.66	-12.75/-8.07	-7.09/-8.34	-18.9/-10.58	-12.29/-17.53	-17.13/-18.31	-14.37/-14.5	-19.33/-13.98	-15.22/-6.63	-8.96/-18.18	-7.32/-3.33	-1.27/-5.26	-3.64/3.38	-3.56/-2.49	-3.95/0.62	0.37/0.57	-3.88/-11.02	-6.03/-4.02	-3.3/-5.52	-6.4/-8.34
Θ(127.5°)	-8.63/-13.75	-16.84/-15.88	-19.26/-18.62	-15.7/-16.65	-17.87/-18.03	-17.59/-16.82	-16.03/-13.04	-13.33/-15.02	-18.92/-10.77	-16.85/-18.15	-17.76/-13.8	-12.99/-19.45	-9.2/-6.52	-18.07/-13.17	-6.64/-0.32	-1.91/-10.59	-0.12/4.13	-1.37/-1.56	-1.33/0.62	0.39/-0.43	-2.89/-11.31	-1.54/-3.65	-3.03/-5.15	-13.24/-11.78
Θ(135°)	-11.68/-18.09	-15.2/-19.18	-18.75/-15.95	-15.47/-18.08	-17.61/-15.11	-12.35/-10.84	-18.83/-19.07	-19/-16.5	-16.21/-18.44	-16.79/-13.88	-18.43/-13.6	-14.17/-16.78	-12.06/-6.57	-6.94/-16.63	-9.46/-4.16	-11.61/-9.25	1.4/3.66	-1.15/-4.92	-1/-0.2	-1.37/-1.01	-1.78/-7.3	-18.06/-7.32	-4.49/-4.93	-12.63/-15.62
Θ(142.5°)	-15.15/-18.01	-18.89/-19.08	-18.26/-18.04	-17.88/-19.92	-17.56/-16.17	-12.33/-14.25	-15/-18.26	-18.18/-13.99	-18.25/-13.13	-17.62/-17.83	-16.18/-17.32	-18.42/-17.96	-14.21/-12.59	-10.22/-11.08	-4.83/-13.65	-18.84/-8.56	-0.54/-0.82	-5.15/-14.71	-10.3/-3.77	-7.91/-5.9	-5/-12.35	-18.73/-10.08	-8.73/-13.31	-18.75/-18.13
Θ(150°)	-15.15/-19.29	-17.68/-16.62	-15.95/-17.36	-18.88/-11.77	-9.69/-7.38	-8.09/-9.49	-11.01/-18.65	-11.66/-12.72	-17.7/-15.19	-16.37/-18.64	-18.04/-18.11	-19.31/-13.78	-13.25/-13.58	-12.58/-12.17	-10.5/-5.77	-5.86/-5.34	4.95/-8.19	-9.81/-6.26	-6.39/-7.17	-6.7/-5.2	-7.36/-7.65	-16.1/-15.1	-13.23/-19.11	
Θ(157.5°)	-15.77/-19.25	-18.23/-15.75	-17.55/-13.69	-9.71/-8.87	-8.58/-9.8	-12.89/-18.44	-18.82/-19.08	-18.87/-15.2	-11.62/-11.2	-11.73/-15.56	-18.49/-17.94	-18.37/-18.63	-18.18/-17.78	-15.6/-9.97	-6.57/-5.13	-6.34/-9.89	-14.93/-15.46	-11.53/-9.58	-9.7/-8.99	-9.54/-11	-12.16/-14.72	-13.35/-12.79	-12.31/-12.21	-19.22/-18.98
Θ(165°)	-17.66/-16.12	-18.88/-18.46	-16.58/-17.26	-17.12/-18.33	-14.91/-13.55	-13.28/-14.4	-18/-19.12	-15.8/-12.83	-12.84/-14.46	-16.3/-15.98	-18.41/-19.23	-18.95/-18.37	-15.76/-12.33	-9.67/-7.71	-7.13/-7.35	-8.54/-9.51	-9.49/-8.85	-9.08/-8.16	-7.19/-6.19	-6.67/-7.67	-9.26/-10.41	-9.48/-10.27	-15.64/-17.12	-14.63/-17.38
Θ(172.5°)	-17.97/-18.31	-18.37/-16.87	-17.5/-16	-14.81/-15.68	-19.56/-17.89	-18.31/-17.91	-19.05/-19.45	-19.32/-19.27	-19.12/-17.9	-17.72/-17.97	-17.97/-17.35	-16.8/-17.17	-18.16/-18.35	-19.18/-18.63	-18.37/-13.54	-11.45/-9.99	-9.42/-8.46	-7.99/-7.69	-8.68/-10.93	-12.4/-18.4	-13.37/-15.84	-18.19/-18.84	-18.72/-18.78	-19.1/-18.11
Θ(180°)	-18.91/-18.87	-18.15/-18.14	-18.09/-18.23	-14.91/-12.53	-13.27/-13.12	-10.98/-9.93	-9.35/-8.93	-10.11/-12.76	-16.97/-18.46	-18.76/-18.44	-18.66/-18.07	-18.27/-18.42	-18.01/-19.09	-18.8/-19.06	-18.12/-19.17	-19.87/-17.8	-18.54/-19.03	-18.91/-17.8	-18.72/-18.97	-17.86/-18.47	-16.45/-12.78	-15.02/-18.17	-17.91/-18.99	
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°)	0.86/1.18	1.65/1.26	0.64/0.59	-0.81/-2.52	-3.82/-6.27	-0.56/-12.23	-1.41/-12.068	-6.57/-4.54	-2.96/-1.9	-0.82/-0.24	0.1/0.76	1.05/1.21	1.01/0.56	0.11/0.31	-0.97/-1.79	-2.61/-4.01	-6.17/-7.87	-10.1/-15.1	-12.39/-11.27	-9.73/-6.68	-4.46/-2.62	-1.66/-0.85	0.78/1.83	1.79/1.3
Θ(7.5°)	1.03/1.07	0.87/0.76	0.77/0.47	-0.11/-0.72	-2.17/-4.22	-6.82/-10.88	-16.65/-10.82	-6.18/-3.87	-2.9/-2.36	-1.62/-0.89	-0.63/-0.01	-0.10/1.5	0.24/-0.31	-1.15/-2.14	-3.63/-5.06	-7.12/-9.12	-10.78/-12.27	-12.72/-12.74	-15.77/-18.03	-19.56/-12.46	-7.9/-5.43	-4.19/-3.58	-1.75/-0.3	0.24/1.18
Θ(15°)	0.45/-0.32	-1.92/-2.36	-2.26/-1.92	-1.79/-1.57	-2.48/-4.47	-7.07/-12.33	-13.17/-7.6	-4.8/-3.92	-3.6/-3.5	-3.66/-3.7	-2.54/-1.97	-1.43/-1.35	-2.21/-3.42	-5.28/-7.17	-8.33/-9.67	-11.63/-16.58	-18.79/-18.93	-18.09/-19.29	-18.09/-13.78	-8.71/-6.48	-5.5/-5.92	-5.33/-2.72	-1.85/0.04	
Θ(22.5°)	-2.44/-3.41	-3.41/-3.16	-4.15/-5.38	-7.6/-5.97	-5.41/-5.86	-9.33/-13.62	-9.4/-5.95	-5.48/-6.71	-7.08/-5.41	-4.26/-4.69	-5.74/-6.75	-7.44/-7.4	-6.84/-7.25	-8.46/-10.22	-11.62/-9.16	-6.76/-7.93	-10.55/-14.64	-18.72/-18.53	-17.47/-18.02	-18.66/-18.43	-12.64/-9.93	-8.42/-8.44	-9.18/-6.83	-4.21/-2.3
Θ(30°)	-6.18/-5.8	-6.81/-5.96	-3.24/-5.08	-13.3/-11.4	-7.36/-5.75	-8.51/-16.05	-9.52/-6.44	-8.2/-10.7	-10.22/-8.08	-5.9/-6.52	-7.8/-10.59	-13.5/-12.4	-10.5/-12.96	-15.54/-16.18	-16.28/-14.53	-12.35/-11.48	-12.01/-11.13	-1.87/-17.19	-18.03/-15.01	-14.49/-17.06	-14.5/-12.55	-13.44/-14.8	-9.4/-8.5	-9.04/-1.74
Θ(37.5°)	-14.24/-11.62	-10.84/-10.6	-9.73/-7.67	-11.01/-18.6	-12.13/-8.27	-10.16/-19.07	-11.22/-8.14	-11.33/-8.93	-5.59/-4.87	-7.82/-9.08	-14.61/-14.29	-11.49/-15.98	-17.87/-17.67	-11.15/-9.59	-12.92/-16.88	-15.91/-13.71	-12.98/-11.3	-13.82/-19.37	-17.94/-18.64	-14.05/-12	-12.41/-18.45	-17.03/-18.48	-15.7/-12.84	-11.97/-11.97
Θ(45°)	-17.76/-14.97	-18.74/-18.93	-14.1/-12.9	-15.76/-14.73	-17.98/-11.59	-17.98/-11.59	-11.61/-17.96	-12.83/-10.23	-6.25/-7.79	-15.78/-12.64	-12.71/-13.4	-13.95/-17.45	-18.02/-18.44	-17.51/-12.66	-15.97/-15.26	-17.77/-13.87	-11.93/-11.58	-13.47/-16.96	-19.19/-19.25	-15.13/-13.81	-18.73/-18.98	-18.22/-12.36	-14.77/-17.18	-14.5/-15.79
Θ(52.5°)	-18.16/-18.54	-18.13/-15.7	-18.85/-18.35	-17.8/-13.74	-18.51/-17	-16.83/-17.96	-12.15/-7.89	-16.47/-12.4	-12.99/-18.94	-16.1/-17.2	-19.07/-17.78	-17.45/-14.29	-17.15/-18.88	-18.74/-13.26	-12.4/-9.66	-18.17/-13.93	-10.75/-11.82	-13.02/-11.65	-16.18/-17.2	-18.51/-12.14	-11.41/-11.3	-16.13/-12.15	-7.99/-12.84	-18.08/-16.78
Θ(60°)	-18.95/-18.72	-17.02/-18.48	-17.88/-17.97	-15.84/-13.67	-13.59/-15.31	-11.93/-15.24	-15.59/-12.13	-18.46/-17.57	-18.67/-13.93	-12.87/-15.71	-13.91/-10.7	-9.96/-8.72	-12.37/-15.59	-14.79/-18.42	-13.46/-8.75	-18.51/-17.34	-9.88/-9.85	-9.98/-10.9	-19.24/-14.38	-18.94/-11.22	-12.58/-10.04	-10.78/-9.57	-7.89/-9.19	-16.14/-17.41
Θ(67.5°)	-11.28/-15.57	-8.64/-18.08	-19.41/-19.09	-14.12/-14.33	-11.65/-17.96	-15.96/-13.02	-18.41/-17.74	-18.16/-16.35	-19.1/-12.79	-15.11/-12.14	-7.6/-6.74	-8.99/-15.4	-12.6/-19.38	-15.51/-14.85	-13.63/-10.3	-1								



Radiated Composite Gain Data of 6G

Appendix A.2

Θ(75°)	-18.65/-7.56	-4.16/-6.15	-5.11/-1.87	-0.01/2.55	3.78/2.71	1.53/1.11	2.1/3.12	2.64/1.87	2.91/4.15	3.57/1.16	-3.12/-3.64	-0.54/-0.36	-1.18/-2.09	-4.43/-7.23	-9.69/-5.92	-5.94/-5.86	-9.46/-14.45	-18.66/-15.25	-11.74/-11.96	-13.1/-11.96	-14.32/-18.83	-14.1/-9.76	-8.31/-7.05	-16.81/-18.4
Θ(82.5°)	-15.37/-6.5	-3.22/-4.77	-4.02/-1.74	-0.11/2.28	3.73/3.07	2.1/56	2.49/3.45	3.01/2.73	3.42/3.47	2.94/6.05	-3.01/-3.25	-1.59/-2.86	-1.39/-0.99	-4.65/-14.25	-9.88/-4.71	-4.38/-4.9	-9.58/-12.42	-15.22/-18.44	-8.09/-9.52	-14.42/-11.85	-16.93/-18.44	-14.8/-11.97	-8.71/-11.56	-17.71/-11.33
Θ(90°)	-10.61/-7.59	-3.75/-5.53	-4.97/-1.87	0.42/2.41	3.67/3.39	2.56/2.35	3.03/3.95	3.72/2.45	2.59/3.24	2.88/1.29	-1.33/-5.42	-5.71/-3.91	-0.39/-1.09	-7.26/-18.48	-8.63/-4.65	-6.65/-8.63	-12.4/-13.55	-12.98/-18.48	-7.92/-10.5	-13.9/-12	-16.84/-14.84	-17.89/-10.58	-11.96/-18.63	-10.25/-3.39
Θ(97.5°)	-10.21/-5.96	-3.94/-6.45	-4.61/-2.07	-0.29/1.82	2.94/2.64	2.23/2.3	3.17/3.54	3.17/2.81	2.8/3.05	2.58/1.06	-4.07/-8.02	-6.5/-6	-1.99/-2.95	-9.66/-18.17	-11.47/-7.66	-10.29/-11.46	-12.13/-13.04	-12.33/-15.03	-12.28/-14.47	-11.61/-18.01	-17.56/-13.05	-18.67/-9.56	-17.12/-18.77	-8.3/-6.48
Θ(105°)	-10.2/-6.82	-6.01/-6.76	-4.53/-2.97	-0.9/-69	1.71/2.24	2.14/1.9	2.68/3.8	3.11/2.05	2.09/2.08	2.79/1.56	-2.51/-15.6	-8.73/-6.26	-3.49/-3.95	-11.51/-14.2	-12.85/-7.69	-8/-11.32	-14.68/-18	-14.61/-14.06	-10.35/-17.77	-14.95/-12.22	-9.14/-18.41	-15.93/-12.82	-14.88/-17.22	-7.78/-9.46
Θ(112.5°)	-12.3/-6.69	-7.86/-9.04	-6.16/-3.57	-2.03/-1.2	0.53/0.71	0.871/1.59	2.54/2.39	2.05/2.3	1.54/1.73	0.41/-0.74	-4.28/-8.72	-6.66/-13.8	-5.17/-4.86	-6.87/-13.87	-18.28/-13.86	-9.22/-8.38	-9.14/-15.32	-13.64/-14.07	-9.68/-17.49	-18.25/-11.92	-13.71/-18.87	-13.79/-15.56	-17.29/-14.22	-11.55/-11.32
Θ(120°)	-14.62/-9.2	-9.12/-8.94	-5.04/-3.83	-2.91/-1.39	-0.66/0.76	1.590/9.1	0.4/1	1.11/0.65	0.42/0.19	-0.35/-1.58	-4.81/-12.86	-6.41/-11.72	-10.04/-7.26	-10.67/-18.69	-18.77/-12.93	-10.05/-11.56	-15.02/-11.6	-8/-8.39	-10.43/-15.35	-18.64/-13.48	-11.47/-9.4	-17.22/-19.01	-17.27/-17.03	-11/-16.46
Θ(127.5°)	-17.62/-11.1	-10.67/-10.42	-7.27/-6.01	-5.26/-2.53	-0.95/-1.03	-1.19/-0.84	-0.33/-0.76	-1.29/-0.64	-1.59/-1.22	-3.28/-2.44	-4.41/-15.74	-10.02/-12.02	-18.17/-9.94	-11.06/-12.17	-19.19/-12.5	-10.05/-4.71	-10.07/-8.64	-8.83/-7.85	-17.26/-8.6	-17.46/-13.66	-9.56/-19.05	-19.75/-17.68	-16.22/-18.26	-12.87/-16.69
Θ(135°)	-18.18/-13.33	-10.99/-8.24	-5.82/-5.54	-5.7/-4.44	-3.4/-2.8	-2.04/-1.94	-2.19/-1.65	-0.97/-2.49	-4.64/-2.55	-3.53/-2.21	-2.21/-10.05	-15.9/-10.07	-18.32/-18.1	-15.42/-18.39	-17.53/-12.81	-9.17/-10.78	-10.18/-13.77	-15.44/-10.75	-14/-18.64	-12.63/-13.66	-18.49/-10.92	-9.55/-19.26	-18.41/-17.49	-18.35/-18.97
Θ(142.5°)	-15.51/-16.88	-16.2/-12.47	-8.81/-7.83	-6.69/-4.69	-2.78/-2.71	-3.03/-3.08	-2.11/-1.01	-2.85/-6.99	-4.2/-3.71	-8.07/-5.99	-3.43/-6.43	-16.85/-18.85	-17.11/-18.13	-17.95/-19.03	-19.14/-19.14	-18.12/-11.63	-14.98/-18.14	-15.01/-17.8	-15.56/-17.12	-16.75/-13.02	-12.8/-18.19	-16.15/-17.99	-15.83/-17.6	-18.7/-16.95
Θ(150°)	-12.78/-13.48	-14.77/-15.82	-13.84/-11.56	-9.59/-7.58	-6.6/-6.23	-5.68/-4.62	-3.33/-3.73	-4.73/-3.01	-2.17/-4.49	-9.59/-5.87	-2.99/-4.32	-9.44/-18.94	-17.71/-14.32	-15.86/-15.62	-13.19/-12.68	-12.16/-10.68	-10.22/-14.07	-17.15/-17.8	-18.61/-15.77	-10.68/-9.43	-12.96/-18.76	-18.99/-18.73	-18.05/-18.04	-17.29/-14.69
Θ(157.5°)	-19.37/-18.28	-16.53/-13.11	-11.08/-8.79	-6.56/-4.66	-3.49/-3.58	-4.58/-6.57	-8.93/-0.93	-6.41/-4.74	-5.99/-11.1	-1.58/-7.35	-5.02/-5.66	-9.01/-17.04	-17.88/-15.15	-14.3/-15.51	-17/-16.57	-16.92/-17.95	-18.16/-15.6	-16.11/-13.73	-12.13/-12.4	-12.41/-11.86	-18.18/-18.52	-18.59/-18.95	-18.35/-18.1	
Θ(165°)	-19.17/-17.95	-18.08/-15.88	-14.95/-14.65	-14.56/-14.41	-14.37/-14.78	-14.17/-12.77	-11.41/-10.14	-9.37/-9.01	-10.46/-14.46	-16.42/-12.8	-10.53/-9.75	-10.29/-12.85	-16.46/-17.17	-19.14/-18.24	-17.91/-18.18	-17.97/-19.32	-18.54/-18	-13.83/-9.81	-7.8/-7.48	-9.16/-12.74	-17.8/-18.04	-18.85/-17.86	-18.58/-17.98	-17.69/-19.19
Θ(172.5°)	-17.14/-18.74	-18.99/-17.59	-18.03/-17.98	-16.93/-14.59	-13.39/-12.03	-10.35/-9.17	-9.09/-9.74	-11.22/-12.98	-15.24/-19.13	-19.48/-18.14	-18.76/-18.45	-17.99/-19.12	-18.72/-19.02	-18.26/-18.48	-18.02/-18.83	-18.56/-14.99	-12.59/-11.48	-11.11/-10.95	-11.35/-13.64	-16.69/-18.98	-18.36/-16.16	-18.53/-18.28	-17.54/-15.4	-14.84/-16.47
Θ(180°)	-18.99/-18.69	-18.59/-19.09	-18.95/-19.02	-18.01/-18.4	-17.6/-18.07	-18.39/-18.22	-19.08/-19.04	-18.61/-17.62	-19.01/-18.3	-18.78/-18.38	-17.63/-16.29	-15.96/-16.15	-16.07/-16.66	-17.54/-17.65	-17.3/-18.36	-18.55/-17.51	-18.25/-18.48	-17.8/-18.02	-15.6/-13.49	-12.41/-13.12	-14.7/-16.19	-18.09/-18.92	-18.81/-17.49	-18.03/-18.08
Freq(Hz)	6.175GPol.	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°)	-0.38/-0.18	0.040/-0.17	0.17/-0.15	-0.68/-1.29	-2.05/-3.19	-4.38/-5.59	-7.46/-9.9	-12.51/-13.2	-11.6/-9.36	-7.21/-5.37	-3.84/-2.8	-1.96/-1.2	-0.99/-0.76	-0.64/-0.68	-0.56/-0.7	-1.04/-1.66	-2.18/-3.07	-4.35/-6.03	-8.63/-11.3	-12.77/-11.94	-9.91/-8.04	-6.26/-4.71	-3.32/-2.16	-1.39/-0.73
Θ(7.5°)	-0.78/-0.63	-0.79/-0.8	-0.78/-1.14	-1.79/-2.4	-3.02/-3.73	-4.47/-5.5	-6.71/-9.21	-10.31/-12.93	-13.79/-11.33	-8.53/-6.3	-5.14/-13	-3.42/-3.33	-3.18/-2.63	-2.2/-1.9	-1.91/-2.05	-2.17/-2.39	-2.78/-3.57	-4.86/-6.61	-8.7/-12.05	-15.9/-18.62	-16.28/-12.44	-8.81/-6.09	-4.25/-3.04	-2/-1.23
Θ(15°)	-0.42/-0.66	-1.04/-1.57	-1.99/-2.48	-3.63/-3.08	-3.57/-4.11	-4.62/-4.98	-5.62/-6.76	-8.12/-9.84	-10.61/-10.29	-10.43/-9.29	-7.71/-6.21	-5.28/-5.15	-5.37/-6.12	-6.86/-6.42	-5.38/-4.29	-3.63/-3.44	-3.92/-4.43	-5.14/-6.52	-9.07/-12.62	-19.16/-18.95	-14.27/-8.67	-6.48/-4.2	-2.86/-1.98	-1.32/-0.75
Θ(22.5°)	-1.55/-2	-2.43/-2.56	-2.46/-2.5	-2.65/-2.8	-2.83/-2.84	-3.1/-3.67	-4.9/-6.61	-7.8/-8.32	-5.88/-9.3	-10.96/-11.81	-10.28/-8.76	-7.28/-7.62	-9.27/-13.47	-14.79/-10.44	-7.09/-5.94	-5.04/-5.48	-5.93/-6.79	-8.42/-10.96	-13.84/-19.07	-18.58/-14.44	-14.54/-9.99	-5.92/-3.19	-1.8/-1.48	-1.28/-1.25
Θ(30°)	-4.21/-4.69	-5.41/-5.38	-5.21/-5.4	-4.87/-4.15	-3.51/-3.24	-3.04/-3.36	-4.43/-5.72	-6.51/-7.98	-10.16/-10.14	-8.45/-8.82	-10.41/-12.27	-12.17/-13.27	-13.59/-12.27	-13.34/-18.26	-17.59/-13.42	-9.89/-8.12	-6.81/-6.53	-7.58/-9.88	-14.12/-19.27	-18.7/-18.26	-18.62/-18.76	-11.09/-5.58	-3.21/-2.53	-2.79/-3.66
Θ(37.5°)	-2.81/-2.45	-2.48/-2.81	-3.26/-6.32	-7.19/-6.69	-5.02/-4.21	-3.48/-3.49	-4.26/-4.69	-5.28/-6.45	-9.12/-14.08	-17.24/-12.54	-9.6/-10.07	-11.57/-17.99	-19.11/-16.71	-13.82/-12.35	-9.84/-9.15	-6.52/-9.46	-16.06/-18.52	-16.09/-13.9	-14/-12.81	-8.46/-6.52	-4.7/-3.45	-2.92/-2.52		
Θ(45°)	-2.23/-1.43	-0.84/-0.72	-0.81/-3.17	-6.95/-9.19	-8.92/-8.58	-6.35/-4.83	-4.16/-3.5	-4.2/-6.72	-11.59/-17.33	-14.6/-10.33	-14.45/-13.8	-11.18/-9.32	-9.87/-12.85	-18.3/-15.85	-13.38/-15.21	-15.58/-13.72	-10.86/-9.3	-9.77/-14.22	-18.15/-18.36	-13.53/-8.7	-7.69/-10.98	-13.43/-8.13	-5.77/-4.48	-3.57/-2.77
Θ(52.5°)	-3.74/-2.98	-3.38/-3.48	-2.94/-0.2	-7.73/-10.6	-13.34/-17.91	-12.27/-7.48	-5.09/-4	-4.97/-7.46	-11.65/-18.6	-18.09/-14.66	-9.68/-7.01	-6.94/-6.9	-7.28/-9.02	-11.71/-12.88	-13.81/-17.69	-18.11/-16.06	-14.57/-12.23	-12.95/-18.16	-18.91/-18.38	-12.36/-10.06	-10.2/-13.47	-19.39/-14.83	-9.3/-7.2	-5.49/-4.57
Θ(60°)	-4.8/-5.12	-7.39/-9.25	-6.77/-6.58	-10.44/-11.77	-18.36/-18.64	-17.15/-11.42	-8.12/-6.79	-6.91/-7.99	-10.19/-15.63	-19.27/-14.81	-9.5/-6.79	-5.38/-6.34	-16.54/-14.09	-16.13/-16.92	-18.61/-18.78	-15.45/-18.29	-16.59/-16.85	-15.61/-14.55	-15.4/-13.15	-19.39/-12.29	-19.11/-17.56	-14.83/-7.7	-4.71/-4.61	
Θ(67.5°)	-4.79/-6.81	-10.75/-15	-8.82/-6.95	-8.92/-11.21	-18.65/-16.76	-16.51/-17.03	-12.29/-9.4	-9.22/-9.13	-9/-11.06	-15.98/-18.46	-9.47/-6.26	-6.48/-6.55	-7.8/-11.53	-13.42/-9.78	-10.94/-12.76	-15.44/-11.42	-16.64/-18.04	-14.24/-11.92	-11.74/-13.13	-18.9/-14.04	-8.88/-11	-18.95/-18.79	-12.54/-5.5	-2.63/-4.02
Θ(75°)	-7.55/-11.34	-16.4/-14.64	-8.58/-6.41	-7.15/-8.74	-17.15/-15.81	-13.68/-13.92	-10.04/-9.93	-12.98/-9.13	-7.53/-8.57	-12.41/-15.27	-12.65/-9.61	-6.35/-7.4	-12.16/-13.94	-11.75/-12.05	-14.08/-12.26	-15.3/-8.62	-13.19/-18.07	-18.05/-10.3	-10.5/-14.98	-18.11/-12.78	-9.65/-11.73	-17.39/-18.75	-11.03/-4.54	-2.97/-5.05
Θ(82.5°)	-13.94/-19.34	-18.36/-12.08	-8.91/-8.24	-10.15/-12.81	-17.15/-12.85	-10.64/-12	-8.12/-8.64	-7.86/-7.69	-10.4/-15.17	-12.17/-8.82	-10.73/-11.17	-13.5/-19.04	-12.95/-14.03	-12.92/-12.96	-16.96/-10.93	-13.5/-18.19	-19.06/-14.38	-9.74/-13.12	-19.13/-10.81	-10.67/-17.4	-18.35/-18.25	-10.27/-5.34	-4.99/-6.48	
Θ(90°)	-17.82/-17.61	-18.11/-12.44	-11.86/-11.63	-12.72/-12.66	-15.81/-15.41	-12.13/-12.15	-7.57/-8.35	-17.79/-10.41	-8.39/-6.24	-8.4/-11.26	-12.89/-7.97	-8.62/-11.36	-14.09/-17.64	-15.19/-12.35	-14.14/-14.15	-18.79/-13.84	-14.79/-12.95	-14.46/-18.28	-10.29/-11.59	-17.81/-9.5	-16.33/-18.87	-17.61/-18.79	-11.15/-7.74	-7.39/-12.21
Θ(97.5°)	-18.99/-16.95	-16.88/-16.03	-17.62/-18.97	-18.66/-19.18	-18.71/-17.88	-14.53/-12.07	-6.85/-7.55	-17.78/-11.33	-7.04/-6.5	-6.77/-8.66	-13.1/-8.27	-10.38/-11.61	-10.49/-10.53	-10.69/-10.98	-18.55/-13.33	-8.82/-6.79	-8.67/-11.84	-18.61/-13.85	-14.68/-13.97	-15.9/-17.38	-17.73/-13.75	-18.11/-12.97	-9.48/-6.32	-15.87/-11.45
Θ(105°)	-13.97/-17.69	-18.76/-18.63	-17.9/-18.91	-17.43/-18.73	-18.1/-18.9	-17.1/-15.09	-7.91/-7.16	-18.29/-11.82	-8.25/-9.59	-5.07/-5.86	-10.19/-9.07	-10.68/-10.63	-7.64/-10.98	-18.55/-13.33	-8.82/-6.79	-8.67/-11.84	-18.61/-13.85	-14.68/-13.97	-15.9/-17.38	-17.73/-13.75	-18.11/-12.97	-9.48/-6.32	-15.87/-11.45	-7.39/-12.93
Θ(112.5°)	-13.69/-18.59	-17.35/-18.84	-18.66/-19.37	-18.12/-18.11	-18.54/-17.54	-17.6/-14.16	-9.11/-9.83	-19.12/-14.54	-9.84/-6.74	-5.62/-5.87	-9.79/-6.22	-7.25/-11.73	-7.47/-5.68	-17.22/-19.3	-12.71/-10.04	-7.55/-9.35	-15.96/-12.95	-15.62/-17.11	-18.39/-16.36	-18.65/-16.85	-19.1/-14.3	-11.22/-18.57	-19.41/-9.87	-7.8/-11.93
Θ(120°)	-14.93/-16.93	-16.84/-15.13	-13.08/-12.31	-13.39/-12.27	-17.22/-17.82	-17.67/-18.12	-11.16/-9.27	-16.6/-18.44	-11.72/-8.74	-7.9/-5.94	-12.42/-14.76	-5.06/-11.09												



Radiated Composite Gain Data of 6G

Appendix A.2

Θ(120°)	-13.2/-17.64	-11.83/-10.15	-8.39/-5.14	-4.22/-4.32	-3.88/-3.47	-1.58/-1.38	-2.73/-0.57	2.27/2.36	0.86/-1.47	-3.42/-3.91	-1.38/-2.46	-11.29/-13.11	-17.59/-7.57	-5.02/-9.55	-13.64/-11.32	-5.6/-8.05	-7.46/-7.67	-5.11/-8.38	-11.38/-12.05	-18.46/-6.62	-18.7/-12.36	-9.95/-18.22	-17.14/-10.54	-16.36/-14.7
Θ(127.5°)	-16.39/-17.9	-12.77/-11	-13.58/-8.44	-6.84/-6.14	-4.26/-6.29	-6.3/-3.24	-2.33/-1.73	0.59/1.15	0.25/-1.45	-4.59/-6.6	-3.21/-2.67	-7.42/-12.82	-19.22/-11.06	-9.13/-11.32	-18.14/-9.92	-5.58/-4.81	-12.21/-7.26	-7.76/-9	-13.55/-11.3	-19.18/-18.79	-19.32/-10.14	-13.64/-17.56	-18.14/-16.4	-18.24/-18.59
Θ(135°)	-18.62/-16.6	-12.08/-12.92	-10.39/-7.42	-8.33/-10.62	-10.4/-6.6	-6.29/-6.35	-3.69/-0.95	-0.92/-0.25	0.29/-2.4	-3.85/-7.15	-5.18/-1.66	-5.72/-16	-12.11/-12.87	-14.89/-12.83	-17.75/-18.48	-12.94/-15.08	-14.3/-9.55	-9.79/-10.28	-16.67/-17.38	-12.22/-18.78	-17.82/-10.16	-17.94/-16.74	-11.38/-17.27	-12.64/-19.07
Θ(142.5°)	-12.49/-14.03	-16.2/-16.86	-18.75/-13.14	-8.06/-7.29	-7.67/-9.5	-8.96/-6.73	-5.72/-5.63	-3.97/-1.15	-1.98/-5.17	-4.98/-9.01	-8.03/-4.08	-4.39/-9.39	-10.79/-15.88	-19.12/-17.12	-15.68/-16.88	-17.29/-18.18	-18.54/-18.24	-18.92/-14.22	-7.67/-12.47	-14.53/-17.6	-13.81/-15.51	-11.17/-10.44	-8.74/-9.24	-14.52/-18.88
Θ(150°)	-17.15/-19.11	-17.79/-19.26	-17.87/-18.25	-17.73/-18.09	-13.57/-7.6	-5.23/-5.86	-7.26/-5.93	-3.54/-2.73	-4.99/-4.44	-2.66/-5.52	-17.86/-8.81	-4.95/-5.97	-9.99/-19.02	-19.29/-18.84	-17.63/-14.54	-12.66/-12.02	-14.55/-18.2	-17.7/-15.59	-13.38/-15.22	-8.95/-12.41	-18.44/-17.53	-15.73/-13.84	-13.09/-13.05	-19.03/-19.14
Θ(157.5°)	-18.4/-19	-17.88/-18.36	-17.65/-16.36	-13.72/-14.34	-15.99/-16	-11.68/-7.99	-6.15/-6.46	-8.11/-9.46	-6.89/-4	-3.97/-7.84	-17.65/-10.49	-7.26/-8.15	-11.96/-18.3	-18.47/-15.84	-18.84/-16.17	-14.48/-16.56	-18.39/-19.14	-15.92/-8.87	-8.21/-11.44	-10.16/-10.42	-14.11/-18.75	-19.21/-14.14	-11.73/-12.08	-18.98/-19
Θ(165°)	-15.63/-17.36	-17.87/-19.02	-17.62/-19.31	-14.12/-11.65	-10.14/-9.12	-7.55/-6.37	-5.82/-6.2	-6.58/-6.04	-5.08/-4.44	-4.47/-5.5	-7.69/-11.39	-16.5/-18.87	-18.67/-19.26	-18.09/-17.9	-17.89/-18.63	-16.48/-11.62	-9.48/-8.74	-8.93/-10.62	-12.93/-15.48	-17.95/-17.76	-17.62/-16.86	-15.18/-15.07	-16.16/-18.03	-17.76/-14.93
Θ(172.5°)	-18.65/-17.23	-17.12/-19.31	-18.5/-18.63	-19.2/-18.42	-19/-17.86	-19.23/-17.14	-13.8/-11.84	-10.87/-10.51	-10.46/-10.13	-10.57/-10.97	-11.56/-12.31	-14.19/-16.96	-18.18/-18.71	-18.64/-17.3	-18.41/-16.23	-14.92/-17.95	-18.13/-18.86	-19.21/-15.35	-12.4/-11.45	-11.99/-12.58	-13.48/-13.26	-13.11/-13.32	-14.57/-15.66	-18.65/-18.23
Θ(180°)	-14.16/-16.42	-17.97/-18.61	-18.47/-18.02	-18.32/-17.33	-14.79/-13.33	-12.75/-12.43	-11.54/-11.03	-8.82/-8.58	-9.12/-10.18	-10.33/-9.87	-10.13/-11.05	-11.93/-13.51	-15.13/-15.19	-17.08/-18.52	-17.04/-15.58	-13.72/-11.01	-9.65/-9.38	-8.88/-8.6	-8.32/-8.55	-10.34/-11.63	-9.71/-8.07	-8/-8.9	-9.32/-10.23	-12.04/-12.74
Freq(Hz)	6.995GPol.	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°)	1.09/1.2	1.6/1.82	1.92/1.95	1.98/1.67	1.38/0.79	0.01/-0.92	-1.99/-3.29	-4.98/-6.99	-8.97/-10.4	-9.38/-7.45	-4.98/-3.04	-1.31/-0.37	0.1/0.65	1.04/1.47	1.73/1.9	1.76/1.5	1.06/0.29	-0.67/-2.08	-3.93/-6.68	-10/-15.88	-18.72/-12.46	-8.44/-6.26	-4.18/-2.18	-0.83/0.33
Θ(7.5°)	1.23/1.41	1.25/1.45	1.17/1	0.61/0.03	-1.1/-2.19	-3.24/-4.07	-5.02/-5.34	-4.96/-4.47	-3.64/-2.94	-2.51/-2.36	-1.62/-0.99	-0.04/0.4	0.80/0.91	0.98/0.69	0.48/-0.02	-0.63/-1.7	-2.73/-3.86	-5.88/-8.78	-12.88/-16.44	-14.92/-11.21	-7.41/-5.09	-3.58/-2.12	-0.92/-0.16	0.09/0.76
Θ(15°)	-1.11/-0.42	0.21/0.63	0.74/0.75	0.44/-0.1	-1.18/-2.67	-4.59/-6.72	-8.19/-13.13	-13.39/-8.63	-4.99/-2.98	-2.28/-1.82	-1.34/-0.89	-0.23/0.04	0.46/0.62	0.13/-1.03	-3.33/-5.91	-8.1/-7.62	-5.94/-4.77	-3.76/-3.24	-2.87/-3.63	-5/-6.62	-7.73/-7.81	-6.63/-5.18	-3.94/-2.52	-2.24/-1.89
Θ(22.5°)	-3.02/-3.86	-3.9/-2.77	-2.26/-2.03	-1.83/-1.81	-2.5/-3.65	-4.87/-4.86	-4.43/-5.44	-8.81/-12.46	-9.25/-6	-3.64/-1.85	-1.11/-0.59	-0.32/-0.58	-0.62/-1.53	-3.29/-7.15	-10.18/-7.68	-3.74/-2.26	-1.51/-1.09	-0.58/-0.09	-0.41/-1.84	-4.28/-8.14	-13.65/-11.82	-6.81/-4.24	-3.46/-2.3	-2.19/-2.39
Θ(30°)	-2.86/-4.41	-8.33/-13.65	-12.83/-11.26	-9.59/-8.04	-7.83/-9.36	-11.2/-7.43	-4.11/-2.89	-3.85/-7.11	-14.28/-17.51	-9.71/-4.68	-2.14/-1.04	-1.5/-2.43	-2.91/-3.42	-4.7/-8.98	-18.72/-5.72	-2.01/-1.89	-3.82/-4.5	-3.56/-3.21	-3.4/-4.26	-6/-9.05	-11.3/-8.21	-5.28/-2.64	-1.97/-2.3	-2.27/-2.5
Θ(37.5°)	-7.45/-6.19	-6.4/-10.28	-15.03/-14.68	-14.86/-11.47	-12.78/-14.35	-13.1/-11.45	-17.14/-15.17	-3.97/-5.32	-8.22/-11.23	-17.35/-10.31	-4.42/-2.12	-2.7/-0.45	-5.49/-8.78	-13.84/-18.75	-8.02/-3.88	-2.76/-4.29	-7.74/-6.89	-7.79/-8.73	-10.13/-8.49	-6.12/-6.02	-8.62/-8.37	-4.27/-2.48	-2.4/-8.6	-8.77/-6.93
Θ(45°)	-6.64/-8.3	-9.31/-18.35	-12.25/-8.15	-11.09/-7.67	-4.65/-4.27	-3.52/-6	-13.23/-14.85	-7.88/-6.64	-16.53/-12.54	-4.88/-3.29	-3.99/-6.16	-8.59/-11.35	-10.38/-10.86	-7.37/-5.88	-5.12/-7.57	-11.42/-7.27	-6.57/-8.65	-12.45/-11.37	-6.09/-4.35	-6.38/-14.33	-7.74/-4.48	-5.35/-5.36	-4.97/-5.65	
Θ(52.5°)	-11.24/-13.41	-7.73/-6.73	-4.88/-2.5	-5.44/-5.02	-3.17/-2.14	0.03/-1.47	-5.23/-13.07	-17.69/-11.35	-10.07/-10.16	-13.2/-18.9	-5.92/-4.22	-4.66/-4.78	-4.87/-4.5	-5.12/-8.04	-9.78/-8.4	-7.66/-9.83	-8.99/-9.02	-9.33/-9.79	-11.21/-12.31	-8.63/-5.59	-7.14/-18.47	-15.31/-11.28	-8.74/-6.33	-5.93/-6.67
Θ(60°)	-18.97/-10.78	-4.52/-2.41	-1.85/-0.28	-1.76/-2.94	-1.53/-1.5	0.36/0.08	-2.92/-5.85	-12.32/-18.4	-18.36/-13.88	-10.91/-18.24	-8.98/-5.55	-3.81/-4.39	-2.93/-3.03	-4.44/-8.18	-13.22/-15.75	-16.65/-12.27	-10.19/-19.7	-13.18/-10.77	-10.98/-18.39	-9.47/-6.47	-8.73/-18.08	-18.56/-9.41	-5.67/-5.99	-10.56/-14.04
Θ(67.5°)	-14.29/-8.23	-3.48/-2.4	-2.82/-1.4	-1.09/-1.82	-0.73/-2.76	-1.03/0.72	-1.74/-3.85	-7.89/-15.19	-19.31/-9.99	-6.22/-13.13	-12.38/-5.78	-4.6/-4.47	-2.94/-0.05	-6.39/-9.41	-16.31/-16.15	-10.63/-10.19	-12.74/-18.81	-7.74/-11.68	-10.24/-17.85	-13.54/-6.01	-3.98/-6.5	-10.2/-14.3		
Θ(75°)	-12.26/-7.84	-3.16/-3.98	-5.31/-3.51	-1.9/-1.95	-0.74/-3.87	-4.2/-1.54	-2.35/-2.59	-4.88/-8.85	-18.82/-10.23	-5.32/-7.86	-18.98/-8.62	-4.74/-5.6	-6.31/-6.01	-9.87/-9.08	-12.71/-14.87	-8.01/-17.24	-15.54/-18.74	-8.09/-7.56	-19.27/-17.42	-7.09/-13.66	-14.39/-17.67	-8.85/-3.12	-4.01/-5.98	-8.66/-10.86
Θ(82.5°)	-15.21/-8.2	-3.5/-6.15	-8.02/-9	-3.37/-3.72	-2.34/-6.9	-8.81/-4	-2.89/-4.22	-4.42/-9.85	-18.98/-8.06	-5.25/-8.2	-18.17/-9.96	-5.31/-7.47	-10.17/-13.15	-11.5/-8.37	-17.8/-13.74	-7.04/-14.24	-18.02/-17.58	-8.42/-7.97	-18.95/-18.81	-6.58/-9.9	-14.88/-13.99	-7.87/-3.27	-5.05/-4.55	-4.84/-12.12
Θ(90°)	-18.37/-9.06	-4.56/-7.54	-15.34/-17.29	-9.71/-8.57	-3.53/-6.72	-9.81/-7.42	-4.14/-4.51	-4.98/-10.76	-18.97/-16.83	-4.78/-6.99	-12.18/-16.55	-17.19/-7.76	-8.53/-10.91	-19.45/-10.96	-17.04/-17.45	-9.28/-10.41	-19.24/-16.46	-17.89/-10.93	-13.74/-18.96	-8.14/-7.44	-13.13/-9.96	-7.26/-7.5	-8.34/-4.99	-6.54/-18.17
Θ(97.5°)	-18.08/-11.84	-4.48/-6.13	-17.45/-17.93	-19.07/-10.56	-7.4/-7.64	-9.33/-12.57	-6.26/-4.15	-5.48/-9.49	-18.64/-8.06	-6.77/-4.71	-7.03/-18.09	-8.4/-6.57	-5.08/-7.82	-13.65/-12.59	-17.73/-12	-10.38/-9.45	-17.25/-14.06	-18.4/-16.8	-8.67/-17.56	-10.37/-9.62	-8.34/-6.94	-7.83/-10.41	-9.82/-4.2	-6.33/-18.84
Θ(105°)	-12.6/-15.35	-5.91/-6.18	-9.82/-11.48	-17.31/-7.43	-7.29/-7.2	-8.6/-12.3	-8.59/-7.22	-9.06/-11.39	-19.7/-17.17	-7.53/-5.88	-6.38/-13.6	-12.57/-7.28	-8.84/-6.63	-7.83/-15.1	-16.95/-10.08	-6.82/-7.63	-10.54/-10.57	-18.99/-18.7	-11.22/-19	-13.51/-15.4	-8.83/-7.36	-9.04/-10.83	-5.96/-1.54	-9.54/-16.87
Θ(112.5°)	-9.77/-10.09	-7.04/-7.08	-12.05/-11.1	-9.28/-6.51	-4.94/-8.06	-8.78/-13.4	-13.01/-9.48	-11.8/-16.83	-18.73/-11.24	-8.83/-8.1	-6/-11.41	-12.27/-7.05	-8.33/-4.51	-4.92/-12.58	-12.91/-11.26	-12.31/-9.55	-10.59/-12.68	-18.48/-11.47	-17.16/-18.86	-14.95/-17.44	-12.03/-9.49	-13.71/-9.96	-4.83/-2.93	-9.5/-16.79
Θ(120°)	-7.8/-10.36	-9.54/-9.48	-11.73/-9.18	-7.65/-4.2	-3.67/-7.64	-7.82/-10.18	-16.48/-12.96	-14.52/-17.96	-18.65/-12.27	-10.83/-9.12	-5.5/-10.06	-12.69/-9.78	-11.82/-5.7	-2.35/-5.59	-9.33/-12.05	-12.82/-13.32	-11.72/-18.37	-14.74/-12.59	-13.78/-12.86	-15.06/-13.21	-17.87/-19.3	-18.04/-10.16	-7.57/-5.63	-18.96/-6.42
Θ(127.5°)	-11.15/-10.07	-6.79/-9.4	-17.14/-12.76	-10.34/-6.43	-5.15/-7.5	-8.28/-13.49	-17.82/-14.31	-15.58/-18.75	-16.33/-11.74	-9.27/-7.4	-4.75/-7.46	-18.25/-10.26	-10.34/-9.73	-5.89/-5.29	-3.64/-5.47	-8.02/-6.1	-12.05/-13.26	-11.97/-10.21	-12.18/-10.55	-10.43/-8.41	-11.26/-19.07	-17.08/-13.21	-15.61/-18.29	-9.64/-9.96
Θ(135°)	-8.95/-14.24	-17.01/-15.6	-9.61/-5.9	-5.13/-5.39	-6.81/-11.84	-14.92/-16.35	-18.31/-17.23	-18.28/-17.45	-13.71/-14.47	-11.01/-10.28	-5.71/-4.93	-14.77/-14.28	-8.15/-11.73	-18.3/-10.11	-5.33/-6.44	-7.65/-9.94	-14.16/-17.71	-14.26/-13.91	-17.91/-19.28	-10.53/-11.31	-8.2/-13.34	-17.88/-13.05	-19.06/-16.59	-9.26/-7.49
Θ(142.5°)	-15.85/-13.58	-10.62/-11.12	-6.55/-3.77	-3.85/-5.25	-5.28/-6.5	-9.32/-13.91	-14.79/-17.67	-18.06/-12.36	-17.35/-18.46	-11.27/-12.24	-6.44/-6.4	-7.02/-14.79	-12.71/-11.61	-10.42/-15.37	-18.86/-13.28	-9.72/-8.58	-19.1/-17.98	-15.1/-15.31	-18.09/-13.67	-14.07/-16.81	-12.65/-18.06	-14.55/-18.67	-17.85/-15.82	-14.97/-17.97
Θ(150°)	-17.73/-14.1	-13.56/-9.85	-7.45/-6.63	-8.13/-11.7	-12.1/-11.78	-13.46/-19.69	-19.11/-18.74	-19.05/-18.92	-18.3/-11.03	-9.33/-11.48	-9.4/-6.16	-6/-10.28	-17.15/-17.47	-6.72/-4.18	-3.07/-3.79	-5.78/-6.44	-8.27/-10.27	-18.4/-18.64	-17.28/-14.71	-14.54/-18.06	-15.1/-19.04	-15.55/-11.27	-14.48/-17.7	-17.63/-17.73
Θ(157.5°)	-17.24/-17.37	-11.97/-8.65	-6.73/-6.8	-8.16/-9.78	-9.97/-10.9	-12.97/-17.65	-18.11/-18.36	-18.89/-19.01	-18.39/-17.4	-15.79/-18.75	-18.82/-8.61	-5.23/-4.43	-5.01/-6.41	-9.6/-13.45	-15.08/-18.81	-18.07/-16.94	-10.54/-10.31	-14.4/-18.85	-18.11/-17.74	-18.72/-18.56	-18.26/-18.39	-18.09/-18.28	-12.53/-11.32	-13.06/-14.44
Θ(165°)	-17.29/-15.28	-13.34/-13.68	-14.08/-13.08	-12.69/-12.47	-13.36/-14.34	-14.13/-15.88	-19.25/-17.22	-18.1/-17.82	-18.85/-16.33	-15.55/-17.61	-18.11/-18.32	-16.67/-13.82	-10.81/-17.39	-6.02/-7.59	-9.68/-10.41									



Antenna Pattern of 2G5G

Appendix B.1

Total Gain Data

Freq(Hz)	2.45G/Pol.	TotalAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)	
Θ(0°)	-3.06/-2.76	-2.21/-1.56	-0.84/-0.13	0.49/0.96	1.26/1.54	1.81/1.99	2.09/2.03	1.88/1.69	1.43/1.01	0.52/-0.02	-0.52/-0.99	-1.42/-1.78	-2.09/-2.17	-1.45/-1.05	-0.56/-0.01	0.59/1.15	1.63/2.01	2.53/2.42	2.15/1.77	1.36/0.88	0.22/-0.55	-1.29/-1.96	-2.56/-3.01		
Θ(7.5°)	-3.64/-3.31	-2.74/-2.10	-1.43/-0.81	-0.31/0.02	0.24/0.53	0.82/1.00	1.07/0.96	0.79/0.64	0.47/0.21	-0.13/-0.52	-0.90/-1.24	-1.54/-1.74	-1.78/-1.64	-1.37/-0.94	-0.40/0.22	0.87/1.44	1.93/2.33	2.63/2.79	2.78/2.68	2.42/2.11	1.71/1.14	0.35/-0.56	-1.50/-2.35	-3.10/-3.60	
Θ(15°)	-4.06/-3.91	-3.37/-2.81	-2.25/-1.77	-1.45/-1.28	-1.19/-1.03	-0.83/-0.75	-0.77/-0.86	-0.97/-0.96	-0.92/-0.88	-0.93/-1.12	-1.39/-1.63	-1.83/-1.96	-2.00/-1.93	-1.69/-1.28	-0.73/-0.02	0.70/1.34	1.94/2.43	2.79/2.95	2.95/2.90	2.71/2.44	2.01/1.33	0.41/-0.61	-1.66/-2.60	-3.45/-4.02	
Θ(22.5°)	-4.40/-4.33	-4.14/-3.63	-3.07/-2.64	-2.48/-2.57	-2.83/-3.02	-3.15/-3.31	-3.35/-3.22	-2.93/-2.59	-2.26/-1.98	-1.78/-1.75	-1.91/-2.17	-2.36/-2.49	-2.52/-2.42	-2.14/-1.72	-1.13/-0.36	0.50/1.29	2.04/2.65	3.08/3.32	3.43/3.41	3.22/2.86	2.26/1.39	0.34/-0.75	-1.83/-2.79	-3.62/-4.14	
Θ(30°)	-4.72/-4.87	-5.00/-4.52	-3.84/-3.33	-3.26/-3.63	-4.40/-5.28	-5.91/-6.47	-6.42/-5.90	-4.86/-3.92	-3.18/-2.75	-2.41/-2.24	-2.28/-2.56	-2.91/-3.17	-3.27/-3.19	-2.88/-2.42	-1.79/-0.89	0.17/1.25	2.27/3.05	3.67/4.06	4.28/4.29	4.00/3.45	2.66/1.65	0.53/-0.56	-1.66/-2.65	-3.53/-4.19	
Θ(37.5°)	-5.54/-5.86	-6.02/-5.64	-4.94/-4.43	-4.47/-5.18	-6.42/-7.81	-9.33/-10.19	-9.80/-8.18	-6.51/-5.20	-3.86/-3.06	-2.66/-2.39	-2.35/-2.65	-3.22/-3.80	-4.04/-3.87	-3.54/-2.95	-2.18/-1.12	0.21/1.57	2.85/3.84	4.53/4.98	5.13/4.94	4.37/3.59	2.64/1.65	0.65/-0.35	-1.47/-2.63	-3.83/-4.79	
Θ(45°)	-7.39/-7.80	-7.78/-7.60	-7.30/-7.02	-7.26/-8.31	-9.75/-11.63	-13.44/-14.82	-13.41/-10.92	-8.67/-7.12	-5.87/-4.80	-3.89/-3.24	-2.89/-2.98	-3.54/-4.37	-5.01/-4.98	-4.56/-3.71	-2.69/-1.44	0.08/1.66	3.17/4.32	5.50/5.07	4.27/3.34	2.54/1.63	0.75/-0.35	-1.79/-3.45	-5.25/-6.62		
Θ(52.5°)	-7.97/-8.73	-9.61/-9.71	-10.29/-10.58	-10.99/-11.78	-12.26/-13.17	-12.80/-11.57	-10.62/-9.92	-9.00/-8.30	-7.89/-7.47	-6.80/-5.94	-5.10/-4.71	-5.01/-5.74	-6.43/-6.56	-5.78/-4.42	-2.89/-1.23	0.57/2.23	3.67/4.69	5.34/5.61	5.48/5.05	4.47/3.91	3.39/2.72	1.71/0.33	-1.53/-3.62	-5.89/-7.16	
Θ(60°)	-8.18/-9.28	-10.90/-12.30	-12.57/-12.36	-12.37/-12.36	-12.05/-12.86	-12.88/-11.10	-8.87/-7.36	-6.31/-6.01	-6.43/-7.06	-7.97/-8.90	-8.87/-8.10	-7.73/-7.96	-8.29/-8.16	-7.23/-5.72	-3.82/-1.58	0.73/2.66	4.16/5.14	5.22/5.44	5.39/5.17	5.08/4.99	4.38/3.38	1.92/0.10	-2.08/-4.13	-8.84/-1.78	
Θ(67.5°)	-7.99/-9.15	-10.86/-13.60	-14.11/-15.58	-15.10/-14.25	-14.61/-14.78	-16.02/-12.40	-11.06/-9.74	-7.67/-6.50	-6.75/-7.71	-8.93/-10.45	-11.27/-11.22	-11.26/-11.06	-10.31/-9.68	-8.06/-6.44	-4.59/-2.15	0.49/2.65	4.31/5.35	5.44/5.65	5.62/5.40	5.21/4.90	3.95/2.70	1.09/-0.75	-2.73/-4.43	-5.70/-6.89	
Θ(75°)	-10.87/-11.33	-12.24/-14.77	-15.22/-15.47	-15.27/-13.73	-14.69/-15.16	-9.11/-5.66	-4.87/-5.91	-7.36/-7.83	-8.86/-10.61	-12.11/-12.93	-12.80/-12.63	-13.33/-14.17	-13.15/-12.58	-9.76/-6.95	-4.67/-2.31	0.26/2.51	4.28/5.43	5.52/5.71	5.62/5.49	5.32/4.71	4.01/3.20	2.19/0.69	-1.59/-4.34	-7.27/-9.64	
Θ(82.5°)	-12.40/-11.33	-11.17/-12.28	-15.43/-14.95	-12.53/-10.08	-10.57/-14.29	-11.11/-6.40	-4.78/-5.08	-6.23/-7.85	-10.68/-14.06	-14.11/-13.79	-13.91/-12.74	-12.85/-15.20	-15.10/-15.75	-12.91/-8.26	-4.95/-2.06	0.61/2.73	4.38/5.38	5.35/5.42	5.19/5.06	5.00/4.63	4.12/3.39	2.14/0.07	-3.28/-7.80	-12.41/-13.74	
Θ(90°)	-9.25/-8.59	-8.40/-9.07	-10.71/-12.43	-13.34/-12.50	-12.21/-15.55	-15.01/-10.77	-9.08/-8.88	-9.22/-10.02	-12.23/-13.53	-13.09/-15.16	-14.75/-12.84	-13.11/-14.98	-14.41/-14.71	-14.68/-9.93	-5.97/-2.70	0.04/2.11	3.64/4.57	5.02/5.07	4.86/4.53	4.19/3.79	3.16/2.10	0.47/-1.81	-4.79/-7.58	-9.09/-9.69	
Θ(97.5°)	-13.68/-11.72	-11.17/-11.59	-12.84/-14.72	-15.43/-15.26	-14.10/-15.89	-13.56/-9.61	-9.65/-12.54	-15.47/-15.23	-14.91/-13.90	-13.29/-14.71	-15.44/-15.26	-15.26/-15.10	-15.21/-15.99	-13.29/-9.29	-5.63/-2.52	0.07/1.99	3.40/4.29	4.73/4.77	4.46/3.91	3.26/2.62	1.90/0.87	-0.69/-2.89	-6.07/-9.84	-13.66/-15.06	
Θ(105°)	-13.65/-11.64	-10.81/-11.30	-13.12/-14.99	-13.16/-9.23	-8.97/-13.96	-15.15/-8.20	-6.83/-8.07	-10.84/-12.91	-12.85/-12.32	-12.75/-13.96	-15.72/-14.04	-14.94/-15.22	-15.66/-15.42	-14.96/-10.08	-6.21/-3.29	-0.95/0.73	2.02/2.78	3.16/3.25	5.19/5.06	5.00/4.63	4.12/3.39	2.14/0.07	-0.95/-3.01	-6.54/-10.82	-13.84/-14.43
Θ(112.5°)	-14.82/-12.49	-11.54/-11.70	-11.98/-12.44	-9.87/-6.56	-6.18/-9.93	-15.20/-12.27	-9.86/-10.61	-12.45/-12.61	-11.61/-10.95	-12.21/-14.87	-15.21/-14.06	-15.25/-15.14	-15.38/-15.08	-13.49/-8.94	-5.16/-2.57	-0.65/0.69	1.66/2.15	2.40/2.57	2.69/2.62	2.24/1.65	0.87/0.05	-1.26/-3.08	-6.09/-9.93	-13.32/-14.57	
Θ(120°)	-15.63/-15.48	-12.80/-11.01	-10.71/-11.54	-10.29/-7.77	-7.78/-10.96	-15.23/-15.18	-14.63/-15.11	-15.14/-13.33	-13.12/-12.60	-14.24/-15.71	-15.37/-14.97	-13.69/-14.12	-14.33/-15.88	-15.17/-9.94	-6.03/-3.41	-1.59/-0.36	0.35/0.42	0.15/-0.02	0.00/-0.00	-0.19/-0.58	-1.10/-1.85	-3.01/-4.63	-7.24/-11.22	-15.76/-15.51	
Θ(127.5°)	-15.51/-14.62	-11.68/-9.70	-9.53/-11.11	-12.21/-12.19	-13.33/-15.43	-16.14/-13.05	-13.74/-15.24	-13.35/-10.81	-10.26/-10.29	-11.16/-13.56	-14.96/-13.33	-12.23/-11.78	-12.40/-13.01	-10.50/-6.85	-4.21/-2.30	-0.82/0.22	0.68/0.40	-0.24/-0.66	-0.54/-0.12	0.21/0.25	-0.18/-1.27	-3.10/-5.55	-8.58/-12.16	-14.80/-15.26	
Θ(135°)	-12.86/-11.93	-10.47/-9.84	-10.49/-12.86	-14.01/-15.46	-14.59/-14.52	-11.84/-10.09	-10.33/-11.76	-12.46/-11.12	-9.53/-7.92	-6.98/-7.03	-8.10/-9.95	-11.89/-12.81	-13.74/-13.76	-10.69/-7.42	-4.89/-2.92	-1.31/-0.18	0.33/0.19	-0.28/-0.60	-0.57/-0.39	-0.31/-0.49	-1.18/-2.63	-4.95/-7.89	-10.21/-11.09	-11.59/-12.50	
Θ(142.5°)	-13.63/-13.57	-14.83/-13.60	-14.88/-14.74	-13.82/-13.25	-12.54/-12.07	-10.45/-9.40	-9.20/-9.90	-11.19/-11.51	-8.91/-7.63	-6.10/-5.65	-6.03/-6.88	-8.15/-9.89	-10.99/-10.60	-8.95/-6.75	-4.89/-3.39	-2.21/-1.62	-1.64/-2.10	-2.66/-3.05	-3.01/-2.66	-2.23/-1.97	-2.13/-3.09	-4.78/-7.07	-9.49/-10.28	-11.53/-13.26	
Θ(150°)	-15.08/-15.50	-15.30/-15.17	-14.94/-12.74	-10.86/-9.39	-8.59/-8.17	-8.02/-7.81	-7.92/-8.44	-9.23/-10.23	-10.89/-10.49	-8.29/-8.48	-8.24/-8.24	-8.57/-9.05	-8.69/-9.79	-6.49/-4.73	-3.31/-2.26	-1.60/-1.33	-1.36/-1.50	-1.69/-1.74	-1.60/-1.37	-1.18/-1.21	-1.62/-2.59	-4.16/-6.40	-9.50/-13.76	-14.66/-16.28	
Θ(157.5°)	-15.32/-14.85	-14.36/-13.82	-12.86/-11.46	-9.90/-8.48	-7.63/-7.09	-7.03/-7.20	-7.63/-8.41	-9.31/-10.32	-11.53/-12.79	-14.07/-15.15	-14.58/-13.61	-13.49/-13.92	-12.06/-10.91	-9.00/-7.23	-5.92/-5.06	-4.46/-4.00	-3.63/-3.43	-3.33/-3.20	-3.26/-3.46	-3.86/-4.47	-5.37/-6.60	-8.21/-10.34	-13.32/-16.09	-15.34/-15.76	
Θ(165°)	-15.06/-15.48	-15.37/-14.88	-14.39/-13.07	-12.80/-10.90	-10.02/-9.71	-9.07/-10.24	-10.69/-11.08	-11.54/-11.59	-11.96/-11.92	-12.81/-13.30	-13.78/-14.20	-14.25/-14.81	-15.25/-15.56	-15.77/-15.44	-11.45/-11.43	-11.33/-11.03	-11.29/-12.19	-12.90/-14.42	-15.74/-15.23	-15.25/-15.55	-15.20/-15.86	-14.88/-16.13			
Θ(172.5°)	-15.40/-15.33	-15.31/-15.26	-15.72/-14.37	-15.50/-14.22	-13.11/-12.10	-11.37/-11.33	-11.46/-12.02	-12.30/-12.60	-13.03/-13.08	-12.93/-14.02	-14.43/-15.25	-15.62/-15.22	-15.01/-15.28	-15.88/-15.23	-16.06/-15.68	-15.05/-14.62	-14.59/-13.90	-12.83/-11.54	-10.99/-10.40	-10.60/-11.22	-12.11/-14.29	-15.80/-15.23	-15.42/-15.70	-15.18/-15.08	
Θ(180°)	-12.75/-12.69	-12.06/-12.30	-12.35/-12.94	-13.00/-11.60	-10.32/-9.55	-8.93/-8.95	-8.97/-9.46	-10.49/-11.46	-12.37/-13.27	-14.27/-14.44	-15.27/-15.35	-15.87/-15.02	-15.22/-14.82	-15.20/-16.00	-14.84/-15.85	-15.89/-14.98	-14.35/-13.00	-11.87/-10.97	-10.30/-9.73	-9.55/-9.71	-10.41/-11.37	-12.42/-13.46	-13.54/-13.27	-12.91/-12.96	
Freq(Hz)	5.2G/Pol.	TotalAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)	
Θ(0°)	-3.34/-3.04	-2.83/-2.34	-1.58/-0.84	-0.44/-0.23	-0.34/-0.26	-0.16/-0.01	0.02/0.09	-0.08/-0.29	-0.67/-1.32	-1.74/-2.05	-2.27/-2.47	-2.61/-2.63	-2.62/-2.33	-2.12/-1.98	-1.74/-1.28	-0.85/-0.39	-0.09/-0.00	-0.03/0.04	0.13/-0.01	-0.54/-0.70	-0.64/-0.81	-1.36/-1.69	-1.90/-2.43	-3.07/-3.57	
Θ(7.5°)	-2.18/-2.69	-2.46/-1.86	-1.17/-0.26	0.22/0.40	0.41/0.36	0.19/0.00	0.16/0.13	0.07/0.04	-0.27/-0.86	-1.49/-1.93	-2.39/-2.86	-3.15/-3.24	-3.19/-2.96	-2.61/-1.22	-1.52/-0.64	0.15/0.76	1.13/1.44	1.56/1.62	1.69/1.45	1.13/0.98	0.63/0.19	-0.33/-0.94	-1.64/-2.51	-3.12/-3.58	
Θ(15°)	-4.07/-3.39	-2.79/-2.05	-1.43/-0.98	-0.49/-1.27	-1.43/-1.38	-1.61/-1.60	-1.43/-1.45	-1.82/-2.03	-1.97/-2.11	-2.44/-3.09	-3.80/-4.36	-4.61/-4.29	-3.34/-2.23	-2.40/-2.03	1.50/2.22	2.70/2.97	3.30/3.92	3.95/2.92	2.49/2.26	2.04/1.66	0.86/0.09	-1.39/-2.97	-3.99/-4.49		
Θ(22.5°)	-4.27/-3.96	-3.52/-2.68	-2.23/-2.30	-3.17/-4.51	-5.27/-4.56	-3.67/-2.96	-2.73/-2.93	-3.89/-4.94	-5.21/-4.80	-4.51/-4.80	-5.56/-6.25	-6.43/-6.45	-5.87/-5.01	-3.60/-2.04	-0.39/1.11	2.20/2.84	3.30/3.51	3.64/3.71	3.71/3.58	3.22/3.08	2.66/2.01	1.19/0.29	-0.87/-1.97	-2.85/-3.81	
Θ(30°)	-4.68/-4.26	-3.89/-4.03	-4.38/-4.96	-5.97/-6.46	-7.25/-6.39	-5.31/-3.52	-2.50/-2.54	-3.60/-4.57	-7.39/-7.13	-6.04/-5.56	-5.99/-6.52	-6.88/-6.97	-6.61/-6.13	-4.81/-2.58	-0.58/1.10	1.92/2.41	2.79/3.20	3.53/3.60	3.57/3.37	3.21/3.09	2.87/2.44	1.87/1.25	0.57/-0.25	-1.81/-3.61	
Θ(37.5°)	-5.87/-6.36	-6.37/-6.50	-5.74/-																						



Antenna Pattern of 2G5G

Appendix B.1

Θ(22.5°)	-0.97/-0.28	0.420/82	0.16/-1.27	-3.07/-4.08	-3.81/-3.59	-3.10/-2.61	-2.73/-3.38	-4.52/-5.96	-7.27/-6.44	-4.99/-4.49	-4.52/-5.43	-6.40/-6.63	-6.13/-4.88	-3.54/-2.59	-1.67/-0.80	0.14/0.83	1.552/1.24	3.0614	5.055/4.05	5.3004/8.7	4.11/3.54	2.982/37	1.760/72	-0.38/-0.93
Θ(30°)	-2.44/-2.09	-1.14/-1.17	-1.65/-2.12	-3.01/-3.81	-4.12/-4.71	-4.67/-4.30	-3.61/-2.92	-3.11/-4.60	-6.58/-6.57	-5.51/-4.13	-3.69/-4.87	-6.23/-9.65	-6.81/-5.68	-4.30/-2.83	-1.81/-1.00	-0.300/44	0.88/1.52	2.70/3.56	4.08/4.58	4.84/4.79	4.64/4.25	3.763/38	2.36/1.12	-0.32/-1.74
Θ(142.5°)	-4.62/-3.93	-2.58/-2.20	-3.06/-3.54	-2.53/-1.99	-2.82/-4.49	-5.96/-6.19	-5.01/-3.42	-3.30/-4.78	-7.04/-7.11	-5.42/-3.89	-3.88/-5.74	-7.13/-7.84	-8.22/-8.01	-7.20/-4.68	-2.63/-1.98	-1.58/-0.81	0.01/1.33	2.73/3.19	3.60/4.20	4.66/4.76	4.34/3.70	3.142/67	2.27/1.24	-0.63/-3.58
Θ(45°)	-6.01/-5.37	-4.85/-6.90	-9.44/-7.31	-4.79/-3.56	-4.71/-7.42	-11.08/-12.11	-9.90/-6.45	-6.03/-8.14	-10.67/-10.22	-8.10/-6.25	-6.34/-9.04	-11.74/-9.83	-8.83/-8.12	-8.78/-7.10	-4.21/-3.82	-4.99/-3.32	-1.50/-0.23	0.882/0.8	2.94/3.34	3.462/9.9	2.54/2.19	1.700/9.9	0.630/36	-1.05/-4.68
Θ(52.5°)	-3.96/-4.08	-6.60/-8.44	-11.12/-11.08	-9.02/-6.13	-6.18/-9.31	-14.77/-14.58	-9.77/-9.65	-9.73/-9.52	-10.81/-14.3	-11.57/-11.85	-12.13/-11.90	-12.27/-14.99	-10.89/-8.67	-8.74/-7.99	-4.07/-2.96	-4.88/-1.61	0.06/0.61	1.963/1.4	4.07/4.24	3.953/36	3.323/18	1.980/26	-0.24/-1.19	-4.07/-5.04
Θ(60°)	-4.04/-4.96	-7.80/-4.92	-9.29/-9.13	-8.04/-7.79	-8.32/-10.47	-11.31/-14.67	-11.40/-11.97	-12.93/-11.55	-10.43/-10.68	-14.77/-15.85	-15.67/-15.94	-10.13/-13.30	-4.59/-8.74	-7.10/-1.760	-4.39/-2.88	-6.20/-1.31	1.04/2.09	3.58/4.52	5.64/6.18	5.975/26	4.183/19	1.50/-2.71	-3.91/-2.29	-2.71/-3.85
Θ(67.5°)	-1.20/-4.25	-8.47/-7.41	-7.28/-7.24	-6.53/-9.65	-10.55/-10.91	-14.54/-14.27	-10.28/-11.58	-13.79/-12.61	-10.87/-11.72	-15.39/-15.58	-11.57/-13.01	-11.46/-15.91	-10.93/-7.56	-6.91/-7.56	-4.23/-2.97	-4.79/-0.05	1.032/1.3	3.54/5.11	5.81/6.14	5.34/5.23	4.00/3.56	2.52/-2.44	-6.99/-6.38	-3.65/-1.48
Θ(75°)	-2.23/-6.41	-9.31/-5.42	-6.62/-8.40	-7.52/-10.10	-11.51/-10.29	-10.86/-15.75	-12.85/-9.37	-13.80/-14.82	-12.68/-13.58	-14.76/-14.86	-11.06/-10.68	-11.86/-13.94	-11.28/-7.44	-6.73/-8.32	-6.94/-3.37	-2.72/-1.24	2.22/3.23	4.29/5.93	6.45/6.80	6.256/36	5.35/4.15	3.24/-0.13	-4.76/-7.67	-6.88/-3.19
Θ(82.5°)	-5.37/-7.68	-9.48/-4.52	-6.19/-9.09	-9.51/-12.70	-10.49/-9.48	-9.31/-12.12	-15.08/-11.33	-11.61/-14.03	-14.45/-14.99	-14.40/-10.49	-10.89/-9.40	-10.77/-14.31	-10.08/-7.35	-7.03/-8.65	-6.36/-3.02	-0.900/98	2.11/3.20	3.98/5.84	6.27/6.59	5.69/5.36	4.57/3.66	2.27/-0.22	-3.76/-7.76	-10.03/-7.52
Θ(90°)	-5.92/-11.95	-11.01/-7.59	-8.29/-12.21	-9.87/-10.22	-10.13/-11.14	-10.20/-10.78	-14.09/-12.87	-12.40/-12.83	-14.98/-15.76	-13.15/-8.80	-12.55/-10.62	-9.36/-12.19	-8.49/-8.09	-7.85/-6.94	-8.01/-4.32	-1.20/-1.05	2.05/2.28	3.30/4.68	5.84/6.45	6.24/4.42	3.35/2.88	0.21/-1.07	-5.44/-9.54	-7.89/-5.16
Θ(97.5°)	-5.82/-15.49	-12.41/-12.31	-13.09/-12.77	-12.64/-9.52	-11.56/-14.92	-13.38/-15.78	-13.78/-14.31	-15.45/-14.84	-11.54/-8.47	-11.89/-8.69	-10.39/-11.72	-9.17/-9.70	-8.20/-5.98	-8.96/-5.08	-2.23/-2.13	0.82/0.36	1.57/3.03	4.15/4.35	3.49/1.97	1.73/1.82	-1.32/-2.99	-5.32/-9.21	-6.62/-6.05	
Θ(105°)	-9.76/-14.70	-12.40/-13.32	-11.31/-9.82	-13.73/-14.87	-8.25/-10.45	-15.00/-14.31	-14.97/-14.38	-15.91/-13.89	-14.73/-15.10	-10.58/-10.51	-10.79/-10.60	-9.02/-10.39	-10.51/-9.51	-6.66/-6.06	-9.63/-8.27	-2.82/-1.40	-0.53/-0.96	0.74/2.87	4.42/4.49	3.07/0.85	-0.17/0.69	-0.33/-2.16	-6.53/-9.55	-6.74/-5.41
Θ(112.5°)	-11.42/-14.97	-9.55/-8.32	-12.91/-12.29	-12.11/-11.77	-10.96/-12.93	-14.94/-10.39	-6.65/-12.38	-15.16/-15.22	-13.05/-12.69	-14.06/-14.33	-10.56/-11.22	-11.21/-11.12	-11.38/-9.70	-10.66/-8.28	-9.15/-6.97	-0.11/0.05	-1.22/-0.19	1.11/2.81	4.86/4.05	1.61/0.60	0.64/0.17	-0.69/-1.76	-7.12/-8.52	-4.05/-5.11
Θ(120°)	-12.64/-12.67	-12.05/-10.30	-10.46/-13.60	-15.10/-10.66	-9.01/-14.25	-10.89/-9.89	-7.91/-9.05	-11.10/-13.09	-13.49/-13.73	-15.81/-15.03	-15.14/-14.55	-13.70/-14.88	-14.29/-8.41	-6.64/-6.01	-10.99/-8.78	-0.53/-0.46	-2.52/-0.28	-0.93/1.20	4.71/3.04	-0.63/-0.26	-0.04/-0.70	-1.27/-3.57	-9.87/-8.47	-2.96/-4.25
Θ(127.5°)	-11.77/-13.80	-11.53/-14.84	-15.99/-15.09	-12.50/-11.72	-12.04/-14.41	-12.68/-13.76	-12.25/-12.37	-12.64/-14.56	-11.57/-12.45	-15.25/-14.59	-15.18/-15.26	-11.25/-14.36	-12.43/-6.83	-5.45/-6.54	-2.15/-3.55	0.72/-1.49	-1.68/-1.08	3.29/1.08	-4.26/-2.02	-0.43/-0.75	-0.40/-0.85	-7.62/-10.46	-6.95/-6.59	
Θ(135°)	-6.39/-10.72	-11.72/-9.09	-9.66/-11.62	-14.19/-14.77	-11.53/-11.81	-12.22/-11.41	-11.24/-10.49	-7.52/-6.94	-9.69/-15.25	-14.60/-15.58	-12.61/-15.08	-15.21/-15.13	-9.64/-5.69	-6.80/-10.45	-12.57/-2.64	-0.76/-1.93	0.02/-0.58	-3.90/-0.69	2.86/1.72	-2.49/-4.00	0.190/8.4	-1.86/-2.82	-5.17/-14.85	-11.57/-7.12
Θ(142.5°)	-7.57/-0.73	-10.30/-12.71	-8.79/-7.65	-9.75/-14.24	-15.63/-15.51	-15.47/-14.67	-13.30/-13.50	-13.49/-13.83	-15.01/-15.74	-13.55/-10.08	-11.07/-14.81	-10.77/-12.22	-7.72/-6.30	-7.03/-9.35	-8.55/-7.05	-5.58/-3.47	-3.05/-4.95	-4.68/-1.31	0.88/0.01	-0.33/-6.38	-5.41/-4.15	-5.67/-10.74	-6.65/-5.55	-5.21/-6.80
Θ(150°)	-3.64/-4.86	-7.49/-9.73	-9.70/-10.29	-12.22/-13.73	-15.31/-15.57	-15.65/-14.15	-13.07/-12.10	-11.07/-12.88	-11.72/-10.12	-9.17/-8.06	-9.33/-9.61	-7.82/-6.08	-6.08/-7.09	-7.96/-7.87	-8.60/-10.95	-11.69/-10.73	-12.03/-13.99	-10.56/-6.16	-3.44/-3.49	-6.24/-11.29	-12.03/-10.37	-10.67/-10.80	-9.67/-7.23	-5.24/-3.71
Θ(157.5°)	-5.58/-8.37	-13.78/-15.20	-12.29/-12.26	-14.48/-15.70	-15.79/-15.30	-11.58/-9.83	-10.17/-10.54	-10.26/-10.22	-12.06/-15.22	-15.57/-15.79	-12.74/-9.38	-7.29/-6.05	-5.65/-4.94	-4.63/-4.24	-8.60/-5.35	-5.74/-6.85	-8.50/-10.01	-8.51/-6.13	-5.13/-5.49	-6.45/-7.37	-7.88/-7.71	-7.25/-7.34	-7.78/-6.45	-4.00/-4.67
Θ(165°)	-10.31/-6.56	-4.79/-4.39	-4.50/-4.53	-6.35/-6.94	-7.51/-9.02	-10.05/-10.56	-10.63/-11.65	-13.06/-14.86	-15.41/-13.95	-12.96/-12.28	-11.41/-10.39	-9.45/-8.77	-7.94/-7.45	-7.86/-8.74	-8.63/-8.27	-7.59/-7.62	-7.95/-6.26	-8.25/-7.72	-7.52/-7.12	-6.61/-6.11	-5.84/-5.33	-4.74/-5.02	-6.10/-9.17	-14.82/-16.02
Θ(172.5°)	-10.07/-9.19	-8.79/-8.91	-8.20/-6.32	-4.98/-4.90	-5.74/-6.17	-6.53/-6.47	-6.22/-6.73	-7.24/-7.50	-6.68/-6.69	-6.67/-6.68	-6.74/-6.81	-6.87/-6.63	-6.33/-5.67	-5.20/-4.55	-4.09/-3.62	-3.06/-2.60	-2.27/-2.29	-2.38/-2.21	-1.92/-1.79	-2.02/-2.30	-2.53/-2.68	-3.10/-3.83	-5.48/-8.87	-10.96/-11.89
Θ(180°)	-10.36/-10.45	-11.30/-9.62	-7.78/-5.98	-4.90/-4.66	-3.97/-3.45	-2.84/-2.32	-2.01/-1.67	-1.57/-1.29	-1.25/-1.24	-1.36/-1.60	-1.65/-1.86	-1.95/-1.95	-2.05/-2.07	-1.97/-2.05	-2.02/-2.16	-2.08/-2.02	-2.14/-2.55	-2.78/-2.94	-2.96/-3.26	-3.06/-3.11	-3.27/-3.70	-4.66/-5.93	-7.27/-7.99	-8.12/-8.46
Freq(Hz)	2.45GPol	TotalAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-4.13/-4.22	-4.22/-4.09	-3.79/-3.36	-2.83/-2.20	-1.60/-1.08	-0.77/-0.57	-0.47/-0.44	-0.53/-0.81	-1.18/-1.62	-2.16/-2.87	-3.68/-4.53	-5.28/-5.82	-5.91/-5.63	-5.15/-4.70	-4.27/-3.85	-3.33/-2.81	-2.27/-1.84	-1.49/-1.23	-0.98/-0.89	-0.89/-0.95	-1.13/-1.41	-1.81/-2.31	-2.86/-3.33	-3.75/-3.98
Θ(7.5°)	-3.42/-3.37	-3.21/-2.88	-2.44/-1.93	-1.41/-0.86	-0.40/-0.04	0.180/28	0.300/21	-0.03/-0.42	-0.93/-1.48	-2.16/-2.99	-4.03/-5.19	-6.28/-7.07	-7.19/-6.80	-6.25/-5.75	-5.27/-4.80	-4.29/-3.74	-3.17/-2.65	-2.21/-1.75	-1.40/-1.14	-0.98/-0.93	-0.97/-1.19	-1.53/-1.96	-2.45/-2.86	-3.18/-3.36
Θ(15°)	-3.51/-3.40	-3.09/-2.53	-1.83/-1.15	-0.46/0.18	0.69/1.11	1.37/1.46	1.41/1.21	0.83/0.29	-0.37/-0.95	-1.55/-2.25	-3.12/-4.19	-5.33/-6.45	-6.92/-6.62	-5.88/-5.28	-4.89/-4.75	-4.71/-4.64	-4.28/-3.80	-3.24/-2.74	-2.23/-1.74	-1.35/-1.12	-1.10/-1.24	-1.61/-1.96	-2.46/-2.89	-3.24/-3.44
Θ(22.5°)	-4.61/-4.51	-4.01/-3.15	-2.09/-1.07	-0.10/-0.77	1.49/2.09	2.47/2.63	2.58/2.28	1.74/0.98	0.18/-0.38	-0.72/-1.09	-1.65/-2.55	-3.79/-5.31	-6.47/-6.46	-5.52/-4.53	-4.09/-4.10	-4.64/-5.21	-5.75/-5.84	-5.37/-4.64	-3.67/-2.84	-2.18/-1.79	-1.67/-1.77	-2.02/-2.41	-2.96/-3.56	-4.08/-4.45
Θ(30°)	-6.50/-6.66	-6.06/-4.72	-3.16/-1.62	-0.21/0.06	2.09/2.91	3.46/3.70	3.61/3.19	2.42/1.43	0.42/-0.10	-0.24/-0.34	-0.74/-1.61	-2.97/-4.82	-6.26/-4.75	-3.79/-3.52	-3.88/-4.84	-6.28/-4.97	-7.80/-6.89	-5.47/-4.12	-3.13/-2.59	-2.45/-2.58	-2.78/-3.11	-3.70/-4.47	-5.33/-6.15	
Θ(37.5°)	-8.13/-8.72	-8.24/-6.64	-4.49/-3.25	-0.44/-1.24	2.80/3.63	4.28/4.53	4.33/3.70	2.59/1.25	0.14/-0.16	-0.02/-0.03	-0.51/-1.56	-3.12/-5.21	-7.40/-8.36	-7.23/-6.66	-4.68/-3.83	-3.78/-4.38	-5.53/-6.98	-8.06/-7.87	-6.38/-4.82	-3.63/-3.01	-2.90/-3.13	-3.37/-3.56	-4.02/-4.85	-5.85/-7.02
Θ(45°)	-8.06/-9.13	-9.57/-8.38	-5.94/-3.39	-1.08/0.97	2.61/3.87	4.51/3.68	2.33/0.87	-0.03/0.08	0.500/54	-0.02/-1.12	-2.76/-5.06	-7.68/-9.03	-9.37/-8.03	-6.60/-5.42	-4.83/-4.90	-5.68/-7.06	-8.50/-8.90	-7.78/-6.19	-4.83/-3.99	-3.80/-4.04	-3.13/-3.95	-4.00/-4.60	-5.61/-6.85	
Θ(52.5°)	-8.09/-9.66	-10.77/-10.02	-7.33/-4.42	-1.81/0.50	2.33/3.70	4.49/4.71	4.41/3.61	2.31/1.02	0.520/89	1.21/0.95	0.11/-1.35	-3.51/-6.68	-10.41/-11.83	-11.69/-9.65	-7.66/-6.21	-5.61/-5.77	-6.52/-6.76	-8.76/-9.26	-9.33/-8.63	-7.69/-6.91	-6.53/-6.39	-5.64/-4.38	-8.83/-9.14	-5.24/-6.60
Θ(60°)	-9.36/-11.63	-13.14/-11.59	-8.10/-4.88	-2.19/0.14	2.01/3.39	4.23/4.59	4.55/3.94	2.82/1.57	0.96/1.11	1.16/0.70	-0.30/-1.93	-4.47/-8.38	-13.19/-15.46	-14.05/-11.93	-9.63/-8.09	-7.83/-7.60	-8.12/-8.98	-9.50/-9.26	-8.90/-9.36	-9.03/-9.32	-10.35/-11.19	-9.31/-9.36	-4.80/-4.65	-5.54/-7.25
Θ(67.5°)	-12.54/-15.66	-15.66/-13.95	-8.91/-5.24	-2.46/-0.12	1.74/3.22	4.13/4.59	4.55/3.94	2.69/1.28	0.46/0.37	0.15/-0.54	-1.72/-3.77	-6.92/-10.65	-13.90/-15.27	-14.48/-16.29	-15.02/-13.63	-12.29/-10.91	-11.01/-10.80	-9.80/-8.85	-9.48/-9.68	-7.94/-7.04	-7.93/-10.35	-11.42/-9.05	-7.08/-6.54	-7.69/-9.74
Θ(75°)	-12.03/-14.36	-15.36/-13.74	-9.35/-5.56	-2.72/-0.32	1.62/3.04	3.85/4.																		

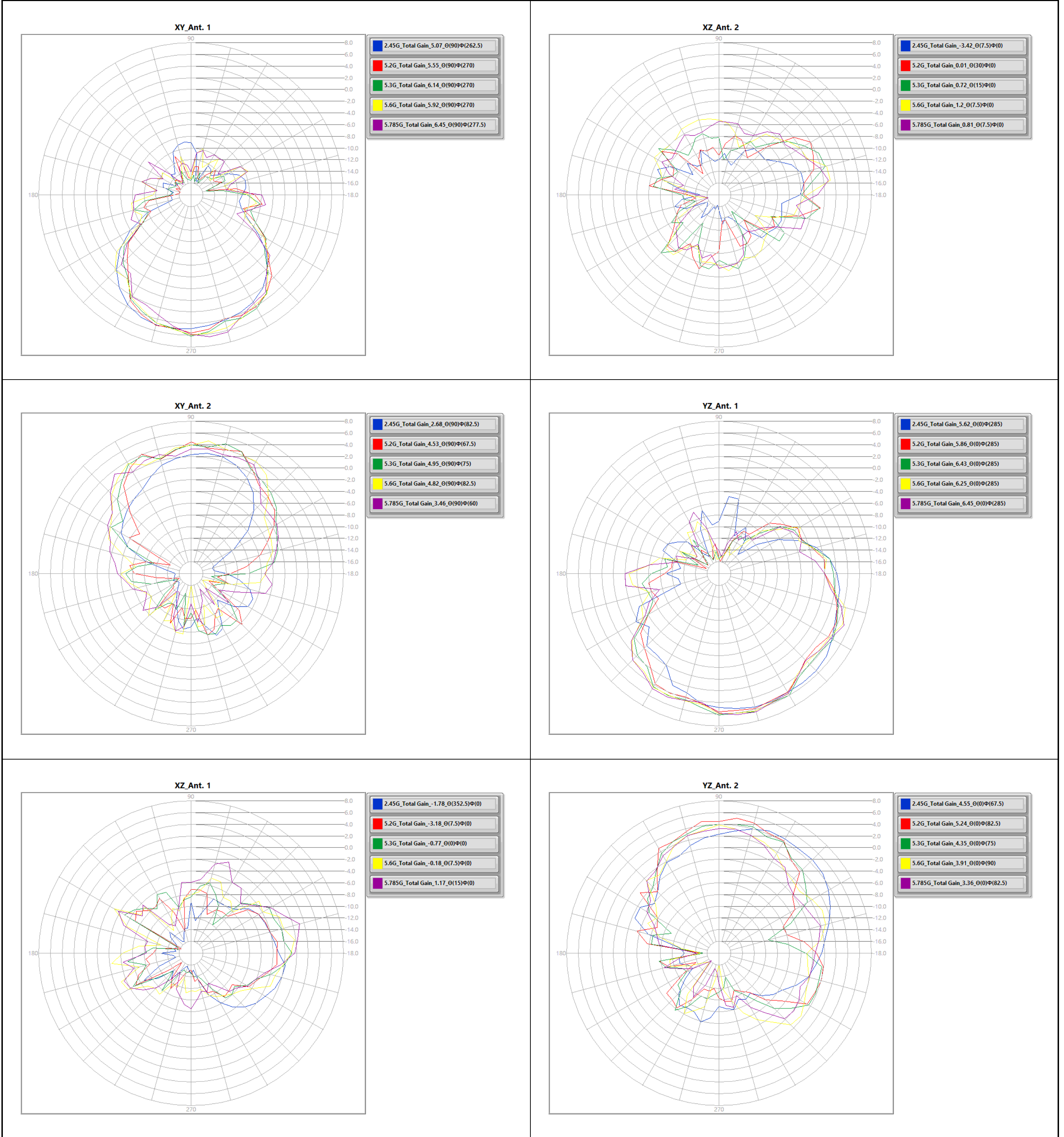


Antenna Pattern of 2G5G

Appendix B.1

Θ (75°)	-7.07/-7.62	-5.51/-4.62	-3.29/-0.79	2.06/3.73	4.06/3.97	4.62/4.43	2.87/2.56	1.50/0.94	2.99/2.19	0.59/-1.98	-2.23/-2.06	-5.14/-8.02	-5.93/-6.85	-6.29/-5.24	-5.39/-5.51	-8.59/-8.36	-7.24/-10.39	-4.65/-6.03	-9.57/-8.16	-14.39/-10.18	-12.71/-11.39	-11.49/-9.83	-13.84/-15.02	-11.90/-7.71
Θ (82.5°)	-5.71/-5.49	-4.08/-3.74	-3.26/-1.55	1.34/3.51	3.96/3.32	4.34/5.06	3.35/3.03	1.75/-1.82	3.20/2.21	0.90/0.23	-1.27/-1.57	-4.22/-6.19	-4.95/-7.44	-7.38/-7.75	-7.62/-8.01	-9.66/-13.44	-7.00/-9.96	-4.20/-6.56	-11.62/-9.19	-14.56/-11.00	-11.14/-9.26	-13.25/-14.73	-14.26/-15.41	-10.94/-6.09
Θ (90°)	-5.18/-4.94	-3.55/-3.15	-2.89/-2.25	0.71/3.16	4.15/3.94	4.05/4.82	3.91/3.60	2.44/2.08	3.65/2.49	1.13/-1.01	-2.11/-2.73	-5.99/-8.46	-6.01/-7.13	-8.67/-9.49	-10.23/-9.03	-7.74/-13.79	-8.70/-9.26	-7.67/-7.60	-16.07/-8.80	-9.04/-12.22	-9.27/-9.15	-14.09/-15.18	-15.74/-14.97	-10.89/-6.14
Θ (97.5°)	-4.96/-4.81	-4.05/-2.93	-2.81/-2.38	0.04/2.54	3.68/3.39	3.89/4.40	3.11/3.15	2.79/-1.87	3.12/-1.78	0.89/-0.36	-2.58/-3.48	-6.29/-9.38	-6.37/-9.33	-8.03/-8.05	-8.96/-9.71	-6.71/-10.92	-8.76/-14.93	-10.67/-13.03	-13.60/-11.87	-8.88/-13.67	-7.12/-9.63	-12.60/-14.55	-13.69/-12.21	-9.08/-5.16
Θ (105°)	-4.71/-5.71	-4.67/-3.80	-3.15/-2.67	-0.56/2.18	3.05/3.14	3.49/3.74	2.73/2.78	2.73/-1.70	2.79/-1.86	0.29/-0.62	-4.33/-4.72	-6.31/-8.09	-6.15/-6.45	-7.15/-7.28	-8.74/-10.27	-6.08/-7.24	-12.55/-12.69	-13.79/-15.30	-8.48/-15.23	-9.59/-13.11	-10.33/-12.24	-10.48/-11.79	-12.92/-11.85	-7.29/-5.86
Θ (112.5°)	-4.95/-5.43	-6.58/-5.01	-4.10/-2.23	0.05/2.15	2.53/-1.21	1.63/2.44	1.94/2.46	2.40/-1.11	1.71/0.83	0.34/-0.73	-3.50/-4.50	-5.42/-5.56	-8.47/-9.51	-9.33/-6.93	-8.62/-8.79	-8.08/-10.90	-11.64/-12.52	-9.43/-14.06	-7.45/-13.49	-8.58/-13.98	-9.28/-9.99	-8.80/-15.67	-14.13/-11.13	-6.81/-4.80
Θ (120°)	-5.10/-5.91	-7.28/-6.30	-4.70/-2.53	-0.13/-1.12	1.29/-1.08	1.04/0.81	0.04/0.93	1.45/0.12	0.96/0.67	-0.23/-0.58	-2.18/-6.45	-5.54/-4.86	-7.87/-12.61	-13.19/-13.32	-13.66/-12.19	-12.04/-15.69	-12.04/-8.77	-12.42/-12.75	-6.12/-7.62	-7.99/-14.57	-13.00/-9.80	-8.12/-11.13	-13.07/-13.44	-7.30/-5.60
Θ (127.5°)	-5.93/-5.88	-5.71/-5.71	-3.28/-1.79	-0.87/-0.71	-0.62/-0.23	0.83/0.55	-1.23/0.02	-1.01/-0.31	-0.10/-1.59	-2.91/-2.04	-2.87/-4.23	-6.61/-3.41	-5.13/-5.60	-9.68/-11.65	-9.64/-12.26	-13.12/-11.39	-13.47/-9.50	-9.93/-12.48	-9.10/-10.30	-9.36/-14.54	-11.02/-8.11	-10.96/-12.63	-11.75/-14.69	-10.95/-6.71
Θ (135°)	-6.02/-5.52	-5.06/-3.83	-2.94/-2.10	-1.74/-2.07	-2.23/-1.14	-0.72/-1.23	-0.50/-1.39	-2.29/-2.96	-1.47/-1.08	-2.85/-2.02	-2.94/-3.42	-7.74/-9.57	-5.11/-3.88	-4.66/-6.42	-7.77/-12.10	-10.41/-10.27	-14.75/-14.95	-12.68/-14.09	-15.68/-14.48	-14.53/-16.02	-11.29/-10.79	-15.09/-15.44	-13.26/-12.11	-7.92/-6.99
Θ (142.5°)	-5.70/-5.23	-4.96/-4.69	-3.72/-3.32	-2.57/-1.79	-1.76/-2.80	-4.16/-4.22	-4.36/-3.42	-3.00/-5.14	-2.87/-2.67	-5.74/-5.81	-6.14/-4.93	-4.77/-7.42	-9.54/-9.49	-10.92/-10.20	-8.33/-8.57	-10.65/-14.02	-12.39/-14.19	-13.26/-13.54	-15.43/-14.68	-13.04/-10.67	-12.11/-12.00	-15.54/-15.32	-15.84/-9.57	-6.81/-5.89
Θ (150°)	-5.28/-4.80	-4.39/-3.85	-3.45/-3.25	-3.74/-4.68	-5.19/-4.57	-4.32/-5.31	-5.86/-5.99	-8.49/-7.86	-3.52/-3.10	-4.98/-4.96	-5.25/-8.06	-10.85/-9.78	-9.70/-10.70	-11.74/-13.56	-16.26/-15.74	-12.94/-11.46	-11.90/-10.81	-10.53/-13.80	-14.68/-13.51	-10.45/-9.03	-10.60/-10.67	-10.38/-9.76	-9.47/-11.13	-8.53/-6.37
Θ (157.5°)	-7.16/-6.95	-6.84/-6.65	-6.10/-5.40	-4.67/-4.16	-4.45/-5.24	-5.96/-5.41	-4.83/-6.06	-8.97/-7.98	-6.14/-6.53	-8.53/-9.65	-9.58/-11.42	-15.38/-16.16	-13.24/-12.36	-11.65/-11.24	-10.95/-11.64	-12.32/-12.19	-11.61/-12.01	-13.44/-12.92	-12.40/-11.21	-8.09/-6.80	-6.89/-5.94	-4.75/-4.63	-5.17/-6.44	-8.25/-7.67
Θ (165°)	-7.90/-8.72	-10.06/-10.89	-11.34/-11.03	-10.49/-9.38	-7.99/-6.84	-6.31/-6.54	-7.57/-8.91	-9.19/-8.43	-8.06/-8.57	-10.20/-11.64	-12.39/-12.46	-12.92/-14.47	-16.08/-14.90	-15.36/-14.39	-13.00/-13.26	-15.17/-15.54	-14.98/-13.53	-11.49/-10.17	-9.40/-8.06	-7.04/-6.96	-7.63/-7.26	-5.88/-4.87	-4.29/-4.35	-5.30/-6.86
Θ (172.5°)	-12.67/-13.15	-12.92/-13.76	-14.85/-14.65	-15.37/-15.32	-14.86/-14.69	-13.33/-12.45	-11.53/-11.36	-12.05/-13.39	-15.76/-14.73	-15.21/-15.06	-15.00/-15.06	-15.01/-15.70	-14.86/-13.45	-13.41/-14.24	-13.93/-13.54	-12.56/-12.21	-11.71/-10.73	-10.17/-9.80	-9.52/-9.02	-8.57/-9.19	-10.87/-12.14	-12.07/-11.35	-10.93/-10.85	-10.88/-12.14
Θ (180°)	-12.16/-12.54	-12.42/-12.05	-12.06/-12.32	-11.98/-11.19	-11.25/-12.02	-13.45/-14.60	-14.99/-15.14	-15.65/-12.30	-10.58/-10.43	-10.91/-11.55	-11.56/-11.33	-11.79/-12.94	-13.35/-14.18	-15.44/-15.43	-15.40/-15.69	-14.97/-14.51	-13.23/-12.48	-12.47/-13.80	-14.54/-14.56	-15.00/-14.53	-14.94/-15.10	-15.26/-15.02	-14.04/-13.33	-12.96/-12.34
Freq(Hz)	5.785GPol.	TotalAnt 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ (0°)	-1.20/-1.02	-0.90/-1.03	-1.02/-0.79	-0.67/-0.91	-1.10/-1.30	-1.47/-1.59	-1.57/-1.56	-1.51/-1.60	-1.92/-2.23	-2.34/-2.57	-2.73/-2.63	-2.54/-3.03	-3.57/-3.24	-2.33/-2.59	-3.31/-3.93	-2.93/-2.19	-2.24/-2.39	-2.27/-1.75	-1.41/-1.52	-1.57/-1.23	-0.80/-0.70	-0.92/-1.10	-1.03/-0.98	-1.01/-1.17
Θ (7.5°)	0.81/0.86	0.95/0.96	1.17/-1.41	1.43/-1.26	1.03/0.62	0.04/-0.49	-0.77/-1.18	-1.79/-2.65	-3.70/-4.72	-5.42/-5.79	-6.14/-5.99	-5.21/-4.69	-4.68/-4.83	-4.59/-4.20	-4.14/-4.53	-4.40/-4.06	-3.78/-3.79	-3.79/-3.02	-1.88/-1.34	-1.12/-0.58	0.26/0.72	0.58/0.45	0.44/0.52	0.49/0.64
Θ (15°)	-0.16/-0.11	-0.12/-0.19	-0.02/0.19	0.37/0.69	0.83/0.68	0.64/0.41	-0.07/-1.10	-2.57/-4.16	-5.78/-6.45	-5.47/-4.24	-3.47/-2.89	-2.60/-2.48	-2.86/-3.49	-4.04/-3.89	-3.56/-3.80	-4.27/-4.29	-3.49/-3.09	-3.36/-3.44	-2.11/-1.05	-0.91/-0.62	0.31/0.84	0.62/0.28	0.00/-0.31	-0.70/-0.53
Θ (22.5°)	-1.76/-1.66	-1.91/-2.32	-2.36/-2.29	-2.09/-1.75	-1.50/-0.81	-0.37/-0.52	-0.88/-1.61	-3.19/-5.37	-6.90/-6.00	-4.18/-3.18	-2.53/-2.36	-2.22/-2.11	-2.87/-4.63	-6.90/-8.10	-7.30/-5.84	-5.12/-4.92	-4.15/-3.08	-2.73/-2.98	-3.02/-2.06	-1.51/-1.22	-0.55/-0.43	-1.41/-2.34	-2.67/-3.10	-2.89/-2.29
Θ (30°)	-2.93/-3.06	-2.81/-2.72	-2.79/-3.32	-3.61/-3.58	-2.72/-1.52	-1.50/-1.70	-1.47/-1.64	-3.09/-5.76	-7.79/-5.64	-3.69/-2.80	-2.55/-2.70	-3.40/-4.77	-7.00/-9.57	-12.25/-12.93	-9.60/-6.24	-4.60/-3.89	-4.07/-4.73	-3.92/-2.62	-2.24/-2.50	-2.59/-2.10	-1.20/-1.97	-4.46/-6.16	-5.23/-4.24	-3.27/-2.90
Θ (37.5°)	-3.84/-2.96	-2.64/-2.82	-2.86/-2.93	-2.67/-2.40	-1.63/-1.11	-1.29/-1.79	-1.91/-2.01	-3.57/-8.00	-9.48/-3.97	-2.67/-3.72	-4.13/-4.26	-4.92/-6.50	-8.75/-10.25	-11.70/-11.64	-8.66/-6.46	-4.55/-2.65	-1.79/-2.72	-4.63/-3.25	-1.83/-2.28	-3.78/-4.08	-3.16/-4.68	-10.12/-7.37	-4.97/-4.91	-4.41/-4.12
Θ (45°)	-3.28/-2.54	-2.58/-2.59	-2.07/-1.30	-0.43/-0.27	-0.54/-0.35	0.32/-0.14	-1.29/-1.25	-2.09/-7.42	-6.80/-1.61	-1.58/-3.15	-3.09/-3.21	-4.91/-7.57	-9.37/-7.63	-7.18/-9.05	-8.59/-8.16	-7.66/-3.54	-0.56/-0.58	-3.21/-4.36	-2.19/-2.24	-3.78/-4.82	-5.27/-7.89	-14.34/-6.57	-5.22/-7.13	-7.52/-5.32
Θ (52.5°)	-4.45/-4.57	-4.92/-3.85	-1.86/-0.30	0.77/-1.18	0.72/0.56	1.44/-1.33	0.49/-0.16	-1.74/-7.56	-1.87/-1.13	-0.39/-3.60	-4.29/-5.86	-9.49/-12.18	-10.11/-6.49	-6.31/-8.06	-8.39/-7.87	-8.27/-7.95	-5.08/-2.48	-3.30/-6.46	-5.20/-3.81	-5.70/-7.71	-7.99/-12.81	-13.52/-6.16	-6.15/-11.21	-10.34/-5.91
Θ (60°)	-6.30/-6.73	-6.20/-3.57	-1.71/-0.12	1.37/2.39	2.30/2.01	2.58/2.24	0.69/0.68	1.14/-3.08	-1.49/2.07	-0.02/-4.51	-5.66/-8.76	-9.98/-10.04	-9.87/-9.71	-8.77/-6.84	-6.83/-10.65	-12.13/-9.81	-9.02/-5.78	-5.20/-7.89	-7.29/-5.34	-6.96/-10.29	-11.15/-15.01	-11.84/-8.38	-8.40/-13.97	-11.12/-6.98
Θ (67.5°)	-6.65/-6.38	-5.15/-2.86	-1.36/-0.42	0.67/2.24	3.03/2.44	2.42/3.39	1.93/-1.14	1.35/-0.63	1.48/3.09	-0.24/-3.00	-3.87/-6.19	-6.15/-6.03	-6.95/-10.01	-13.11/-7.30	-5.07/-7.23	-11.32/-11.16	-11.86/-8.35	-5.58/-7.99	-10.13/-7.38	-9.85/-14.60	-12.90/-14.99	-12.22/-11.07	-11.57/-13.74	-10.00/-6.20
Θ (75°)	-5.44/-4.57	-3.69/-1.86	-0.87/-0.81	-0.34/-1.98	3.64/3.13	3.04/3.93	2.84/-1.56	2.23/-1.18	1.73/3.34	0.95/-2.05	-2.28/-3.16	-3.28/-4.16	-5.88/-9.74	-13.17/-8.12	-5.14/-5.69	-9.39/-12.96	-12.02/-9.83	-6.03/-8.11	-8.41/-8.41	-13.06/-15.93	-15.83/-14.36	-15.12/-12.01	-12.78/-12.07	-6.52/-4.50
Θ (82.5°)	-5.47/-4.00	-2.82/-1.61	-0.77/-0.74	-0.44/-1.66	3.48/3.47	2.90/3.72	3.36/2.31	2.98/-1.64	2.44/3.98	1.58/-0.21	-1.42/-3.27	-4.14/-4.94	-5.78/-8.86	-10.02/-10.15	-7.14/-6.54	-10.48/-14.99	-12.58/-10.68	-5.61/-7.89	-9.00/-8.94	-12.30/-15.70	-14.64/-13.25	-15.17/-10.96	-12.05/-10.77	-5.28/-4.01
Θ (90°)	-5.46/-3.90	-3.02/-1.85	-1.06/-1.21	-1.13/-1.29	3.46/3.34	3.01/3.46	3.25/2.25	3.00/2.84	2.02/3.42	1.43/-1.05	-1.55/-3.14	-3.66/-4.96	-5.46/-6.87	-7.74/-9.77	-9.08/-7.70	-9.87/-14.23	-14.20/-10.15	-7.83/-8.88	-12.84/-9.62	-11.52/-13.04	-14.95/-11.35	-14.54/-9.86	-12.38/-9.82	-4.86/-4.00
Θ (97.5°)	-6.22/-3.85	-2.78/-1.95	-1.25/-1.40	-1.05/0.95	2.54/2.78	2.74/3.50	2.94/2.09	2.95/3.04	2.13/3.14	1.65/-0.77	-2.56/-5.00	-5.17/-6.50	-7.72/-9.07	-9.22/-9.34	-8.49/-9.34	-8.69/-11.47	-12.48/-13.57	-12.26/-15.30	-14.90/-12.74	-11.37/-15.64	-15.79/-10.51	-13.59/-8.19	-11.57/-8.75	-5.27/-4.49
Θ (105°)	-6.88/-4.03	-3.25/-2.03	-1.76/-1.98	-1.42/0.46	1.86/2.14	2.52/2.86	2.76/-1.75	2.41/2.65	1.21/-1.94	1.28/0.08	-1.26/-3.28	-5.16/-6.11	-6.86/-7.94	-8.02/-7.68	-8.55/-10.60	-10.03/-8.26	-13.89/-15.10	-15.59/-15.55	-15.27/-15.16	-11.04/-14.96	-15.26/-11.15	-14.22/-11.24	-11.43/-8.00	-6.00/-4.59
Θ (112.5°)	-7.02/-4.99	-3.81/-2.97	-3.14/-2.65	-1.70/0.02	0.89/-1.26	1.46/-1.86	1.75/0.81	1.02/2.23	1.09/-1.26	0.98/-0.77	-2.45/-4.55	-6.35/-6.82	-8.82/-11.93	-14.88/-10.53	-8.12/-9.04	-9.78/-11.20	-13.89/-15.13	-15.22/-15.36	-12.18/-13.63	-9.98/-14.79	-10.18/-8.08	-14.15/-11.62	-8.76/-8.08	-6.18/-5.45
Θ (120°)	-6.22/-6.44	-5.64/-4.52	-4.23/-3.10	-2.32/-1.06	0.12/0.82	1.15/-1.00	1.18/0.22	0.29/-1.1	0.25/0.10	0.54/-0.35	-1.79/-2.60	-4.12/-5.47	-7.13/-9.57	-15.20/-15.05	-15.24/-12.31	-16.37/-15.43	-15.48/-9.56	-12.86/-12.29	-9.31/-11.92	-10.11/-14.25	-13.07/-9.51	-12.07/-13.		

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





Antenna Pattern of 6G

Appendix B.2

Total Gain Data

Freq(Hz)	6.175GPol.	TotalAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-1.36/-0.86	-1.10/-0.91	-0.36/-0.10	0.05/-0.39	-0.31/-0.28	-0.76/-0.93	-0.86/-0.89	-1.08/-1.49	-1.73/-1.60	-1.78/-1.76	-1.93/-1.62	-1.39/-1.24	-0.89/-0.89	-0.97/-0.61	-0.38/-0.23	-0.22/-0.13	0.14/-0.36	0.56/-0.60	0.66/-0.63	0.68/-0.44	0.37/-0.08	-0.44/-0.17	0.47/-0.21	-0.47/-1.06
Θ(7.5°)	-0.95/-1.22	-1.17/-0.78	-0.41/-0.29	0.30/-0.00	-0.09/-0.72	-2.02/-2.26	-2.71/-3.15	-4.78/-6.31	-6.97/-6.71	-6.74/-6.61	-6.42/-5.87	-5.57/-5.71	-5.75/-5.67	-6.00/-6.20	-5.33/-4.66	-4.01/-3.12	-2.02/-1.29	-0.69/-0.34	-0.20/-0.49	-0.42/-0.84	-0.72/-0.74	-1.05/-1.04	-0.25/-0.22	-0.39/-1.55
Θ(15°)	-1.74/-2.20	-3.17/-2.26	-0.14/-1.21	1.32/-1.12	1.02/-0.12	-1.12/-1.17	-1.87/-3.11	-3.59/-3.39	-3.71/-3.92	-3.70/-3.17	-2.23/-1.55	-1.28/-1.06	-0.98/-1.58	-3.03/-4.78	-6.56/-8.07	-9.87/-9.82	-7.69/-5.11	-3.89/-3.06	-2.78/-2.52	-2.85/-3.61	-3.88/-4.50	-4.09/-2.27	-1.29/-2.37	-3.01/-1.93
Θ(22.5°)	-2.97/-2.60	-4.44/-2.83	-0.61/-0.26	0.72/-1.29	1.07/-1.12	-1.23/-1.99	-2.67/-2.21	-0.61/-0.02	-0.04/-0.52	-1.15/-2.52	-4.42/-5.45	-4.10/-2.11	-1.00/-0.85	-1.26/-1.56	-1.54/-1.94	-3.68/-5.93	-6.32/-4.96	-4.76/-4.05	-3.33/-2.96	-3.20/-4.07	-4.47/-4.07	-4.34/-3.76	-3.03/-4.25	-5.74/-4.76
Θ(30°)	-4.37/-3.58	-4.11/-4.97	-5.54/-2.95	-1.03/-0.33	0.27/-1.30	-2.20/-3.39	-3.33/-1.73	-0.50/-1.05	-2.84/-3.39	-3.58/-5.97	-8.73/-12.19	-14.25/-13.22	-9.71/-7.71	-5.94/-3.50	-0.96/-0.36	0.35/-1.35	-1.72/-1.05	-1.56/-2.58	-2.60/-3.66	-4.85/-2.54	-2.29/-4.14	-2.29/-4.14	-6.49/-7.61	
Θ(37.5°)	-6.77/-6.11	-4.39/-5.41	-5.80/-5.65	-5.06/-2.38	-1.38/-2.37	-3.24/-4.46	-2.10/-0.89	-1.85/-4.28	-5.22/-3.22	-2.50/-4.27	-5.42/-4.85	-5.56/-8.69	-12.00/-12.58	-9.40/-4.39	-1.26/-0.39	0.89/-0.03	-1.07/-1.27	-1.69/-1.43	-1.81/-3.32	-3.53/-3.37	-3.90/-2.41	-1.53/-1.06	-1.62/-3.57	-5.46/-6.26
Θ(45°)	-5.17/-6.79	-9.35/-8.06	-7.60/-7.66	-6.34/-4.02	-3.79/-3.45	-4.46/-6.46	-1.35/-0.69	-3.25/-3.44	-2.53/-2.70	-4.19/-1.74	-10.38/-9.09	-6.20/-5.55	-7.93/-6.33	-3.65/-2.35	-1.68/-0.34	0.78/-0.13	-1.27/-1.68	-1.81/-1.24	-2.44/-4.86	-3.58/-2.32	-3.90/-2.36	-0.59/-1.51	-2.58/-2.98	-5.83/-7.62
Θ(52.5°)	-9.75/-10.74	-8.72/-8.55	-7.68/-7.08	-8.36/-5.88	-4.83/-3.19	-5.00/-6.05	-1.98/-2.59	-3.05/-1.93	-3.36/-5.86	-7.15/-12.90	-10.93/-8.85	-6.40/-8.95	-8.54/-4.23	-2.13/-2.85	-4.44/-2.97	-1.22/-0.77	-0.39/-0.04	-1.89/-1.68	-1.18/-5.71	-4.64/-0.12	-1.31/-1.83	-1.16/-1.15	-2.27/-4.62	-7.93/-9.97
Θ(60°)	-9.37/-15.95	-8.06/-7.85	-11.68/-6.98	-8.18/-6.76	-7.08/-4.20	-4.11/-5.22	-3.99/-4.25	-4.08/-2.57	-4.66/-9.98	-10.65/-10.20	-5.91/-5.55	-7.47/-10.64	-6.84/-3.99	-3.35/-2.71	-3.02/-2.89	-0.58/-1.31	1.71/-2.27	2.01/-1.92	1.76/-0.09	-2.11/-2.08	1.44/-0.61	-0.24/-1.12	-2.43/-5.21	-10.27/-9.84
Θ(67.5°)	-9.18/-15.94	-14.83/-9.92	-10.02/-9.21	-13.13/-6.39	-7.93/-9.24	-8.59/-12.16	-8.57/-1.45	-5.16/-4.54	-8.05/-10.38	-8.98/-6.69	-5.01/-0.66	-10.26/-7.73	-2.85/-3.38	-3.68/-2.04	-1.27/-0.02	1.31/-3.16	4.15/-4.81	3.42/-3.53	2.20/-1.34	0.89/-2.15	1.84/-0.66	0.25/-0.44	-0.19/-4.86	-8.55/-7.68
Θ(75°)	-9.54/-12.39	-11.68/-9.74	-8.57/-10.95	-11.95/-9.09	-6.10/-7.40	-9.71/-14.43	-14.58/-10.26	-10.87/-11.28	-9.15/-12.32	-12.50/-6.69	-5.48/-7.04	-11.14/-8.00	-1.71/-3.46	-5.86/-1.83	1.17/-0.33	2.98/-4.50	4.55/-4.95	4.65/-8.37	3.40/-3.03	4.50/-2.22	3.37/-1.80	-0.05/-0.00	1.09/-3.22	-8.84/-6.57
Θ(82.5°)	-8.62/-6.36	-10.12/-6.30	-6.29/-9.44	-9.27/-6.24	-7.23/-7.62	-12.32/-12.10	-10.67/-9.82	-11.02/-12.70	-9.60/-12.84	-8.70/-8.64	-8.96/-7.09	-15.41/-5.84	-2.36/-5.64	-4.38/-0.70	2.00/-3.94	4.13/-4.79	4.39/-4.52	4.64/-4.54	3.29/-6.06	5.123.86	3.93/-1.00	1.75/-1.44	-0.33/-1.62	-3.71/-6.94
Θ(90°)	-5.50/-6.24	-8.18/-4.67	-4.41/-5.59	-8.50/-8.20	-6.16/-9.33	-10.80/-11.65	-11.88/-9.98	-12.84/-12.89	-7.84/-14.06	-9.03/-15.26	-12.09/-8.36	-10.83/-7.80	-4.36/-5.56	-4.88/-2.50	0.69/-3.26	3.77/-3.69	4.48/-4.62	4.10/-4.40	2.78/-4.13	5.02/-4.14	3.93/-3.06	1.24/-2.10	-1.43/-1.18	-3.92/-4.12
Θ(97.5°)	-3.46/-6.90	-8.53/-3.69	-5.25/-2.59	-8.36/-10.76	-6.66/-10.88	-14.02/-9.98	-15.20/-7.25	-9.30/-10.11	-9.36/-15.65	-8.04/-14.83	-14.05/-8.07	-10.20/-8.23	-4.91/-3.96	-6.75/-5.19	-0.78/-0.92	1.63/-1.27	1.78/-0.33	3.19/-2.69	0.78/-3.07	3.44/-3.75	3.25/-1.31	-0.36/-2.45	-0.72/-1.46	-3.93/-7.20
Θ(105°)	-1.18/-6.05	-6.87/-4.72	-5.43/-6.45	-8.21/-10.91	-6.40/-8.71	-10.08/-8.35	-8.56/-6.33	-8.56/-14.00	-14.63/-14.55	-13.36/-8.68	-9.12/-5.38	-7.54/-10.47	-3.76/-3.91	-7.22/-6.15	-1.89/-0.30	-0.53/-0.31	0.94/-3.37	3.04/-2.25	0.56/-2.82	3.33/-2.03	2.36/-0.23	-1.25/-1.31	0.25/-0.80	-3.41/-5.98
Θ(112.5°)	-4.92/-5.04	-6.16/-7.16	-5.55/-6.78	-11.29/-11.26	-9.42/-12.56	-7.33/-9.62	-11.77/-9.22	-11.30/-8.30	-9.88/-14.31	-11.91/-8.04	-7.72/-6.75	-9.41/-5.92	-4.33/-6.25	-12.92/-6.88	-1.38/-0.40	-0.87/-0.22	-0.43/-3.84	2.60/-0.48	0.28/-2.63	4.60/-2.06	0.48/-0.42	-3.75/-2.46	-0.19/-0.17	-2.90/-4.76
Θ(120°)	-6.08/-4.95	-5.56/-9.67	-9.18/-6.15	-10.31/-4.16	-12.64/-14.93	-12.14/-11.50	-15.02/-12.55	-10.40/-7.59	-14.47/-12.91	-13.96/-13.32	-11.31/-12.18	-9.58/-6.59	-6.16/-6.29	-9.60/-7.63	-2.10/-1.78	-2.39/-2.09	-2.64/-3.23	1.06/-4.96	-0.43/-0.97	4.17/-0.40	-0.48/-2.13	-5.87/-2.85	-1.33/-1.12	-4.04/-5.88
Θ(127.5°)	-3.91/-5.00	-7.44/-6.92	-8.86/-10.20	-7.82/-9.92	-12.17/-9.19	-8.50/-11.82	-9.63/-7.26	-14.88/-15.28	-10.51/-12.62	-14.35/-13.74	-15.18/-8.83	-5.63/-6.86	-3.54/-3.50	-3.25/-3.83	-1.204.09	-0.50/-8.21	-0.34/-1.49	2.66/-2.12	-0.60/-4.18	-8.01/-6.35	-1.05/-1.31	0.12/-0.19	-2.43/-5.21	-5.49/-7.79
Θ(135°)	-5.64/-4.76	-6.75/-6.72	-4.07/-6.50	-11.45/-7.97	-12.98/-9.38	-11.13/-13.00	-14.71/-13.13	-12.48/-12.34	-15.26/-15.88	-15.62/-14.43	-8.74/-7.41	-11.28/-4.80	-2.90/-4.32	-10.87/-11.41	-6.79/-4.09	-8.77/-3.71	1.80/-3.39	-1.27/-5.47	0.02/-1.91	1.45/-3.39	-1.94/-2.35	-8.69/-7.91	-1.57/-1.09	-3.07/-6.20
Θ(142.5°)	-7.13/-6.10	-5.45/-6.92	-11.78/-7.97	-9.12/-15.24	-10.98/-10.13	-8.02/-10.49	-8.41/-9.13	-15.92/-14.02	-15.83/-11.16	-9.58/-10.61	-11.65/-14.92	-14.61/-8.26	-7.42/-6.55	-5.03/-3.65	-3.03/-10.43	-11.24/-5.77	-0.90/-2.15	-5.95/-10.34	-6.90/-2.59	-2.65/-4.23	-3.48/-7.13	-11.69/-8.01	-4.73/-4.17	-3.33/-4.97
Θ(150°)	-12.67/-9.79	-6.85/-4.92	-14.29/-11.88	-8.74/-7.56	-11.19/-11.81	-9.26/-12.81	-11.67/-10.96	-14.90/-14.13	-10.76/-13.23	-15.96/-13.91	-14.84/-10.85	-6.68/-4.31	-4.42/-6.58	-8.94/-9.05	-14.40/-12.17	-11.18/-7.88	-5.19/-5.94	-6.81/-9.43	-10.61/-8.99	-9.85/-12.33	-11.22/-10.05	-9.10/-5.31	-2.49/-1.71	-4.51/-10.84
Θ(157.5°)	-9.74/-10.54	-8.60/-7.72	-6.85/-7.25	-8.65/-9.05	-8.01/-7.14	-7.47/-11.34	-15.01/-15.46	-15.35/-13.21	-14.85/-16.37	-16.06/-15.39	-15.24/-12.09	-8.49/-7.49	-8.83/-7.36	-4.43/-2.82	-2.54/-3.82	-6.93/-9.65	-8.31/-6.74	-6.74/-8.47	-9.36/-7.42	-5.75/-5.17	-5.38/-5.64	-5.11/-4.20	-3.98/-3.94	-5.75/-8.23
Θ(165°)	-5.92/-6.89	-8.47/-10.49	-9.35/-9.55	-9.01/-9.30	-12.86/-15.99	-15.49/-14.56	-14.71/-15.06	-15.69/-16.06	-14.81/-12.35	-11.30/-12.40	-11.79/-8.69	-6.57/-4.70	-3.91/-3.42	-3.61/-4.84	-6.05/-6.79	-7.63/-8.96	-13.00/-12.92	-12.65/-14.38	-15.26/-11.17	-7.49/-5.31	-4.77/-6.12	-7.85/-7.55	-7.94/-12.20	-13.23/-7.85
Θ(172.5°)	-9.50/-10.11	-5.29/-7.34	-7.28/-9.73	-11.70/-11.52	-10.60/-8.95	-8.61/-9.73	-11.29/-11.20	-11.57/-12.15	-14.12/-14.16	-15.96/-14.60	-14.36/-14.56	-14.91/-15.02	-14.31/-14.22	-14.20/-14.97	-14.95/-15.22	-14.56/-15.31	-14.64/-14.74	-15.41/-16.07	-14.97/-14.50	-11.23/-8.60	-7.71/-8.41	-8.63/-7.93	-7.73/-6.28	-5.57/-7.25
Θ(180°)	-10.95/-9.59	-8.70/-9.60	-13.62/-15.17	-14.73/-16.19	-14.61/-15.03	-14.67/-14.61	-15.62/-15.68	-15.10/-15.13	-14.88/-15.54	-15.82/-15.79	-15.67/-15.81	-15.16/-15.73	-16.00/-15.47	-15.69/-14.70	-13.90/-13.92	-14.70/-14.44	-13.45/-12.94	-11.98/-12.59	-13.35/-13.45	-15.18/-15.32	-15.01/-15.72	-13.48/-11.87	-15.08/-15.32	-11.90/-10.22
Freq(Hz)	6.175GPol.	TotalAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	1.75/-1.97	2.45/-2.69	2.59/-1.99	1.97/-2.05	1.96/-1.69	1.81/-2.00	2.02/-2.16	2.17/-1.85	1.66/-1.75	1.58/-1.61	1.57/-1.23	1.17/-1.17	1.26/-1.00	1.04/-0.98	0.93/-1.26	1.48/-1.74	1.80/-2.08	2.25/-2.36	2.30/-2.40	2.65/-2.90	2.78/-2.39	2.31/-2.24	2.00/-2.11	1.98/-1.86
Θ(7.5°)	2.00/-1.90	2.37/-2.22	2.28/-2.01	2.22/-2.10	1.94/-2.14	2.11/-1.88	1.26/-2.02	0.59/-0.47	0.34/-0.13	0.18/-0.01	0.00/-0.17	0.25/-0.08	-0.02/-0.05	-0.03/-0.13	0.10/-0.22	0.55/-0.68	0.75/-0.96	1.25/-1.17	1.65/-1.86	2.03/-2.15	2.32/-2.66	3.10/-3.28	3.02/-2.91	2.72/-2.19
Θ(15°)	1.07/-0.50	0.61/-0.69	0.81/-0.68	1.04/-1.93	1.72/-1.94	1.72/-1.63	1.58/-1.06	0.36/-0.53	-0.62/-1.98	-2.36/-3.09	-3.96/-4.42	-4.70/-4.36	-4.57/-5.08	-5.10/-4.59	-4.26/-3.49	-3.00/-2.17	-1.64/-1.02	-0.69/-0.47	-0.56/-0.05	0.05/-0.20	0.37/-0.14	0.60/-1.43	1.49/-1.29	1.56/-1.58
Θ(22.5°)	0.50/-0.20	-0.25/-0.18	-0.28/-1.40	0.06/-1.27	1.33/-1.80	1.57/-0.43	-0.61/-1.12	-1.34/-1.46	-1.60/-2.31	-3.31/-4.42	-5.34/-5.65	-4.82/-3.57	-3.23/-4.27	-6.54/-6.35	-8.06/-6.52	-4.56/-3.30	-2.06/-0.49	0.51/-1.30	1.26/-1.41	0.90/-0.45	0.68/-1.10	1.34/-0.95	0.20/-0.32	1.29/-1.38
Θ(30°)	-1.82/-2.79	-3.52/-2.50	-1.88/-1.79	-2.19/-1.69	-4.71/-0.83	1.38/-0.52	-0.26/-0.43	1.11/-0.54	-1.00/-3.16	-3.68/-4.39	-11.10/-14.65	-13.97/-8.18	-5.94/-5.64	-7.38/-7.08	-5.21/-3.70	-2.92/-8.27	-3.03/-1.76	-0.52/-0.46	0.72/-0.30	0.05/-0.81	2.06/-2.26	1.26/-0.60	-0.94/-3.48	-3.78/-2.31
Θ(37.5°)	-10.01/-11.01	-15.12/-12.44	-5.27/-4.80	-6.97/-8.00	-3.64/-8.09	1.85/-0.04	-1.06/-0.86	1.30/-0.39	-4.60/-6.81	-5.20/-5.51														



Antenna Pattern of 6G

Appendix B.2

Θ (15°)	0.24/-0.12	-0.40/-0.76	-0.78/-0.64	-0.46/-0.24	-0.09/0.16	0.37/0.71	0.92/1.04	1.27/1.43	1.35/1.07	0.34/-0.75	-1.84/-2.54	-2.75/-3.15	-3.49/-3.97	-4.50/-4.65	-4.26/-3.76	-3.27/-2.99	-3.01/-2.75	-2.29/-1.87	-1.65/-1.48	-1.46/-1.21	-0.79/-0.33	-0.05/0.34	0.19/0.05	-0.01/0.18
Θ (22.5°)	-1.46/-1.90	-2.19/-1.91	-1.38/-0.94	-0.64/-0.60	-0.32/0.29	1.04/-1.45	1.48/-1.16	1.00/0.84	0.61/0.35	-0.57/-2.18	-4.35/-6.06	-6.56/-6.83	-7.05/-8.59	-9.10/-7.42	-5.68/-5.20	-4.29/-4.39	-4.25/-3.53	-2.48/-1.68	-1.10/-1.04	-1.11/-1.36	-1.93/-2.02	-1.35/-0.60	-0.54/-0.94	-1.09/-1.17
Θ (35°)	-3.77/-4.19	-4.60/-3.92	-3.02/-2.44	-1.83/-1.55	-1.23/-0.27	0.96/-1.54	1.53/-3.37	1.02/0.43	-0.33/-0.78	-1.28/-2.67	-5.23/-8.26	-11.16/-12.30	-11.33/-10.27	-10.14/-11.25	-12.07/-11.94	-8.49/-6.58	-5.74/-5.06	-3.13/-1.52	-1.17/-1.49	-1.93/-2.24	-2.43/-3.29	-4.18/-3.47	-2.48/-2.13	-2.30/-3.01
Θ (37.5°)	-1.86/-1.51	-1.16/-1.13	-1.12/-2.57	-3.20/-3.14	-2.78/-1.39	0.69/-1.63	1.50/-1.15	0.85/0.64	-0.13/-1.12	-2.45/-4.84	-7.26/-9.53	-10.34/-10.47	-11.16/-13.26	-12.32/-11.14	-9.74/-8.39	-9.35/-9.25	-6.76/-4.46	-3.33/-2.38	-2.07/-2.71	-3.78/-4.49	-5.05/-5.61	-5.63/-5.37	-3.89/-2.42	-1.50/-1.11
Θ (45°)	-1.52/-0.59	0.22/0.64	0.86/-0.66	-2.23/-2.40	-3.33/-4.08	-1.33/0.48	1.10/-1.56	1.49/-1.05	0.36/-0.38	-1.47/-4.10	-8.59/-8.52	-5.62/-4.26	-6.42/-7.66	-8.50/-10.86	-11.54/-8.27	-7.37/-8.59	-8.36/-6.04	-4.48/-4.10	-3.79/-3.97	-3.94/-3.29	-4.29/-7.21	-9.46/-6.71	-4.77/-3.16	-2.14/-1.58
Θ (52.5°)	-1.94/-1.69	-1.55/-1.07	-0.20/-0.85	-2.03/-1.14	-1.41/-3.15	-1.82/-0.06	1.16/2.06	1.91/-1.66	1.66/-1.1	0.29/-1.70	-1.45/-3.78	-1.94/-1.46	-2.27/-3.32	-4.93/-8.83	-12.54/-7.20	-4.99/-5.84	-7.35/-7.36	-5.89/-5.09	-4.93/-3.60	-2.63/-4.11	-7.11/-11.98	-14.49/-11.44	-5.12/-3.50	-2.52/-2.49
Θ (60°)	-3.39/-2.95	-4.15/-4.34	-2.10/-1.26	-1.21/-1.20	1.40/-0.61	-1.28/-0.03	1.45/2.60	2.80/-1.96	1.71/2.08	1.99/0.58	-1.60/-2.39	-0.93/-0.16	0.16/-0.06	-2.08/-6.63	-12.89/-4.96	-3.49/-4.58	-8.31/-11.36	-10.24/-8.53	-7.11/-6.59	-5.67/-7.64	-8.72/-11.25	-12.47/-7.81	-5.49/-2.69	-2.32/-3.53
Θ (67.5°)	-4.09/-4.09	-4.75/-5.93	-2.54/-0.58	0.30/2.10	2.61/-1.35	0.12/0.07	1.38/2.66	2.47/2.10	3.06/3.76	3.10/-1.16	-1.77/-2.20	0.42/1.02	-0.56/-2.17	-3.10/-5.54	-6.72/-5.55	-5.54/-4.82	-9.18/-13.99	-11.71/-8.74	-8.94/-7.34	-8.25/-11.25	-8.49/-10.49	-14.34/-9.09	-4.97/-2.09	-1.32/-3.63
Θ (75°)	-7.32/-6.04	-3.91/-5.57	-3.50/-0.56	0.76/2.86	3.81/2.77	1.66/-1.24	2.36/3.33	2.76/2.20	3.29/4.38	3.68/-1.20	-2.66/-1.96	0.47/0.37	-0.85/-1.99	-3.69/-5.99	-8.34/-5.13	-5.46/-4.33	-7.93/-12.88	-15.33/-9.09	-8.07/-10.20	-11.91/-9.34	-8.38/-10.96	-12.43/-9.13	-6.45/-2.61	-2.79/-4.85
Θ (82.5°)	-11.59/-6.28	-3.09/-4.03	-2.80/-0.86	0.30/2.41	3.76/3.18	2.23/-1.75	2.80/3.68	3.05/3.04	3.73/3.79	3.14/0.76	-2.51/-2.19	-1.09/-2.26	-1.13/-0.92	-4.43/-11.13	-8.12/-4.01	-4.15/-3.93	-8.10/-11.40	-13.72/-12.94	-5.83/-7.95	-13.20/-8.29	-9.69/-15.07	-13.21/-11.05	-6.41/-4.41	-4.76/-6.65
Θ (90°)	-9.85/-7.18	-3.59/-4.72	-4.16/-1.43	0.63/2.54	3.72/3.45	2.71/2.50	3.39/4.20	3.75/2.67	2.92/3.70	3.19/-1.52	-1.04/-3.50	-3.92/-3.19	-0.21/-0.99	-6.61/-11.40	-7.55/-4.22	-6.39/-7.49	-10.42/-10.23	-10.65/-15.37	-5.93/-8.00	-12.42/-7.56	-13.47/-13.39	-14.74/-9.97	-8.53/-7.40	-5.56/-4.57
Θ (97.5°)	-9.67/-5.78	-3.72/-6.00	-4.40/-1.96	-0.23/-1.85	2.97/2.68	2.32/2.46	3.60/3.87	3.20/2.97	3.23/3.61	3.04/-1.50	-3.56/-5.13	-5.01/-4.95	-1.41/-2.81	-8.57/-10.45	-8.69/-6.60	-9.66/-10.55	-11.23/-9.59	-9.15/-12.75	-8.26/-10.99	-10.22/-8.92	-14.77/-11.02	-13.54/-8.50	-11.25/-8.19	-6.60/-5.61
Θ (105°)	-8.67/-6.48	-5.79/-6.49	-4.33/-2.86	-0.80/0.74	1.76/2.27	2.19/-1.99	3.04/4.13	3.14/2.22	2.48/2.71	3.45/2.28	-1.83/-8.20	-6.67/-4.88	-2.09/-3.16	-10.73/-12.16	-8.07/-5.19	-5.31/-8.56	-13.20/-12.44	-11.63/-11.00	-9.28/-14.56	-13.11/-9.93	-8.62/-11.88	-8.60/-11.77	-12.34/-10.43	-4.52/-6.52
Θ (112.5°)	-9.93/-8.27	-7.40/-8.61	-5.92/-3.46	-1.92/-0.05	0.58/0.77	0.93/-1.70	2.83/2.64	2.08/2.39	1.85/2.31	1.38/0.42	-3.17/-4.28	-4.44/-9.63	-3.16/-3.31	-11.65/-8.53	-5.29/-6.83	-8.32/-10.96	-9.24/-12.32	-9.13/-13.88	-15.44/-10.71	-12.29/-13.00	-9.31/-13.77	-15.21/-8.51	-6.13/-6.60	
Θ (120°)	-11.76/-8.82	-8.44/-8.00	-4.41/-3.25	-2.54/-1.28	-0.57/0.82	1.64/0.96	0.69/-1.39	1.18/0.70	0.68/0.71	0.35/-0.22	-3.94/-6.36	-2.67/-8.38	-5.72/-3.39	-6.61/-11.41	-15.04/-11.79	-8.25/-8.05	-8.67/-10.17	-7.67/-9.74	-9.64/-13.19	-15.55/-12.08	-10.59/-9.94	-8.43/-12.24	-10.15/-9.96	-7.72/-9.57
Θ (127.5°)	-9.14/-6.59	-6.48/-7.63	-6.20/-5.75	-5.04/-2.42	-0.85/-0.87	-1.07/-0.70	0.00/-0.35	-1.16/-0.56	-1.40/-0.88	-2.15/-2.64	-3.78/-7.63	-4.35/-8.81	-9.86/-4.28	-3.69/-4.18	-8.29/-10.70	-8.19/-5.93	-9.53/-7.98	-6.90/-6.94	-15.07/-8.18	-13.73/-10.73	-8.93/-12.67	-15.07/-11.90	-13.24/-15.53	-9.72/-15.64
Θ (135°)	-11.44/-10.08	-8.90/-6.71	-4.80/-3.48	-4.13/-3.28	-2.83/-6.69	-1.93/-1.75	-1.90/-1.37	-0.78/-2.37	-4.15/-1.99	-2.83/-1.18	-1.77/-7.09	-5.55/-4.12	-12.13/-10.98	-6.88/-5.44	-6.32/-6.60	-4.09/-6.37	-7.40/-10.60	-11.08/-10.13	-12.72/-15.24	-10.62/-15.30	-14.83/-10.12	-8.16/-14.04	-12.06/-12.77	-15.47/-15.32
Θ (142.5°)	-10.86/-10.54	-9.54/-8.80	-7.27/-7.26	-6.40/-4.21	-2.20/-2.09	-2.47/-2.73	-1.74/-0.60	-2.69/-6.72	-3.68/-3.38	-6.06/-3.07	-2.26/-6.17	-9.66/-6.33	-7.50/-11.07	-14.91/-11.30	-8.85/-5.72	-4.42/-4.39	-6.74/-17.01	-12.08/-14.69	-13.47/-14.82	-13.86/-11.57	-11.88/-15.09	-14.06/-15.63	-13.89/-14.59	-14.97/-11.01
Θ (150°)	-10.13/-10.51	-10.07/-9.23	-9.36/-8.91	-7.77/-6.67	-6.30/-5.97	-5.40/-4.14	-2.89/-3.46	-4.59/-2.69	-1.88/-4.04	-6.43/-3.20	-1.34/-3.07	-8.70/-13.63	-9.49/-7.39	-7.72/-8.92	-9.72/-10.67	-11.13/-10.11	-9.56/-11.84	-12.91/-15.32	-15.11/-14.02	-10.09/-8.56	-12.04/-15.38	-15.21/-15.06	-13.77/-10.18	-8.75/-10.28
Θ (157.5°)	-9.78/-8.60	-8.53/-4.72	-6.69/-5.97	-4.59/-3.03	-2.14/-2.46	-3.55/-5.51	-7.94/-8.39	-5.85/-4.10	-5.22/-9.60	-11.27/-6.37	-4.23/-4.77	-7.76/-14.16	-13.85/-8.32	-5.29/-4.81	-5.95/-7.37	-9.76/-11.60	-12.55/-13.98	-14.25/-12.67	-11.29/-11.23	-11.49/-11.12	-12.90/-15.81	-12.06/-9.95	-10.78/-15.33	-14.25/-11.35
Θ (165°)	-11.82/-12.66	-13.21/-12.72	-11.49/-11.60	-12.20/-12.94	-12.67/-13.19	-12.92/-11.42	-10.31/-9.26	-8.61/-8.36	-9.89/-12.60	-13.84/-11.31	-8.07/-6.17	-5.61/-6.40	-8.45/-11.02	-15.15/-14.87	-15.19/-14.38	-12.58/-12.61	-13.89/-14.59	-12.59/-9.33	-7.49/-7.08	-8.67/-11.73	-14.93/-13.22	-11.13/-10.43	-10.55/-10.32	-9.33/-10.94
Θ (172.5°)	-7.58/-7.46	-7.45/-7.70	-7.63/-7.61	-7.54/-7.44	-7.64/-7.83	-7.58/-7.36	-7.98/-9.27	-10.49/-11.84	-13.69/-15.52	-15.43/-15.88	-15.76/-15.69	-15.10/-15.87	-13.71/-12.80	-9.97/-9.78	-9.58/-9.29	-9.19/-9.32	-9.56/-9.52	-9.63/-10.19	-10.62/-12.53	-15.18/-15.90	-15.35/-13.76	-14.24/-14.43	-13.96/-11.23	-8.95/-9.77
Θ (180°)	-15.54/-15.86	-15.30/-16.12	-15.64/-15.59	-15.00/-15.52	-15.30/-15.09	-15.17/-15.49	-15.56/-15.38	-15.59/-14.82	-16.00/-15.49	-15.65/-15.34	-14.49/-14.38	-13.51/-14.27	-14.11/-14.39	-14.82/-14.47	-14.87/-15.74	-15.21/-13.51	-12.75/-12.54	-13.74/-15.13	-13.98/-12.33	-11.40/-12.02	-13.32/-14.46	-15.42/-15.10	-15.83/-15.14	-15.46/-15.29
Freq(Hz)	6.4759GPol.	TotalAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	0.84/0.60	0.44/0.29	0.38/0.57	0.68/0.85	0.86/0.91	0.98/0.90	0.68/0.79	1.11/-1.29	1.20/-1.00	0.95/0.83	0.70/0.66	0.49/0.10	-0.25/-0.62	-0.95/-0.82	-0.72/-0.71	-0.46/-0.32	-0.35/-0.42	-0.15/0.41	0.86/-1.00	0.90/0.90	0.93/0.89	0.75/0.83	0.88/0.80	0.88/0.84
Θ (7.5°)	1.00/0.71	0.51/0.71	1.13/-1.24	1.36/-1.59	1.46/-1.55	1.57/-1.53	1.31/-1.37	1.59/-1.69	1.71/-1.91	2.18/2.29	2.05/-1.50	0.84/0.13	-0.54/-1.22	-1.63/-2.17	-0.29/-0.30	-2.66/-2.36	-2.07/-1.87	-1.47/-0.93	-0.68/-0.39	0.11/0.70	0.99/-1.01	0.99/-1.17	1.29/-1.07	0.88/0.84
Θ (15°)	1.46/0.97	0.50/0.05	0.13/0.46	1.00/-1.69	2.04/-2.16	1.74/-1.03	0.34/0.22	0.56/0.93	1.27/-1.70	2.16/2.65	2.98/2.88	2.49/-1.40	-0.16/-1.91	-3.04/-3.81	-4.65/-5.35	-4.84/-3.89	-3.24/-2.36	-1.70/-1.49	-1.12/-0.67	-0.34/-0.09	0.34/0.94	1.32/2.00	2.49/2.45	2.13/-1.95
Θ (22.5°)	1.67/-1.17	0.67/-0.04	-0.65/-0.74	0.10/-1.25	1.87/-2.19	2.20/-1.64	0.85/0.31	0.12/0.38	1.11/-1.83	2.15/2.58	2.93/2.67	1.63/0.05	-2.02/-4.21	-4.14/-3.68	-4.80/-4.70	-4.79/-4.32	-3.51/-2.60	-1.94/-1.41	-1.72/-2.52	-3.83/-4.62	-3.70/-1.91	-0.54/0.46	1.32/2.03	2.10/2.20
Θ (30°)	-1.83/-0.51	0.42/0.30	-0.91/-2.26	-3.11/-2.44	-0.56/-1.17	2.01/-1.79	1.20/-1.23	1.50/-1.52	1.49/-1.38	0.93/0.50	0.68/0.70	0.13/-1.11	-2.97/-5.93	-7.61/-5.53	-4.24/-5.34	-7.25/-6.17	-5.17/-4.30	-3.28/-2.50	-2.19/-2.50	-2.55/-2.91	-3.55/-3.24	-2.11/-0.95	-0.65/-0.76	-1.80/-2.65
Θ (37.5°)	-2.46/-1.35	-0.10/-0.43	-2.31/-4.52	-6.66/-7.31	-3.73/-0.81	0.69/0.81	0.82/-1.52	2.09/-1.95	1.07/0.20	-0.29/-0.17	-0.64/-2.09	-4.00/-5.91	-8.19/-11.99	-9.85/-6.70	-5.12/-6.15	-8.37/-9.54	-6.90/-6.55	-5.35/-3.82	-1.73/-1.03	-1.46/-1.18	-1.62/-2.19	-1.22/-0.07	-0.09/-0.69	-1.91/-3.11
Θ (45°)	-0.30/-1.29	-1.81/-2.65	-4.91/-1.63	-6.12/-5.98	-3.42/-4.08	0.28/-0.20	0.13/-1.19	1.54/-1.29	0.48/-0.17	0.33/0.88	0.02/-1.59	-4.55/-5.55	-3.86/-1.99	-2.52/-3.94	-6.12/-6.95	-5.43/-4.91	-4.70/-4.66	-8.15/-4.49	-2.47/-1.25	-1.49/-2.36	-2.40/-2.82	-2.40/-1.24	-1.24/-1.20	-0.63/-0.10
Θ (52.5°)	-2.40/-4.60	-7.44/-8.28	-7.53/-5.88	-4.17/-4.41	-3.21/-0.73	0.07/-1.43	-0.08/-1.15	0.67/-0.33	-0.48/0.40	2.03/2.34	0.87/-1.50	-2.68/-1.18	0.69/-1.67	1.72/-0.73	4.88/-10.96	6.14/-3.91	-3.43/-5.03	-7.41/-4.38	-1.75/-1.96	-3.34/-0.43	-3.11/-4.27	-5.67/-4.78	-3.48/-2.96	-2.98/-2.60
Θ (60°)	-6.33/-7.87	-6.91/-4.97	-3.59/-2.22	-1.16/-2.03	-2.13/0.28	0.99/0.53	1.66/2.77	1.64/-0.33	0.16/-1.97	3.39/-3.55	1.80/-0.61	-1.75/-0.27	0.75/2.28	2.48/-0.41	-4.11/-7.82	-6.04/-3.74	-4.23/-5.20	-5.54/-4.33	-3.85/-5.06	-4.29/-4.39	-6.60/-12.31	-12.25/-6.45	-3.51/-3.58	-4.00/-4.95
Θ (67.5°)	-5.24/-7.52	-4.80/-3.22	-1.41/-0.57	0.52/0.07	-0.14/0.56	0.67/-1.06	3.20/3																	

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

