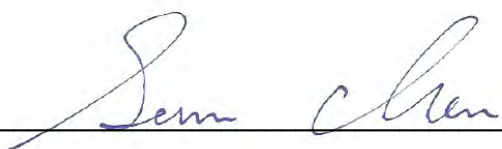


Antenna Composite Gain Test Report

FCC ID	2AHKM-CODA5814Q1
Equipment	DOCIS 3.1 Wi-Fi 6 EMTA Gateway
Brand Name	Hitron
Model Name	CODA5814Q, CODA5810Q
Applicant	Hitron Technologies Inc. No. 1-8, Li-Hsin 1st Rd. Hsinchu Science Park, Hsinchu 30078, Taiwan
Manufacturer	Hitron Technologies Inc. No. 1-8, Li-Hsin 1st Rd. Hsinchu Science Park, Hsinchu 30078, Taiwan
Sample Received	Jun. 28, 2022
Start Test Date	Oct. 25, 2022
Final Test Date	Oct. 25, 2022



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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History of this test report

[illegible]



1. Operation Mode and Antenna Information

Antenna Position	RF Port	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
Ant1	1	Airgain	N03HTAFE-PK1-LA1X80BUR2	PCB Antenna	I-PEX	2.4GHz, 5GHz UNII 1~4
Ant2	2	Airgain	N03HTAFF-PK1-LB1X90BU	PCB Antenna	I-PEX	2.4GHz, 5GHz UNII 1~4
Ant3	3	Airgain	N03HTAFG-PK1-LG1X130BUR2	PCB Antenna	I-PEX	2.4GHz, 5GHz UNII 1~4
Ant4	4	Airgain	N03HTAFH-PK1-LW1X150BU	PCB Antenna	I-PEX	2.4GHz, 5GHz UNII 1~4

Note:

2.4GHz and 5GHz UNII 1~4 Operation Mode (4TX/4RX)

Ant1~Ant4 can be used as transmitting/receiving antenna.

Ant1~Ant4 could transmit/receive simultaneously.

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
5850-5895	5885

3. Testing Location

Testing Location		
Sporton International Inc. Hsinhua Laboratory		
☒	HWA YA	ADD : No.13-1 & 14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan R.O.C.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	05CH03-HY	Rex Liao	23.5-24.5 / 45-55	Oct. 25, 2022

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

4. Test Facility and Configuration

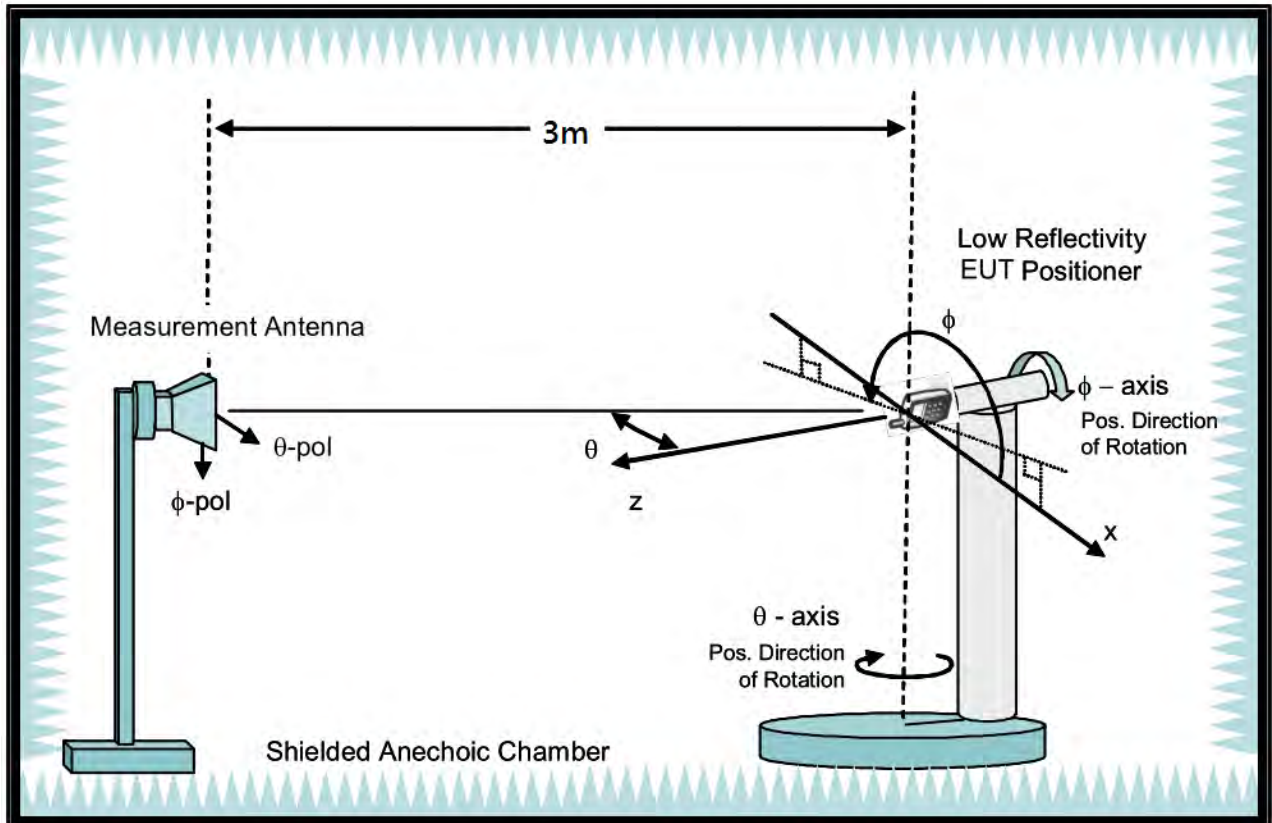
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

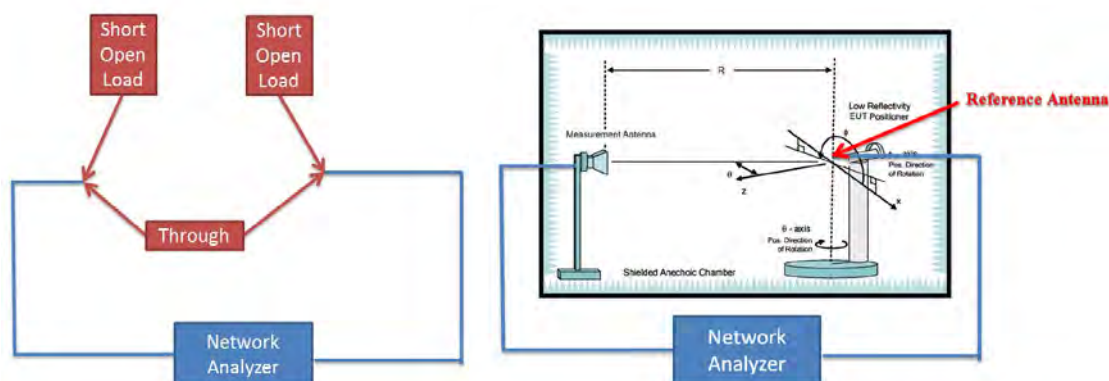
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



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)	-33.55	-33.27	-32.92	-32.91	-32.73	-32.02	-32.67	-32.82	-32.98	-33.18	-32.8	-33.92	-34.62	-35.57
G(phi) reading (dB)	-33.15	-32.7	-32.41	-32.61	-32.43	-31.72	-32.37	-32.51	-32.52	-32.66	-32.5	-33.62	-34.32	-35.48
Reference gain (dBi)	10.1	10.4	10.7	12.5	12.7	13.5	13.4	13.3	13.3	13.2	13.4	12.5	12.1	11.4
Factor(theta) (dB)	43.65	43.67	43.62	45.41	45.43	45.52	46.07	46.12	46.28	46.38	46.2	46.42	46.72	46.97
Factor(phi) (dB)	43.25	43.1	43.11	45.11	45.13	45.22	45.77	45.81	45.82	45.86	45.9	46.12	46.42	46.88

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.

$$\text{Factor} = \text{gain factor} + \text{power gain conversion} = (\text{Reference antenna gain}) - (G \text{ reading})$$



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

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 (dBi)	1.69	0.15	1.31	-3.1	-2.03	-0.45
Ant. 2 (dBi)	-3.32	-5.57	-3.5	3.25	2.81	3.07
Ant. 3 (dBi)	-4.33	-1.77	0.84	1.69	1.81	1.34
Ant. 4 (dBi)	3.22	2.82	1.69	-1.53	-2.98	-3
DG [1SS] (dBi)	5.92	5.44	6.34	6.46	6.27	6.54
Polarization	Theta	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	90	105	97.5	82.5	82.5	82.5
$\Phi(^{\circ})$	105	120	120	285	285	285

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	5.885G
Ant. 1 [$10^{(G/20)}$]	$10^{(1.69/20)}$	$10^{(0.15/20)}$	$10^{(1.31/20)}$	$10^{(-3.1/20)}$	$10^{(-2.03/20)}$	$10^{(-0.45/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-3.32/20)}$	$10^{(-5.57/20)}$	$10^{(-3.5/20)}$	$10^{(3.25/20)}$	$10^{(2.81/20)}$	$10^{(3.07/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(-4.33/20)}$	$10^{(-1.77/20)}$	$10^{(0.84/20)}$	$10^{(1.69/20)}$	$10^{(1.81/20)}$	$10^{(1.34/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(3.22/20)}$	$10^{(2.82/20)}$	$10^{(1.69/20)}$	$10^{(-1.53/20)}$	$10^{(-2.98/20)}$	$10^{(-3/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.215	1.017	1.163	0.7	0.792	0.95
Ant. 2 [$10^{(G/20)}$] value	0.682	0.527	0.668	1.454	1.382	1.424
Ant. 3 [$10^{(G/20)}$] value	0.607	0.816	1.102	1.215	1.232	1.167
Ant. 4 [$10^{(G/20)}$] value	1.449	1.384	1.215	0.838	0.71	0.708
Sum All Antenna [Amax]	3.953	3.743	4.147	4.207	4.115	4.248
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	5.92	5.44	6.34	6.46	6.27	6.54

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

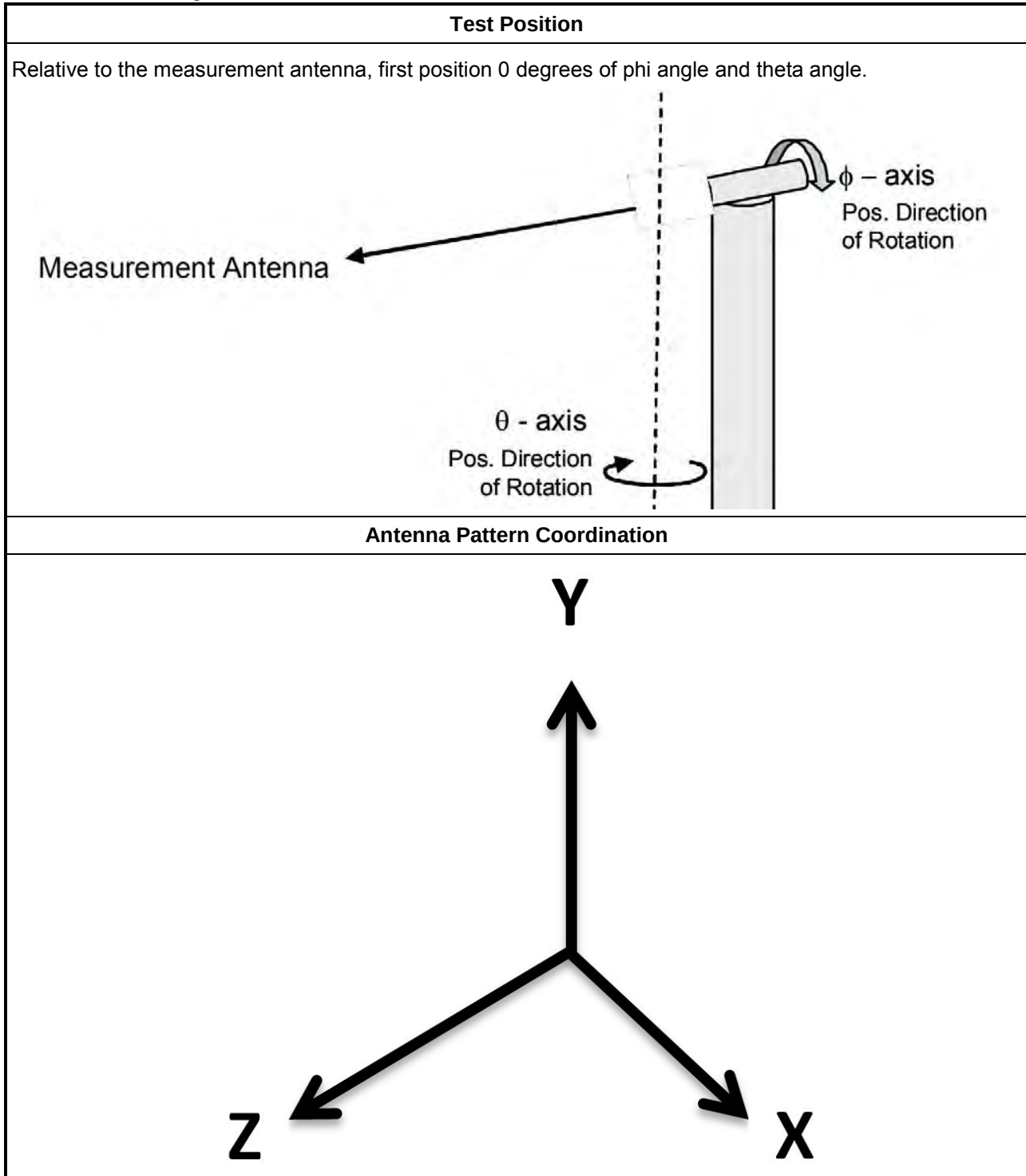
8. Summary of Test Result

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	3.13	2.72	2.24	2.67	2.28	2.95
Ant. 2 Max Gain (dBi)	1.42	2.14	2.8	3.46	3.95	4.03
Ant. 3 Max Gain (dBi)	3.4	2.82	2.58	1.87	3.38	3.3
Ant. 4 Max Gain (dBi)	3.26	2.82	3.83	3.78	4.93	5.47
Ant. 1 Polarization/ Θ ($^\circ$)/ Φ ($^\circ$)	Theta/90/82.5	Phi/150/112.5	Theta/112.5/ 127.5	Theta/112.5/ 127.5	Theta/120/ 127.5	Phi/37.5/120
Ant. 2 Polarization/ Θ ($^\circ$)/ Φ ($^\circ$)	Phi/120/217.5	Theta/67.5/ 202.5	Theta/67.5/195	Theta/75/285	Theta/82.5/ 300	Theta/82.5/300
Ant. 3 Polarization/ Θ ($^\circ$)/ Φ ($^\circ$)	Phi/127.5/225	Theta/82.5/300	Theta/82.5/ 292.5	Phi/15/90	Theta/82.5/ 247.5	Theta/82.5/240
Ant. 4 Polarization/ Θ ($^\circ$)/ Φ ($^\circ$)	Theta/82.5/105	Theta/105/120	Theta/105/ 127.5	Theta/127.5/ 22.5	Theta/127.5/ 22.5	Theta/127.5/ 22.5
Max Gain (dBi)	3.4	2.82	3.83	3.78	4.93	5.47
DG [1SS] (dBi)	5.92	5.44	6.34	6.46	6.27	6.54
DG [2SS] (dBi)	3.4	2.82	3.83	3.78	4.93	5.47
DG [4SS] (dBi)	3.4	2.82	3.83	3.78	4.93	5.47

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. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)

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-1543	1GHz~18GHz	May 31, 2022	May. 30, 2023
Dual Polarization Horn Antenna	Sporton	S0209DP	S0209DP-001	2GHz~9GHz	N.C.R.	N.C.R.
ENA Series Network Analyzer	AGILENT	E5071C	MY46419201	100kHz~8.5GHz	Feb. 21, 2022	Feb. 20, 2023
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 – Radiated Composite Gain.....	Page 13
Appendix B – Antenna Pattern.....	Page 29
Appendix C – Test Photos.....	Page 37



Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	3.13	2.72	2.24	2.67	2.28	2.95
Ant. 2 Max Gain (dBi)	1.42	2.14	2.8	3.46	3.95	4.03
Ant. 3 Max Gain (dBi)	3.4	2.82	2.58	1.87	3.38	3.3
Ant. 4 Max Gain (dBi)	3.26	2.82	3.83	3.78	4.93	5.47
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/82.5	Phi/150/112.5	Theta/112.5/127.5	Theta/112.5/127.5	Theta/120/127.5	Phi/37.5/120
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/120/217.5	Theta/67.5/202.5	Theta/67.5/195	Theta/75/285	Theta/82.5/300	Theta/82.5/300
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/127.5/225	Theta/82.5/300	Theta/82.5/292.5	Phi/15/90	Theta/82.5/247.5	Theta/82.5/240
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/105	Theta/105/120	Theta/105/127.5	Theta/127.5/22.5	Theta/127.5/22.5	Theta/127.5/22.5
Max Gain (dBi)	3.4	2.82	3.83	3.78	4.93	5.47
DG [1SS] (dBi)	5.92	5.44	6.34	6.46	6.27	6.54
DG [2SS] (dBi)	3.4	2.82	3.83	3.78	4.93	5.47
DG [4SS] (dBi)	3.4	2.82	3.83	3.78	4.93	5.47



DG 1SS Result

Freq(Hz)	2.45GPol.	PhiH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
DG(dB)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta(°)	-4.53/-4.21	-3.67/-3.24	-2.91/-2.71	-2.65/-2.68	-2.71/-2.69	-2.63/-2.52	-2.4/-2.28	-2.18/-2.19	-2.38/-2.72	-3.16/-3.44	-3.8/-3.35	-4.88/-5.5	-6.18/-6.55	-6.44/-6.15	-5.69/-5.23	-4.66/-4.41	-3.87/-3.71	-3.53/-3.36	-3.31/-3.31	-3.1/-3.1	-3.21/-3.28	-3.26/-3.28	-3.43/-3.71	-4.06/-4.43
Theta(7.5°)	-4.17/-4.57	-4.67/-4.63	-4.57/-4.44	-3.57/-3.2	-3.57/-3.2	-2.95/-2.79	-2.72/-2.64	-2.67/-2.87	-3.39/-4.06	-4.39/-4.91	-5.34/-6.11	-7.17/-7.82	-7.93/-7.53	-6.95/-6.35	-5.87/-5.53	-5.22/-4.92	-4.66/-4.45	-4.05/-3.81	-3.57/-3.09	-2.61/-2.29	-2.07/-1.88	-1.72/-1.73	-1.94/-2.38	-3.01/-3.68
Theta(15°)	-4.77/-5.44	-6.01/-6.33	-6.31/-6	-5.39/-4.74	-4.23/-3.57	-3.25/-3.14	-3.08/-3.11	-3.3/-3.74	-4.53/-5.4	-6.17/-6.76	-7.24/-8.18	-8.88/-9.05	-8.58/-7.78	-7.06/-6.57	-6.28/-6.1	-5.95/-5.62	-5.09/-4.84	-4.77/-4.65	-4.33/-3.73	-2.89/-2.32	-2/-1.78	-1.66/-1.7	-2/-2.59	-3.37/-4.22
Theta(22.5°)	-5.77/-5.98	-6.43/-6.94	-6.76/-6.09	-5.27/-5.1	-3.94/-3.6	-3.49/-3.57	-3.77/-4.1	-4.58/-5.21	-6.04/-6.67	-7.15/-7.92	-8.85/-9.91	-10.01/-9.73	-8.94/-8.16	-7.1/-6.15	-5.45/-5.01	-4.72/-4.56	-4.5/-4.52	-4.69/-4.96	-5.03/-4.76	-3.81/-3.12	-2.68/-2.43	-2.38/-2.56	-3.03/-3.78	-4.73/-5.66
Theta(30°)	-6.36/-6.27	-6.37/-6.13	-6.32/-6.35	-5.53/-4.96	-4.68/-4.51	-4.62/-4.88	-5.44/-5.97	-6.42/-6.84	-6.72/-6.54	-6.59/-7	-7.36/-7.79	-8.5/-9.41	-9.58/-9.82	-8.04/-6.36	-5.06/-4.16	-3.58/-3.26	-3.17/-3.37	-3.71/-4.24	-4.63/-4.33	-3.46/-2.79	-2.47/-2.47	-2.74/-3.31	-4.08/-4.93	-5.86/-6.33
Theta(37.5°)	-6.8/-6.23	-5.82/-5.69	-5.77/-6.17	-5.87/-5.89	-5.67/-5.62	-5.38/-5.21	-5.28/-5.5	-5.72/-5.62	-5.18/-4.7	-4.37/-4.23	-4.5/-5.28	-6.18/-6.88	-7.67/-8.65	-9.14/-8.05	-6.24/-4.9	-4.02/-3.61	-3.52/-3.84	-4.4/-4.53	-4.38/-3.5	-2.55/-2	-1.92/-2.3	-3.08/-4.11	-5.11/-5.82	-6.42/-6.89
Theta(45°)	-7.02/-6.23	-5.63/-5.04	-4.69/-4.86	-5.16/-4.89	-4.56/-4.21	-3.89/-3.86	-4.27/-5.04	-6.03/-6.31	-5.48/-4.75	-4.18/-3.99	-4.25/-4.82	-5.13/-5.11	-5.3/-6.34	-8.06/-9.39	-9.57/-8.79	-7.82/-7.39	-6.83/-6.48	-6.24/-5.34	-4.34/-3.34	-2.49/-2.21	-2.55/-3.6	-5.25/-2.77	-7.94/-6.89	-8.18/-8.08
Theta(52.5°)	-6.2/-5.44	-5.05/-4.61	-4.66/-4.82	-4.99/-4.48	-3.79/-3.27	-3.18/-3.78	-5.17/-6.34	-6.78/-6.32	-3.7/-2.98	-2.88/-3.21	-3.86/-4.39	-4.31/-3.99	-4.09/-4.67	-5.44/-6.17	-7.02/-8.03	-8.61/-9.46	-9.84/-8.88	-6.98/-5.74	-5.39/-4.62	-3.98/-3.97	-4.8/-6.58	-8.34/-9.56	-9.63/-8.55	-7.28/-6.6
Theta(60°)	-5.98/-5.76	-5.67/-5.71	-5.88/-5.65	-5.11/-3.69	-2.45/-1.63	-1.41/-1.99	-3.29/-4.45	-4.2/-2.02	-0.40/-0.9	-0.36/-1.53	-2.6/-3.81	-4.38/-4.38	-4.16/-4.04	-3.98/-4	-4.31/-5.32	-7.01/-8.15	-8.11/-7.42	-6.15/-4.66	-4/-3.85	-3.86/-4.43	-5.16/-5.99	-7.18/-8.58	-9.21/-8.46	-7.12/-6.36
Theta(67.5°)	-4.03/-3.7	-3.59/-3.6	-3.26/-3.08	-2.64/-2.18	-1.64/-1.04	-0.77/-1.2	-2.31/-3.56	-3.26/-1.46	0.130/61	-0.01/-1.53	-3/-4.36	-4.56/-3.9	-2.88/-2.42	-2.07/-1.93	-1.93/-1.27	-2.3/-2.75	-3.45/-4.36	-5.2/-5.3	-4.48/-4.18	-3.9/-4.06	-4.17/-4.34	-4.74/-5.95	-7.33/-7.74	-6.41/-4.91
Theta(75°)	-3.83/-2.82	-2.13/-1.68	-1.37/-1.15	-1.27/-1.54	-1.59/-1.99	-2.41/-3.25	-3.63/-2.86	-1.060/53	1.611/85	1.19/-0.29	-2.51/-5.19	-5.99/-4.91	-3.36/-2.37	-1.45/-0.78	-0.36/-0.22	-0.39/-0.92	-2.03/-4.34	4.86/-4.27	-3.27/-3	-3.58/-3.96	-4.86/-4.07	-3.48/-3.67	-4.29/-5.1	-5.49/-4.96
Theta(82.5°)	-4.25/-4.86	-4.79/-3.99	-3.21/-2.23	-1.40/-0.71	-0.38/-0.99	-1.98/-3.52	-4.1/-2.34	0.021/95	3.133/33	2.560/82	-1.83/-5.18	-6.61/-4.62	-2.3/-0.98	-0.30/-0.2	0.06/-0.13	-0.81/-1.61	-2.09/-2.2	-2.07/-2.26	-1.87/-1.56	-2.01/-2.98	-2.93/-1.72	-1.08/-1.12	-1.49/-1.77	-2.35/-3.3
Theta(90°)	-4.02/-5.06	-5.54/-4.4	-3.01/-1.83	-0.640/38	0.750/48	-0.22/-0.89	-1.53/-1.63	-0.142/-1	3.674/03	3.251/41	-1.54/-5.61	-6.49/-3.02	-0.86/-0.08	-0.030/06	0.370/5	-0.07/-0.7	-0.63/-0.71	-0.9/-1.01	-1.42/-1.84	-2.65/-3.5	-3.31/-3.08	-3.05/-3.13	-3.54/-3.02	-2.76/-3.15
Theta(97.5°)	-4.21/-4.71	-5.43/-4.68	-3.44/-2.41	-1.34/-0.32	0.070/07	0.040/43	0.45/-0.18	-0.25/-1.79	3.684/23	3.531/67	-1.03/-4.9	-6.39/-3.94	-2.64/-2.32	-1.51/-0.18	0.881/1	0.32/-1.05	-2.1/-1.8	-0.550/-14	-0.1/-1.08	-1.69/-2.08	-2.42/-3.13	-3.99/-4.98	-5.5/-6.2	-5.69/-4.79
Theta(105°)	-5.66/-5.14	-5.3/-4.32	-3.67/-1.2	-0.080/47	0.28/-0.3	-0.170/87	1.451/08	0.111/53	3.343/97	3.452/01	-0.314/09	-8.28/-6.61	-4.1/-2.05	-0.231/12	1.811/94	1.40/-12	-1.23/-1.65	-0.820/-1	-0.09/-1.3	-2.87/-2.8	-2.45/-2.77	-3.4/-3.87	-4.48/-5.69	-7.22/-6.83
Theta(112.5°)	-6.43/-5.73	-5.31/-4.82	-3.28/-1.73	-0.440/16	0.110/1	0.431/05	1.050/28	-0.491/66	3.644/33	4.233/06	1.15/-1.97	-5.6/-5.26	-3.17/-1.38	-0.240/23	0.530/94	0.960/15	-0.55/-0.21	0.972/03	1.950/62	-1.7/-3.83	-3.67/-3.15	-2.72/-11	-2.03/-2.93	-4.73/-6.32
Theta(120°)	-7.96/-8.16	-7.99/-5.41	-2.56/-0.61	0.81/81	2.593/16	3.483/44	3.091/67	-1.03/-0.33	2.153/38	3.52/76	0.92/-0.24	-4.78/-4.74	-2.7/-1.04	0.051/	2.052/85	2.952/23	1.340/59	0.340/39	0.071/-14	-3.61/-4.07	-3.68/-2.41	-1.85/-1.44	-1.79/-3.07	-5.46/-7.19
Theta(127.5°)	-4.6/-3.59	-2.10/-3.48	0.84/1	0.290/01	0.441/38	2.072/27	1.930/59	-0.840/26	1.672/94	3.493/18	1.670/-98	-4.05/-5.97	-5.43/-3.79	-2.19/-0.42	1.292/36	2.461/56	0.11/-0.75	-0.140/5	-0.43/-0.87	-3.82/-5.84	-5.78/-3.96	-2.73/-2.64	-3.05/-3.97	-4.98/-5.14
Theta(135°)	-4.32/-3.13	-1.74/-0.46	0.170/29	-2.24/-4.58	-4.16/-1.67	0.381/3	1.290/11	-0.87/-0.35	0.951/96	2.572/69	20.44	-1.82/-4.71	-7.41/-8.22	-5.68/-3.42	-1.37/-0.16	0.030/31	0.580/7	0.660/46	-0.04/-1.4	-4.6/-7.61	-6.35/-3.76	-2.33/-1.93	-2.24/-3.17	-4.28/-4.36
Theta(142.5°)	-7.05/-6.61	-4.18/-2.69	-1.99/-2.47	-3.69/-4.04	-2.77/-0.11	1.492/27	2.061/27	-0.12/-0.89	-1.48/-0.54	0.130/25	-0.17/-1.21	-2.54/-3.98	-5.18/-4.94	-3.32/-1.72	-0.640/18	0.981/31	1.190/8	0.23/-0.39	-1.37/-2.93	-5.08/-5.71	-4.95/-3.8	-3.24/-3.19	-3.55/-4.63	-5.95/-6.8
Theta(150°)	-3.7/-6.14	-5.08/-4.5	-4.13/-3.98	-4.02/-4.49	-3.86/-1.83	-0.030/94	1.150/53	-0.56/-1.08	-1.65/-2.15	-1.44/-0.83	-0.76/-1.22	-1.78/-2.24	-2.68/-2.82	-2/-1.05	0.080/79	1.221/05	0.58/-0.14	-1.11/-1.23	-3.49/-5.25	-6.98/-7.83	-7.26/-2.93	-4.96/-4.76	-5.41/-6.46	-7.55/-7.75
Theta(157.5°)	-7.08/-6.05	-5.47/-4.64	-3.96/-3.47	-3.39/-3.94	-5.36/-6.17	-4.15/-2.38	-1.61/-1.54	-2.21/-2.7	-3.08/-3.67	-3.73/-2.92	-2.38/-2.23	-2.21/-2.09	-1.65/-1.05	-0.53/-0.06	0.350/54	0.36/-0.19	-1.12/-2.32	-3.87/-5.73	-8.16/-9.86	-10.54/-9.93	-8.07/-6.33	-5.32/-5.3	-6.19/-7.81	-8.92/-8.38
Theta(165°)	-7.74/-6.66	-5.81/-5.1	-4.41/-3.87	-3.65/-3.65	-4.2/-4.79	-5.04/-4.74	-4.11/-3.77	-3.93/-3.95	-3.4/-4.86	-5.67/-5.48	-5.37/-4.3	-3.07/-2	-1.19/-0.65	-0.28/-0.3	-0.05/-0.43	-1.27/-2.5	-3.89/-5.27	-7.16/-8.99	-9.57/-10.01	-9.19/-7.93	-6.55/-5.8	-5.65/-6.03	-6.96/-8.2	-9.13/-8.95
Theta(172.5°)	-7.06/-6.35	-5.58/-4.91	-4.74/-4.54	-4.66/-4.65	-4.77/-4.99	-5.18/-5.42	-5.39/-5.39	-5.62/-5.09	-5.46/-5.77	-5.37/-4.77	-3.83/-3.02	-2.49/-2.16	-2.05/-2.12	-2.46/-3.23	-4.63/-4.26	-6.77/-7.71	-8.61/-9.24	-8.57/-1.44	-6.33/-5.97	-6.02/-6.4	-6.82/-7.63	-8.04/-7.86		
Theta(180°)	-7.34/-6.81	-6.15/-5.64	-5.36/-5.3	-5.19/-5.17	-5.24/-5.34	-5.56/-5.79	-5.72/-5.92	-5.92/-6.35	-7/-7.43	-7.47/-6.84	-5.9/-5.16	-4.34/-3.81	-3.54/-3.45	-3.25/-3.33	-3.71/-4.34	-5.15/-5.74	-6.45/-6.97	-7.8/-8.33	-8.69/-9.36	-8.58/-7.97	-7.58/-7.08	-6.86/-6.94	-7.18/-7.5	-7.67/-7.59
Freq(Hz)	2.45GPol.	ThetaH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta(0°)	-4.58/-4.55	-4.58/-4.66	-4.81/-4.96	-5.1/-5.25	-5.46/-5.78	-6.15/-6.57	-7.02/-7.22	-7.07/-6.81	-6.56/-6.28	-5.93/-5.34	-4.81/-4.28	-4/-3.68	-3.5/-3.19	-2.98/-2.89	-2.98/-3.17	-3.49/-3.83	-4.24/-4.68	-5.24/-5.74	-6.1/-6.35	-6.39/-6.16	-5.82/-5.53	-5.33/-5.25	-5.03/-4.97	-4.74/-4.79
Theta(7.5°)	-3.43/-3.05	-2.73/-2.53	-2.45/-2.46	-2.6/-2.87	-3.31/-3.9	-4.56/-5.28	-5.98/-6.48	-6.58/-6.39	-6.04/-5.61	-5.19/-4.86	-4.76/-4.7	-4.83/-5.1	-5.36/-5.57	-5.56/-5.66	-5.5/-5.6	-5.69/-5.74	-5.72/-5.79	-6.15/-6.61	-7/-7.2	-7.02/-6.66	-6.44/-6.28	-5.96/-5.51	-5.16/-6.45	-4.37/-3.87
Theta(15°)	-2.52/-2.02	-1.56/-1.21	-0.98/-0.92	-1.04/-1.35	-1.86/-2.51	-3.18/-3.84	-4.44/-4.93	-5.15/-5.11	-4.92/-4.56	-4.14/-3.77	-3.63/-3.74	-4.14/-4.42	-4.82/-5.4	-6.29/-7.18	-8.18/-9.02	-8.88/-8.39	-8.16/-9.1	-7.84/-7.69	-7.45/-7.17	-6.95/-6.61	-6.72/-6.45	-6.24/-5.7	-5.19/-4.61	-3.74/-3.03
Theta(22.5°)	-1.98/-1.31	-0.7/-0.2	0.150/29	0.2/-0.12	-0.61/-1.26	-1.88/-2.43	-2.85/-3.06	-3.1/-3	-2.74/-2.36	-1.96/-1.62	-1.38/-1.3	-1.37/-1.59	-1.98/-2.53	-3.23/-4.03	-5/-5.81	-6.49/-7.46	-8.44/-8.62	-8.08/-7.58	-7.04/-6.73	-6.75/-6.9	-7.16/-7.03	-6.39/-5.91	-4.96/-4.13	-3.34/-2.61
Theta(30°)	-1.91/-1.21	-0.480/13	0.620/9	0.940/74	0.34/-0.15	-0.57/-0.83	-0.920/-0.83	-0.710/-0.58	-0.43/-0.22	0.01/7	0.320/46	0.580/6	0.530/3	-0.1/-0.64	-1.26/-2.02	-3.1/-4.6	-5.41/-6.14	-6.68/-6.21	-5.78/-5.87	-6.3/-6.67	-6.61/-6.49	-6.03/-5.23	-4.54/-3.91	-3.27/-2.59
Theta(37.5°)	-1.91/-1.27	-0.530/15	0.761/24	1.551/54	1.270/89	0.680/66	0.811/08	1.31/42	1.431/36	1.190/97	0.860/87	0.961/04	1.020/87	0.630/25	-0.26/-0.97	-1.99/-2.89	-3.37/-4.66	-4.74/-5.88	-4.84/-5.46	-4.68/-4.23	-5.89/-6.04	-5.22/-4.85	-4.14/-3.52	-2.98/-2.49
Theta(45°)	-1.93/-1.35	-0.590/18	0.971/81	2.462/66	2.422/06	1.821/89	2.112/38	2.542/52	2.331/91	1.240/58	0.230/2	0.250/27	0.09/-0.28	-0.65/-1.01	-1.41/-1.87	-2.39/-2.82	-3.02/-3.03	-2.88/-2.71	-2.58/-2.59	-2.73/-3.02	-3.49/-3.95	-3.95/-3.64	-3.48/-3.1	-2.7/-2.3
Theta(52.5°)	-2.32/-1.52	-0.530/5	1.532/48	3.222/48	3.222/78	2.722/8																		



Radiated Composite Gain Data

Appendix A

Θ(22.5°)	-3.05/-2.27	-1.15/-0.84	-0.43/-0.11	-0.12/-0.27	-0.75/-0.74	-0.32/0.25	0.97/1.62	1.85/1.61	1/-0.02	-1.49/-2.78	-3.98/-3.89	-3.11/-3.06	-2.89/-1.95	-0.9/-0.02	0.82/1	0.71/0.23	-0.45/-0.89	-1.16/-1.21	-1.46/-1.77	-2.2/-2.22	-2.26/-2.28	-2.28/-2.53	-2.86/-3.02	-3.5/-3.48
Θ(30°)	-2.28/-1.59	-0.91/-0.58	-0.47/-0.26	-0.42/-0.69	-1.23/-1.32	-0.65/0.13	0.65/1.21	1.56/1.49	0.9/-0.1	-1.3/-2.4	-2.84/-2.71	-2.77/-3.31	-3.33/-2.62	-1.16/0.12	1.02/1.11	0.59/-0.31	-1.02/-1.82	-2.56/-2.9	-3.33/-4	-4.51/-4.16	-3.65/-3.41	-3.81/-4.13	-3.94/-3.22	-3.04/-3.16
Θ(37.5°)	-2.92/-2.58	-3.09/-1.48	-1.43/-1.57	-1.31/-1.27	-1.58/-2.11	-2.26/-1.69	-0.32/0.39	0.48/0.33	-0.31/-1.05	-1.29/-1.62	-1.94/-2.12	-2.87/-4.25	-4.62/-4.42	-3.42/-1.43	-0.23/-0.17	-0.99/-1.43	-1.81/-2.06	-1.73/-1.34	-1.86/-3.3	-3.84/-4.82	-5.34/-4.41	-3.28/-2.62	-2.16/-1.7	-1.44/-2.44
Θ(45°)	-2.54/-2.13	-1.46/-0.81	-0.87/-1.46	-1.61/-3.17	-3.28/-4.05	-3.4/-1.96	-0.21/0.74	0.9/0.7	0.09/-1.14	-1.97/2.35	-2.37/-2.23	-2.53/-3.34	-3.29/-3	-3.38/-3.12	-1.67/-1.28	-1.16/-1.17	-2.73/-2.96	-2.86/-3.55	-5.13/-7.06	-7.8/-5.94	-4.63/-3.14	-2.79/-3.33	-3.55/-3.32	-2.27/-2.35
Θ(52.5°)	-3.73/-3.6	-2.65/-2.2	-2.2/-1.82	-1.67/-2.74	-4.31/-5.27	-3.91/-2.48	-1.94/-2.04	-2.34/-1.73	-1/-0.75	-0.95/-0.89	-1.31/-3.73	-1.75/-1.91	-2.42/-2.66	-3.37/-0.57	-4.29/-2.57	-2.13/-2.52	-2.61/-2.24	-1.49/-1.26	-2.65/-0.55	-7.39/-7.81	-5.97/-5.12	-5.07/-5.02	-4.9/-3.7	-2.6/-2.71
Θ(60°)	-6.49/-6.02	-5.19/-5.39	-5.66/-5.24	-4.94/-4.66	-7.38/-6.79	-4.43/-2.05	-1.13/-1.01	-1.29/-1.3	-1.42/-0.68	-0.81/0.04	0.94/0.87	0.5/0.31	-0.46/-0.5	-1.57/-3.86	-5.97/-5.72	-4.15/-2.81	-3.34/-3.11	-3.44/-2.69	-3.51/-5.41	-5.37/-4.85	-4.06/-4.61	-6.47/-5.75	-4.61/-4.4	-4.69/-5.82
Θ(67.5°)	-6.08/-6.86	-7.47/-7.93	-7.9/-6.61	-6.68/-9.34	-10.04/-6.55	-3.34/-1.24	-1.46/-2.58	-3.06/-3.98	-3.27/-1.08	-0.44/0.49	1.4/1.15	0.61/0.23	-0.08/-0.64	-1.59/-3.37	-6.62/-8.33	-6.39/-3.45	-3.1/-1.33	-0.64/-1.82	-1.97/-3.82	-4.15/-3.04	-3.77/-4.48	-5.54/-5.73	-5.08/-3.86	-3.9/-5.22
Θ(75°)	-5.32/-7.67	-6.84/-7.24	-8.38/-9.11	-9.74/-10.25	-11.42/-4.4	-1.49/-1.61	-3.18/-4.9	-3.39/-3.54	-3.6/-2.17	-1.56/-0.83	0.38/0.29	-0.45/-0.74	-0.39/0.13	-0.13/-1.23	-3.39/-6.78	-6.72/-3.36	-3.42/-3.26	-2.5/-2.64	-2.5/-3.98	-3.84/-2.63	-2.92/-3.87	-2.14/-1.34	-2.38/-3.38	-3.8/-3.83
Θ(82.5°)	-4.71/-6.35	-6.41/-5.8	-6.57/-7.49	-8.14/-6.97	-6.94/-6.89	-4.52/-3.24	-4.09/-4.08	-3.58/-5.61	-4.36/-2.18	-1.13/-0.42	-0.53/-1.08	-1.32/-0.89	0.23/-0.35	-1.15/-1.84	-3.31/-6.48	-6.95/-3.09	-2.73/-3.17	-2.04/-2.51	-1.34/-3.19	-3.72/-1.89	-2.84/-2.07	-0.18/0.31	-1.19/-3.8	-6.69/-5.96
Θ(90°)	-5.22/-6.19	-6.32/-4.3	-4.76/-6.4	-7.28/-6.82	-6.39/-5.96	-4.83/-4.42	-5.4/-6.86	-5.89/-6.08	-5.6/-2.73	-0.95/0.34	0.73/-0.39	-1.92/-1.84	-2.11/-0.95	-0.88/-2	-3.83/-8.04	-7.23/-3.25	-3.19/-6.41	-7.56/-4.5	-2.74/-3.13	-2.27/-2.54	-3.6/-0.52	0.18/-0.65	-3.03/-5.6	-6.47/-6.42
Θ(97.5°)	-5.57/-4.6	-3.4/-2.5	-2.4/-4.45	-7.4/-6.97	-5.79/-7.28	-6.99/-6.38	-7.34/-6.24	-6.85/-9.99	-8.43/-5.86	-1.50/-42	0.44/-0.94	-3.03/-2.64	-1.31/-2.34	-3.37/-3.57	-5.91/-7.92	-7.24/-4.07	-5.28/-5.04	-7.72/-6.81	-4.06/-5.3	-3.23/-3.29	-3.96/0.21	0.21/-1.95	-5.13/-9.38	-8.52/-5.9
Θ(105°)	-6.4/-4.32	-3.03/-3.49	-3.72/-4.9	-4.61/-5.05	-4.21/-5.53	-6.08/-7.31	-8.31/-7.73	-9.12/-10.44	-8.38/-6.39	-2.5/-0.26	0.71/0.17	-1/-2.18	-3.88/-3.9	-3.81/-5.96	-7.21/-6.48	-5.53/-7.1	-7.77/-5.15	-5.63/-6.74	-7.98/-8.97	-5.82/-5.81	-4.15/0	-0.06/-3.18	-6.96/-10.89	-7.84/-9.5
Θ(112.5°)	-6.04/-6.64	-6.87/-4.84	-4.93/-5.82	-5.38/-2.85	-2.85/-4.25	-4/-4.87	-8.89/-8.99	-8.31/-9.42	-5.04/-3.83	-2.58/-0.79	-0.41/-0.87	-1.67/-3.24	-3.48/-3.73	-5.26/-5.57	-6.53/-5.3	-5.61/-5.82	-7.35/-6.47	-4.86/-4.08	-4.73/-7.83	-5.83/-4.33	-3.27/-0.15	0.58/-1.31	-4.14/-6.04	-6.53/-7.4
Θ(120°)	-7.48/-7.02	-9.27/-8.23	-9.48/-7.39	-4.89/-2.16	-1.88/-1.93	-3.48/-4.96	-4.86/-5.5	-3.9/-3.88	-6.01/-4.89	-3.14/-1.72	-1.41/-1.37	-2.29/-3.85	-5.23/-6.04	-6.48/-7.14	-3.31/-3.29	-5.68/-6.23	-2.91/-2.85	-7.15/-5.54	-1.03/-4.58	-6.04/-3.88	-3.63/-2.18	-0.86/-2.32	-5.61/-5.47	-4.04/-3.62
Θ(127.5°)	-10.3/-7.62	-8.92/-6.25	-5.93/-4.61	-2.82/-1.02	-1.73/-2.65	-1.66/-1.69	-3.52/-2.69	-2.77/-4.25	-6.13/-5.75	-4.5/-2.96	-1.12/-0.38	-2.19/-3.57	-4.6/-3.75	-3.66/-4.17	-2.52/-3.99	-6.09/-7.42	-4.57/-1.43	-0.94/-4.29	-1.86/-2.54	-5.13/-2.49	-3.45/-3.77	-2.04/-2.3	-5.98/-5.58	-4.47/-7.45
Θ(135°)	-5.75/-5.64	-4.86/-3.87	-4.68/-2.14	-1.52/-1.88	-2.33/-2.46	-3.3/-3.8	-4.61/-2.86	-2.31/-2.56	-3.32/-2.86	-2.31/-2.23	-1.5/-1.78	-1.9/-0.54	-1.57/-3.78	-5.2/-4.33	-5.51/-6.16	-8.82/-6.56	-5.97/-3.41	-3.13/-4.23	-1.43/-2.88	-6.24/-3.97	-2.37/-4.11	-4.11/-2.16	-3.95/-5.76	-5.31/-6.27
Θ(142.5°)	-4.73/-3.1	-3.03/-3.61	-4.86/-3.99	-3.47/-2.95	-1.99/-1.32	-1.83/-2.85	-3.32/-1.87	-0.4/-0.88	-1.73/-1.64	-1.42/-1.43	-1.65/-2.68	-3.19/-3.79	-4.56/-5.31	-6.36/-7.74	-7.23/-7.14	-7.56/-7.08	-4.43/-2.19	-3.28/-4.78	-2.88/-1.64	-1.73/-1.96	-1.78/-3.27	-3.97/-3.84	-5.29/-7.65	-9.17/-7.56
Θ(150°)	-2.55/-2.98	-5.31/-3.46	-5.36/-5.89	-4.55/-3.88	-2.84/-2.58	-2.95/-3.53	-4.47/-2.79	-0.59/-0.23	-0.33/-0.43	-0.71/-1.63	-2.94/-1.63	-6.16/-6.46	-7.95/-10.49	-11.97/-10.9	-10.17/-6.67	-9.50/-4.69	-3.83/-3.19	-4.94/-5.89	-5.04/-4.9	-4.93/-6.15	-6.7/-6.4	-7.18/-6.97	-6.79/-7.9	-6.54/-3.43
Θ(157.5°)	-4.13/-5.45	-6.3/-4.99	-5.44/-5.54	-5.1/-6.41	-4.03/-4	-4.91/-5.53	-5/-3.35	-2.09/-1.84	-2.21/-2.18	-1.11/-0.5	-0.54/-1.32	-2.49/-3.49	-4.31/-5.62	-7.36/-9.37	-9.84/-8.28	-8.59/-9.01	-8.19/-7.99	-7.99/-6.89	-5.19/-4.12	-3.46/-3.11	-3.27/-3.06	-2.83/-3.06	-2.51/-2.09	-2.06/-2.84
Θ(165°)	-3.79/-4.42	-5.29/-6.51	-8.62/-10.73	-10.85/-9.98	-9.23/-8.36	-7.39/-6.11	-4.69/-3.8	-3.39/-3.58	-3.86/-3.67	-3.04/-2.4	-1.9/-1.81	-1.83/-1.99	-2.21/-2.57	-3.43/-4.53	-5.71/-6.19	-6.69/-7.57	-7.79/-7.9	-7.21/-6.67	-6.84/-7.32	-6.96/-6.3	-5.3/-5.53	-3.37/-2.68	-2.84/-2.84	-3.45/-3.63
Θ(172.5°)	-5.86/-5.93	-6.09/-7.04	-8.09/-9.24	-9.84/-9.45	-8.27/-6.58	-5.57/-4.71	-3.83/-3.56	-3.39/-3.12	-3.21/-3.16	-3.08/-3.21	-3.77/-4.09	-4.27/-4.44	-5/-6.1	-6.41/-6.87	-7.48/-8.39	-7.75/-7.5	-6/-4.83	-4.38/-3.81	-3.29/-2.74	-2.22/-2.02	-2.24/-2.57	-3.1/-3.44	-3.78/-4.76	
Θ(180°)	-10.32/-10.98	-11.04/-9.57	-8.58/-8.29	-7.71/-7.23	-7.31/-7.24	-7.39/-7.59	-7.29/-7.27	-7.44/-7.26	-6.79/-6.5	-5.9/-5.69	-5.67/-6.29	-7.12/-7.94	-8.35/-7.99	-7/-6.22	-6.14/-6.42	-6.56/-6.39	-5.65/-4.75	-3.94/-3.44	-4.39/-3.81	-3.95/-4.14	-4.43/-5.01	-5.81/-6.51	-7.35/-7.93	-9.27/-9.82
Freq(Hz)	5.3GPol.	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°)	-0.24/-0.12	-0.23/-0.07	-0.18/-0.47	-0.84/-1.09	-1.49/-2.09	-2.85/-3.01	-3.29/-3.35	-2.98/-2.78	-2.02/-1.55	-1.02/-0.65	-0.3/-0.14	-0.14/-0	0.16/0.16	0.02/0.2	-0.18/-0.34	-0.92/-1.69	-2.38/-3.13	-3.81/-4.1	-3.84/-3.69	-3.27/-2.77	-2.02/-1.41	-0.94/-0.61	-0.18/-0.18	-0.41/-0.57
Θ(7.5°)	0.09/0.19	0.11/-0.1	-0.11/-0.1	-0.33/-0.64	-1.04/-1.85	-2.93/-3.85	-4.32/-4.01	-3.75/-3.4	-2.68/-2.35	-1.49/-0.88	-0.43/-0.37	-0.48/-0.45	-0.26/-0.22	-0.26/-0.26	-0.44/-0.84	-1.56/-2.41	-2.25/-2.41	-2.78/-3.16	-3.41/-3.06	-2.72/-2.04	-1.47/-1	-0.6/-0.21	0.14/0.13	-0.02/-0.19
Θ(15°)	-0.3/-0.55	-0.48/-0.02	-0.86/-0.58	-0.38/-0.27	-0.54/-1.1	-1.67/-3.06	-4.97/-4.23	-5.88/-4.97	-3.45/-2.1	-0.83/0.01	0.38/0.34	0.19/0.41	0.69/0.67	0.43/-0.05	-0.29/-0.69	-1.22/-1.42	-1.35/-0.99	-1.09/-1.3	-1.86/-1.37	-0.64/-0.13	0.01/-0.02	0.12/0.34	0.3/-0.09	
Θ(22.5°)	-0.04/-0.15	-0.16/-0.27	-0.46/-0.49	-0.57/-0.52	-0.89/-1.15	-1.33/-2.21	-3.27/-4.45	-4.94/-4.38	-3.04/-1.69	-0.36/0.41	0.65/0.68	0.72/0.84	1.06/1.09	0.73/0.04	-0.66/-1.13	-1.3/-0.97	-0.29/0.39	0.65/0.46	-0.11/-0.66	-1.12/-1.12	-0.8/-0.43	-0.35/-0.35	0.1/0.62	0.71/0.28
Θ(30°)	-0.92/-1.38	-1.76/-1.9	-2.17/-1.59	-1.14/-0.95	-1.27/-1.71	-2/-3.13	-3.77/-3.56	-3.26/-2.99	-1.93/-0.36	0.97/1.75	1.75/-4.5	1.1/0.95	0.94/0.77	0.33/-0.2	-0.67/-1	-1.32/-0.72	0.38/-1.28	1.63/-4.2	0.91/-0.09	-0.77/-0.58	-0.19/-0.45	-0.72/-0.58	-0.39/-0.36	-0.61/-0.86
Θ(37.5°)	-0.17/-0.07	-0.39/-0.89	-1.44/-1.83	-1.72/-1.49	-1.91/-1.98	-1.68/-2.18	-3.45/-3.45	-3.28/-3.02	-1.36/0.28	1.47/-2.13	1.98/-1.17	0.62/0.7	0.58/0.29	0.33/0.04	0.40/-25	-0.18/-0.56	0.33/-57	2.05/-1.92	1.23/0.67	0.43/0.56	0.79/0.85	0.91/-1.4	1.38/-1.3	0.42/-0.13
Θ(45°)	2.38/-2.19	1.52/0.64	-1.04/-2.99	-2.64/-1.86	-1.54/-1.54	-1.31/-2.03	-2.37/-2.48	-2.13/-1.59	-0.38/0.83	1.68/-28	2.53/-16	1.83/-1.78	1.51/84	0.47/0.96	1.57/-57	1.17/0.3	0.74/-15	1.45/-128	0.69/-1.25	1.77/-25	3.52/-86	3.24/-162		
Θ(52.5°)	3.75/3.74	3.43/-0.27	0.48/-0.88	-0.85/-0.98	-1.53/-1.67	-1.73/-1.81	-2.15/-2.21	-1.98/-1.5	0.16/-1.44	1.72/-24	3.41/-35	3.19/-2.72	2.02/-45	1.33/-26	0.59/-0.42	1.34/-97	-0.02/-4	0.91/-04	0.57/0.33	0.52/0.74	1.21/-51	2.41/-32	4.36/-0.7	5.06/-4.1
Θ(60°)	4/3.93	3.91/-3.17	1.85/-0.87	0.12/-0.71	-1.09/0.05	1.29/-1.01	-0.17/-1.34	-2.31/-2.7	-0.68/0.77	1.41/-29	3.66/-4	3.73/-27	3.03/6	2.41/-1.22	1.03/-1.82	2.18/0.8	1.05/-2.13	1.79/-1.72	1.81/-42	1.83/-83	1.86/-45	2.73/-39	4.27/-5	5.15/-4.54
Θ(67.5°)	3.77/-3.65	4.23/-3.81	2.72/-1.1	0.33/-1.85	-1.10/-49	1.48/-1.17	-0.04/-1.52	-0.68/0.28	1.352/0.6	3.13/-37	4.13/-93	2.73/-25	3.25/-24	4.18/0.34	2.18/-87	1.85/0.77	1.31/-92	1.88/-89	2.01/-209	2.98/2.86	1.922/-16	2.76/0.6	3.94/-57	4.66/-39
Θ(75°)	4.28/3.25	4.24/-66	3.57/4.03	1.68/-0.94	-0.49/0.6	2.32/0.09	1.58/-0.36	0.43/-74	3.252/-47	1.992/-09	2.742/-55	1.13/-47	1.96/-83	4.173/-44	3.393/-53	3.61/-69	1.892/-87	3.772/-86	1.923/-71	4.64/-3.72	3.43/-25	3.26/-38	3.253/-17	3.64/-71
Θ(82.5°)	4.16/3.37	4.57/-5.25	3.62/-4.23	0.83/-0.62	0.04/-158	3.67/-406	2.01/0.69	0.34/0.86	3.242/-42	1.782/-98	3.932/-72	0.97/0.41	1.65/-38	4.21/0.04	4.134/-47	4.232/-8	1.89/-289	4.052/-89	2.41/-64	5.41/-02	4.412/-94	3.263/0.3	2.852/-37	2.13/-86
Θ(90°)	3.97/-3.18	4.11/4.85																						



Θ(60°)	-4.66/-5.05	-6.48/-6.57	-5.82/-5.76	-7.06/-7.91	-6.78/-6.01	-5.36/-3.39	-1.07/-0.92	-2.17/-1.5	-1.77/-2.12	-1.08/0.15	0.99/1.42	1.27/0.06	-0.63/-1.33	-1.84/-3.51	-6.61/-6.76	-3.58/-1.18	-0.19/-0.24	-1.03/-2.58	-5.6/-6.16	-6.46/-5.9	-5.8/-5.79	-3.35/-2.57	-3.14/-4.32	-4.96/-5.13
Θ(67.5°)	-4.01/-6.21	-5.39/-6.01	-8.75/-8.84	-7.28/-5.48	-4.93/-5.63	-5.71/-3.36	-2.39/-2.8	-2.99/-1.6	-1.16/-1.45	-0.63/0.42	1/1.28	1.18/0.57	0.68/0.63	0.13/-1.14	-3.44/-9.03	-5.03/-1.31	0.67/0.47	-0.71/-2.04	-4.04/-5.05	-5.42/-4.15	-6.02/-6.74	-3.79/-3.74	-4.01/-3.88	-4.25/-4.22
Θ(75°)	-5.25/-7.1	-5.95/-6	-6.95/-6.66	-7.56/-6.65	-5.7/-6.76	-7.7/-4.4	-2.9/-3.57	-3.44/-4.71	-4.31/-1.67	-0.18/0.04	0.35/0	0.06/0.13	0.97/1.28	1.16/0.7	-1.73/-5.67	-5.77/-1.1	-0.13/-0.77	-0.76/-2.3	-4.66/-5.71	-2.32/-2.82	-5.53/-4.42	-2.91/-2.76	-3.68/-3.81	-3.43/-3.59
Θ(82.5°)	-8.61/-10.97	-8.9/-7.41	-6.25/-5.14	-6.92/-6.79	-6.17/-7.63	-5.26/-2.32	-1.98/-3.65	-4.18/-6.07	-6.91/-5.7	-2.57/0.55	0.18/-0.3	-1.14/-0.88	0.01/-0.53	-0.44/-1.74	-4.05/-7.64	-7.93/-1.65	-1.59/-2.11	-1.03/-2.36	-2.6/-6.17	-4.24/-2.83	-4.73/-5.59	-2.6/-2.26	-2.67/-4.64	-5.86/-6.21
Θ(90°)	-10.43/-11.66	-8.16/-7.06	-6.25/-5.22	-5.83/-7.64	-10.13/-9.36	-7.61/-4.45	-2.39/-2.21	-2.88/-8.12	-8.87/-7.17	-6.17/-1.61	-0.45/-0.59	-1.77/-1.75	-0.99/-0.95	-1.14/-3.08	-4.98/-7.99	-10.53/-3.95	-1.71/-3.42	-3.17/-2.73	-5/-6.24	-2.54/-2.7	-3.5/-1.48	-0.5/-1.77	-4.3/-8.02	-8.22/-8.61
Θ(97.5°)	-7.15/-8.13	-6.27/-4.86	-4.29/-3.95	-6.8/-9.14	-8.12/-8.79	-7.81/-6.91	-5.55/-4.97	-4.38/-5.47	-9.45/-10.46	-6.76/-2.65	-1.87/-1.42	-3.73/-5.37	-4.98/-4.21	-4.26/-6.91	-6.97/-8.65	-9.6/-5.88	-4.33/-4.74	-4.58/-4.06	-4.29/-6.39	-3.06/-3.98	-2.31/-2.87	-4.69/-4.68	-5.8/-7.86	-7.39/-6.96
Θ(105°)	-11.29/-7.74	-6.99/-5.84	-3.71/-2.75	-2.49/-6.89	-8.08/-5.45	-6.78/-7.81	-8.61/-6.1	-5.17/-7.12	-9.83/-12.11	-6.11/-4.09	-2.72/-2.03	-2.9/-4.32	-4.14/-3.81	-5.21/-6.1	-6.16/-7.09	-9.11/-7.26	-5.56/-6.04	-5.41/-4.45	-5/-6.7	-2.48/-3.2	-3.26/-2.7	-4.09/-6.14	-5.62/-6.16	-5.99/-8.47
Θ(112.5°)	-10.03/-7.48	-6.64/-5.22	-2.25/-2.49	-3.89/-6.33	-5.34/-1.96	-3.28/-7.96	-5.81/-5.01	-5.97/-5.3	-5.91/-7.27	-6.44/-2.18	-0.84/-1.43	-3.33/-4.13	-4.27/-3.37	-2.97/-3.96	-5.83/-5.14	-9.77/-7.91	-5.89/-4.61	-4.98/-3.95	-3.9/-5.96	-2.6/-2.74	-2.77/-1.4	-2.31/-3.81	-5.57/-8.07	-7.86/-8.18
Θ(120°)	-7.94/-8.52	-10.38/-4.68	-2.77/-2.88	-4.63/-2.64	-2.01/-1.44	-2.62/-3.42	-3.52/-5.54	-7.15/-5.52	-3.47/-4.01	-6.1/-3.15	-1.03/-0.36	-2.53/-4.79	-5.13/-3.46	-4.26/-4.03	-6.43/-6.05	-7.99/-8.88	-7.82/-4.62	-3.07/-3.1	-3.02/-4.33	-3.09/-3.19	-1.10/-0.9	-1.04/-3.61	-4.18/-3.74	-4.3/-4.95
Θ(127.5°)	-10.75/-6.36	-6.88/-3.85	-4.55/-4.28	-2.62/-1.72	-0.88/-1.74	-1.68/-4.76	-6.47/-4.89	-3.94/-1.42	-2.25/-3.77	-3.7/-3.1	-2.84/-1.76	-2.66/-3.5	-4.13/-3.91	-2.15/-2.86	-3.24/-7.15	-8.41/-4.93	-6.58/-7.47	-2.93/0.55	-0.15/-5.27	-2.42/0.16	-0.12/0.49	-1.44/-2.73	-3.92/-2.89	-5.17/-6.51
Θ(135°)	-5.78/-5.67	-4.9/-4.28	-5.85/-4.14	-1.77/-0.75	-2.04/-4.08	-2.95/-2.45	-3.42/-4.36	-1.9/-0.55	-0.7/-0.91	-1.96/-5.06	-4.33/-2.89	-2.86/-2.89	-2.76/-3.11	-3.4/-2.92	-4.73/-5.71	-8.91/-6.59	-6.46/-8.28	-6.1/-3.42	-0.24/-2.48	-2.11/0.85	-0.82/0.4	-0.4/-2.5	-4.66/-7.32	-7.48/-7.41
Θ(142.5°)	-2.88/-3.23	-5.26/-7.89	-7.29/-2.37	-0.79/-1.49	-4.34/-4.34	-3.31/-1.79	-0.83/-1.27	-2.32/-2.01	-2.86/-2.97	-3.21/3.91	-6.15/-7.9	-7.74/-6.85	-5.48/-5.14	-5.77/-6.5	-6.99/-6.3	-4.8/-6.5	-6.32/-4.5	-2.9/-2.33	-4.69/-6.64	-5.54/-1.17	-0.47/-1.68	-2.84/-5.77	-8.23/-9.35	-7.48/-4.69
Θ(150°)	-4.2/-4.32	-5.24/-7.4	-5.41/-3.47	-3.01/-3.39	-3.44/-2.06	-0.74/-0.88	-1.5/-2.26	-3.08/-1.78	-1.12/-1.35	-1.52/-2.25	-4.1/-5.57	-7.2/-8.21	-6.53/-6.37	-8/-7.77	-8.51/-8.42	-5.88/-5.07	-5.38/-7.55	-9.16/-7.99	-6.24/-5.21	-5.07/-4.33	-4.9/-6.8	-6.13/-6.49	-8.14/-7.63	-5.9/-4.38
Θ(157.5°)	-6.16/-8.56	-9.3/-6.95	-4.85/-3.63	-3.04/-3.6	-5.45/-5.08	-3.44/-2.71	-2.78/-3.06	-2.69/-2.21	-2.29/-2.67	-2.33/-1.58	-1.7/-2.69	-3.55/-3.83	-3.79/-4.73	-6.66/-8.27	-7.38/-5.54	-4.96/-6.91	-8.89/-10.41	-8.69/-6.48	-5.33/-5.06	-4.86/-4.62	-4.99/-4.95	-5.02/-4.48	-4.34/-4.15	-3.97/-4.5
Θ(165°)	-3.43/-4.82	-5.61/-5.09	-5.6/-13	-7.58/-9.01	-8.65/-8.77	-8.02/-7.06	-5.59/-4.68	-4.33/-4.36	-4.97/-6.07	-6.91/6.91	-6.5/-6.06	-5.5/-4.88	-4.76/-5.14	-5.47/-5.26	-5.38/-5.37	-6.05/-7.24	-8.84/-8.88	-8.21/-7.2	-6.43/-6.23	-5.9/-5.23	-4.13/-3.41	-2.51/-1.38	-0.83/-0.77	-1.64/-2.82
Θ(172.5°)	-5.74/-6.54	-7.99/-9.21	-9.29/-9.31	-8.18/-6.88	-6.14/-5.98	-5.93/-5.46	-4.84/-4.23	-3.94/-3.52	-3.51/-3.54	-3.96/-4.13	-4.11/-4.16	-4.58/-5	-5.19/-5.11	-4.66/-4.14	-4/-4.79	-6.27/-7.43	-7.04/-5.71	-5.1/-4.51	-3.99/-3.82	-4/-3.92	-3.96/-3.72	-3.52/-3.34	-3.56/-3.97	-4.21/-4.6
Θ(180°)	-7.69/-7.82	-8.31/-7.56	-7.32/-7.14	-7.31/-7.22	-7/-6.85	-6.67/-6.54	-6.63/-6.82	-6.93/-6.67	-6.82/-6.39	-6.43/-7.02	-8.35/-8.91	-9.71/-10.06	-10.67/-10.92	-10.7/-9.84	-9.62/-9.1	-7.88/-6.56	-5.37/-4.45	-4.27/-4.12	-3.96/-3.5	-3.05/-2.81	-2.84/-2.94	-3.01/-3.53	-4.26/-4.81	-6.07/-7.28
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°)	1.86/1.99	1.88/1.77	1.42/1.09	0.71/0.22	-0.45/-1.15	-1.72/-2.13	-2.4/-2.5	-1.94/-1.21	-0.29/0.36	0.91/1.22	1.48/1.67	1.72/1.9	1.79/1.73	1.61/1.38	1.06/0.64	0.28/-0.43	-1.22/-2.24	-2.86/-2.81	-2.68/-2.28	-1.42/-0.63	-0.06/0.38	0.81/1.16	1.32/1.31	1.51/1.64
Θ(7.5°)	0.96/1.08	1.23/1.2	1.23/0.86	0.30/0.3	-0.63/-1.44	-2.52/-3.2	-3.17/-2.65	-2.88/-1.53	-0.62/0.28	0.15/0.56	0.84/1.03	1.31/1.38	1.41/1.56	1.55/1.38	1.21/0.98	0.47/-0.34	-1.14/-1.83	-2.33/-2.51	-2.44/-2.16	-1.25/-0.52	0.03/0.59	1.04/1.07	1.15/1.11	1.09/0.84
Θ(15°)	0.30/0.37	0.84/0.96	0.80/0.38	-0.29/-0.32	-0.97/-1.86	-2.89/-4.15	-4.54/-3.7	-3.14/-2.3	-1.66/-0.95	-0.44/-0.11	-0.24/-0.28	-0.54/-0.85	-1.06/-1.17	-0.86/-0.66	-0.72/-0.65	-0.55/-0.56	-0.78/-1.25	-1.69/-1.94	-2.09/-1.77	-1.5/-0.95	-0.83/-0.6	-0.26/0.03	0.180/0.06	0.180/0.26
Θ(22.5°)	1.71/1.03	0.50/0.07	-0.22/-1.66	-1.88/-1.62	-1.86/-2.99	-3.85/-4.5	-4.22/-3.7	-2.94/-2.05	-0.92/-0.07	0.33/-0.05	-0.64/-1.03	-1.06/-1.52	-2.28/-2.78	-2.32/-1.42	-0.58/-0.09	-0.31/-0.24	-0.31/-0.75	-1.28/-1.19	-0.44/0.04	0.85/-1.48	2.01/2.25	2.23/2.08		
Θ(30°)	0.64/0.22	0.29/0.59	0.07/-1.38	-2.97/-2.91	-2.29/-1.55	-1.54/-2.37	-3.59/-4.65	-5.03/-4.4	-3.84/-2.64	-1.10/0.52	1.42/1.5	1.39/-1.2	0.75/-0.1	-1.29/-2.14	-1.85/-1.1	-0.24/0.4	0.74/1.41	1.84/1.88	1.35/0.65	-0.34/-0.61	0.23/1.71	2.75/0.3	2.94/2.71	2.51/1.58
Θ(37.5°)	1.12/0.69	0.38/-0.05	-0.79/-1.44	-1.87/-1.85	-1.74/-1.71	-1.42/-1.71	-2.35/-3.1	-3.7/-3.55	-2.47/-1.24	0.61/1.79	2.43/2.53	2.21/1.77	1.49/1	0.35/-0.34	-0.78/0.04	0.98/0.68	0.78/1.97	2.73/1.93	0.77/0.8	1.09/0.59	0.51/1.6	2.35/2.26	1.77/1.5	1.27/1.3
Θ(45°)	0.01/0.14	0.39/-0.47	-1.22/-1.27	-2.15/-2.79	-2.12/-0.82	0.31/0.68	0.14/-1.52	-3.17/-3.65	-3.04/-0.8	1.54/2	2.11/2.33	2.48/2.43	2.47/2.59	20.99	0.85/0.71	0.30/2.5	0.61/1.86	1.83/1.2	0.56/0.87	1.47/1.26	1.68/2.47	2.62/2.24	1.91/1.69	1.43/0.38
Θ(52.5°)	1.95/1.09	1.02/0.57	-0.13/0.42	-0.74/-2.59	-1.84/-0.71	0.27/0.22	0.38/0.25	-0.52/-1.32	-1.44/0.91	2.35/2.19	2.45/0.45	3.71/0.49	3.31/3.24	2.81/2.35	1.47/1.06	1.20/73	-0.17/1.31	2.53/1.38	0.63/1.19	1.14/0.56	1.03/1.96	2.35/2.97	3.51/3.45	2.67/2.07
Θ(60°)	4.23/3.07	2.84/2.8	1.51/0.93	-1.63/-3.55	-2.49/-1.08	0.88/1.65	1.51/1.28	0.1/-1.1	-0.97/1.17	1.87/1.57	2.58/3.63	3.93/3.46	2.44/2.55	2.49/1.39	0.78/0.5	1.11/1.45	0.92/1.72	1.54/1.58	1.21/2.78	3.61/2.63	2.91/3.57	2.61/2.45	3.61/4.19	4.35/4.42
Θ(67.5°)	4.12/3.42	3.83/3.22	2.31/7.1	0.22/0.39	0.35/0.54	1.71/1.91	1.65/1.7	0.78/-0.22	0.41/1.08	0.47/1.46	3.48/4.03	3.08/2.31	1.53/2	2.41/2.46	1.91/1.06	0.43/1.6	2.07/3.11	2.16/1.39	2.92/4.34	4.92/0.41	3.51/3.75	2.61/2.67	3.56/3.73	4.51/5.01
Θ(75°)	4.02/3.59	4.41/3.67	3.56/2.75	0.27/0.52	0.87/1.67	2.83/2.96	2.54/2.22	1.21/1.69	1.67/1.63	0.14/1.87	3.37/3.98	2.81/2.45	1.98/2.49	3.64/3.58	2.92/2.37	1.75/1.5	3.12/4.18	2.47/0.71	2.68/4.6	5.64/5.16	4.34/2.4	2.51/2.01	2.98/3.24	4.45/5.21
Θ(82.5°)	4.05/3.59	4.15/3.31	3.44/2.24	0.44/0.6	0.73/1.75	2.62/2.5	1.91/1.48	1.62/2.31	1.41/1.81	-0.44/2.15	3.25/3.69	1.53/1.56	2.11/3.67	4.46/4.25	4.46/4.5	3.28/2.96	4.34/4.84	3.28/0.25	1.15/5.71	5.73/5.16	2.61/1.8	2.95/2.42	4.58/5.42	
Θ(90°)	2.45/2.77	3.96/3.64	3.28/2.25	2.21/1.66	2.26/3.02	2.93/2.2	1.81/1.54	1.49/2.4	2.39/3.04	1.67/2.7	3.18/3.93	1.96/0.79	1.46/4.46	4.89/4.62	4.2/3.8	2.89/2.37	2.59/4.2	3.34/1.35	2.61/4.9	5.96/4.56	5.48/4.58	2.4/2.02	3/2.36	3.13/4.09
Θ(97.5°)	2.45/2.49	2.83/3.22	2.41/1.86	2.14/1.42	1.97/3.33	3.55/1.81	0.49/1.47	2.23/3.11	3.22/4.25	2.59/2.59	2.27/2.21	0.23/0.3	2.01/5.35	5.19/3.93	2.95/3.38	2.98/3.36	1.48/2.67	2.15/-2.63	0.78/4.29	5.09/3.35	5.14/2.82	0.51/1.69	2.16/2.41	3.11/3.37
Θ(105°)	0.85/1.25	1.53/2.26	1.38/0.9	2.01/1.59	2.01/3.18	2.77/0.36	-0.44/1.91	2.63/2.4	3.22/4.49	3.56/2.77	1.29/1.17	-1/-3.41	-1.42/3.62	3.97/3.07	1.62/2.01	1.28/1.83	-0.25/0.07	0.82/-2.28	0.88/3.09	3.20/7.31	1.52/0.04	-2.22/-0.66	-0.32/0.77	2.09/1.5
Θ(112.5°)	0.21/0.05	1.32/2.13	1.84/1.79	2.45/2.49	2.32/2.79	2.49/0.57	0.93/1.8	4.21/5.46	3.53/4.36	3.87/3.24	0.81/0.18	-2.81/-4.04	-1.38/2.2	3.39/1.76	0.64/0.89	0.25/0.77	0.11/-1.78	-2.83/-3.22	-1.46/1.97	3.16/1.17	1.79/0.45	-2.69/-2.59	-1.54/-0.67	0.93/1.18
Θ(120°)	-0.2/0.47	1.59/2.57	1.73/1.69	1.78/1.82	2.23/0.5	2.71/1.17	0.87/3.13	3.99/2.82	3.29/4.74	4.82/94	1.21/0.37	-2.74/-8.58	-6.42/-4.04	1.56/0.47	-1.62/-1.24	0.25/1.35	1.02/0.06</							



Appendix A

Freq(Hz)	2.45GPol	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°)	-17.51/-16.06	-13.03/-10.71	-8.82/-7.31	-6.06/-5.01	-4.12/-3.43	-2.99/-2.71	-2.52/-2.37	-2.28/-2.35	-2.62/-3.05	-3.63/-4.39	-5.44/-6.84	-8.54/-10.84	-12.55/-14.12	-14.06/-12.46	-10.45/-8.59	-6.96/-5.6	-4.53/-3.72	-3.11/-2.6	-2.19/-1.97	-2.02/-2.33	-2.86/-3.58	-4.48/-6.53	-7.14/-9.13	-11.77/-15.1
Θ(7.5°)	-13.26/-14.25	-13.51/-14.74	-9.84/-8.02	-6.48/-5.13	-4.04/-3.26	-2.75/-2.44	-2.22/-2.07	-1.99/-2.1	-2.53/-3.18	-4.05/-5.13	-6.67/-8.77	-11.37/-14.17	-15.54/-14.21	-11.92/-9.94	-8.57/-3.6	-6.32/-5.42	-4.64/-3.98	-3.42/-2.93	-2.51/-2.26	-2.28/-2.52	-2.94/-3.48	-4.18/-5.08	-6.27/-7.81	-9.71/-11.69
Θ(15°)	-11.51/-13.01	-14.11/-13.81	-12.19/-10.06	-8/-6.26	-4.99/-4.1	-3.6/-3.3	-3.05/-2.87	-2.78/-3	-3.57/-7.01	-5.77/-10.1	-8.82/-11.3	-14.03/-15.59	-14.43/-12.24	-10.25/-9	-8.25/-7.63	-6.98/-6.24	-5.52/-4.92	-4.41/-3.92	-3.55/-3.36	-3.39/-3.4	-3.91/-4.1	-5/-5.71	-6.63/-7.8	-9.09/-10.4
Θ(22.5°)	-12.05/-13.62	-16.03/-18.4	-17.37/-13.52	-10.29/-7.91	-6.43/-5.63	-5.27/-5.01	-4.72/-4.53	-4.64/-9.5	-5.74/-9.7	-8.73/-11.08	-14.12/-17.55	-18.76/-16.34	-13.71/-11.58	-10.2/-9.35	-8.92/-8.54	-7.99/-7.26	-6.51/-5.93	-5.44/-5.03	-4.73/-4.58	-4.63/-4.82	-5.14/-5.63	-6.37/-7.22	-8.27/-9.38	-10.46/-11.33
Θ(30°)	-14.56/-16.12	-18.6/-13.89	-18.69/-17.26	-12.4/-9.41	-7.78/-7.14	-7.05/-6.94	-6.72/-6.64	-6.97/-6.76	-8.76/-10.33	-12.71/-16.32	-18.5/-18.41	-18.3/-19.03	-18.33/-15.59	-13.66/-12.4	-11.44/-10.48	-9.32/-8.17	-7.14/-6.47	-5.99/-5.67	-5.51/-4.59	-5.63/-5.87	-6.28/-9.2	-7.9/-9.22	-10.68/-11.99	-13.05/-13.78
Θ(37.5°)	-14.78/-14.12	-18.33/-13.69	-13.94/-14.05	-12.88/-10.79	-9.3/-8.55	-8.2/-9.92	-8.01/-8.7	-10.05/-11.93	-14.1/-16.18	-18.41/-18.15	-19.19/-18.66	-16.63/-18.75	-19.07/-16.54	-13.94/-11.68	-9.74/-8.36	-7.35/-6.67	-6.29/-6.12	-6.12/-6.27	-6.59/-7.7	-7.78/-8.88	-10.54/-12.7	-14.72/-15.63	-15.65/-15.75	
Θ(45°)	-11.3/-9.91	-9.02/-8.95	-9.63/-11.03	-12.24/-12.05	-10.72/-9.16	-8/-7.57	-8.3/-10.48	-14.74/-18.71	-18.04/-18.64	-18.41/-18.58	-19.01/-19.21	-17.84/-16.7	-16.27/-16.25	-16.38/-16.07	-14.89/-13.22	-11.68/-10.37	-9.18/-8.11	-7.28/-7.6	-6.57/-6.8	-7.38/-8.24	-9.41/-11.41	-14.68/-19.67	-17.96/-18.1	-15.12/-13.05
Θ(52.5°)	-12.31/-10.55	-9.58/-9.6	-10.56/-12.15	-13.53/-13.17	-11.11/-8.84	-7.26/-7.14	-8.86/-13.17	-18.56/-14.89	-10.56/-8.76	-8.36/-8.93	-10.24/-11.36	-11.87/-12.01	-12.1/-12.49	-13.15/-13.5	-13.4/-13.25	-13.2/-12.48	-10.92/-9.17	-7.59/-6.45	-5.89/-5.94	-6.48/-7.41	-8.81/-11.12	-15.13/-18.78	-18.06/-18.94	-15.89/-13.98
Θ(60°)	-17.08/-15.62	-13.94/-12.76	-12.49/-12.98	-13.01/-11.53	-9.21/-7.02	-5.78/-5.86	-7.71/-12.18	-18.82/-13.25	-7.82/-8.59	-5.33/-5.77	-6.92/-8.61	-10.62/-12.69	-14.46/-16.13	-17.46/-17.19	-15.8/-15.59	-16.96/-17.02	-13.51/-9.93	-7.28/-5.5	-4.59/-4.38	-4.64/-5.29	-6.38/-8.1	-10.71/-14.54	-18.85/-17.72	-18.28/-17.46
Θ(67.5°)	-11.02/-9.84	-8.76/-7.69	-7.14/-7.27	-7.43/-7.01	-6.09/-5.36	-5.24/-5.95	-7.33/-8.54	-8.22/-6.3	-4.32/-3.29	-3.62/-4.26	-6.14/-8.83	-12.31/-16.93	-17.13/-18.57											



Radiated Composite Gain Data

Appendix A

Θ(22.5°)	-7.26/-6.31	-6.18/-5.82	-5.51/-5.35	-5.98/-6.26	-5.72/-4.08	-2.33/-0.88	0.29/1.1	1.13/0.85	0.3/-0.52	-1.85/-3.57	-5.43/-7.89	-10.49/-15.12	-18.97/-13.84	-9.96/-7.59	-5.44/-4.16	-4.39/-5.5	-6.09/-5.75	-5.69/-5.94	-6.44/-6.51	-6.56/-7.04	-7.58/-7.43	-6.99/-6.59	-6.42/-6.77	-7.78/-7.93
Θ(30°)	-5.51/-5.73	-4.84/-4.43	-4.95/-6	-6.54/-7.11	-6.95/-5.61	-4.01/-2.05	-0.54/0.49	0.92/0.79	0.39/-0.27	-1.2/-2.51	-4.14/-6.27	-8.99/-13.82	-17.79/-18.43	-12.83/-8.03	-4.77/-7.37	-4.87/-6.05	-5.9/-6.26	-7.46/-8.81	-10.05/-11.71	-11.72/-9.84	-8.13/-7.93	-8.02/-7.91	-7.77/-6.95	-6.23/-6.13
Θ(37.5°)	-10.31/-11.09	-12.11/-10.23	-9.56/-9.26	-8.25/-7.55	-7.99/-7.65	-3.91/-2.98	-0.62/0.74	1.12/0.92	0.5/0.33	-1.3/-3.17	-5.15/-6.45	-11.46/-17.25	-17.4/-18.12	-3.85/-9.4	-4.27/-4.25	-6.96/-4.93	-8.95/-8.82	-6.35/-5.79	-7.59/-8.75	-10.01/-10.76	-10.62/-8.82	-8.2/-7.91	-7.82/-7.94	-11.92/-11.52
Θ(45°)	-8.5/-7.63	-7.93/-7.88	-8.39/-10.29	-11.86/-13.5	-14.74/-11.93	-7.74/-3.93	-0.96/0.66	0.73/0.35	-0.23/-1.76	-4.2/-6.73	-7.99/-6.85	-5.69/-5.74	-6.55/-8.71	-15.52/-15.69	-6.58/-4.5	-3.88/-3.81	-4.8/-4.3	-5.57/-9.67	-14.8/-18.54	-15.77/-11.03	-7.77/-6.38	-5.81/-7.24	-8.5/-8.75	-8.08/-7.95
Θ(52.5°)	-11.52/-11.71	-10.55/-9.27	-8.53/-8.64	-8.28/-8.7	-9.37/-9.52	-7.85/-4.86	-3.03/-2.07	-2.55/-2.81	-2.57/-2.47	-3.13/-2.88	-2.57/-2.25	-1.67/-1.91	-3.31/-4.99	-8.07/-17.51	-12.54/-7.47	-6.08/-6.1	-6.84/-4.2	-2/-2.06	-5.05/-9.54	-14.47/-15.15	-12.4/-11.61	-10.05/-9.26	-10.03/-10.55	-10.29/-9.53
Θ(60°)	-11.17/-12.26	-12.02/-14.39	-17.87/-19.12	-18.79/-19.13	-16.7/-13.89	-11.16/-8.48	-2.3/-4.04	-1.11/-2.16	-3.78/-4.22	-3.52/-2.09	-1.38/-1.19	-0.74/-1.02	-3.07/-3.7	-7.52/-10.3	-12.47/-12.59	-8.7/-6.39	-8.95/-8.82	-6.35/-5.79	-7.59/-8.75	-10.01/-10.76	-11.69/-10.75	-12.26/-12.47	-11.66/-11.87	-11.92/-11.52
Θ(67.5°)	-10.88/-12.72	-14.07/-14.99	-17.96/-18.49	-18.5/-18.17	-13.58/-9.94	-7.99/-5.52	-3.65/-3.32	-6.11/-9.52	-9.28/-5.75	-2.65/-0.46	0.87/0.9	0.41/-0.61	-2.68/-5.3	-7.97/-10.85	-16.59/-17.75	-16/-13.98	-11.11/-5.64	-2.33/-2.86	-4.15/-5.01	-5.42/-7.41	-10.41/-8.72	-10.84/-17.26	-16.8/-12.92	-11.71/-10.12
Θ(75°)	-11.59/-15.23	-11.84/-11.17	-11.95/-13.8	-15.16/-17.15	-15.93/-8.71	-5.57/-5.66	-5.24/-5.61	-7.87/-10.58	-10.31/-6.89	-4.67/-2.97	-0.97/-0.26	-0.84/-2.04	-4.23/-6.67	-8.52/-10.69	-13.56/-12.69	-12.84/-13.17	-13.31/-9.37	-6.6/-4.48	-4.08/-3.9	-6.84/-8.74	-9.56/-12.11	-12.25/-11.74	-13.06/-13.56	-13.64/-11.56
Θ(82.5°)	-8.52/-10.41	-8.01/-8.34	-8.18/-7	-7.49/-9.49	-15.41/-19.04	-14.41/-9.3	-5.46/-4.81	-8.79/-13.77	-10.79/-6.44	-4.11/-3.62	-2.06/-0.4	-0.09/-0.92	-2.86/-6.08	-10.71/-18.31	-18.97/-15.44	-15.12/-13.97	-13.06/-9.56	-4.53/-3.81	-2.4/-3.1	-7.39/-9.74	-12.99/-11.92	-9.53/-7.73	-8.06/-10.26	-13.46/-11.48
Θ(90°)	-10.14/-10.83	-10.08/-8.61	-7.62/-6.99	-8.19/-8.4	-11.32/-18.13	-15.11/-13.48	-11.06/-10.14	-10.58/-12.6	-10.15/-6.35	-3.98/-2.96	-2.36/-2.12	-2.22/-2.95	-5.21/-6.95	-7.73/-12.12	-17.99/-19.71	-14.56/-11.65	9.27/-12.33	-14.06/-4.85	-2.77/-2.53	-5.06/-10.16	-11.27/-11.74	-11.64/-10.38	-11.73/-13.95	-12.71/-11.83
Θ(97.5°)	-12.83/-12.39	-9.75/-9.88	-8.8/-8.68	-9.28/-9.98	-11.67/-12.28	-18.36/-16.48	-11.16/-12.31	-18.96/-18.07	-14.72/-11.28	-6.15/-4.19	-3.31/-2.55	-2.56/-3.07	-5.56/-8.39	-11.17/-15.21	-18.17/-15.64	-9.68/-7.59	-9.06/-7.5	-4.5/-5.17	-6.32/-8.08	-12.58/-8.84	-6.95/-7.82	-10.32/-15.48	-15.99/-12.65	
Θ(105°)	-11.68/-11.48	-9.31/-12.53	-11.53/-10.79	-9.91/-6.38	-5.77/-6.3	-6.44/-12.11	-13.41/-13.12	-17.19/-8.2	-5.6/-3.66	-1.87/-1.09	-1.07/-2.64	-8.2/-13.54	-19.34/-10.86	-8.9/-11.11	-11.02/-4.64	-4.14/-7.21	-13.16/-13.09	-14.87/-18.04	-17.29/-10.59	-7.59/-11.91	-11.75/-14.89	-12.34/-9.2		
Θ(112.5°)	-12.62/-17.48	-17.97/-17.79	-14.88/-9.76	-4.53/-1.96	-0.65/-1.4	-4.15/-7.97	-13.49/-18.64	-18.88/-13.48	-6.27/-3.76	-4.25/-5.62	-4.9/-3.57	-3.06/-3.9	-4.46/-6.28	-9.11/-11.61	-16.69/-11.88	-6.46/-6.1	-13.35/-9.34	-2.58/-1.9	-5.68/-10.24	-13.5/-16.01	-16.18/-13.36	-6.74/-7.21	-9.19/-12.5	-14.04/-11.73
Θ(120°)	-12.04/-18.48	-19.23/-15.53	-15.61/-9.38	-4.09/-0.8	-0.72/-0.88	-1.83/-6.57	-9.56/-8.75	-5.8/-4.54	-4.66/-4.12	-3.26/-3.9	-6.04/-6.26	-4.93/-4.71	-6.22/-8.03	-8.4/-14.21	-13.37/-10.1	-12.02/-8.69	-4.13/-4.39	-11.98/-5.42	-2.06/-6	-10.99/-9.99	-13.31/-18.66	-11.38/-7.26	-9.23/-8.61	-7.63/-7.3
Θ(127.5°)	-15.34/-11.64	-10.89/-7.16	-4.77/-5.47	-3.26/-4.34	0.99/0.07	-0.98/-2.67	-5.05/-4.74	-2.89/-2.64	-4.22/-5.2	-3.79/-2.41	-2.51/-3.04	-3.71/-5.47	-7.28/-9.2	-10.93/-17.82	-8.39/-9.3	-12.44/-18.27	-8.76/-3.75	-1.05/-4.1	-6.79/-6.4	-8.4/-7.31	-16.56/-16.23	-16.04/-6.59	-8.2/-10.5	-10.8/-17.3
Θ(135°)	-10.62/-8.64	-7.99/-6.65	-6.66/-4.77	-2.14/-1.21	-1.23/-2.3	-4.42/-4.64	-3.19/-2.66	-2.84/-2.27	-1.65/-1	-0.76/-1.96	-3.96/-6.38	-7.83/-7.57	-7.85/-7.99	-8.42/-13.44	-18.43/-14.86	-13.37/-16.44	-13.85/-10.75	-6.3/-5.05	-4.45/-9.14	-16.84/-10.65	-6.02/-7.22	-12.75/-9.92	-9.08/-11.68	-12.48/-12.52
Θ(142.5°)	-11.67/-12.01	-12.78/-12.89	-8.7/-3.55	-0.42/0.17	-0.69/-1.46	-2.05/-3.2	-1.09/0.52	1.19/0.87	-0.18/-0.27	-3.23/-2.82	-2.76/-4.55	-7.71/-10.02	-9.82/-10.24	-13.93/-18.39	-18.69/-18.34	-12.51/-9.86	-8.74/-5.21	-6.87/-7.47	-5.16/-4.32	-5.6/-6.35	-8.74/-13.33	-8.45/-7.34	-8.4/-9.68	
Θ(150°)	-4.61/-5.69	-8.38/-12.09	-17.42/-12.35	-7.02/-4.74	-4.48/-4.97	-4.85/-3.63	-1.55/0.49	1.83/1.86	1.03/-0.35	-1.99/-4.44	-7.62/-10.64	-11.8/-12.62	-14.94/-19.19	-17.03/-18.84	-18.74/-15.25	-13.32/-14.73	-11.79/-12.24	-13.44/-15.36	-12.49/-11.99	-11.79/-11.16	-10.81/-10.29	-9.61/-10.15	-10.29/-9.7	
Θ(157.5°)	-10.9/-13.35	-12.15/-11.4	-10.22/-7.95	-5.87/-4.84	-4.61/-4.5	-4.33/-3.78	-2.97/-1.78	-0.53/0.24	0.24/-0.33	-1.11/-2.14	-3.5/-5.04	-6.59/-7.97	-10.91/-9.64	-10.28/-11.25	-11.87/-13.5	-17.64/-18.22	-17.3/-18.64	-18.3/-13.99	-11.4/-9.86	-7.99/-7.52	-8.6/-10.32	-10.73/-10.13	-9.11/-8.54	-8.38/-9.39
Θ(165°)	-10.85/-11.34	-11.83/-13.17	-14.63/-14.85	-13.15/-11.29	-9.66/-7.85	-6.32/-5.12	-4.2/-2.39	-2.46/-1.77	-1.41/-1.71	-2.43/-3.19	-4/-5.2	-6.85/-8.69	-9.6/-9.73	-9.23/-8.16	-7.47/-7.79	-9.26/-11.63	-13.72/-13.81	-13.17/-13.44	-15.47/-18.52	-18.5/-18.26	-16.88/-13.88	-10.86/-9.05	-8.35/-9	-10.14/-10.44
Θ(172.5°)	-15.42/-18.87	-19.6/-19.17	-16.92/-14.41	-12.45/-10.82	-9.23/-7.6	-6.11/-4.85	-3.76/-3.01	-2.46/-1.99	-1.87/-2.13	-2.92/-3.79	-4.76/-5.82	-7.55/-9.57	-10.68/-10.81	-10.36/-9.71	-9.78/-10.5	-13.15/-18.08	-17.11/-17.47	-13.48/-10.43	-5.88/-4.42	-3.54/-3.4	-3.66/-4.18	-4.75/-5.65	-7.13/-10.6	
Θ(180°)	-11.8/-18.67	-18.52/-13.35	-10.43/-8.69	-7.57/-6.83	-6.46/-6.19	-6.03/-6.14	-5.92/-5.94	-6.38/-6.88	-7.33/-7.67	-8.44/-9.28	-10.43/-12.18	-14.02/-15.18	-14.95/-13.62	-12.10/-9.7	-10.67/-10.24	-9.09/-7.53	-6.12/-5.47	-4.46/-4.19	-4.21/-4.26	-3.83/-3.41	-3.46/-4.35	-6.13/-8.26	-10.4/-13.1	-18.07/-18.3
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°)	-2.39/-1.9	-1.64/-1.45	-1.49/-1.64	-2.11/-2.75	-3.61/-4.78	-6.39/-8.56	-11.72/-15.99	-17.74/-18.54	-14.5/-11.8	-9.71/-7.47	-5.57/-4.31	-3.44/-2.55	-1.86/-1.54	-1.53/-1.55	-1.33/-1.32	-2/-2.92	-3.89/-4.88	-6.12/-7.72	-9.43/-11.13	-12.14/-12.06	-10.84/-9	-7.23/-5.64	-4.32/-3.86	-3.77/-3.34
Θ(7.5°)	-2.51/-1.88	-1.77/-2.04	-2.06/-1.84	-1.99/-2.4	-2.82/-3.5	-4.47/-5.83	-7.5/-9.3	-10.61/-11.25	-10.56/-9.56	-8.02/-6.06	-4.62/-3.75	-3.05/-2.26	-1.6/-1.45	-1.64/-1.84	-1.87/-2.43	-3.62/-4.89	-5.84/-7.11	-9.03/-12	-16.96/-17.67	-17.98/-16.66	-13.12/-10.7	-8.66/-8.67	-5.24/-6.41	-4.23/-3.68
Θ(15°)	-3.53/-4.69	-4.11/-3.53	-2.83/-1.94	-1.47/-1.75	-2.03/-2.44	-3.08/-4.32	-5.84/-7.91	-9.83/-10.37	-8.89/-6.96	-5.22/-3.66	-2.72/-2.19	-1.96/-1.43	-0.98/-0.94	-1.48/-2.48	-3.35/-4.43	-6.14/-7.99	-9.42/-10.15	-11.27/-13.01	-15.9/-17.98	-18.38/-16.03	-12.58/-11.06	-10.51/-9.97	-8.39/-6.65	-5.86/-5.95
Θ(22.5°)	-5.35/-4.87	-4.04/-3.06	-2.94/-3.1	-0.76/-1.02	-1.23/-1.15	-1.2/-1.7	-5.95/-6.65	-9.84/-10.34	-10.09/-7.01	-5.02/-3.46	-2.51/-2.02	-1.69/-1.4	-1.15/-1.13	-1.65/-2.76	-4.14/-6.52	-9.87/-13.26	-14.5/-13.81	-13.29/-13.02	-12.64/-13.12	-15.71/-19.34	-18.67/-15.08	-10.22/-9.8	-7.81/-5.98	-5.15/-5.33
Θ(30°)	-10.97/-11.64	-10.64/-7.83	-5.84/-4.37	-3.1/-2.82	-2.65/-1.82	-1.2/-1.26	-2.32/-4.54	-7.77/-11.05	-10.56/-7.56	-4.92/-2.85	-1.91/-1.63	-1.75/-1.95	-1.86/-1.73	-1.98/-2.66	-4.66/-6.52	-16.08/-19.34	-17.91/-14.84	-14.36/-12.86	-10.57/-10.49	-12.6/-17.05	-18.52/-16.88	-17.02/-14.38	-13.86/-12.48	-10.71/-10.21
Θ(37.5°)	-5.99/-6.86	-7.97/-7.69	-7.23/-7.03	-9.95/-6.15	-4.62/-3.28	-2/-1.66	-2.81/-6.03	-11.25/-14.58	-10.12/-9.5	-2.8/-0.9	-1.41/-1.88	-1.71/-2.5	-1.28/-2.13	-4.12/-4.77	-12.19/-18.22	-16.7/-13.46	-13.73/-9.01	-6.52/-6.04	-6.49/-7.5	-8.43/-9.88	-10.57/-10.42	-9.62/-9.66	-8.05/-6.33	
Θ(45°)	-7.29/-3.17	-5.94/-7.76	-9.09/-12.21	-9.75/-7.03	-6.02/-4.68	-3.11/-2.13	-3.03/-6.77	-12.71/-13.46	-8.07/-3.66	-0.89/0.56	0.93/0.01	-1.32/-3.91	-3.56/-3.46	-3.1/-2.58	-3.5/-4.1	-10.88/-18.69	-12.3/-10.83	-14.9/-10.1	-7.1/-6.26	-7.17/-7.9	-8.08/-7.85	-6.9/-5.16	-3.61/-3.27	-4.17/-4.31
Θ(52.5°)	-3.2/-2.46	-4.08/-4.43	-7.8/-10.53	-10.85/-9.26	-9.18/-7.55	-4.72/-2.47	-3.27/-5.62	-10.99/-12.39	-7.12/-2.81	-0.2/0.4	0.13/-0.84	-2.47/-3.87	-4.51/-5.18	-4.5/-5.99	-4.61/-7.11	-6.48/-8.5	-16.3/-19.83	-14.79/-10.21	-7.59/-5.79	-5.26/-6	-6.07/-5.41	-4.35/-3.83	-3.16/-2.22	-1.84/-2.92
Θ(60°)	-4.25/-3.23	-3.66/-4.5	-4.91/-8.64	-11.22/-11.7	-10.95/-7.08	-3.99/-2.41	-3.25/-8.69	-18.01/-17.3	-7.65/-2.78	-0.12/0.56	-0.08/-0.78	-1.57/-2.02	-2.45/-3.72	-3.25/-4.74	-4.84/-4.43	-5.62/-12.02	-18.73/-17.87	-16.37/-11.23	-5.35/-3.73	-4.67/-5.94	-6.54/-6.54	-5.61/-4.33	-3.6/-2.9	-2.72/-3.66
Θ(67.5°)	-4.06/-1.97	-2.54/-3.35	-4.08/-7.79	-11.13/-16.66	-11.12/-10.49	-6.4/-5.06	-6.98/-12.62	-15.71/-9.66	-3.36/-0.55	0.81/-1.12	0.29/-1.16	-3.22/-3.91	-2.63/-1.69	-1.21/-2.06	-3.63/-7.46	-10.07/-12.65	-15.05/-18.6	-18.66/-10.44	-5.38/-3.65	-3.88/-4.59	-5.43/-6.21	-6.52/-6.25	-4.88/-3.34	-2.88/-3.76
Θ(75°)	-5.15/-3.58	-5.28/-3.49	-3.42/-2.47	-6.62/-13.76	-18.39/-17.29	-10.89/-6.37	-6.24/-10.09	-10.34/-9.99	-9.97/0.2	-0.														



Radiated Composite Gain Data

Appendix A

Θ (67.5°)	-12.88/-18.18	-17.97/-18.45	-19.1/-17.83	-14.6/-10.52	-10.24/-13.49	-16.02/-8.33	-5.01/-4.34	-2.96/-1.93	-1.92/-4.01	-5.14/-3.64	-2.31/-1.26	-0.65/-1.16	-1.64/-3	-5.69/-9.23	-13.74/-18.17	-14.04/-7.31	-4.31/-3.56	-3.62/-3.64	-5.89/-13.15	-18.04/-11.55	-10.83/-10.35	-8.68/-9.46	-10.55/-11.64	-12.19/-11.3
Θ (75°)	-14.81/-17.93	-19/-18.25	-18.56/-18.08	-17.25/-12.2	-11.89/-11.75	-14.93/-11.37	-7.61/-7.36	-5.61/-4.06	-4.38/-6.47	-4.02/-3.46	-3.08/-2.34	-2.73/-3.28	-3.33/-3.96	-4.61/-6.48	-9.94/-13.5	-16.58/-8.78	-5.58/-4.31	-2.84/-1.31	-4.02/-7.34	-5.69/-6.63	-6.81/-6.62	-6.29/-6.47	-8.37/-11.09	-12.44/-11.8
Θ (82.5°)	-13.97/-18.49	-18.87/-19.17	-15.03/-14.46	-17.23/-16.24	-13.51/-12.41	-10.99/-8.49	-6.12/-6.94	-6.15/-5.47	-7.73/-12.2	-8.39/-4.45	-4.38/-5.03	-7.6	-7.35/-9.4	-7.87/-9.87	-13.88/-18.32	-14.06/-8.28	-6.68/-8.91	-3.31/-1.07	-6.22/-7.92	-8/-5.79	-5.01/-5.45	-6.5/-7	-2.9/-10.66	-13.91/-12.77
Θ (90°)	-18.39/-18.2	-12.38/-11.02	-8.89/-10.86	-12.84/-17.71	-18.32/-17.66	-16.62/-10.62	-5.59/-4.75	-9.22/-11.82	-15.52/-18.98	-12.88/-8.75	-6.74/-5.68	-6.9/-6.51	-6.28/-7.73	-8.19/-12.42	-16.3/-16.98	-19.38/-10.24	-3.69/-6.47	-4.81/-1.89	-4.85/-8.21	-6.26/-7.78	-8.22/-6.42	-4.33/-5.5	-9.14/-13	-14.72/-16.67
Θ (97.5°)	-11.66/-9.39	-8.62/-8.2	-6.31/-7.73	-11.82/-18.93	-18.85/-17.73	-18/-10.77	-8.45/-7.96	-10.95/-12.54	-13.08/-16.65	-11.01/-7.54	-5.8/-5.51	-9.17	-9.81/-10.65	-9.54/-15.28	-17.75/-15.27	-14.06/-9.58	-4.58/-9.2	-5.49/-6.32	-5.42/-9.89	-8.2/-9.25	-9.96/-7.68	-7.15/-7.78	-10.46/-14.4	-11.02/-13.28
Θ (105°)	-15.61/-9.03	-8.45/-6.54	-7.01/-7.37	-11.25/-19.15	-18.84/-13.19	-10.41/-12.41	-15.55/-12.66	-13.27/-17.98	-18.69/-18.65	-8.03/-9.44	-5.04/-6.27	-7.59/-6.99	-5.98/-7.81	-11.19/-12.42	-17.47/-12.66	-12.07/-6.89	-4.12/-8.44	-5.32/-3.67	-7.15/-10.79	-5.71/-7.8	-16.89/-9.43	-5.64/-7.4	-8.32/-9.53	-7.56/-10.41
Θ (112.5°)	-18.29/-8.54	-8.93/-5.36	-6.51/-10.04	-18.71/-11.23	-9.46/-5.96	-4.62/-8.35	-12.49/-13.65	-15.59/-17.98	-14.04/-12.33	-8.64/-4.4	-2.3/-1.86	-2.79/-4.35	-5.57/-7.53	-7.74/-11.86	-16.97/-10.58	-18.67/-7.23	-4.34/-5.21	-6.37/-3.42	-4.28/-9.58	-7.23/-8.13	-18.11/-9.4	-4.68/-6.1	-9.34/-13.85	-6.78/-10.44
Θ (120°)	-13.93/-11.93	-18.7/-7.26	-6.64/-9.34	-10.15/-3.98	-3.24/-1.49	-1.35/-3.01	-8.26/-18.94	-15.6/-10.57	-7.07/-5.29	-8.6/-6.39	-2.73/-1.51	-2.63/-4.4	-5.39/-8.17	-8.2/-6.59	-17.36/-19	-13.49/-11.77	-14.69/-3.69	-2.15/-3.68	-10.27/-9.96	-10.62/-7.6	-11.55/-12	-4.71/-7.78	-8.19/-10.3	-8.47/-13
Θ (127.5°)	-19.06/-11.32	-10.04/-7.55	-13.15/-18.73	-6.09/-1.52	-1.21/-0.92	-0.53/-5.54	-16.97/-10.3	-5.35/-3.67	-2.69/-3.31	-4.53/-4.46	-3.23/-4.23	-5.09/-10.7	-13.12/-14.34	-18.22/-8.76	-14.18/-18.49	-1.92/-0.38	-2.59/-0.95	-10.82/-4.72	-6.71/-16.98	-6.87/-3.36	-7.81/-8.25	-8.4/-12.09		
Θ (135°)	-8.01/-6.61	-7.6	-12.56/-4.85	-2.2/-2	-2.14/-2.52	-2.3/-4.23	-5.24/-3.69	-1.46/-0.23	-1.02/-3.4	-7.23/-17.58	-8.59/-5.45	-4.4/-4.76	-5.71/-4.89	-4.54/-6.25	-14.61/-14.39	-15.62/-17.64	-7.69/-12.41	-8.86/-10.89	-2.77/-3.44	-5.95/-4.47	-4.84/-8.63	-9.93/-4.75	-5.94/-10.26	-8.23/-9.11
Θ (142.5°)	-4.66/-4.39	-8.8/-13.98	-10.41/-12.82	-1.51/-2.98	-5.08/-4.59	-5.28/-4.32	-2.59/-1.83	-2.17/-2.1	-2.51/-4.53	-8.2/-13.38	-18.53/-16.48	-13.52/-11.52	-10.51/-11.02	-12.77/-10.94	-9.4/-14.54	-15.45/-15.57	-12.77/-6.19	-5.07/-7	-6.79/-9.1	-8.36/-6.4	-2.47/-12.2	-13.62/-15.96	-14.2/-16.13	-14.03/-7.93
Θ (150°)	-8.1/-7.68	-10.51/-17.43	-11.4/-6.22	-4.38/-5.21	-6.75/-6.25	-4.68/-3.25	-2.11/-1.45	-2.12/-0.96	-0.76/-1.26	-3.28/-6.94	-14.55/-18.02	-16.35/-14.51	-13.4/-12.33	-13.25/-14.94	-16.36/-13.14	-15.32/-6.53	-9.22/-10.47	-13.09/-18.61	-9.22/-6.64	-6.96/-8.86	-11.8/-14.91	-12.25/-9.94	-9.86/-8.65	-9.19/-9.89
Θ (157.5°)	-13.92/-18.85	-18.86/-15.63	-11.22/-8.16	-6.27/-6.33	-8.16/-8.94	-7.26/-4.99	-3.24/-2.22	-2.03/-2.3	-2.53/-2.87	-3.52/-4.81	-6.81/-8.84	-10.66/-15.01	-18.55/-18.68	-18.24/-17.77	-12.29/-8.05	-6.47/-8.24	-14.23/-18.72	-17.58/-11.69	-8.74/-8.49	-10.57/-13.59	-15.67/-15.14	-12.17/-9.4	-7.73/-7.3	-8.28/-10.74
Θ (165°)	-8.88/-9.96	-6.68/-8.64	-7.49/-7.3	-7.92/-9.77	-12.37/-14.34	-14.33/-11.3	-8.27/-6.77	-7.51/-8.02	-8.92/-9.42	-12.12/-15.84	-18.89/-18.82	-18.04/-17.89	-16.52/-11.61	-8.79/-7.33	-7.87/-10.69	-15.73/-18.65	-18.75/-17.31	-15.72/-16.74	-18.89/-18.93	-13.13/-8.87	-6.91/-6.2	-7.02/-8.28		
Θ (172.5°)	-17.14/-17.86	-19.37/-17.02	-14.07/-14.2	-13.10/-7.8	-9.3/-8.15	-7.16/-6.43	-5.54/-8.9	-7.48/-5.03	-5.59/-6.51	-7.93/-9.09	-9.2/-10.16	-11.07/-10.04	-7.92/-6.51	-6.81/-8.66	-12.05/-17.23	-18.72/-17.48	-16.44/-14.35	-12.9/-11.94	-11.16/-10.81	-10.51/-9.85	-8.81/-8.48	-9.57/-10.15	-10.82/-13.14	
Θ (180°)	-12.28/-11.83	-12.25/-11.23	-10.82/-10.68	-10.54/-10.05	-9.44/-9.29	-9.13/-8.76	-8.8/-8.6	-8.75/-9.29	-10.08/-11.14	-12.62/-15.32	-19.19/-19.1	-18.61/-18.22	-17.82/-17.73	-17.91/-15.59	-15.57/-16.93	-17.34/-17.62	-15.49/-13.14	-11.84/-11.67	-11.54/-10.58	-9.78/-9.24	-9.45/-10.47	-11.89/-14.92	-18.35/-18.25	-18.41/-14.65
Freq[Hz]	5.785GPol.	ThetAnt. 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°)	0.37/0.79	0.96/0.88	0.57/0.19	-0.29/-0.95	-2.02/-3.06	-4.59/-6.61	-9.12/-11.64	-12.24/-10.55	-7.84/-5.8	-4.24/-3.1	-2.06/-1.18	-0.51/0.07	0.52/0.66	0.48/0.08	-0.39/-0.74	-1.15/-1.84	-2.89/-3.94	-5.04/-6.33	-7.69/-9.13	-9.27/-8.33	-6.78/-5.05	-3.35/-2.21	-1.36/-0.92	-0.45/-0.05
Θ (7.5°)	-0.79/-0.34	-0.10/-14	0.18/-0.25	-0.87/-1.26	-1.91/-2.62	-3.54/-4.51	-5.77/-6.7	-7.25/-7.52	-7.03/-6.12	-4.92/-3.56	-2.39/-1.42	-0.49/-0.01	0.44/0.81	0.89/0.59	0.15/-0.14	-0.51/-1.51	-2.81/-4.52	-6.74/-9.66	-12.82/-15.47	-13.54/-10.64	-7.72/-4.74	-4.17/-3.24	-2.47/-1.87	-1.52/-1.41
Θ (15°)	-0.33/-0.24	-1.71/-1.18	-1.31/-7.5	-2.26/-2.04	-2.41/-2.94	-3.61/-4.49	-5.36/-6.1	-6.94/-7.12	-7.06/-6.26	-5.21/-4.21	-3.81/-3.54	-3.09/-2.38	-1.63/-1.14	-0.73/-0.89	-1.52/-0.26	-2.27/-6.53	-3.5/-5.04	-7.27/-10.28	-15.18/-17.81	-19.32/-10.94	-10.75/-8.22	-6.36/-4.85	-4.03/-4.05	-3.96/-3.63
Θ (22.5°)	-3/-4.04	-4.86/-5.74	-5.91/-5.38	-5.18/-4.24	-3.88/-3.59	-3.78/-4.27	-5.48/-6.81	-8.25/-9.05	-8.63/-7.21	-5.31/-3.81	-2.91/-2.75	-3.22/-3.32	-2.78/-2.98	-4.21/-5.5	-6.21/-6.7	-7.26/-7.3	-7.5/-7.92	-8.44/-9.49	-11.51/-15.02	-19.06/-15.3	-9.92/-7.52	-5.81/-4.06	-2.71/-1.98	-1.99/-2.64
Θ (30°)	-6.92/-7.03	-6.21/-6.95	-9.95/-11.97	-10.73/-7.55	-5.16/-3.15	-2.26/-2.56	-3.99/-6.26	-8.73/-8.11	-6.53/-6.44	-2.69/-0.69	0.55/0.75	0.08/0.69	-1.3/-2.79	-5.86/-8.51	-8.61/-10.5	-14.43/-17.16	-15.88/-12.64	-9.14/-7.35	-7.62/-7.94	-14.95/-18.02	-14.96/-9.96	-6.78/-4.71	-3.59/-3.4	-3.94/-4.88
Θ (37.5°)	-5.36/-8.52	-10.61/-10.53	-10.57/-11.54	-10.08/-7.95	-4.33/-3.7	-5.03/-6.28	-6.41/-6.08	-4.07/-1.38	-0.34/0.61	1.01/0.82	0.41/0.3	-1.38/-1.48	-5.09/-4.84	-12.48/-10.5	-8.93/-13.65	-18.37/-16.5	-6.55/-5.1	-5.96/-6.24	-7.04/-6.97	-14.36/-14.82	-13.07/-11.25	-10.03/-8.66	-7.13/-6.04	
Θ (45°)	-10.09/-12.81	-10.17/-10.31	-13.07/-14.21	-13.75/-10.4	-5.96/-3.07	-2.04/-2.48	-4.02/-5.4	-5.25/-5.28	-4.48/-2.36	-0.55/0.22	0.47/0.69	0.54/-0.49	-1.28/-1.7	-3.96/-9.15	-10.15/-7.11	-8.67/-13.76	-19.07/-11.67	-9.28/-7.22	-6.33/-6.33	-6.42/-8.84	-12.14/-11.69	-10.57/-11.33	-12.21/-12.04	-9.9/-9
Θ (52.5°)	-5.24/-7.3	-8.81/-7.63	-9.41/-8.48	-8.79/-11.93	-8.23/-4.33	-3.28/-3.35	-3.97/-3.51	-4.21/-6.4	-2.56/-0.65	0.89/1.63	1.47/-1.22	0.65/-0.25	0.51/0.64	-0.98/-3.53	-9.47/-8.97	-7.6/-9.47	-19.03/-15.74	-9.92/-8.71	-5.56/-3.53	-5.59/-7.8	-8.86/-8.78	-8.96/-8.71	-6.74/-6.43	-7.79/-7.06
Θ (60°)	-2.54/-2.73	-4.25/-3.99	-6.13/-6.98	-11.17/-13.33	-8.37/-5.45	-3.59/-3.63	-5.58/-4.27	-3.78/-4.23	-2.06/-0.53	0.02/0.67	0.80/31	-0.91/-1.68	-1.31/-0.48	-0.58/-2.29	-5.12/-8.14	-9.82/-15.05	-48.41/-4.87	-18.24/-10.07	-6.31/-4.46	-3.71/-6.24	-9.04/-9.22	-8.66/-9.46	-6.66/-6.35	-4.74/-3.82
Θ (67.5°)	-2.1/-2.37	-2.35/-3.35	-6.48/-10.57	-10.75/-5.56	-4.48/-3.21	-2.73/-2.33	-2.53/-2.02	-2.1/-3.06	-1.65/-0.27	0.72/1.18	1.21/-0.26	-2.61/-3.3	-2.82/-0.73	-0.36/-0.6	-2.43/-8.36	-16.84/-13.43	-18.57/-18.73	-15.45/-10.16	-3.98/-1.5	-2.09/-4.01	-6.31/-8.71	-7.25/-6.52	-6.77/-7.12	-6.4/-3.98
Θ (75°)	-2.06/-1.84	-0.8/-10.4	-2.83/-0.69	-12.95/-7.5	-4.05/-4.28	-1.94/-0.91	-1.23/-1.13	-2.61/-3.83	-2.38/-0.72	0.61/1.22	0.84/0.8	-3.59/-5.72	-4.29/-2.64	-0.94/-1.18	-3.07/-6.35	-13.63/-18.7	-18.66/-18.83	-18.23/-14.73	-5.58/-3.46	-2.51/-4.24	-5.57/-9.4	-13.47/-14.13	-12.4/-8.17	-7.02/-6.11
Θ (82.5°)	-1.86/-1.13	-1.28/-1.21	-2.36/-6.93	-9.73/-7.41	-4.89/-3.61	-3.09/-2.85	-2.48/-2.95	-2.92/-2.4	-1.74/-0.44	0.26/0.35	-0.6/-3.08	-5.09/-6.51	-4.01/-2.82	-1.15/-2.14	-2.36/-3.46	-14.75/-17.93	-18.36/-17.78	-18.72/-9.95	-5.5/-1.98	-2.03/-5.9	-4.86/-4.77	-10.29/-15.73	-13.08/-12.12	-5.43/-5.01
Θ (90°)	-6.58/-3.33	-1.81/-8.8	-3.83/-8.4	-6.77/-7.38	-4.02/-2.07	-2.97/-3.73	-3.25/-4.1	-7.11/-4.34	-0.69/0.68	1.18/0.7	0.24/-2.37	-4.41/-8.52	-3.71/-3.08	-2.09/-1.66	-1.74/-3.8	-10.15/-18.97	-17.71/-7.51	-9.35/-14.06	-5.36/-4.66	-2.78/-8.52	-2.44/-8.68	-12.54/-10.16	-7.56/-7.75	
Θ (97.5°)	-6.78/-5.12	-3.62/-3.28	-5.15/-9.94	-5.53/-5.54	-4.09/-2.13	-1.61/-2.49	-6.61/-7.27	-5.19/-1.39	0.61/66	0.9/-6.65	-1.8/-6.93	-8.02/-6.76	-1.74/-1.29	-0.38/-1.44	-3.4/-0.2	-8.37/-11.67	-16.02/-8.66	-12.15/-18.67	-7.84/-5.9	-2.01/-9.36	-4.95/-4.83	-9.6/-8.68	-7.94/-5.05	-4.42/-3.74
Θ (105°)	-10.64/-12.17	-8.33/-8.16	-10.53/-11.09	-6.89/-7.72	-6.25/-6.23	-2.85/-8.13	-13.16/-10.65	-6.19/-2.69	0.36/0.9	-0.02/-1.3	-2.72/-7.14	-10.16/-11.27	-6.33/-4.4	-2.77/-1.77	-2.01/-4.23	-8.03/-17.83	-15.69/-15.06	-18.72/-17.81	-5.77/-8.91	-4.72/-10.16	-11.2/-8.8	-9.98/-11.27	-12.66/-7.83	-5.08/-8.66
Θ (112.5°)	-18.59/-18.24	-10.23/-8.25	-8.65/-7.07	-4.03/-2.84	-2.66/-1.81	-2.82/-7.12	-10.12/-6.29	-1.63/0.33	0.55/1.01	0.7/-0.4	-17.47/-7.24	-11.24/-13.5	-5.75/-5.9	-1.58/-0.78	-2.42/-5.85	-3.3/-17.49	-19.08/-19.27	-14.79/-9.73	-5.1/-7.8	-3.04/-10.62	-10.11/-5.19	-7.22/-9.22	-8.73/-5.61	-10.84/-10.84
Θ (120°)	-19.81/-14.15	-8.39/-8.48	-6.5/-5.56	-6.51/-7.79	-7.86/-3.17	-2.52/-5.15	-8.43/-8.34	-0.55/0.7	2.07/2.28	1.43/-0.95	-3.49/-6.38	-11.42/-17.33												



Radiated Composite Gain Data

Appendix A

Θ (112.5°)	-14.4/-17.21	-18.88/-12.15	-6.02/-3.46	-3.13/-4.54	-6.89/-8.29	-7.64/-7.04	-7.74/-9.38	-7.54/-3.22	-0.31/0.85	0.7/-0.63	-3.32/-8.72	-17.66/-11.38	-6.14/-3.53	-2.34/-1.92	-1.39/-0.81	-1.49/-4.08	-7.53/-6.67	-3.47/-1.69	-1.87/-4.33	-9.77/-18.43	-12.82/-7.69	-4.94/-3.92	-4.28/-5.88	-8.36/-11.01
Θ (120°)	-12.44/-16.23	-19.23/-12.35	-6.03/-3.31	-2.68/-3.16	-3.39/-2.51	-1.4/-1.02	-1.89/-4.54	-9.72/-9.74	-4.39/-1.63	-0.58/-0.86	-2.67/-6.08	-9.35/-7.65	-4.85/-3.23	-2.35/-1.4	0.44/-4.82	0.91/-1.07	-3.69/-5.67	-5.47/-5.54	-7/-11.61	-14.7/-7.98	-4.16/-1.77	-0.32/-0.07	-0.7/-2.59	-5.64/-9.53
Θ (127.5°)	-18.84/-16.5	-11.08/-6.43	-3.26/-1.82	-1.81/-3.87	-4.08/-3.87	-2.59/-1.67	-1.89/-3.46	-6.21/-7.46	-5.15/-2.81	-1.69/-3.03	-4.03/-1.67	-10.1/-8.12	-6.16/-5.17	-1.27/-2.62	-1.03/-0.59	-1.94/-5.43	-12.79/-19.25	-10.06/-6.24	-5.62/-8.04	-13.75/-9.08	-5.89/-2.98	-1.51/-1.34	-2.58/-5.53	-11.12/-18.78
Θ (135°)	-12.78/-10.98	-7.93/-5.23	-3.5/-3.03	-4.14/-7.52	-15.41/-13.39	-6.9/-4.29	-3.82/-9.22	-8.71/-15.56	-7.6/-4.04	-2.19/-1.8	-2.73/-4.91	-7.91/-11.17	-12.99/-12.59	-10.6/-9.06	-9.26/-12.21	-19.18/-13.22	-7.29/-4.4	-2.67/-1.96	-2.74/-5.64	-13.26/-19.23	-8.54/-5.4	-2.57/-2.07	-2.91/-4.86	-7.57/-9.81
Θ (142.5°)	-14.23/-14.43	-12.11/-9.8	-8.2/-7.96	-9.66/-15.49	-17.97/-8.4	-4.11/-2.09	-1.58/-2.43	-4.96/-10.15	-18.79/-10.29	-5.68/-3.82	-3.61/-4.4	-5.62/-6.69	-6.84/-6.38	-6.14/-6.87	-8.83/-10	-7.68/-6.24	-3.87/-3.35	-3.35/-4.07	-6.15/-19.94	-18.01/-12.18	-6.65/-3.84	-2.46/-2.23	-3.05/-4.79	-7.5/-10.58
Θ (150°)	-19/-18.29	-17.45/-17.18	-15.67/-13.09	-13.38/-18.74	-17.79/-10.43	-5.44/-2.85	-1.71/-1.79	-3.13/-5.94	-11.64/-19.29	-11.3/-7.2	-5.32/-4.5	-4.32/-4.26	-4.19/-4.03	-4.09/-4.26	-4.21/-3.66	-2.96/-2.61	-2.78/-3.49	-4.63/-6.39	-9.34/-14.91	-18.27/-14.22	-9.63/-3.31	-6.34/-6.47	-7.71/-10.06	-13.94/-18.61
Θ (157.5°)	-13.39/-10.96	-9.41/-8.22	-7.35/-7.04	-7.68/-10.1	-15.81/-17.6	-9.75/-5.79	-3.9/-3.36	-3.99/-5.8	-9.39/-16.51	-18.71/-12.46	-8.38/-6.19	-4.88/-4	-3.41/-3.03	-2.78/-2.43	-1.95/-1.57	-1.52/-1.92	-2.82/-4.21	-6.3/-9.21	-13.7/-17.73	-17.31/-16.77	-13.33/-11.85	-11.68/-12.48	-14.59/-18.56	-19.14/-16.77
Θ (165°)	-8.57/-7.35	-6.45/-5.89	-5.71/-5.96	-6.72/-8.13	-9.96/-16.2	-8.87/-6.63	-5.08/-4.44	-4.63/-5.67	-7.76/-11.08	-16.87/-18.68	-17.93/-12.18	-9.06/-6.97	-5.61/-4.73	-4/-3.36	-2.85/-2.79	-3.26/-4.29	-5.89/-8.18	-11.51/-16.55	-17.74/-19.41	-18.66/-15.15	-13.42/-12.73	-12.67/-12.77	-13/-12.97	-11.81/-10.53
Θ (172.5°)	-7.65/-7.07	-6.72/-6.68	-6.67/-7.38	-7.96/-8.63	-9.11/-8.8	-7.81/-6.75	-6.02/-5.75	-6.04/-6.88	-8.44/-10.62	-13.59/-18.44	-18.32/-18.87	-15.09/-12.1	-10.38/-9.13	-8.17/-7.41	-6.99/-7.23	-8.07/-9.59	-11.68/-14.17	-17.17/-18.98	-19.17/-17.74	-18.97/-16.04	-14.29/-13.17	-12.2/-11.38	-10.76/-10.22	-9.43/-8.56
Θ (180°)	-10.08/-10.17	-10.14/-9.81	-9.34/-8.7	-8.18/-7.81	-7.61/-7.4	-7.16/-7	-7.1/-7.41	-8.09/-9.33	-11.41/-14.15	-16.32/-16.44	-15.3/-13.66	-12.11/-10.97	-10.31/-9.71	-9.25/-8.98	-9.03/-9.44	-10.02/-10.66	-11.23/-11.74	-12.49/-13.96	-18.61/-18.67	-18.94/-19.1	-18.44/-15.53	-13.53/-12.22	-11.44/-10.95	-10.59/-10.48
Freq[Hz]	2.45GPol.	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-18.25/-16.73	-15.48/-14.56	-13.84/-13.32	-12.61/-11.63	-10.72/-10.08	-9.73/-9.62	-9.74/-10.01	-10.44/-10.95	-11.83/-13.17	-15.3/-17.86	-18.45/-18.34	-19.11/-17.63	-16.29/-13.6	-11.81/-10.73	-10.14/-9.81	-9.52/-9.27	-9/-9.96	-9.03/-9.01	-8.92/-9.01	-9.43/-10.26	-11.43/-12.81	-14.33/-16.2	-17.39/-19.42	-18.46/-18.86
Θ (7.5°)	-14.72/-13.33	-12.34/-11.66	-11.09/-10.58	-10.01/-9.32	-8.73/-8.39	-8.36/-8.6	-9.03/-9.55	-10.08/-10.74	-11.73/-13.11	-14.83/-16.53	-18.48/-18.57	-18.85/-19.02	-18.21/-16.39	-14.66/-13.38	-12.52/-11.94	-11.51/-10.97	-10.31/-9.9	-9.89/-9.92	-9.91/-10.03	-10.45/-11.23	-12.5/-14.24	-16.68/-17.97	-18.25/-18.03	-19/-16.53
Θ (15°)	-11.56/-10.5	-9.64/-8.88	-8.16/-7.56	-7.08/-6.72	-6.48/-6.47	-6.71/-7.16	-7.86/-8.72	-9.62/-10.53	-11.61/-12.51	-13.21/-13.46	-13.81/-15.01	-17.64/-18.36	-18.55/-18.74	-18.85/-17.96	-17.05/-15.05	-13.07/-11.56	-10.6/-10	-9.78/-9.96	-10.53/-11.57	-13.45/-16.42	-19.05/-18.36	-18.13/-18.14	-14.81/-12.65	
Θ (22.5°)	-9.07/-8.25	-7.46/-6.62	-5.82/-5.13	-4.63/-4.37	-4.32/-4.52	-4.98/-5.68	-6.64/-7.78	-9.07/-10.34	-11.25/-11.61	-11.6/-11.23	-10.96/-11.28	-12.3/-13.78	-15.56/-17.08	-18.77/-18.11	-19.06/-19.23	-18.43/-18.92	-17.74/-15.71	-13.03/-11.41	-10.73/-10.93	-11.87/-13.68	-16.82/-19.37	-18.16/-18.33	-15.05/-12.86	-11.14/-9.85
Θ (30°)	-8.83/-8.18	-7.28/-6.28	-5.26/-4.39	-3.78/-3.45	-3.37/-3.56	-4.01/-4.72	-5.62/-6.62	-7.66/-8.62	-9.26/-9.25	-8.63/-7.81	-7.25/-7.05	-7.16/-6.74	-8.25/-8.83	-9.39/-9.94	-10.61/-14.74	-13.76/-17.01	-17.99/-17.62	-19.35/-15.8	-14.16/-14.61	-16.58/-18.27	-17.57/-17.57	-16.45/-13.85	-12.33/-11.25	-10.28/-9.52
Θ (37.5°)	-11.92/-11.12	-9.73/-8.25	-6.88/-5.31	-4.19/-3.5	-3.13/-3.12	-3.45/-4.09	-4.97/-5.89	-6.61/-7.73	-7.98/-7.55	-6.67/-5.73	-4.95/-4.38	-4.14/-4.24	-4.71/-5.37	-6.09/-6.89	-7.71/-11.77	-10.21/-11.95	-13.79/-17.83	-18.73/-18.72	-17.74/-17.59	-19.26/-18	-15.31/-14.18	-13.81/-13.46	-13.02/-12.65	
Θ (45°)	-13.21/-12.24	-11.03/-9.77	-8.26/-6.33	-4.62/-3.34	-2.61/-2.38	-2.55/-3.17	-4.11/-5.21	-6.41/-7.33	-7.65/-7.23	-6.41/-5.4	-4.25/-3.21	-2.64/-2.63	-3.13/-3.98	-4.95/-5.87	-6.75/-7.51	-8.33/-9.32	-10.43/-11.43	-12.28/-13.28	-14.47/-15.36	-15.41/-14.33	-13.17/-12.22	-11.54/-11.39	-11.74/-12.34	-12.84/-13.07
Θ (52.5°)	-10.01/-9.35	-8.63/-8.16	-7.55/-6.15	-4.28/-2.71	-1.83/-1.57	-1.86/-2.76	-4.21/-5.99	-7.63/-8.6	-8.73/-8.32	-7.52/-5.94	-3.91/-3.21	-1.63/-1.76	-2.47/-3.47	-4.42/-5.19	-5.77/-6.19	-6.59/-6.95	-7.03/-6.89	-6.86/-7.26	-8.28/-9.53	-10.32/-10.09	-9.48/-8.99	-8.4/-8.25	-8.57/-9.17	-9.65/-9.9
Θ (60°)	-12.99/-12.71	-11.97/-11.53	-10.83/-8.75	-5.81/-3.46	-2.26/-2.01	-2.46/-3.74	-6.09/-9.52	-13.57/-15.39	-14.43/-13.16	-12.46/-11.43	-9.81/-4.7	-0.51/-0.43	-0.95/-1.61	-2.01/-2.27	-2.54/-2.94	-3.34/-3.81	-4.08/-4.42	-5.06/-6.18	-7.96/-10.48	-12.89/-13.03	-11.28/-9.78	-9.14/-9.27	-9.89/-10.91	-12.77/-13.17
Θ (67.5°)	-11.19/-9.68	-8.7/-8.88	-10.56/-11.07	-7.71/-4.57	-3.01/-2.78	-3.36/-4.74	-6.95/-9.4	-11.79/-14.81	-17.56/-18.83	-15.54/-7.63	-3.1/-0.74	0.170/27	0.04/-0.15	-0.18/-0.22	-0.43/-0.81	-1.27/-1.8	-2.72/-4.32	-6.71/-9.9	-14.52/-17.7	-17.16/-10.85	-7.61/-6.28	-6.29/-7.25	-8.96/-11.05	-12.53/-11.98
Θ (75°)	-5.66/-4.46	-4.05/-5.15	-8.32/-10.15	-6.63/-6.88	-2.34/-2.1	-2.53/-3.31	-4.03/-4.15	-4.27/-5.43	-8.41/-11.81	-10.92/-6.61	-3.02/-0.75	0.180/28	0.01/-0.25	-0.44/-0.57	-0.71/-0.78	-0.69/-0.8	-1.87/-4.06	-7.37/-11.27	-13.67/-11.85	-8.45/-5.68	-3.98/-3.37	-3.83/-5.09	-6.48/-7.28	-7.36/-5.67
Θ (82.5°)	-6.59/-4.55	-3.99/-4.99	-9.51/-6.88	-4.20/-4.13	-4.31/-4.83	-4.88/-3.78	-2.83/-3.38	-6.19/-10.49	-10.28/-5.89	-2.21/0.06	0.970/29	-0.05/-1.14	-2.03/-2.61	-2.68/-2.09	-1.09/-0.63	-1.17/-2.48	-4.22/-5.95	-7.58/-7.9	-6.34/-24	-2.71/-2.25	-2.92/-4.02	-5.36/-6.05	-6.42/-6.33	
Θ (90°)	-5.86/-4.82	-3.89/-4.37	-7.87/-17.51	-10.35/-6.5	-6.04/-6.51	-7.01/-7.87	-7.8/-5.53	-3.32/-2.79	-4.39/-7.88	-10.9/-8.16	-3.85/-0.86	0.560/68	-0.1/-1.07	-1.74/-2.2	-2.43/-2.23	-1.56/-1.11	-1.37/-2.23	-3.34/-4.29	-5.45/-5.45	-3.38/-1.04	0.510/92	0.28/-0.99	-2.55/-4.06	-5.28/-6.2
Θ (97.5°)	-3.86/-4.65	-4.82/-5.06	-8.46/-17.95	-13.39/-9	-9.62/-11.63	-13.89/-18.35	-16.81/-9.27	-5.63/-4.29	-5.33/-8.19	-10.08/-6.94	-2.97/-0.24	1.03/-1.42	0.630/22	0.170/04	-0.36/-0.71	-0.77/-0.93	-1.51/-2.48	-3.11/-3.47	-4.46/-6.42	-2.77/-0.6	0.70/72	-0.61/-2.95	-5.93/-8.45	-9.25/-8.78
Θ (105°)	-4.4/-3.37	-2.42/-8.4	-5.67/-13.69	-16.17/-9.6	-17.77/-13.23	-15.10/-0.7	-5.32/-6.4	-14.81/-1.26	-2.26/-1.97	-5.34/-2.84	-1.13/-0.43	-0.38/-0.37	-0.24/-0.47	-1.09/-1.28	-0.71/-1.38	-2.88/-5.16	-6.68/-7.96	-10.71/-11.6	-8.03/-4.44	-2.37/-2.22	-3.78/-17.4	-6.51/-5.88	-4.93/-4.23	
Θ (112.5°)	-6.53/-5.41	-4.59/-5.51	-9.91/-18.78	-10.63/-6.83	-7.32/-10.11	-12.12/-9	-4.82/-2.18	-0.93/-0.7	-1.19/-1.89	-2.27/-2.11	-1.71/-1.04	-0.65/-0.85	-1.39/-2.08	-2.94/-4.02	-4.13/-2.62	-1.29/-1.34	-2.6/-3.5	-3.73/-5.2	-7.4/-7.13	-5.34/-3.26	-1.73/-1.33	-2.09/-3.47	-5.04/-6.17	-6.76/-6.89
Θ (120°)	-7.59/-5.81	-4.63/-5.2	-8.91/-7.78	-11.67/-6.93	-6.55/-8.29	-9.54/-7.8	-4.92/-8.25	-1.76/-1.49	-1.77/-2.21	-2.42/-2.18	-1.71/-1.03	-0.52/-0.58	-1.35/-2.75	-4.54/-5.57	-4.55/-2.78	-1.8/-2.13	-3.34/-3.6	-3.33/-4.21	-5.12/-6.06	-2.6/-1.47	-0.52/-0.09	-0.51/-1.82	-3.82/-5.98	-7.9/-8.6
Θ (127.5°)	-10.78/-7.76	-6.51/-7.61	-11.79/-11.55	-6.06/-3.53	-3.39/-5	-7.63/-6.75	-6.63/-4.06	-2.26/-0.92	-0.21/-0.03	-0.25/-0.69	-1.3/-1.9	-2.5/-3.44	-4.9/-6.69	-7.58/-7.26	-7.05/-7.59	-8.91/-10.41	-8.11/-4.34	-2.41/-2.04	-1.91/-1.16	-0.330/-15	0.40/18	-0.97/-3.22	-6.75/-11.43	-16.71/-17.06
Θ (135°)	-19.04/-15.74	-13.34/-14.69	-17.31/-11.31	-6.83/-4.99	-5.26/-7.67	-13.54/-18.42	-2.17/-2.31	-0.830/01	0.260/08	-0.52/-1.49	-2.73/-4.08	-5.32/-5.98	-5.93/-6.07	-7.2/-9.25	-10.53/-8.83	-5.84/-3.73	-2.97/-3.46	-4.16/-3.91	-3.2/-2.87	-2.98/-3.67	-5.17/-7.44	-9.5/-10.11	-10.85/-13.26	
Θ (142.5°)	-14.03/-13.04	-11.94/-12.6	-15.07/-15.7	-13.35/-12.43	-14.38/-18.66	-15.4/-8.3	-4.55/-2.49	-1.39/-0.83	-0.53/-0.49	-0.65/-0.95	-1.46/-2.11	-2.82/-3.58	-4.12/-4.37	-4.72/-5.51	-6.82/-7.87	-7.6/-6.69	-6.06/-6.21	-7.11/-8.59	-8.15/-8.1	-6.88/-6.24	-6.04/-6.23	-6.61/-7	-7.23/-6.66	-8.75/-10.73
Θ (150°)	-18.18/-16.52	-14.37/-13.55	-13.57/-14.19	-15.24/-17.55	-17.79/-17.7	-11.37/-9.62	-3.89/-1.97	-0.74/-0.04	0.240/15	-0.21/-0.77	-1.6/-2.65	-3.73/-4.63	-5.2/-5.61	-6.07/-6.67	-7.16/-7.03	-6.2/-5.41	-5.29/-6.12	-7.68/-9.31	-10.32/-10.61	-10.71/-10.73	-10.59/-11.06	-12.57/-15.36	-19.43/-18.78	-17.98/-17.88
Θ (157.5°)	-10.69/-13.11	-16.63/-18.34	-17.96/-17.47	-18.21/-19.03	-17.45/-16.24	-12.84/-9.31	-6.34/-2.22	-2.56/-1.37	-0.61/-0.41	-0.7/-1.28	-2.32/-3.8	-1.77/-8.26	-10.74/-13.07	-15.09/-16.29	-15.62/-13.75	-11.69/-10.33	-10.19/-11.72	-15.22/-17.9	-17.44/-17.61	-18.45/-14.47	-11.91/-10.03	-8.59/-8.43	-8.28/-8.28	-8.5/-9.2
Θ (165°)	-7.57/-8.95	-10.89/-13.28	-16.19/-18.8	-18.1/-17.26	-18.49/-18.12	-18.06/-17.0																		



Radiated Composite Gain Data

Appendix A

Θ (165°)	-13.39/-16.51	-18.91/-17.82	-17.91/-17.24	-19.03/-18.95	-18.27/-19.06	-18.95/-18.8	-19.09/-18.37	-17.74/-18.61	-17.44/-13.29	-10.53/-8.87	-7.61/-17.48	-6.92/-7.12	-7.78/-8.65	-10.22/-12.22	-14.89/-17.42	-18.03/-17.84	-16.84/-18.3	-19.08/-18.21	-17.97/-19.4	-18.66/-18.76	-18.55/-19.3	-18.59/-17.48	-17.65/-14.49	-13.33/-13.33
Θ (172.5°)	-18.72/-15.35	-13.74/-14.15	-15.3/-17.74	-18.47/-18.78	-19/-17.61	-18.14/-19.12	-18.75/-19.36	-19.03/-19.31	-18.62/-18.97	-18.02/-18.52	-19.02/-17.42	-15.95/-14.92	-14.88/-14.96	-16.22/-19.22	-18.35/-18.12	-18.85/-18.98	-18.08/-19.06	-18.36/-17.31	-18.71/-18.61	-18.18/-18.64	-18.78/-17.44	-17.87/-17.71	-18.63/-18.49	-18.7/-18.03
Θ (180°)	-19.27/-18.54	-18.4/-16.11	-15.73/-15.65	-18.15/-15.27	-16.76/-18.26	-18.18/-19.08	-18.89/-17.88	-17.14/-17.12	-17.1/-16.83	-15.78/-14.69	-17.83/-13.54	-12.91/-12.52	-11.51/-11.11	-12.22/-11.77	-16.32/-13.72	-15.51/-17.06	-18.08/-17.3	-18.81/-18.05	-18.48/-18.61	-16.38/-14.56	-13.74/-12.64	-12.76/-13.46	-16.02/-16.8	
Freq(Hz)	5.30/Pol.	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-18.51/-18.94	-16.04/-12.7	-10.68/-9.05	-7.69/-6.55	-6.61/-6.67	-3.89/-3.45	-3.35/-3.13	-3.24/-3.71	-3.79/-4.72	-5.64/-6.77	-8.41/-10.3	-12.57/-15.6	-17.81/-19.19	-18.06/-16.37	-13.42/-11.31	-6.65/-8.34	-6.05/-5.74	-5.65/-5.91	-6.33/-6.78	-7.25/-8.04	-9.22/-10.64	-12.06/-13.76	-15.69/-18.61	
Θ (15°)	-17.44/-19.18	-18.94/-17.75	-14.96/-12.12	-10.43/-9.06	-7.83/-6.85	-6.03/-5.71	-6.05/-6.26	-6.84/-7.65	-7.59/-8.63	-9.43/-10.7	-11.98/-13.17	-15.28/-18.02	-17.78/-15.1	-12.43/-10.03	-8.37/-4.72	-6.97/-6.41	-4.62/-3.77	-3.43/-3.05	-3.02/-3.2	-3.44/-3.58	-3.97/-4.56	-5.25/-6.15	-7.27/-8.81	-11.01/-13.49
Θ (15°)	-8.32/-10.89	-14.88/-18.93	-18.26/-18.76	-17.01/-13.88	-11.45/-10.51	-9.52/-9.45	-10.85/-12.59	-14.47/-16.08	-15.01/-14.68	-13.39/-13.33	-13.67/-14.93	-15.36/-13.99	-11.79/-10.27	-8.62/-7.18	-5.66/-4.67	-4.1/-3.21	-2.39/-1.84	-1.65/-1.43	-1.67/-1.94	-2.15/-2.05	-2.06/-2.23	-2.48/-2.83	-3.54/-4.47	-5.66/-6.87
Θ (22.5°)	-5.65/-7.31	-9.64/-12.82	-15.61/-18.11	-18.71/-17.48	-19.06/-19.39	-16.15/-14.25	-14.18/-15.48	-17.75/-17.88	-18.07/-18.9	-15.74/-15.68	-16.6/-16.41	-14.74/-12.03	-9.46/-7.47	-5.95/-4.58	-3.22/-2.14	-1.34/-0.78	-0.58/-0.42	-0.16/-0.12	0.08/-0.13	-0.20/-0.24	-0.81/-1.56	-2.36/-3.04	-3.77/-4.62	
Θ (30°)	-5.57/-6.81	-9.05/-11.58	-15.89/-18.05	-19.23/-18.25	-17.11/-16.17	-17.03/-18.92	-18.11/-19.03	-17.15/-16.29	-16.08/-15.97	-14.94/-15.19	-15.21/-13.38	-11.33/-9.61	-8.37/-7.21	-6.02/-4.59	-3.02/-1.56	-0.6/-0.08	0.47/-1.14	1.51/-1.22	0.5/-0.01	0.46/-1.02	1.04/-0.35	-0.87/-2.02	-2.93/-3.74	-4.65/-5.39
Θ (37.5°)	-6.64/-5.75	-5.62/-7.23	-10.69/-14.53	-17.8/-17.6	-18.59/-17.69	-18.55/-19.13	-15.75/-14.44	-14.56/-14.04	-12.72/-11.7	-11.05/-11.68	-10.52/-9.3	-8.36/-7.89	-7.49/-6.67	-5.55/-4.16	-2.55/-0.83	0.15/-0.49	1.12/-1.62	1.32/-0.09	-0.43/-0.41	1.07/-1.14	0.67/-0.08	-0.41/-1.08	-1.89/-2.75	-4.03/-5.88
Θ (45°)	-3.73/-3.6	-3.31/-4.57	-7.77/-10.26	-11.64/-13.62	-15.03/-18.31	-17.3/-17.3	-13.4/-10.25	-9.86/-10.64	-11.91/-10.72	-9.14/-8.7	-8.25/-6.87	-5.97/-5.5	-4.56/-3.45	-2.47/-2.29	-2.3/-1.33	-0.23/-0.19	-0.13/-0.17	-0.65/-0.61	-0.18/-0.07	-0.07/-0.08	0/-0.36	-0.86/-1.05	-0.76/-0.58	-1.08/-2.52
Θ (52.5°)	-2.56/-2.89	-2.64/-4.12	-6.77/-6.41	-5.43/-6.53	-8.26/-10.55	-16.63/-18.52	-12.03/-9.53	-7.42/-7.26	-8.57/-10.12	-8.98/-8.31	-7.08/-4.98	-3.37/-2.15	-1.24/-0.57	-0.07/-0.09	-0.92/-1	-0.69/-0.89	-0.71/-0.02	0.2/-0.51	-1.11/-1.08	-0.83/-0.77	-0.93/-1.43	-1.76/-1.37	-0.30/-3	0.06/-1.08
Θ (60°)	-1.8/-2.97	-2.62/-3.65	-6.46/-5.52	-4.97/-7.59	-6.52/-7.21	-7.37/-9.5	-8.65/-8.49	-4.89/-4.56	-6.35/-7.79	-7.68/-6.73	-5.59/-3.38	-1.55/-0.52	0.66/-1.4	1.61/-37	0.43/-0.2	0.4/-1.38	0.67/-0.06	-0.43/-0.62	0.28/-0.76	0.02/-0.9	-1.19/-0.8	-0.15/-0.12	-0.27/-0.9	
Θ (67.5°)	-1.84/-3.96	-2.29/-3.07	-5.38/-4.14	-5.16/-6.44	-5.52/-4.95	-5.01/-6.14	-5.79/-5.5	-3.29/-3.21	-4.9/-7.4	-7.24/-6.9	-6.13/-3.9	-1.38/-0.25	1.22/-42	2.82/-54	1.67/-1.08	1.05/-0.05	0.94/-1.03	0.01/-0.33	-0.38/-0	0.60/-35	-0.17/-1.27	-1.97/-1.62	-0.94/-0.96	-1.13/-0.79
Θ (75°)	-1.17/-5.52	-2.9/-2.92	-6.22/-3.36	-5.43/-5.95	-5.01/-4.17	-3.01/-3.01	-3.48/-3.89	-3.06/-3.19	-4.59/-8.69	-8.41/-5.3	-4.96/-3.37	-1.29/-0.84	0.03/-1.96	2.72/-0.1	1.35/-1.1	1.40/-44	1.82/-44	0.45/-0.26	-0.48/-0.54	1.43/-0.99	0.06/-0.91	-0.85/-0.88	-0.94/-1.76	-2.51/-0.8
Θ (82.5°)	-0.36/-5.49	-2.95/-2.82	-8.89/-3.84	-7.97/-7.28	-6.31/-6.41	-2.62/-1.46	-1.88/-2.71	-2.72/-2.88	-3.9/-8.2	-9.7/-6.64	-6.46/-4.14	-1.64/-1.56	-0.43/-0.21	2.51/-42	0.69/-0.94	1.11/-1.18	2.25/-1.79	1.11/-1.01	-0.49/-0.56	1.51/-1.49	-0.22/-2.08	-0.78/-0.14	-1.13/-3.04	-4.16/-1.13
Θ (90°)	0.24/-3.09	-3.02/-1.61	-10.82/-3.71	-8.81/-4.9	-5.57/-4.42	-2.07/-0.94	-2.12/-2.76	-2.06/-3.41	-3.84/-7.1	-8.35/-4.48	-5.63/-3.83	-2.39/-3.27	-1.36/-1.17	1.43/-14	-0.22/-0.51	0.78/-1.2	1.79/-192	0.64/-0.68	-1.1/-0.26	1.52/-1.49	-0.93/-2	-0.03/-1.33	0.28/-1.86	-2.99/-0.88
Θ (97.5°)	0/-2.4	-0.85/-1.11	-10.27/-5.43	-8.04/-3.47	-4.87/-4.95	-2.21/-0.37	-0.84/-2.41	-1.76/-1.98	-3.5/-7.74	-8.67/-5.2	-5.58/-3.25	-4/-6.7	-3.15/-0.84	-0.34/-0.34	-1.08/-1.02	-1.03/-0.94	-0.16/-1.43	0.2/-0.97	-1.35/-1.05	-1.19/-2.86	-3.69/-3.45	-1.35/-0.38	-1.43/-4.55	-2.32/-0.39
Θ (105°)	-1.08/-2.86	-1.2/-1.12	-8.8/-6.53	-8.15/-4.36	-4.06/-4.94	-2.44/-0.18	-0.57/-2.31	-2.79/-3.97	-4.21/-7.02	-9.27/-6.66	-6.66/-4.61	-5.85/-7.31	-5/-3.97	-2.98/-2.07	-3.41/-3.75	-4.16/-2.1	-0.67/-0.67	-2.62/-3.87	-4.38/-2.45	-4.41/-9.11	-8.56/-6.72	-4.21/-2.02	-3.55/-6.55	-4.35/-1.48
Θ (112.5°)	-2.5/-1.69	-1.4/-2.03	-7.86/-11.65	-7.36/-3.16	-3.17/-4.94	-2.09/-0.35	-0.51/-2.69	-3.33/-5.58	-4.97/-10.72	-9.67/-6.35	-7.34/-4.98	-7.35/-7.25	-6.73/-3.71	-5.99/-4.94	-4.81/-4.73	-5.64/-2.71	-0.59/-1.66	-3.02/-5.16	-4.9/-3.09	-4.56/-10.27	-11.44/-11.67	-8.47/-6.03	-6.9/-2.1	-8.72/-4.7
Θ (120°)	-4.53/-2.93	-7.29/-5.2	-7.82/-11.35	-5.69/-4.33	-4.35/-4.54	-2.59/-0.02	-0.63/-2.82	-3.67/-4.41	-6.66/-9.68	-10.89/-12.04	-7.64/-8.59	-10.59/-10.41	-14.28/-16.37	-10.72/-6.72	-7.84/-14.08	-9.37/-2.44	-0.87/-2.98	-3.32/-5.73	-6.43/-4.46	-4.99/-10.41	-13.45/-14.62	-5.63/-6.1	-7.25/-13.68	-17.79/-14.97
Θ (127.5°)	-8.02/-5.51	-12.08/-7.71	-9.77/-9.68	-6.67/-3.89	-3.8/-4.1	-3.46/-3.01	-2/-4.1	-5.35/-6.65	-10.69/-11.11	-11.59/-10.94	-10.35/-11.68	-12.13/-17.16	-17.67/-18.52	-9.93/-7.76	-11.09/-17.31	-11.81/-9.34	-4.59/-4.11	-7.16/-21	-8.85/-7.14	-4.29/-7.11	-18.25/-18.15	-8.06/-9.12	-19.13/-18.57	-17.87/-17.64
Θ (135°)	-16.22/-12.65	-12.69/-10.24	-10.56/-8.11	-5.86/-5.51	-5.35/-5.91	-3.44/-2.68	-3.17/-3.65	-6.66/-8.2	-8.83/-10.16	-12.68/-13.71	-13.23/-12.23	-15.75/-19.03	-12.91/-18	-12.71/-84	-10.47/-18.23	-13.98/-11.72	-7.57/-6.88	-7.27/-9.5	-17.34/-12.13	-8.22/-11.22	-15.25/-12.45	-15.28/-17.48	-17.91/-19	
Θ (142.5°)	-16.6/-11.67	-11.18/-11.58	-8.54/-7.11	-7.72/-7.79	-5.9/-4.49	-3.37/-2.63	-3.79/-5.32	-6.38/-8.17	-11.45/-13.45	-17.36/-17.19	-17.71/-17.87	-18.39/-16.49	-17.88/-18.49	-14.61/-11.29	-8.9/-8.19	-12.24/-14.91	-11.7/-13.31	-12.32/-16.3	-18.22/-16.07	-10.04/-9.4	-17.84/-17.3	-19.35/-14.2	-13.72/-17.63	-15.71/-18.04
Θ (150°)	-13.16/-9.25	-10.05/-13.37	-12.09/-10.71	-11.18/-11.78	-9.08/-6.23	-5.43/-9.44	-5.05/-6.35	-2.79/-7.99	-8.31/-8.88	-9.64/-11.77	-15.55/-19.02	-17.64/-18.06	-17.95/-18.72	-16.75/-16.36	-18.67/-14.46	-18.9/-18.15	-18.91/-17.54	-19.17/-16.58	-15.35/-18.49	-19.33/-18.3	-18.49/-17.55	-17.18/-18.97	-17.94/-18.4	-18.61/-16.16
Θ (157.5°)	-15.16/-14.44	-14.33/-13.26	-11.33/-10.95	-10.64/-9.4	-8.09/-6.79	-6.29/-6.86	-7.64/-8.83	-10.89/-12.73	-14.51/-15.87	-18.05/-19.02	-17.83/-18.26	-17.33/-15.81	-16.78/-14.76	-13.52/-13.38	-18.69/-17.6	-18.89/-18.54	-19.32/-18.71	-17.82/-18.1	-16.22/-15.67	-15.71/-17.87	-19.76/-18	-14.15/-15.91	-15.28/-17.48	-17.91/-19
Θ (165°)	-14.79/-15.92	-17.2/-17.17	-17.91/-15.28	-11.98/-9.65	-8.91/-9.41	-9.71/-10.77	-12.63/-13.47	-12.8/-11.24	-9.7/-8.71	-8.84/-10.12	-12.48/-14.8	-16.34/-17.05	-17.33/-16.95	-15.66/-14.97	-15.91/-19	-18.03/-18.37	-18.69/-17.65	-18.8/-18.84	-14.67/-13.49	-14.7/-17.43	-18.29/-18.02	-17.78/-18	-18.84/-19.24	-18.5/-15.7
Θ (172.5°)	-17.42/-17.46	-18.51/-18.37	-16.18/-14.57	-15.29/-16.17	-15.6/-15.55	-16.01/-16.48	-16.78/-19.03	-18.61/-17.38	-18.33/-19.06	-19.26/-18.78	-18.61/-17.79	-18.78/-18.02	-18.36/-17.93	-18.24/-19.14	-18.23/-17.1	-15.4/-14.95	-16.32/-18.44	-18.97/-17.53	-15.14/-15.03	-17.58/-18.09	-19.23/-17.95	-19.07/-19.1	-18.07/-19.01	-17.91/-19.38
Θ (180°)	-17.98/-18.25	-18.91/-18.22	-17.79/-18.2	-18.8/-15.06	-13.3/-12.92	-13.42/-14.15	-14.1/-14.82	-15.63/-14.85	-14.95/-15.01	-14.48/-15.06	-14.9/-15.21	-18.01/-16.7	-16.83/-15.59	-13.79/-11.78	-10.37/-9.61	-8.6/-10.07	-10.56/-11.1	-11.73/-12.24	-12.59/-13.78	-14.73/-14.8	-14.96/-15.35	-15.69/-15.79	-16.13/-17.32	-18.85/-18.79
Freq(Hz)	5.60/Pol.	Phi/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-4.91/-4.57	-4.76/-5.49	-6.28/-7.14	-8.27/-10.1	-12.12/-16.1	-18.31/-19.17	-18.25/-18.97	-11.01/-13.53	-11.85/-56	-6.95/-5.95	5.13/-4.54	-4.55/-4.67	-5.75/-5.58	-5.88/-6.41	-6.91/-7.83	-9.23/-12.63	-16.31/-17.65	-17.53/-18.02	-14.02/-11.78	-9.68/-8.13	-7.16/-09	-5.52/-5.13	-4.82/-4.72	
Θ (7.5°)	-4.67/-4.25	-4.23/-4.62	-4.74/-5.31	-6.16/-7.85	-9.69/-12.17	-16.48/-17.79	-18.99/-18.3	-16.7/-13.18	-9.85/-7.81	-6.16/-5.23	-4.54/-4.11	-3.98/-3.98	-4.15/-4.63	-5.25/-6.38	-7.38/-8.29	-9.33/-10.78	-11.7/-13.13	-15.68/-18.25	-17.47/-19.24	-15.68/-12.52	-10.57/-9.34	-8.14/-7.2	-6.01/-5.09	-5/-4.82
Θ (15°)	-3.54/-2.96	-2.25/-2.02	-2.24/-3.25	-4.67/-6.68	-8.77/-10.91	-14.01/-17.42	-17.98/-18.23	-17.53/-13.14	-9.78/-7.86															



Radiated Composite Gain Data

Appendix A

Θ(7.5°)	-17.91/-16.04	-12.63/-10.95	-8.71/-7.38	-6.05/-5.16	-4.77/-4.85	-4.91/-5.24	-5.35/-5.48	-5.64/-6	-5.66/-7.42	-8.61/-10.13	-12.63/-16.11	-17.71/-18.39	-18.87/-14.75	-11.57/-9.23	-7.12/-5.54	-4.55/-4.02	-3.47/-3.1	-2.98/-3.17	-3.35/-3.47	-3.47/-3.83	-4.42/-5.2	-6.31/-8.14	-10.56/-13.8	-17.85/-18.38
Θ(15°)	-17.48/-18.97	-17.58/-17.07	-12.26/-9.7	-8.42/-7.61	-7.59/-8.07	-8.51/-8.9	-8.89/-8.65	-8.67/-8.54	-8.47/-8.62	-9.14/-9.96	-11.56/-13.33	-15.75/-18.22	-19.29/-16.44	-12.75/-9.23	-7.89/-6.05	-4.8/-4.6	-3.76/-3.49	-3.1/-2.96	-2.87/-2.4	-2.27/-2.53	-2.79/-3.32	-4.17/-5.51	-6.76/-8.99	-10.85/-13.99
Θ(22.5°)	-8.39/-11.44	-16.88/-17.97	-18.34/-15.07	-12.28/-11.23	-10.8/-10.8	-11.07/-12.05	-11.85/-12.33	-12.08/-12.65	-12.47/-11.93	-17.05/-11.35	-12.69/-14.62	-14.15/-12.7	-11.95/-11.07	-9.48/-7.86	-6.29/-4.96	-3.59/-2.64	-2.02/-1.83	-1.68/-1.52	-1.23/-1.13	-1.11/-1.42	-1.66/-2.19	-3.22/-4.51	-5.02/-6.07	-6.64/-7.43
Θ(30°)	-6.21/-7.93	-10.83/-13.17	-12.65/-12.81	-14.61/-17.35	-15.69/-14.99	-15.68/-17.35	-19.45/-18.28	-17.73/-18.77	-19.1/-16.97	-16.92/-18.51	-18.71/-16.94	-12.43/-10.26	-8.9/-7.37	-5.79/-4.37	-3.46/-2.72	-1.57/-0.81	-0.76/-0.55	-0.10/-0.51	0.36/0.55	0.6/0.5	0.27/0.12	-0.27/-0.83	-1.7/-2.62	-3.36/-4.73
Θ(37.5°)	-4.9/-5.66	-7.46/-10.25	-11.74/-12.93	-15.24/-19.23	-17.45/-15.82	-12.26/-11.54	-12.45/-13.83	-15.52/-17.7	-18.32/-18.69	-18.5/-19.12	-16.12/-11.61	-9.08/-4.75	-6.01/-4.25	-2.02/-0.45	-0.16/-0.27	0.11/-0.53	-1.64/-1.28	-0.08/0.13	0.38/0.75	0.48/0.41	0.82/0.85	0.67/0.33	-0.28/-1.5	-3.4/-4.82
Θ(45°)	-4.63/-4.96	-6.4/-10.51	-10.71/-10.24	-11.69/-13.75	-16.23/-16.05	-12.37/-10.7	-10.69/-10.87	-11.2/-11.14	-10.89/-10.97	-9.14/-8.12	-7.02/-5.61	-4.34/-3.83	-3.27/-2.09	-0.87/0.41	0.98/0.44	0.42/0.16	-0.55/-0.61	-0.82/-0.92	-1.12/-1.15	-0.75/-0.51	1.39/1.7	1.58/1.7	1.81/0.11	-1.22/-3.69
Θ(52.5°)	-4.83/-5.08	-4.63/-7.29	-8.6/-7.27	-9.47/-15.02	-15.1/-13.13	-10.51/-8.67	-7.89/-6.88	-7.36/-8.23	-8.41/-9.57	-8.4/-6.09	-4.85/-3.18	-2.09/-2.36	-2.37/-1.14	-0.04/0.9	1.23/0.51	0.32/-0.69	-2.26/-2.14	-0.8/-0.11	0.36/-0.01	-0.11/0.23	0.32/0.55	0.91/1.37	1.61/1.01	-0.3/-2.43
Θ(60°)	-2.14/-3.52	-2.02/-3.15	-5.88/-6.52	-11.55/-14.18	-12.98/-11.94	-10.19/-7.49	-6.03/-5.36	-4.77/-5.62	-7.16/-7.39	-7.68/-5.71	-4.42/-2.76	-0.84/-0.74	-1.16/-0.01	0.81/0.85	1.14/0.91	1.23/0.65	-1.32/-0.59	0.41/0.84	0.86/0.47	0.62/0.94	1.38/1.2	0.17/0.35	1.33/1.17	0.78/0.08
Θ(67.5°)	-1.71/-2.78	-1.35/-2.93	-4.74/-5.12	-9.78/-14.4	-8.23/-7.84	-7.17/-7.23	-7.44/-5.45	-4.3/-4.65	-6.37/-8.83	-9.93/-7.34	-4.89/-2.67	-0.61/0.07	-0.66/-0.19	1.18/1.38	1.46/1.23	1.53/1.09	-0.56/-1.7	0.56/0.72	1.48/1.68	2.15/2.34	2.51/1.79	0.62/0.34	0.79/0.54	1.19/1.05
Θ(75°)	-1.74/-3	0.01/-2.44	-3.1/-3.91	-8.3/-7.4	-7.1/-6.61	-5.22/-6.12	-7.05/-4.92	-2.24/-1.88	-4.39/-7.43	-11.29/-11.05	-6.36/-4.98	-1.92/0.33	-0.22/0.02	1.44/1.35	0.52/0.97	1.89/1.5	1.21/2.4	1.44/1.34	1.32/2.2	3.12/3.72	3.82/8.5	1.36/0.86	0.95/-0.87	0.18/1.35
Θ(82.5°)	-2.69/-5.1	-1.32/-4.28	-4.53/-5.55	-8.84/-6.01	-5.23/-3.96	-3.44/-4.05	-6.66/-5.66	-3.41/-3.25	-7.34/-13.6	-16.3/-12.57	-6.03/-4.54	-1.72/-0.59	-1.19/-0.02	0.82/0.71	-0.99/0.39	2.27/2.56	2.95/2.99	1.63/-0.26	0.32/1.78	2.81/3.51	3.95/2.79	1.24/0.7	0.42/-1.67	-1/-0.05
Θ(90°)	-2.25/-4.94	-2.17/-4.4	-7.67/-8.38	-6.81/-4.63	-4.17/-2.89	-2.04/-4.12	-5.81/-5.52	-2.4/-2.86	-8.57/-12.61	-19.39/-12.93	-8.54/-7.25	-2.18/-1.56	-2.05/0.46	0.3/-0.8	-3.31/-0.63	1.03/1.91	2.07/2.33	1.74/-1.08	-0.60/0.5	2.06/2.63	2.88/1.63	0.59/0.32	-0.18/-2.05	-2.23/-1.31
Θ(97.5°)	-2.17/-3.16	-3.77/-3.48	-10.32/-9.4	-6.94/-5.59	-4.21/-2.57	-1.66/-4.05	-6.41/-6.33	-3.63/-4.82	-11.37/-13.82	-17.93/-9.35	-9.07/-7.34	-2.21/-3.33	-2.76/0.26	-1.3/-2.38	-3.66/-2.1	-0.2/0.76	-0.22/0.04	-2.12/-4.67	-2/-0.15	0.08/0.89	0.65/-2.31	-1.83/-0.2	-1.94/-4.41	-4.86/-4.26
Θ(105°)	-3.94/-3.76	-3.95/-4.1	-12.55/-14.92	-8.34/-5.13	-4.94/-3.55	-2.22/-3.72	-6.37/-5.78	-3.16/-5.14	-12.08/-10.57	-12.73/-7.61	-11.06/-8.64	-4.72/-6.28	-5.62/-2.16	-2.45/-2.01	-5.13/-4.72	-3.24/-1.25	-2.16/-2.27	-4.36/-9.68	-6.69/-2.03	-2.18/-3.27	-3.39/-7.74	-9.52/-5.02	-5.48/-7.16	-7.33/-6.63
Θ(112.5°)	-3.17/-4.77	-4.25/-4.86	-13.04/-16.85	-9.56/-7.27	-6.7/-4.51	-2.18/-3.09	-5.77/-5.01	-4.36/-8.26	-13.13/-15.76	-12.93/-9.37	-12.66/-9.08	-7.97/-10.59	-8.43/-3.69	-3.17/-3.66	-7.09/-4.79	-4.31/-2.33	-1.94/-6.27	-11.9/-18.78	-12.58/-2.68	-3.92/-5.53	-3.51/-7.85	-18.03/-12.04	-8.3/-11.7	-11.65/-7.22
Θ(120°)	-4.65/-6.67	-7.91/-6.1	-17.01/-19.5	-8.52/-5.16	-4.24/-4.79	-3.11/-3.55	-5.02/-5.4	-5.29/-7.4	-12.79/-15.27	-11.19/-10.92	-12.09/-11.52	-15.17/-17.94	-15.88/-8.81	-4.37/-4.28	-7.86/-7.68	-5.55/-5.09	-1.06/-2.47	-4.09/-9.7	-10.11/-2.41	-2.57/-8.16	-5.46/-5.25	-11.92/-8.74	-8.03/-19.03	-15.61/-9.51
Θ(127.5°)	-11.36/-10.77	-18.91/-13.16	-18.91/-10.84	-9.28/-10.62	-8.75/-5.93	-4.07/-2.69	-4.54/-5.15	-6.03/-7.45	-10.89/-14.43	-17.78/-16.69	-17.92/-17.75	-18.98/-17.68	-17.3/-11.53	-6.53/-5.74	-8.82/-17.08	-10.75/-8.28	-2.81/-6.24	-6.29/-10.62	-11.55/-3.37	-4.6/-16.43	-12.68/-10.5	-13.67/-15.21	-18.49/-18.54	-14.87/-16.43
Θ(135°)	-15.78/-17.72	-17.91/-18.58	-15.65/-11.85	-9.03/-7.4	-8.28/-6.34	-5.07/-6.45	-3.88/-5.75	-8.31/-12.42	-18.54/-17.45	-19.39/-18.65	-17.92/-17.18	-18.92/-17.15	-15.06/-13.22	-8.07/-7.1	-12.18/-13.21	-15.07/-9.2	-7.25/-7.28	-17.1/-18.47	-19.06/-5.72	-4.59/-15.85	-11.52/-7.99	-8.27/-15.69	-15.78/-18.01	-17.89/-18.81
Θ(142.5°)	-18.96/-19.23	-18.56/-18.29	-13.29/-13.66	-11.01/-10.01	-9.58/-7.09	-4.98/-5.26	-6.9/-8.79	-11.56/-12.04	-11.21/-10.51	-11.29/-14.96	-18.83/-17.87	-17.52/-18.1	-17.46/-18.07	-13.62/-12	-17.09/-18.45	-10.82/-9.51	-7.31/-7.11	-11.18/-15.37	-12.29/-5.97	-6.34/-8.27	-15.35/-13.86	-11.82/-19.21	-16.76/-18.92	-11.08/-12.58
Θ(150°)	-17.56/-17.07	-18.19/-16.91	-17.78/-17.81	-18.45/-14.49	-9.47/-6.24	-4.71/-2.3	-5.29/-7.16	-8.36/-10.97	-16.59/-19.17	-18.98/-18.33	-17.55/-18.62	-18.74/-17.99	-17.79/-16.66	-16.87/-17.63	-16.03/-10.74	-9.68/-12.63	-13/-13.29	-18.36/-19.78	-17.29/-11.41	-8.37/-8.59	-13.6/-13.7	-14.22/-18.69	-16.26/-19.1	-17.71/-19.24
Θ(157.5°)	-16.72/-19.35	-13.93/-11.04	-12.88/-18.64	-18.72/-12.87	-10.79/-8.45	-8.12/-6.95	-10.09/-12.45	-12.48/-12.32	-13.29/-16.69	-16.91/-15.29	-14.99/-16.51	-16.91/-16.68	-17.59/-17.57	-14.11/-12.36	-13.3/-14.69	-15.95/-13.89	-12.49/-14.38	-18.16/-15.07	-13.43/-11.23	-9.92/-9.94	-11.85/-14.87	-17.01/-14.56	-14.5/-15.55	-14.48/-14.36
Θ(165°)	-16.69/-15.8	-13.29/-15.46	-18.95/-15.61	-10.18/-8.3	-7.74/-7.34	-7.8/-9.24	-10.57/-12.81	-14.74/-15.82	-13.79/-11.52	-10.66/-10.68	-11.42/-12.5	-13.69/-15.35	-16.89/-16.85	-15.71/-14.72	-15.27/-15.03	-14.14/-13.59	-13.25/-12.87	-12.68/-11.38	-10.38/-9.02	-8.58/-9.39	-11.09/-14.73	-17.77/-17.79	-18.17/-18.16	-18.93/-16.51
Θ(172.5°)	-18.99/-18.3	-18.38/-15.71	-13.93/-12.76	-12.49/-14.39	-16.88/-18.1	-16.64/-18.46	-17.55/-16.17	-14.8/-14.8	-13.89/-12.52	-11.6/-11.77	-12.3/-13.4	-14.46/-16.13	-16.68/-16.14	-14.59/-13.75	-13.34/-13.54	-13.36/-13.57	-12.75/-11.58	-10.95/-10.69	-10.45/-11.31	-13.03/-16.45	-19.39/-17.52	-18.94/-17.64	-17.57/-19.45	-18.85/-17.85
Θ(180°)	-18.89/-18.8	-18.6/-18.98	-17.38/-16.84	-16.8/-16.57	-16.57/-17.77	-17.55/-18.04	-17.58/-18.44	-17.81/-18.96	-19.27/-17.37	-18.12/-19.07	-18.04/-17.67	-18.79/-18.05	-19.3/-18.9	-17.79/-15.31	-13.06/-11.52	-11.15/-11.51	-12.25/-13.22	-13.79/-13.9	-14.05/-13.43	-13.43/-13.84	-13.92/-13.24	-12.99/-14.5	-17.1/-17.76	-18.83/-17.91
Freq(Hz)	5.885GPol.	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°)	-1.37/-1.3	-1.33/-1.99	-3.09/-4.42	-5.98/-7.59	-9.29/-11.66	-15.27/-19.06	-18.94/-14.13	-10.38/-7.85	-6.08/-4.77	-3.75/-3.02	-2.54/-2.28	-2.09/-1.95	-1.78/-1.76	-2.04/-2.74	-3.62/-4.67	-5.94/-7.64	-10.2/-12.73	-17.88/-18.08	-18.11/-15.67	-11.95/-9.08	-7.39/-5.89	-4.87/-4.06	-3.39/-2.71	-2.09/-1.69
Θ(7.5°)	-1.63/-1.58	-1.77/-2.18	-2.98/-4.25	-5.8/-7.51	-9.23/-10.85	-14/-19.32	-18.62/-16.89	-13.14/-9.48	-8/-6.3	-4.92/-39	-3.17/-2.76	-2.52/-2.22	-1.96/-1.89	-1.89/-2.36	-3.3/-4.68	-6.28/-7.94	-10.61/-14.96	-19.05/-19.34	-17.84/-13.88	-10.78/-7.62	-5.75/-4.54	-3.69/-3.12	-2.56/-2.21	-1.81/-1.77
Θ(15°)	-1.01/-0.95	-1.28/-1.79	-3.2/-5.26	-7.32/-9.36	-11.57/-13.29	-16.93/-18.79	-18.14/-15.56	-12.84/-10.73	-8.64/-7.09	-5.84/-4.91	-4.23/-3.91	-3.88/-4.02	-4.5/-4.03	-5.97/-7.07	-8.31/-9.74	-11.53/-15.22	-18.41/-18.46	-13.31/-13.83	-10.53/-7.71	-5.99/-4.49	-3.53/-3.14	-2.76/-2.49	-1.84/-1.25	
Θ(22.5°)	-3.85/-3.51	-3.48/-3.79	-4.58/-5.74	-7.41/-9.48	-12.73/-16.53	-18.65/-18.3	-17.84/-17.75	-17.7/-19.11	-18.27/-15.67	-12.35/-9.44	-6.87/-5.24	-4.23/-3.69	-3.69/-3.97	-4.68/-6.09	-7.61/-8.69	-9.42/-10.71	-12.08/-15.62	-19.56/-19.52	-15.34/-11.41	-9.14/-7.8	-6.6/-5.63	-4.96/-5.14	-5.22/-5.65	-5.13/-4.61
Θ(30°)	-2.97/-2.69	-3.35/-4.59	-5.52/-5.69	-6.4/-7.28	-9.95/-13.71	-17.29/-18.32	-17.67/-17.4	-19.27/-17.84	-19.27/-17.28	-12.64/-9.25	-6.62/-5.1	-4.11/-3.65	-3.54/-3.52	4.2/-5.9	-7.78/-9.19	-9.95/-11.26	-12.15/-14.52	-18.32/-19.04	-13.44/-10.6	-10.07/-9.53	-8.84/-8.2	-7.31/-6.62	-6.65/-4.78	-4.26/-3.68
Θ(37.5°)	-4.51/-3.89	-3.81/-5.15	-6.45/-5.92	-5.48/-6.86	-9.37/-13.92	-18.71/-17.36	-17.39/-16.02	-18.97/-18.07	-15/-11.03	-9.16/-7.13	-5.71/-4.46	-3.76/-3.85	-3.97/-4.01	-6.61/-5.85	-7.43/-9.05	-10.45/-11.48	-13.81/-17.6	-18.88/-18.21	-15.47/-13.98	-12.17/-10.16	-8.24/-7.21	-6.79/-6.64	-5.93/-4.71	-4.21/-4.46
Θ(45°)	-5.6/-4.51	-4.52/-5.88	-8/-8.57	-8.99/-11.64	-12.68/-12.79	-13.45/-14.96	-18.29/-17.11	-18.1/-17.94	-18.56/-14.38	-10.82/-9.16	-7.15/-5.19	-4.76/-4.95	-4.38/-3.49	-3.56/-5.51	-9.79/-13.83	-14.88/-16.91	-17.71/-18	-18.85/-19.41	-15.85/-12.15	-14.2/-13	-10.58/-8.74	-7.11/-6.4	-6.57/-5.88	-5.19/-5.41
Θ(52.5°)	-6.83/-6.63	-6.27/-7.97	-9.5/-10.34	-11.67/-13.88	-16.91/-17.69	-18.47/-16.02	-17.07/-17.74	-18.52/-18.61	-18.02/-17	-10.16/-8.42	-6.69/-5.06	-5.44/-4.68	-6.58/-6.45	-6.53/-6.32	-7.91/-6.18	-14.4/-19	-17.91/-18.4	-16.65/-19	-17.61/-16.45	-16.38/-12.84				



Radiated Composite Gain Data

Appendix A

Θ(52.5°)	-9.64/-9.56	-9.97/-11.05	-12.54/-13.03	-12.34/-12.75	-15.77/-17.53	-11.75/-37.37	-4.91/-3.62	-3.03/-3.04	-3.49/-4.44	-5.41/-5.05	-3.37/-1.8	-1/-0.92	-1.39/-2.2	-3.18/-4.3	-5.4/-6.47	-7.76/-9.45	-11.11/-10.92	-8.75/-6.43	-4.68/-3.56	-3.06/-3.07	-3.59/-4.63	-6.11/-7.56	-8.62/-9.2	-9.69/-9.97
Θ(60°)	-7.66/-9.65	-6.61/-6.78	-7.4/-8.26	-9.12/-10.4	-11.78/-10.39	-7.16/-4.46	-2.78/-2	-1.97/-2.34	-2.85/-3.52	-3.99/-3.3	-1.52/-0.13	1.08/-1.35	1.11/-0.54	-0.25/-1.16	-2.09/-3.11	-4.45/-6.16	-10.1/-12.25	-8.59/-4.98	-2.77/-1.67	-1.33/-1.47	-1.98/-2.97	-4.56/-6.56	-8.58/-9.73	-9.73/-8.47
Θ(67.5°)	-4.41/-3.73	-3.52/-3.95	-5.15/-6.96	-8.78/-9.99	-9.52/-7.43	-5.39/-3.58	-2.24/-1.64	-3.07/-3.87	-4.84/-2.28	-1.91/-0.05	0.71/-0.71	0.20/-0.39	-1.03/-1.47	-1.76/-2.08	-2.81/-4.38	-4.12/-4.38	-7.79/-13.21	-9.31/-4.3	-1.57/-0.26	0.20/-16	-1.99/-2.09	-2.09/-3.82	-5.82/-7.06	-6.76/-5.57
Θ(75°)	-4.72/-3.99	-3.76/-4.66	-6.72/-9.4	-11.57/-11.62	-9.53/-7.25	-6.06/-5.09	-3.72/-2.83	-2.91/-3.51	-4.09/-4.83	-6.03/-4.6	-1.17/-0.94	1.45/-0.81	-0.45/-1.85	-2.98/-3.42	-3.15/-2.65	-2.39/-2.81	-4.75/-9.25	-13.75/-7.05	-2.86/-0.72	0.18/-0.3	0.04/-0.4	-1.23/-2.71	-4.75/-6.42	-6.79/-5.95
Θ(82.5°)	-7.7/-3.66	-5.32/-5.23	-6.09/-7.59	-9.27/-9.14	-6.5/-4.5	-4.14/-5.2	-4.05/-3.23	-3.12/-3.52	-3.83/-4.43	-5.44/-3.2	0.37/-2.33	2.72/-1.97	0.65/-9.01	-2.41/-3.89	-4.73/-4.43	-3.46/-2.75	-3.17/-5.04	-8.04/-8.73	-4.53/-2.01	-0.66/-0.16	-0.11/-0.37	-1.04/-3.25	-4.45/-6.84	-8.87/-6.92
Θ(90°)	-8.02/-6.28	-4.72/-4.06	-4.42/-5.57	-7.18/-7.84	-5.65/-3.74	-3.63/-4.64	-4.85/-4.31	-4.33/-4.95	-5.61/-6.32	-7.52/-4.33	-0.64/-1.73	2.52/-12	1.19/-0.12	-1.18/-3.1	-5.4/-6.89	-6.29/-4.91	-4.12/-4.13	-4.47/-4.12	-2.81/-2.17	-0.18/-0.34	0.29/-0.29	-1.41/-3.05	-5.21/-4.73	-8.84/-6.96
Θ(97.5°)	-5.03/-3.63	-2.69/-2.49	-2.9/-3.74	-4.83/-4.85	-3.12/-1.95	-2.28/-3.34	-3.94/-4.04	-4.5/-5.1	-5.28/-5.79	-7.5/-5.48	-1.23/-1.12	1.77/-1.29	0.34/-0.74	-1.8/-3.05	-4.65/-6.01	-6.8/-6.92	-7.5/-7.3	-5.71/-3.99	-2.28/-1.03	-0.48/-0.41	-0.76/-1.74	-3.6/-6.07	-8.24/-8.68	-7.89/-6.26
Θ(105°)	-4.19/-3.01	-2.6/-3.04	-4.09/-5.52	-7.18/-7.11	-5.07/-3.99	-4.56/-5.41	-5.05/-4.54	-4.73/-5.25	-5.66/-7.17	-12.9/-11.07	-3.86/-1.07	-0.58/-1.45	-2.69/-3.75	-4.83/-6.76	-9.55/-10.66	-6.99/-9.23	-10.44/-11.73	-8.39/-5.04	-2.66/-1.3	-1.04/-1.42	-1.95/-2.53	-3.57/-5.2	-7.39/-8.89	-8.07/-6.03
Θ(112.5°)	-8.04/-6.26	-5.63/-5.71	-6.05/-6.88	-8.96/-9.84	-6.98/-5.12	-5.3/-6.63	-7.11/-6.55	-6.09/-5.91	-6.37/-9.07	-14.44/-6.87	-2.08/-0.31	-0.26/-0.99	-1.57/-2.1	-3.2/-5.74	-9.75/-12.17	-10.53/-8.61	-9.01/-14.34	-18.55/-12.19	-1.77/-4.96	-3.64/-3.35	-3.45/-3.26	-3.07/-3.67	-5.88/-9.76	-13.62/-11.57
Θ(120°)	-12.78/-9.93	-8.42/-7.88	-7.48/-7.66	-9.29/-13.34	-10.77/-6.92	-5.5/-5.17	-4.75/-4.11	-3.57/-3.51	-4.41/-7.26	-13.77/-11.6	-6.29/-4.25	-3.74/-3.59	-3.5/-4.11	-6.16/-10.92	-17.27/-17.07	-10.21/-6.38	-5.21/-6.96	-12.14/-16.77	-10.36/-5.47	-2.82/-2.01	-2.21/-2.4	-2.22/-2.53	-4.19/-7.59	-13.46/-17.48
Θ(127.5°)	-18.35/-12.78	-18.97/-12.56	-7.98/-5.66	-5.59/-8.24	-13.19/-13.19	-10.29/-8.92	-8.21/-7.66	-7.51/-7.97	-9.72/-13.24	-13.64/-9.33	-6.58/-4.93	-3.69/-2.72	-2.49/-3.39	-5.51/-8.87	-13.47/-16.57	-11.63/-8.1	-7.63/-10.15	-15.67/-19.14	-18.49/-10.2	-6.43/-5.56	-6.34/-7.62	-8.2/-8.6	-10.04/-12.93	-16.25/-18.06
Θ(135°)	-9.92/-11.15	-10.32/-7.79	-5.23/-3.7	-3.6/-5.06	-7.53/-9	-8.01/-6.7	-5.97/-5.64	-6.08/-6.32	-6.28/-6.01	-5.84/-6.03	-6.33/-4.67	-6.14/-5.48	-5.39/-6.25	-9.92/-9.29	-8.71/-6.48	-4.29/-3.12	-3.02/-3.64	-4.51/-5.88	-7.92/-8.74	-6.77/-4.94	-6.12/-7.26	-7.53/-7.3	-7.58/-8.33	
Θ(142.5°)	-8.81/-9.67	-9.59/-8.31	-6.79/-5.89	-5.93/-7	-8.21/-7.86	-6.11/-4.32	-3.02/-2.25	-1.87/-1.7	-1.74/-2.08	-2.94/-4.44	-6.72/-9.61	-12.4/-14.12	-15.6/-16.58	-14.3/-10.59	-7.22/-4.73	-3.21/-2.63	-2.86/-3.5	-4.38/-5.47	-6.12/-5.39	-3.85/-2.52	-1.9/-1.98	-2.76/-3.95	-5.21/-6.16	-7.05/-7.95
Θ(150°)	-12.32/-12.74	-12.86/-12.53	-11.87/-11.33	-11.21/-11.23	-10.42/-8.32	-5.92/-3.84	-2.26/-1.71	-0.54/-0.27	-0.36/-0.9	-2.02/-3.71	-5.91/-8.68	-12.28/-16.4	-19.3/-18.41	-8.44/-6.23	-5.08/-4.86	-5.2/-5.6	-7.04/-6.68	-4.04/-6.53	-5.14/-3.78	-3.02/-2.97	-3.73/-5.24	-7.41/-9.55	-11.23/-12.05	-16.25/-18.06
Θ(157.5°)	-17.78/-17.11	-17.26/-18.12	-19.15/-19.15	-17.24/-17.06	-13.98/-10.77	-8.04/-5.78	4.15/-3	-2.29/-2	-2.08/-2.66	-3.8/-5.18	-6.78/-8.81	-11.42/-14.25	-15.65/-14.75	-12.19/-9.45	-7.24/-5.92	-5.36/-5.28	-5.25/-5.03	-4.94/-4.91	-4.95/-4.83	-4.48/-4.07	-3.96/-4.34	-5.24/-6.83	-9.43/-12.95	-16.69/-18.41
Θ(165°)	-18.73/-18.01	-18.16/-17.93	-18.47/-19.01	-18.82/-17.79	-18.55/-19.48	-15.02/-12.17	-10.3/-9.1	-8.36/-7.9	-7.78/-8.12	-8.93/-10.09	-11.45/-12.96	-14.53/-16.15	-16.72/-15.19	-12.24/-9.43	-7.31/-6.02	-5.33/-4.95	-4.5/-4.01	-3.64/-3.41	-3.33/-3.43	-3.69/-4.13	-4.83/-5.85	-7.29/-9.23	-12.15/-16.36	-18.49/-18.57
Θ(172.5°)	-19.11/-19	-18.94/-18.77	-15.77/-18.16	-17.14/-17.12	-17.79/-19.29	-18.24/-17.99	-18.15/-19.39	-18.56/-19.05	-18.65/-18.68	-18.56/-17.59	-17.24/-17.82	-18.81/-18.58	-18.87/-18.72	-16.09/-12.74	-10.23/-8.54	-7.42/-6.6	-5.77/-5.03	-4.51/-4.26	-4.22/-4.41	-4.92/-5.67	-6.72/-8.03	-9.71/-11.9	-14.99/-19.36	-19.02/-18.5
Θ(180°)	-17.71/-18.64	-18.46/-16.96	-15.17/-13.54	-12.21/-11.17	-10.61/-10.21	-9.87/-9.62	-9.28/-9	-8.78/-8.58	-8.54/-8.65	-9.06/-9.82	-10.87/-12.26	-14.45/-17.91	-19.16/-17.97	-18.53/-16.7	-13.86/-12.04	-10.61/-9.43	-8.51/-7.8	-7.32/-7.24	-7.42/-7.76	-8.35/-9.2	-10.23/-11.53	-13.19/-15.29	-18.28/-18.46	-18.01/-18.17
Freq(Hz)	5.2GPol.	PhilAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-13.76/-10.37	-6.81/-4.69	-3.32/-4.49	-2.12/-1.71	-1.39/-0.93	-0.68/-0.84	-0.91/-0.98	-1.42/-2.05	-2.78/-3.85	-4.91/-6.46	-6.37/-11.57	-16.39/-18.14	-19.51/-13.55	-9.66/-6.88	-5.33/-4.27	-3.17/-2.38	-1.91/-1.46	-1.14/-0.9	-1.23/-1.71	-1.79/-2.96	-2.89/-4.47	-4.12/-8.73	-1.91/-13.88	-16.57/-16.62
Θ(7.5°)	-18.68/-18.86	-13.01/-9.54	-8.82/-5.11	-4.19/-3.33	-2.51/-1.65	-1.44/-1.56	-1.32/-1.38	-1.89/-2.62	-3.67/-4.94	-6.71/-8.81	-11.83/-14.84	-13.8/-11.28	-8.67/-6.51	-4.91/-3.65	-2.77/-2.02	-1.51/-1.04	-0.83/-0.58	-0.39/-0.43	-0.76/-1.05	-1.24/-1.7	-2.42/-3.41	-4.71/-6.77	-9.35/-11.75	-14.79/-17.68
Θ(15°)	-18.18/-18.38	-15.51/-10.67	-7.76/-6.13	-5.62/-4.9	-3.66/-2.71	-2.36/-2.23	-2.02/-2.07	-4.64/-6.4	-8.75/-12.47	-7.59/-5.42	-3.88/-2.88	-2.29/-1.82	-1.49/-1.11	-0.8/-0.57	-0.41/-0.3	-0.35/-0.44	-0.82/-1.22	-1.31/-1.48	-1.83/-2.35	-3.24/-4.4	-5.49/-8.37	-9.42/-12.05	-10.34/-15.19	
Θ(22.5°)	-19.13/-27	-8.79/-6.66	-5.18/-4.19	-4.154/-2.6	-3.99/-3.76	-3.35/-2.96	-3.04/-2.95	-2.87/-3.28	-4.38/-6.53	-8.98/-17.04	-16.07/-9.67	-6.14/-3.95	-2.37/-1.07	-0.41/-0.12	0.01/-0.01	-0.28/-0.62	-0.73/-0.75	-0.84/-1.1	-1.49/-1.86	-2.05/-2.33	-2.82/-3.44	-4.3/-5.8	-9.12/-12.09	-16.43/-18.21
Θ(30°)	-19.21/-11.76	-7.52/-5.48	-4.46/-4.17	-4.2/-4.65	-5.4/-6.15	-5.83/-4.57	-3.72/-3.71	-4.18/-5.2	-6.27/-6.42	-6.93/-7.47	-7.75/-7.34	-7.01/-7.35	-7.04/-5.52	-3.77/-2.36	-1.39/-0.97	-1.4/-2.16	-2.85/-3.32	-3.65/-3.95	-3.9/-3.7	-3.97/-4.89	-6.72/-9.06	-11.7/-15.61	-18.4/-18.01	-18.07/-17.32
Θ(37.5°)	-10.15/-8.23	-5.72/-4.41	-3.75/-3.7	-3.75/-4.28	-5.56/-7.28	-6.75/-6.4	-2.99/-2.99	-4.74/-6.82	-7.03/-5	-3.81/-3.77	-4.55/-5.73	-7.95/-11.98	-13.33/-8.97	-6.41/-5.19	-4.26/-3.43	-3.86/-3.95	-5.15/-6.37	-7.44/-6.82	-8.31/-6.98	-6.27/-1.77	-11.64/-18.71	-17.9/-17.93	-18.56/-13.94	-11.4/-11.01
Θ(45°)	-11.58/-7.72	-5.26/-3.78	-2.63/-2.04	-2.2/-9.4	-4.98/-6.61	-4.62/-2.78	-3.01/-4.08	-4.92/-4.77	-3.89/-3.02	-2.83/-1.93	-4.53/-7.67	-12.8/-18.33	-18.65/-18.26	-13.91/-9.34	-6.91/-5.09	-5.92/-6.21	-5.92/-6.98	-7.92/-7.09	-5.4/-5.36	-8.04/-14.22	-18.75/-18.29	-17.38/-14.92	-10.42/-9.04	-8.9/-10.91
Θ(52.5°)	-13.26/-12.39	-11.76/-10.64	-7.87/-4.93	-3.78/-4.94	-7.22/-6.99	-4.29/-2.63	-3.48/-6.15	-7.01/-4.67	-2.39/-1.52	-2.07/-3.24	-6.23/-14.46	-13.89/-9.73	-8.28/-7.57	-9.93/-15.84	-18.16/-14.23	-11.81/-10.53	-8.8/-8.34	-9.49/-9.03	-8.19/-8.72	-11.06/-17.62	-17.95/-14.74	-12.08/-10.71	-9.56/-7.41	-6.04/-7.89
Θ(60°)	-15.65/-18.47	-17.12/-15.7	-12.1/-7.9	-6.52/-6.03	-8.83/-5.95	-2.68/-1.34	-2.6/-0.9	-6.1/-4.2	-3.12/-2.1	-2.46/-2.68	-4.21/-6.62	-14.32/-10.78	-9.8/-9.58	-9.28/-11.3	-14.99/-17.66	-1.94/-9.71	-7.52/-6.3	-6.79/-7.83	-10.29/-10.25	-11.29/-11.77	-8.81/-5.91	-5.75/-7.35	-10.18/-13.21	
Θ(67.5°)	-11.26/-13.14	-11.34/-11.7	-13.14/-10.65	-8.99/-11.01	-9.93/-4.83	-2.18/-2.2	-5.09/-9.76	-7.37/-5.11	-4.51/-3.69	-2.92/-2.89	-4.55/-8.44	-10.88/-6.78	-5.44/-5.19	-5.29/-7.36	-8.96/-14.67	-12.40/-7.96	-6.37/-5.2	-6.21/-6.45	-6.13/-7.89	-10.48/-10.99	-10.29/-7.16	-4.9/-4.66	-6.47/-8.26	-9.79/-11.9
Θ(75°)	-11.39/-18.69	-18.99/-17.96	-19.19/-19.01	-17.1/-11.47	-16.68/-5.87	-2.38/-3.18	-9.32/-12.39	-6.62/-5.5	-4.76/-3.46	-3.22/-4.15	-6.62/-11.77	-16.9/-10.27	-6.91/-5.39	-4.73/-4.87	-6.2/-9.85	-11.66/-7.17	-4.19/-5.29	-7.43/-6.07	-5.43/-8.68	-8.87/-6.44	-2.88/-0.83	-0.93/-2.62	-5.2/-7.34	-7.31/-7.55
Θ(82.5°)	-14.62/-19.28	-17.74/-17.14	-18.04/-19.15	-13.07/-8.13	-6.78/-4.53	-2.83/-4.5	-10.64/-12.28	-9.16/-1.74	-4.58/-2.2	-1.78/-3.25	-6.67/-10.56	-10.51/-5.44	-3.29/-3.24	-2.54/-3.01	-5.6/-6.75	-10.41/-5.12	-4.83/-6.76	-13.46/-9.65	-7.46/-11.47	-14.05/-6.75	-1.9/-3.08	-0.18/-1.08	-3.79/-6.54	-8.93/-11.28
Θ(90°)	-13.87/-17.5	-17.29/-16.12	-11.94/-17.47	-10.27/-7.78	-7.61/-5.94	-4.52/-5.13	-9.18/-13.15	-10.34/-9.3	-7.1/-4.56	-2.74/-3.55	-8.56/-16.12	-18.94/-9.94	-6.8/-5.62	-5.06/-5.42	-6.45/-8.43	-6.68/-4.24	-5.82/-11.03	-18.55/-12.84	-17.1/-15.37	-11.36/-5.9	-2.2/-0.12	-0.76/-1.95	-4.01/-7	-8.48/-10.18
Θ(97.5°)	-18.33/-15.1	-11.41/-8.4	-7.16/-13.88	-18.66/-13.14	-7.78/-10.65	-6.77/-7.6	-13.23/-10.59	-8.8/-8.84	-9.29/-8.11	-6.14/-5.75	-8.07/-13.14	-17.68/-11.39	-10.64/-10.75	-7.28/-6.89	-10.31/-10.37	-6.87/-6.49	-8.27/-11.6	-13.86/-12.7	-19.12/-15.35	-13.42/-5.59	-2.14/-1.56	-2.64/-4.69	-8.1/-9.69	-7.21/-8.48
Θ(105°)	-18.77/-8.24	-7.39/-8.24	-8.32/-16.52	-9.86/-8.94	-8.36/-1.04	-12.47/-14.6	-16.06/-12.5	-10.37/-10.16	-12.22/-11.64	-6.51/-6.04	-9.11/-14.81	-17.95/-18.05	-11.48/-10.46	-11.81/-13.										



Radiated Composite Gain Data

Appendix A

Θ(97.5°)	-10.26/-9.86	-4.43/-3.55	-3.91/-2.91	-5.57/-4.99	-5.28/-5.77	-3.86/-3.2	-4.45/-9.26	-8.34/-2.03	0.84/-2.02	-12.23/-18.05	-9.54/-11.42	-15.65/-12.09	-17.65/-8.7	-5.82/-7.3	-4.93/-3.06	-1.83/-4.4	-4.25/-0.12	-0.85/-2.67	-3.61/-1.7	0.41/-0.46	-3.16/-5.33	-8.46/-9.1	-9.66/-8.12	-6.36/-8.26
Θ(105°)	-8.62/-7.55	-7.16/-5.65	-5.09/-4.3	-7.02/-7.19	-7.18/-10.97	-7.61/-4.62	-5.65/-9.35	-7.38/-2.17	0.53/-1.34	-5.71/-11	-17.93/-11.42	-19.31/-15.18	-10.84/-8.93	-6.8/-7.03	-3.59/-2.87	-3.27/-0.77	-4.72/-1.2	-2.35/-3.06	-3.97/-4.17	-3.1/-2.82	-4.55/-7.05	-10.99/-9.99	-11.54/-11.34	-12.89/-13.65
Θ(112.5°)	-18.54/-12.59	-9.25/-7.8	-5.92/-4.31	-5.82/-6.73	-8.81/-5.73	-7.02/-5.32	-5.38/-6.36	-5.8/-2.1	-1.11/-1.89	-10.97/-16.32	-12.71/-14.46	-16.54/-7.29	-5.96/-1.61	-3.46/-2.27	-4.15/-6.72	-0.69/-0.61	-2.95/-1.54	-2.23/-7.62	-3.17/-3.94	-6.11/-12.42	-10.66/-9.42	-19.11/-11.36	-10.97/-11.65	
Θ(120°)	-15.78/-11.13	-12.89/-9.12	-7.87/-7.06	-6.33/-10.25	-13.88/-14.41	-10.54/-4.96	-3.39/-6.26	-5.96/-2.48	-0.96/-0.84	-3.45/-7.14	-8.79/-10.77	-14.42/-12.5	-7.23/-7.22	-11.43/-15.68	-6.26/-2.42	-12.31/-11.6	0.62/-1.44	-6.42/-2.69	-1.56/-12.09	-8.92/-1.84	-4.77/-2.42	-5.97/-17.16	-18.32/-14.88	-9.36/-14.56
Θ(127.5°)	-15.63/-10.74	-8.07/-9.36	-10.43/-13.84	-10.12/-18.8	-9.92/-10.1	-7.44/-8.01	-7.81/-5.41	-3.62/-3.46	-2.29/-2.08	-3.65/-6.38	-7.69/-6.42	-9.43/-12.74	-15.23/-17.83	-18.76/-9.41	-1.22/-4.71	-16.16/-6.67	-0.52/-5.49	-4.55/-3.61	-3.14/-18.06	-19.65/-9.49	-5.84/-10.3	-5.09/-9.18	-13.33/-8.69	-11.89/-9.08
Θ(135°)	-12.21/-15.59	-11.29/-10.33	-9.37/-6.85	-7.94/-9.03	-12.08/-12.51	-8.87/-4.79	-3.41/-6.64	-6.17/-5.51	-5.09/-6.34	-7.61/-8.73	-8.28/-10.52	-15.65/-9.17	-7.69/-11.77	-14.18/-6.24	-6.08/-13.61	-9.79/-1.68	-1.42/-5.05	-4.36/-1.79	-18.32/-9.63	-7.51/-15.01	-10.66/-9.42	-19.11/-11.36	-10.97/-11.65	
Θ(142.5°)	-6.56/-9.11	-11.19/-9.47	-11.13/-11.61	-11.96/-11.77	-11.25/-12.68	-10.45/-6.56	-4.72/-5.72	-6.33/-5.41	-4.74/-4.3	-4.22/-4.97	-6.57/-8.16	-5.78/-5.14	-8.84/-15.66	-11.64/-10.37	-12.21/-19.76	-8.58/-2.84	-4.05/-6.55	-7.81/-4.56	-3.71/-9.74	-11.44/-7.38	-9.09/-12.54	-8.78/-8.58	-11.4/-12.67	-10.23/-7.62
Θ(150°)	-7.36/-9.06	-16.05/-17.77	-16.27/-13.53	-9.86/-9.83	-12.55/-14.3	-10.56/-8.42	-7.19/-7.07	-7.03/-5.96	-5.21/-5.57	-7.29/-11	-12.56/-8.61	-6.68/-8.16	-12.04/-11.67	-10.10/-8.9	-12.11/-10.71	-8.9/-8.66	-8.55/-8.31	-8.29/-7.46	-7.27/-10.03	-13.94/-11.37	-10.19/-11.25	-12.1/-13.18	-16.48/-17.11	-14.02/-8.88
Θ(157.5°)	-4.73/-5.98	-9.85/-16.57	-18.35/-18.88	-18.01/-18.7	-18.35/-15.23	-10.39/-9.52	-9.79/-9	-6.42/-4.21	-3.34/-3.85	-5.51/-2.87	-11.68/-12.25	-11.87/-14.09	-16.42/-14.16	-11.39/-10.41	-11.57/-14.91	-18.64/-17.96	-17.62/-16.83	-10.79/-9.31	-10.41/-11.69	-10.25/-7.99	-6.99/-7.4	-11.29/-10.28	-7.83/-5.83	
Θ(165°)	-17.41/-18.49	-18.86/-14.77	-14.46/-16.73	-18.21/-18.02	-15.47/-12.28	-10.22/-8.87	-8.89/-9.41	-8.95/-7.86	-7.12/-6.75	-6.89/-7.1	-7.71/-9.91	-14.66/-17.07	-11.98/-8.4	-6.33/-5.63	-6.26/-8.03	-10.68/-14.28	-18.17/-18.52	-16.38/-16.28	-17.66/-17.63	-16.54/-12.28	-10.88/-10.56	-10.82/-10.85	-11.38/-11.08	-11.32/-13.97
Θ(172.5°)	-10.65/-10.73	-10.79/-11.21	-12.28/-13.25	-15.47/-16.88	-15.36/-15.01	-17.27/-17.69	-18.77/-15.57	-11.58/-9.38	-7.45/-6.38	-5.6/-5.29	-5.31/-6.28	-8.01/-9.34	-9.39/-8.94	-9.04/-9.86	-12.9/-16.11	-18.55/-18.97	-18.09/-14.44	-11.75/-10.69	-10.81/-12.13	-14.5/-14	-11.02/-8.94	-7.64/-7.22	-7.78/-6.88	-9.53/-10.86
Θ(180°)	-18.01/-16.36	-16.18/-17.28	-17.85/-18.77	-18.25/-18.91	-19.35/-19.1	-19.55/-18.97	-19.29/-18.41	-18.49/-18.99	-19.06/-19.34	-18.4/-18.54	-18.03/-18.01	-18.48/-17.61	-18.73/-18.67	-18.89/-18.52	-17.33/-17.81	-17.83/-18.75	-17.09/-15.39	-13.57/-11.6	-10.86/-11.03	-11.89/-12.35	-12.27/-12.26	-12.83/-13.53	-16.42/-18.35	-19.42/-17.79
Freq(Hz)	5.6GPol.	PhiAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-9/-6.39	-4.28/-3.02	-2.01/-1.26	-0.84/-0.54	-0.05/-0.19	0.07/-0.24	-0.47/-0.74	-1.04/-1.45	-2.04/-3.12	-4.68/-6.71	-9.31/-12.71	-15.56/-14.13	-10.58/-7.31	-4.51/-3.14	-2.28/-1.41	-0.50/-28	0.65/0.82	0.76/0.65	0.47/-0.05	-0.81/-1.55	-1.32/-15.43	-6.13/-9.18	-15.12/-11.87	
Θ(7.5°)	-9.04/-6.58	-4.68/-3.15	-1.91/-0.9	0.11/0.67	1.31/1.59	1.38/0.98	0.81/0.58	0.1/-0.58	-1.83/-3.36	-5.6/-8.84	-14.13/-19.23	-15.51/-10.18	-7.27/-5.02	-3.84/-2.6	-1.83/-1.25	-1.01/-0.7	-0.42/-0.24	0.76/0.3	-0.5/-1.11	-1.78/-2.46	-3.56/-4.83	-6.71/-9.19	-11.73/-12.81	-13.47/-11.6
Θ(15°)	-7.72/-6.91	-5.38/-4.37	-3.02/-1.45	-0.20/-54	1.51/1.72	1.64/-1.77	1.36/0.63	-0.61/-2.14	-4.28/-7.39	-12.86/-18.29	-12.72/-7.99	-5.44/-3.74	-2.88/-1.84	-1.4/-1.25	-1.15/-0.93	-0.55/-0.3	-0.11/-0.07	-0.24/-0.86	-1.6/-2.44	-3.61/-5.32	-7.58/-10.04	-12.55/-11.97	-10.47/-8.69	
Θ(22.5°)	-6.82/-8.27	-6.46/-6.36	-5.24/-3.42	-1.82/-0.75	0.52/0.8	1.13/1.66	1.87/1.77	1.39/0.68	-0.41/-2.14	-4.46/-7.88	-12.37/-15.92	-12.22/-9.5	-7.65/-5.83	-4.21/-2.84	-2.06/-1.78	-1.64/-1.39	-0.34/-0.84	-0.21/-1.99	-2.94/-4.07	-0.55/-0.58	-1.29/-10.28	-7.83/-5.83		
Θ(30°)	-12.18/-9.79	-7.52/-6.5	-6.45/-5.7	-3.63/-2.03	-0.64/-0.05	0.85/1.58	1.62/1.22	0.33/-0.93	-2.65/-4.72	-6.68/-8.83	-11.36/-11.52	-9.69/-9.1	-9.08/-7.57	-5.7/-4.23	-3.44/-2.72	-2.25/-1.97	-1.62/-1.54	-1.48/-1.55	-1.56/-1.33	-1.47/-2.57	-4.04/-5.3	-6.6/-7.63	-8.06/-8.39	-9.18/-11.02
Θ(37.5°)	-13.28/-12.83	-12.57/-10.42	-8.46/-7.02	-5.4/-3.87	-2.49/-1.46	-0.35/0.15	-0.26/-0.8	-1.71/-2.81	-4.29/-6.06	-6.66/-7.3	-9.41/-11.61	-11.66/-13.2	-15/-11.36	-5.11/-4.81	-4.27/-3.77	-3.56/-3	-1.97/-1.51	-2.47/-7.15	-7.31/-8.85	-9.31/-7.77	-7.71/-7.57	-9.99/-9.32	-10.44/-12.04	
Θ(45°)	-18.44/-15.59	-17.73/-16.94	-12.51/-8.53	-6.71/-5.94	-4.62/-2.94	-2.23/-2.13	-2.39/-2.82	-3.37/-4.19	-4.57/-3	-8.49/-9.7	-11.29/-9.44	-8.91/-11.27	-10.92/-8.46	-5.47/-4.58	-4.61/-4.76	-4.15/-3.83	-4.61/-6.02	-8.59/-10.91	-11.78/-12.4	-12.4/-12.19	-12.97/-14.84	-15.83/-17.78		
Θ(52.5°)	-16.17/-14.77	-18.3/-17.46	-14.26/-10.49	-7.69/-5.52	-4.22/-3.13	-2.5/-1.82	-2.47/-4.79	-7.92/-7.34	-5.22/-4.56	-4.23/-3.28	-4.08/-8.01	-12.88/-14.48	-10.91/-7.92	-7.28/-10.57	-17.99/-18.62	-8.37/-4.19	-3.37/-2.91	-2.97/-3.92	-5.7/-8.04	-9.4/-9.86	-11.56/-14.71	-13.15/-9.64	-8.19/-10.23	-16.95/-18.53
Θ(60°)	-13.61/-13.22	-11.11/-8.98	-8.43/-7.29	-6.71/-5.89	-6.01/-7.47	-3.2/-3.7	-6.24/-8.98	-11.69/-9.61	-6.07/-1.48	-3.35/-3.53	-7.25/-11.01	-14.33/-11.42	-6.77/-4.12	-3.33/-5.23	-10.89/-12.87	-7.12/-1.93	-0.95/-2.24	-4.11/-4.77	-6.57/-8.74	-8.16/-12.73	-7.39/-5.63	-7.25/-8.62	-11.93/-16.63	
Θ(67.5°)	-13.41/-14.24	-9.99/-9.27	-10.91/-12.2	-8.08/-7.39	-9.01/-7.67	-4.12/-2.96	-5.27/-10.51	-13.48/-10.84	-8.14/-6.1	-3.27/-3.85	-6.41/-1.56	-13.38/-7.64	-9.32/-3.45	-3.09/-3.54	-2.91/-1.73	-0.42/-2.54	-3.71/-4.02	-5.55/-6.44	-3.79/-5.99	-12.21/-10.72	-7.99/-5.88	-11.25/-12.58	-13.06/-18.46	
Θ(75°)	-12.14/-17.61	-14.01/-15.6	-13.76/-8.78	-7.84/-8.49	-15.93/-11.68	-4.29/-2.3	-3.11/-4.15	-10.57/-12.19	-7.44/-2.77	-1.16/-1.65	-4.39/-10.26	-15.97/-10.77	-4.49/-2.96	-2.14/-2.69	-4.96/-10.16	-11.27/-2.5	-1.25/-2.43	-3.78/-5.44	-5.39/-7.11	-6.58/-5.87	-6.77/-6.39	-5.53/-9.25	-17.12/-19.38	-18.34/-14.74
Θ(82.5°)	-18.43/-17.6	-15.47/-10.08	-9.02/-7.41	-7.61/-6.85	-13.42/-13.6	-3.65/-1.67	-2.93/-5.48	-8.77/-19.97	-9.32/-4.19	-2.3/-3.33	-8.03/-18.89	-14.73/-11.85	-4.57/-3.26	-2.84/-3.54	-5.01/-10.89	-12.91/-3.82	-2.01/-5.45	-3.54/-4.78	-6.93/-10	-5.6/-4.08	-5.46/-6.61	-7.56/-12.73	-18.87/-17.84	-14.93/-15.69
Θ(90°)	-14.49/-18.2	-15.21/-14.63	-9.367/-0.4	-5.77/-9.13	-17.59/-12.55	-6.88/-6.65	-11.51/-7.79	-17.59/-15.22	-7.55/-9.94	-6.41/-8.2	-10.84/-16.4	-14.18/-11.15	-7.03/-7.06	-7.73/-6.69	-8.05/-12.4	-2.38/-3.68	-5.35/-9.36	-11.51/-12.93	-11.1/-8.29	-6.19/-8.42	-5.33/-8.7	-17.88/-18.16	-17.81/-13.51	
Θ(97.5°)	-18.85/-17.97	-14.74/-11.85	-9.81/-8.55	-10.42/-13.42	-16.29/-13.68	-8.38/-7.63	-7.35/-8.17	-10.5/-14.27	-16.33/-12.14	-9.78/-9.02	-12.3/-18.33	-17.73/-11.79	-8.78/-8.12	-9.48/-9.28	-9.52/-18.49	-18.46/-10.45	-9.94/-14.84	-17.92/-18.26	-11.5/-7.16	-3.47/-3.11	-4.23/-6.87	-18.18/-18.33	-18.52/-15.99	-17.2/-18.46
Θ(105°)	-17.08/-31	-10.99/-9.27	-6.45/-8.88	-6.14/-8.1	-15.05/-18.41	-17.41/-11.7	-9.04/-7.51	-7.79/-11.56	-18.79/-17.98	-17.62/-13.48	-11.49/-11.99	-16.73/-18.5	-19.01/-19.25	-17.95/-12.96	-14.31/-17.23	-13.8/-13.39	-18.79/-18.41	-18.69/-12.94	-13.61/-8.29	-5.49/-3.06	-3.31/-5.04	-9.56/-13.45	-17.88/-17.19	-19.78/-14.99
Θ(112.5°)	-18.46/-13.7	-10.65/-9.68	-7.949/-2.3	-15.27/-19.36	-16.82/-18.96	-13.67/-10.44	-6.71/-6.82	-10.76/-12.06	-10.96/-13.98	-18.55/-12.57	-12.08/-17.82	-18.88/-15.74	-14.68/-12.24	-12.79/-11.71	-14.31/-17.56	-18.48/-17.86	-16.01/-18.14	-19.06/-9.59	-10.44/-9.32	-5.03/-4.03	-2.04/-3.22	-9.23/-16.87	-15.56/-18.41	-11.31/-11.82
Θ(120°)	-18.76/-9.67	-17.91/-9.11	-12.29/-14.12	-16.11/-18.72	-12.57/-13.16	-18.72/-16.15	-15.81/-12.06	-9.25/-10.88	-15.59/-18.79	-16.72/-10.85	-8.8/-8.09	-11.64/-18.35	-15.22/-8.73	-12.92/-8.44	-11.91/-10.44	-16.9/-12.92	-11.51/-14.47	-17.15/-9.06	-18.14/-13	-5.97/-2.12	-1.54/-2.74	-6.75/-9.91	-17.95/-6.92	-5.2/-7.42
Θ(127.5°)	-15.79/-15.45	-17.52/-12.58	-14.12/-13.77	-18.95/-15.08	-18.32/-19.27	-19.27/-17.57	-12.88/-9.04	-6.99/-7.26	-10.98/-14.77	-14.68/-14.38	-15.19/-12.31	-11.41/-11.1	-12.32/-15.62	-8.46/-7.8	-7.07/-8.45	-11.74/-8.01	-6.53/-8.1	-10.05/-4.31	-5.05/-11.2	-7/-2.52	-3.21/-1.86	-3.85/-8.75	-10.53/-18.83	-6.23/-5.32
Θ(135°)	-12.95/-17.59	-17.09/-13.28	-15.26/-18.99	-14.93/-11.18	-12.55/-13.65	-15.98/-17.65	-18.15/-9.59	-8.07/-9.92	-9.85/-11.57	-9.93/-8.58	-10.4/-10.74	-7.97/-7.75	-10.94/-10.41	-9.57/-14.26	-10.59/-7.8	-6.74/-6.28	-7.98/-3.85	-3.93/-8.78	-9.92/-3.14	-3.63/-5.01	-3.2/-6.34	-19.04/-18.14	-13.84/-11.95	
Θ(142.5°)	-12.65/-10.14	-8.95/-10.44	-15.28/-16.92	-18.93/-18.22	-17.66/-18.74	-17.19/-19.08	-15.01/-13.97	-13.21/-14.85	-15.59/-8.82	-6.18/-5	-5.21/-10.54	-8.53/-10.54	-10.43/-10.73	-12.34/-14.42	-14.87/-10.16	-6.66/-8.01	-10.47/-10.4	-9.62/-5.66	-6.6/-48	-9.31/-7.64	-4.54/-7.35	-7.98/-7.65	-13.27/-10.97	-12.02/-13.78
Θ(150°)	-7.49/-8.37	-8.95/-9.11	-8.97/-8.02	-8.93/-13.71	-19.17/-17.94	-18.32/-17.2																		



Radiated Composite Gain Data

Appendix A

Θ(142.5°)	-10.93/-14.63	-16.72/-13.11	-16.14/-14.04	-6.3/-5.83	-8.91/-11.99	-13.83/-8.41	-5.29/-4.52	-5.27/-6.72	-5.42/-5.84	-8.1/-8.95	-10.46/-11.34	-8.59/-8.51	-14.65/-15.79	-10.54/-10.31	-9.73/-9.71	-9.53/-9.1	-4.32/-13.01	-6.99/-0.43	-1.59/-9.67	-5.64/-9.43	-11.92/-15.48	-12.33/-16.92	-17.67/-14.86	-17.38/-17.48
Θ(150°)	-6.07/-7.26	-13.69/-18.13	-17.26/-16.95	-9.48/-6.28	-5.87/-7.02	-6.33/-4.54	-4.16/-5.17	-6.52/-6.92	-8.62/-6.2	-8.22/-7.98	-12.08/-18.54	-18.42/-16.34	-18.95/-17.03	-13.2/-13.88	-15.4/-12.74	-7.46/-6.28	-9.35/-11.54	-8.57/-5.68	-6.63/-12.43	-16.35/-8.95	-8.46/-11.22	-12.82/-15.22	-18.56/-17.43	-11.82/-7.41
Θ(157.5°)	-5.37/-6.42	-7.83/-8.58	-10.66/-17.87	-19.04/-14.18	-13.73/-12.72	-4.74/-8.45	-7.24/-7.01	-7.24/-10.19	-8.27/-7.55	-13.92/-9.82	-11.94/-14.52	-13.93/-11.23	-10.95/-12.91	-16.86/-18.74	-18.43/-15.55	-18.47/-19.11	-12.21/-8.06	-7.38/-7.16	-10.99/-6.78	-4.46/-4.07	-4.53/-4.63	-5.03/-5.99	-6.5/-5.22	
Θ(165°)	-2.89/-3.96	-5.73/-8.21	-11.52/-15.64	-17.45/-14.91	-12.6/-9.22	-5.91/-4.99	-6.09/-7.62	-8.81/-10.81	-12.73/-14.6	-12.62/-9.37	-7.57/-7.71	-9.63/-14.23	-16.12/-13.3	-12.79/-13.89	-15.14/-17.34	-17.43/-18.01	-17.53/-17.72	-15.34/-12.88	-13.01/-11.88	-9.15/-7.03	-5.63/-5.39	-6.43/-6.58	-5.51/-4.21	-3.71/-3.15
Θ(172.5°)	-13.19/-15.32	-19.61/-17.53	-18.26/-18.81	-18.75/-17.91	-19.45/-15.01	-10.7/-9.34	-10.11/-11.17	-13.23/-18.12	-17.62/-17.78	-12.9/-10.41	-9.83/-9.96	-10.53/-12.11	-13.67/-13.93	-13.71/-15.02	-17.52/-16.86	-18.04/-15.67	-15.17/-14.88	-15.67/-17.37	-17.79/-19.26	-15.09/-12.82	-11.77/-10.87	-9.47/-8.58	-8.35/-8.11	-9.2/-11.76
Θ(180°)	-10.46/-10.55	-11.18/-12.22	-13.48/-12.8	-12.28/-12.63	-11.76/-11.2	-11.79/-11.71	-13.56/-17.22	-18.33/-14.74	-17.66/-19.02	-18.61/-16.42	-13.74/-11.93	-10.17/-8.66	-7.83/-7.41	-7.38/-7.83	-8.59/-9.94	-11.73/-12.23	-12.1/-12.17	-12.5/-12.39	-13.09/-12.9	-12.25/-11.56	-11.71/-11.47	-11.83/-11.05	-10.77/-10.47	
Freq(Hz)	5.885GPol.	PhiAnt. 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-10.52/-7.9	-5.75/-4.53	-2.8/-1.64	-1.0/-0.41	0.080/57	0.690/89	0.670/14	-0.59/-1.55	-2.78/-4.02	-5.54/-6.99	-9.21/-12.5	-14.12/-12.82	-10.04/-7.32	-4.78/-3.38	-2.41/-1.38	0.310/61	0.92/1	0.730/07	-0.78/-1.78	-6.39/-8.47	-11.65/-18.02	-18.27/-14.01		
Θ(7.5°)	-13.39/-9.61	-7.04/-5.37	-3.47/-2.17	-1.13/-0.27	0.59/1.28	1.66/1.81	1.65/1.18	0.59/0.46	-1.78/-3.34	-5.1/-7.61	-11.72/-15.3	-13.45/-10.01	-7.28/-4.77	-3.06/-2.21	-1.52/-0.64	0.040/24	0.330/29	0.450/36	0.14/-0.3	-1.08/-1.95	-3.15/-4.92	-6.57/-8.81	-12.12/-18.28	-19.41/-16.59
Θ(15°)	-17.44/-12.14	-8.22/-6.06	-4.25/-2.99	-1.8/-0.69	0.210/97	1.59/1.99	2.03/1.85	1.06/-0.21	-1.72/-3.5	-5.76/-9.44	-16.58/-17.94	-15.16/-10.99	-8.35/-6.4	-5.12/-3.73	-2.27/-0.88	0.070/68	0.910/97	0.730/55	0.12/-0.48	-1.24/-2.06	-3.09/-4.35	-5.78/-8.03	-10.47/-14.76	-18.08/-18.56
Θ(22.5°)	-17.89/-15.45	-10.72/-7.76	-5.59/-4.33	-3.52/-2.64	-1.65/-0.99	0.310/48	1.31/38	0.70/05	-0.76/-1.65	-2.87/-4.79	-7.75/-9.84	-9.48/-7.76	-6.25/-5.54	-5.25/-4.3	-2.76/-1.1	0.160/12	1.18/31	10.8	0.05/-1.17	-2.59/-4.15	-5.27/-6.58	-8.07/-10.7	-13.38/-18.36	-19.39/-18.7
Θ(30°)	-14.94/-17.76	-18.82/-16.76	-10.39/-8.23	-7.09/-6.06	-3.82/-1.91	-0.60/51	1.36/1.64	1.240/78	0.41/-0.15	-1.09/-2.46	-4.21/-6.47	-9.07/-9.57	-8.37/-7.22	-6.03/-4.76	-3.43/-2.07	-0.96/-0.05	0.621/05	0.55/-1.03	-4.12/-7.1	-10.34/-12.99	-12.85/-12.33	-13.39/-15.28	-16.14/-14.64	-13.67/-13.83
Θ(37.5°)	-18.56/-19	-18.96/-14.31	-12.59/-9.54	-7.12/-6.05	-4.66/-2.84	-1.27/-0.01	0.520/58	0.260/17	0.16/-0.42	-2.05/-3.76	-5.65/-8.32	-9.22/-8.12	-7.25/-6.29	-5.29/-4.84	-3.67/-2.33	-1.16/-0.47	-0.15/-0.69	-2.39/-4.78	-7.16/-8.97	-10.14/-10.23	-11.46/-15.65	-17.91/-18.18	-15.79/-15.85	-17.01/-18.37
Θ(45°)	-18.31/-17.88	-14.2/-10.49	-10.07/-10.04	-7.72/-5.65	-4.97/-3.87	-2.72/-1.65	-1.56/-1.95	-1.93/-1.14	-1.22/-2.84	-6.27/-7.89	-7.63/-8.27	-8.87/-10.43	-12.75/-12.38	-9.98/-6.44	-5.09/-3.76	-2.52/-1.77	-2.05/-2.75	-4.27/-0.9	-9.22/-9.106	-12.92/-11.06	-17.64/-17.83	-18.14/-17.39	-19.32/-17.76	
Θ(52.5°)	-14.81/-11.78	-8.54/-8.95	-9.65/-10.05	-9.09/-8.1	-6.98/-5.18	-3.43/-2.47	-3.01/-3.54	-3.5/-3.08	-2.99/-3.69	-4.39/-3.25	-3.37/-5.48	-7.54/-8.95	-9.16/-7.02	-6.11/-9.02	-10.75/-6.67	-2.85/-1.33	-2.09/-3.13	-4.24/-6.24	-10.03/-10.57	-8.46/-10.62	-19.33/-18.16	-14.43/-9.89	-10.87/-15.54	-18.76/-18.37
Θ(60°)	-7.82/-8.08	-7.32/-7.09	-7.46/-6.74	-9.14/-10.02	-7.17/-5.73	-4.45/-2.74	-2.12/-2.86	-4.05/-5.28	-8.47/-8.18	-4.4/-2.41	-2.2/-4.88	-13.9/-15.49	-9.06/-63	-5.49/-6.17	-10.88/-12.45	-5.84/-1.88	-1.64/-2.57	-3.72/-5.7	-8.77/-6.1	-6.99/-9.49	-14.35/-10.77	-11.27/-13.31	-17.44/-16.66	-12.86/-10.29
Θ(67.5°)	-10.32/-11.11	-7.03/-6.37	-5.84/-5.82	-6.07/-5.66	-4.12/-4.77	-4.28/-3.72	-2.95/-3.09	-4.48/-6.81	-9.97/-5.48	-3.34/-4.11	-6.56/-12.42	-17.72/-13.49	-6.4/-3.41	-2.66/-3.73	-7.92/-13.98	-5.6/-16.94	-0.87/-1.43	-2.75/-5.21	-8.17/-6.81	-16.99/-14	-16.63/-14.07	-14.45/-18.55	-17.22/-12.66	-12.86/-10.35
Θ(75°)	-12.6/-12.59	-8.84/-9.25	-8.12/-7.11	-7.05/-6.75	-6.61/-6.39	-4.78/-2.62	-2.58/-3.08	-4.49/-10.21	-12.36/-6.41	-4.6/-6.1	-8.95/-15.26	-18.11/-9.59	-4.79/-3.06	-3.18/-3.14	-5.48/-11.96	-8.95/-2.25	-0.95/-3.71	-4.58/-4.66	-10.52/-9.06	-5.18/-10.43	-19.1/-13.55	-14.58/-17.98	-19.06/-13.66	-12.95/-11.68
Θ(82.5°)	-16.59/-18.48	-19.46/-17.26	-14.23/-10.25	-7.03/-5.4	-5.54/-6.21	-4.84/-3.52	-2.94/-3.51	-5.27/-9.06	-12.97/-6.57	-8.87/-9.71	-14.69/-15.48	-11.09/-9.72	-5.62/-3.94	-3.21/-2.91	-4.44/-8.25	-16.8/-3.97	-2.45/-4.7	-4.78/-1.77	-9.27/-9.34	-7.22/-8.85	-13.64/-17.32	-11.27/-13.13	-17.44/-16.26	-14.4/-12.85
Θ(90°)	-14.46/-18.4	-18.54/-19.19	-12.43/-9.65	-8.11/-10.12	-11.97/-11.87	-7.75/-5.58	-2.62/-2.99	-4.99/-10.0	-17.59/-10.06	-6.52/-9.06	-14.98/-15.48	-16.82/-12.55	-5.58/-6.44	-4.12/-8.19	-16.69/-6.19	-3.68/-8.14	-7.68/-7.21	-14.25/-13.44	-6.49/-4.55	-10.12/-10.08	-8.8/-8.57	-10.29/-14.61	-11.75/-11.74	
Θ(97.5°)	-13.97/-17.9	-18.48/-18.25	-18.69/-18.17	-11.18/-7.82	-9.9/-10.29	-8.16/-7.58	-7.31/-4.45	-4.83/-8.36	-13.2/-12.55	-9.76/-13.6	-18.84/-18.74	-13.39/-14.46	-12.56/-15.44	-15.49/-12.48	-8.05/-10.26	-17.82/-12.96	-8.59/-14.07	-10.93/-13.45	-15.74/-14.67	-6.41/-5.02	-7.13/-18.33	-8.45/-6.8	-8.14/-10.01	-13.09/-11.46
Θ(105°)	-15.04/-18.82	-17.66/-18.02	-13.34/-9.34	-6.84/-12.88	-10.75/-10.99	-8.68/-7.1	-7.78/-4.77	-5.1/-8.78	-13.89/-13.87	-10.71/-12.83	-17.14/-15.55	-12.51/-17.35	-17.62/-19	-9.33/-10.61	-6.45/-9.21	-16.47/-18.42	-12.38/-12.84	-13.48/-18.27	-13.39/-11.49	-7.21/-3.73	-2.94/-1.36	-18.21/-11.66	-8.6/-8.33	-7.85/-10.05
Θ(112.5°)	-18.78/-15.96	-13.82/-12.58	-7.13/-7.2	-5.88/-14.34	-18.17/-10.42	-8.36/-9.77	-8.01/-5.16	-5.14/-8.75	-12.07/-10.45	-13.09/-14.31	-13.44/-18.26	-18.27/-16.58	-13.22/-6.88	-8.88/-7.5	-7.01/-7.57	-10.81/-17.28	-18.83/-19.15	-18.47/-12.48	-17.10/-12.74	-6.16/-2.9	-2.24/-7.19	-10.58/-11.32	-9.8/-9.16	-12.22/-16.73
Θ(120°)	-18.41/-17.74	-16.19/-11.7	-8.8/-7.69	-13.31/-18.22	-12.78/-12.77	-9.91/-11.65	-7.77/-4.3	-6.47/-12.96	-15.58/-15.7	-10.75/-8.64	-8.21/-9.99	-12.39/-17.19	-12.42/-6.56	-6.07/-8.5	-9.38/-10.61	-13.09/-12.15	-11.92/-17.36	-18.45/-7.31	-5.52/-9.39	-4.9/-2.99	-2.63/-4.68	-10.52/-15.73	-10.55/-6.42	-8.77/-15.52
Θ(127.5°)	-17.63/-16.7	-12.37/-8.12	-8.33/-8.4	-13.56/-16.37	-11.09/-10.32	-7.24/-10.39	-7.42/-6.54	-8.68/-11.24	-12.76/-11.99	-9.31/-7.07	-9.16/-11.87	-17.34/-18.29	-12.85/-10.91	-9.22/-6.07	-8.91/-14.3	-11.5/-8.79	-8.03/-12.49	-12.02/-6.41	-2.56/-7.23	-4.4/-0.83	-1.760/02	-4.12/-12.01	-9.21/-9.39	-7.43/-9.31
Θ(135°)	-19.06/-13.58	-12.83/-11.66	-11.62/-15.99	-11.66/-8.54	-10.77/-18.29	-16.28/-16.01	-15.32/-12.45	-10.73/-11.3	-12.32/-9.84	-8.57/-7.77	-7.43/-6.78	-6.83/-10.34	-14.08/-14.58	-14.88/-15.44	-11.29/-10.43	-14.59/-11.4	-12.89/-19.08	-11.29/-2.7	-1.86/-6.82	-5.64/-0.66	-1.99/-1.97	-1.03/-6.31	-14.84/-15.89	-13.24/-13.65
Θ(142.5°)	-13.98/-14.38	-16.24/-19.62	-19.44/-14.31	-11.3/-9.04	-9.02/-8.88	-12.77/-17.94	-13.05/-10.53	-10.73/-12.75	-17.71/-7.87	-4.71/-6.68	-5.43/-7.74	-12.1/-16.97	-18.21/-13.65	-12.95/-16.29	-18.38/-13.43	-17.5/-9.3	-14.58/-13	-6.82/-3.94	-5.31/-10.07	-9.1/-3.96	-2.51/-4.14	-4.44/-7.22	-11.41/-9.15	-11.35/-13.89
Θ(150°)	-8.55/-10.43	-12.76/-13.16	-11.03/-9.5	-9.38/-12.93	-19.19/-17.51	-12.9/-13.08	-17.27/-17.58	-18.51/-19.58	-17.82/-14.21	-11.26/-8.37	-6.95/-7.74	-11.37/-13.79	-13.35/-16.38	-18.28/-11.94	-10.85/-13.32	-14.39/-17.82	-12.92/-10.73	-11.07/-9.78	-9.25/-11.15	-8.94/-7.29	-6.99/-7.15	-8.39/-11.77	-14.32/-14.5	-10.62/-8.03
Θ(157.5°)	-9.69/-13.85	-16.39/-11.38	-7.37/-5.5	-5.64/-8.26	-16.66/-18.82	-12.34/-10.93	-12/-14.6	-17.39/-18.33	-17.18/-13	-7.97/-5.37	-5.65/-7.75	-9.08/-7.59	-6.72/-7.84	-11.52/-14.4	-16.43/-18.38	-19.14/-18.01	-15.28/-11.01	-8.16/-7.95	-9.41/-10.27	-8.45/-7.45	-9.34/-11.93	-13.19/-12.96	-12.35/-12.29	-10.82/-9.42
Θ(165°)	-8.04/-10.37	-13.71/-10.59	-9.97/-10.98	-12.73/-17.01	-19.22/-19.7	-17.76/-18.21	-12.73/-17.91	-16.53/-17.83	-16.03/-13.78	-12.03/-10.88	-9.59/-7.89	-6.59/-5.98	-5.62/-8.02	-10.61/-14.27	-17.17/-14.77	-10.43/-6.18	-7.94/-8.19	-8.5/-9.03	-8.65/-8.35	-8.29/-8.53	-9.88/-10.72	-9.7/-9.08	-8.04/-6.83	-6.53/-6.93
Θ(172.5°)	-17.72/-18.2	-18.41/-18.44	-15.78/-18.79	-17.41/-15.39	-14.63/-15.26	-16.29/-16.75	-16.79/-15.07	-13/-11.4	-10.83/-10.6	-10.81/-11.83	-14.48/-18.44	-18.99/-18.86	-18.31/-18.84	-18.99/-18.47	-14.39/-11.44	-9.04/-7.99	-7.55/-7.83	-7.98/-8.16	-7.69/-7.27	-7.83/-8.82	-9.72/-11.55	-12.98/-14.93	-18.58/-18.46	-19.13/-18.32
Θ(180°)	-10.36/-10.75	-10.21/-10.03	-11.47/-13.06	-13.56/-15.49	-17.24/-18.16	-16.73/-14.35	-11.36/-9.41	-8.65/-8.96	-9.96/-11.08	-11.77/-12.09	-12.04/-12.92	-14.01/-14.52	-15.96/-16.77	-14.6/-12.36	-10.74/-9.7	-8.98/-8.92	-8.77/-8.96	-8.68/-8.66	-8.33/-7.9	-8.21/-8.34	-8.47/-8.65	-8.78/-8.24	-8.84/-10.03	-11.31/-10.73
Freq(Hz)	5.885GPol.	ThetaAnt. 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ																		



Radiated Composite Gain Data

Appendix A

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°)	-17.49/-17.43	-17.84/-18.49	-17.98/-17.47	-18.42/-17.75	-18.58/-18.18	-18.56/-18.85	-18.63/-18.26	-18.06/-18.77	-19.18/-18.9	-18.13/-18.93	-19.03/-17.93	-18.83/-18.24	-18.04/-18.35	-19.13/-18.45	-18.9/-19.13	-18.34/-18.57	-18.18/-18.76	-19.21/-18.73	-18.02/-18.55	-18.75/-18.57	-17.53/-19.21	-17.56/-19.03	-18.57/-17.59	-18.03/-16.2
Θ(7.5°)	-17.71/-17.9	-18.89/-17.88	-19.28/-18.66	-17.94/-17.64	-17.87/-18.26	-18.93/-18.03	-18.73/-18.37	-18.14/-18.99	-18.15/-18.51	-18.02/-18.54	-18.66/-18.15	-16.36/-16.71	-17.61/-17.29	-16.66/-16.47	-19.17/-19.23	-16.46/-13.78	-16.84/-17.71	-18.33/-19.26	-18.5/-17.7	-17.68/-18.65	-16.81/-17.38	-10.74/-17.6	-19.07/-18.79	
Θ(15°)	-18.55/-19.15	-18.9/-19.11	-18.2/-18.75	-16.7/-15.56	-16.48/-16.94	-18.48/-18.67	-19.3/-18.53	-18.12/-18.7	-17.79/-17.78	-17.92/-17.93	-18.56/-16.5	-15.72/-17.08	-18.18/-18.11	-17.84/-18.9	-17.28/-16.51	-16.39/-16.68	-17.05/-19.35	-18.26/-18.78	-18.92/-18.95	-19.32/-18.98	-18.35/-16.47	-15.96/-15.51	-15.76/-16.8	-17.65/-18.65
Θ(22.5°)	-18.07/-18.2	-18.31/-18.12	-19.11/-17.77	-17.75/-17.49	-18.54/-18.77	-13.36/-12.49	-12.41/-13.81	-16.85/-18.68	-17.86/-18.47	-18.67/-18.09	-18.22/-17.96	-17.82/-17.63	-11.66/-11.92	-14.69/-17.4	-16.6/-16.47	-18.82/-17.74	-17.17/-17.25	-16.65/-16.58	-18.02/-18.59	-19.39/-18.47	-17.63/-17	-17.57/-18.61	-18.53/-17.63	-17.87/-18.53
Θ(30°)	-15.14/-14.78	-15.48/-16.94	-17.59/-19.27	-17.69/-18.17	-17.17/-13.77	-10.68/-8.97	-10.48/-13.38	-17.63/-18.89	-19.28/-18.55	-17.77/-19.3	-18.26/-17.36	-14.37/-12.16	-11.04/-11.94	-16.64/-17.91	-16.6/-16.47	-19.17/-19.23	-16.46/-13.78	-13.34/-15	-16.84/-17.71	-18.33/-19.26	-17.56/-18.89	-18.83/-18.4	-15.44/-15.56	-16.38/-16.17
Θ(37.5°)	-14.39/-15.24	-16.87/-16.59	-14.55/-12.46	-12.25/-11.97	-12.68/-16.27	-17.77/-17.86	-17.84/-19.04	-13.15/-10.04	-10.08/-13.6	-18.33/-14.41	-14.55/-18.44	-18.57/-18.76	-18.79/-18.5	-19.04/-18.53	-19.18/-14.31	-12.89/-14.84	-19.13/-18.16	-15.47/-10.22	-10.37/-17.76	-17.9/-15.75	-16.32/-18.08	-16.25/-12.54	-11.5/-12.47	-13.53/-13.98
Θ(45°)	-18.56/-18.71	-19.06/-18.67	-18.17/-16.37	-15.82/-17.67	-17.03/-18.98	-18.18/-16.39	-12.99/-10.45	-9.39/-10	-13/-15.76	-13.94/-11.94	-13.82/-18.36	-17.83/-18.56	-16.19/-15.45	-12.76/-11.07	-13.42/-17.67	-18.18/-16	-11.61/-13.33	-14.07/-10.97	-12.48/-18.85	-19.21/-18.66	-17.84/-18.21	-12/-10.3	-13.22/-18.22	-19.18/-16.64
Θ(52.5°)	-18.42/-18.25	-14.09/-11.7	-10.31/-8.79	-8.83/-10	-12.81/-18.91	-18.55/-17.25	-19.08/-17.75	-14.68/-12.45	-12/-10.07	-8.59/-9.31	-13.34/-19.08	-18.29/-17.7	-13.7/-17.71	-13.17/-9.98	-9.43/-10.37	-15.34/-17.93	-13.5/-10.99	-10.43/-17.94	-19.13/-17.62	-15.88/-14.28	-13.21/-13.96	-16.66/-17.71	-19.05/-17.94	
Θ(60°)	-14.67/-13.63	-11.6/-11.4	-11.49/-12.29	-13.75/-14.36	-15.47/-17.44	-16.11/-10.93	-10.88/-11.47	-11.48/-11.84	-10.91/-9.46	-9.48/-10.4	-9.38/-8.32	-8.05/-10.38	-13.41/-13.28	-16.3/-15.97	-12.9/-8.54	-8.12/-12.8	-14.14/-7.8	-9.93/-18.77	-14.97/-17.9	-17.26/-17.37	-15.82/-17.67	-17.27/-17.86	-16.21/-13.23	-12.1/-12.67
Θ(67.5°)	-15.49/-15.22	-13.38/-12.23	-11.15/-11.32	-15.94/-19.2	-17.44/-17.49	-18.46/-13.01	-11.16/-13.83	-10.3/-10.8	-10.4/-9.67	-11.18/-11.04	-9.14/-18.4	-8.91/-10.72	-9.54/-10.72	-12.44/-17.02	-18.11/-9.28	-6.54/-4.89	-15.51/-8.16	-6.16/-11.8	-18.95/-15.32	-18.48/-19.38	-17.92/-18.11	-18.37/-18.95	-18.13/-14.93	-15.02/-14.73
Θ(75°)	-11.52/-14.17	-13.47/-14.52	-16.96/-18.84	-19.03/-19.03	-19.03/-14.04	-8.91/-7.25	-9.06/-14.23	-12.37/-14.06	-12.12/-9.78	-10.66/-7.32	-4.57/-4.39	-6.02/-8.74	-8.32/-7.46	-8.96/-14.58	-9.19/-6.97	-12.26/-9.47	-5.23/-10.28	-14.81/-17.96	-17.98/-16.04	-12.67/-11.29	-10.86/-19.3	-8.2/-9.41		
Θ(82.5°)	-16.53/-18.71	-18.11/-13.66	-13.26/-12.41	-13.55/-15.78	-17.2/-18.58	-13.12/-9.73	-14.07/-17.85	-12.56/-13.51	-9.86/-10.83	-12.73/-6.99	-5.68/-8.92	-10.8/-9.27	-6.41/-6.45	-7.83/-8.39	-11.44/-17.56	-10.5/-7.41	-8.95/-11.01	-6.52/-8.54	-19.25/-11.9	-13.61/-12.78	-14.2/-14.08	-9.54/-8.4	-9.21/-10.56	-10.8/-10.9
Θ(90°)	-14.84/-18.71	-18.3/-18.59	-16.76/-12.44	-12.65/-15.03	-17.99/-19.24	-16.9/-12.93	-13.93/-17.61	-13.81/-12.69	-13.5/-14.94	-12.98/-16.4	-4.54/-7.75	-12.38/-18.62	-11.26/-17.4	-7.95/-7.55	-8.55/-14.31	-13.49/-7.46	-10.2/-15.91	-11.57/-14.61	-12.89/-17.51	-13.97/-8.93	-17.69/-17.78	-6.71/-7.97	-10.63/-13.1	-17.83/-18.28
Θ(97.5°)	-12.29/-13.18	-13.02/-16.17	-18.23/-15.8	-18.23/-15.8	-18.63/-16.98	-18.47/-19.2	-19.3/-10.4	-7.37/-10.37	-13.92/-9.7	-6.3/-2.9	-1.58/-5.59	-17.58/-14.06	-8.18/-7.64	-7.1/-6.38	-6.77/-8.82	-17.78/-13.97	-17.62/-16.71	-14.22/-11.42	-10.31/-18.63	-18.59/-5.38	-6.11/-9.59	-13.92/-16.24	-14.14/-12.5	
Θ(105°)	-18.92/-18.06	-17.5/-18.86	-18.22/-18.36	-11.67/-10.88	-9.37/-12.6	-15.3/-9.88	-12.9/-15.04	-12.77/-15.54	-18.74/-17.99	-6.13/-3.53	-3.66/-4.68	-7.51/-8.87	-8.49/-10.9	-14.24/-15.85	-10.55/-10.61	-13.86/-18.12	-17.04/-14.75	-18.84/-9.77	-10.8/-18.18	-8.58/-9	-19.22/-7.22	-7.57/-12.45	-18.19/-19.11	-17.92/-18.53
Θ(112.5°)	-16.72/-16.18	-19.06/-18.12	-11.15/-11.32	-15.36/-13.42	-15.63/-17.86	-10.79/-9.12	-16.9/-12.93	-13.83/-13.89	-14.65/-18.46	-10.74/-3.96	-2.27/-4.03	-6.19/-6.33	-7.64/-11.81	-11.47/-9.49	-8.16/-14.73	-11.83/-18.35	-12.35/-12.86	-18.95/-16.22	-12.76/-14.9	-11.5/-10.13	-14.94/-10.1	-6.42/-5.87	-10.21/-15.61	-17.41/-18.86
Θ(120°)	-14.16/-15.05	-18.83/-18.53	-17.21/-14.75	-15.34/-13.48	-13.76/-12.41	-10.59/-8.2	-8.33/-9.29	-8.43/-10.34	-14.14/-18.83	-9.89/-6.08	-7.36/-3.71	-17.17/-9.38	-8.22/-9.66	-16.78/-18.93	-6.9/-8.26	-10.81/-17.87	-17.88/-18.56	-10.21/-16.82	-12.03/-19.04	-12.61/-14.3	-6.83/-8.53	-8.88/-6	-13.99/-15.52	
Θ(127.5°)	-18.07/-18.64	-18.11/-18.48	-17.14/-15.49	-18.88/-16.68	-13.72/-9.07	-6.79/-9.37	-11.95/-5.44	-7.11/-11.61	-12.59/-12.73	-17.6/-7.88	-4.11/-5.91	-8.4/-9.31	-12.52/-7.62	-8.01/-4.81	-6.85/-7.44	-11.92/-11.86	-17.96/-10.78	-18.75/-17.56	-12.74/-14.23	-12/-6.75	-17/-11.17	-6.02/-10.96	-9.48/-8.86	-13.46/-19.15
Θ(135°)	-9.44/-11.37	-7.92/-7.53	-10.12/-9.66	-9.34/-13.21	-8.94/-5.21	-6.3/-12.19	-14.78/-5.49	-4.89/-10.45	-18.46/-17.21	-16.61/-16.25	-8.79/-6.2	-4.69/-5.22	-10.48/-18.02	-18.84/-12.92	-10.56/-7.2	-16.79/-10.84	-15.1/-10.65	-15.66/-13.91	-10.49/-13.22	-9.85/-5.75	-5.76/-10.08	-11.72/-9.9	-12.91/-11.6	-17.55/-16.65
Θ(142.5°)	-18.3/-17.97	-16.68/-12.99	-14.06/-14.17	-13.76/-8.4	-4.94/-3.42	-4.74/-10.79	-13.57/-6.63	-4.42/-5.93	-7.47/-17.21	-10.45/-18.33	-16.67/-13.42	-11.48/-11.7	-11.85/-12.31	-8.4/-8.51	-10.8/-10.77	-10.33/-10.5	-13.75/-13.96	-16.13/-19.79	-8.82/-6.17	-5.22/-7.01	-11.21/-6	-9.25/-11.83	-14.39/-17.94	
Θ(150°)	-18.8/-18.86	-16.08/-15.14	-16.68/-15.64	-9.09/-4.16	-2.26/-2.45	-4.76/-11.19	-19.23/-10.46	-7.89/-8.16	-6.63/-7.94	-8.5/-9.99	-14.88/-18.5	-15.03/-9.04	-8.03/-9.99	-11.87/-9.66	-10.5/-15.73	-19.13/-18.11	-14.99/-15.78	-16.15/-15.05	-15.22/-18.1	-16.62/-14.92	-11.86/-11.36	-14.62/-16.21	-14.79/-15.91	-17.84/-18.48
Θ(157.5°)	-7.36/-8.43	-9.48/-11.09	-15.86/-17.85	-14.64/-9.96	-9.01/-11.21	-17.92/-18.71	-11.96/-9.43	-9.57/-10.87	-11.25/-10.12	-8.82/-9.33	-11.27/-14.41	-17.23/-15.8	-14/-13.64	-14.15/-15.27	-16.07/-13.42	-12.5/-14.9	-18.6/-18	-18.38/-17.96	-17.04/-18.21	-18.79/-12.95	-8.94/-6.67	-5.45/-7.42	-3.99/-3.8	-4.55/-6
Θ(165°)	-4.02/-5.5	-7.26/-9.42	-11.8/-15.29	-18.25/-18.33	-18.5/-18.47	-17.68/-15.41	-13.67/-12.98	-14.71/-17.97	-18.55/-14.45	-11.32/-10.4	-9.77/-9.5	-9.69/-10.4	-11.23/-11.81	-12.86/-12.18	-12.22/-12.92	-13.8/-15.1	-16.52/-16.27	-14.99/-12.78	-11.9/-12.48	-13.12/-10.95	-7.78/-5.25	-3.46/-2.37	-1.85/-1.82	-2.1/-2.94
Θ(172.5°)	-5.08/-6.53	-7.53/-8.25	-8.62/-9.35	-10.71/-12.07	-13.49/-18.87	-15.62/-17.94	-19.01/-18.97	-13.87/-16.6	-14.55/-13.02	-10.91/-10.08	-10.07/-10.2	-9.78/-9.39	-9.01/-8.74	-9.06/-9.85	-10.49/-10.73	-10.14/-9.92	-10.23/-10.26	-10.46/-10.27	-11.18/-10.46	-10.79/-10.6	-9.27/-4.2	-4.4/-6.58	-4.08/-4.32	-4.4/-6.64
Θ(180°)	-17.83/-17.64	-19.01/-18.35	-17.21/-16.22	-16.35/-16.4	-17.59/-18.41	-18.16/-17.37	-17.66/-14.79	-11.68/-9.67	-8.6/-7.81	-7.14/-6.93	-7.44/-8.62	-9.8/-10.66	-11.45/-13.43	-15.89/-18.33	-18.12/-15.35	-12.74/-11.16	-10.23/-9.76	-9.48/-9.34	-9.59/-10	-10.2/-10.8	-11.52/-12.08	-13.11/-14.05	-15.89/-17.31	-18.18/-18.73
Freq[Hz]	5.2GPol.	Theta/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-17.83/-17.54	-18.95/-19.31	-18.89/-18.3	-18.94/-18.17	-18.64/-19.09	-18.27/-17.32	-18.47/-18.17	-18.95/-18.56	-17.83/-18.42	-18.63/-17.69	-18.19/-17.09	-17.51/-18.88	-17.69/-17.64	-19.17/-18.44	-18.34/-19.27	-18.61/-17.6	-17.54/-18.24	-18.32/-17.53	-17.92/-18.57	-18.71/-18.21	-18.69/-18.49	-18.15/-17.88	-18.72/-18.4	-17.91/-18.82
Θ(7.5°)	-18.48/-17.68	-18.89/-18.16	-18.44/-17.87	-18.86/-18.83	-17.89/-19.34	-17.78/-18.11	-18.88/-17.39	-16.55/-17.11	-16.53/-16.94	-17.77/-18.95	-18.47/-17.18	-18.67/-19.19	-18.5/-17.68	-18.25/-17.14	-16.51/-17.33	-17.82/-18.64	-18.28/-18.48	-18.24/-18.44	-18.33/-18.45	-18.72/-18.31	-18.87/-18.66	-17.7/-18.64	-19.01/-18.08	-18.72/-17.73
Θ(15°)	-17.86/-17.71	-19.17/-17.6	-17.89/-18.45	-18.69/-17.99	-18.97/-18.31	-16.71/-14.29	-16.86/-13.85	-13.84/-15.39	-16.46/-18.97	-18.84/-17.77	-18.08/-17.41	-17.9/-19.12	-16.69/-13.84	-11.91/-10.86	-10.83/-11.18	-11.93/-11.83	-11.31/-11.15	-10.98/-11.91	-15.67/-16.19	-16.67/-16.41	-17.15/-17.14	-17.42/-17.28	-18.1/-18.43	
Θ(22.5°)	-15.73/-16.63	-18.44/-16.67	-13.78/-13.45	-14.79/-18.47	-18.78/-17.95	-12.99/-8.89	-8.39/-5.78	-7.94/-10.09	-14.47/-18.89	-17.03/-12.8	-10.35/-9.39	-9.25/-9.73	-10.2/-10.58	-10.33/-9.74	-9.48/-9.14	-9.08/-8.7	-8.75/-9.39	-10.28/-11.7	-13.85/-17.03	-18.26/-18.31	-18.15/-16.82	-15.82/-14.68	-14.72/-16.62	-14.99/-15.21
Θ(30°)	-10.22/-9.89	-8.99/-9.02	-8.42/-9.15	-11.1/-14.68	-17/-10.67	-12.94/-10.1																		



Radiated Composite Gain Data

Appendix A

Θ (37.5°)	-13.21/-14.51	-14.65/-12.75	-11.26/-10.41	-9.61/-9.73	-10.96/-14.78	-14.64/-12.69	-13.62/-17.3	-18.96/-14.94	-14.53/-16.25	-17.34/-15.98	-16.44/-18.82	-17.1/-18.76	-18.16/-17.46	-18.99/-18.84	-18.57/-14.98	-14.75/-18.35	-18.4/-17.31	-14.89/-11.54	-9.66/-11.2	-16.44/-18.55	-18.79/-15.56	-15.29/-14.11	-11.49/-10.62	-12.73/-13.47	
Θ (45°)	-15.84/-15.5	-11.15/-10.2	-11.64/-13.02	-11.22/-10.76	-11.62/-14	-14.25/-12.61	-11.23/-12.11	-17.58/-15.31	-11.2/-10.77	-12.78/-13.51	-13.05/-13.43	-18.03/-17.99	-17.84/-18.94	-19.16/-18.97	-19.18/-19.03	-18.59/-17.94	-18.14/-17.31	-10.18/-9.74	-16.39/-17.38	-15.26/-16.25	-15.31/-12.8	-13.87/-14.41	-13.31/-14.24	-18.47/-16.98	
Θ (52.5°)	-18.11/-18.9	-14.91/-12.81	-13.92/-13.5	-14.02/-19.58	-18.67/-18	-16.13/-15.96	-12.75/-12.24	-11.24/-8.1	-7.36/-10.04	-17.54/-18.72	-13.17/-10.28	-9.11/-10.62	-12.68/-14.83	-18.92/-18.2	-18.19/-19.35	-15.03/-17.63	-18.72/-15.9	-7.94/-10.28	-18.47/-18.73	-17.22/-15.9	-12.52/-11.39	-12.48/-15.34	-13.88/-11.39	-12.15/-19.07	
Θ (60°)	-9.47/-10.94	-12.99/-18.14	-18.68/-17.97	-17.18/-14.5	-11.61/-11.77	-14.15/-15.05	-11.26/-12.44	-17.72/-12.66	-10.91/-13.03	-13.69/-14.16	-13.73/-10.01	-9.28/-11.82	-15.04/-18.26	-17.1/-18.05	-17.19/-17.86	-18.58/-17.89	-12.94/-8.58	-7.29/-9.06	-17.31/-11.67	-12.12/-13.74	-12.61/-16.61	-17.24/-11.45	-9.74/-8.67	-8.48/-8.22	
Θ (75°)	-12.84/-13.62	-18.49/-18.93	-18.49/-18.85	-17.51/-12.48	-12.06/-15.78	-16.23/-15.06	-19.13/-17.64	-18.08/-14.18	-18.39/-19.12	-13.35/-12.11	-8.89/-6.53	-6.82/-8.73	-8.62/-7.26	-7.46/-8.7	-11.87/-17.8	-16.96/-16.46	-13.73/-9.4	-9.55/-14.04	-18.09/-15.6	-15.05/-15.13	-14.64/-15.64	-12.8/-10.34	-7.85/-6.16	-6.61/-10.09	
Θ (82.5°)	-11.68/-14.36	-18.12/-18.11	-17.81/-16.15	-14.25/-12.09	-12.49/-14.78	-17.97/-16.8	-15.31/-16.23	-13.5/-10.58	-18.77/-17.49	-15.57/-7.15	-3.8/-3.03	-3.49/-4.69	-5.27/-5.23	-6.88/-8.94	-12.68/-19.23	-18.91/-19.41	-17.55/-8.56	-6.91/-10.58	-18.29/-17.58	-17.16/-11.48	-15.2/-11.37	-7.5/-5.61	-5.81/-5.95	-5.91/-8.72	
Θ (82.5°)	-18.54/-19	-17.26/-16.48	-16.31/-16.71	-17.78/-18.69	-18.37/-18.74	-13.26/-8.18	-8.45/-17.47	-12.64/-16.7	-18.07/-18.24	-7.71/-2.28	-0.78/-1.54	-3.32/-5.01	-5.65/-5.58	-6.34/-7.2	-8.95/-12.05	-18.95/-17.81	-17.72/-8.17	-6.73/-14.15	-18.2/-18.58	-18.13/-13.73	-14.75/-9.94	-6.42/-5.06	-6.61/-9.26	-11.96/-14.98	
Θ (90°)	-19.09/-19.11	-19.14/-17.96	-18.8/-18.97	-18.29/-17.83	-14.21/-10.76	-12.92/-10.05	-10.03/-19.08	-15.68/-17.99	-15.1/-18.56	-8.86/-3.27	-2.17/-2.93	-6.67/-8.1	-9.01/-6.81	-5.87/-6.19	-8.04/-10.08	-18.92/-17.62	-18.57/-9.06	-6.41/-13.12	-16.58/-13.1	-14.13/-10.91	-15.1/-8.09	-5.33/-7.17	-8.91/-11.25	-12.01/-13.7	
Θ (97.5°)	-13.07/-16.1	-17.61/-18.63	-18.87/-18.01	-15.17/-11.68	-11.64/-18.81	-16.48/-19.24	-18.06/-19.01	-18.57/-17.51	-18.13/-18.8	-15.8/-5.26	-3.74/-5.91	-12.71/-17.78	-15.54/-7.35	-7.25/-7.34	-8.08/-10.65	-18.9/-12.25	-19.06/-9.07	-11.51/-13.09	-12.57/-16.07	-12.82/-8.13	-7.95/-10.37	-13.35/-17.98	-18.82/-15.1		
Θ (105°)	-18.28/-18.79	-17.91/-13.29	-8.64/-8.27	-7.59/-8.55	-10.4/-14.14	-18.33/-15.28	-18.84/-16.52	-17.42/-11.18	-9.81/-11.76	-8.33/-5.55	-3.76/-2.82	-6.52/-15.78	-17.42/-13.74	-10.36/-8.43	-9.74/-11.72	-19.24/-18.44	-18.95/-14.95	-15.51/-10.77	-11.14/-18.85	-13.88/-18.52	-13.75/-8.05	-9.27/-14.25	-14.14/-19.07	-18.09/-16.74	
Θ (112.5°)	-17.87/-18.36	-12.74/-10.66	-7.31/-7.48	-8.62/-8.95	-9.69/-16.04	-17.62/-18.65	-17.9/-11.07	-10.59/-13.37	-11.66/-14.02	-8.33/-3.01	-1.52/-2.91	-7.72/-13.53	-18.14/-12.49	-9.92/-9.47	-10.19/-9.55	-14.49/-17.78	-18.25/-15.75	-17.82/-16.97	-12.14/-15.53	-14.63/-14.3	-15.6/-44	-6.72/-7.82	-14.8/-18.7	-18.13/-18.89	
Θ (120°)	-18.21/-16.94	-17.56/-16.06	-14.53/-13.33	-16.72/-10.97	-11.44/-17.94	-14.29/-9.05	-7.68/-11.94	-10.98/-13.18	-18.95/-17.28	-17.96/-11.5	-9.93/-8.5	-9.64/-12.04	-14.36/-13.44	-8.63/-10.55	-7.44/-7.74	-12.86/-18.44	-15.08/-16.24	-15.63/-17.67	-8.29/-10.72	-12.12/-16.08	-13.28/-8.63	-8.87/-10.32	-8.24/-9.03	-13.85/-18.78	
Θ (127.5°)	-16.89/-19.12	-17.47/-18.15	-15.48/-19.21	-13.95/-17.61	-17.35/-18.43	-13.11/-8.37	-9.25/-12.95	-17.09/-8.81	-9.98/-19.02	-18.01/-17.98	-14.55/-8.22	-9.63/-14.79	-12.81/-9.79	-9.96/-10.66	-7.85/-14.36	-11.64/-17.69	-15.24/-10.57	-19.03/-12.57	-7.73/-14.12	-11.47/-13.53	-14.94/-8.45	-9.63/-11.75	-10.11/-7.97	-13.74/-17.16	
Θ (135°)	-17.92/-18.56	-16.47/-19.4	-16.25/-12	-11.66/-9.04	-6.42/-5.66	-11.66/-10.89	-4.29/-4.17	-5.52/-7.19	-10.35/-14.52	-14.31/-12.84	-12.84/-10.36	-13.16/-13.63	-13.79/-9.19	-10.32/-8.07	-14.72/-13.92	-11.75/-12.44	-18.13/-14.61	-9.18/-13.04	-10.42/-8.97	-10.15/-7	-7.37/-13.12	-10.08/-9.94	-12.96/-17.96		
Θ (142.5°)	-19.06/-17.57	-16.14/-14.06	-11.38/-8.85	-11.62/-16.65	-9.91/-4.55	-2.68/-2.52	-5.21/-14.9	-13.15/-15.52	-12.73/-17.44	-18.9/-13.82	-12.13/-10.1	-9.2/-9.3	-9.54/-12.05	-13.24/-13.12	-18.08/-18.15	-12.97/-10.54	-11.03/-19.4	-16.93/-15.19	-12.06/-10.69	-10.67/-12.52	-8.62/-11.29	-13.94/-15.36	-18.26/-18.42		
Θ (150°)	-18.61/-17.69	-12.22/-9.44	-9.17/-9.01	-8.07/-6.04	-3.88/-2.11	-1.86/-3.69	-7.49/-15.28	-11.39/-6.37	-4.91/-4.96	-5.92/-8.12	-11.2/-14.7	-19.13/-16.19	-11.98/-11.7	-15.79/-18.86	-19.68/-18.94	-16.41/-13.84	-15.35/-18.45	-17.97/-17.25	-18.26/-18.3	-17.11/-13.67	-11.38/-13.72	-15.02/-12.79	-14.51/-18.49	-18.47/-18.27	
Θ (157.5°)	-11.25/-12.95	-12.93/-12.55	-10.82/-12.19	-10.48/-7.39	-7.49/-6.49	-6.42/-8.72	-13.92/-19.03	-12.4/-10.68	-8.76/-8.28	-8.54/-10	-11.78/-14.71	-18.74/-17.83	-17.92/-19.82	-18.71/-19.01	-16.03/-13.23	-13.83/-19.01	-17.39/-19.24	-11.51/-11.52	-8.35/-9.62	-6.94/-7.12	-7.38/-8.1	-9.07/-10.55			
Θ (165°)	-7.34/-8.53	-10.36/-12.17	-15.36/-16.62	-17.75/-16.76	-11.88/-10.02	-9.36/-9.56	-9.74/-9.73	-9.79/-10.46	-12.05/-16.02	-18.81/-17.66	-19.13/-17.82	-17.1/-15.19	-13.94/-12.41	-12.33/-12.09	-13.43/-14.95	-17.47/-17.88	-15.63/-13.37	-11.85/-10.84	-9.28/-7.59	-6/-6.68	-4/-4.04	-3.94/-3.92	-4.77/-6.25		
Θ (172.5°)	-6.01/-6.75	-8.09/-9.86	-12.27/-14.15	-14.17/-12.5	-10.94/-10.39	-10.91/-10.98	-11.23/-11.34	-10.31/-9.68	-9.31/-9.51	-8.04/-8.37	-8.29/-8.21	-7.98/-7.93	-7.91/-7.96	-8.05/-8.15	-7.91/-8.05	-9.1/-10.55	-12.44/-12.34	-10.29/-8.59	-7.25/-6.52	-5.81/-4.98	-4.21/-3.52	-3.06/-3.3	-4.01/-4.62	-5.2/-5.73	
Θ (180°)	-12.64/-13.18	-13.85/-13.91	-14.33/-15.39	-14.72/-13.83	-13.56/-13.4	-14.44/-15.99	-18.48/-18.39	-18.78/-17.2	-13.66/-11.12	-10.12/-16.26	-11.57/-13.28	-15.8/-18.45	-17.37/-17.36	-17.07/-17.87	-17.65/-18.13	-15.77/-14.24	-12.73/-12.22	-11.45/-11.15	-10.91/-10.22	-9.64/-8.85	-8.18/-6.73	-7.1/-7.4	-7.92/-9.4	-10.78/-11.97	
Freq[Hz]	5.6GPol.	ThetaAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)	
Θ (0°)	-18.73/-18.73	-19.07/-17.88	-17.52/-18.42	-17.95/-17.94	-18.26/-17.55	-18.14/-14.45	-19.32/-18.98	-18.83/-17.78	-18.13/-18.16	-18.03/-18.89	-18.59/-18.1	-18.21/-18.02	-18.04/-19.04	-17.73/-17.82	-18.76/-17.79	-18.08/-18.54	-17.96/-18.2	-18.47/-18.93	-18.86/-18.76	-18.82/-17.34	-16.96/-14.92	-14.02/-13.85	-14.05/-14.28	-14.33/-14.93	-19.17/-17.68
Θ (7.5°)	-19.24/-18.46	-19.03/-18.71	-17.83/-19.12	-18.52/-18.26	-18.62/-17.67	-19.32/-18.98	-18.83/-17.78	-18.13/-18.15	-18.03/-18.89	-18.59/-18.1	-18.21/-18.02	-18.04/-19.04	-17.73/-17.82	-18.76/-17.79	-18.08/-18.54	-17.96/-18.2	-18.47/-18.93	-18.86/-18.76	-18.82/-17.34	-16.96/-14.92	-14.02/-13.85	-14.05/-14.28	-14.33/-14.93	-19.17/-17.68	
Θ (15°)	-17.89/-17.03	-17.99/-18.62	-18.2/-18.87	-18.82/-17.83	-17.61/-18.73	-17.85/-18.99	-19.27/-18.24	-16.99/-16.01	-15.57/-15.27	-14.75/-15.16	-15.77/-16.23	-16.38/-16.88	-17.41/-18.05	-18.24/-18.04	-17.21/-18.31	-17.97/-18.5	-18.61/-18.55	-19.03/-18.79	-16.18/-13.98	-11.99/-10.86	-10.65/-11.2	-12.61/-15.05	-18.09/-18.8	-18.45/-18.66	
Θ (22.5°)	-12.82/-14.3	-14.66/-14.68	-14.55/-15.52	-17.83/-18.18	-19.21/-17.64	-18.86/-18.26	-18.84/-17.77	-14.83/-13.24	-12.78/-12.75	-12.35/-10.77	-9.62/-9.09	-8.93/-10.17	-13.61/-18.74	-17.64/-19.17	-18.4/-16.97	-14.54/-13.22	-12.82/-13.21	-13.87/-14.15	-12.61/-3.07	-9.33/-9.22	-10.27/-12.41	-17.34/-18.05	-17.44/-18.11	-14.97/-12.65	
Θ (30°)	-7.6/-7.76	-7.8/-7.18	-6.86/-7.29	-9.51/-12.51	-14.66/-14.95	-12.67/-11.29	-11.81/-13.31	-14.22/-13.54	-13.61/-16.63	-16.82/-11.2	-8.81/-7.49	-6.32/-5.98	-7.32/-10.1	-13.26/-15.13	-16.21/-15.65	-14.49/-12.31	-9.63/-7.48	-7.27/-7.79	-8.1/-6.92	-5.82/-6.87	-9.91/-16.09	-10.77/-13.97	-10.68/-9.1	-8.06/-7.95	
Θ (37.5°)	-7.87/-7.22	-6.24/-5.94	-6.46/-7.22	-8.47/-10.04	-11.35/-11.88	-10.36/-10.54	-15.17/-19.02	-14.84/-14.94	-17.99/-18.79	-9.47/-5.92	-5.01/-3.76	-6.37/-5.56	-6.85/-9.04	-8.74/-8.14	-7.77/-7.81	-7.65/-7.54	-7.39/-6.88	-6.97/-6.75	-6.4/-5.91	-5.23/-6.19	-10.22/-14.4	-10.67/-7.94	-7.31/-7.86	-7.39/-7.09	
Θ (45°)	-5.04/-5.38	-4.83/-4.68	-5.28/-5.28	-5.21/-5.52	-8.73/-11.79	-12.33/-10.15	-10.61/-12.23	-11.92/-15.86	-18.18/-9.74	-6.66/-5.94	-5.65/-5.06	-4.57/-4.07	-4.57/-5.98	-6.52/-6.35	-6.55/-6.1	-4.92/-5.05	-6.5/-2.7	-3.87/-4.41	-6.01/-6.46	-8.39/-12.96	-13.52/-9.52	-6.34/-4.4	-4.9/-3.66	-4.96/-4.09	
Θ (52.5°)	-1.85/-1.21	-3.42/-4.79	-6.12/-6.26	-6.62/-8.3	-9.18/-12.81	-11.24/-6.94	-3.83/-8.65	-12.98/-17.81	-11.86/-5.62	-4.47/-6	-5.38/-5.2	-5.04/-5.91	-8.33/-8.25	-7.04/-6.51	-6.38/-5.29	-4.29/-4.55	-6.7/-8.64	-6.95/-6.55	-8.08/-9.13	-7.64/-8.26	-10.2/-5.6	-4.65/-3.99	-3.48/-3.39	-2.53/-2.37	
Θ (60°)	-1.73/-1.15	-2.21/-2.68	-3.24/-3.98	-4.88/-7.08	-8.41/-12.44	-16.19/-19.29	-6.92/-12.21	-13.11/-10.69	-8.47/-5.04	-4.29/-6.29	-2.83/-1.99	-3.26/-5.57	-6.88/-11.93	-9.56/-8.97	-9.28/-8.73	-6.31/-4.37	-6.43/-11.02	-9.82/-6.81	-7.36/-6.72	-6.04/-7.23	-7.17/-4.93	-4.83/-3.63	-3.26/-2.47	-1.45/-1.91	
Θ (67.5°)	-1.94/-2.2	-2.73/-3.23	-4.13/-5.4	-5.43/-5.6	-6.59/-9.88	-9.2/-5.21	-4.77/-11.68	-11.46/-8.93	-7.95/-6.46	-4.94/-2.82	-0.25/-0.72	-4.63/-7.57	-10.54/-7.38	-5.93/-6.66	-6.49/-7.85	-9.38/-6.64	-4.31/-5.27	-9.85/-8.72	-5.87/-5.67	-7.54/-10.46	-9.48/-9.39	-4.62/-3.21	-2.65/-1.6	-1.41/-1.7	
Θ (75°)	-1.65/-1.23	-1.53/-3.03	-3.97/-5.79	-5.42/-5.31	-6.78/-11.21	-10.15/-5.44	-5.03/-9.89	-4.61/-3.45	-6.73/-5.06	-3.86/-1.4	0.330/5.2	-4.02/-7.55	-9.6/-3.31	-2.04/-3.51	-4.85/-5.67	-8.36/-9.38	-5.07/-6.46	-7.34/-10.85	-6.8/-4.88	-4.16/-5.67	-6.77/-5.65	-5.39/-3.36	-1.83/-1.98	-1.71/-1.17	
Θ (82.																									



Θ(90°)	-18.44/-17.25	-19.11/-18.72	-17.06/-15.6	-12.59/-11.43	-16.77/-15.38	-15.28/-10.24	-10.65/-16.45	-8.94/-14.36	-9.56/-12.47	-13.21/-2.81	-0.97/-2.66	-6.72/-10.55	-8.75/-7.3	-7.66/-9.4	-11.32/-19.09	-15.49/-11.73	-16.33/-7.51	-7.54/-14.26	-10.38/-16.32	-10.18/-13.21	-8.06/-6.46	-13.33/-17.51	-18.83/-18.39	-18.27/-17.61
Θ(97.5°)	-16.45/-14.24	-15.68/-17.85	-12.14/-10.29	-11.87/-13.79	-11.48/-12.98	-13.29/-17.04	-17.67/-17.32	-9.05/-8.13	-19.4/-16.43	-14.85/-5.12	-3.31/-3.12	-7.42/-17.39	-16.45/-9.98	-9.85/-12.54	-12.32/-17.11	-15.44/-9.22	-14.81/-5.2	-8.95/-12.77	-10.54/-13.85	-12.43/-18.08	-6.38/-11.8	-17.91/-11.81	-11.91/-19.07	-18.19/-17.53
Θ(105°)	-18.22/-18.98	-19.07/-15.98	-10.91/-8.8	-7.5/-9.68	-17.05/-11.58	-17.45/-14.19	-16.5/-18.56	-11.9/-10.39	-7.64/-14.07	-15.79/-9.1	-4.11/-4.09	-8.91/-12.95	-14.33/-12.4	-11.83/-9.9	-8.01/-9.07	-18.53/-11.56	-18.9/-11.67	-11.55/-9.81	-11.06/-17.91	-14.79/-12.26	-8.15/-14.51	-17.96/-11.06	-16.17/-17.78	-17.95/-18.76
Θ(112.5°)	-19.01/-16.31	-18.27/-18.79	-11.87/-7.76	-5.24/-7.77	-12.67/-6.07	-5.56/-14.89	-11.82/-8.62	-10.41/-8.98	-8.14/-12.9	-15.18/-4.58	-3.69/-5.03	-8.01/-12.04	-12.29/-16.55	-12.3/-8.34	-8.36/-9.97	-15.35/-18.78	-12.99/-13.94	-10.36/-9.15	-12.88/-14.7	-10.52/-16.64	-7.86/-10.62	-16.13/-13.1	-9.92/-16.02	-17.18/-17.25
Θ(120°)	-17.55/-18.52	-18.65/-19.16	-10.06/-5.83	-5.51/-7.62	-8.2/-5.7	-9.35/-12.56	-6.69/-11.6	-15.15/-11.52	-7.91/-10.82	-17.21/-9.63	-5.4/-4.8	-6.88/-10.26	-10.78/-11.11	-10.48/-8.57	-9.47/-7.62	-14.98/-17	-9.22/-18.09	-15.22/-17.96	-6.33/-8.25	-10.76/-15.22	-7.15/-9.24	-18.02/-5.99	-5.93/-13.11	-19.16/-18.76
Θ(127.5°)	-13.31/-10.14	-19.52/-13.96	-13.87/-9.1	-9.05/-8.05	-5.29/-5.38	-7.41/-12.83	-14.4/-14	-18.45/-7.9	-10.83/-17.63	-16.15/-12	-8.51/-4.22	-3.97/-8.73	-14.23/-14.09	-6.84/-8.12	-5.55/-16.12	-11.27/-8.48	-9.33/-14.08	-16.81/-11.63	-9.11/-12.03	-8.93/-19.2	-5.43/-4.67	-14.1/-14.6	-6.12/-9.75	-14.85/-10.38
Θ(135°)	-15.35/-15.91	-17.02/-19.26	-14.56/-16.72	-12.44/-7.14	-6.04/-7.82	-13.04/-5.8	-5.2/-13.21	-14.84/-8.77	-6.93/-7.09	-5.87/-7.61	-15.11/-12.55	-8.88/-8.05	-7.2/-12.31	-15.82/-10.24	-9.62/-8.99	-18.35/-11.63	-13.36/-10.94	-12.96/-10.47	-8.53/-8.66	-9.15/-8.48	-6.62/-2.54	-14.45/-12.7	-9.01/-7.83	-13.25/-9.66
Θ(142.5°)	-18.46/-18.75	-15.54/-16.88	-13.33/-9.53	-6.59/-5.12	-9.07/-18.99	-8.18/-2.71	-1.3/-3.41	-9.27/-11.7	-16.31/-16.52	-11.24/-7.89	-10.45/-19.07	-15.1/-7.87	-5.31/-5.57	-6.57/-10.1	-12.92/-12.16	-15.47/-16.12	-11.58/-14.51	-15.23/-11.92	-18.64/-10.24	-8.54/-6.74	-9.57/-3.97	-5.05/-12.31	-17.29/-19.17	-12.7/-12.75
Θ(150°)	-18.61/-16.38	-12.19/-9.27	-6.81/-5.44	-5.83/-6.39	-5.65/-4.34	-2.94/-2.06	-2.53/-4.94	-10.29/-11.66	-8.23/-7.47	-6.71/-5.69	-6.46/-8.81	-10.61/-12.52	-12.39/-9.78	-9.08/-10.26	-12/-15.52	-15.26/-12.42	-14.74/-15.85	-17.83/-16.97	-18.91/-18.03	-16.02/-12.43	-15.27/-17.34	-12.78/-14.03	-14.54/-14.13	-17.55/-18.79
Θ(157.5°)	-10.96/-11.6	-10.76/-9.88	-9.51/-9.24	-7.72/-7.35	-8.23/-8.14	-6.14/-5.38	-6.8/-9.93	-11.72/-8.36	-6.2/-6.13	-6.86/-6.73	-6.71/-7.94	-11.42/-18.58	-18.75/-18.95	-17.63/-17.15	-11.9/-9.08	-9.87/-16.04	-17.85/-15.47	-18.26/-16.71	-15.94/-15.41	-10.68/-7.08	-5.33/-5.39	-6.5/-6.73	-6.25/-6.38	-7.1/-8.88
Θ(165°)	-6.42/-7.61	-8.57/-10.72	-12.71/-14.33	-18.12/-19.2	-14.77/-9.97	-7.69/-7.34	-7.52/-7.55	-6.82/-5.58	-5.15/-5.8	-8.29/-12.07	-16.54/-18.93	-18.71/-18.49	-15.08/-13.89	-12.5/-11.18	-10.89/-12.36	-17.37/-18.48	-18.76/-17.97	-13.23/-10.57	-10.02/-9.2	-7.26/-5.14	-3.45/-2.4	-2.13/-2.14	-2.48/-3.44	-4.4/-5.36
Θ(172.5°)	-3.69/-4.7	-6.4/-8.1	-10.21/-11.65	-11.44/-10.73	-9.4/-8.73	-8.2/-7.79	-7.56/-7.84	-8.23/-8.43	-8.92/-10.64	-12.37/-12.92	-13.43/-14.21	-17.34/-19.38	-18.27/-17.23	-13.85/-12.27	-12.11/-13.41	-14.69/-13.34	-9.94/-7.46	-6.11/-5.51	-5.52/-5.69	-5.47/-4.76	-4.02/-3.72	-3.53/-3.24	-2.79/-2.77	-2.95/-3.07
Θ(180°)	-13.66/-15.02	-16.63/-17.77	-15.29/-13.53	-12.6/-11.64	-10.91/-11.32	-13.36/-16.04	-17.42/-19.33	-16.72/-13.88	-12.17/-10.93	-9.93/-10.53	-12.55/-14.8	-17.2/-18.36	-18.94/-18.6	-18.95/-15.37	-11.27/-8.88	-7.89/-7.35	-6.82/-6	-5.61/-5.07	-4.54/-4.2	-3.85/-3.75	-3.89/-4.16	-4.26/-5.02	-6.68/-9.14	-11.3/-13.14
Freq(Hz)	5.885G/Pol.	Theta/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-12.33/-12.16	-11.89/-13.19	-14.32/-16.35	-18.31/-17.33	-18.99/-19.36	-18.48/-17.88	-18.26/-17.48	-14.53/-13.05	-11.77/-11.11	-10.28/-9.91	-9.67/-9.72	-11.27/-13.11	-15.18/-14.94	-13.7/-15.02	-16.43/-17.11	-19.17/-18.87	-18.56/-18.7	-18.79/-18	-16.64/-15.41	-14.3/-12.59	-11.75/-11.34	-11.54/-11.83	-12.04/-11.6	-11.42/-12.05
Θ(7.5°)	-13.86/-14.43	-13.16/-12.74	-14.72/-18.12	-17.67/-19.15	-19.32/-18.17	-18.76/-18.27	-16.62/-14.15	-13.09/-12.25	-12.02/-11.7	-12.27/-13.25	-14.16/-15.11	-15.74/-16.17	-16.57/-14.85	-13.82/-14.65	-16.02/-17.21	-17.83/-19	-18.9/-18.06	-18.31/-17.27	-17.03/-16.42	-14.85/-13.81	-13.25/-13.03	-12.91/-12.82	-12.06/-12.69	-13.66/-13.38
Θ(15°)	-8.73/-8.55	-10/-11.38	-12.48/-12.31	-12.79/-14.91	-17.57/-18.13	-17.39/-18.52	-18.77/-18.96	-17.6/-18.95	-19/-19.27	-18.94/-18.4	-18.78/-16.99	-17.55/-18.08	-18.09/-18.65	-18.23/-18.8	-17.96/-16.43	-15.39/-14.38	-17.09/-15.82	-15.29/-13.76	-13.03/-13.77	-14.59/-15.11	-16.46/-16.59	-13.67/-11.12	-10.2/-9.4	
Θ(22.5°)	-4.44/-4.95	-6.34/-8.32	-10.05/-9.52	-9.38/-11.24	-13.69/-14.35	-13.35/-14.42	-16.69/-17.77	-17.69/-16.74	-14.18/-14.93	-17.67/-18.24	-18.01/-18.56	-14.83/-11.28	-9.6/-10.13	-11.9/-14.36	-16.25/-16.03	-13.41/-11.31	-10.95/-12.41	-15.46/-16.62	-15.49/-15.31	-17.47/-17.35	-16.98/-11.16	-8.21/-6.46	-5.04/-3.77	-3.62/-4.16
Θ(30°)	-5.16/-5.3	-5.25/-5.54	-6.01/-6.45	-6.18/-7.1	-9.14/-11.69	-13.13/-12.51	-13.61/-17.34	-16.31/-12.5	-11.23/-14.3	-18.96/-17.14	-13.27/-12.91	-12.63/-11.51	-10.49/-9.6	-9.04/-9.09	-9.08/-8.41	-8.44/-8.57	-9.19/-11.12	-12.85/-14.56	-12.56/-11.65	-15.65/-18.01	-12.47/-7.53	-5.29/-4.32	-4.21/-4.66	-5.29/-4.74
Θ(37.5°)	-7.23/-6.62	-7.04/-7.64	-7.21/-6.16	-5.03/-5.5	-7.04/-8.51	-9.09/-8.92	-9.22/-11.94	-14.36/-16.55	-18.54/-18.17	-11.3/-7.35	-7.44/-9.83	-11.54/-9.7	-8.72/-10.27	-12.09/-11.36	-9.47/-7.78	-7.75/-7.34	-6.06/-4.78	-6.59/-11.3	-16.32/-12.54	-13.32/-17.07	-11.74/-6.17	-4.32/-4.49	-5.14/-5.26	-4.97/-6.28
Θ(45°)	-8.65/-9.33	-8.54/-8.5	-9.68/-9.73	-7.82/-6.2	-5.17/-5.33	-6.64/-7.02	-7.35/-11.72	-16.59/-15.86	-17.07/-11.47	-5.77/-4.02	-4.89/-8.71	-11.48/-8.68	-8.72/-9.21	-8.05/-5.6	-4.74/-5.48	-6.57/-6.28	-4.98/-5.15	-5.93/-7.16	-8.17/-7.95	-11.43/-17.89	-9.93/-7.37	-6.5/-6.83	-9.2/-11.07	-9.51/-8.26
Θ(52.5°)	-7.37/-7.55	-6.72/-7.21	-6.69/-7.53	-10.61/-9.1	-4.98/-3.61	-4.03/-4.86	-5.79/-7.42	-7.41/-9.16	-18.62/-9.65	-5.63/-6.41	-5.41/-3.82	-3.39/-2.69	-4.53/-6.53	-5.59/-4.9	-4.14/-4.86	-6.12/-6.15	-4.91/-3.09	-3.47/-7.8	-13.16/-10.77	-11.09/-18.5	-8.51/-5.2	-3.95/-3.55	-5.61/-7.72	-8.34/-7.49
Θ(60°)	-2.85/-4.28	-3.47/-4.23	-4.92/-6.12	-8.72/-9.05	-7.56/-4.87	-3.78/-4.91	-4.06/-3.2	-4.56/-6.42	-14.63/-13.7	-6.6/-5.26	-3.36/-2.1	-3.5/-5.56	-11.03/-12.22	-9.6/-7.1	-5.32/-5.37	-4.83/-4.53	-5.55/-6.58	-6.31/-7.37	-9.33/-7.9	-9.86/-13.75	-6.87/-3.37	-4.09/-3.52	-4.53/-5.16	-4.67/-3.32
Θ(67.5°)	-1.89/-1.33	-1.83/-2.1	-2.86/-3.91	-5.06/-7.13	-12.34/-8.9	-5.08/-4.55	-4.15/-3.51	-4.62/-8.39	-19/-7.06	-6.93/-3.95	-0.91/-0.49	-4.55/-12.32	-17.16/-10.74	-7.41/-8.24	-7.5/-6.06	-5.45/-4.38	-4.79/-5.96	-5.14/-6.06	-8.49/-4.91	-5.27/-8.28	-4.09/-2.49	-4.21/-3.97	-3.72/-3.65	-1.8/-1.75
Θ(75°)	-4.17/-2.31	-3.53/-2.97	-3.31/-3.25	-3.4/-5.32	-8.46/-5.54	-1.83/-2.26	-4.44/-5.37	-9.94/-8.81	-4.88/-3.3	-5.14/-1.37	0.831/0.8	-2.87/-6.56	-7.13/-2.98	-2.33/-4.51	-4.02/-3.91	-4.3/-5.61	-4.9/-4.15	-4.56/-6.45	-5.91/-3.34	-4.92/-9.47	-5.32/-1.78	-6.19/-4.74	-3.37/-2.48	-1.55/-2.04
Θ(82.5°)	-3.02/-1.01	-2.06/-1.64	-2.93/-2.68	-2.39/-4.68	-10.77/-9.16	-3.33/-3.15	-6.01/-7.28	-4.81/-3.79	-4.34/-3.6	-4.61/-0.08	1.711/82	-3.28/-5.5	-3.49/0.14	0.3/-1.04	-1.47/-1.39	-1.59/-6.06	-7.97/-5.15	-4.35/-8.49	-5.44/-1.87	-3/-5.2	-1.68/-2.27	-6.44/-3.1	-0.95/-1.68	-1.1/-1.4
Θ(90°)	-2.9/0.25	-0.9/0.45	0.04/0.4	0.43/-2.11	-5.31/-5.22	-2.41/-3.51	-7.09/-7.21	-4.92/-4.91	-4.12/-2.44	-0.59/0.88	2.552/82	-1.7/-4.06	-6.61/0.22	0.54/-0.33	-0.38/-0.51	-1.24/-5.6	-10.35/-5.43	-2.77/-6.75	-4.06/-1.29	-2.63/-6.12	-0.34/-1.58	-9.49/-3.77	0/-2.02	-3.26/-1.63
Θ(97.5°)	-2.14/-0.02	-0.64/0.05	0.38/0.44	0.53/-2.19	-5.99/-4.94	-1.82/-2.52	-8.77/-7.03	-3.58/-2.8	-1.52/0.51	1.27/0.58	2.273/29	-2.84/-3.09	-7.7/0.38	-0.04/-2.45	-3.1/-1.81	-1.87/-5.24	-15.38/-6.92	-1.11/-8.07	-5.34/-2.49	-3.83/-6	-2.13/-4.07	-9.32/-3.06	-0.71/-1.18	-3.12/-0.96
Θ(105°)	-0.54/1.27	1.54/1.88	1.69/1.17	1.18/-0.14	-2.01/-2.56	-0.78/-2.41	-9.83/-4.85	-1.39/-2.28	1.38/1.85	2.50/46	1.43/0.9	-3.84/-6.24	-10.03/-1.25	-0.72/-3.61	-4.68/-2.6	-2.24/-4.38	-18.02/-9.26	-1.89/-7.67	-8.36/-2.97	-6.44/-8.66	-3.39/-5.89	-7.48/-2.61	-0.85/-2.39	-2.38/-1.67
Θ(112.5°)	-0.54/1.04	1.36/1.83	2.852/99	2.62/0.92	-1.16/-1.97	-1/-2.48	-6.46/-1.76	-0.19/-1.01	0.28/2.66	2.61/1.76	0.2/-0.89	-5.91/-7.85	-11.8/-2.99	-1.43/-3.31	-4.55/-2.06	-4.38/-7.08	-19.15/-15.63	-3.76/-12.4	-12.55/-2.64	-3.76/-4.76	-6.61/-7.39	-6.53/-3.82	-2.48/-1.91	-0.3/-0.38
Θ(120°)	1.512/79	3.64/4.28	4.383/87	2.26/0.61	-1.05/-0.7	-0.46/-1.39	-3.5/-3.52	-1.21/-2.24	-4.35/1.66	2.94/1.69	-0.08/-2.46	-8.99/-18.83	-12.44/-3.86	-4.32/-7.14	-4.73/-2.39	-4.25/-6.6	-18.06/-11.22	-5.89/-15.04	-7.25/-2.12	-4.59/-8.31	-8.26/-8.41	-6.36/-1.32	-0.69/-2.56	0.2/-0.17
Θ(127.5°)	2.94/4.37	4.85/4.7	5.12/4.59	2.94/0.62	0.95/1.79	1.3/-1.24	-7.25/-4.47	-1.74/-5.95	-4.44/0.02	0.73/0.05	-0.75/-1.13	-4.75/-16.26	-11.93/-4.71	-6.47/-6.92	-3.49/-6.92	-4.86/-17.52	-18.51/-7.32	-5.67/-10.97	-8.97/-3.48	-2.34/-7.57	-9.95/-6.23	-8.93/-1.08	-2.07/0.13	2.062/75
Θ(135°)	1.962/7.3	3.123/68	3.382/23	1.94/1.76	1.32/1.52	1.44/-0.95	-5.21/-5.57	-4.55/-5.07	-5.11/-2.82	-2.08/-3.58	-4.36/-3.38	-4.88/-4.46	-4.95/-11.47	-17.96/-14.75	-18.34/-12.72	-7.96/-9.77	-17.73/-6.5	-12.77/-8.88	-9.35/-11.88	-7.73/-12.03	-			



Appendix B

Freq(Hz)	2.4GPol.	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°)	-3.55/-3.55	-3.48/-3.41	-3.38/-3.37	-3.30/-3.14	-2.88/-2.64	-2.50/-2.42	-2.35/-2.22	-2.07/-2.03	-2.11/-2.25	-2.34/-2.40	-2.48/-2.62	-2.79/-2.91	-2.96/-2.87	-2.76/-2.70	-2.78/-2.82	-2.80/-2.65	-2.47/-2.32	-2.22/-2.09	-1.90/-1.78	-1.80/-1.93	-2.10/-2.26	-2.36/-2.47	-2.60/-2.85	-3.16/-3.40
Θ(7.5°)	-3.39/-3.30	-3.12/-2.98	-2.88/-2.76	-2.63/-2.40	-2.16/-1.97	-1.90/-1.89	-1.85/-1.75	-1.62/-1.58	-1.73/-1.92	-2.08/-2.23	-2.53/-2.95	-3.40/-3.73	-3.85/-3.80	-3.63/-3.54	-3.53/-3.56	-3.55/-3.41	-3.21/-3.02	-2.85/-3.26	-2.36/-2.16	-2.12/-2.16	-2.24/-2.28	-2.31/-2.37	-2.52/-2.82	-3.15/-3.33
Θ(15°)	-3.54/-3.25	-2.95/-2.70	-2.53/-2.42	-2.32/-2.20	-2.12/-2.09	-2.17/-2.28	-2.28/-2.18	-2.01/-2.01	-2.17/-2.37	-2.56/-2.79	-3.10/-3.58	-4.06/-4.43	-4.64/-4.67	-4.61/-4.71	-4.90/-5.06	-5.08/-4.88	-4.81/-4.33	-4.08/-3.74	-3.43/-3.21	-3.14/-3.15	-3.35/-3.41	-3.21/-3.22	-3.33/-3.56	-3.73/-4.32
Θ(22.5°)	-3.33/-3.69	-3.06/-2.59	-2.25/-2.08	-2.01/-2.02	-2.14/-2.44	-2.84/-3.15	-3.23/-3.13	-3.08/-3.12	-3.30/-3.52	-3.76/-4.05	-4.39/-4.78	-5.11/-5.40	-5.58/-5.74	-5.91/-6.24	-6.62/-6.86	-6.84/-6.61	-6.20/-6.67	-5.24/-4.84	-4.51/-4.26	-4.20/-4.24	-4.35/-4.48	-4.68/-4.88	-5.13/-5.33	-5.31/-4.93
Θ(30°)	-6.10/-4.82	-3.53/-2.51	-1.86/-1.60	-1.52/-1.63	-1.92/-4.27	-3.18/-3.78	-4.05/-4.10	-4.29/-4.62	-5.02/-5.34	-5.70/-6.11	-6.28/-6.34	-6.46/-6.74	-7.03/-7.24	-7.55/-7.94	-8.20/-8.30	-8.20/-7.81	-6.83/-6.24	-5.72/-5.32	-5.00/-4.86	-4.94/-5.18	-5.54/-6.02	-6.65/-6.38	-8.05/-8.34	-8.08/-7.17
Θ(37.5°)	-6.83/-4.89	-3.17/-1.83	-0.92/-0.48	-0.58/-0.58	-0.96/-1.57	-2.34/-3.09	-3.68/-4.21	-4.91/-5.72	-6.44/-6.91	-7.37/-7.58	-7.40/-7.18	-7.01/-7.69	-6.80/-7.09	-7.71/-8.26	-8.69/-8.92	-8.75/-8.73	-7.07/-6.26	-5.66/-5.31	-5.14/-5.18	-5.46/-6.02	-6.87/-8.07	-9.53/-10.99	-11.74/-11.34	-10.14/-8.52
Θ(45°)	-6.84/-4.72	-2.74/-1.23	-0.14/-0.43	-0.37/-0.41	-0.09/-0.32	-0.91/-1.61	-2.41/-3.26	-4.16/-4.87	-5.45/-6.26	-7.33/-8.38	-9.06/-9.02	-8.37/-5.71	-7.00/-6.88	-7.12/-7.61	-8.28/-9.08	-9.56/-9.14	-8.05/-6.89	-6.01/-5.42	-5.10/-5.14	-5.60/-6.52	-6.78/-10.27	-13.05/-15.57	-15.27/-14.29	-11.41/-8.93
Θ(52.5°)	-9.55/-6.61	-4.00/-1.92	-0.35/-0.56	0.90/-0.88	0.74/-0.52	0.06/-0.72	-1.69/-2.63	-3.20/-3.47	-3.63/-4.12	-5.16/-6.68	-8.35/-8.79	-7.89/-6.69	-5.98/-5.75	-5.91/-6.23	-6.79/-7.50	-8.17/-8.36	-7.89/-7.04	-6.04/-5.12	-4.54/-5.41	-5.07/-6.17	-7.82/-10.23	-13.66/-15.72	-14.92/-15.88	-13.52/-12.22
Θ(60°)	-12.17/-9.32	-5.86/-2.73	-0.35/-1.01	1.59/-1.71	1.73/-1.67	1.27/-0.39	-0.77/-1.90	-2.67/-2.72	-2.91/-4.17	-6.01/-7.82	-8.35/-7.70	-6.99/-6.50	-6.01/-5.50	-5.24/-5.49	-6.23/-7.32	-8.33/-8.10	-6.47/-4.68	-3.55/-3.18	-3.37/-3.94	-4.80/-6.02	-7.63/-9.47	-11.00/-11.94	-13.46/-13.46	
Θ(67.5°)	-8.43/-6.89	-4.73/-1.99	0.43/-1.88	2.52/-2.75	2.88/-2.94	2.61/-1.77	0.77/-0.02	-0.54/-0.71	-0.59/-0.56	-1.11/-2.50	-4.81/-7.96	-11.51/-12.05	-9.84/-7.30	-6.26/-4.71	-5.84/-8.12	-10.93/-9.36	-5.99/-3.72	-2.47/-1.87	-1.67/-1.85	-2.4				



Antenna Pattern

Appendix B

Θ (22.5°)	-1.69/-1.78	-2.25/-3.03	-3.22/-2.77	-2.09/-0.83	0 150/-97	1.45/-1.65	1.73/-1.61	1.55/-1.45	1.46/-1.22	1.03/-0.67	0.27/-0.29	-1.29/-2.22	-2.35/-2.78	-3.78/-4.25	-3.89/-3.72	-3.62/-3.35	-3.23/-3.41	-3.93/-4.04	-5.71/-6.17	-5.94/-4.99	-3.70/-2.75	-2.28/-2.04	-1.80/-1.49	-1.49/-1.82
Θ (30°)	-4.49/-4.22	-2.98/-2.48	-4.92/-6.77	-6.03/-3.43	-1.34/-0.34	1.37/-1.73	1.79/-1.53	1.32/-1.77	2.41/-2.70	2.72/-2.77	2.66/-2.77	1.08/-0.11	-1.11/-2.66	-5.66/-7.45	-5.97/-5.13	-4.72/-4.23	-4.66/-5.69	-6.11/-4.85	-4.19/-4.08	-3.94/-3.34	-3.25/-3.43	-3.53/-3.54	-3.08/-2.86	-2.96/-3.66
Θ (37.5°)	-2.80/-3.64	-4.13/-3.48	-3.41/-4.33	-4.55/-4.38	-3.06/-1.76	-0.81/-0.24	-0.17/-0.10	1.77/-1.32	2.54/-3.16	2.62/-7.70	2.50/-1.99	1.41/-0.43	-3.96/-4.29	-2.92/-1.94	-9.01/-5.19	-2.59/-2.64	-3.72/-4.69	-5.80/-3.69	-4.49/-4.58	-2.44/-2.26	-3.09/-5.62	-8.93/-8.00	-5.92/-4.37	-2.69/-2.69
Θ (45°)	-5.66/-6.81	-6.17/-6.65	-8.19/-9.86	-8.58/-6.42	-3.37/-1.16	-0.27/-0.00	-0.28/-0.87	-0.58/-0.34	1.62/-2.40	2.38/-2.03	1.81/-1.97	1.98/-0.91	-0.47/-1.16	-3.49/-8.60	-9.42/-4.34	-2.37/-3.02	-3.89/-4.60	-5.58/-5.24	-4.64/-3.82	-3.16/-4.75	-7.08/-6.18	-4.87/-5.35	-6.43/-6.69	-6.23/-5.89
Θ (52.5°)	-4.18/-6.08	-6.75/-6.21	-7.97/-7.68	-9.22/-11.06	-6.37/-3.86	-2.72/-2.67	-1.24/-0.35	0.52/-1.55	2.41/-2.77	2.96/-2.98	2.79/-2.84	2.72/-1.88	1.67/-1.21	-0.73/-3.41	-7.97/-4.50	-4.49/-3.69	-4.02/-5.60	-5.33/-5.24	-3.47/-1.64	-2.98/-4.98	-5.31/-6.37	-6.99/-6.01	-4.16/-3.48	-4.60/-5.07
Θ (60°)	-2.42/-2.59	-4.07/-3.86	-6.61/-6.74	-10.06/-9.56	-6.67/-4.87	-3.18/-2.19	-2.23/-1.21	-0.65/-0.24	1.06/-1.71	2.09/-2.13	2.03/-1.59	1.09/-0.84	-0.02/-2.01	-4.55/-6.01	-5.61/-3.50	-3.44/-4.87	-4.08/-2.97	-3.02/-5.04	-5.80/-4.95	-5.21/-5.83	-5.87/-5.09	-4.36/-3.69		
Θ (67.5°)	-1.75/-2.26	-2.23/-3.22	-6.25/-9.82	-9.25/-4.36	-3.46/-2.82	-2.53/-1.36	-0.59/-0.02	0.50/-0.55	1.23/-1.26	1.72/-2.42	2.81/-2.28	1.49/-0.91	0.82/-1.29	0.76/-0.04	-2.12/-7.93	-12.21/-6.36	-4.15/-3.43	-3.34/-2.77	-1.82/-1.21	-1.98/-3.31	-5.00/-6.44	-4.90/-4.74	-5.25/-5.81	-5.38/-3.24
Θ (75°)	-1.84/-1.73	-0.73/-0.96	-2.72/-5.82	-11.58/-6.23	-3.39/-1.99	-1.73/-0.55	-0.33/-0.20	-0.85/-0.93	-0.26/-0.75	1.90/-2.49	2.32/-1.51	-0.13/-1.32	-0.77/-2.04	0.61/-0.06	-2.26/-5.58	-12.42/-8.36	-5.37/-4.16	-2.72/-1.12	-1.72/-1.97	-0.80/-2.02	-3.10/-4.22	-5.53/-5.78	-6.92/-6.38	-5.92/-5.07
Θ (82.5°)	-1.60/-1.05	-1.21/-1.14	-2.13/-6.22	-9.02/-6.88	-4.33/-3.07	-2.44/-1.80	-0.92/-1.49	-1.21/-0.66	-0.76/-0.16	0.82/-1.59	0.92/-0.94	-2.93/-3.67	-2.36/-1.96	-0.31/-1.46	-2.06/-4.19	-11.38/-7.83	-6.39/-8.38	-3.18/-0.54	-0.82/-0.99	-1.05/-2.83	-1.92/-2.09	-4.98/-6.45	-6.27/-8.32	-4.85/-4.34
Θ (90°)	-6.30/-3.19	-1.44/-1.38	-2.65/-7.06	-5.81/-7.00	-3.86/-1.95	-2.79/-2.92	-1.25/-1.40	-5.03/-3.63	-0.55/-0.73	1.35/-1.17	1.03/-0.71	-2.47/-4.39	-1.80/-1.80	-1.14/-1.31	-1.59/-3.60	-9.66/-9.69	-3.52/-3.95	-3.50/-1.63	-2.09/-3.07	-1.17/-5.12	-3.35/-1.08	-2.17/-3.79	-7.51/-8.34	-6.75/-8.33
Θ (97.5°)	-5.56/-3.74	-2.43/-1.69	-2.68/-5.69	-4.61/-5.35	-3.95/-2.01	-1.50/-3.41	-4.42/-4.59	-4.17/-1.07	0.78/-1.72	1.17/-0.16	-0.34/-3.15	-5.47/-5.28	-1.11/-0.71	0.12/-1.26	-2.86/-3.71	-7.33/-7.49	-4.28/-6.02	-4.64/-3.49	-3.45/-4.44	-1.07/-6.29	-2.37/-5.59	-5.19/-5.20	-6.01/-4.57	-3.56/-6.35
Θ (105°)	-9.44/-7.31	-5.38/-4.26	-5.41/-5.83	-5.53/-7.42	-6.02/-2.26	-2.15/-6.75	-11.18/-8.53	-5.41/-2.56	0.41/-0.95	0.62/-0.26	-0.72/-3.67	-5.68/-5.61	-1.34/-2.77	-2.19/-1.41	-1.89/-3.65	-6.59/-6.55	-3.83/-7.58	-5.13/-3.51	-3.40/-6.74	-2.17/-5.81	-10.16/-4.96	-4.28/-5.91	-6.96/-5.59	-3.14/-6.44
Θ (112.5°)	-15.43/-8.10	-6.52/-3.56	-4.36/-5.30	-3.88/-2.25	-1.84/-0.40	-0.62/-4.68	-8.13/-5.56	-1.46/-0.39	0.70/-1.21	1.18/-1.06	0.50/-0.75	-2.21/-3.85	-2.65/-3.63	-0.64/-0.45	-2.27/-4.59	-7.92/-6.84	-4.20/-5.04	-5.79/-2.51	-1.66/-5.59	-1.64/-6.19	-9.47/-3.79	-2.76/-4.38	-6.01/-5.00	-2.84/-7.63
Θ (120°)	-12.93/-9.89	-8.00/-4.82	-3.56/-4.04	-4.95/-2.47	-1.95/-0.76	1.11/-0.94	-5.36/-3.71	-0.42/-1.01	2.57/-2.98	2.04/-1.4	-0.08/-0.29	-2.09/-4.22	-4.70/-6.39	-3.27/-1.18	-3.84/-5.28	-10.41/-8.56	-10.79/-3.39	-2.06/-1.43	-6.13/-5.58	-9.41/-4.49	-2.61/-5.80	-8.31/-6.64	-2.17/-3.00	
Θ (127.5°)	-15.92/-9.99	-6.53/-6.19	-9.86/-15.24	-4.73/-0.51	1.29/-1.54	1.38/-1.67	-3.43/-2.17	0.59/-1.81	2.52/-2.93	1.80/-0.73	0.02/-2.40	-3.38/-2.84	-2.70/-3.27	-2.72/-6.05	-6.45/-6.18	-7.31/-8.32	-9.06/-14.08	-1.84/-1.00	-1.17/-3.69	-3.77/-3.98	-9.94/-6.96	-3.39/-1.91	-5.52/-6.18	-4.88/-4.45
Θ (135°)	-6.21/-5.21	-5.40/-5.42	-8.20/-2.39	0.16/-0.81	0.99/-0.53	0.59/-1.27	-2.37/-0.93	1.09/-2.89	3.47/-2.52	1.76/-1.21	-0.17/-1.17	-1.82/-3.83	-5.20/-4.61	-3.09/-4.62	-11.45/-7.23	-7.36/-15.11	-7.39/-9.21	-8.05/-6.07	-1.92/-1.99	-3.03/-2.63	-4.30/-7.19	-4.87/-2.28	-3.20/-5.42	-6.19/-8.62
Θ (142.5°)	-0.99/-1.73	-4.01/-7.38	-7.36/-1.84	-0.58/-2.29	-3.92/-6.81	-1.74/-1.00	-0.31/-0.43	1.42/-2.36	2.63/-2.06	0.71/-1.33	-3.81/-6.01	-8.68/-4.09	-9.90/-10.28	-11.55/-19.10	-7.19/-14.04	-10.57/-11.04	-11.78/-9.37	-4.83/-6.23	-5.63/-5.95	-5.85/-3.36	-2.37/-5.59	-8.73/-11.32	-12.03/-14.06	-8.84/-2.79
Θ (150°)	-4.53/-6.48	-7.89/-8.70	-5.80/-2.00	-10.10/-4.44	-1.89/-1.97	-1.02/-0.53	-0.19/-0.19	-2.37/-1.19	0.89/-0.90	-0.44/-2.94	-6.83/-11.28	-14.52/-12.51	-10.73/-11.17	-10.26/-10.57	-14.37/-9.50	-6.59/-16.12	-6.26/-9.10	-10.33/-9.07	-7.33/-5.76	-6.14/-8.16	-10.95/-11.97	-8.92/-8.99	-5.56/-7.98	-5.79/-3.93
Θ (157.5°)	-5.41/-9.09	-8.04/-6.09	-5.66/-4.15	-2.37/-1.95	-2.60/-2.72	-2.26/-2.32	-2.24/-1.81	-1.51/-1.37	-1.21/-1.10	-1.04/-1.28	-1.76/-2.62	-3.80/-5.77	-7.74/-9.37	-10.89/-13.54	-11.31/-7.69	-6.16/-7.84	-12.86/-12.95	-7.84/-6.31	-6.73/-7.82	-9.82/-12.42	-13.81/-13.15	-11.18/-8.94	-6.39/-4.58	-3.30/-3.81
Θ (165°)	-7.92/-6.95	-5.32/-4.58	-4.46/-4.20	-4.20/-5.07	-6.10/-6.90	-7.33/-7.74	-7.60/-7.34	-7.15/-7.20	-6.75/-5.79	-4.61/-3.94	-3.63/-3.86	-4.74/-5.94	-6.09/-6.23	-7.59/-7.78	-6.78/-6.25	-7.32/-9.91	-12.25/-11.31	-10.78/-12.12	-13.79/-14.68	-12.72/-11.71	-12.06/-13.04	-11.65/-8.32	-6.53/-9.00	-6.73/-7.85
Θ (172.5°)	-14.18/-13.27	-11.55/-9.85	-8.83/-9.18	-8.81/-8.15	-7.11/-6.36	-5.99/-5.85	-5.26/-4.65	-4.23/-3.84	-3.30/-2.82	-2.55/-2.39	-1.95/-1.58	-1.63/-1.72	-1.68/-1.79	-2.34/-3.23	-4.85/-7.30	-10.61/-14.33	-15.57/-14.92	-14.49/-12.80	-11.78/-11.08	-9.93/-9.10	-8.44/-7.87	-7.27/-7.19	-7.93/-8.43	-9.47/-12.17
Θ (180°)	-9.44/-5.59	-6.42/-6.65	-7.34/-8.23	-8.02/-8.48	-5.88/-8.29	-8.25/-9.90	-7.57/-7.77	-8.23/-9.00	-9.90/-11.19	-12.41/-12.95	-13.90/-13.44	-12.94/-13.79	-15.42/-12.84	-9.82/-9.01	-12.90/-10.07	-11.31/-11.78	-10.91/-10.91	-10.69/-9.57	-8.27/-7.14	-6.24/-5.70	-5.51/-5.30	-4.99/-4.92	-5.23/-5.01	
Freq(Hz)	5.885GPol.	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°)	1.51/-1.37	1.42/-1.47	1.67/-1.57	1.49/-1.20	0.85/-0.49	0.27/-0.27	0.47/-0.54	0.66/-0.64	0.53/-0.41	0.33/-0.39	0.48/-0.63	0.69/-0.69	0.63/-0.74	1.11/-1.31	1.46/-1.52	1.39/-1.25	1.21/-1.34	1.48/-1.68	1.75/-1.75	1.80/-1.88	1.67/-1.52	1.52/-1.62	1.55/-1.54	1.65/-1.68
Θ (7.5°)	0.46/-0.76	1.12/-1.37	1.62/-1.68	1.81/-1.66	1.47/-1.54	1.67/-1.74	1.76/-1.90	2.05/-2.11	2.18/-2.08	1.96/-1.84	1.65/-1.38	1.23/-1.09	1.16/-0.89	0.81/-1.14	1.41/-1.35	1.20/-1.10	0.90/-0.67	0.57/-0.60	0.43/-0.19	0.01/-0.08	-0.30/-0.45	-0.38/-0.16	-0.01/-0.29	0.65/-0.65
Θ (15°)	-1.55/-1.12	-0.52/-0.18	0.60/-0.68	0.92/-1.13	1.19/-1.37	1.49/-1.48	1.51/-1.79	2.02/-2.11	2.10/-1.93	1.70/-1.39	1.03/-0.57	-0.06/-0.70	-1.10/-1.47	-1.74/-1.32	-0.43/-0.19	0.48/-0.48	0.54/-0.32	0.22/-0.01	-0.33/-0.61	-1.18/-1.55	-1.65/-1.76	-2.12/-2.52	-2.78/-2.56	-2.22/-1.96
Θ (22.5°)	-2.40/-3.28	-3.85/-3.66	-3.30/-2.77	-1.94/-0.87	-0.13/-0.56	0.92/-1.07	1.20/-1.30	1.45/-1.69	1.90/-2.09	2.18/-2.12	1.86/-1.08	0.16/-0.65	-1.64/-2.75	-3.17/-3.54	-3.75/-3.61	-2.99/-3.04	-3.07/-2.86	-2.94/-3.07	-3.62/-4.28	-4.79/-4.26	-3.32/-2.55	-1.96/-1.79	-2.24/-2.76	-2.50/-2.15
Θ (30°)	-3.50/-3.98	-4.57/-4.82	-4.45/-4.26	-4.27/-3.50	-2.37/-1.29	-0.24/-0.43	0.58/-0.63	1.44/-2.49	3.25/-6.65	3.70/-3.51	3.06/-2.31	1.38/-0.14	-1.14/-1.85	-3.34/-5.75	-6.96/-6.01	-5.08/-4.16	-3.01/-3.49	-4.92/-4.76	-3.74/-0.41	-4.45/-5.06	-3.80/-3.95	-3.70/-3.44	-3.48/-3.84	-3.95/-3.72
Θ (37.5°)	-4.34/-4.89	-6.15/-5.41	-6.71/-6.47	-6.47/-5.96	-4.26/-2.90	-1.76/-0.81	-0.43/-0.06	1.20/-2.65	3.72/-3.82	3.26/-2.60	2.27/-2.05	1.47/-0.29	-0.85/-2.49	-5.33/-8.00	-6.11/-4.87	-3.23/-2.27	-2.96/-4.21	-4.00/-2.86	-3.15/-3.52	-3.60/-3.48	-3.19/-4.46	-6.85/-8.92	-7.82/-5.82	-4.43/-4.06
Θ (45°)	-7.18/-6.14	-5.74/-5.73	-7.14/-8.50	-6.87/-6.52	-4.31/-3.86	-3.05/-2.27	-2.14/-1.41	0.01/-1.72	2.70/-2.66	2.11/-1.59	1.36/-1.31	1.26/-0.98	-0.68/-1.62	-2.87/-4.39	-8.40/-7.61	-3.60/-2.77	-2.26/-2.47	-3.41/-4.43	-3.26/-3.30	-3.31/-3.52	-4.79/-5.61	-3.77/-3.43	-4.01/-5.72	-8.68/-8.18
Θ (52.5°)	-4.88/-6.08	-5.55/-5.93	-7.47/-7.75	-10.93/-11.05	-7.62/-4.90	-3.56/-1.95	-0.56/-0.10	0.70/-1.68	2.09/-1.94	1.71/-1.48	1.42/-1.41	1.64/-1.31	0.70/-0.56	-0.59/-2.71	-5.58/-8.31	-6.84/-3.57	-2.58/-4.64	-6.42/-5.29	-4.72/-2.11	-1.92/-4.06	-4.67/-4.23	-4.44/-4.42	-3.43/-3.29	-5.07/-5.49
Θ (60°)	-4.70/-4.99	-5.38/-5.00	-8.40/-9.21	-13.11/-9.19	-7.23/-5.66	-3.68/-3.20	-1.75/-0.54	-0.06/-0.39	0.45/-0.43	0.94/-1.90	2.42/-2.51	2.28/-1.29	0.28/-0.51	0.65/-1.01	-2.37/-5.62	-5.79/-4.01	-3.90/-4.67	-4.52/-4.19	-2.92/-3.10	-3.82/-5.82	-6.96/-4.63	-3.94/-4.27	-4.66/-4.53	-5.02/-5.19
Θ (67.5°)	-1.46/-1.44	-1.69/-3.48	-6.34/-6.47	-6.27/-4.57	-4.51/-4.79	-3.24/-1.12	-0.38/-0.03	0.15/-0.32	1.03/-1.03	1.42/-2.35	2.11/-1.38	0.63/-0.33	-0.02/-0.14	-0.40/-0.86	-2.16/-5.33	-8.85/-6.53	-4.53/-3.66	-2.27/-1.57	-1.33/-0.90	-1.00/-2.58	-3.66/-3.84	-3.60/-3.55	-3.26/-3.68	-3.42/-2.33
Θ (75°)	-0.41/-0.41	-1.00/-2.52	-4.73/-7.99	-12.96/-6.45	-4.17/-3.60	-1.31/-0.26	0.59/-0.56	-0.04/-0.39	0.07/-0.44	1.55/-2.39	2.38/-1.38	-0.53/-2.42	-1.94/-1.06	0.13/-0.48	-7.87/-9.07	-7.07/-5.07	-3.21/-1.02	-1.00/-1.46	-0.77/-1.42	-2.85/-4.12	-5.65/-6.04	-5.64/-6.60	-3.86/-2.81	



Antenna Pattern

Appendix B

Θ (67.5°)	-0.55/-2.45	-1.21/-1.88	-3.73/-2.60	-3.39/-5.36	-5.32/-4.72	-4.84/-5.85	-5.53/-5.14	-2.84/-2.77	-4.29/-6.38	-6.80/-6.50	-5.26/-2.18	-0.03/0.85	1.99/2.95	3.16/2.76	1.86/1.24	1.21/0.35	1.33/1.17	0.08/-0.26	-0.31/0.05	0.82/0.89	0.53/-0.83	-1.87/-1.29	-0.29/0.05	0.22/0.46
Θ (75°)	0.14/-3.41	-1.72/-1.95	-5.80/-3.18	-4.98/-5.45	-4.72/-3.97	-2.91/-2.90	-3.28/-3.57	-2.64/-2.61	-4.25/-2.87	-7.70/-5.14	-4.80/-3.08	-0.98/-0.38	0.74/2.54	3.06/2.27	1.58/1.23	1.45/0.63	2.03/1.57	0.50/-0.20	-0.41/0.59	1.60/1.31	0.29/-0.82	-0.22/0.41	0.47/-0.28	-0.83/-0.49
Θ (82.5°)	0.72/-3.49	-1.95/-1.75	-7.68/-3.68	-7.45/-6.86	-6.07/-4.45	-2.52/-1.37	-1.76/-2.46	-2.05/-2.50	-3.74/-7.26	-1.76/-2.46	-5.44/-3.78	-1.40/-1.08	0.18/2.33	2.80/1.75	1.01/1.10	1.20/1.26	2.86/1.94	1.15/-0.91	-0.41/0.62	1.74/1.70	-0.14/-1.49	0.25/1.36	0.26/-1.95	-3.11/-0.26
Θ (90°)	1.35/-1.54	-1.60/-0.29	-7.48/-3.27	-7.83/-4.64	-5.35/-4.22	-1.98/-0.85	-2.02/-2.61	-1.67/-2.68	-3.65/-6.24	-6.19/-3.51	-3.92/-2.68	-1.58/-2.09	-0.51/1.75	2.01/0.78	0.30/0.71	0.90/1.24	1.83/1.97	0.70/0.61	-1.03/-0.19	0.84/0.37	-0.86/-1.25	1.17/2.19	1.01/-1.16	-2.14/0.12
Θ (97.5°)	0.97/-1.18	-0.00/-0.11	-7.11/-4.14	-6.36/-3.12	-4.40/-4.74	-2.09/-0.29	-0.75/-2.18	-1.34/-1.57	-3.18/-6.54	-5.55/-3.36	-3.42/-1.78	-2.52/-3.82	-1.49/0.05	0.36/0.14	-0.73/-0.80	-0.90/-0.65	-0.03/1.53	0.25/-0.88	-1.27/-0.97	-0.87/-2.74	-3.26/-1.38	0.36/1.26	-0.76/-0.49	-2.02/0.91
Θ (105°)	-0.45/-2.19	-0.53/-0.38	-6.96/-5.39	-6.51/-3.63	-3.52/-5.58	-2.32/-0.12	-0.49/-2.12	-2.64/-3.79	-3.91/-6.02	-7.23/-4.52	-4.30/-3.75	-4.32/-4.23	-3.11/-2.17	-1.30/-0.99	-2.08/-3.03	-3.56/-1.87	-0.51/-0.36	-2.35/-3.71	-4.04/-2.35	-3.88/-8.55	-7.21/-3.53	-1.29/-0.73	-3.16/-6.27	-4.16/-0.93
Θ (112.5°)	-0.97/-0.50	-0.67/-1.25	-5.89/-7.98	-6.04/-2.56	-2.82/-4.71	-2.00/-0.29	-0.45/-2.55	-3.21/-2.47	-4.27/-8.71	-6.78/-4.65	-4.18/-3.54	-6.12/-6.74	-5.55/-5.19	-4.34/-3.44	-3.52/-5.73	-5.46/-2.05	-0.14/-0.88	-2.83/-4.95	-4.19/-2.94	-4.04/-9.60	-8.20/-4.23	-3.13/-3.89	-5.42/-8.69	-8.27/-4.19
Θ (120°)	-4.27/-2.51	-6.35/-4.59	-6.74/-7.93	-4.66/-3.31	-3.62/-4.01	-2.38/0.12	-0.56/-2.72	-3.48/-4.26	-6.08/-7.70	-8.70/-7.66	-4.61/-4.86	-6.97/-8.54	-13.01/-14.13	-9.59/-8.83	-4.77/-9.01	-6.92/-1.61	0.06/-1.76	-2.96/-5.52	-4.79/-4.27	-4.46/-9.73	-10.40/-7.03	-1.92/-2.99	-6.68/-12.32	-14.04/-13.50
Θ (127.5°)	-7.12/-4.66	-10.02/-5.99	-6.82/-6.21	-4.04/-2.94	-3.38/-3.96	-3.06/-2.41	-1.71/-3.24	-5.14/-6.38	-10.03/-8.89	-8.05/-8.73	-7.98/-6.84	-7.29/-8.01	-8.52/-10.28	-7.56/-6.53	-9.43/-12.14	-7.42/-3.58	-3.24/-3.38	-3.53/-6.00	-6.35/-6.00	-4.04/-6.82	-14.03/-12.12	-5.65/-5.10	-12.84/-15.79	-13.62/-14.61
Θ (135°)	-12.68/-8.40	-8.26/-6.54	-6.64/-5.37	-4.69/-5.27	-5.10/-5.66	-3.27/-2.55	-3.03/-3.51	-6.40/-7.71	-8.43/-9.03	-10.42/-8.81	-6.90/-6.70	-8.19/-7.55	-6.99/-9.98	-8.44/-5.92	-7.91/-13.43	-8.94/-9.48	-6.72/-6.31	-5.86/-9.04	-11.23/-9.62	-7.62/-8.74	-13.80/-7.75	-11.92/-7.22	-7.66/-12.08	-11.59/-16.00
Θ (142.5°)	-9.55/-4.87	-4.09/-5.00	-5.64/-6.15	-7.27/-7.40	-5.70/-3.43	-3.26/-4.29	-3.51/-5.09	-6.16/-7.56	-9.33/-9.18	-8.84/-8.40	-9.27/-9.75	-9.06/-8.64	-9.35/-9.27	-8.36/-7.73	-6.39/-5.71	-8.89/-12.82	-10.27/-11.25	-9.66/-13.97	-13.69/-11.71	-9.30/-7.50	-12.84/-9.62	-10.19/-11.35	-9.79/-13.81	-14.13/-15.54
Θ (150°)	-8.51/-6.33	-6.07/-8.16	-8.90/-10.03	-10.33/-11.11	-8.61/-5.92	-5.24/-7.02	-4.86/-6.11	-6.92/-7.62	-7.37/-7.61	-7.32/-7.63	-8.07/-8.33	-9.34/-10.47	-12.18/-14.38	-14.44/-14.35	-15.83/-14.89	-14.99/-12.75	-12.15/-12.68	-15.25/-14.36	-13.74/-15.43	-15.70/-15.49	-15.28/-13.89	-14.45/-15.43	-14.58/-15.38	-15.09/-10.62
Θ (157.5°)	-11.56/-12.03	-12.93/-12.16	-10.74/-10.17	-10.04/-8.95	-7.70/-6.47	-6.08/-6.54	-7.27/-8.43	-10.08/-11.68	-13.15/-14.38	-12.34/-10.20	-8.49/-7.92	-7.43/-7.45	-7.96/-9.21	-10.87/-12.41	-12.09/-12.30	-14.40/-15.18	-16.01/-15.55	-15.86/-15.97	-15.52/-15.56	-14.31/-13.49	-13.05/-12.27	-12.43/-14.22	-12.37/-13.76	-14.09/-12.28
Θ (165°)	-11.02/-13.19	-14.96/-14.47	-14.90/-13.82	-11.20/-9.17	-8.43/-8.96	-9.21/-10.14	-11.75/-12.25	-11.59/-10.51	-9.02/-7.41	-6.59/-6.44	-6.39/-6.49	-6.45/-6.70	-7.32/-8.05	-9.13/-10.50	-12.36/-15.15	-15.02/-15.09	-14.66/-14.95	-15.93/-15.50	-13.00/-12.50	-13.23/-15.03	-15.41/-15.60	-15.16/-15.22	-15.19/-13.23	-12.18/-11.34
Θ (172.5°)	-15.01/-13.27	-12.49/-12.76	-12.71/-12.86	-13.58/-14.27	-13.97/-13.45	-13.94/-14.59	-14.64/-16.18	-15.80/-15.23	-15.46/-16.00	-15.59/-16.54	-15.80/-14.59	-14.13/-13.19	-13.27/-13.19	-14.10/-16.17	-15.28/-14.58	-13.78/-13.50	-14.10/-15.73	-15.64/-14.41	-13.56/-13.27	-14.86/-15.35	-15.99/-14.68	-15.42/-15.34	-15.33/-15.57	-15.28/-15.64
Θ (180°)	-15.57/-15.38	-15.64/-14.03	-13.63/-13.73	-13.59/-12.15	-11.68/-11.81	-12.17/-12.94	-12.75/-13.08	-13.31/-12.83	-12.88/-12.82	-12.07/-11.86	-11.29/-11.28	-11.18/-11.12	-10.78/-10.20	-9.49/-8.42	-7.76/-7.55	-7.84/-8.51	-9.35/-10.28	-10.82/-11.06	-11.45/-12.55	-13.20/-13.10	-12.60/-11.93	-11.35/-10.93	-11.12/-11.96	-14.20/-14.67
Freq(Hz)	5.65GPol.	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°)	4.69/-4.40	4.44/-4.85	-4.73/-4.35	-3.83/-3.75	-4.01/-3.95	-4.03/-4.35	-4.31/-4.53	-4.60/-4.55	-4.52/-4.10	-3.71/-3.49	-3.37/-3.41	-3.79/-4.32	-4.94/-5.40	-5.52/-5.09	-5.01/-5.05	-4.83/-4.51	-4.20/-4.41	-4.36/-4.26	-4.01/-4.07	-4.09/-4.28	-4.17/-4.15	-4.39/-4.49	-4.48/-4.58	-4.62/-4.50
Θ (7.5°)	-4.26/-4.08	-4.08/-4.47	-4.45/-5.46	-4.47/-4.75	-4.95/-4.94	-4.83/-4.66	-4.51/-4.49	-4.75/-4.90	-4.66/-3.48	-3.92/-3.83	-3.82/-3.87	-3.83/-3.84	-3.97/-4.12	-4.23/-5.48	-4.57/-4.47	-4.36/-4.40	-4.03/-3.71	-3.54/-3.55	-3.42/-3.53	-3.69/-3.69	-3.59/-3.76	-3.99/-4.10	-3.76/-3.43	-3.82/-4.13
Θ (15°)	-2.24/-2.38	-2.01/-1.92	-2.15/-2.13	-4.10/-5.29	-6.19/-6.88	-7.56/-7.66	-7.22/-6.85	-6.45/-5.83	-5.09/-4.62	-4.13/-3.82	-3.62/-3.57	-3.46/-3.15	-2.29/-2.59	-2.39/-2.55	-2.81/-2.91	-3.00/-3.04	-2.90/-2.75	-2.47/-2.27	-2.01/-2.04	-2.29/-2.43	-2.67/-2.77	-2.80/-2.46	-2.47/-2.52	
Θ (22.5°)	-0.74/-1.27	-1.41/-1.70	-2.24/-2.77	-3.64/-4.82	-6.35/-7.98	-10.49/-13.56	-13.98/-14.61	-13.64/-10.83	-8.63/-6.69	-5.69/-4.82	-4.29/-3.93	-3.54/-3.23	-3.10/-3.17	-3.33/-3.32	-2.99/-2.52	-2.11/-1.47	-1.01/-0.90	-0.99/-1.11	-1.13/-0.83	-0.36/-0.22	-0.18/-0.15	-0.15/-0.19	-0.38/-0.57	-0.74/-0.73
Θ (30°)	-1.19/-1.02	-1.23/-1.69	-2.39/-3.40	-4.21/-4.69	-6.01/-7.93	-10.86/-15.19	-15.17/-14.90	-14.61/-12.86	-11.24/-8.74	-6.95/-5.89	-5.06/-4.40	-3.75/-3.36	-3.27/-3.43	-3.88/-4.00	-3.55/-4.21	-1.56/-0.77	-0.51/-0.50	-1.13/-1.19	-0.58/0.84	1.58/1.87	2.05/2.14	1.94/1.38	0.60/-0.38	-1.17/-1.51
Θ (37.5°)	-2.64/-2.54	-2.65/-3.18	-1.68/-1.10	-5.25/-6.52	-7.94/-9.97	-11.68/-12.10	-11.15/-11.73	-11.62/-11.65	-12.00/-10.81	-9.69/-8.00	-6.86/-5.31	-3.97/-3.66	-3.41/-2.48	-1.37/-1.04	-1.41/-1.44	-1.16/-1.01	-0.58/0.03	0.49/0.79	1.07/1.89	2.70/2.77	3.27/1.80	1.00/-0.31	-1.92/-2.86	
Θ (45°)	-3.64/-3.62	-4.49/-6.42	-7.41/-6.35	-5.83/-6.97	-8.77/-10.95	-11.02/-9.26	-7.57/-10.9	-7.46/-8.72	-9.23/-8.79	-7.95/-7.03	-5.62/-3.58	-1.76/-1.19	-1.58/-1.59	-0.63/0.10	-0.12/-0.68	-1.25/-2.13	-3.00/-2.32	-0.64/0.47	0.84/0.90	1.31/2.07	2.68/2.80	2.84/2.97	2.53/1.08	-1.16/-3.08
Θ (52.5°)	-2.70/-2.95	-2.72/-3.94	-6.05/-6.10	-7.19/-9.27	-10.08/-10.53	-10.72/-10.03	-9.24/-6.69	-5.28/-5.20	-5.73/-5.54	-6.59/-5.89	-5.16/-5.15	-4.23/-1.90	0.02/0.78	1.07/1.45	1.72/1.55	0.76/-0.26	-0.48/-1.66	-3.78/-2.70	-1.32/-0.60	-0.02/0.53	1.28/1.69	1.84/1.75	1.06/0.36	0.36/0.29
Θ (60°)	-2.11/-2.77	-1.51/-1.79	-3.67/-4.46	-7.49/-11.79	-10.84/-9.63	-9.02/-8.92	-8.95/-6.05	-4.47/-3.84	-5.37/-7.93	-6.95/-4.39	0.46/0.77	1.17/1.81	1.81/1.75	1.53/0.72	1.08/-0.18	-1.74/-1.20	-1.10/-0.38	0.80/1.74	2.12/2.28	2.28/1.55	0.36/0.43	-0.85/-1.32	-1.48/-1.53	
Θ (67.5°)	-1.18/-2.54	-1.22/-2.19	-4.47/-4.62	-6.72/-8.63	-7.91/-8.47	-8.08/-7.97	-7.87/-5.18	-3.42/-3.17	-4.39/-7.62	-7.93/-4.40	-2.54/-0.29	1.48/1.58	1.55/2.32	2.58/2.07	1.69/1.17	1.59/0.13	-0.23/0.63	0.12/0.55	1.14/2.12	2.93/3.30	2.99/1.97	0.22/-0.60	-0.31/-0.81	-0.81/-0.09
Θ (75°)	-1.25/-4.55	-1.92/-2.96	-5.49/-5.25	-7.67/-5.56	-4.14/-3.78	-3.69/-4.49	-5.62/-5.62	-2.44/-3.46	-5.19/-8.67	-10.77/-6.31	-3.68/-1.58	1.20/1.64	1.20/2.19	2.69/1.91	1.16/1.23	1.83/0.86	0.86/1.38	0.09/-0.09	1.01/2.65	3.52/3.63	3.20/1.83	0.30/-0.65	-0.60/-1.02	-0.48/0.67
Θ (82.5°)	-1.78/-5.75	-2.28/-2.37	-4.84/-3.41	-7.48/-5.35	-4.72/-2.91	-1.85/-2.77	-4.33/-3.24	-2.32/-3.89	-5.28/-6.67	-10.69/-5.56	-4.09/-2.64	0.37/0.52	0.18/1.82	2.07/0.42	-0.74/0.87	1.99/1.41	1.43/1.30	0.42/0.39	0.94/2.69	3.38/3.60	3.27/1.67	0.31/0.16	0.08/-1.61	-1.58/-0.03
Θ (90°)	-1.30/-3.79	-1.44/-0.99	-4.74/-3.60	-8.87/-4.47	-4.81/-2.75	-0.93/-1.24	-8.87/-4.12	-6.28/-2.36	-2.11/-4.12	-6.76/-8.41	-8.74/-4.13	-4.40/-3.60	-0.82/-1.80	-1.42/0.67	0.55/-0.65	-1.52/0.54	1.65/1.40	0.10/0.25	0.67/-0.69	0.33/1.42	2.18/2.80	2.20/0.67	0.58/0.83	0.14/-1.39
Θ (97.5°)	-2.73/-2.36	-1.71/-1.26	-5.85/-5.56	-10.49/-4.28	-5.57/-1.97	0.11/-0.43	-2.78/-2.66	-2.03/-4.30	-5.84/-6.70	-7.24/-3.79	-5.46/-3.75	-1.19/-3.01	-1.57/0.20	-0.86/-1.99	-3.51/-2.00	-0.68/-0.55	-1.18/-0.35	-1.11/-2.70	-1.04/0.76	0.84/0.45	-0.04/-1.52	-1.21/-0.43	-1.32/-2.77	-2.16/-2.42
Θ (105°)	-2.73/-1.98	-1.59/-2.52	-7.93/-7.00	-9.25/-3.90	-6.76/-3.86	-1.19/-0.53	-2.05/-2.01	-2.18/-4.34	-6.88/-8.18	-6.84/-5.17	-7.90/-5.84	-3.82/-4.96	-3.15/-1.33	-1.86/-1.59	-4.04/-0.43	-3.54/-3.22	-3.66/-2.41	-3.44/-5.06	-2.99/-1.28	-1.97/-4.48	-5.57/-6.12	-3.75/-1.99	-3.15/-0.65	-4.62/-3.19
Θ (112.5°)	-2.20/-2.50	-4.12/-4.30	-1.66/-12.99	-8.58/-4.99	-5.38/-4.25	-1.76/-0.88	-2.46/-2.98	-3.09/-6.24	-6.66/-8.71	-4.70/-4.06	-6.11/-7.21	-7.27/-7.46	-3.66/-1.47	-1.86/-2.58	-4.13/-3.61	-3.33/-4.77	-4.10/-6.49	-6.87/-2.53	-3.13/-5.85	-6.84/-6.75	-3.81/-2.53	-3.79/-5.96	-3.72/-5.36	
Θ (120°)	-3.20/-5.70	-10.37/-6.68	-9.29/-6.69	-5.70/-5.31	-5.85/-6.56	-3.62/-0.97	-1.56/-2.71	-4.53/-5.55	-6.24/-7.62	-5.77/-5.37	-5.72/-6.26	-15.81/-15.75												



Antenna Pattern

Appendix B

Θ (120°)	-11.56/-9.37	-8.07/-6.54	-4.22/-2.60	-2.39/-2.97	-2.58/-1.17	-0.14/0.14	-0.38/-1.80	-3.39/-2.69	-0.63/0.53	0.77/0.44	-0.23/-1.17	-2.00/-2.22	-1.81/-1.21	-0.55/0.28	1.51/2.72	3.46/3.31	1.96/-0.83	-4.96/-5.61	-4.01/-2.69	-1.38/-1.57	-2.13/-2.29	-2.13/-2.23	-3.48/-6.44	-12.30/-14.82
Θ (127.5°)	-7.65/-7.45	-6.75/-4.35	-2.03/-0.97	-1.50/-3.70	-5.76/-4.71	-3.11/-2.70	-3.71/-6.13	-7.03/-3.84	-0.79/0.93	1.60/1.27	0.03/-1.65	-2.68/-2.51	-2.05/-1.73	-1.19/-0.01	1.57/2.93	3.53/-3.11	1.48/-1.36	-4.79/-5.89	-4.77/-3.61	-3.43/-4.34	-5.88/-7.30	-7.77/-8.23	-9.15/-10.09	-9.44/-7.87
Θ (135°)	-5.09/-5.42	-4.80/-3.38	-2.18/-1.96	-2.99/-4.82	-5.50/-3.83	-2.52/-2.41	-3.47/-5.22	-5.42/-3.07	-0.53/1.11	1.81/1.58	0.44/-1.39	-3.32/-4.58	-5.21/-5.87	-5.17/-2.66	0.08/1.96	2.79/2.52	1.29/-0.59	-2.73/-4.78	-6.45/-7.00	-6.17/-4.75	-4.11/-4.19	-5.08/-5.75	-5.43/-4.68	-4.22/-2.47
Θ (142.5°)	-5.52/-5.87	-5.71/-5.13	-4.85/-5.14	-5.53/-4.87	-3.15/-1.53	-0.65/-0.51	-0.95/-1.56	-1.65/-0.89	0.19/0.95	1.03/0.21	-1.42/-3.89	-6.71/-9.82	-13.74/-14.50	-9.10/-3.87	-0.52/1.33	2.07/1.92	1.05/-0.21	-1.73/-3.26	-4.16/-3.86	-2.90/-1.96	-1.50/-1.62	-2.38/-3.48	-4.47/-4.87	-4.98/-5.17
Θ (150°)	-7.97/-7.77	-7.72/-8.02	-8.60/-8.87	-7.74/-5.43	-3.30/-1.76	-0.91/-0.57	-0.55/-0.58	-0.40/-0.06	0.56/0.78	0.55/-0.18	-1.41/-3.20	-5.56/-8.62	-12.50/-14.84	-9.99/-5.29	-2.31/-0.63	0.03/-0.13	-0.86/-1.83	-2.90/-3.92	-4.54/-4.52	-3.92/-3.24	-2.85/-2.85	-3.53/-4.84	-6.78/-8.53	-9.16/-8.75
Θ (157.5°)	-11.15/-10.42	-10.39/-10.89	-11.38/-10.88	-9.01/-6.93	-4.97/-5.37	-2.79/-2.43	-2.32/-2.27	-2.09/-1.82	-1.58/-1.66	-0.73/-0.29	-2.17/-3.07	-4.37/-6.29	-8.69/-10.92	-10.63/-8.19	-5.61/-3.53	-2.06/-1.29	-1.19/-1.53	-2.10/-2.62	-3.14/-3.60	-3.98/-4.20	-3.83/-4.01	-4.42/-4.50	-7.26/-9.97	-12.52/-12.85
Θ (165°)	-14.83/-14.66	-15.06/-15.03	-14.52/-13.12	-11.19/-9.28	-8.00/-7.34	-6.82/-6.83	-7.19/-7.68	-7.96/-7.54	-7.38/-7.69	-8.51/-9.40	-10.84/-11.55	-10.47/-8.44	-6.53/-4.88	-3.51/-2.51	-1.85/-1.56	-1.62/-1.92	-2.22/-2.42	-2.59/-2.75	-2.97/-3.27	-3.54/-3.95	-4.36/-4.90	-5.63/-6.69	-8.52/-11.37	-14.03/-15.27
Θ (172.5°)	-15.28/-15.30	-15.93/-15.81	-15.27/-14.96	-15.07/-13.64	-12.81/-12.63	-12.35/-12.80	-13.93/-16.16	-15.11/-15.49	-15.58/-15.05	-15.05/-12.57	-10.24/-8.28	-6.59/-5.17	-4.13/-3.44	-3.07/-2.90	-2.92/-3.04	-3.28/-3.56	-3.73/-3.77	-3.82/-3.95	-4.06/-4.24	-4.73/-5.12	-5.67/-6.33	-7.16/-8.21	-9.86/-12.26	-13.94/-15.13
Θ (180°)	-14.21/-14.82	-14.48/-13.57	-12.74/-12.11	-11.10/-10.46	-9.96/-9.68	-9.20/-9.04	-8.67/-8.60	-8.32/-8.19	-8.08/-7.75	-7.36/-6.95	-6.49/-5.87	-5.15/-4.40	-3.69/-3.28	-3.28/-3.60	-4.16/-4.85	-5.58/-6.12	-6.54/-6.78	-6.92/-6.89	-7.00/-7.47	-7.51/-7.62	-7.89/-8.36	-8.99/-9.91	-11.30/-12.52	-13.45/-14.14
Freq(Hz)	5.2GPol.	TotalAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-0.86/-0.99	-0.71/-0.42	-0.22/-0.21	-0.66/-0.51	-0.40/-0.65	-0.69/-0.64	-0.73/-0.89	-0.85/-0.84	-0.92/-0.80	-0.50/-0.51	-0.63/-0.77	-0.86/-0.78	-0.62/-0.57	-0.65/-0.65	-0.72/-0.76	-0.95/-0.97	-0.85/-0.68	-0.89/-1.1	-0.87/-0.73	-0.90/-1.30	-1.44/-1.68	-1.54/-1.33	-1.26/-0.91	-
Θ(7.5°)	-1.25/-1.45	-1.42/-1.42	-1.13/-0.76	-0.93/-1.09	-0.85/-0.67	-0.82/-1.22	-1.15/-1.18	-1.44/-1.62	-1.62/-1.40	-1.33/-0.98	-0.55/-0.24	0.02/-0.02	-0.02/0.06	0.10/0.15	0.11/0.09	0.01/0.01	-0.13/-0.10	0.03/0.03	-0.20/-0.28	-0.28/-0.39	-0.56/-0.77	-0.91/-1.27	-1.45/-1.51	-1.61/-1.28
Θ(15°)	-1.37/-1.31	-1.07/-0.71	-0.14/-0.24	-0.36/-0.85	-0.56/-0.59	-0.88/-1.12	-1.25/-1.33	-1.41/-1.27	-0.96/-0.39	0.03/0.33	0.66/0.90	0.84/0.77	0.70/0.64	0.55/0.54	0.48/0.50	0.51/0.57	0.64/0.62	0.32/-0.03	-0.20/-0.37	-0.55/-0.77	-1.02/-1.20	-1.63/-1.69	-1.77/-1.47	-
Θ(22.5°)	-2.27/-1.98	-1.42/-0.61	0.05/0.44	0.15/-0.65	-0.88/-1.57	-1.95/-1.71	-1.87/-1.57	-0.82/-1.05	0.72/1.21	1.67/1.62	1.47/1.27	1.12/1.02	1.10/1.26	1.29/1.12	0.90/0.76	0.53/0.44	0.58/0.82	1.02/0.96	0.54/-0.07	-0.64/-1.13	-1.60/-2.04	-2.32/-2.65	-3.39/-3.44	-3.38/-2.67
Θ(30°)	-4.18/-2.59	-1.36/-0.51	0.00/0.32	0.56/-0.20	-1.18/-2.78	-4.32/-3.97	-3.15/-2.27	-1.05/-0.27	0.45/1.08	1.55/1.46	0.83/-0.01	-0.69/-0.98	-1.02/-1.01	-1.03/-1.01	-0.89/-0.69	-0.79/-0.85	-0.75/-0.34	0.16/0.29	-0.29/-1.41	-2.85/-3.98	-4.84/-5.16	-5.16/-5.26	-5.44/-5.57	-5.44/-5.09
Θ(37.5°)	-4.64/-3.31	-0.43/-0.33	-0.08/-0.35	-0.20/-0.69	-1.69/-3.21	-4.18/-4.05	-2.80/-1.21	-0.17/-0.03	-0.43/-0.80	-0.68/-0.56	-0.94/-1.76	-2.50/-2.81	-3.06/-3.59	-4.23/-4.45	-3.97/-3.92	-2.18/-1.84	-1.79/-1.27	-0.85/-1.10	-1.82/-3.17	-4.61/-6.41	-7.43/-5.71	-5.12/-5.39	-5.65/-5.21	-4.66/-3.48
Θ(45°)	-3.03/-2.46	-1.63/-0.90	1.32/0.90	0.77/0.53	-0.26/-1.38	-1.77/-2.21	-2.81/-1.94	-0.79/-0.22	-0.39/-1.02	-1.37/-0.98	-1.02/-2.50	-0.47/-3.87	-3.04/-3.76	-6.12/-8.12	-6.67/-4.84	-3.76/-2.74	-1.58/-0.48	-0.51/-1.24	-1.73/-3.00	-5.97/-9.30	-8.38/-6.74	-6.19/-5.76	-4.18/-2.83	-2.01/-2.31
Θ(52.5°)	-2.45/-2.70	-2.11/-1.28	-1.47/-1.86	-1.40/-1.41	-1.69/-1.62	-1.20/-1.51	-2.61/-3.00	-2.25/-1.39	-0.46/-0.63	-1.59/-1.40	-1.27/-2.22	-3.05/-2.68	-1.86/-2.11	-4.85/-10.49	-14.32/-12.61	-8.04/-6.24	-4.13/-1.80	-0.78/-0.55	-1.86/-4.82	-7.67/-7.25	-5.50/-4.60	-3.48/-2.56	-1.72/-0.60	0.05/-1.05
Θ(60°)	-1.83/-2.28	-1.34/-0.94	-2.12/-2.68	-1.99/-2.52	-2.98/-1.42	0.27/0.25	-1.49/-2.75	-2.23/-2.58	-2.57/-1.70	-1.71/-0.83	-0.25/-1.51	-3.60/-3.58	-2.27/-2.37	-4.83/-8.92	-11.55/-14.01	-9.46/-5.59	-3.01/-0.25	0.79/0.51	-1.25/-5.18	-5.42/-0.43	-3.27/-2.18	-1.45/-0.79	0.23/-1.33	-5.90/-8.13
Θ(67.5°)	-1.67/-1.96	-0.16/0.56	-0.81/-1.13	-2.71/-5.63	-4.39/-0.68	1.00/2.22	-2.25/-4.05	-4.05/-3.91	-4.14/-3.26	-2.71/-1.95	-1.50/-2.19	-3.70/-2.77	-2.18/-2.09	-2.78/-5.50	-6.79/-7.50	-1.06/0.86	1.82/0.04	-0.95/-1.24	-3.95/-1.25	-0.55/-0.13	1.04/0.60	-0.09/0.60	0.37/-1.10	-
Θ(75°)	0.14/-2.55	-1.04/-0.04	-3.34/-3.16	-6.29/-9.26	-5.81/-1.77	0.64/0.33	-3.76/-7.21	-4.72/-2.95	-2.54/-2.85	-2.28/-3.46	-3.89/-4.15	-5.60/-4.35	-4.09/-4.31	-4.24/-4.57	-5.37/-5.55	-4.10/-1.40	0.48/1.47	2.33/1.94	-0.04/-2.27	-0.36/1.69	2.80/3.39	3.32/2.07	0.69/-0.17	-0.46/0.32
Θ(82.5°)	-1.22/-3.36	-1.74/-0.37	-3.89/-3.83	-8.51/-7.78	-3.98/-1.32	0.50/-0.28	-4.42/-8.38	-7.98/-4.64	-1.97/-1.34	-1.10/-2.74	-3.86/-4.52	-5.03/-3.04	-2.70/-3.11	-2.40/-2.65	-4.11/-4.39	-2.64/-0.21	0.08/1.17	2.13/1.06	-2.31/-1.96	0.36/2.88	4.08/-3.33	3.36/2.76	1.12/-0.33	-1.79/-1.31
Θ(90°)	-4.39/-0.61	-1.49/-0.66	-3.71/-3.94	-7.90/-6.87	-4.46/-3.44	-1.62/-1.03	-3.54/-9.30	-7.61/-2.73	-0.90/-2.23	-2.54/-3.43	-6.00/-6.81	-10.96/-6.55	-6.00/-5.06	-3.78/-3.99	-3.88/-2.92	-0.26/0.73	0.01/1.11	1.85/0.90	-1.80/-2.40	1.79/2.43	3.13/3.54	2.20/1.31	-0.11/-2.30	-2.66/-2.17
Θ(97.5°)	-10.67/-9.97	-4.13/-2.61	-3.82/-3.83	-8.26/-6.57	-3.96/-4.93	-2.58/-3.34	-8.34/-10.04	-6.56/-2.95	-0.75/-3.19	-5.55/-5.52	-7.22/-9.19	-15.08/-8.29	-9.15/-8.74	-5.17/-4.98	-5.03/-3.44	-1.10/-2.30	-2.71/0.13	-0.33/-1.30	-3.12/-2.24	0.17/1.34	1.64/1.53	0.07/-2.32	-5.12/-5.64	-3.74/-5.50
Θ(105°)	-8.33/-4.73	-3.93/-3.79	-4.18/-5.38	-5.57/-6.12	-4.53/-2.29	-6.82/-4.86	-5.94/-7.57	-5.25/-2.70	-1.40/-2.25	-2.89/-4.16	-8.57/-12.71	-14.99/-15.53	-10.52/-9.63	-6.52/-6.79	-3.81/-3.06	-2.79/-7.05	-4.58/-1.09	-2.29/-2.23	-3.67/-4.57	-3.16/-0.28	0.97/1.06	-1.67/-4.30	-5.87/-8.71	-6.44/-5.69
Θ(112.5°)	-13.04/-13.05	-9.51/-3.67	-6.30/-7.26	-5.55/-6.68	-6.48/-9.39	-6.20/-4.51	-3.64/-3.59	-2.92/-1.41	-1.66/-1.89	-3.69/-6.56	-12.03/-15.63	-10.03/-15.63	-12.00/-7.33	-6.42/-6.16	-3.66/-1.86	-3.59/-6.35	-4.50/-2.64	-1.85/-0.20	-2.04/-6.74	-0.88/-9.58	0.62/1.48	-0.08/-2.46	-5.26/-4.52	-2.34/-5.38
Θ(120°)	-9.68/-9.46	-10.64/-7.50	-6.58/-7.17	-5.84/-6.33	-9.25/-12.98	-8.51/-3.98	-2.96/-3.81	-3.15/-2.38	-1.84/-1.34	-2.84/-3.20	-5.04/-7.75	-8.30/-6.80	-6.79/-10.38	-13.32/-12.04	-3.35/-1.67	-12.25/-9.45	1.24/-0.53	-2.73/-2.18	-1.28/-6.05	-9.95/0.17	0.43/-0.17	-2.51/-9.65	-9.92/-13.18	-4.85/-2.20
Θ(127.5°)	-10.05/-10.10	-8.53/-9.22	-9.56/-8.70	-6.21/-4.93	-9.41/-11.13	-7.51/-6.75	-5.43/-1.96	-1.13/-2.23	-2.12/-2.22	-3.23/-5.51	-6.81/-4.02	-6.45/-10.75	-10.48/-11.01	-8.84/-6.60	-0.15/-3.11	-7.69/-5.87	0.03/-1.52	-0.28/-2.64	-1.44/-1.68	-5.35/-3.68	-3.36/-3.69	-0.26/-3.71	-12.00/-5.05	-4.27/-2.74
Θ(135°)	-6.51/-9.23	-7.02/-6.00	-8.37/-6.64	-8.27/-8.75	-11.16/-14.02	-9.55/-3.52	-1.23/-2.20	-3.72/-3.22	-3.06/-4.20	-6.01/-6.42	-7.69/-2.19	-0.78/-4.12	-7.95/-4.11	-4.59/-3.98	-8.27/-1.44	-0.37/-0.96	-0.99/-1.60	-0.33/-2.32	-3.83/-3.97	-4.06/-9.06	-6.20/-2.64	-7.49/-8.37	-5.18/-5.36	-
Θ(142.5°)	-2.44/-3.26	-4.22/-5.14	-8.19/-9.42	-10.25/-11.94	-9.51/-8.06	-7.63/-6.29	-4.89/-3.70	-3.15/-3.62	-3.48/-2.47	-1.92/-2.16	-3.51/-4.94	-3.46/-2.37	-3.42/-8.55	-7.18/-7.02	-8.81/-14.08	-8.26/-2.39	-2.15/-1.44	-2.44/-3.15	-1.53/-1.10	-0.91/-3.22	-3.30/-4.36	-8.03/-6.61	-7.98/-10.19	-8.07/-3.72
Θ(150°)	-4.56/-4.58	-4.98/-4.68	-4.99/-5.94	-7.14/-9.89	-11.39/-9.52	-8.32/-6.49	-5.35/-4.81	-3.88/-3.16	-2.45/-2.24	-2.85/-4.14	-5.63/-6.07	-6.52/-8.02	-11.86/-13.92	-13.15/-12.65	-11.49/-8.07	-5.72/-3.84	-2.02/-1.31	-2.41/-3.31	-2.41/-1.54	-1.74/-3.80	-6.11/-7.71	-8.30/-6.97	-7.37/-8.89	-8.16/-5.68
Θ(157.5°)	-4.07/-5.43	-6.88/-7.33	-7.57/-9.39	-11.03/-14.17	-15.34/-13.54	-10.00/-7.95	-6.92/-6.11	-4.46/-3.28	-2.73/-2.98	-3.21/-3.31	-3.58/-4.15	-5.08/-6.23	-7.78/-8.81	-9.16/-9.69	-10.02/-10.13	-8.77/-7.06	-5.96/-5.87	-6.44/-5.73	-4.89/-4.15	-3.73/-3.85	-4.27/-4.89	-5.38/-5.04	-4.07/-3.15	-2.77/-3.29
Θ(165°)	-9.52/-9.75	-9.53/-9.24	-10.45/-13.09	-15.76/-14.42	-12.13/-10.35	-9.12/-8.30	-7.31/-6.37	-6.01/-5.62	-5.39/-5.41	-5.61/-5.38	-4.51/-4.88	-4.05/-3.11	-2.71/-2.37	-2.74/-3.80	-5.11/-6.23	-6.24/-6.24	-6.86/-7.64	-8.42/-8.35	-7.65/-7.46	-7.31/-7.04	-7.27/-7.07	-6.64/-6.45	-6.70/-7.25	-9.87/-8.75
Θ(172.5°)	-6.07/-6.54	-7.64/-9.37	-11.96/-13.49	-13.83/-13.35	-11.22/-8.95	-7.96/-7.84	-7.51/-6.71	-6.11/-5.68	-5.14/-5.48	-4.57/-4.34	-3.98/-3.53	-3.39/-3.77	-4.32/-5.29	-6.58/-8.29	-9.73/-10.25	-9.60/-8.48	-7.64/-7.13	-6.74/-5.93	-5.49/-5.60	-5.9				



Antenna Pattern

Appendix B

Θ (172.5°)	-12.10/-13.67	-16.13/-15.30	-15.66/-15.26	-13.29/-12.41	-13.23/-12.61	-10.00/-8.72	-8.88/-9.14	-9.25/-9.17	-8.19/-7.94	-7.52/-7.27	-7.70/-8.63	-9.76/-11.28	-12.30/-12.73	-12.66/-12.81	-10.86/-9.33	-8.51/-7.63	-6.96/-6.47	-6.62/-6.61	-6.85/-7.49	-7.97/-7.98	-8.60/-8.74	-8.28/-7.60	-7.60/-7.75	-8.80/-10.94
Θ (180°)	-8.00/-8.13	-8.80/-9.53	-10.00/-9.80	-10.20/-10.56	-10.44/-9.94	-9.95/-9.62	-9.55/-10.01	-10.01/-10.27	-10.44/-11.02	-11.25/-10.67	-10.00/-9.13	-7.99/-6.98	-6.73/-6.71	-6.78/-7.01	-7.34/-7.69	-8.00/-7.49	-7.33/-7.47	-7.17/-6.82	-6.55/-6.60	-6.31/-5.93	-6.24/-6.55	-6.69/-7.00	-7.28/-7.19	-7.02/-7.50
Freq(Hz)	5.885GPol.	Total/Ant. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	1.44/-1.34	1.18/0.90	0.79/0.76	0.57/0.44	0.52/0.75	0.76/0.98	0.96/0.84	0.52/0.25	0.09/0.14	0.30/0.49	0.54/0.68	0.86/0.92	0.98/1.03	1.00/0.94	0.81/0.80	0.79/0.67	0.68/0.72	0.96/1.09	1.01/0.74	0.51/0.31	0.23/0.38	0.62/0.78	0.96/1.14	1.27/1.27
Θ (7.5°)	0.36/0.45	0.41/0.27	0.36/0.45	0.62/0.74	1.09/1.50	1.70/1.85	1.44/1.10	0.86/0.78	0.95/0.94	0.93/0.99	1.00/1.05	1.11/1.03	1.06/0.96	0.88/0.84	0.87/0.77	0.67/0.51	0.67/0.68	0.64/0.60	0.38/0.05	-0.10/-0.33	-0.23/-0.27	-0.43/-0.30	0.03/0.24	
Θ (15°)	-0.59/-0.54	-0.63/-0.68	-0.94/-1.02	-0.40/-0.20	0.70/1.27	1.70/2.03	2.13/2.18	1.85/-1.39	1.06/0.74	0.53/0.21	-0.21/-0.66	-1.25/-1.69	-1.83/-1.77	-1.75/-1.37	-0.68/-0.14	0.81/1.26	1.41/1.44	0.82/0.59	0.29/0.10	-0.43/-0.81	-0.99/-1.10	-1.08/-0.96	-1.08/-0.93	
Θ (22.5°)	-0.77/-0.26	-0.03/-0.27	-0.94/-1.59	-1.60/-1.28	-0.61/-0.02	0.32/0.80	1.29/1.59	1.25/1.17	1.06/0.84	0.58/0.31	-0.31/-1.14	-2.15/-2.94	-3.41/-4.00	-4.30/-3.51	1.12/1.93	2.08/2.13	1.76/1.42	0.58/-0.35	-0.98/-1.49	-1.76/-1.74	-1.47/-1.24	-1.05/-1.10	-1.31/-1.41	
Θ (30°)	-1.91/-1.52	-0.76/-0.42	-0.97/-2.84	-4.06/-3.97	-2.56/-0.92	0.12/0.96	1.61/1.83	1.63/-1.50	1.55/1.42	1.37/1.28	0.93/0.17	-0.97/-2.20	-3.29/-4.26	-4.94/-4.51	-2.96/-1.10	0.53/1.54	2.12/2.42	2.11/0.74	-1.98/-4.31	-4.76/-3.66	-2.48/-1.70	-1.27/-0.79	-0.90/-1.00	-1.62/-1.80
Θ (37.5°)	-2.35/-1.26	-1.09/-1.06	-0.82/-1.29	-2.36/-2.68	-2.82/-1.43	0.03/1.11	1.39/1.15	0.98/1.19	1.43/1.16	0.35/-0.36	-0.57/-0.81	-1.51/-2.45	-2.96/-3.10	-3.18/-3.30	-2.73/-1.36	0.24/1.30	1.83/1.74	0.72/-1.62	-3.87/-4.21	-3.40/-2.04	-0.75/-0.49	-1.23/-2.20	-2.53/-2.49	-2.45/-2.75
Θ (45°)	-2.42/-1.31	-0.38/-0.47	-0.58/-0.55	-1.37/-2.14	-3.18/-2.16	-0.86/0.01	-0.09/-0.74	-0.98/-0.37	-0.18/-0.52	-1.38/-2.49	-2.55/-1.78	-2.33/-4.24	-4.78/-4.64	-5.47/-5.74	-4.91/-6.32	0.14/0.32	1.04/0.32	-1.05/-4.25	-9.27/-6.83	-3.22/-2.18	-2.75/-2.88	-2.91/-3.12	-2.55/-2.07	-2.86/-3.19
Θ (52.5°)	-1.35/-1.37	-0.60/-0.19	-0.21/0.37	-0.40/-2.16	-3.56/-3.42	-1.41/-0.19	-0.80/-2.19	-2.62/-1.86	-1.24/-0.98	-0.86/-1.46	-2.14/-2.89	-3.78/-4.63	-4.89/-4.10	-4.60/-8.42	-9.47/-5.91	-6.99/-0.83	-0.39/-0.27	-1.18/-3.71	-6.32/-4.07	-3.37/-3.34	-4.18/-3.63	-2.22/-1.88	-2.32/-2.11	
Θ (60°)	0.05/-0.55	0.31/1.44	1.50/1.13	0.05/-2.05	-2.87/-3.16	-1.62/-0.03	0.14/-0.82	-2.23/-3.35	-4.44/-3.47	-2.69/-1.90	-2.05/-4.02	-5.69/-4.84	-4.43/-4.02	-4.45/-5.97	-10.23/-10.53	-3.99/0.01	1.54/2.19	0.27/-3.49	-4.86/-1.47	-0.46/-1.88	-2.90/-2.50	-3.49/-4.64	-2.70/-1.91	-1.70/-0.09
Θ (67.5°)	-0.98/-1.91	-0.90/-0.08	0.97/1.18	0.64/-0.04	-0.82/-2.23	-1.49/-0.32	-0.19/-1.27	-2.64/-3.66	-3.59/-2.18	-2.10/-3.85	-5.59/-6.26	-5.52/-4.28	-2.72/-2.52	-2.51/-3.56	-7.54/-8.99	-4.09/0.16	2.30/2.51	0.15/-3.29	-3.77/-0.87	0.91/-0.86	-2.85/-2.86	-5.43/-6.43	-3.55/-1.81	-0.43/0.47
Θ (75°)	-0.47/-0.90	-0.68/-1.27	0.06/0.66	-0.11/-0.38	-0.94/-2.36	-1.58/-0.21	-0.30/-0.93	-2.64/-3.31	-3.08/-2.19	-3.88/-5.64	-6.77/-4.97	-5.21/-3.68	-0.87/-1.40	-2.62/-2.42	-3.17/-4.60	-3.16/0.17	2.74/2.27	-0.78/-3.58	-2.72/0.08	1.12/-0.35	-3.89/-2.71	-4.26/-5.06	-3.92/-2.53	-0.40/0.79
Θ (82.5°)	-1.43/-1.50	-1.25/-2.60	-0.68/-0.18	-1.04/-0.82	-0.23/-0.85	-1.72/-0.55	-0.10/-1.16	-2.63/-2.73	-3.10/-1.36	-4.85/-8.55	-11.69/-4.84	-5.41/-4.74	-1.32/-1.71	-1.79/-1.62	-0.64/-1.22	-1.54/1.79	4.32/3.51	0.45/-4.39	-0.93/0.89	1.91/2.54	-0.08/-2.17	-2.55/-2.52	-3.77/-2.97	-0.53/-1.42
Θ (90°)	-1.48/-2.47	-1.96/-3.11	-1.11/-0.79	-2.81/-3.51	-1.30/-0.99	-1.47/-0.51	0.08/0.03	-2.77/-3.81	-3.45/-2.66	-5.78/-7.87	-12.14/-5.35	-6.61/-6.33	-2.15/-1.33	-2.28/-1.13	1.05/-0.72	-2.18/0.45	2.91/1.51	-1.74/-4.22	-1.53/0.87	1.18/1.70	-0.32/-5.12	-4.68/-4.70	-5.66/-4.77	-1.62/0.36
Θ (97.5°)	-3.62/-4.12	-4.20/-7.16	-4.64/-2.90	-4.78/-3.88	-1.67/-0.86	-2.63/-3.24	-2.74/-0.64	-3.56/-2.39	-9.66/-12.38	-3.91/-5.75	-6.57/-6.89	-3.49/-2.39	-2.20/-2.08	-0.95/-0.89	-1.52/0.12	1.12/-0.37	-1.40/-5.72	-3.42/0.78	0.75/0.49	0.88/-4.98	-4.88/-5.59	-6.44/-5.69	-1.94/-0.41	
Θ (105°)	-6.04/-5.11	-6.92/-7.86	-5.57/-4.21	-3.45/-6.58	-2.10/-1.73	-3.47/-3.68	-1.81/-0.36	-2.91/-4.31	-2.65/-2.14	-6.12/-11.80	-14.88/-10.10	-6.59/-10.18	-4.85/-1.60	-1.15/-3.52	-2.38/-1.31	-2.34/0.07	-0.31/-1.92	-1.56/-1.20	-0.95/0.40	-0.07/0.09	1.02/-2.94	-5.02/-9.95	-6.75/-5.76	-3.88/-3.31
Θ (112.5°)	-12.16/-9.49	-7.44/-8.00	-4.71/-1.64	-4.04/-6.74	-4.26/-1.80	-3.05/-5.53	-2.86/-0.91	-1.75/-3.44	-2.78/-2.38	-7.26/-11.64	-12.00/-11.30	-9.45/-8.48	-3.94/-2.07	-2.84/-5.29	-2.87/-2.11	-2.60/-1.06	-0.42/-3.59	-5.54/-0.80	-0.57/-1.05	0.00/0.63	0.60/-2.87	-6.33/-10.64	-9.02/-7.98	-7.80/-5.75
Θ (120°)	-12.63/-14.87	-14.32/-10.82	-7.63/-5.69	-6.82/-5.52	-3.15/-2.96	-4.05/-5.33	-1.18/0.82	-1.47/-6.42	-4.44/-4.16	-4.69/-5.59	-4.79/-7.72	-6.19/-7.83	-5.25/-1.49	-1.70/-7.83	-6.80/-5.82	-0.86/0.67	0.53/-3.07	-6.13/-1.24	2.23/-1.40	1.74/-1.31	0.00/-0.07	-9.19/-13.70	-8.88/-6.18	-7.44/-10.90
Θ (127.5°)	-14.11/-6.67	-10.73/-5.66	-4.68/-5.51	-7.72/-4.18	-2.13/-3.26	-4.68/-6.20	-2.52/-1.34	-3.35/-5.34	-5.16/-4.09	-5.74/-5.95	-7.82/-8.20	-9.86/-9.54	-5.66/-6.44	-6.50/-5.67	-6.86/-6.89	-1.72/-3.85	0.10/-8.83	-5.50/-1.89	1.97/-3.56	0.01/0.77	-1.15/2.50	-2.24/-9.91	-6.94/-8.86	-6.70/-8.63
Θ (135°)	-15.70/-10.73	-7.67/-8.86	-7.96/-5.42	-4.08/-7.32	-1.27/-6.91	-5.42/-3.41	-3.03/-3.94	-5.06/-5.38	-6.83/-7.69	-6.82/-4.72	-4.81/-6.65	-10.62/-13.13	-11.09/-8.43	-7.84/-4.28	-4.85/-2.59	-0.72/-14.53	-9.96/0.23	2.84/-4.73	-1.79/0.30	-1.87/-1.25	-0.80/-0.55	-12.63/-12.44	-12.20/-11.30	
Θ (142.5°)	-7.07/-9.82	-10.94/-10.40	-13.61/-8.69	-5.53/-4.11	-5.66/-6.08	-8.85/-11.42	-6.29/-5.33	-3.40/-5.59	-5.54/-3.61	-3.00/-3.39	-4.38/-6.54	-8.00/-10.67	-15.63/-9.45	-8.05/-10.32	-3.08/-10.70	-5.16/-1.79	-4.59/-10.49	-3.58/-1.45	0.88/-5.25	-3.18/-1.70	-2.28/-3.81	-4.26/-6.80	-10.33/-7.26	-10.52/-10.23
Θ (150°)	-4.26/-6.26	-10.88/-11.77	-10.21/-7.62	-5.75/-5.30	-6.68/-10.40	-8.27/-5.80	-5.14/-5.73	-6.36/-6.61	-7.11/-6.63	-5.88/-5.77	-6.14/-7.36	-10.61/-12.50	-12.09/-12.89	-12.51/-10.59	-9.90/-10.48	-6.87/-5.71	-6.76/-8.94	-6.14/-3.83	-5.59/-9.44	-7.27/-4.30	-3.79/-4.94	-6.28/-8.95	-10.84/-12.07	-8.89/-5.22
Θ (157.5°)	-3.81/-5.18	-6.84/-6.76	-5.76/-4.98	-5.29/-3.77	-12.73/-14.36	-5.56/-7.42	-5.84/-5.78	-7.88/-10.22	-9.34/-7.25	-5.54/-4.00	-4.57/-5.86	-7.19/-7.03	-6.27/-6.53	-8.33/-11.17	-13.81/-10.75	-14.09/-12.45	-13.73/-10.14	-5.93/-4.48	-6.45/-7.66	-6.57/-3.79	-2.80/-3.31	-3.90/-3.88	-4.48/-5.74	-5.16/-3.98
Θ (165°)	-2.50/-3.78	-5.45/-7.23	-8.77/-10.25	-11.70/-13.21	-12.81/-9.96	-8.65/-6.43	-7.21/-8.07	-8.83/-9.57	-10.97/-11.59	-10.65/-8.40	-6.33/-4.50	-5.45/-6.68	-6.12/-6.95	-8.53/-11.61	-14.43/-13.19	-7.88/-8.24	-7.58/-7.78	-7.55/-7.63	-5.63/-4.03	-3.33/-3.44	-3.91/-4.24	-3.52/-2.57	-2.23/-2.11	
Θ (172.5°)	-11.50/-13.30	-15.04/-15.61	-14.58/-13.97	-13.31/-13.87	-13.28/-12.41	-9.85/-8.67	-8.66/-8.63	-8.63/-9.19	-10.25/-9.93	-10.06/-9.90	-10.37/-11.48	-12.78/-14.25	-14.30/-13.51	-13.02/-13.21	-12.18/-10.39	-8.28/-7.23	-6.75/-6.93	-7.14/-7.62	-7.38/-6.96	-6.86/-6.88	-6.93/-7.30	-7.55/-7.48	-7.89/-8.03	-9.30/-10.72
Θ (180°)	-8.01/-8.31	-8.07/-7.96	-9.99/-11.66	-12.05/-13.12	-12.06/-11.82	-11.01/-9.99	-9.29/-8.56	-8.11/-8.46	-9.28/-10.12	-10.45/-10.27	-9.59/-9.13	-8.26/-7.22	-6.90/-6.95	-6.68/-6.48	-6.50/-6.76	-6.87/-6.97	-6.81/-6.80	-6.72/-6.78	-6.47/-6.24	-6.76/-7.00	-7.26/-7.26	-7.12/-6.74	-7.45/-7.84	-8.15/-8.72
Freq(Hz)	2.455GPol.	Total/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-8.18/-9.21	-8.11/-8.97	-8.86/-8.78	-8.85/-9.01	-9.13/-9.16	-8.07/-8.98	-8.95/-9.05	-9.23/-9.35	-9.21/-8.94	-8.71/-8.24	-7.94/-7.95	-8.30/-8.91	-9.45/-10.01	-10.07/-10.75	-9.30/-8.90	-8.69/-8.60	-8.64/-8.68	-8.83/-0.97	-9.43/-9.76	-10.18/-10.46	-10.59/-10.48	-10.23/-9.86	-9.40/-9.15	-9.11/-9.23
Θ (7.5°)	-8.16/-8.25	-8.18/-8.11	-8.04/-8.08	-8.28/-8.58	-8.86/-9.07	-9.23/-9.38	-9.60/-10.02	-10.00/-11.17	-11.53/-11.71	-11.51/-10.99	-10.79/-10.66	-12.00/-12.59	-12.71/-12.33	-10.67/-10.82	-10.24/-9.96	-8.60/-9.23	-8.95/-8.75	-8.67/-8.66	-8.68/-8.65	-8.52/-8.36	-8.16/-7.94	-7.69/-7.51	-7.42/-7.49	-7.70/-8.01
Θ (15°)	-7.46/-7.52	-7.42/-7.37	-7.44/-7.71	-7.98/-8.35	-8.71/-8.95	-9.11/-9.29	-9.62/-10.21	-11.05/-11.91	-12.80/-13.40	-13.62/-13.46	-13.35/-13.72	-14.23/-14.78	-14.28/-13.54	-13.26/-12.82	-12.15/-12.53	-11.78/-10.93	-10.04/-9.27	-8.65/-8.12	-7.74/-7.39	-7.11/-6.83	-6.66/-6.51	-6.39/-6.35	-6.45/-6.69	-7.05/-7.39
Θ (22.5°)	-6.90/-6.73	-6.50/-6.37	-6.37/-6.61	-6.96/-7.37	-7.77/-8.12	-8.28/-8.38	-8.41/-8.48	-8.49/-8.49	-8.53/-8.47	-8.50/-8.70	-9.01/-9.26	-9.31/-9.12	-8.77/-8.53	-8.33/-8.26	-8.33/-8.45	-8.55/-8.62	-8.65/-8.49	-8.15/-7.72	-7.36/-6.97	-6.87/-6.53	-6.40/-6.32	-6.28/-6.23	-6.26/-6.39	-6.68/-6.93
Θ (30°)	-5.96/-5.79	-5.60/-5.3																						



Θ (15°)	-14.92/-14.72	-14.79/-15.29	-13.76/-14.13	-15.09/-14.89	-15.03/-14.05	-14.69/-16.30	-14.99/-15.10	-14.88/-14.24	-13.75/-13.40	-13.37/-13.17	-13.73/-14.07	-12.14/-11.37	-11.52/-12.21	-13.00/-13.19	-12.77/-12.78	-12.59/-12.55	-12.91/-12.90	-13.13/-13.31	-12.31/-11.70	-10.82/-10.14	-9.85/-10.40	-11.50/-13.56	-14.61/-15.19	-15.59/-14.94
Θ (22.5°)	-9.87/-9.69	-8.84/-8.49	-8.75/-10.63	-13.42/-14.51	-14.55/-14.27	-15.92/-14.27	-13.30/-13.45	-12.94/-12.03	-11.71/-11.73	-11.38/-10.08	-9.12/-8.49	-7.55/-7.53	-8.57/-10.03	-10.86/-11.54	-11.31/-11.20	-11.14/-10.94	-10.52/-9.68	-8.88/-8.56	-8.18/-8.07	-8.36/-8.60	-9.74/-11.40	-14.50/-15.47	-14.66/-15.73	-12.83/-10.68
Θ (30°)	-7.00/-6.79	-5.89/-4.63	-4.33/-4.88	-6.28/-7.48	-8.40/-10.55	-10.25/-9.32	-10.95/-11.98	-12.38/-11.92	-12.34/-14.50	-14.21/-10.52	-8.28/-7.11	-6.07/-5.44	-6.16/-8.71	-9.84/-10.92	-10.88/-11.06	-12.29/-11.28	-9.00/-6.35	-5.66/-6.13	-6.38/-5.57	-4.94/-6.09	-8.81/-12.83	-14.10/-11.46	-9.23/-8.26	-7.58/-7.40
Θ (37.5°)	-6.76/-6.48	-5.65/-5.12	-5.22/-5.52	-5.99/-6.87	-8.14/-10.08	-8.98/-8.47	-11.32/-15.07	-13.42/-11.93	-12.91/-14.33	-8.81/-5.51	-4.71/-5.29	-5.98/-7.24	-8.19/-8.46	-8.35/-7.79	-7.42/-7.05	-6.88/-7.19	-7.06/-6.52	-6.32/-5.51	-4.72/-4.78	-4.91/-5.94	-9.65/-11.93	-9.38/-7.00	-5.91/-6.01	-6.28/-6.19
Θ (45°)	-4.69/-4.98	-3.92/-3.61	-4.38/-4.60	-4.24/-5.13	-6.93/-9.75	-10.17/-8.05	-7.89/-9.16	-10.88/-12.57	-10.41/-7.21	-5.71/-5.24	-4.92/-4.47	-4.38/-3.90	-4.37/-5.77	-6.29/-6.12	-6.32/-5.88	-4.74/-4.83	-5.74/-5.01	-2.96/-3.29	-5.63/-6.12	-7.58/-11.29	-11.31/-7.85	-5.63/-3.99	-4.31/-5.70	-4.77/-3.87
Θ (52.5°)	-1.75/-2.02	-3.12/-4.15	-5.45/-5.51	-5.89/-7.99	-8.72/-11.66	-10.02/-6.43	-5.44/-7.07	-10.02/-6.43	-5.44/-7.07	-4.71/-4.03	-3.60/-4.65	-6.97/-7.42	-6.77/-6.23	-6.09/-5.12	-3.94/-4.34	-6.24/-6.08	-4.41/-5.02	-7.70/-8.68	-7.19/-7.57	-8.20/-4.58	-3.99/-3.68	-3.10/-2.75	-2.08/-2.28	
Θ (60°)	-1.05/-0.72	-1.81/-2.56	-3.12/-3.81	-4.63/-6.36	-6.70/-9.08	-12.04/-8.27	-5.56/-9.31	-11.82/-8.55	-6.51/-4.40	-3.82/-5.63	-2.49/-1.35	-2.29/-4.65	-7.94/-11.02	-8.86/-8.46	-8.63/-8.23	-6.06/-4.18	-5.55/-6.62	-5.36/-4.78	-6.94/-5.51	-5.08/-6.35	-6.08/-4.64	-4.59/-2.97	-2.38/-1.54	-0.66/-1.00
Θ (67.5°)	-1.60/-1.90	-2.62/-3.11	-3.97/-5.21	-5.17/-4.79	-5.51/-8.85	-8.41/-4.78	-4.61/-10.70	-10.60/-7.80	-7.57/-6.23	-4.35/-2.34	0.31/-2.09	-2.58/-4.69	-6.46/-4.31	-3.62/-4.55	-5.38/-7.43	-8.68/-6.21	-3.84/-3.85	-6.69/-7.60	-5.62/-5.25	-6.83/-9.19	-8.32/-3.70	-4.01/-2.39	-1.50/-0.30	-0.26/-1.11
Θ (75°)	-1.24/-1.02	-1.44/-2.90	-3.79/-5.27	-4.89/-4.48	-5.75/-9.63	-9.49/-5.23	-4.64/-8.82	-4.08/-3.16	-6.47/-4.82	-3.58/-0.09	1.75/-2.11	-0.74/-2.88	-3.91/-1.15	-0.81/-2.42	-4.19/-5.48	-7.99/-8.97	-5.21/-3.73	-4.11/-7.70	-6.50/-4.65	-3.95/-4.66	-5.66/-5.01	-3.31/-1.33	-0.37/-0.52	-0.30/-0.47
Θ (82.5°)	0.050/0.41	0.41/-0.36	0.09/-1.38	-1.19/-2.81	-5.66/-7.29	-5.78/-3.10	-3.88/-7.33	-1.51/-1.64	-4.71/-2.55	-2.00/-1.60	2.69/-2.82	-0.52/-2.25	-2.92/-0.13	0.45/-0.65	-1.22/-2.44	-4.33/-7.34	-9.34/-4.06	-2.74/-8.67	-6.43/-1.35	-1.44/-4.13	-3.53/-2.60	-3.08/-1.35	0.44/-0.02	-0.51/-1.04
Θ (90°)	0.05/-0.86	-0.06/-1.08	0.20/-2.29	-2.31/-3.61	-4.67/-3.37	-1.87/-1.61	-4.30/-4.83	-1.24/-2.63	-4.49/-0.31	0.32/-2.42	3.20/-0.60	-1.35/-2.74	-3.82/-0.79	0.87/-0.16	-1.49/-2.16	-2.95/-6.70	-11.90/-5.43	-1.44/-4.57	-3.45/-0.66	-0.66/-4.60	-3.65/-2.64	-2.96/-3.60	-1.34/-0.10	-1.19/-0.61
Θ (97.5°)	0.69/-0.25	0.70/-0.77	0.13/-2.40	-1.98/-2.13	-3.34/-1.86	-0.62/-1.78	-3.38/-1.82	0.45/-2.14	-2.17/-2.08	0.92/-2.31	2.62/-2.66	-2.66/-4.66	-5.00/-1.01	0.70/-0.28	-1.69/-1.52	-3.49/-3.46	-11.51/-6.77	-1.37/-5.50	-5.95/-1.32	-1.10/-5.10	-2.86/-2.32	-4.04/-4.43	-1.73/-0.31	-0.17/-1.02
Θ (105°)	1.64/-1.31	2.06/-0.87	2.28/-1.41	0.32/-1.81	-2.35/-1.01	-0.75/-2.20	-2.37/-0.27	0.32/-2.70	-0.54/-2.91	2.42/-2.27	1.71/-2.32	-2.11/-4.35	-6.78/-1.40	-1.13/-2.68	-4.98/-3.14	-5.29/-4.85	-15.08/-13.12	-2.03/-4.32	-7.26/-1.69	-1.68/-6.34	-5.98/-3.33	-4.98/-4.23	-1.64/-0.77	0.80/-2.26
Θ (112.5°)	1.39/-0.84	2.41/-2.12	2.67/-1.51	0.31/-0.17	-0.05/-1.00	-0.67/-3.26	-1.08/-1.24	1.40/-0.28	0.71/-3.14	3.37/-3.12	2.15/-1.18	-4.22/-6.65	-12.30/-10.51	-2.25/-5.50	-6.93/-6.28	-7.76/-6.49	-15.01/-10.51	-3.79/-10.74	-1.21/-3.21	-4.51/-2.89	-3.73/-4.00	-3.16/-2.69	0.03/-1.37	
Θ (120°)	2.24/-2.48	3.11/-3.42	2.90/-2.68	0.81/-0.23	1.61/-1.76	0.42/-2.00	-1.91/-0.06	-0.04/-3.60	-2.01/-1.72	2.68/-1.52	-0.62/-2.23	-5.69/-10.39	-12.96/-6.01	-3.69/-7.59	-4.43/-3.86	-4.32/-5.79	-13.06/-8.59	-3.36/-8.57	-6.31/-1.44	-0.76/-4.41	-8.47/-4.88	-5.25/-3.39	-3.34/-2.42	-0.42/-1.50
Θ (127.5°)	2.66/-3.36	3.41/-3.81	2.77/-1.48	1.76/-2.35	2.47/-1.54	-0.50/-1.95	-0.56/-0.21	-1.44/-3.70	-1.92/-0.15	0.81/-0.63	-0.19/-0.67	-5.51/-12.29	-11.64/-4.28	-5.55/-6.18	-5.07/-11.35	-4.85/-13.55	-13.02/-4.74	-4.27/-9.90	-6.84/-3.73	-1.25/-4.60	-6.33/-6.65	-4.30/-3.73	-2.30/-2.25	1.02/-2.57
Θ (135°)	0.43/-1.71	1.41/-1.33	2.28/-2.29	1.45/-0.93	0.58/-0.06	-1.21/-2.24	-3.64/-5.33	-0.96/-1.77	-2.91/-2.42	-2.14/-2.95	-3.40/-4.45	-6.22/-6.74	-10.21/-10.01	-9.29/-6.02	-8.87/-5.28	-8.03/-9.72	-7.77/-13.06	-6.58/-8.30	-4.86/-5.79	-8.51/-6.22	-3.72/-3.91	-2.95/-2.39	-0.82/-0.06	
Θ (142.5°)	1.88/-0.75	1.44/-1.27	1.36/-1.22	0.78/-0.67	0.16/-0.26	-0.49/-0.87	-2.06/-3.58	-4.32/-6.23	-7.77/-4.34	-2.72/-2.98	-3.36/-3.91	-4.38/-5.42	-7.59/-8.66	-8.91/-10.48	-10.40/-9.19	-15.53/-15.46	-7.17/-10.03	-8.15/-10.98	-13.33/-8.84	-6.48/-5.56	-9.48/-10.03	-7.70/-7.02	-7.35/-7.71	-5.56/-4.02
Θ (150°)	-4.00/-3.06	-1.79/-0.81	-0.26/-0.06	-0.07/-0.17	0.35/-1.05	-0.79/-0.62	-1.93/-3.12	-3.99/-4.13	-4.04/-4.38	-5.47/-7.71	-10.33/-12.49	-12.55/-12.03	-10.97/-10.99	-13.76/-15.79	-15.60/-15.93	-14.14/-12.17	-8.16/-6.84	-9.61/-13.05	-12.65/-13.79	-14.71/-11.81	-9.62/-6.48	-5.29/-6.46	-6.37/-6.30	-6.30/-4.81
Θ (157.5°)	-1.97/-1.94	-1.57/-1.37	-1.26/-1.08	-0.55/-0.26	-0.57/-1.55	-3.13/-5.05	-5.48/-4.50	-3.93/-4.51	-5.94/-7.16	-8.11/-9.40	-10.95/-13.20	-13.16/-11.80	-11.34/-11.51	-12.21/-14.85	-14.37/-11.44	-9.15/-9.68	-11.55/-15.52	-14.79/-14.81	-13.54/-11.96	-8.67/-6.53	-6.12/-5.55	-4.37/-3.51	-3.37/-3.21	-1.47/-1.75
Θ (165°)	-0.67/-0.63	-0.56/-0.51	-0.70/-1.04	-1.74/-2.92	-3.69/-3.93	-3.64/-3.33	-3.42/-4.22	-5.35/-7.06	-9.68/-13.90	-15.73/-14.91	-14.96/-13.49	-13.33/-13.43	-11.78/-11.22	-9.84/-8.66	-7.89/-8.12	-9.56/-12.42	-14.98/-15.28	-13.65/-12.17	-11.04/-10.07	-8.26/-6.36	-4.77/-3.47	-2.40/-1.55	-0.98/-0.74	-0.58/-0.64
Θ (172.5°)	-1.79/-1.91	-2.18/-2.60	-3.18/-3.94	-4.70/-5.16	-5.51/-6.39	-7.93/-9.03	-1.15/-10.51	-9.70/-9.06	-8.88/-9.03	-8.54/-7.82	-7.56/-7.25	-6.96/-6.92	-6.86/-6.85	-6.88/-6.87	-6.67/-6.71	-7.33/-8.28	-9.59/-10.58	-9.47/-8.16	-6.85/-5.95	-4.90/-3.78	-2.82/-2.02	-1.51/-1.37	-1.44/-1.53	-1.67/-1.57
Θ (180°)	-5.47/-5.46	-5.77/-6.09	-6.17/-6.30	-6.46/-7.50	-9.19/-10.98	-13.22/-13.92	-15.41/-14.93	-15.13/-14.32	-12.22/-10.48	-9.45/-9.71	-10.82/-11.25	-11.60/-11.76	-11.06/-10.69	-10.68/-10.85	-11.37/-12.84	-12.60/-11.78	-10.73/-10.23	-9.36/-8.97	-8.75/-8.62	-8.69/-8.21	-7.45/-6.62	-5.85/-5.48	-5.23/-5.14	-5.28/-5.45
Freq(Hz)	5.785G/Pol.	Total/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
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°)	-10.85/-11.08	-11.81/-12.37	-12.79/-12.37	-11.43/-11.06	-10.29/-10.29	-10.37/-9.97	-10.05/-11.10	-11.72/-11.37	-10.98/-11.00	-10.49/-10.25	-10.25/-9.57	-9.33/-9.13	-9.75/-10.42	-10.48/-10.72	-11.09/-11.00	-10.34/-10.27	-10.55/-10.47	-10.24/-10.05	-10.12/-10.37	-10.41/-10.67	-11.00/-11.38	-11.50/-11.79	-11.56/-11.22	-11.36/-11.16
Θ (7.5°)	-11.60/-10.78	-10.43/-11.08	-12.41/-12.99	-12.43/-10.51	-9.14/-8.36	-8.65/-8.76	-8.92/-9.91	-10.13/-11.02	-11.62/-12.72	-13.25/-13.20	-13.17/-12.99	-13.24/-12.85	-12.92/-12.94	-13.59/-12.58	-11.65/-12.50	-13.55/-12.35	-11.28/-10.44	-10.37/-10.26	-9.93/-10.19	-9.92/-9.86	-10.06/-10.17	-9.91/-10.34	-11.15/-11.28	-10.28/-11.60
Θ (15°)	-8.81/-8.82	-8.35/-8.74	-10.15/-11.42	-13.00/-11.30	-9.95/-9.34	-8.31/-6.84	-7.10/-8.07	-9.32/-11.08	-13.57/-15.29	-16.06/-15.08	-15.27/-14.28	-13.98/-13.76	-13.00/-12.14	-11.42/-11.16	-11.79/-12.41	-13.49/-13.47	-12.34/-11.85	-11.59/-11.57	-10.66/-10.58	-11.12/-11.16	-12.54/-14.16	-15.00/-15.18	-14.49/-14.06	-12.08/-9.96
Θ (22.5°)	-3.63/-4.04	-4.43/-4.73	-4.98/-6.29	-8.00/-10.08	-12.00/-10.43	-7.08/-6.60	-8.00/-9.31	-10.32/-11.67	-12.41/-13.59	-14.22/-13.91	-12.81/-13.49	-13.65/-12.07	-10.30/-9.23	-8.98/-8.96	-7.75/-6.75	-6.91/-7.92	-8.92/-11.46	-11.93/-11.23	-10.20/-10.19	-11.85/-13.87	-14.50/-15.44	-10.42/-7.72	-6.47/-5.69	-4.68/-3.67
Θ (30°)	-5.24/-5.65	-4.65/-3.09	-2.45/-2.77	-3.53/-4.58	-6.47/-7.32	-8.11/-10.20	-11.99/-12.81	-12.79/-12.68	-12.20/-13.78	-14.10/-11.96	-10.49/-10.50	-9.96/-8.81	-8.21/-8.91	-9.69/-9.60	-7.98/-6.28	-5.49/-5.15	-4.89/-4.71	-6.35/-9.10	-11.43/-12.17	-12.64/-15.55	-14.07/-9.25	-5.81/-4.56	-4.50/-4.51	-4.02/-4.44
Θ (37.5°)	-8.28/-9.31	-7.93/-6.47	-6.70/-5.83	-4.07/-3.07	-3.62/-5.79	-9.93/-10.59	-8.06/-8.31	-10.24/-10.56	-11.10/-13.83	-9.35/-5.92	-4.84/-5.71	-6.99/-6.77	-7.02/-8.47	-9.66/-9.37	-7.64/-6.76	-7.41/-6.16	-3.90/-3.43	-4.71/-7.17	-8.37/-7.62	-7.73/-12.37	-13.57/-10.36	-7.31/-6.56	-7.62/-8.09	-6.96/-6.41
Θ (45°)	-8.45/-9.48	-10.95/-11.20	-10.42/-8.80	-7.79/-7.11	-6.17/-6.09	-6.54/-5.36	-4.31/-5.41	-7.84/-8.77	-10.33/-10.56	-6.28/-4.73	-5.05/-6.80	-7.10/-5.06	-5.29/-6.53	-6.53/-6.40	-4.75/-5.43	-5.35/-4.48	-4.05/-5.56	-3.46/-4.41	-6.21/-6.00	-6.09/-9.97	-9.34/-5.84	-4.88/-5.44	-7.22/-8.05	-7.08/-11.41
Θ (52.5°)	-5.50/-7.82	-8.36/-9.92	-9.99/-8.28	-7.71/-5.80	-3.22/-3.31	-4.80/-6.79	-6.07/-5.25	-5.55/-7.38	-8.61/-5.19	-3.46/-4.75	-3.12/-2.04	-2.12/-2.54	-5.03/-6.64	-5.27/-3.72	-3.43/-4.12	-4.63/-5.22	-4.46/-2.12	-2.07/-5.51	-9.76/-8.55	-7.81/-11.63	-11.72/-7.09	-5.26/-3.22	-2.90/-2.67	-3.29/-4.81
Θ (60°)	-2.37/-3.83	-5.25/-6.70	-8.20/-7.99	-10.38/-13.16	-8.92/-5.20	-3.85/-4.84	-3.78/-3.49	-7.11/-7.86	-7.60/-4.50	-2.09/-2.82	-1.72/-2.07	-1.31/-3.54	-7.55/-10.49	-8.87/-7.83	-7.70/-6.73	-4.76/-3.85	-5.75/-5.68	-5.23/-5.42	-9.31/-6.57	-6.89/-9.99	-5.97/-2.22	-1.93/-0.84	-0.63/-1.28	

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

