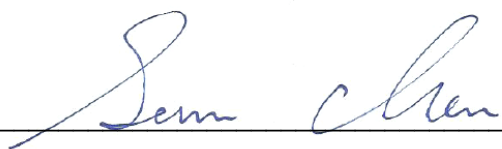


Antenna Composite Gain Test Report

FCC ID	NKR-ATTCGW450
Equipment	5G Residential Gateway
Brand Name	WNC
Model Name	CGW450-400
Applicant	Wistron NeWeb Corp. 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C
Manufacturer	NEWEB VIET NAM CO., LTD. Land Lot CN01, Dong Van III Industrial zone, Dong Van Ward, Duy Tien Town, Ha Nam Province, VietNam
Sample Received	Aug. 01, 2022
Start Test Date	Aug. 09, 2022
Final Test Date	Aug. 09, 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
	2.4GHz	5GHz					
2G5G Ant1	1	1	WNC	48XKAC42	Dipole	I-PEX	2.4GHz & 5GHz UNII 1~3
2G5G Ant2	2	2	WNC	48XKAC3F	Dipole	I-PEX	2.4GHz & 5GHz UNII 1~3
2G5G Ant3	3	3	WNC	48XKAC45	Dipole	I-PEX	2.4GHz & 5GHz UNII 1~3
2G5G Ant4	4	4	WNC	48XKAC46	Dipole	I-PEX	2.4GHz & 5GHz UNII 1~3

Note:

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

2G5G Ant 1~4 can be used as transmitting/receiving antenna.

2G5G Ant 1~4 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

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	23-24 / 40-50	Aug. 09, 2022

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

4. Test Facility and Configuration

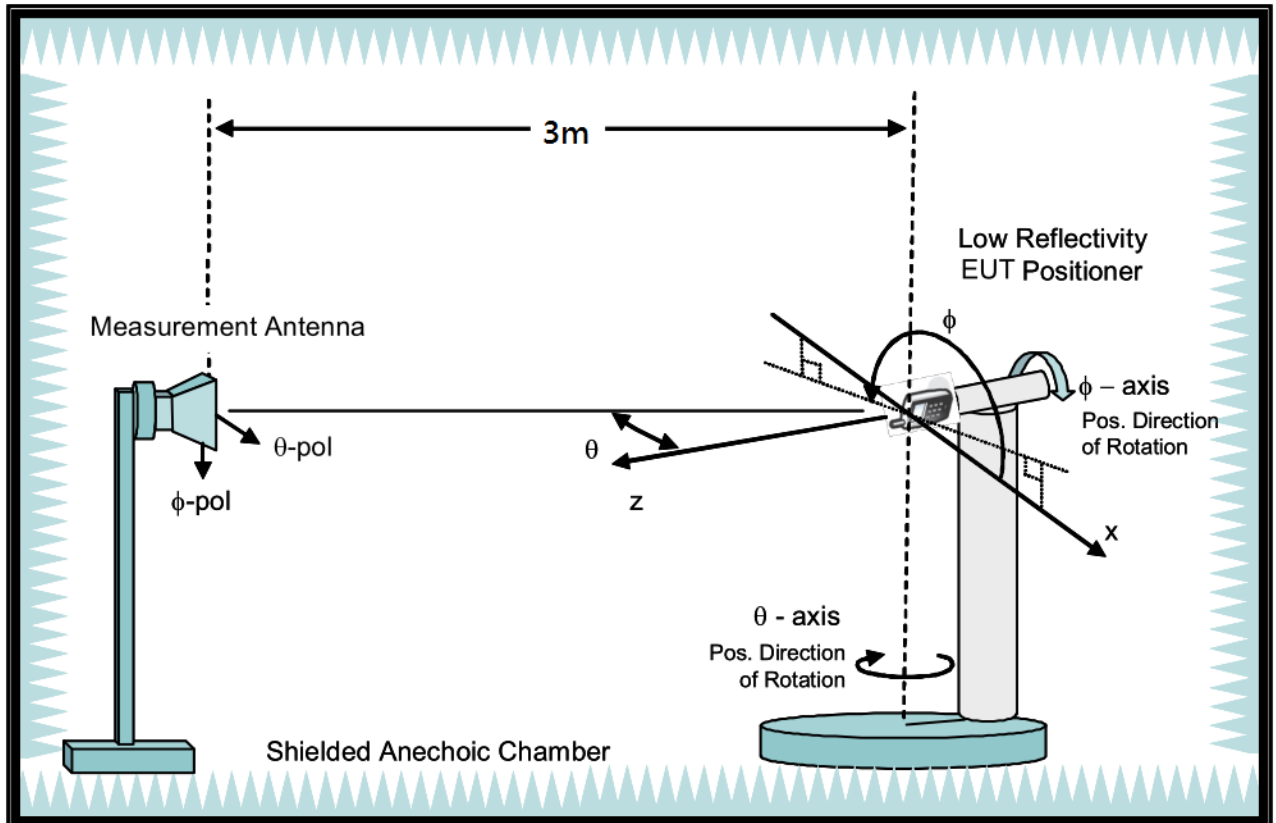
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

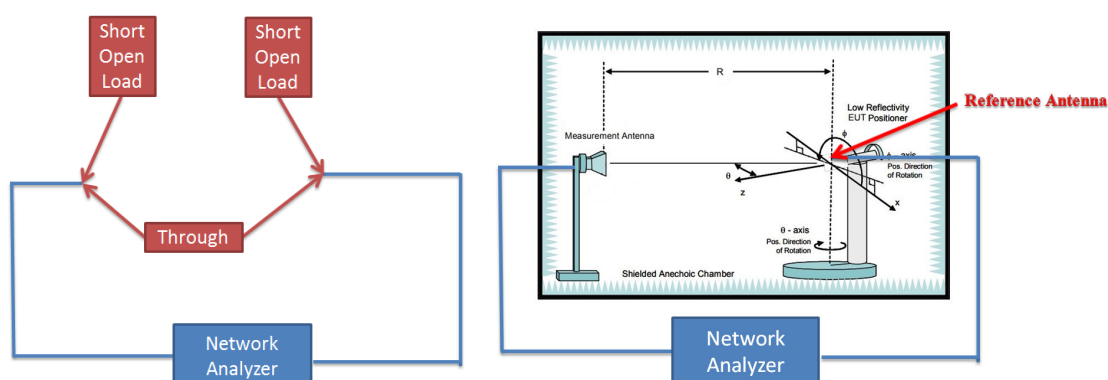
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



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	7500
G reading (dB)	-31.4	-31.4	-31.3	-31.3	-31	-30.7	-30.1	-30.5	-30.5	-30.8	-31.3	-32.8	-34.4	-35.4
Reference gain (dBi)	10.2	10.4	10.6	12.4	12.8	13.4	13.4	13.3	13.3	13.1	13.2	12.3	11.7	11.1
Factor (dB)	41.34	41.55	41.68	43.24	43.56	43.68	43.79	43.91	43.99	44.43	44.49	45.24	46.12	46.31

Note:

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

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

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

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

6. Test Method

EUT set on multi-axis positioner and adjust EUT's physical center to measurement reference center. Measurement antenna set at phi polarization and 1.5 meter height. Port 1 of Network analyzer connect to antenna 1 of EUT. Record G value every 10 degree from 0 to 350 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
Ant. 1 (dBi)	4.48	4.76	4.19	1.59	2.86
Ant. 2 (dBi)	-6.14	-10.61	-12.12	-12.36	-13.3
Ant. 3 (dBi)	1.92	1.13	-0.04	4.16	4.1
Ant. 4 (dBi)	-3.39	-1.86	1.42	-0.97	-0.23
DG [1SS] (dBi)	6.22	5.96	6.11	5.91	6.41
Polarization	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	70	80	90	80	90
$\Phi(^{\circ})$	90	80	80	100	90

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

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [$10^{(G/20)}$]	$10^{(4.48/20)}$	$10^{(4.76/20)}$	$10^{(4.19/20)}$	$10^{(1.59/20)}$	$10^{(2.86/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-6.14/20)}$	$10^{(-10.61/20)}$	$10^{(-12.12/20)}$	$10^{(-12.36/20)}$	$10^{(-13.3/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(1.92/20)}$	$10^{(1.13/20)}$	$10^{(-0.04/20)}$	$10^{(4.16/20)}$	$10^{(4.1/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(-3.39/20)}$	$10^{(-1.86/20)}$	$10^{(1.42/20)}$	$10^{(-0.97/20)}$	$10^{(-0.23/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.675	1.73	1.62	1.201	1.39
Ant. 2 [$10^{(G/20)}$] value	0.493	0.295	0.248	0.241	0.216
Ant. 3 [$10^{(G/20)}$] value	1.247	1.139	0.995	1.614	1.603
Ant. 4 [$10^{(G/20)}$] value	0.677	0.807	1.178	0.894	0.974
Sum All Antenna [Amax]	4.092	3.971	4.041	3.951	4.183
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	6.22	5.96	6.11	5.91	6.41

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

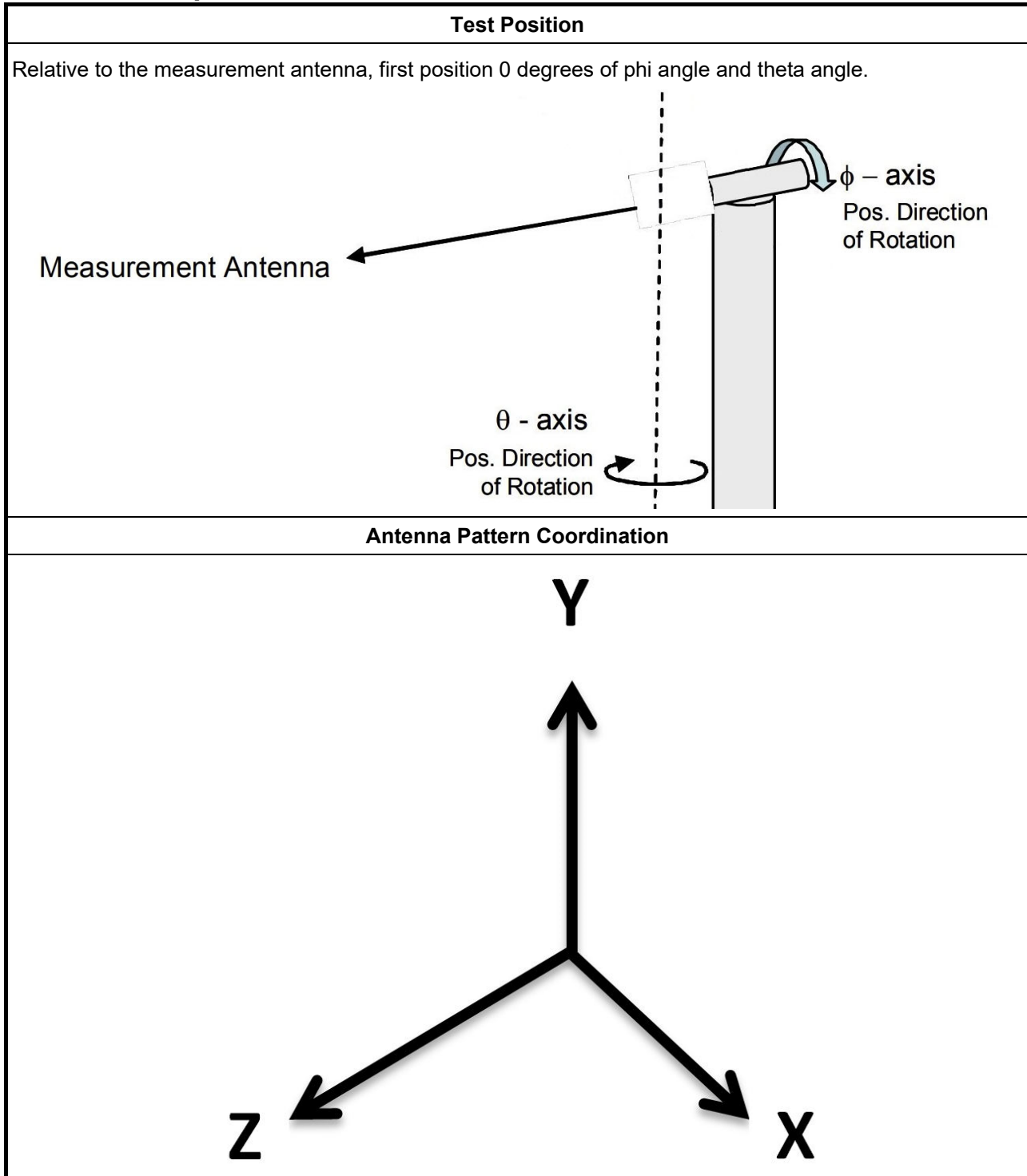
8. Summary of Test Result

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	4.48	4.76	4.98	5.04	4.67
Ant. 2 Max Gain (dBi)	3.97	2.47	3.56	5.02	5.63
Ant. 3 Max Gain (dBi)	3.69	3.02	3.54	4.16	4.1
Ant. 4 Max Gain (dBi)	2.02	2.2	3.17	4.01	3.22
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/70/90	Theta/80/80	Theta/80/70	Theta/90/70	Theta/90/80
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/20/80	Phi/80/80	Phi/40/80	Phi/80/100	Phi/80/100
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/80	Theta/80/90	Theta/90/100	Theta/80/100	Theta/90/90
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/50/90	Theta/100/130	Theta/110/130	Theta/100/140	Theta/100/150
Max Gain (dBi)	4.48	4.76	4.98	5.04	5.63
DG [1SS] (dBi)	6.22	5.96	6.11	5.91	6.41
DG [2SS] (dBi)	4.48	4.76	4.98	5.04	5.63
DG [4SS] (dBi)	4.48	4.76	4.98	5.04	5.63

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles. Each antenna max gain is the max value of measurement G of theta and phi 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 24
Appendix C – Test Photos.....	Page 30



Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	4.48	4.76	4.98	5.04	4.67
Ant. 2 Max Gain (dBi)	3.97	2.47	3.56	5.02	5.63
Ant. 3 Max Gain (dBi)	3.69	3.02	3.54	4.16	4.1
Ant. 4 Max Gain (dBi)	2.02	2.2	3.17	4.01	3.22
Ant. 1 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/70/90	Theta/80/80	Theta/80/70	Theta/90/70	Theta/90/80
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Phi/20/80	Phi/80/80	Phi/40/80	Phi/80/100	Phi/80/100
Ant. 3 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/60/80	Theta/80/90	Theta/90/100	Theta/80/100	Theta/90/90
Ant. 4 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Phi/50/90	Theta/100/130	Theta/110/130	Theta/100/140	Theta/100/150
Max Gain (dBi)	4.48	4.76	4.98	5.04	5.63
DG [1SS] (dBi)	6.22	5.96	6.11	5.91	6.41
DG [2SS] (dBi)	4.48	4.76	4.98	5.04	5.63
DG [4SS] (dBi)	4.48	4.76	4.98	5.04	5.63



Radiated Composite Gain Data

Appendix A

DG 1SS Result

Freq(Hz)	2.45GPol.	PhiL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
DG(dB)	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-0.260.37	1.11/1.76	2.24/2.48	2.63/2.69	2.33/1.86	1.51/1.37	1.55/1.45	1.33/0.97	0.23/-0.61	-0.79/-0.18	1.51/1.37	1.69/1.84	2.67/2.61	1.74/1.61	2.34/1.83	1.74/1.61	1.22/0.63	0.13/-0.39
Θ(10°)	-1.02/-0.58	0.26/1.01	1.46/2.02	2.39/2.63	2.51/2.24	2.05/2.3	2.24/2.02	1.88/1.44	0.73/-0.08	-0.51/0.2	1.07/1.99	2.52/2.98	2.91/2.75	2.41/1.75	1.51/1.34	1.29/1.17	0.70/1	-0.69/-1.2
Θ(20°)	-1.4/-1.32	-1.5/-1.24	-0.73/0.57	1.71/2.39	2.64/2.77	2.73/2.87	2.83/2.84	2.75/2.44	1.64/0.71	-0.64/-1.93	-1.61/0.02	1.64/2.81	3.24/3.32	2.89/2.21	1.57/1.09	1.08/0.87	0.54/-0.22	-0.89/-1.5
Θ(30°)	-0.79/-1.15	-1.68/-2.46	-2.34/-1.19	0.45/1.83	2.58/2.84	2.79/2.78	2.88/3.15	3.35/3.23	2.71/1.7	0.3/-1.39	-2.26/-1.68	-0.21/1.58	2.68/3.09	2.76/1.97	1.23/1.09	1.10/0.88	0.28/-0.54	-1.25/-1.2
Θ(40°)	-1.06/-1.53	-2.52/-3.05	-2.27/-1.08	0.41/2.04	3.01/3.36	3.25/3.03	3.22/3.66	4.12/4.32	4.05/3.25	1.99/1.11	1.15/0.89	0.67/0.75	1.27/1.79	1.71/0.96	0.43/0.06	0.21/-0.09	-1.15/-1.79	-1.98/-1.39
Θ(50°)	-0.75/-2.09	-3.16/-2.78	-1.18/0.36	1.91/3.34	4.24/5.5	4.16/3.41	3.46/3.94	4.99/5.13	4.45/3.06	1.83/1.62	2.13/2.49	2.1/36	1.03/1.11	0.78/0.3	-0.19/-0.16	-0.02/-0.84	-1.71/-1.49	-0.91/-0.41
Θ(60°)	-1.25/-3.87	-6.76/-6.03	-2.32/0.12	1.89/3.25	4.33/4.55	3.62/2.3	1.57/3.48	5.01/4.97	3.92/3.13	-0.11/-1.61	-0.29/1.43	2.33/2.02	1.74/1.71	1.57/0.7	-1.73/-2.17	-1.42/-1.89	-2.47/-1.85	-1.08/-0.89
Θ(70°)	-4/-3.7	-3.44/-0.99	1.66/3.55	4.21/4.27	4.44/4.5	3.11/2.17	1.91/3.32	4.23/6.2	2.37/0.75	-1.53/-3.8	-3.35/-1.04	0.61/0.87	0.77/1.16	1.53/1.09	-1.46/-3.31	-2.41/-2.9	-3.76/-3.66	-3.62/-4.18
Θ(80°)	-3.36/-2.91	-1.15/1.27	3.35/4.52	4.45/3.18	2.65/2.84	1.30/2.7	1.67/3.11	3.31/2.36	0.73/-1.63	-3.34/-4.62	-5.06/-4.59	-3.42/-2.7	-2.16/-1.51	-1.09/-1.03	-1.63/-2.37	-3.27/-4.25	-5.06/-4.91	-4.78/-4.23
Θ(90°)	-4.04/-3.58	-0.32/2.29	3.64/4.15	3.54/2.56	1.54/2.38	2.14/2.64	3.41/3.17	2.63/1.25	-0.67/-4.56	-4.29/-3.1	-1.49/-2.47	-3.33/-2.29	-1.49/-2.47	-4.29/-3.1	-1.37/-0.82	-1.39/-2.36	-3.01/-3.34	-3.38/-3.69
Θ(100°)	-4.48/-4.1	-1.39/0.8	1.78/1.85	0.77/0.18	1.83/0.8	3.42/3.56	4.12/3.68	2.54/1.39	0.92/0.61	-0.54/-3.03	-5.6/-5.57	-2.76/-1.15	-0.64/-1.1	-2.06/-1.53	-1.43/-0.69	-0.38/-1.39	-1.92/-2.36	-3.09/-4.04
Θ(110°)	-1.61/-1.52	-1.27/-1.25	-0.77/-0.66	-1.08/-0.26	2.07/3.48	3.42/2.39	2.52/2.61	1.94/1.31	0.92/0.84	0.82/0.56	-0.86/-2.55	-2.75/-2.27	-1.9/-1.32	-0.25/-0.32	-2.02/-2.98	-3.24/-2.88	-2.67/-2.34	-2.74/-2.65
Θ(120°)	-1.9/-0.82	-1.09/-1.76	-1.73/-0.77	0.41/0.37	0.72/1.41	1.23/2.07	0.41/0.37	1.76/-0.03	0.41/0.37	2.43/2.73	-1.65/-1.38	-2.48/-4.24	-4.36/-3.56	-1.65/-1.58	-2.64/-3.08	-3.53/-3.85	-4.42/-5.14	-5.82/-4.61
Θ(130°)	-3.9/-2.18	-1.5/-1.39	0.31/1.4	1.26/-0.02	-0.39/0.13	-1.16/-3.82	-3.72/-0.53	1.13/1.35	0.61/0.17	0.59/0.02	-1.76/-3.74	-5.05/-5.06	-5.75/-6.8	-5.45/-5.52	-6.06/-4.09	-3.11/-3.28	-4.58/-6.25	-6.87/-6.31
Θ(140°)	-3.76/-3.05	-2.8/-2.48	-0.83/0.52	0.63/-0.36	-1.41/-1.61	-3.01/-5.15	-7.14/-6.23	-3.67/-2.94	-3.53/-3.65	-3.38/-3.75	-3.91/-3.33	-3.38/-3.39	-4.89/-7.93	-9/-8.5	-9.68/-7.86	-6.58/-5.36	-4.31/-3.62	-3.54/-3.8
Θ(150°)	-2.9/-3.18	-3.14/-2.77	-1.11/-0.17	-0.52/-1.97	-4/-4.24	-4.14/-3.93	-3.86/-3.48	-3.21/-2.49	-1.87/-1.85	-2.99/-4.35	-5.16/-6.79	-8.71/-9.01	-7.35/-6.03	-5.13/-5.28	-6.87/-9.4	-9.65/-6.87	-4.91/-3.58	-2.94/-3.09
Θ(160°)	-4.94/-5.55	-6.11/-5.51	-4.81/-4.11	-4.9/-7.46	-0.91/-9.1	-4.9/-5.37	-4.23/-4.24	-4/-3.9	-3.99/-4.58	-4.99/-5.59	-6.5/-7.18	-7.29/-6.69	-6.08/-5.82	-6.24/-6.91	-8.09/-9.03	-8.45/-7.18	-6.31/-5.37	-5.04/-5.23
Θ(170°)	-9.54/-8.92	-7.98/-7.71	-7.58/-8.01	-8.99/-10.39	-11.24/-9.19	-8.28/-6.59	-5.91/-5.41	-5.51/-5.58	-5.68/-6.24	-6.83/-7.24	-7.37/-7.61	-8/-8.2	-8.69/-9.65	-9.5/-9.42	-9.42/-9.03	-9.51/-10.14	-11.43/-10.91	-10.77/-10.78
Θ(180°)	-7.74/-7.47	-7.88/-8.53	-8.7/-9.29	-9.57/-9.59	-8.81/-7.7	-6.98/-6.88	-6.92/-7	-7.5/-7.99	-7.66/-7.99	-8.18/-8.39	-8.74/-8.97	-9.48/-9.22	-9.11/-9.35	-9.42/-9.69	-9.77/-9.89	-10.47/-10.18	-9.12/-8.57	-8.67/-7.92
Freq(Hz)	2.45GPol.	ThetaL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
DG(dB)	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	0.82/0.91	0.64/0.72	0.59/0.22	-0.33/-0.87	1.68/1.25	-0.13/-1.45	0.69/0.38	0.36/0.16	1.68/1.25	0.27/-0.06	-0.67/-1.19	1.13/1.62	0.67/-1.19	1.13/1.62	0.16/1.19	1.13/1.62	1.87/1.75	1.44/1.16
Θ(10°)	0.13/0.53	1.01/1.22	0.98/0.5	0.09/-0.71	-1.26/-1.26	-0.39/0.23	0.92/1.38	1.82/1.97	2.14/1.87	1.29/0.98	0.72/0.51	0.26/-0.29	-0.92/-1.27	-1.66/-1.92	-1/-0.16	0.30/49	0.70/56	0.2/-0.06
Θ(20°)	-0.17/0.34	0.84/1.12	1.23/0.87	0.44/-0.12	-0.52/-0.23	0.41/0.09	1.47/1.46	1.33/1.19	1.28/1.28	1.27/1.51	1.63/1.24	0.49/0.3	-1.32/-1.84	-2.39/-2.86	-2.02/-1.52	-0.92/-0.78	-0.86/-1	-0.85/-0.42
Θ(30°)	0.38/0.57	0.62/1.02	1.19/1.52	1.48/1.33	1.34/1.49	2/2.17	1.86/1.53	1.06/0.39	-0.04/0.47	0.80/0.74	0.52/-0.42	-1.51/-2.58	-3.53/-3.77	-3.59/-2.77	-2.18/-1.7	-1.12/-0.75	-0.43/0.11	-0.43/0.11
Θ(40°)	0.73/1.6	2.04/2.08	2.31/2.59	2.98/3.34	3.53/5.1	3.54/3.53	3.18/0.42	0.01/-0.14	-0.1/-0.37	-0.14/-0.37	-0.14/-0.37	-1.88/-1.79	-2.98/-3.96	-4.94/-5.04	-4.28/-3.04	-0.27/-0.56	-0.61/-0.36	-0.61/-0.36
Θ(50°)	1.76/2.74	3.26/3.33	3.1/3.7	3.44/4.25	4.57/4.32	4.09/4.08	4.01/3.69	3.19/2.38	1.42/0.8	0.57/0.34	-0.26/-1.21	-2.3/-3.35	-3.8/-4.05	-5.11/-5.86	-4.8/-3.54	-2.29/-1.18	-0.76/-0.67	-0.57/0.49
Θ(60°)	2.25/2.72	2.86/2.61	1.74/1.26	2.53/4.39	5.44/5.54	4.94/3.84	3.23/2.85	2.78/1.82	0.57/0.08	0.38/0.96	1.05/0.8	-0.56/-3	-4/-3.47	-4.55/-5.76	-5.81/-3.92	-2.44/-1.79	-1.68/-0.84	0.33/1.23
Θ(70°)	1.55/2.7	3.09/3.13	2.33/2.08	3.59/4.98	6.16/6.22	5.93/4.82	5.03/4.73	2.85/1.82	0.34/-0.73	-1.54/-0.75	-0.09/0.1	-0.84/-2.76	-2.98/-2.53	-3.95/-5.91	-5.01/-2.09	-0.67/-1.22	-2.65/-2.5	-0.77/0.26
Θ(80°)	0.11/1.9	2.93/1.9	2.83/2.34	3.44/4.3	4.93/4.86	3.65/1.99	1.82/2.85	2.58/1.4	-0.54/-2.61	-3.02/-2.6	-2.1/-1.35	-1.56/-2.69	-2.6/-2.25	-2.7/-4.78	-6.04/-2.44	-0.29/-0.46	-1.96/-3.72	-2.17/-0.69
Θ(90°)	0.60/0.73	1.38/1.61	1.55/1.85	2.52/69	3.25/3.55	2.84/2.05	2.17/2.76	2.63/1.55	-0.04/-1.38	-2.08/-2.26	-2.55/-2.78	-3.6/-4.71	-4.38/3.28	-3.48/-4.79	-6.11/3.69	-2.2/-2.46	-2.68/-2.6	-1.40/-2.7
Θ(100°)	-1.18/-2.37	-2.67/-1.84	-1.17/0.23	0.42/-2.11	-1.24/0.66	1.57/1.78	1.82/2.13	1.76/1.35	-1.49/-2.18	-3.08/-4.46	-1.47/-6.44	-5.2/-5.6	-3.87/-2.89	-5.2/-5.6	-2.05/-2.49	-2.62/-1.8	-1.7/-1.07	-1.7/-1.07
Θ(110°)	-4.33/-5.62	-7.06/-5.58	-3.52/-0.43	0.65/-1.15	-3.3/-0.19	1.31/1.18	0.96/0.36	-0.77/-1.34	-1.36/-1.82	-2.43/-2.73	-3.44/-3.09	-4.14/-6.18	-5.85/-5.77	-4.96/-4.85	-2.34/-0.75	-0.52/-1.03	-3.03/-4.64	-4.59/-3.64
Θ(120°)	-7.81/-7.29	-4.88/-2.26	-1.12/0.62	2.18/1.75	0.45/1.06	2.42/2.35	0.73/-1.38	-3.65/-3.94	-2.86/-2.83	-2.67/-3.83	-5.16/-5.84	-5.38/-4.07	-3.28/-4.31	-6.34/-8.58	-4.78/-2.3	-2.14/-3.05	-4.38/-6.42	-6.71/-7.04
Θ(130°)	-5.72/-5.49	-6.41/-6.58	-4.81/-3.66	-2.68/-2.13	-1.27/0.65	2.04/2.01	-4.62/-5.24	-4.18/-4.7	-5.92/-5.84	-4.44/-3.23	-3.57/-3.53	-3.21/-2.63	-3.78/-6.05	-3.32/-3.51	-3.57/-3.53	-3.21/-2.63	-8.43/-9.15	-7.23/-6.23
Θ(140°)	-6.61/-7.33	-7.37/-5.64	-3.71/-3.38	-3.71/-3.83	-2.71/-0.99	0.18/0.66	0.09/-0.79	-1.78/-2.64	-4/-5.4	-5.75/-5.86	-6.67/-7.09	-6.75/-5.29	-4.73/-5.28	-7.13/-7.59	-8.54/-9.4	-9.8/-8.62	-7.29/-6.14	-5.33/-5.09
Θ(150°)	-6.52/-6.98	-7.45/-8.34	-9.02/-9.29	-8.21/-6.35	-4.47/-3.45	-3.02/-2.99	-3.53/-3.63	-3.95/-5.47	-4.99/-5.77	-5.96/-6.9	-7.39/-6.76	-6.05/-0.68	-6.45/-7.89	-8.11/-6.66	-5.81/-5.45	-5.94/-6.22	-5.8/-5.67	-5.97/-6.93
Θ(160°)	-7.98/-7.17	-6.64/-6.79	-7.82/-8.51	-7.27/-4.96	-3.57/-2.68	-5.27/-2.87	-5.66/-3.68	-3.68/-4.24	-5.5/-44	-5.66/-5.78	-6.48/-6.47	-9.34/-9.32	-7.65/-7.4	-7.4/-7.55	-7.54/-7.54	-7.4/-7.55	-7.54/-7.55	-7.54/-7.55
Θ(170°)	-7.43/-8.08	-9.4/-10.48	-10.44/-9.65	-8.67/-7.39	-5.73/-5.12	-5.31/-5.72	-6.05/-5.63	-5.19/-4.12	-3.92/-3.94	-4.53/-5.14	-6.14/-7.04	-7.61/-7.46	-7.04/-6.77	-7.03/-7.94	-9.22/-9.51	-9.19/-8.5	-7.72/-7.18	-6.93/-7.01
Θ(180°)	-7.29/-7.12	-7.26/-7.63	-7.6/-8.49	-8.2/-8.33	-8.48/-8.63	-8.19/-8.05	-8.83/-8.49	-7.51/-7.04	-6.12/-6.07	-6.11/-5.93	-6.01/-5.67	-5.79/-6.06	-7.21/-8.1	-9.52/-10.08	-10.24/-9.92	-9.55/-8.51	-8.09/-7.49	-7.4/-6.98
Freq(Hz)	5.2GPol.	PhiL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
DG(dB)	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-5.99/-5.92	-5.04/-3.58	-2.68/-1.66	-1.03/-0.4	-0.03/0.1	0.31/0.18	0.24/0.09	-0.64/-1.41	-2.27/-3.59	-5.44/-6.15	-4.63/-2.76	-1.91/-1.41	-1.23/-0.62	-0.04/0.35	0.66/0.57	0.31/-0.16	-1.12/-2.09	-3.26/-4.51
Θ(10°)	-4.11/-4.46	-4.09/-3.33	-2.83/-1.96	-1.32/-0.74	-0.43/-0.39	-0.57/-0.73	-3.45/-0.83	-1.28/-1.97	-3.45/-3.83	-3.22/-2.49	0.72/0.67	0.47/0.85	0.09/0.36	0.74/0.84	0.72/0.67	0.29/0.8	-1.65/-2.62	-1.65/-2.62
Θ(20°)	-7.21/-6.46	-4.12/-2.84	-1.73/-1.67	-1.31/-1.13	-0.78/-0.31	-0.51/-1.45	-1.72/-0.89	-0.27/-0.49	-1.21/-1.8	-3.12/-5.79	-6.6/-5.65	-4.45/-3.03	-1.94/-0.51	0.19/0.84	0.81/0.49	0.45/0.19	-0.6/-1.8	-3.52/-5.71
Θ(30°)	-8.35/-6.2	-4.25/-1.24	-0.44/-0.39	-0.48/-1.16	-1.01/-0.37	-0.51/-1.6	-2.02/-1.01	-0.91/-1.61	-3.65/-6.95									



Radiated Composite Gain Data

Appendix A

Θ(60°)	-2.48/-0.66	1.09/1.51	1.05/0.07	1.48/0.99	1.72/0.54	-0.27/0.54	1.61/1.01	0.06/0.35	-0.3/-2.91	-2.79/-3.47	-3.9/-4.37	-3.48/-4.01	-4.08/-8.09	-10.73/-6.32	-7.09/-10.63	-10.65/-8.7	-7.09/-5.46	-3.48/-2.99
Θ(70°)	-0.92/0.52	1.55/1.39	1.51/2.08	3.94/3.56	2.72/2.19	2.65/3.24	4.72/3.6	2.92/3.78	2.03/-0.72	-2.84/-3.9	-4.23/-4.27	-3.7/-5.87	-6.49/-6.17	-9.23/-8.28	-6.87/-9.88	-10.52/-10.6	-6.94/-4.13	-3.29/-2.21
Θ(80°)	-1.65/-1.17	-0/0.85	1.12/1.84	4.03/4.09	5.42/4.18	3.17/3.92	3.58/4.17	4.02/2.91	2.82/1.71	0.06/-1.51	-0.68/-6.59	-4.59/-5.05	-4.09/-6.67	-6.57/-7.25	-10.59/-6.26	-6.47/-6.84	-8.65/-3.19	
Θ(90°)	-5.72/-4.71	-1.42/0.64	1.22/2.41	2.73/3.09	6.11/5.2	5.05/4.33	3.29/4.26	4.05/3.7	2.18/-0.55	-2.16/-2.89	-3.53/5.87	-6.22/-3.57	-4.24/-4.97	-6.44/-4.82	-3.36/-6.34	-6.9/-8.79	-8.07/6.5	-5.11/-5.19
Θ(100°)	-3.94/-2.45	-0.03/-0.08	0.17/2.47	1.7/-1.55	3.13/3.69	3.96/4.22	3.54/4.85	4.62/2.58	-0.18/0.6	-0.06/-1.65	-4.39/-4.44	-5.61/-4.27	-5.21/-5.44	-5.7/-7.18	-8.77/-5.34	-7.58/-8.11	-9.83/-7.45	-3.99/-3.51
Θ(110°)	-5.03/-2.83	-2.23/-3.67	-0.45/1.61	-0.05/-2.72	1.47/1.45	1.39/2.17	2.54/3.43	2.3/-3.41	-2.43/-0.21	-0.34/1.31	-0.96/-3.41	-4.19/-8.5	-6.64/-7.46	-4.28/-7.57	-9.32/-11.73	-7.64/-9.29	-8.06/-4.24	-3.26/-4.8
Θ(120°)	-7.13/-6.34	-7.8/-3.94	-1.89/-3.28	-6.5/-7.92	-1.18/-0.66	1.75/1.39	0.63/1.68	0.33/-2.37	-4.12/-2.2	-2.24/-2.49	-2.99/-2.03	-3.18/-3.9	-7.53/-7.85	-6.57/-7.59	-11.96/-10.27	-11.55/-8.68	-6.93/-7.92	-8.5/-9.21
Θ(130°)	-5.54/-4.74	-5.36/-4.56	-5.27/-6.26	-7.18/-5.86	-8.77/-3.99	0.9/-0.95	-1.23/0.57	-0.51/-0.74	-4.18/-3.15	-3.4/-3.66	-3.54/-4.74	-4.15/-2.39	-9.66/-6.07	-6.52/-6.18	-10.33/-10.61	-6.76/-10.07	-6.36/-4.41	-7.75/-7
Θ(140°)	-8.22/-7.29	-6.06/-7.59	-8.77/-8.06	-6.36/-8.3	-7.61/-2.85	-0.85/-1.8	-2.66/-2.77	-4.77/-3.83	-8/-8.79	-7.35/-7.89	-9.18/-8.39	-3.98/-6.57	-9.41/-5.99	-4.27/-8.05	-10.26/-6.2	-5.61/-7.69	-9.56/-10.83	
Θ(150°)	-8.41/-7.02	-7.04/-8.08	-8.37/-5.76	-4.89/-5.13	-4.3/-4.37	-4.94/-5.42	-5.82/-4.25	-4.09/-5.51	-9.15/-10.08	-7.54/-7.24	-8.9/-8.75	-5.72/-4.3	-4.35/-9.42	-9.85/-6.47	-6.25/-10.24	-7.08/-6.46	-10.44/-12.5	-12.42/-9.35
Θ(160°)	-6.95/-6.86	-6.44/-6.49	-5.48/-4.82	-4.54/-5.17	-5.16/-5.44	-6.16/-6.85	-7.63/-7.47	-7.57/-7.07	-6.94/-8.62	-10.13/-10.92	-9.61/-6.48	-5.66/-6.42	-8.82/-11.11	-10.92/-8.76	-10.23/-11.41	-10.12/-8.62	-8.75/-8.85	-7.83/-7.61
Θ(170°)	-5.45/-6.44	-8.02/-9.45	-9.96/-9.23	-7.85/-6.39	-5.29/-5.41	-6.84/-8.26	-8.05/-7.01	-7.78/-8.72	-8.9/-8.7	-8.62/-7.26	-7.35/-7.62	-7.82/-9.13	-9.1/-9.29	-11.53/-11.68	-9.75/-9.69	-9.71/-9.26	-9.47/-8.44	-6.96/-5.89
Θ(180°)	-7.29/-7.42	-7.42/-7.84	-9.19/-10.07	-9.86/-9.96	-10.57/-10.78	-10.92/-8.81	-8.32/-8.95	-9.09/-9.42	-8.98/-9.4	-10.29/-10.32	-9.44/-8.28	-7.87/-7.56	-8.55/-9.2	-10.81/-10.38	-9.33/-8.89	-8.21/-8.19	-8.33/-7.74	-7.11/-6.96
Freq(Hz)	5.6G/Pol.	Phi-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-3.21/-3.84	-3.71/-3.53	-3.64/-3.01	-2.6/-1.75	-0.72/0.04	0.12/0.27	0.43/0.25	-0.28/-0.2	-0.98/-2.01	-3.01/-2.93	-2.89/-2.92	-2.99/-3.15	-3.31/-1.97	-1.5/-0.62	-0.44/-0.03	-0.04/-0.25	-0.34/-0.83	-1.65/-2.47
Θ(10°)	-2.65/-3.74	-3.32/-3.02	-3.56/-3.05	-3.34/-3.83	-4.08/-3.23	-2.16/-1.51	-0.84/-0.99	-1.4/-2.45	-4.22/-1.47	-4.26/-3.8	-2.75/-2.1	-2.48/-1.96	-1.71/-0.94	-0.27/0.67	1.04/-1.42	1.05/0.94	0.39/-0.31	-0.99/-2.27
Θ(20°)	-5.18/-5.71	-2.9/-1.24	-0.22/0.08	0.17/-0.67	-1.98/-2.75	-2.38/-1.57	-1.52/-2.06	-2.03/-2.06	-1.89/-1.88	-1.23/-1.11	-1.36/-1.36	-0.31/0.5	1.04/0.58	0.08/-0.23	-0.88/-1.63	0.08/-0.23	-0.88/-1.63	-2.77/-3.73
Θ(30°)	-6.47/-6.05	-4.12/-2.34	-0.6/0.52	0.75/1.04	0.45/-0.91	-1.56/-0.95	0.39/1.63	1.1/-0.5	-1.67/-2.17	-1.7/-1.24	-1.65/-1.95	-1.72/-0.94	-0.99/-0.39	-0.33/-0.22	0.72/0.23	-0.84/-0.97	-1.91/-3.37	-4.26/-5.48
Θ(40°)	-7.51/-8.19	-7.48/-4.26	-2.26/-0.61	1.17/1.61	1.5/0.86	1.15/1.38	-0.06/1.04	1.29/-0.02	-1.45/-2.23	-3.83/-7.6	-7.12/-5.46	-5.48/-3.63	-2.1/-0.09	-0.46/-1.44	-0.82/-1.88	-3.04/-3.74	-5.75/-4.83	-5.95/-9.67
Θ(50°)	-9.3/-7.19	-4.93/-3.18	-0.13/-1.27	2.43/3.39	3.05/0.93	2.15/2.19	1.31/0.76	-0.97/-3.89	-2.55/-5.42	-1.07/-1.01	-2.29/-1.9	-4.88/-2.98	-2.3/-2.19	-2.58/-4.16	-2.9/-3.38	-2.58/-4.16	-9.47/-8.44	-6.96/-5.89
Θ(60°)	-10.48/-7.38	-6.93/-6.58	-2.44/0.64	2.32/3.28	2.45/1.13	2.69/3.8	0.8/0.53	0.59/1.34	1.55/-0.04	-2.35/-2.92	-2.91/-2.2	-1.94/-2.54	-2.61/-2.31	-0.68/-2.16	-2.21/-2.97	-4.59/-4.22	-3.48/-4.46	-8.99/-10.37
Θ(70°)	-6.27/-5.59	-6.62/-7.52	-5.02/-2.38	-0.03/2.32	1.31/-0.1	1.29/1.99	0.06/1.26	1.59/2.4	-4.76/-5.22	-4.26/-5.72	-4.61/-3.09	-2.61/-2.23	-3.02/-3.59	-2.81/-2.85	-4.98/-3.67	-4.17/-10.51	-10.53/-7.52	
Θ(80°)	-7.79/-8.96	-5.77/-1.35	-1.13/-1.27	2.27/2.58	0.45/2.82	1.73/0.86	0.38/0.66	-1.88/-5.73	-2.48/0.55	-2.59/-4.27	-3.63/-4.48	-3.56/-5.25	-2.89/-4.27	-3.63/-4.48	-5.94/-8.95	-10.28/-8	-7.67/-6.51	
Θ(90°)	-6.97/-6.63	-4.35/-3.05	-2.9/-1.53	1.01/2.42	3.74/3.57	2.84/2.08	0.16/1.12	1.85/0.02	-2.29/-2.91	-3.43/-5.19	-5.62/-4.75	-4.74/-4.31	-2.37/-3.62	-5.73/-4.09	-2.76/-5.2	-5.43/-5.33	-10.85/-10.33	-11.84/-8.92
Θ(100°)	-12.47/-9.25	-3.49/-1.47	-0.97/-2.08	-1.26/-1.27	1.46/2.26	4.16/-0.49	-0.54/-0.06	-0.45/0.23	0.47/-1.01	-3.71/-7.53	-7.89/-6.01	-7.24/-6.41	-4.33/-3.24	-4.26/-3.81	-2.42/-5.9	-3.78/-4.95	-1.91/-9.78	-8.43/-9.21
Θ(110°)	-9.87/-8.58	-6.43/-4.78	-8.41/-1.76	-1.76/-0.83	0.74/-0.84	-2.96/-4.85	-6.5/-6.06	0.82/-2.2	-4.9/-3.95	-5.58/-6.05	-5.86/-4.52	-12.3/-10.54	-6.95/-8.23	-5.94/-8.95	-10.28/-8	-7.67/-6.51		
Θ(120°)	-5.11/-3.83	-3.97/-6.48	-7.66/-4.31	-1.6/0.5	-1.06/-1.28	-0.69/0.63	2.79/-1.59	-4.08/-2.9	-2.82/-1.13	-1.35/-3.25	-1.94/-3.74	-5.36/-6.38	-9.98/-6.8	-6.42/-6.34	-9.24/-6.99	-5.37/-11.11	-6.53/-5.7	-9.51/-11.21
Θ(130°)	-9.53/-7.53	-9.03/-7.12	-3.02/-1.36	-1.44/0.49	-0.35/-1.29	0.75/0.32	2.51/0.54	-5.95/-5.52	-3.05/-2.78	-4.55/-5.89	-3.36/-2.18	-5.21/-7.67	-8.19/-8.29	-7.51/-8.16	-5.97/-8.46	-7.32/-6.58	-6.56/-4.75	-4.18/-5.47
Θ(140°)	-9.21/-11.82	-11.97/-6.72	-5.03/-4.39	-2.02/-3.52	-4.74/-2.19	-1.73/-0.94	0.64/-0.56	-6.53/-6.6	-6.58/-5.32	-4.81/-5.64	-7.59/-8.08	-6.89/-8.76	-5.74/-7.81	-5.72/-7.64	-8.76/-9.74	-12.16/-9.75	-8.48/-7.2	-6.74/-6.64
Θ(150°)	-10.26/-10.52	-9.41/-7.8	-5.48/-5.02	-8.7/-7.05	-5.01/-5.85	-9.69/-8.1	-6.54/-7.09	-6.92/-9.09	-7.68/-3.89	-10.54/-11.32	-11.56/-11.37	-8.83/-8.13	-11.56/-11.37	-10.54/-10.01	-7.75/-9.35	-8.76/-7.96	-7.69/-9.67	
Θ(160°)	-7.17/-8.85	-8.25/-8.09	-8.85/-6.12	-3.11/-2.19	-3.61/-4.77	-5.02/-4.34	-4.37/-6.27	-7.82/-3.81	-6.82/-5.31	-3.61/-4.45	-6.19/-7.53	-8.86/-10.07	-11.4/-9.87	-7.74/-7.19	-9.85/-9.65	-7.95/-6.13	-5.15/-5.4	
Θ(170°)	-9.93/-9.9	-9.86/-10.15	-8.36/-7.39	-6.56/-7.42	-8.66/-11.09	-10.34/-9.54	-9.07/-8.21	-7.69/-8.92	-8.96/-7.92	-6.5/-6.19	-8.34/-10.1	-11.37/-12.31	-11.49/-9.49	-7.95/-8.34	-8.4/-8.18	-7.91/-8.21	-8.98/-10.38	-10.92/-10.5
Θ(180°)	-7.88/-7.41	-6.83/-6.63	-7.54/-8.07	-8.59/-8.66	-9.14/-8.33	-8.24/-8.33	-9.78/-8.33	-7.89/-7.42	-9.27/-8.5	-8.9/-9.48	-9.63/-9.42	-8.72/-9.25	-11.02/-11.12	-9.68/-9.84	-10.9/-10.57	-8.57/-8.51	-9.09/-8.31	
Freq(Hz)	5.6G/Pol.	Theta-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-0.79/-0.43	0.24/0.47	0.19/-0.07	-0.54/-1.26	-1.81/-2.56	-3.12/-4.05	-4.07/-3.83	-3.37/-2.69	-2.18/-1.22	-0.56/0.03	0.51/0.27	0.15/0.4	0.36/-0.56	-1.2/-2.31	-2.92/-3.3	-2.87/-3.06	-2.98/-2.72	-2.08/-1.37
Θ(10°)	-1.39/-0.6	-0.24/-0.19	-0.02/0.42	0.32/0.39	0.12/-1.17	-2.15/-2.98	-3.23/-1.37	-2.31/-1.54	-0.98/-0.64	-0.44/-0.26	0.12/-0.05	0.11/-0.88	-1.47/-2.02	-2.75/-3.21	-3.91/-3.51	-3.9/-3.44	-3.51/-2.71	-1.99/-2.03
Θ(20°)	0.8/0.81	0.94/0.97	0.57/-0.11	-0.76/-0.95	-0.32/0.61	-1.43/-2.23	-1.89/-1.51	-0.57/0.34	0.43/-0.18	-0.79/-0.8	-1.03/-0.03	0.36/-0.33	-2.38/-4.34	-4.15/-3.43	-4.09/-4.41	-4.85/-5.03	-3.8/-2.76	-0.96/0.41
Θ(30°)	0.54/1.15	1.34/2.06	2.25/1.62	-0.55/-2.94	-1.68/-0.46	-0.85/-0.88	-0.61/-0.54	-0.12/-0.94	-2.89/-3.91	-6.17/-7.41	-2.75/-1.49	-0.52/0.2	-1.17/-3.49	-6.17/-5.74	-4.38/-4.45	-3.83/-2.46	-1.59/-1.03	-0.72/-0.57
Θ(40°)	-0.1/-0.58	-0.89/-0.94	0.64/1.66	1.58/0.46	-0.36/-0.51	-0.56/0.26	0.83/0.51	-0.75/-1.71	-1.95/-1.2	-1.93/-2.38	-2.78/-2.71	-2.45/-2.11	-3.38/-5.39	-6.86/-6.38	-4.35/-3.96	-3.92/-2.74	1.2/0.15	-0.09/0.04
Θ(50°)	0.34/-0.19	0.21/1.7	1.54/2	3.05/3	3.26/2.61	1.94/1.48	1.77/1.68	1.51/0.33	-0.84/-2.16	-2.59/-3	-3.81/-3.06	-2.76/-3.46	-3.71/-6.93	-7.62/-4.45	-4.64/-4.68	-2.55/-6.09	-2.66/-0.55	-0.37/0.46
Θ(60°)	0.38/0.42	1.92/38	2.63/3.14	2.64/2.21	2.14/3.31	2.62/1.58	3.56/3.45	1.62/1.22	-4.47/-4.13	-2.45/-1.57	-2.32/-3.77	-9.59/-5.38	-5.33/-6.67	-5.18/-7.1	-3.88/-2.14	-3.88/-2.14	-0.8/-0.47	
Θ(70°)	-3.09/-2.43	0.78/2.56	2.34/0.23	0.05/0.54	2.55/2.31	2.26/0.62	3.98/2.11	0.79/1.28	0.43/-0.06	0.05/-0.9	-2.76/-2.81	-3.38/-4.3	-3.15/-7.31	-9.89/-8.33	-9.34/-4.78	-6.18/-7.6	-3.3/-1.89	-2.18/-3.01
Θ(80°)	-0.87/-0.2	0.91/1.68	1.51/2.87	4.23/3.59	1.76/3.67	5.91/2.73	3.01/2.94	4.25/3.83	1.93/1.19	0.1/-1.19	-2.37/-3.07	-2.67/-2.93	-4.28/-4.59	-6.87/-4.91	-6.99/-5.41	-4.98/-9.24	-5.28/-4.11	-3.03/-2.48
Θ(90°)	-1.74/-2.28	-3.67/-1.76	0.61/3.36	4.44/5.6	3.3/3	3.78/3.28	3.41/0.56	2.39/3.67	3.53/2.43	1.64/-3.4	-3.94/-5.01	-4.27/-3.84	-3.58/-5.1	-5.38/-5.12	-8.54/-7.23	-6.85/-2.04	-2.56/-3.54	
Θ(100°)	-8.1/-6.86	-6.02/-2.73	-0.04/0.22	1.7/0.06	-1.19/2.78	3.94/4.51	3.13/4.34	4.134.48	2.18/-2.02	-0.44/0.59	-0.56/-6.81	-5.6/-1.27	-4.3/-2.79	-6.48/-6.29	-5.27/-5.89	-6.69/-7.45	-3.31/-2.61	-3.06/-4.38
Θ(110°)	-5.47/-5.64	-3.48/-1.58	-1.46/0.08	0.93/-0.58	1.49/2.66	2.98/2.66	2.76/3											



Radiated Composite Gain Data

Appendix A

Gain Result

Freq(Hz)	2.45GPol.	PhiAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-11.14/-9.52	-8.34/-7.43	-7.34/-7.19	-7.46/-7.71	-8.57/-9.06	-10.18/-11.79	-13.27/-14.12	-13.27/-18.03	-13.34/-15.03	-9.39/-7.73	-14.06/-11.3	-9.39/-7.73	-7.07/-6.86	-7.12/-7.73	-8.39/-10.78	-12.21/-13.57	-13.29/-12.81	
Θ(10°)	-17.3/-18.81	-16.19/-12.8	-11.51/-9.71	-8.67/-8.1	-7.43/-7.59	-8.44/-9.99	-11.72/-13.37	-13.09/-11.78	-11.96/-13.19	-15.47/-13.33	-10/-7.8	-6.65/-6.15	-6.47/-7.34	-8.31/-9.5	-11.09/-11.81	-13.24/-13.6	-14.01/-16.21	-17.69/-18.34
Θ(20°)	-11.48/-13.51	-18.62/-19.13	-18.87/-14.21	-10.11/-8.09	-7.08/-6.64	-7.66/-8.83	-10.03/-9.85	-8.25/-6.94	-7.03/-8.32	-11.13/-18.53	-18.34/-11.74	-7.92/-6.15	-6.03/-6.84	-8.96/-11.44	-13.61/-16.6	-16.47/-16.5	-14.68/-13.59	-12.17/-11.56
Θ(30°)	-9.36/-10.51	-12.01/-14.88	-18.25/-18.07	-13.63/-9.05	-7.26/-7.24	-8.43/-9.8	-9.5/-7.48	-4.85/-3.31	-2.71/-3	-4.59/-7.75	-15.17/-17.52	-11.61/-7.55	-6.61/-7.37	-9.53/-12.39	-14.51/-14.96	-14.3/-12.42	-11.44/-9.52	
Θ(40°)	-13.16/-12.94	-12.79/-12.68	-12/-11.9	-10.47/-7.86	-6.97/-7.4	-9.82/-12.16	-9.61/-5.71	-3.1/-1.58	-0.9/-1.05	-1.71/-3.07	-5.6/-10.92	-17.5/-13.39	-8.64/-8.05	-10.07/-13.14	-15.31/-18	-18.83/-18.84	-17.45/-15.15	-14.47/-14.16
Θ(50°)	-17.23/-19.12	-18.24/-15.15	-10.58/-7.64	-6.83/-6.3	-6.16/-7.36	-10.82/-18.62	-11.12/-4.67	-1.65/-0.3	-0.06/-0.34	-1.02/-2.13	-4.42/-8.36	-16.58/-14.85	-8.2/-3.71	-9.83/-12.02	-13.84/-18.5	-17.54/-17.64	-18.08/-18.03	-19.17/-17.81
Θ(60°)	-9.58/-11.83	-17.74/-16.99	-8.75/-5.86	-6.04/-7.95	-8.58/-9.4	-11.18/-15.64	-15.29/-6.42	-2.4/-0.91	-0.7/-1.15	-1.92/-2.81	-3.39/-4.63	-7/-12.52	-11.5/-8.8	-9.35/-10.28	-13.37/-19.26	-17.17/-16.21	-18.6/-17.24	-14.69/-11.76
Θ(70°)	-6.85/-8.67	-13.11/-10.75	-5.64/-3.64	-4.62/-8.67	-11.71/-13.12	-17.07/-13.6	-11.38/-7.08	-3.65/-2.38	-2.55/-3.12	-3.77/-3.82	-3.31/-3.57	-5.65/-12.09	-18.33/-10.9	-9.46/-9.3	-14.61/-17.33	-10.72/-11.92	-15.6/-11.76	-7.83/-6.89
Θ(80°)	-5.28/-6.87	-9.23/-8.36	-5.98/-5.69	-8.85/-19.18	-17.31/-14.64	-18.11/-19.07	-13.78/-8.98	-5.67/-4	-4.19/-5.76	-7.79/-9.15	-8.97/-8.8	-10.45/-16.86	-18.48/-14.2	-11.72/-13.25	-17.83/-10.89	-8.26/-9.61	-9.39/-7.42	-5.5/-7.47
Θ(90°)	-7.12/-8.43	-6.89/-4.45	-3.7/-6.04	-14.53/-18.45	-18.99/-14.98	-13.65/-17.08	-7.85/-3.56	-2.7/-4.14	-14.9/-18.33	-8.4/-9.57	-15.5/-17.93	-12.82/-9.18	-11.65/-11.97	-14.9/-18.05	-9.25/-7.58	-4.83/-4.08	-4.33/-5.08	
Θ(100°)	-10.15/-8.55	-6.35/-4.66	-4.25/-7.04	-11.27/-9.67	-13.04/-17.61	-13.52/-14.08	-12.06/-10.75	-7.87/-4.1	-2.66/-3.14	-4.43/-5.95	-6.94/-9.06	-13.99/-13.09	-12.55/-15.69	-18.17/-13.05	-9.31/-8.64	-9.98/-7.33	-4.55/-4.43	-6.33/-8.6
Θ(110°)	-5.75/-4.08	-4.11/-5.83	-5.63/-6.02	-6.7/-7.47	-12.46/-18.53	-6.7/-7.47	-12.46/-18.53	-12.35/-10.01	-8/-4.63	-3.23/-2.85	-3.18/-3.48	-4.54/-6.17	-11.03/-15.96	-18.43/-18.19	-15.05/-14.4	-15.2/-8.96	-5.26/-4.96	-6.36/-7.04
Θ(120°)	-5.49/-3.25	-3.78/-6.96	-7.88/-6.24	-6.92/-8.53	-12.35/-15.79	-16.64/-17.93	-10.37/-9.46	-10.06/-9.68	-7.33/-6.75	-4.83/-4.15	-4.5/-6.73	-9.47/-13.26	-17.52/-19.35	-17.13/-15.88	-12.12/-9.77	-14.04/-12.84	-12.37/-9.38	
Θ(130°)	-9.02/-7.49	-9.09/-15.31	-8.63/-5.54	-6.93/-14.69	-17.75/-8.38	-7.77/-11.06	-17.77/-13.55	-9.91/-9.04	-9.37/-9.48	-7.73/-6.88	-7.5/-12.28	-18.05/-17.59	-15.42/-16.95	-18.82/-17.69	-14.64/-10.17	-9.03/-10.53	-12.84/-12.64	-11.99/-10.46
Θ(140°)	-8.61/-9.53	-12.48/-17.46	-11.47/-7.23	-7.71/-12.67	-15.68/-11.98	-6.94/-7.48	-12.15/-17.87	-17.83/-15.96	-17.81/-18.67	-18.34/-18.16	-16.5/-11.79	-10.18/-9.38	-9.99/-12.13	-13.49/-11.93	-12.8/-14.59	-16.35/-15.92	-13.77/-10.81	-8.89/-8.07
Θ(150°)	-10.33/-15.14	-19.01/-16.83	-10.43/-7.7	-8.43/-12.8	-18.22/-11.39	-10.94/-9.19	-17.13/-14.96	-11.71/-10.52	-9.78/-10.26	-9.7/-10.16	-17.06/-13.36	-11.01/-9.7	-12.06/-10.22	-12.10/-17.88	-13.98/-7.27	-7.98/-7.21	-7.27/-8.74	
Θ(160°)	-14.16/-17.65	-17.33/-12.48	-10.25/-9.4	-11.55/-17.56	-17.97/-12.53	-8.58/-7.09	-7.23/-8.59	-10.81/-11.86	-12.89/-13.87	-14.34/-14.54	-17.99/-19.08	-14.55/-11.07	-9.38/-9.71	-13.47/-17.04	-18.17/-15.14	-11.68/-9.56	-9.25/-9.27	-10.32/-12.42
Θ(170°)	-18.19/-13.5	-13.17/-12.34	-12.01/-13.5	-16.3/-17.83	-19.01/-12.35	-9.45/-7.81	-7.05/-7.14	-8/-8.51	-9.47/-11.57	-13.67/-16.05	-16.31/-14.95	-13.78/-13.49	-15.62/-18.24	-18.04/-16.01	-13.54/-17.59	-11.99/-13.76	-17.07/-17.45	-18.92/-18.12
Θ(180°)	-12.1/-12.16	-13.55/-16.2	-17.68/-18.81	-18.98/-17.21	-14.25/-10.95	-10.27/-9.47	-9.04/-9.04	-9.71/-10.58	-11.15/-12.33	-13.88/-14.27	-15.62/-16.71	-19.14/-18.88	-18.16/-19.29	-17.77/-17.88	-16.36/-17.51	-17.12/-14.66	-12.49/-11.04	-10.82/-10.66
Freq(Hz)	2.45GPol.	ThetaAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-9.63/-9.64	-10.0/-14.06	-11.91/-14.27	-14.69/-14.5	-13.14/-11.89	-11.18/-10.96	-9/-8.44	-8.84/-9.2	-11.14/-11.39	-10.27/-11.21	-11.14/-11.39	-14.07/-12.58	-11.06/-9.78	-8.89/-8.1	-8.55/-9.8			
Θ(10°)	-11.25/-10.02	-9.02/-8.35	-8.76/-10.52	-11.12/-11.89	-11.58/-11.49	-10.82/-10.9	-10.64/-10.6	-9.61/-9.34	-8.65/-9.02	-10.02/-11	-12.06/-13.16	-15.26/-17.35	-17.61/-15.07	-12.81/-12.41	-12.51/-12.74	-13.37/-13.8	-13.22/-13.13	-12.64/-12.22
Θ(20°)	-14.29/-12.3	-10.6/-8.84	-8.02/-8.02	-8.05/-8.14	-8.17/-8.23	-8.26/-8.47	-9.32/-11.12	-13.91/-17.63	-17.06/-6.41	-14.23/-10.37	-12.92/-14.96	-18.26/-19.23	-18.38/-12.82	-11.09/-11.46	-13.98/-19.45	-17.94/-17.99	-18.09/-18.52	-18.87/-16.62
Θ(30°)	-8.91/-9.24	-10/-9.18	-8.9/-7.49	-6.84/-6.52	-6.5/-6.3	-5.21/-5.25	-5.21/-5.64	-6.44/-7.1	-9.9/-12.93	-18.46/-17.56	-18.62/-18.1	-17.39/-18.25	-15.96/-11.88	-12.99/-11.96	-17.07/-17.72	-14.81/-11.11	-9.37/-9.23	-9.85/-9.87
Θ(40°)	-3.84/-3.79	-4.36/-5.12	-5.41/-5.05	-4.28/-3.53	-2.84/-2.03	-1.21/-0.52	0.030/0.34	-0.1/-1.05	-2.45/-3.81	-5.56/-7.66	-9.99/-12.75	-18.19/-18.39	-19.47/-16.07	-17.1/-19.19	-16.97/-12.34	-9.3/-7.7	-6.83/-6.56	-5.69/-4.8
Θ(50°)	-2.83/-3.09	-3.5/-4	-3.71/-2.39	-0.920/-1	0.450/0.8	1.52/0.68	3.673/0.64	2.711/0.5	-0.91/-2.78	-4.37/-5.6	-6.67/-8.59	-13.5/-17.68	-14.44/-11.66	-14.86/-18.72	-13.5/-10.11	-9.34/-6.82	-7.34/-5.42	-4.24/-2.37
Θ(60°)	-2.05/-3.32	-4.22/-5.09	-5.11/-1.73	1.613/0.35	3.663/0.37	3.213/0.1	3.643/0.37	3.11/2.4	-0.98/-2.62	-4.34/-4.74	-4.85/-5.52	-8.36/-15.86	-18.39/-12.22	-12.41/-13.22	-10.33/-7.72	-5.9/-4.93	-4.27/-3.46	-2.16/-1.96
Θ(70°)	-2.77/-3.09	-3.11/-3.68	-5.9/-2.69	2.063/4.7	4.334/4.8	4.083/9.2	3.672/5.3	1.65/-0.48	-2.54/-4.26	-6.04/-5.85	-5.03/-5.44	-8.14/-17.24	-14.08/-8.15	-7.08/-8.53	-9.97/-8.1	-4.78/-3.29	-3.67/-4.02	-3.5/-3.03
Θ(80°)	-2.67/-1.89	-1.14/-0.63	-2.16/-2.9	0.421/7.5	3.234/3.2	4.3/3.45	2.241/6.3	-0.69/-3.66	-6.7/-8.19	-8.22/-6.38	-5.44/-5.99	-8.38/-16.34	-12.41/-7.07	-6.06/-8.31	-12.32/-7.99	-4.64/-3.82	-4.13/-5.33	-5.18/-3.56
Θ(90°)	-1.47/-1.84	-1.49/-0.64	-1.42/-1.88	-0.87/-0.37	2.051/4.2	4.272/7.3	0.271/-1.32	-2.75/-4.98	-7.12/-8.03	-6.94/-5.6	-5.43/-6.69	-8.46/-14.08	-16.24/-10.06	-9.06/-13.84	-17.06/-7.22	-4.58/-4.29	-3.9/-3.59	-3.15/-2.06
Θ(100°)	-2.37/-4.3	-4.5/-3	-2.42/-0.9	-1.17/-6.16	-3.45/-4.12	1.570/9.5	-1.4/-3.02	-3.03/-3.11	-3.45/-4.12	-4.76/-5.07	-6.34/-8.17	-11.42/-18.04	-15.71/-12.96	-13.53/-17.85	-11.42/-6.59	-3.72/-2.67	-2.94/-2.88	-2.58/-2.47
Θ(110°)	-6.28/-11.02	-14.63/-11.99	-10.18/-3.95	-2.35/-5.55	-12.08/-4.23	-0.78/-0.19	-1.97/-5.18	-6.08/-4.22	-2.79/-2.45	-3.29/-4.56	-6.87/-8.24	-14.81/-17.4	-11.04/-10.3	-9.57/-10.23	-8.43/-5.31	-2.97/-7.13	-2.33/-4.39	-5.09/-4.96
Θ(120°)	-17.54/-15.91	-16.29/-13.21	-9.96/-5.7	-1.92/-1.83	-4.86/-4.08	-0.430/0.36	0.22/-2.37	-5.15/-4.97	-2.88/-1.81	-2.3/-5	-7.98/-11.24	-10.15/-6.38	-6.4/-8.12	-9.68/-15.16	-13.21/-8.98	-6.44/-5.39	-6.5/-10.76	-19.18/-18.64
Θ(130°)	-9.46/-7.83	-12.63/-17.2	-11.36/-8.19	-4.83/-3.5	-3.32/-1.4	0.561/3.7	0.59/-1.16	-2.8/-3.47	-4.1/-4.71	-5.86/-5.83	-4.58/-4.64	-9.8/-10.27	-19.12/-11.32	-8.31/-7.94	-8.28/-8.48	-9.8/-11.14	-13.35/-12.3	-16.35/-15.03
Θ(140°)	-10.63/-13.4	-18.68/-13.6	-7.74/-6.39	-6.02/-5.54	-3.72/-2.07	-1.17/-0.81	-1.51/-2.43	-3.36/-0.43	-5.32/-6.6	-7.24/-7.64	-8.83/-13.27	-14.71/-10.52	-8.05/-7.15	-8.94/-12.39	-17.84/-19.36	-14.41/-11.86	-8.72/-6.82	-6.69/-7.91
Θ(150°)	-9.69/-11.94	-15.51/-19.06	-18.25/-15.78	-10.04/-6.4	-4.18/-2.9	-2.73/-3.29	-4.15/-5.38	-6.37/-7.16	-8.39/-10.15	-11.64/-13.66	-13.74/-10.42	-9.03/-9.72	-11.99/-16.27	-15.8/-13.87	-12.55/-10.78	-10.13/-10.86	-11.4/-9.53	-8.84/-9
Θ(160°)	-8.84/-9.5	-9.69/-11.08	-15.32/-19.04	-13.66/-8.74	-6.82/-6.07	-7.62/-9.61	-12.82/-14.98	-15.86/-17.15	-12.82/-14.98	-13.91/-18.31	-9.86/-9.58	-13.32/-10.19	-13.31/-14.55	-17.96/-18.3	-16.96/-13.01	-16.77/-18.52	-14.99/-11.8	
Θ(170°)	-13.84/-15.56	-17.64/-19.18	-18.84/-16.5	-12.24/-9.76	-8.21/-8.55	-10.29/-13.92	-17.06/-19.22	-18.39/-12.65	-11.29/-8.86	-9.4/-9.32	-9.82/-10.36	-9.79/-9.29	-9.29/-8.8	-8.89/-11.05	-13.93/-17.53	-18.42/-16.28	-14.02/-13.23	-13.35/-13.47
Θ(180°)	-14.97/-13.81	-12.51/-11.41	-10.31/-10.31	-9.91/-9.7	-9.84/-10.92	-11.94/-13.84	-17.6/-18.23	-18.13/-18.71	-15.57/-14.23	-14.16/-12.06	-11.86/-10.8	-9.27/-8.42	-8.6/-9.17	-10.23/-11.74	-13.45/-15.28	-17.31/-16.7	-16.91/-15.55	-15.53/-14.44
Freq(Hz)	5.2GPol.	PhiAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-10.12/-9.8	-10.15/-11.88	-13.5/-14.74	-16.14/-16.34	-16.55/-18.07	-18.64/-17.91	-15.18/-13.22	-14.62/-12.97	-10.35/-9.54	-10.02/-12.09	-10.8/-9.36	-10.36/-12.91	-16.87/-18.59	-18.97/-18.88	-15.55/-13.07	-12.24/-9.97	-10.18/-12.04	-10.35/-9.76
Θ(10°)	-10.05/-8.83	-11.57/-13.19	-16.59/-14.82	-13.77/-13.85	-15.38/-18.21	-17.12/-14.69	-10.95/-8											



Radiated Composite Gain Data

Appendix A

Θ (60°)	-14.5/-13.42	-10.15/-6.66	-4.37/-3.86	0.57/-0.16	1.02/0.37	-3.73/-0.35	-0.82/-2	-2.75/-3.2	-6.71/-17.65	-18.62/-18.28	-13.09/-11.86	-8.74/-14.46	-16.52/-17.27	-18.99/-11.67	-15.7/-18.82	-17.23/-18.37	-18.89/-17.31	-13.06/-13.99
Θ (70°)	-9.85/-8.44	-6.81/-4.86	-3.24/-2.69	2.06/2.69	1.69/2.3	0.95/1.44	1.52/1.39	0.93/1.07	-1.17/-6.66	-17.63/-15.19	-15.25/-16.7	-12.85/-15.91	-18.8/-18.66	-14.79/-14.25	-18.85/-19.18	-18.44/-19.08	-11.55/-10.09	-18.92/-11.33
Θ (80°)	-8.03/-8.11	-6.42/-9.99	-3.56/-3.26	1.77/4.98	4.38/2.32	1.81/65	0.62/0.77	-0.89/-4.18	-0.89/-4.18	-7.52/-9.79	-13.79/-13.54	-9.13/-12.17	-18.7/-18.94	-18.43/-12.52	-18.41/-19.54	-19.35/-12.38	-13.27/-18.76	-12.49/-9.08
Θ (90°)	-17.69/-18.18	-10.51/-8.86	-7.49/-3.54	-2.09/0.59	4.19/3.38	2.05/0.75	-0.19/0.11	-1.19/-0.05	-0.11/-2	-4.77/-6.98	-12.01/-18.26	-12.86/-10.46	-9.77/-17.05	-17.84/-16.75	-13.6/-16.4	-18.25/-15.48	-15.63/-14.62	-14.17/-12.51
Θ (100°)	-11.3/-11.69	-5.78/-7.18	-6.11/-2.31	-1.94/-4.83	-0.73/-1.7	1.59/0.56	-0.74/-1.49	0/-1.15	-3.15/-4.28	-3.82/-5.8	-6.47/-6.79	-9.4/-8.16	-11.65/-11.68	-14.11/-18.93	-12.96/-4.48	-13.13/-11.16	-18.09/-18.85	-10.32/-8.64
Θ (110°)	-14.22/-9.19	-6.74/-9.31	-5.77/-4.37	-5.58/-5.9	-1.09/-0.13	-1.56/-2.66	-2.82/-4.1	-7.63/-14.2	-15.99/-9.3	-8.33/-5.46	-6.65/-7.44	-7.43/-13.96	-12.33/-18.19	-18.84/-18.35	-14.27/-18.05	-16.73/-8.94	-11.06/-16.2	
Θ (120°)	-18.44/-16.81	-18.42/-16.35	-12.31/-15.85	-14.78/-18.91	-4.27/-2.82	-3.75/-6.01	-1.63/-1.1	-2.24/-4.61	-6.38/-7.15	-7.17/-7.97	-6.76/-4.71	-6.18/-7.67	-18.89/-12.84	-13.89/-12.58	-18.32/-16.68	-17.79/-15.95	-17.43/-16.62	-18.33/-15.97
Θ (130°)	-12.82/-10.21	-15.44/-12.34	-8.23/-10.52	-8.15/-14.57	-12.31/-9.7	-11/-10.22	-5.25/-1.28	-1.75/-3.83	-8.82/-9.86	-11.29/-10.25	-8.59/-10.71	-7.89/-5.4	-18.64/-18.69	-13.51/-8.37	-11.68/-14.12	-11.87/-16.27	-14.03/-10.81	-9.85/-17.69
Θ (140°)	-19.13/-19.09	-12.55/-13.71	-18.14/-10.88	-7.31/-9.27	-18.9/-12.13	-12.62/-10.78	-8.88/-4.7	-4.46/-8.3	-19.12/-17.37	-17.9/-18.93	-16.78/-9.63	-6.09/-9.23	-17.47/-10.8	-6.1/-17.26	-15.26/-19.2	-18.23/-14.3	-17.16/-19.09	-14.28/-16.76
Θ (150°)	-18.12/-16.61	-13.9/-11	-8.29/-7.64	-8.06/-11.07	-17.47/-16.86	-12.72/-9.46	-6.46/-4.36	-3.91/-6.22	-10.45/-15.22	-18.23/-18.66	-14.09/-13.48	-5.59/-2.59	-5.56/-17.88	-16.67/-19.15	-17.88/-15.66	-11.41/-12.41	-18.3/-18.94	-17.82/-18.89
Θ (160°)	-17.91/-19.48	-17.04/-17.5	-14.93/-12.14	-9.63/-9.98	-10.6/-10.29	-10.87/-12.35	-13.5/-12.66	-11.88/-10.24	-10.07/-12.29	-16.39/-19.14	-14.17/-9.26	-7.47/-9.28	-12.49/-17.42	-18.45/-17.17	-15.18/-15.93	-17.79/-15.81	-11.72/-9.6	-10.15/-16.72
Θ (170°)	-7.99/-9.67	-12.11/-16.84	-17.45/-16.08	-12.54/-11.09	-11.33/-12.58	-15.28/-18.89	-18.03/-18.09	-17/-13.72	-12.41/-9.86	-8.96/-9.15	-9.23/-9.62	-11.95/-13.75	-18.5/-16.22	-11.43/-11.73	-12.33/-11.08	-9.69/-8.27	-7.26/-7.71	
Θ (180°)	-11.54/-11.2	-11.41/-12.55	-15.92/-16.46	-16.83/-14.56	-14.71/-14.18	-15.18/-13.35	-13.68/-14.77	-14/-13	-12.49/-14.82	-17.07/-16.89	-13.05/-11.2	-10.5/-10.49	-11.31/-13.25	-18.93/-19.18	-15.19/-14.41	-14.97/-14.46	-14.42/-11.47	-12.02/-11
Freq(Hz)	5.6GPol.	PhiAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ (0°)	-5.25/-6.24	-7.71/-8.98	-11.6/-13.4	-19.2/-18.79	-17.36/-14.35	-11.63/-9.64	-8.7/-8.19	-6.79/-5.23	-4.49/-6.26	-6.91/-5.93	-6.57/-8.71	-11.24/-13.3	-19.07/-17.61	-18.99/-15.46	-14.07/-9.53	-7.29/-7.07	-6.17/-5.57	-5.44/-5.98
Θ (10°)	-6.93/-7.2	-12.22/-9.53	-10.71/-11.3	-14.46/-18.17	-18.26/-18.71	-10.4/-12.38	-10.02/-7.8	-6.99/-7.32	-9.27/-6.77	-17.15/-13.07	-6.37/-7.54	-9.33/-9.61	-10.41/-13.84	-17.99/-19.65	-17.15/-13.07	-10.22/-7.7	-7.65/-6.7	-7.65/-7.74
Θ (20°)	-4.17/-4.17	-3.96/-4.44	-4.37/-5.83	-4.77/-10.28	-13.46/-18.45	-16.65/-11.57	-8.94/-8.07	-12.03/-7.51	-5.68/-5.12	-8.21/-8.4	-13.39/-17.42	-8.7/-10.84	-13.39/-17.42	-11.84/-13.03	-13.85/-12.47	-11.84/-11.21	-10.08/-9.54	-8.14/-4.6
Θ (30°)	-6.95/-9.85	-9.77/-9.65	-9.06/-9.65	-13.56/-12.18	-12.71/-15.25	-14.9/-10.32	-10.5/-10.24	-11.14/-9.83	-7.86/-5.9	-3.84/-3.6	-4.38/-4.96	-4.85/-6.81	-11.4/-14.57	-18.19/-18.78	-16.76/-15.27	-15.21/-18.7	-12.36/-9.41	-5.97/-5.87
Θ (40°)	-16.54/-14.58	-9.98/-9.57	-10.52/-11.9	-12.27/-18.49	-17.12/-18.74	-15.11/-11.65	-13.16/-10.95	-10.82/-10.23	-6.82/-4.73	-5.94/-8.26	-9.42/-8.87	-9.52/-9.23	-9.55/-10.27	-14.82/-18.49	-18.07/-14.92	-17.12/-18.15	-15.15/-8.95	-10.37/-11.43
Θ (50°)	-13.8/-12.68	-8.1/-6.39	-4.77/-5.86	-4.14/-6.91	-18.88/-16.96	-14.93/-13.54	-13.58/-16.79	-4.31/-2.4	-9.77/-8.63	-3.56/-2.34	-5.05/-9.61	-12.67/-10.67	-8.88/-12.66	-19.23/-15.36	-16.33/-19.06	-14.5/-17.67	-16.12/-16.46	-10.59/-8.55
Θ (60°)	-18.13/-12.25	-10.33/-10.38	-6.39/-6.79	-6.38/-5.59	-18.42/-15.08	-17.49/-14.07	-19.74/-9.72	-5.1/-7.21	-7.27/-5.76	-4.51/-2.86	-3.1/-4.86	-6.81/-8.32	-10.79/-14.29	-13.44/-18.38	-18.4/-18.71	-18/-12.92	-9.79/-11.79	-15.33/-16.04
Θ (70°)	-9.11/-8.14	-8.71/-10.88	-11.86/-10.86	-15.6/-6.44	-17.54/-18.14	-18.95/-18.54	-12.53/-6.37	-4.81/-6.64	-4.84/-8.59	-8.47/-14.24	-15.33/-17.25	-16.68/-13.33	-13.37/-18.88	-17.44/-15.66	-18.62/-16.99	-9.9/-16.19	-18.07/-14.7	
Θ (80°)	-10.57/-11.48	-14.95/-9.96	-6.07/-7.54	-11.94/-7.35	-15.82/-13.53	-11.94/-9.46	-9.39/-9.42	-3.58/-2.34	-5.05/-9.61	-12.67/-10.67	-8.88/-12.66	-19.23/-15.36	-16.33/-19.06	-14.5/-17.67	-16.12/-16.46	-10.59/-8.55		
Θ (90°)	-14.61/-11.33	-8.86/-10.64	-6.72/-7.24	-12.03/-11.5	-9.12/-6.73	-8.04/-17.75	-15.18/-11.14	-5.85/-4.1	-7.32/-3.54	-5.22/-7.64	-13.18/-10.84	-13.19/-17.56	-13.38/-17.93	-17.68/-14.88	-17.05/-13.37	-15.76/-13.25	-19.23/-17.98	-16.66/-12.61
Θ (100°)	-18.18/-14.04	-9.32/-5.76	-4.08/-11.04	-11.24/-18.95	-7.08/-6.8	-8.95/-13.96	-4.6/-6.96	-8.29/-4.78	-6.28/-7.66	-8.71/-9.48	-11.78/-14.28	-15.36/-10.86	-19.31/-18.32	-16.92/-17.88	-12.49/-16.14	-13.13/-10.44	-16.78/-18.89	-15.32/-13.18
Θ (110°)	-18.64/-15.44	-15.2/-16.37	-18.28/-10.88	-11.16/-8.37	-5.89/-15.54	-15.68/-15.79	-6.38/-12.09	-17.75/-19.28	-16.28/-10.98	-8.54/-9.34	-9.52/-11.44	-13.71/-13.22	-14.9/-11.43	-12.95/-18.73	-16.67/-16.69	-16.37/-9.26	-19.04/-13.92	-14.65/-18
Θ (120°)	-17.85/-18.11	-18.84/-13.37	-7.16/-7.55	-8.84/-6.39	-8.61/-14.19	-10.58/-4.96	-3.53/-10.93	-13.85/-17.33	-12.58/-1.02	-6.4/-7.78	-11.18/-17.81	-18.09/-13.01	-16.65/-18.47	-18.05/-14.25	-16.35/-18.63			
Θ (130°)	-15.23/-17.88	-18.48/-14.71	-9.75/-5.17	-3.82/-5.18	-13.1/-9.41	-3.39/-6.2	-3.32/-3.98	-6.24/-7.5	-8.34/-8.13	-7.99/-11.21	-9.08/-6.54	-9.27/-18.2	-17.69/-17.4	-16.28/-12.72	-13.48/-18.73	-18.56/-18.42	-18.45/-14.95	-9.22/-9.33
Θ (140°)	-18.28/-17	-17.09/-17.52	-18.6/-14.12	-9.41/-7.7	-14.99/-9.69	-3.83/-4.56	-8.25/-9.87	-12.53/-14.69	-13.75/-10.24	-10.71/-10.81	-12.82/-12.07	-18.65/-18.9	-11.48/-8.19	-12.3/-18.03	-18.1/-18.41	-18.51/-18.55	-17.71/-18.39	-19.15/-19
Θ (150°)	-17.48/-13.9	-16.29/-16.48	-15.01/-15.78	-15.24/-16.2	-18.85/-17.4	-10.14/-8.19	-10.21/-11.22	-11.28/-12.41	-13.18/-13.33	-11.68/-18.26	-12.45/-13.3	-14.92/-14.48	-17.87/-18.21	-12.45/-17.65	-19.03/-13.94	-18.29/-18.33	-17.35/-18.86	-14.4/-16.07
Θ (160°)	-17.72/-13.33	-15.07/-13.44	-18.93/-18.07	-13.66/-13.01	-15.85/-10.66	-7.33/-5.54	-5.44/-6.89	-8.38/-10.38	-11.26/-8.65	-8.95/-8.66	-6.95/-6.23	-6.96/-8.49	-11.69/-14.88	-18.08/-18.55	-16.02/-17.4	-18.72/-15.49	-14.96/-14.4	-11.35/-11.93
Θ (170°)	-11.5/-12.5	-13.96/-18.01	-18.01/-17.85	-18.98/-18.28	-18.63/-19.02	-19.79/-16.31	-14.15/-12.63	-10.88/-11.85	-12.15/-10.4	-9.72/-10.19	-13.39/-13.46	-14.24/-18.01	-15.84/-16.11	-15.75/-17.07	-18.62/-18.14	-14.55/-13.94	-12.77/-14.94	-15.2/-14.37
Θ (180°)	-14.4/-11.75	-10.74/-10.08	-10.39/-10.12	-11/-12.35	-13.95/-14.35	-13.1/-12.95	-11.75/-11.87	-13.82/-13.3	-17.96/-18.86	-18.33/-14.51	-13.21/-16.31	-17.76/-18.34	-17.76/-19.33	-17.46/-19.54	-18.13/-17.52	-18.56/-14.87		
Freq(Hz)	5.6GPol.	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ (0°)	-18.12/-14.46	-10.97/-8.23	-7.78/-7.09	-6.91/-6.22	-6.78/-5.53	-6.7/-8.06	-10.3/-13.57	-15.32/-18.46	-12.64/-9.29	-7.65/-7.27	-6.59/-4.97	-6.76/-8.13	-8.13/-9.82	-11.48/-15	-17.46/-18.95			
Θ (10°)	-13.94/-11.1	-8.94/-7.3	-5.7/-4.21	-3.7/-2.62	-2.55/-3.6	-4.62/-3.33	-7.54/-9.87	-11.91/-14.58	-18.93/-17.93	-18.9/-19.89	-12.84/-11.07	-9.01/-8.15	-7.22/-7.79	-7.4/-8.63	-11.98/-13.67	-16.46/-16.68	-18.62/-16.92	-17.1/-19.09
Θ (20°)	-18.7/-19.74	-17.42/-12.81	-7.86/-5.75	-3.63/-2.03	-0.10/-29	-0.87/-2.82	-5.4/-7.73	-9.66/-9.14	-11.61/-13.45	-12.78/-14.94	-17.18/-18.09	-13.21/-9.97	-8.79/-9.39	-10.94/-11.67	-16.37/-18.05	-17.14/-18.97	-18.19/-18.43	-18.62/-17.58
Θ (30°)	-13.91/-15.7	-10.6/-5.94	-4.28/-4.78	-3.96/-4.57	-2.23/-0.92	-0.97/-3.69	-6.23/-6.71	-4.34/-4.98	-8.36/-11.73	-14.89/-18.83	-19.11/-18.85	-13.86/-10.45	-11.65/-19.39	-17.71/-19.06	-18.29/-18.33	-17.68/-16.08	-18.32/-18.33	-17.35/-18.86
Θ (40°)	-18.92/-8.17	-16.74/-12.51	-6.73/-3.31	-1.48/-0.97	-3.56/-5.02	-3.35/-4.9	-3.58/-1.53	-2.32/-4.54	-8.1/-12.32	-18.28/-17.84	-18.32/-17.84	-19.31/-18.44	-16.57/-15.9	-12.43/-12.46	-17.04/-17.8	-11.02/-11.51	-14.18/-15.64	-18.75/-14.34
Θ (50°)	-10.73/-18.58	-18.51/-12.04	-5.96/-2.04	0.46/-1.62	1.72/0.27	-0.94/-2.12	-0.18/0.03	0.28/-0.83	-3.24/-6.36	-9.61/-12.1	-14.17/-13.42	-14.03/-16.65	-14.55/-14.07	-18.78/-17.97	-18.01/-9.42	-8.59/-17.1	-15.36/-18.55	-18.78/-14.78
Θ (60°)	-9.59/-10.47	-8.16/-11.23	-8.77/-0.65	0.73/0.99	1.85/0.53	-2.32/-1.55	-0.46/-0.46	-0.99/-0.78	-3.66/-4.65	-9.26/-12.77	-11.73/-11.52	-12.46/-11.62	-18.95/-16.81	-11.69/-15.16	-17.31/-18.58	-12.19/-11.2		
Θ (70°)	-19.03/-17.15	-8.63/-4.66	-5.52/-6.23	-1.44/-0.02	0.85/-0.54	-4.13/-3.7	1/1.44	-5.63/-8.16	-9.31/-12.49	-17.9/-12.23	-12.71/-14.43	-16.41/-13.92	-15.74/-18.74	-18.93/-13.3	-13.17/-18.49	-15.91/-10.79	-14.29/-10.87	
Θ (80°)	-6.95/-8.32	-8.13/-3.27	-1.83/0.71	2.39/3.77	2.31/1.75	1.59/-0.31	2.23/0.67	1.81/0.3	-0.77/-4.23	-11.55/-18.2	-16.39/-18.26	-9.87/-7.69	-17.85/-18					



Radiated Composite Gain Data

Appendix A

Θ(160°)	-9.43/-11.75	-15.72/-17.49	-16.32/-12.07	-9.66/-9.25	-10.8/-15.28	-17.85/-15.15	-11.24/-10.7	-11.31/-12.67	-14.13/-15.69	-16.37/-18.11	-18.14/-17.81	-17.32/-13.44	-11.97/-12.01	-12.87/-13.75	-14.97/-13.68	-13.05/-11.08	-9.18/-8.09	-7.77/-8.18
Θ(170°)	-14.43/-14.57	-13.19/-12.48	-11.89/-11.7	-12.96/-14.82	-18.05/-17.26	-18.43/-12.81	-10.11/-9.61	-9.62/-10.82	-12.33/-15.08	-18.18/-18	-18.71/-18.52	-18.34/-19	-18.14/-19.4	-18.7/-17.73	-17.72/-17.81	-18.98/-17.7	-19.23/-17.83	-16.34/-15.14
Θ(180°)	-13.58/-13.21	-13.43/-13.62	-14.12/-16	-15.67/-16	-15.82/-15.06	-13.77/-12.82	-12.76/-12.24	-12.67/-13.85	-13.66/-14.86	-14.93/-15.85	-16.91/-17.95	-18.24/-17.91	-15.33/-16.64	-15.33/-14.86	-14.84/-14.45	-15.31/-16.76	-15.98/-16.46	-15.75/-14.48
Freq(Hz)	2.45GPol	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	2.48/2.34	2.06/1.54	0.7/-5.1	2.37/-4.78	-6.88/-5.49	2.52/2.28	-2.96/-1.11	0.42/-1.93	2.16/2.45	2.52/2.28	1.64/0.72	0.42/-1.93	-3.88/-6.43	-9.42/-10.77	-7.4/-4.35	-2.22/-0.69	0.49/1.29	1.93/2.27
Θ(10°)	2.22/2.24	1.79/1.17	0/-1.3	-3.13/-6.21	-9.23/-10.34	-7.48/-4.91	-2.82/-1.36	0.02/1.16	1.92/2.48	2.63/2.56	2.17/1.45	0.51/-0.76	-2.82/-5.51	-9.41/-12.05	-7.95/-4.65	-2.14/-0.65	0.74/1.55	1.95/2.22
Θ(20°)	2.17/2.14	1.81/1.24	0.45/-1.18	-3.22/-6.2	-9/-9.8	-7.62/-5.14	-3.35/-1.92	-0.80/66	1.75/2.33	2.74/2.87	2.74/1.24	1.12/-0.11	-2.11/-5.33	-10.13/-13.95	-8.21/-4.19	-1.92/-0.11	1.05/1.77	2.16/2.34
Θ(30°)	1.54/1.42	1.46/1.32	1.01/0.21	-1.47/-4.07	-6.95/-9.31	2.17/2.18	1.87/1.05	-1.88/-1.25	-3.36/-6.48	-11.84/-14.01	-8.07/-4.21	-3.36/-6.48	-11.84/-14.01	-8.07/-4.21	-3.36/-6.48	-11.84/-14.01	0.85/1.53	1.81/1.82
Θ(40°)	0.02/0.24	0.74/1.27	1.63/1.3	0.02/-2.31	-6.06/-10.42	-10.92/-8.05	-5.51/-3.35	-1.43/0.08	1.01/1.55	1.81/1.66	1.15/0.06	-1.69/-4.01	-6.53/-9.41	-13.74/-14.24	-10.2/-6.12	-3.38/-1.6	-0.25/0.29	0.23/0.02
Θ(50°)	-1.94/-1.42	-0.58/0.37	0.98/0.57	-0.74/-3.15	-7.36/-15.74	-17.22/-10.73	-6.57/-4.26	-2.14/-0.81	0.07/1.05	1.5/1.51	0.88/-0.19	-1.55/-3.55	-6.63/-9.74	-12.92/-15.03	-12.6/-8.58	-5.2/-2.82	-1.86/-1.54	-1.76/-2.09
Θ(60°)	-6.47/-5.92	-4.45/-2.66	-2.19/-3.64	-6.52/-10.56	-11.56/-11.38	-9.82/-7.46	-4.44/-2.64	-1.27/-0.17	0.32/0.45	0.36/0.24	-0.41/-1.49	-3.74/-7.08	-11.33/-16.34	-19.04/-11.62	-6.89/-4.46	-3.85/-4.23	-5.15/-6.01	
Θ(70°)	-13.91/-11.89	-9.97/-7.27	-5.88/-7.96	-12.53/-13.54	-8.34/-6.14	-6.78/-9.44	-12.31/-11.22	-6.94/-4.51	-3.46/-2.98	-2.86/-2.32	-1.85/-1.64	-1.78/-2.23	-4.18/-7.09	-12.44/-17.38	-14.34/-8.08	-5.67/-6.06	-7.1/-8.36	-10.22/-12.34
Θ(80°)	-19.76/-14.61	-11.96/-10.61	-7.6/-6.84	-7.49/-7.33	-5.91/-5.66	-7.23/-10.95	-18.97/-17.38	-10.27/-7.48	-7.04/-6.72	-5.48/-4.66	-3.97/-3.57	-3.45/-3.57	-4.91/-6.85	-10.17/-14.01	-10.56/-6.08	-4.79/-5.43	-7.54/-11.28	-15.93/-18.67
Θ(90°)	-18.58/-18.85	-16.67/-16.94	-12.7/-9.68	-9.03/-7.86	-6.43/-9.1	-9.58/-14.48	-17.81/-13.17	-8.5/-7.52	-7.51/-5.87	-4.98/-4.79	-4.79/-4.53	-5.27/-6.04	-6.25/-8.19	-12.5/-16.9	-14.74/-10.9	-8.3/-7.83	-9.58/-13.95	-19.02/-18.2
Θ(100°)	-14.34/-16.49	-17.2/-15.96	-17.49/-17.39	-16.45/-18.52	-16.84/-12.49	-14.76/-17.83	-16.54/-10.26	-7.25/-7.53	-8.24/-7.1	-7.39/-7.67	-7.43/-8.37	-8.56/-7.3	-7.66/-9.96	-12.15/-18.12	-18.99/-17.94	-12.48/-9.92	-11.05/-13.58	-17.37/-16.21
Θ(110°)	-12.98/-15.08	-15.29/-11.88	-11.98/-12.74	-11.09/-12.42	-15.91/-10.98	-10.97/-16.05	-17.81/-13.42	-11.47/-13.87	-14.8/-12.33	-10.59/-9.59	-11.15/-13.08	-13.79/-17.72	-18.94/-15.79	-13.64/-13.96	-12.77/-10.77	-9.45/-8.24	-9.5/-11.87	-13.21/-13.17
Θ(120°)	-17.45/-17.47	-12.31/-8.02	-7.28/-7.43	-6.86/-7.19	-9.44/-9.53	-17.60/-10.81	-16.15/-15.07	-12.94/-16.44	-19.48/-15.23	-10.17/-8.38	-16.31/-13.96	-15.51/-18.52	-16.31/-13.96	-15.51/-18.52	-16.31/-13.96	-15.51/-18.52	-16.31/-13.96	-15.46/-18.95
Θ(130°)	-12.67/-16.49	-18.75/-17.57	-14.25/-17.01	-18.42/-18.23	-17.31/-12.49	-9.8/-11.24	-19.62/-18.24	-15.86/-17.85	-19.12/-17.41	-14.07/-12.07	-10.97/-9.69	-8.92/-8.28	-10.01/-17.04	-15.11/-8.39	-7.22/-8.51	-11.64/-15.28	-15.97/-14.39	-12.03/-11.52
Θ(140°)	-18.25/-18.09	-17.53/-17.89	-18.33/-17.61	-15.77/-16.45	-15.13/-12.88	-10.87/-10.53	-12.58/-15.11	-16.36/-16.99	-17.91/-19	-17.71/-18.02	-17.61/-16.07	-14.41/-13.06	-13.13/-16.91	-16.91/-10.64	-10.02/-12.64	-17.42/-14.25	-11.82/-12.06	-13.83/-16.17
Θ(150°)	-8.8/-8.38	-8.5/-9.8	-11.78/-14.82	-17.68/-19.02	-18.23/-18.18	-15.73/-18.05	-19.39/-16.51	-16.65/-16.42	-13.88/-13.32	-16.89/-13.96	-15.15/-15.3	-15.03/-13.29	-13.55/-15.44	-16.33/-13.06	-12.55/-15.44	-13.19/-11.79	-11.02/-10.05	
Θ(160°)	-16.25/-12.55	-11.44/-11.05	-11.75/-13.81	-17.74/-18.13	-19/-17.26	-16.94/-17.65	-17.42/-18.68	-16.03/-16.43	-18.82/-18.37	-18.44/-18.66	-17.58/-17.66	-17.79/-16.15	-15.06/-16.01	-16.2/-14.7	-13.3/-11.67	-12.07/-12.62	-14.12/-17.23	-17.5/-18.57
Θ(170°)	-13.08/-13.68	-15.85/-18.4	-19.15/-17.75	-18.31/-17.64	-14.43/-13.42	-14.32/-15.58	-17.92/-17.89	-16.3/-13.79	-11.99/-11.38	-11.55/-11.22	-11.74/-13.14	-16.88/-18.74	-19.05/-19.38	-18.22/-17.57	-18.22/-15.33	-12.97/-11.53	-11.3/-11.07	-10.98/-11.3
Θ(180°)	-10.78/-10.83	-11.09/-11.8	-11.83/-12.59	-13.14/-13.4	-13.88/-15.16	-15.49/-16.01	-16.97/-16.49	-14.5/-12.51	-10.89/-10.61	-9.77/-9.35	-9.47/-10.07	-10.72/-11.73	-13.53/-15.29	-18/-18.82	-18.3/-16.71	-14.5/-12.81	-12.2/-11.1	-9.78/-9.5
Freq(Hz)	5.2GPol	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-15.81/-18.4	-14.92/-17.4	-6.81/-4.22	-2.48/-1.35	-0.61/-0.28	-0.13/-0.51	-1.49/-8.28	-5.97/-8.73	-2.47/-3.25	-2.23/-2.5	-0.28/-0.12	-0.67/-1.48	-2.51/-0.94	-0.26/0.25	-2.71/-4.07	-6.54/-10.3		
Θ(10°)	-13.44/-13.92	-11.46/-7.96	-5.81/-3.97	-2.78/-2.06	-1.31/-0.84	-0.84/-0.65	-0.73/-1.16	-1.96/-3.08	-5.34/-6.61	-14.68/-17.91	-12.99/-7.92	-5.23/-3.48	-1.97/-1.06	-0.28/-0.01	-0.25/-0.36	-1.27/-1.9	-2.93/-4.62	-6.94/-9.36
Θ(20°)	-15.27/-11.12	-7.02/-4.81	-3.02/-1.72	-1.02/-0.53	-0.45/-0.19	-0.29/-0.45	-0.4/-0.57	-1.12/-2.38	-4.43/-7.57	-12.21/-18.96	-13.5/-7.93	-4.81/-2.23	-0.73/0.6	0.29/-0.23	-0.66/-1.24	-2.87/-5.25	-8.53/-12.83	
Θ(30°)	-10.96/-4.22	-5.28/-3.42	-1.78/-0.78	0.30/-7.7	0.69/0.31	0.20/-4.1	0.21/-0.52	-2.28/-4.41	-7.54/-12.42	-10.29/-6.08	0.38/0.3	-0.25/-0.8	-1.64/-0.39	-3.13/-6.07	-0.89/-1.46	-3.13/-6.07	-9.9/-12.29	
Θ(40°)	-16.36/-9.73	-6.18/-4.39	-3.08/-1.77	-1.05/0.07	0.76/0.87	0.92/0.43	-0.39/-2.23	-4.26/-6.54	-8.25/-9.89	-14.83/-19.04	-11.22/-6.82	-4.78/-3.6	-2.03/-0.34	0.42/0.91	0.42/-0.69	-2.04/-2.99	-5.51/-9.05	-14.8/-18.58
Θ(50°)	-17.7/-12.5	-9.99/-7.19	-3.95/-1.63	-0.72/-0.87	-0.54/0.38	1.54/-1.26	-0.01/-1.53	-2.77/-5.54	-7.59/-10.05	-15.39/-18.96	-17.08/-8.55	-4.69/-2.7	-1.32/-0.08	0.53/-0.09	-0.73/-1.9	-2.12/-2.36	-5.5/-14	-18.71/-13.03
Θ(60°)	-19.13/-18.27	-19.57/-11.83	-5.96/-2.7	-0.4/-0.9	-1.72/-0.61	0.65/0.97	-0.74/-3.75	-19.16/-18.69	-13.48/-9.19	-4.75/-2.64	-2.21/-1.34	-1.99/-4.07	-2.53/-2.61	-1.99/-4.07	-2.53/-2.61	-1.99/-4.07	-2.53/-2.61	-16.8/-19.63
Θ(70°)	-11.22/-15.77	-14.58/-10.42	-8.35/-5.44	-1.47/0.06	0.61/0.8	0.54/-0.01	0.24/-0.18	-1.57/-3.43	-6.81/-9.95	-14.05/-19.29	-14.34/-10.28	-6.61/-5.68	-3.27/-2.45	-2.96/-3.11	-5.1/-2.69	-5.01/-7.87	-8.35/-11.36	-18.32/-14.33
Θ(80°)	-12.47/-10.94	-8.4/-6.72	-4.62/-2.02	-0.71/1.32	2.47/1.85	1.81/0.3	-1.3/-7.7	-4.56/-3.93	-4.38/-6.61	-9.69/-12.12	-8.48/-8.08	-7.5/-8.75	-3.36/-1.95	-3.02/-3.65	-3.84/-3.31	-5.7/-6.32	-9.81/-11.77	-13.73/-11.72
Θ(90°)	-19.45/-17.06	-18.16/-13.51	-14.74/-13.46	-7.7/-3.46	-0.12/-0.48	-0.65/-1.09	-5.34/-7.38	-6.6/-7.02	-8.8/-9.24	-8.25/-7.39	-7.09/-6.38	-3.87/-3.09	-8.2/-5.45	-7.09/-6.38	-3.87/-3.09	-8.2/-5.45	-7.09/-6.38	-12.63/-13.52
Θ(100°)	-14.92/-16.53	-18.08/-16.54	-12.2/-9.46	-6.19/-4.32	-3.6/-2.5	-3.14/-4.15	-4.76/-4.95	-7.19/-7.49	-8.2/-10.34	-12.43/-11.84	-9.47/-9.05	-9.48/-7.7	-6.86/-4.32	-2.79/-4.23	-4.13/-4.42	-4.66/-7.69	-13.16/-17.98	-14.84/-11.79
Θ(110°)	-18.78/-15.11	-8.1/-10.11	-13.43/-8.41	-6.16/-6.23	-6.74/-6.98	-7.11/-8.35	-5.33/-3.14	-6.22/-12.41	-17.89/-17.21	-17.61/-17.8	-10.51/-8.68	-10.51/-6.58	-8.02/-6.48	-4.32/-5.77	-11.02/-6.27	-7.16/-13.34	-18.74/-18.93	-17.03/-13.61
Θ(120°)	-17.49/-12.07	-8.8/-11.48	-18.34/-18.35	-16.71/-7.35	-5.64/-6.72	-5.57/-5.91	-8.97/-18	-17.88/-18.4	-13.62/-17.04	-12.72/-16.3	-11.22/-9.15	-13.64/-12.52	-10.25/-9.52	-13.26/-14.7	-13.26/-14.7	-13.26/-14.7	-13.26/-14.7	-15.29/-16.33
Θ(130°)	-12.68/-12.23	-11.76/-13.75	-11.84/-9.4	-9.55/-11.63	-11.64/-7.88	-11.64/-7.88	-16.15/-16.35	-18.44/-17.77	-11.52/-14.54	-11.26/-12.9	-8.46/-14.99	-9.23/-10.6	-13.29/-17.29	-12.81/-17.83	-13.46/-12.17			
Θ(140°)	-10.76/-10.23	-10.94/-11.95	-11.21/-12.06	-17.36/-19.31	-18.31/-9.65	-6.27/-1.53	-9.98/-11.3	-14.31/-16.97	-14.62/-14.08	-14.18/-9.76	-8.97/-11.21	-12.49/-10.07	-11.35/-9.52	-17.1/-14.16	-8.09/-8.37	-18.07/-17.97	-17.15/-18.37	-15.04/-16.35
Θ(150°)	-16.82/-19.26	-18.9/-18.27	-17.52/-18.14	-14.77/-12.09	-12.86/-13.11	-12.03/-14.09	-18.51/-18.49	-18.18/-17.75	-15.95/-13.22	-13.26/-16.39	-15.43/-17.64	-17.2/-16.12	-15.47/-18.14	-18.23/-18.27	-18.22/-18.18	-18.92/-17.34	-18.69/-18.34	
Θ(160°)	-19.3/-18.34	-15.05/-15.11	-13.27/-12.85	-13.16/-14.81	-13.16/-14.81	-18.79/-18.81	-17.33/-17.42	-18.04/-18.13	-17.33/-17.33	-15.63/-16.1	-18.63/-18.37	-18.21/-18.35	-17.24/-18.34	-17.9/-17.83				
Θ(170°)	-17.22/-14.6	-14.07/-14.67	-16.74/-17.72	-18.08/-18.91	-17.5/-17.58	-18.01/-18.06	-15.62/-16.69	-18.13/-18.61	-15.58/-15.41	-17.08/-19.61	-19.08/-18.11	-15.66/-13.3	-13.66/-15.43	-18.82/-17.19	-17.21/-17.62	-17.55/-18.31	-18.3/-17.67	-18.96/-19.22
Θ(180°)	-18.69/-17.24	-16.29/-15.7	-15.85/-15.14	-14.44/-15.51	-15.13/-15.68	-16.86/-18.03	-19.18/-18.29	-18.89/-18.01	-17.57/-18.99	-18.85/-18.42	-18.3/-18.73	-18.27/-18.79	-17.45/-17.84	-19.64/-17.86	-19.15/-17.62	-18.17/-17.92	-19.19/-18.4	-18.32



Radiated Composite Gain Data

Appendix A

Θ(50°)	-15.79/-14.55	-14.44/-12.95	-8.44/-5.29	-1.36/2.05	3.9/3.8	3.14/2.5	2.03/0.64	-1.01/-3.79	-6.65/-7.23	-9.97/-14.11	-10.21/-6.8	-4.81/-2.5	-0.64/-0.59	0.6/0.9	-0.26/-0.36	-1.04/-3.93	-5.87/-7.12	-10.31/-12.55
Θ(60°)	-18.06/-16.76	-13.64/-10.28	-5.73/-3.02	-1.90/-1.9	2.55/3.65	4.47/3.78	1.33/1.1	0.36/-1.33	-3.47/-5.91	-8.71/-11.92	-19.21/-8.41	-4.3/-2.06	-1.05/-0.75	-0.65/-0.89	-1.26/-2.02	-5.56/-4.87	-5.11/-9.64	-16.62/-17.69
Θ(70°)	-18.35/-16.06	-18.69/-16.38	-8.9/-4.51	-2.39/-0.43	1.85/3.53	2.19/0.97	2.19/0.97	0.65/-0.28	-3.55/-10.32	-14.17/-7.81	-5.06/-2.52	-2.22/-1.73	-1.88/-2.19	-5.21/-6.12	-1.18/-1.37	-18.74/-18.69		
Θ(80°)	-12.66/-16.27	-11.47/-8.31	-7.52/-9.91	-0.06/0.9	0.29/4.14	5.02/2.59	2.37/1.14	-1.44/-1.8	-3.77/-7.05	-9.31/-8.96	-9.37/-10.19	-8.01/-4.75	-1.96/-2.15	3.32/-2.79	-4.02/-5.75	-6.35/-9.68	-13.81/-17.56	-12.29/-10.08
Θ(90°)	-13.07/-14.38	-12.23/-9.36	-11.14/-9.23	-5.73/-1.59	1.55/3.23	4.53/3.78	0.93/-1.23	-2.25/-4.55	-6.7/-9.13	-12.42/-12.64	-9.56/-9.05	-6.95/-6.29	-1.59/-1.32	-4.64/-2.41	-5.07/-6.59	-5.86/-5.98	-18.99/-16.66	-17.75/-16.44
Θ(100°)	-18.9/-19.13	-10.47/-9.92	-12.37/-10.65	-8.19/-4.69	0.21/5.8	1.46/0.43	-10.25/-6.61	-7.71/-9.89	-12.35/-13.78	-10.25/-9.69	-9.3/-7.95	-3.06/-2.28	-4.13/-3.3	-3.63/-4.59	-6.38/-7.85	-17.39/-17.96	-18.89/-18.18	
Θ(110°)	-15.68/-18.21	-15.27/-13.96	-13.21/-8.85	-10.09/-5.57	-0.6/-2.07	-4.26/-1.18	-2.18/-4.19	-4.62/-8.32	-12.38/-18.1	-18.08/-18.57	-14.94/-10.13	-9.4/-7.81	-5.64/-4.23	-7.24/-4.75	-7.86/-9.6	-11.68/-14.65	-17.46/-17.38	-18.3/-18.01
Θ(120°)	-8.94/-8.1	-6.86/-9.49	-16.73/-12.03	-7.34/-3.14	-2.06/-5.1	-4.8/-1.46	-2.06/-6.43	-11.41/-14.56	-18.52/-17.39	-13.42/-16.41	-10.02/-10.07	-11.05/-8.17	-10.64/-10.05	-8.34/-8.98	-17.88/-18.54	-10.89/-18.06	-19.26/-14.87	-15.18/-15.02
Θ(130°)	-11.55/-10.97	-13.31/-16.35	-18.83/-12.69	-13.97/-5.31	-3.63/-5.47	-4.79/-5.47	-5.42/-8.92	-15.9/-13.4	-14.92/-18.81	-13.09/-9.16	-8.2/-11.67	-8.84/-7.65	-15.42/-13.56	-13.08/-11.01	-14.71/-12.71	-12.48/-14.48	-13.06/-16.67	-13.69/-14.45
Θ(140°)	-16.39/-18.49	-18.66/-15.14	-8.91/-6.53	-10.32/-17.1	-17.28/-7.67	-6.21/-7.97	-8.26/-13.61	-17.48/-11.32	-9.94/-19.12	-18.69/-8.84	-9.48/-11.73	-13.66/-12.21	-9.3/-15.39	-12.53/-12.51	-12.93/-14.74	-18.26/-16.26	-17.62/-18.37	-18.88/-15.73
Θ(150°)	-18.63/-19.12	-18.16/-16.38	-11.39/-9.81	-13.13/-14.79	-12.21/-8.48	-7.21/-7.05	-7.53/-12.68	-18.99/-13.65	-16.11/-18.89	-18.19/-13.48	-10.24/-9.62	-12.49/-19.04	-18.28/-19.25	-18.61/-14.86	-18.07/-18.71	-17.49/-15.95	-18.37/-18.57	-18.46/-19
Θ(160°)	-17.6/-18.76	-18.27/-18.2	-18.03/-13.1	-10.24/-7.51	-7.74/-9.3	-13.5/-16.87	-17.89/-18.59	-17.97/-18.49	-18.31/-18.26	-13.67/-11.33	-10.93/-13.26	-17.95/-15.82	-13.18/-13.89	-15.17/-14.51	-16/-18.33	-18.95/-19.69	-15.66/-18.3	-17.09/-17.17
Θ(170°)	-17.86/-17.2	-18.66/-18.35	-17.17/-12.78	-10.36/-10.68	-13.07/-18.09	-17.9/-18.47	-18.98/-18.08	-18.05/-18.74	-16.91/-14.67	-13.52/-13.37	-15.87/-18.07	-19.1/-17.49	-17.15/-14.61	-14.38/-15	-16.57/-15.31	-14.02/-15.2	-16.36/-19.3	-18.29/-17.18
Θ(180°)	-17.87/-18.58	-16.98/-18.35	-17.39/-19.18	-18.88/-19.1	-19.38/-15.42	-14.12/-12.52	-13.4/-13.29	-12.4/-11.62	-13.3/-12.48	-12.51/-13.43	-15.92/-16.22	-16.15/-14.89	-15.19/-14.28	-13.71/-14.33	-13.85/-12.13	-13.35/-12.83	-14.72/-17.99	-18.48/-18.99
Freq(Hz)	5.6G/Pol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-0.97/-0.56	-0.81/-1.06	-1.7/-2.85	-4.13/-6.21	-8.34/-11.23	-11.64/-10.89	-8.08/-4.57	-3.68/-2.39	-1.21/-0.15	-0.1/0.01	0/-0.67	-1.52/-2.59	-4.36/-6.27	-8.94/-11.98	-12.92/-10.59	-7.51/-4.94	-3.73/-2.52	-1.38/-0.95
Θ(10°)	0.05/0.13	0.01/-0.7	-1.48/-2.53	-4.17/-5.96	-8.04/-11.25	-13.91/-14.8	-5.97/-0.44	-2.3/-1.35	-1.23/-2.33	-3.33/-4.96	-6.12/-7.98	-1.23/-2.6	-4.68/-7.15	-9.28/-11.18	-13.05/-11.5	-7.81/-6	-4.43/-3.47	-2.64/-1.55
Θ(20°)	-1.06/-1.49	-2.05/-2.23	-3.1/-3.82	-5.07/-7.83	-11.26/-16.36	-18.12/-18.88	-13.54/-9.84	-6.12/-3.81	-1.38/-0.69	-1.06/-1.14	-1.7/-2.16	-2.5/-3.74	-5.45/-7.06	-9.28/-11.18	-13.05/-11.5	-7.81/-6	-4.43/-3.47	-2.64/-1.55
Θ(30°)	-1.02/-1.29	-1.25/-1.89	-3.73/-5.64	-8.39/-13.07	-18.49/-18.69	-19.09/-13.57	-9.59/-7.77	-5.46/-4.9	-3.88/-2.8	-3.65/-3.37	-2.38/-1.43	-1.27/-2.25	-4.15/-5.49	-8.89/-15.39	-16.5/-11.77	-9.79/-7.55	-4.92/-4.14	-3/-1.5
Θ(40°)	-2.24/-1.97	-2.85/-4.33	-3.67/-4.15	-5.28/-8.35	-13.92/-16.63	-12.19/-16.12	-12.54/-0.75	-7.49/-3.73	-2.84/-1.37	-1.83/-1.67	-1.22/-2.19	-2.56/-2.9	-4.68/-7.15	-10.29/-18.23	-12.33/-8.47	-7.39/-4.42	-2.76/-2.1	
Θ(50°)	-7.15/-8.11	-8.79/-8.81	-8.49/-8.2	-6.25/-6.83	-9.54/-10.51	-11.09/-11.64	-9.22/-12.2	-10.56/-9.01	-5.42/-4.72	-3/-1.91	-1.88/-1.68	-1.32/-1.27	-2.99/-7.7	-14.64/-18.07	-17.21/-16.02	-10.63/-9.6	-9.13/-7.13	-5.76/-6.05
Θ(60°)	-6.86/-6.34	-6.21/-6.25	-8.31/-10.81	-13.11/-14.75	-17.2/-13.36	-10.82/-14.06	-5.89/-8.26	-9.58/-7.59	-5.45/-4.32	-3.64/-2.24	-2.13/-1.56	-4.22/-8.77	-10.08/-17.83	-19.17/-18.18	-11.96/-12.68	-8.41/-8.74	-9.21/-8.23	
Θ(70°)	-13.44/-13.59	-9.03/-8.39	-9.45/-12.88	-14.79/-13.05	-12.16/-12.04	-8.7/-17.81	-4.87/-10.69	-11.43/-11.35	-5.36/-5.26	-4.87/-3.92	-4.21/-4.62	-11.09/-13.87	-6.39/-8.91	-15.9/-18.71	-17.74/-12.09	-11.74/-12.61	-10.62/-12.72	
Θ(80°)	-16.84/-10.63	-9/-10.33	-13.09/-16.89	-14.6/-17.89	-17.77/-18.1	-12.36/-17.1	-15.17/-17.42	-18.89/-18.95	-9.05/-6.49	-6.14/-5.92	-6.57/-7.98	-7.27/-7.42	-6.11/-10.43	-16.91/-14.89	-17.92/-18.28	-15.83/-18.45	-16.85/-15.12	-18.7/-18.27
Θ(90°)	-10.22/-12.25	-15.3/-17.83	-15.95/-14.61	-11.21/-11.37	-10.56/-13.64	-12.15/-18.55	-18.59/-16.04	-18.68/-15.22	-6.66/-4.67	-5.25/-10.7	-8.78/-6.61	-5.7/-6.29	-16.61/-14.12	-18.06/-16.87	-18.09/-17.29	-16.4/-17.96	-14.56/-14.4	
Θ(100°)	-18.28/-18.56	-17.42/-17.64	-18.09/-11.69	-10.43/-14.98	-17.98/-18.25	-17.02/-12.29	-18.1/-17.71	-14.28/-16.59	-12.49/-10.72	-5.91/-9.6	-13.98/-11.55	-15.24/-10.72	-12.49/-10.72	-18.12/-15.41	-17.83/-16.85	-15.91/-15.91	-13.63/-17.76	
Θ(110°)	-18.48/-18.25	-17.79/-18.61	-14.18/-18.6	-17.94/-15.65	-8.89/-11.56	-14.55/-14.9	-11.62/-13.11	-10.69/-13.25	-18.48/-12.89	-7.26/-7.67	-8.33/-15.14	-15.61/-14.26	-12.19/-14.36	-13.1/-11.53	-9.97/-14.62	-18.14/-11	-16.76/-18.85	-19.38/-17.36
Θ(120°)	-16.15/-17.23	-17.67/-14.64	-18.76/-13.05	-7.65/-10.67	-16.67/-17.12	-8.91/-7.95	-6.9/-11.72	-14.23/-14.53	-18.54/-17.74	-14.3/-10.35	-8.86/-14.57	-17.75/-13.82	-18.38/-13.68	-17.16/-10.4	-14.33/-18.11	-15.31/-16.09	-18.5/-17.72	-19.13/-17.76
Θ(130°)	-19.32/-18.61	-18.87/-17.93	-18.72/-15.17	-10.46/-12.15	-14.17/-16.7	-17.9/-16.32	-12.58/-9.82	-10.35/-14.27	-12.25/-12.44	-19.09/-9.49	-10.79/-11.83	-12/-12.65	-12.23/-14.63	-13.05/-12.11	-12.14/-16.9	-16.41/-18	-19.09/-17.32	-13.98/-14.87
Θ(140°)	-15.44/-18.05	-19.25/-18.93	-19.48/-18.28	-18.25/-17.87	-12.77/-14.24	-11.26/-13.73	-11.48/-10.51	-16.76/-16.32	-15.61/-12.92	-15.03/-15.21	-11.23/-15.27	-17.4/-14.11	-17.37/-18.28	-15.91/-15.47	-17.87/-16.43	-18.43/-18.77		
Θ(150°)	-11.63/-14.99	-17.31/-15.26	-13.38/-14.71	-15.02/-15.68	-17.23/-18.9	-17.58/-12.23	-10.73/-13.59	-11.49/-8.75	-10.27/-13.95	-18.37/-14.8	-18.2/-18.99	-17.03/-17.3	-12.93/-14.35	-19.01/-13.62	-15.93/-16.93	-18.83/-16.71	-13.95/-15.27	-16.57/-15.05
Θ(160°)	-9.93/-12.33	-16.74/-18.69	-18.18/-17.89	-16.26/-18.75	-17.98/-18.38	-18.63/-18.52	-17.94/-17.81	-12.3/-9.41	-9.87/-13.72	-17.52/-12.76	-13.68/-18.66	-17.22/-18.17	-18.35/-16.14	-13.27/-12.21	-15.47/-18.87	-17.93/-17.5	-19.33/-18.71	-18.67/-11.29
Θ(170°)	-17.17/-18.69	-11.23/-8.93	-10.4/-11.94	-16.96/-18.3	-17.81/-14.29	-15.99/-16.82	-16.67/-17.99	-10.13/-9.06	-9.13/-9.44	-10.62/-12.14	-12.71/-12.15	-11.27/-12.84	-11.95/-14.12	-16.22/-19.24	-18.04/-17.58	-18.06/-18.38		
Θ(180°)	-17.81/-18.29	-18.19/-18.29	-16.04/-14.75	-12.93/-12.15	-11.06/-11.14	-11.33/-13.62	-14.61/-16.86	-17.17/-16.37	-17.94/-18.1	-15.14/-13.15	-11.68/-11.09	-11.16/-13.02	-13.23/-16.26	-16.29/-17.24	-16.04/-17.78	-14.08/-12.77	-15.15/-16.49	-15.85/-17.27
Freq(Hz)	5.785G/Pol.	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-13.68/-17.73	-16.41/-9.42	-5.9/-3.55	-1.51/-0.6	0.21/0.58	0.85/0.5	0.03/-0.7	-2.17/-4.09	-6.71/-11.64	-17.97/-16.97	-9.53/-6.15	-3.49/-2.51	-1.47/-0.91	-0.59/0.02	-0.04/-0.81	-1.41/-1.81	-2.94/-4.14	-6.56/-9.52
Θ(10°)	-18.46/-12.66	-8.57/-5.68	-3.93/-2.79	-1.53/-0.84	-0.48/-0.88	-0.87/-1.01	-1.6/-2.38	-3.22/-4.99	-6.47/-9.31	-10.06/-10.93	-10.2/-8.85	-7.29/-5.49	-3.84/-2.21	-0.95/-0.04	0.24/0.37	-0.1/-1.07	-2.51/-4.85	-8.71/-17.07
Θ(20°)	-18.7/-9.82	-6.39/-3.73	-1.8/-0.84	-1.02/-1.34	-2.04/-2.6	-1.37/-1.75	-0.78/-1.94	-3.41/-5.02	-10.74/-13.18	-12.26/-10.11	-7.23/-5.56	-4.31/-3.41	-0.99/-1.87	0.25/-0.33	-0.99/-1.87	-3.21/-5.33	-9.17/-18.02	
Θ(30°)	-19.32/-10.64	-7.5/-3.64	-1.91/-0.98	-0.78/-1.23	-1.56/-1.95	-2.26/-2.06	-2.02/-2.75	-4.67/-7.73	-9.6/-9.51	-10.92/-16.44	-16.41/-8.11	-4.05/-2.67	-2.46/-2.3	-1.83/-1.47	-1.13/-0.61	-0.75/-1.39	-2.17/-3.98	-6.88/-10.83
Θ(40°)	-9.04/-5.61	-4.19/-3.26	-1.75/0.32	1.38/0.84	0.54/1.64	2.58/2.46	0.68/-1.91	-4.56/-7.79	-9.79/-11	-12.02/-19.17	-17.51/-8.72	-5.07/-3.31	-1.74/-1.13	-0.27/0.23	-0.91/-1.2	-1.13/-2.37	-6.86/-11.78	-13.57/-11.13
Θ(50°)	-11.01/-9.23	-8.97/-8.16	-6.62/-2.39	1.04/2.04	3.31/3.99	5.44/8.2	-5.31/-6.55	-4.54/8.2	-12.91/-9.08	-8.55/-11.66	-4.37/-0.9	0.40/-0.57	-1.26/-15.91	0.40/-0.26	-0.95/-5.71	-12.26/-15.21	-18.83/-16.38	
Θ(60°)	-18.12/-18.18	-17.92/-9.59	-7.71/-5.86	-3.88/0.89	4.4/0.9	3.45/3.56	3.12/1.12	-1.9/-5.53	-7.37/-9.71	-9.55/-10.05	-12.13/-5.74	-2.96/-1.29	0.50/6	0.02/0.51	-2.32/-0.68	-1.48/-9.67	-16.38/-19.3	-14.55/-15.06
Θ(70°)	-11.78/-13.21	-15.57/-12.84	-7.39/-4.79	-2.85/-1.18	4.21/4.69	5.51/3.99	2.32/2.57	0.62/-4.66	-8.08/-13.65	-18.62/-18.25	-15.16/-4.51	-1.41/-1.26	-1.79/-0.41	0.13/-0.76	-1.42/-1.27	-7.24/-12.08	-18.2/-17.07	-18.89/-1



Radiated Composite Gain Data

Appendix A

Θ(150°)	-17.49/-17.64	-14.38/-13.38	-13.38/-13.24	-13.17/-11.51	-9.47/-8.94	-9.67/-11.63	-15.86/-18.43	-18.92/-19.08	-17.79/-17.01	-13.82/-12.46	-11.12/-9.79	-9.45/-10.68	-13.63/-16.34	-17.37/-15.61	-14.02/-13.56	-15.61/-18.63	-18.67/-18.47	-18.51/-18.82
Θ(160°)	-15.73/-14.46	-13.87/-13.28	-11.77/-10.07	-8.53/-7.29	-6.48/-6.49	-6.42/-7.31	-7.73/-9.21	-11.07/-12.52	-13.02/-13.04	-12.37/-12.5	-14.45/-15.67	-18.27/-18.11	-15.44/-13.98	-13.4/-12.81	-12.6/-12.64	-13.7/-14.07	-13.51/-12.99	-12.99/-12.87
Θ(170°)	-12.01/-11.85	-11.71/-11.83	-11.78/-11.55	-12.21/-12.17	-12.42/-11.96	-10.74/-10.35	-8.6/-8.72	-8.91/-9.33	-12.93/-12.5	-14.48/-12.5	-17.85/-18.55	-17.51/-14.91	-12.89/-12.23	-11.46/-11.67	-12.93/-12.18	-12.65/-13.02	-12.36/-12.11	-11.49/-11.37
Θ(180°)	-12.42/-12.51	-13.48/-15.13	-16.4/-19.43	-18.51/-19.19	-19.25/-16.65	-13.69/-11.97	-11.06/-10.73	-10.23/-10.35	-10.45/-11.84	-12.98/-14.84	-14.99/-14.11	-14.6/-16.04	-18.02/-18.9	-18.38/-17.6	-15.88/-14.22	-14.27/-13.66	-13.47/-14.07	-14.26/-13.41
Freq(Hz)	5.2GPol.	PhiAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-6.64/-6.89	-7.47/-7.6	-7.99/-8.56	-10.11/-11.32	-12.84/-13.79	-12.76/-11.08	-9.51/-8.66	-7.53/-6.84	-7.01/-7.79	-7.61/-6.98	-7.41/-9.21	-10.76/-12.15	-14.04/-13.52	-12.18/-11.39	-11.09/-11.88	-10.44/-10.06	-9.98/-9.97	-8.09/-7.08
Θ(10°)	-5.79/-6.51	-7.27/-8.87	-11.97/-16.05	-18.49/-18.24	-16.61/-14.75	-13.92/-14.71	-14.42/-11	-7.38/-5.84	-3.78/-3.26	-3.69/-4.11	-4.36/-4.4	-4.99/-5.98	-7.91/-10.01	-11.92/-13.6	-11.87/-8.87	-6.92/-5.81	-4.96/-5.09	-4.9/-4.95
Θ(20°)	-16.17/-15.91	-12.81/-11.31	-10.47/-12.42	-15.07/-18.12	-9.48/-10.92	-10.77/-7.35	-3.05/-3.82	-4.75/-7.16	-9.9/-10.69	-10.3/-9.77	-9.9/-10.69	-12.14/-14.33	-17.42/-16.21	-11.23/-7.94	-6.21/-5.77	-6.86/-8.74	-10.62/-13.15	-10.62/-13.15
Θ(30°)	-13.89/-14.11	-12.7/-12.13	-11.03/-10.18	-10.82/-16.39	-15.19/-8.15	-6.16/-10.07	-13.41/-7.61	-5.17/-5.22	-8.33/-13.36	-15.18/-15.73	-18.53/-19.04	-18.84/-15.57	-13.85/-16.76	-17.82/-18.19	-15.42/-10.55	-9.74/-12.03	-17.31/-17.49	-15.35/-13.07
Θ(40°)	-6.99/-6.85	-7.08/-6.53	-7.47/-8.88	-8.08/-8.07	-16.01/-10.14	-6.63/-14.63	-9.56/-6.43	-5.35/-7.8	-8.08/-7.32	-6.9/-8.39	-9.2/-11.26	-19.22/-17.7	-16.79/-18.7	-18.55/-19.18	-16.83/-14.91	-15.51/-12.99	-11/-9.49	-8.06/-8.09
Θ(50°)	-11.59/-10.66	-10.58/-9.29	-8.78/-11.34	-13.91/-8.15	-12.27/-13.83	-9.75/-14.2	-5.81/-7.54	-18.58/-16.17	-16.77/-18.72	-18.97/-17.69	-13.8/-9.79	-13.91/-18.84	-18.56/-16.9	-18.91/-17.21	-14.79/-10.94	-13.57/-16.28	-15.02/-15.03	-14.86/-11.91
Θ(60°)	-9.18/-10.46	-13.07/-15.02	-13.84/-18.33	-15.76/-11.11	-12.78/-18.97	-15.93/-10.1	-8.89/-15.94	-9.11/-8.22	-12.99/-12.75	-13.5/-11.74	-14.49/-17.81	-18.58/-17.36	-18.8/-18.31	-17.62/-17.45	-16.29/-15.06	-17.97/-16.67	-18.92/-18.64	-11.81/-4.59
Θ(70°)	-10.23/-11.96	-11.35/-8.3	-6.17/-11.19	-15.51/-9.43	-8.44/-12.32	-9.48/-8.03	-6.96/-6.79	-11.55/-17.39	-12.91/-12.46	-13.76/-18.21	-18.9/-19.65	-17.71/-19.02	-19.02/-18.89	-18.52/-18.77	-13.75/-18.18	-16.51/-19.2	-14.72/-10.82	-8.16/-8.48
Θ(80°)	-15.56/-15.91	-7.19/-6.01	-6.11/-8.41	-14.56/-15.99	-11.4/-10.29	-10.07/-12.23	-15.32/-17.56	-16.02/-17.39	-15.07/-12.16	-17.85/-11.97	-19.11/-15.96	-18.96/-18.86	-17.85/-11.95	-12.64/-15.91	-12.64/-12.74	-12.38/-14.52	-12.38/-14.52	-12.38/-14.52
Θ(90°)	-17.37/-11.35	-8.94/-10.16	-6.77/-6.58	-7.63/-9.4	-9.02/-10.7	-10.89/-12.28	-14.47/-11.3	-7.78/-9.92	-12.51/-9.52	-13.36/-17.98	-18.43/-19.05	-16.62/-17.97	-18.93/-14.43	-14.6/-17.87	-14.18/-12.71	-14.31/-17.84	-12.17/-10.98	-10.74/-11.43
Θ(100°)	-18.31/-18.77	-18.01/-9.25	-4.3/-5.05	-4.87/-4.67	-8.71/-8.61	-10.66/-10.26	-14.52/-9.42	-13.62/-10.91	-7.67/-7.1	-8.74/-13.95	-12.75/-15.61	-18.01/-17.62	-17.58/-15.73	-18.08/-16.28	-13.23/-17.07	-17.36/-15.98	-17.46/-11.71	-9.98/-10.23
Θ(110°)	-6.05/-8.05	-9.97/-9.3	-9.47/-13.67	-8.98/-10.6	-5.72/-4.75	-11.44/-10.18	-11.64/-12.58	-8.98/-10.74	-11.4/-10.18	-18.9/-15.14	-14.55/-13.51	-12.76/-10.94	-14.11/-17.36	-15.13/-16.58	-15.13/-16.58	-14.11/-17.36	-10.88/-8.33	-10.88/-8.33
Θ(120°)	-8.69/-7.65	-10.4/-18.77	-17.37/-18.74	-10.14/-5.46	-11.81/-19.01	-15.11/-8.99	-9.87/-14.97	-16.75/-15.19	-11.32/-9.11	-10.49/-8.87	-8.56/-11.71	-10.68/-14.53	-12.93/-13.84	-15.11/-16.62	-15.37/-11.47	-10.16/-7.4	-7.76/-12.63	-18.85/-11.95
Θ(130°)	-10.91/-8.3	-8.78/-7.87	-9.59/-13.69	-7.72/-17.17	-14.66/-18.74	-17.26/-9.47	-8.53/-17.68	-9.98/-13.74	-10.1/-11.26	-18.52/-18.93	-14.27/-10.62	-18.58/-19.39	-11.98/-18.4	-17.91/-17.31	-18.13/-9.26	-10.32/-8.14	-6.42/-9.53	-14.63/-10.11
Θ(140°)	-6.19/-7.92	-8.29/-10.06	-12.89/-19.37	-18.28/-17.16	-17.28/-12.99	-17.21/-15.15	-7.55/-11.97	-18.98/-16.33	-9.46/-12.9	-16.27/-16.3	-15.44/-17.93	-13.82/-17.99	-15.9/-15.13	-17.31/-18	-13.82/-17.99	-19.11/-12.76	-7.52/-10.97	-10.95/-8.43
Θ(150°)	-10.05/-10.43	-15.55/-19.37	-17.98/-16.14	-16.25/-15.58	-14.18/-14.87	-16.79/-17.72	-14.52/-12.36	-14.51/-16.15	-18.99/-18.59	-18.16/-15.21	-13.25/-13.91	-18.29/-18.35	-18.5/-17.69	-13.93/-18.57	-18.3/-13.26	-13.74/-18.38	-18.29/-11.99	-12.32/-12.75
Θ(160°)	-14.85/-19.12	-18.84/-19.26	-16.38/-16.92	-16.48/-15.68	-14.76/-14.55	-15.2/-17.19	-19.18/-17.95	-14.98/-15.12	-18.24/-19.26	-16.69/-15.13	-15.73/-18.12	-16.25/-14.49	-18.09/-18.94	-17.7/-18.62	-18.83/-18.81	-18.55/-18.84	-18.25/-14.11	-11.6/-11.97
Θ(170°)	-15.83/-15.17	-14.88/-15.12	-16.22/-17.73	-16.02/-15.54	-13.78/-13.42	-18.14/-15.77	-19.97/-19.01	-18.73/-17.55	-18.86/-18.69	-18.47/-14.01	-17.58/-18.02	-18.7/-18	-13.05/-13.83	-13.54/-14.44	-14.18/-14.58	-14.18/-14.58	-14.18/-14.58	-14.18/-14.58
Θ(180°)	-12.15/-13.51	-15.67/-14.93	-13.45/-13.66	-14.71/-16.26	-16.97/-19.22	-17.91/-19.17	-17.99/-18	-17.92/-18.22	-16.5/-15.06	-14.04/-16.01	-16.39/-16.63	-17.95/-18.99	-18.81/-17.31	-17.54/-18	-18.45/-18.79	-19.22/-18.62	-17.69/-14.93	-13.97/-12.46
Freq(Hz)	5.2GPol.	ThetaAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-15.31/-18.48	-18.25/-16.03	-14.15/-13.3	-11.62/-9.01	-8.08/-7.87	-8.01/-8.83	-9.6/-9.86	-11.48/-14.37	-19.04/-19.03	-15.2/-12.85	-11.21/-9.7	-9.71/-9.54	-8.2/-7.91	-7.62/-7.74	-8.4/-8.97	-9.43/-9.08	-8.72/-9.99	-11.34/-12.61
Θ(10°)	-10.75/-9.13	-7.52/-6.5	-5.17/-5.25	-4.57/-6.06	-6.83/-6.87	-6.27/-5.53	-4.69/-4.57	-5.12/-6.62	-8.64/-10.27	-10.75/-13.57	-16.1/-15.21	-13.7/-12.89	-13.18/-12.23	-11.18/-11.16	-11.88/-12.15	-13.96/-17.73	-17.25/-18.17	-15.17/-12.67
Θ(20°)	-18.02/-18.42	-18.92/-19.04	-13.75/-9.57	-6.55/-4.09	-3.55/-4.23	-5.07/-4.33	-7.35/-3.73	-5.7/-8.97	-19.05/-18.99	-16.4/-13.71	-9.64/-7.78	-7.51/-8.2	-15.38/-16.92	-12.02/-14.09	-12.02/-14.09	-12.37/-18.32	-12.37/-18.32	-12.37/-18.32
Θ(30°)	-12.08/-9.41	-8.17/-7.26	-7.72/-12.03	-18.22/-6.77	-2.97/-2.54	-4.78/-6.7	-6.28/-7.46	-9.1/-12.5	-15/-17.06	-17.39/-19.24	-14.92/-12.77	-14.98/-16.28	-10.04/-8.36	-10.58/-16.93	-16.7/-11.36	-11.69/-15.3	-19.12/-17.55	-18.52/-16.52
Θ(40°)	-18.76/-18.47	-16.65/-12.04	-9/-7	-9.62/-18.37	-4.73/-2.8	-6.71/-9.52	-5.01/-5.44	-8.84/-11.42	-10.81/-12.39	-12.45/-14.03	-19.29/-15.34	-11.39/-18.67	-15.03/-10.53	-13.21/-19.38	-11.75/-13.44	-15.8/-14.84	-18.04/-18.71	-18.68/-14.74
Θ(50°)	-15.02/-12.1	-12.53/-19.25	-12.87/-9.57	-14.26/-15.1	-4.13/-1.79	-17.26/-17.25	-4.87/-2.9	-16.33/-19.25	-18.52/-17.81	-18.57/-16.46	-12.81/-15.59	-15.44/-17.93	-13.48/-12.33	-12.81/-15.59	-13.48/-12.33	-12.81/-15.59	-13.48/-12.33	-12.81/-15.59
Θ(60°)	-7.37/-5.24	-5.63/-9.07	-7.74/-2.09	-2.24/-4.49	-5.54/-2.11	-0.58/-1.24	-1.1/-5.09	-4.24/-3.02	-2.65/-4.94	-7.96/-17.84	-18.14/-17.96	-13.61/-19.11	-12.86/-12.58	-17.39/-18.06	-10.13/-18.43	-9.88/-14.93	-18.09/-18.27	-12.36/-10.71
Θ(70°)	-3.91/-2.24	-2.04/-3.26	-2.74/-2.29	-2.74/-3.68	-6.25/-0.4	0.20/-9.4	0.49/-1.98	-2.87/-2.02	-3.81/-7.43	-6.66/-10.53	-13.47/-18.36	-11.11/-10.69	-18.74/-13.5	-15.63/-17.42	-9.72/-17.6	-12.31/-19.1	-17.98/-15.6	-13.02/-7.72
Θ(80°)	-3.25/-1.98	-1.85/-1.38	-1.16/-2.38	-1.42/-0.31	1.13/-0.02	1.92/-3	0.57/-1.63	-2.75/-6.07	-9.31/-9.45	-19.15/-14.54	-9.61/-8.4	-15.59/-13.59	-10.58/-18.43	-17.59/-14.95	-8.44/-5.58	-8.44/-5.58	-8.44/-5.58	-8.44/-5.58
Θ(90°)	-4.84/-2.78	-2.41/-1.75	-2.75/-2.73	-4.03/-2.85	-1.89/-0.25	1.65/-0.03	-3.26/-5.96	-3.3/-1.62	-3.48/-6.27	-12.06/-12.69	-12.21/-12.59	-12.84/-12.11	-17.9/-10.76	-8.05/-7.65	-9.84/-16.14	-13.04/-18.99	-18.43/-18.58	-9.01/-5.11
Θ(100°)	-3.05/-2.3	-2.22/-3.62	-5.64/-4.14	-10.86/-8.51	-3.76/-2.18	0.73/-3.15	-3.89/-3.7	-2.36/-5.71	-8.12/-7.43	-9.4/-6.27	-17.9/-10.66	-12.48/-13.98	-8.79/-12.98	-7.35/-7.4	-17.48/-17.21	-15.61/-19.1	-16.67/-8.48	-4.23/-3.01
Θ(110°)	-6.71/-8.85	-9.15/-6.7	-4.07/-5.91	-13.28/-11.41	-3.86/-3.65	-2.16/-6.74	-5.13/-2.95	-3.25/-17.99	-4.77/-5.03	-6.01/-3.33	-5.78/-13.53	-18.08/-18.1	-8.23/-12.6	-7.85/-10.43	-16.82/-19.1	-18.21/-19.21	-12.21/-14.16	-7.66/-5.02
Θ(120°)	-11.42/-11.92	-9.53/-6.44	-7.39/-16.78	-16.02/-13.76	-10.46/-6.97	-1.21/-5.93	-9.34/-13.37	-17.77/-12.39	-8.54/-16.14	-17.77/-12.39	-9.99/-13.75	-13.84/-15.57	-16.03/-17.33	-16.03/-17.33	-16.03/-17.33	-16.03/-17.33	-16.03/-17.33	-16.03/-17.33
Θ(130°)	-12.46/-11.18	-12.5/-18.86	-18.6/-14.13	-13.89/-15.4	-18.7/-11.92	-5.56/-9.52	-16.07/-17.26	-10.19/-7.62	-15.57/-11.2	-14.3/-18.15	-12.21/-11.06	-17.99/-16.01	-15.36/-10.55	-6.68/-8.75	-17.09/-12.2	-10.17/-12.61	-10.15/-6.75	-14.28/-15.14
Θ(140°)	-17.46/-12.4	-17.53/-17.1	-16.82/-13.01	-15.42/-12.97	-17.97/-17.47	-11.11/-11.92	-14.76/-13.44	-18.04/-11.55	-10.93/-18.28	-15.02/-17.22	-18.3/-17.17	-19.32/-18.57	-14.87/-11.25	-9.14/-11.25	-11.88/-14.13	-18.16/-9.57	-8.89/-12.19	-18.7/-16.62
Θ(150°)	-18.87/-15.5	-16.45/-18.7	-17.03/-18.48	-18.17/-14.12	-10.97/-14.33	-18.16/-18.98	-18.44/-16.64	-18.77/-18.22	-18.56/-18.13	-12.98/-11	-17.97/-18.52	-11.55/-12.32	-13.5/-12.48	-16.03/-8.31	-10.8/-15.64	-15.69/-19.24	-15.69/-19.24	-15.69/-19.24
Θ(160°)	-17.87/-15.75	-14.14/-13.35	-13.22/-14.22	-15.54/-12.74	-12.53/-16.05	-12.21/-9.99	-9.37/-12.01	-13.5/-14.11	-14.87/-17.46	-								



Radiated Composite Gain Data

Appendix A

θ(40°)	-4.29/-5.69	-8.18/-10.39	-7.94/-4.77	-3.33/-2.88	-1.07/-1.02	-1.49/-0.38	-0.82/-1.1	-3.17/-3.73	-4.35/-4.58	-5.73/-9.57	-12.72/-13.08	-18.74/-19.2	-11.82/-8.87	-16.44/-10.72	-4.27/-3.92	-9.93/-11.19	-6.4/-2.65	-2.25/-2.79
θ(50°)	-4.44/-3.29	-2.51/-2.61	-4.46/-4.78	-1.21/-0.11	1.88/0.13	0.01/-0.91	-1.89/0.31	-2.84/-6.2	-10.42/-9.21	-10.05/-12.57	-17.02/-14.16	-14.03/-18.14	-12.1/-15.12	-10.81/-5.09	-7.27/-4.65	-8.65/-16.43	-4.96/-1.97	-3.23/-3.33
θ(60°)	-2.46/-2.23	-0.70/-0.06	0.3/-2.2	-2.13/-0.34	0.052/23	1.97/-0.11	1.62/-1.54	-10.54/-4.67	-6.21/-13.94	-18.27/-13.36	-7.05/-6.68	-13.11/-18.33	-15.96/-10.14	-12.59/-6.8	-16.01/-8.72	-14.52/-12.49	-6.17/-4.25	-3.32/-2.71
θ(70°)	-3.66/-4.19	-2.73/-1.45	-0.73/-5.18	-6.3/-4.32	-0.13/-0.53	1.31/37	0.75/-6.79	-7.53/-1.28	-2.13/-3.9	-3.52/-5.72	-7.9/-7.09	-8.37/-11.58	-6.92/-16.11	-19.39/-15.82	-18.42/-10.13	-12.36/-12.17	-4.69/-4.48	-5.35/-5.39
θ(80°)	-1.24/-0.79	-0.94/-1.4	-2.28/-3.01	-2.31/-3.4	-2.42/0.36	4.16/0.52	-2.91/-2.2	-1.1/-0.11	-4.09/-4.28	-4.29/-6.36	-7.09/-6.11	-5.48/-6.87	-11.26/-4.58	-9.04/-9.47	-13.01/-9.75	-9.84/-18.57	-5.49/-7.7	-10.07/-5.94
θ(90°)	-1.5/-2.16	-5.36/-5.32	-3.65/-2.83	-4.85/-6.18	-4.01/1.85	1.81/1.72	0.38/-2.49	-3.18/-1.04	-0.51/-4.66	-2.19/-0.93	-4.4/-8.01	-9.32/-6.29	-3.05/-8.56	-13.01/-9.75	-8.11/-7.88	-3.5/-3.99	-4.56/-4.01	
θ(100°)	-7.8/-8.99	-10.56/-3.01	-1.02/-4.76	-1.84/-7.02	-18.47/-0.57	2.96/2.74	-6.81/-1.88	-4.59/-0.57	-5.34/-17.27	-7.63/-3.9	-5.03/-11.95	-9.75/-0.43	-2.76/-3.51	-7.43/-18.28	-6.14/-8.45	-8.01/-9.48	-4.32/-3.15	-4.56/-5.38
θ(110°)	-6.58/-8.2	-4.78/-2.27	-4.19/-3.85	-4.67/-18.15	-6.99/-1.35	-1.81/-0.49	-5.3/-6.18	-6.26/-6.13	-5.29/-18.01	-5.04/-1.95	-13.01/-12.6	-6.54/-11.91	-6.76/-9.18	-6.78/-17.38	-8.6/-9.86	-18.4/-10.71	-7.47/-5.9	-9.06/-6.08
θ(120°)	-7.35/-6.29	-6.49/-5.67	-3.5/-6.29	-14.04/-7.44	-8.12/-16.27	-2.58/-1.48	-5.94/-5.07	-1.52/-12.32	-12.53/-11.37	-16.37/-5.66	-4.13/-7.81	-7.8/-4.18	-9.7/-12.53	-5.6/-19.85	-17.92/-8.79	-6.67/-18.16	-7.35/-8.62	-11.34/-8.32
θ(130°)	-11.93/-7.6	-5.04/-4.35	-6.74/-12.35	-16.62/-6.53	-7.36/-10.25	-4.21/-6.15	-16.38/-8.4	-11.45/-5.92	-9.13/-6.51	-6.52/-10.66	-9.9/-14.38	-5.27/-5.67	-13.34/-5.41	-5.45/-13.88	-8.93/-10.11	-4.9/-8.07	-7.63/-7.52	-12.09/-18.95
θ(140°)	-4.83/-5.47	-6.25/-18.74	-17.25/-18.54	-15.57/-7.37	-7.66/-12.23	-10.38/-9.35	-11.38/-8.29	-17.67/-8.78	-10.28/-0.92	-4.35/-11.26	-14.48/-9.72	-8.27/-12.82	-6.2/-9.58	-11.1/-11.61	-10.67/-15.58	-6.42/-6.42	-4.29/-3.82	-10.4/-11.4
θ(150°)	-7.87/-4.9	-6.17/-6.76	-10.85/-19.06	-14.8/-9.19	-7.75/-6.73	-4.24/-4.45	-8.49/-14.56	-16.24/-14.19	-15.34/-15.33	-9.94/-13	-18.91/-10.17	-11/-13.72	-11.57/-10.91	-8.13/-8.92	-10.31/-8.12	-6.15/-6.59	-10.95/-13.02	-18.88/-12.46
θ(160°)	-18.06/-18.39	-18.87/-12.88	-10.1/-9.84	-9.75/-8.2	-5.72/-5.39	-6.13/-8.64	-11.73/-15.22	-18.42/-17.99	-18.86/-17.52	-11.68/-11.6	-10.28/-9.81	-14.46/-18.58	-15.81/-17.95	-18.41/-13.46	-11.39/-12.35	-17.35/-12.97	-13.06/-19.36	-17.36/-17.59
θ(170°)	-11.23/-12.54	-12.95/-11.9	-11.38/-10.77	-10.5/-7.86	-6.73/-6.68	-6.05/-5.68	-7.6/-8.31	-10.78/-13.21	-13.37/-14.73	-16.22/-17.74	-18.53/-18.2	-15.95/-15.39	-14.34/-14.9	-18.57/-17.85	-14.85/-16.63	-18.11/-16.75	-13.37/-13.4	-11.51/-11.41
θ(180°)	-17.68/-16.68	-17.29/-16.78	-18.43/-18.79	-19.07/-18.79	-19.31/-18.3	-18.21/-18.23	-18.33/-15.46	-13.41/-13.08	-11.23/-11.39	-10.65/-11.34	-12.16/-13.24	-12.15/-13.58	-14.17/-15.47	-18.15/-18.24	-14.67/-11.84	-13.67/-18.45	-18.63/-17.6	-17.47/-15.45
Freq(Hz)	5.785GPol.	PhiAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
θ(0°)	-4.05/-4.39	-4.99/-5.62	-7.88/-9.65	-11.81/-16.1	-17.95/-14.2	-9.63/-6.92	-5.5/-3.96	-3.67/-3.33	-2.9/-2.99	-12.98/-11.39	-8.26/-11.97	-16.96/-16.31	-8.76/-7.31	-12.97/-11.39	-8.76/-7.31	-5.52/-4.33	-3.89/-3.33	
θ(10°)	-5.71/-6.57	-7.25/-8.9	-10.11/-13.17	-16/-15.63	-15.59/-10.83	-7.96/-7.29	-8.26/-10.02	-10.38/-9.18	-7.35/-5.6	-5.47/-5.65	-5.76/-5.45	-5.94/-7.9	-11.03/-13.5	-14.92/-9.6	-5.75/-3.85	-2.57/-2.37	-2.82/-2.65	-3.23/-4.2
θ(20°)	-12.19/-13.02	-13.16/-15.11	-14.63/-14.57	-12.21/-11.75	-18.15/-19.37	-10.12/-5.89	-12.97/-18.41	-8.42/-7.36	-1.2/-0.12	0.22/0.25	-0.05/-1.05	-2.41/4	-7.85/-14.14	-17.54/-9.44	-4.85/-9.47	-4.27/-8.41	-6.5/-0.84	-9.19/-11.54
θ(30°)	-19.2/-17.64	-12.51/-7.45	-5.47/-1.72	-11.83/-9.45	-8.27/-13.48	-16.69/-12.25	-18.99/-3.98	-16.88/-7.59	-7.56/-5.91	-5.31/-7.46	-10.05/-12.42	-6.88/-13.06	-10.55/-12.42	-9.07/-7.66	-11.68/-15.05	-17.35/-18.84		
θ(40°)	-13.83/-10.77	-9.73/-6.41	-4.47/-3.87	-5.2/-11.55	-18.48/-11.96	-11.35/-11.43	-6.87/-1.68	-0.17/-2.13	-4.05/-4.84	-6.03/-6.55	-7.92/-12.71	-12.08/-11.49	-10.21/-10.49	-18.88/-19.29	-18.56/-17.87	-10.05/-10.29	-11.27/-12.14	-18.49/-18.24
θ(50°)	-16.54/-9.86	-12.47/-18.34	-8.22/-8.26	-5.09/-11.2	-6.25/-11.29	-8.12/-5.24	-10.07/-6.26	-11.81/-17.91	-10.67/-9.63	-7.19/-5.98	-9.28/-13.99	-13.83/-12.83	-16.19/-18.96	-11.93/-15.35	-18.48/-16.62	-7.88/-6.83	-5.4/-7.9	-13.81/-14.93
θ(60°)	-14.63/-6.72	-6.09/-12.48	-14.11/-15.36	-11.86/-17.27	-4.24/-9.52	-6.89/-6.68	-10.33/-15.61	-13.48/-10.22	-8.68/-6.24	-16.33/-15.61	-11.64/-9.14	-17.94/-13.01	-16.33/-18.6	-17.81/-18.57	-18.81/-15.58	-12.78/-7.19	-8.83/-11.59	-13.82/-11.84
θ(70°)	-14.16/-18.25	-16.11/-11.43	-16.84/-8.99	-8.22/-15.94	-6.23/-13.6	-10.95/-7.26	-6.05/-8.22	-10.62/-4.22	-4.08/-9.89	-12.08/-14.32	-12.46/-14.18	-16.23/-18.93	-16.08/-11.86	-18.47/-18.57	-18.68/-10.51	-12.09/-8.53	-17.52/-18.3	-18.26/-14.09
θ(80°)	-18.59/-18.83	-8.61/-4.94	-10.77/-10.04	-12.32/-18.62	-12.21/-7.37	-13.26/-13.25	-17.66/-11.96	-3.79/-5.62	-13.17/-10.66	-9.68/-6.9	-8.95/-18.47	-17.96/-15.54	-17.5/-13.53	-15.7/-19.29	-8.39/-10.75	-7.68/-6.38	-16.13/-8.4	-7.33/-18.63
θ(90°)	-11.93/-10.19	-14.95/-18.78	-8.74/-15.71	-5.3/-17.64	-18.02/-8.16	-16.64/-16.04	-7.19/-13.09	-7.38/-7.91	-14.64/-9.88	-6.88/-10.3	-12.76/-15.17	-13.78/-17.63	-16.2/-17.96	-8.64/-10.01	-7.63/-18.03	-11.83/-12.45	-18.6/-17.3	
θ(100°)	-12.28/-5.78	-5.72/-6.84	-5.27/-5.74	-5.1/-11.29	-6.86/-6.29	-18.28/-18.22	-8.47/-17.82	-9.73/-2.74	-0.85/-1.21	-2.42/-9.28	-18.82/-9.97	-16.04/-14.65	-11.67/-11.42	-10.91/-14.22	-11.67/-11.64	-6.04/-17.93	-9.29/-12.57	-7.92/-14.81
θ(110°)	-10.26/-7.97	-5.81/-7.33	-6.92/-4.64	-7.51/-8.28	-13.24/-8.77	-17.47/-13.63	-6.82/-9.32	-8.05/-4.36	-5.66/-7.61	-6.93/-9.05	-18.53/-8.95	-13.46/-7.25	-16.72/-13.89	-12.62/-15.17	-10.92/-15.45	-19.39/-15.54	-17.41/-12.03	-13.85/-13.49
θ(120°)	-5.87/-5.66	-4.34/-7.61	-11.85/-7.28	-10.81/-13.79	-11.4/-18.36	-17.78/-17.66	-9.95/-11.07	-4.98/-1.31	-4.24/-4.55	-1.09/-2.19	-5.08/-7.32	-13.63/-9.97	-17.48/-13.36	-17.98/-14.03	-7.71/-10.9	-7.78/-9.8	-6.18/-6.91	-17.8/-12.42
θ(130°)	-18.44/-10.86	-9.8/-7.62	-2.48/-5.76	-12.78/-12.43	-3.63/-7.43	-10.45/-10.58	-9.85/-3.39	-17.42/-12.87	-4.17/-5.52	-11.16/-15.5	-14.82/-8.73	-18.33/-17.52	-13.46/-17.78	-10.13/-0.04	-5.02/-7.73	-5.49/-5.03	-7.9/-14.18	
θ(140°)	-15.53/-15.54	-9.46/-4.96	-6.02/-4.79	-8.72/-15.43	-14.11/-9.33	-8.41/-3.76	-2.34/-2.55	-5.99/-6.27	-11.72/-8.17	-4.12/-5.2	-7.67/-12.2	-14.97/-15.38	-9.03/-17.22	-16.08/-17.53	-19/-13.2	-11.83/-4.63	-6.36/-6.86	-5.66/-7.82
θ(150°)	-15.59/-10.88	-11.09/-11.66	-13.18/-16.88	-18.38/-7.62	-5.58/-12.43	-10.29/-3.83	-4.3/-10.14	-16.31/-18.6	-16.49/-18.63	-18.17/-8.14	-4.23/-2.91	-6.22/-18.66	-11.28/-13.74	-18.01/-13.66	-7.06/-9.64	-10.1/-18.62	-14.1/-15.62	-14.45/-18.28
θ(160°)	-9.12/-10.17	-9.17/-9.2	-6.96/-3.95	-1.64/-8.45	-2.09/-5.32	-9.5/-9.02	-6.54/-5.05	-6.16/-8.44	-10.96/-18.01	-16.88/-14.02	-10.83/-16.56	-16.9/-18.96	-16.86/-17.6	-10.29/-10.41	-16.11/-13.41	-8.37/-5.12	-4.01/-6.46	
θ(170°)	-14.09/-11.38	-8.82/-6.19	-5.71/-7.24	-8.21/-8.08	-8.08/-8.3	-12.98/-18.13	-17.95/-18.35	-15.03/-13.71	-14.65/-18.09	-18.76/-10.69	-12.76/-15.8	-18.83/-17.46	-13.78/-12.13	-14.11/-18.73	-18.41/-11.85	-10.52/-9.96	-10.39/-11.5	-13.47/-14.31
θ(180°)	-15.9/-17.79	-18.53/-18.36	-18.35/-19.04	-17.69/-19.16	-17.44/-17.27	-17.37/-16.89	-14.21/-11.82	-11.32/-12.57	-12.9/-14.25	-19.16/-18.99	-19.34/-18.43	-18.07/-19.35	-17.55/-18.18	-18.58/-17.83	-18.33/-18.95	-17.32/-17.81	-18.39/-16.02	-13.82/-14.34
Freq(Hz)	5.785GPol.	ThetaAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
θ(0°)	-15.06/-11.85	-10.18/-8.12	-7.81/-5.72	-4.38/-3.58	-3.48/-4.04	-4/-5.36	-6.68/-9.1	-11.92/-16.45	-15.22/-13.23	-11.36/-8.3	-6.58/-5.93	-5/-3.85	-3.36/-2.99	-3.17/-3.99	-4.88/-5.6	-6.98/-8.36	-11.5/-14.68	-17.12/-17.19
θ(10°)	-8.96/-7.35	-6.03/-4.61	-4.93/-4.59	-3.58/-2.10	-2.98/-3.02	-4.13/-6.43	-8.91/-9.35	-18.52/-17.87	-13.37/-10.53	-11.74/-17.06	-8.52/-17.87	-10.45/-10.29	-6.5/-4.49	-4.45/-5.87	-7.04/-9.91	-13.55/-15.27	-8.58/-7.31	
θ(20°)	-8.05/-7.15	-5.84/-4.7	-5.49/-6.69	-7.43/-5.88	-4.14/-4.26	-6.82/-13.22	-15.5/-10.13	-7.71/-6.59	-7.47/-10.4	-8.05/-8.53	-7.49/-8.12	-8.87/-11.03	-14.18/-11.49	-5.74/-2.46	-1.8/-2.35	-4.19/-6.72	-11.96/-15.96	-14.25/-12.01
θ(30°)	-12.06/-12.71	-9.68/-6.41	-3.67/-13.4	-1.13/-3.03	-6.49/-5.89	-6.74/-10	-5.24/-2.61	-1.93/-4.82	-9.39/-13.46	-10.61/-6.66	-13.43/-15.37	-10.71/-8.19	-5.97/-14	-7.97/-2.29	-2.09/-3.91	-5.92/-6.44	-6.25/-7.73	-7.9/-10.08
θ(40°)	-1.68/-2.64	-3.33/-2.36	-1.69/-3.45	-4.2/-4.8	-11.73/-3.58	-2.65/-1.16	-0.37/0.22	-3.32/-4.38	-7.23/-8.69	-9.69/-8.62	-14.55/-14.17	-11.89/-5.05	-7.48/-8.48	-9.14/-11.59	-7.24/-4.09	-1.79/-14.04		
θ(50°)	-1.39/-2.82	-3.39/-0.89	1.11/0.05	-5.52/-2.94	-4.31/-1.49	0.08/-1.7	-2.96/-2.35	-2.16/-1.79	-3.65/-6.5	-6.86/-7.65	-9.4/-11.58	-13.65/-8.32	-3.06/-4.93	-14.02/-10.22	-12.88/-9.33	-12.35/-17.43	-9.63/-5.71	-3.58/-2.44
θ(60°)	-4.85/-6.73	-5.29/-5.03	1.72/1	-4.65/-2.22	-1.35/-1.5	0.63/-0.02	-0.55/0.53	-3.26/-5.36	-2.36/-3.81	-5.95/-4.33	-2.98/-6.78	-11.29/-7.67	-3.34/-4.58	-12.63/-14.22	-17.81/-10.31	-8.69/-12.57	-9.99/-4.86	-7.12/-9.07
θ(70°)	-6.88/-7.85	-12.82/-5.76	-															



Radiated Composite Gain Data

Appendix A

Θ(140°)	-19.04/-12.75	-15.66/-15.68	-12.74/-9.1	-7.92/-7.99	-8.27/-8.82	-9.5/-6.38	-7.37/-14.94	-18.84/-18.45	-14.68/-13.8	-11.82/-16.45	-19.02/-17.58	-18.38/-19.3	-17.17/-16.19	-14.91/-10.94	-10.89/-12.05	-14.94/-18.82	-17.7/-18.69	-18.38/-18.92
Θ(150°)	-12.96/-11.25	-11.26/-10.43	-9.99/-9.45	-7.43/-6.48	-7.89/-10.35	-8.38/-5.78	-6.94/-13.43	-18.94/-18.96	-18.04/-17.94	-19.33/-18.56	-18.28/-15.82	-13.46/-18.54	-13.83/-11.15	-13.77/-17.72	-17.18/-19.03	-18.07/-19.1	-19.34/-18.01	-17.91/-14.81
Θ(160°)	-18.57/-18.15	-17.51/-17.93	-18.26/-11.91	-9.23/-9.58	-12.16/-13.61	-10.82/-9.22	-15.27/-15.38	-18.36/-19.22	-10.16/-12.98	-16.95/-12.27	-18.36/-18.01	-18.06/-18.63	-18.36/-18.06	-11.39/-18.47	-18.09/-17.31	-16.63/-14.04	-15.06/-11.51	
Θ(170°)	-14.48/-12.46	-12.36/-11.72	-10.86/-11.63	-11.45/-13.41	-13.1/-12.34	-10.99/-9.36	-8.58/-7.97	-7.92/-8.42	-10.23/-11.6	-11.64/-12.63	-16.82/-17.86	-18.9/-17.98	-14.8/-13.44	-12.22/-13.83	-15.26/-13.29	-18.76/-18.79	-17.95/-19.07	-19.13/-17.52
Θ(180°)	-11.49/-11.88	-11.86/-11.87	-12/-12.39	-12.2/-12.91	-12.72/-12.87	-13.68/-14.23	-15.92/-17.94	-19.38/-18.56	-18.79/-18.91	-17.94/-18.48	-18.84/-19.1	-18.07/-17.44	-18.21/-17.55	-17.12/-15.56	-13.92/-13.29	-12.6/-12.25	-12.63/-13.32	-13.2/-13.14
Freq(Hz)	5.2GPol.	ThetaAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-4.03/-3.77	-4.09/-4.48	-5.07/-6.25	-7.79/-9.49	-12.25/-15.58	-15.58/-12.18	-9.28/-7.52	-6.09/-4.5	-3.79/-3.45	-2.91/-2.96	-3.37/-4.14	-5.05/-6.05	-7.42/-9.07	-11.66/-15.85	-15.05/-12.11	-8.85/-7.05	-5.68/-5.22	-4.52/-4.2
Θ(10°)	-3.66/-3.43	-3.74/-3.78	-3.97/-5.31	-6.67/-9.41	-14.02/-18	-18.55/-13.47	-10.52/-9.73	-9.21/-8.26	-8.35/-8.74	-8.79/-8.92	-13.98/-15.59	-14.53/-11.67	-8.44/-6.43	-13.98/-15.59	-14.53/-11.67	-5.14/-4.42	-3.93/-3.83	
Θ(20°)	-7.87/-1.11	-6.89/-6.73	-6.76/-7.48	-8.74/-10.15	-13.39/-17.94	-18.02/-13.3	-12.13/-13.84	-17.07/-18.52	-18.06/-19.22	-18.31/-18.53	-14.57/-11.43	-9.99/-8.72	-9.07/-11.57	-16.96/-17.42	-17.3/-14.6	-15.06/-14.74	-13.63/-11.33	-9.99/-8.72
Θ(30°)	-4.59/-4.3	-4.31/-4.18	-5.1/-6.28	-7.49/-8.79	-14.27/-18.57	-17.66/-17.46	-18.86/-17.84	-19.27/-17.17	-18.05/-18.6	-19.19/-15.36	-11.53/-9.75	-9.24/-9.62	-9.17/-9.48	-14.76/-18.56	-11.16/-10.76	-12.3/-12.67	-14.74/-13.12	-8.12/-5.41
Θ(40°)	-3.57/-3.8	-2.87/-2.56	-3.41/-4.68	-5.77/-8.02	-13.86/-18.08	-18.31/-18.21	-15.2/-15.5	-17.44/-18.54	-18.3/-16.33	-12.52/-9.4	-8.1/-10.98	-9.86/-9.22	-18.35/-14.39	-12.63/-11.98	-10.43/-11.79	-13.37/-11.45	-6.1/-4.22	
Θ(50°)	-8.26/-6.63	-4.49/-3.54	-3.66/-4.62	-6.12/-9.59	-14.78/-10.16	-11.58/-17.12	-13.88/-12.97	-9.57/-11.75	-17.53/-18.06	-13.01/-10.7	-10.04/-8.82	-7.37/-7.39	-11.69/-12.25	-18.71/-12.7	-10.33/-11.1	-7.79/-5.52	-8.04/-8.44	-7.51/-7.45
Θ(60°)	-7.8/-5.6	-4.12/-3.59	-3.51/-4.3	-4.67/-8.43	-11.5/-8.95	-9.23/-10.23	-11.61/-7.07	-6.67/-8.43	-9.67/-12.11	-12.59/-13.7	-16.96/-17.4	-12.43/-9.15	-9.77/-13.38	-18.39/-17.77	-12.22/-10.1	-9.07/-7.23	-9.12/-13.66	-13.2/-10.29
Θ(70°)	-8.8/-6.76	-5.88/-4.52	-3.6/-2.95	-1.68/-4.06	-4.24/-8.84	-9.4/-5.76	-11.88/-15.98	-8.63/-8.23	-8.36/-10.48	-12.33/-16.14	-14.43/-13.15	-15.89/-12.53	-13.06/-11.64	-9.08/-11.01	-8.76/-7.75	-6.39/-6.47		
Θ(80°)	-17.79/-18.53	-10.03/-3.64	-2.2/-2.56	-3.61/-3.74	-1.86/-7.42	-9.52/-7.26	-5.22/-3.19	-4.96/-8.18	-7.81/-7.34	-11.56/-15.93	-15.38/-7.24	-7.25/-7.68	-7.8/-17.92	-18.78/-9.61	-12.59/-11.58	-13.82/-9.92	-9.88/-13.75	-15.16/-17.4
Θ(90°)	-11.65/-9.6	-5.16/-2.76	-3.34/-4.85	-7.23/-14.2	-0.88/-2.89	-5.6/-4.33	-1.34/-0.58	-1.84/-3.73	-6/-7.92	-10.92/-15.28	-18.16/-11.1	-9.8/-11.27	-18.35/-11.9	-11.41/-7.44	-10.54/-11.14	-9.22/-12.66	-13.73/-10.74	-10.43/-11.9
Θ(100°)	-17.32/-11.35	-7.38/-4.72	-7.33/-9.46	-4.08/-1.24	-3.05/-4.64	-3.39/-1.97	0.92/-2	0.89/-1.75	-2.49/-2.28	-15.82/-16.78	-13.99/-8.63	-12.55/-18.78	-18.72/-15.47	-14.99/-16.5	-8.18/-16.34	-11.74/-12.15	-11.09/-11.89	
Θ(110°)	-14.86/-14.44	-14.54/-18.89	-13.14/-4.64	-3.95/-6.3	-5.49/-7.38	-6.51/-4.79	-2.82/-0.12	-2.01/-5.03	-5.09/-3.7	-4/-4.95	-12.03/-11	-7.34/-8.91	-10.82/-18.39	-10.94/-13.6	-18.01/-17.3	-13.48/-12.2	-15.06/-9.46	-10.94/-16.73
Θ(120°)	-18.36/-19.2	-18.57/-17.58	-8.11/-4.51	-8.81/-10.09	-5.2/-8.42	-4.8/-5.16	-7.27/-5.56	-6.4/-7.41	-5.24/-3.06	-3.03/-3.38	-8.82/-8.99	-8.62/-18.99	-18.26/-18.03	-15.14/-13.66	-17.03/-17.3	-17.15/-15.08	-12.24/-12.17	-16.58/-13.86
Θ(130°)	-16.65/-18.06	-15.04/-10.19	-10.12/-16.38	-17.87/-17.97	-6.87/-14.26	-6.31/-9.98	-9.5/-6.68	-8.38/-8.11	-6.87/-4.92	-3.21/-3.82	-8.49/-10.67	-7.62/-8.87	-18.44/-14.29	-15.4/-14.96	-19.06/-15.03	-14.82/-14.25	-18.62/-13.67	
Θ(140°)	-11.37/-13.29	-11.23/-13.73	-16.75/-15.31	-11.81/-12.99	-12.81/-4.83	-4.65/-8.36	-10.38/-13.83	-18.32/-18.8	-14.12/-11.71	-8.92/-5.96	-10.12/-13.68	-11.92/-15.44	-17.13/-14.12	-18.52/-18.41	-12.97/-17.85	-18.65/-12.71	-12.11/-12.14	-17.85/-18.41
Θ(150°)	-14.01/-12.51	-14.7/-16	-17.52/-12.97	-8.08/-9.03	-8.32/-8.08	-5.16/-7.41	-10.78/-10.45	-9.26/-11.41	-14.31/-11.04	-8.52/-11.12	-15.83/-14.1	-15.08/-19.15	-18.06/-18.59	-14.72/-9.03	-10.02/-18.6	-18.04/-17.79	-15.83/-17.96	-18.42/-17.27
Θ(160°)	-11.52/-11.69	-12/-11.1	-8.78/-8.4	-10.57/-16.67	-19.01/-18.25	-9.08/-10.64	-15.17/-17	-17.98/-17.96	-14.99/-14.92	-18.25/-15.08	-17.09/-18.61	-15.72/-14.63	-14.87/-13.51	-13.27/-11.91				
Θ(170°)	-13.72/-14.46	-15.97/-19.45	-19/-17.58	-16.44/-12.87	-9.83/-7.81	-7.46/-7.56	-10.42/-14.87	-17.34/-18.16	-18.24/-18.66	-16.31/-14.84	-13.22/-12.66	-13.95/-15.1	-15.3/-15.79	-18.14/-18.65	-17.77/-17.8	-18.5/-17.91	-18.93/-19.04	-16.25/-15.6
Θ(180°)	-11.31/-11.25	-11.4/-11.84	-12.67/-13.58	-14.13/-15.48	-16.9/-18.39	-17.76/-17.7	-14.12/-12.41	-11.44/-11.47	-10.98/-11.8	-12.13/-13.72	-13.79/-14.39	-15.02/-14.6	-14.45/-15.09	-15.89/-15.79	-15.16/-15.83	-15.17/-13.48	-13.11/-12.91	-11.9/-11.16
Freq(Hz)	5.3GPol.	PhiAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-14.35/-16.67	-16.36/-13.57	-10.36/-7.7	-6.34/-5.1	-4.5/-3.52	-3.23/-2.89	-2.61/-2.43	-2.63/-3.6	-4.23/-5.59	-7.63/-10.99	-16.72/-18.41	-13.49/-8.25	-5.4/-3.63	-2.44/-1.96	-2.11/-2.8	-3.2/-3.61	-5.05/-6.59	-8.3/-10.52
Θ(10°)	-11.64/-19.44	-18.28/-13.7	-8.94/-6.66	-4.19/-3.08	-2.49/-2.5	-6.34/-4.57	-16.87/-17.98	-7.52/-18.59	-2.28/-5.23	-12.63/-9.62	-2.32/-2.68	-2.71/-4.05	-5.6/-8.38					
Θ(20°)	-11.02/-10.1	-8.51/-6.43	-4.78/-3.43	-2.65/-2.25	-2.58/-3.19	-5.67/-9.33	-15.62/-18.74	-18.51/-15.92	-13.41/-13.44	-13.03/-14.26	-13.99/-14.01	-12.96/-10.72	-8.84/-7.29	-5.47/-3.93	-3.68/-4.02	-3.89/-3.48	-3.87/-5.16	-6.68/-9.26
Θ(30°)	-18.57/-15.2	-8.79/-6.09	-5.21/-3.9	-4.21/-3.92	-4.69/-6.97	-8.26/-11.82	-18.4/-12.89	-8.86/-8.64	-11.5/-15.62	-17.94/-18.02	-13.42/-12.82	-14.94/-15.23	-11.46/-8.91	-7.01/-4.71	-4.69/-7.4	-8.01/-6.96	-6.48/-6.3	-8.85/-14.9
Θ(40°)	-19.16/-14.18	-7.72/-8.14	-1.96/-1.29	-2.42/-1.54	-7.76/-9.84	-10.15/-10.87	-14.89/-11.54	-6.32/-5.43	-17.91/-9.28	-12.13/-13.13	-15.28/-18.93	-16.19/-14.05	-10.45/-10.53	-11.19/-12.67	-12.48/-8.41	-6.03/-7.66	-14.5/-18.95	
Θ(50°)	-18.68/-18.54	-19.06/-18.53	-11.36/-4.89	-2.09/-2.54	-5.44/-4.64	-7.87/-13.21	-13.21/-5.24	-2.51/-3.72	-7.62/-9.68	-6.23/-5.93	-8.28/-13.94	-12.7/-12.83	-14.35/-16.28	-18.69/-11.82	-6.32/-9.56	-13.66/-8.11	-5.95/-8.42	-15.61/-18.12
Θ(60°)	-9.84/-8.15	-9.07/-9.61	-9.4/-11.74	-10.11/-8.72	-9.15/-5.34	-8.35/-16.05	-14.15/-2.5	-1.77/-6.44	-10.24/-10.17	-7.58/-7.21	-7.15/-9.82	-17.17/-15.67	-19.26/-18.27	-17.46/-10.3	-7.64/-10.18	-7.88/-5.73	-5.95/-16.48	-14.22/-11.47
Θ(70°)	-10.53/-10.45	-12.17/-7.77	-5.33/-6.24	-7.48/-9.74	-8.28/-3.76	-8.72/-10.18	-10/-9.37	-8/-18.15	-12.88/-13.22	-17.41/-18.94	-11.29/-13.45	-16/-14.34	-18.59/-19.16	-18.68/-13.87	-12.04/-9.25	-11.56/-18.98	-18.41/-17.73	-13.13/-12.87
Θ(80°)	-18.38/-16.74	-18.59/-16.5	-12.47/-7.03	-3.9/-4.52	-5.24/-8.7	-5.92/-6.04	-17.08/-18.07	-6.91/-5.31	-7.14/-9.4	-11.97/-11.85	-14.16/-17.98	-15.44/-12.74	-16.25/-17.28	-19.01/-14.11	-6.81/-6.09	-12.86/-17.8	-19.5/-19.22	-17.51/-19.3
Θ(90°)	-16.83/-18.56	-16/-18.03	-10.29/-4.27	-4.41/-8.42	-6.49/-5.2	-2.59/-3.63	-4.17/-2.87	-5/-7.5	-9.82/-18.94	-18.01/-16.17	-17.55/-17.67	-17.69/-18.59	-15.69/-15.5	-15.57/-14.85	-17.18/-10.86	-17.09/-15.85	-17.5/-17.99	-16.05/-16.3
Θ(100°)	-12.92/-14.67	-14.98/-13.79	-10.49/-7.32	-8.98/-4.38	-5.66/-8.36	-4.04/-1.19	1.061/-2.1	-1.46/-10.27	-17.42/-13.75	-11.45/-14.04	-18.21/-17.85	-10.91/-10.26	-19.04/-17.94	-15.88/-12.22	-13.63/-11.16	-8.57/-16.38	-18.21/-14.96	-10.62/-11.83
Θ(110°)	-15.78/-17.83	-17.88/-8.98	-8.85/-12.22	-5.71/-1.26	-5.68/-7.44	-8.97/-2.97	-10.48/-11.84	-3.57/-7.61	-10.84/-11.84	-13.67/-17.93	-11.6/-13.2	-17.55/-7.56	-18.19/-16.64	-11.47/-15.83	-16.19/-16.64	-15.88/-12.78	-15.18/-17.6	
Θ(120°)	-18.06/-18.41	-13.5/-10.55	-7.12/-3.77	-3.26/-6.75	-4.29/-2.06	-2.91/-2.7	-7.36/-18.19	-9.42/-6.69	-8.71/-13.87	-11.96/-10.97	-18.48/-17.1	-19.07/-17.3	-15.52/-12.02	-16.4/-15.34	-12.59/-17.51	-18.47/-17.49	-18.96/-17.81	
Θ(130°)	-18.7/-14.56	-12.23/-8.25	-4.25/-3.64	-5.34/-2.98	-1.37/-1.39	-5.71/-3.95	-2.54/-2.17	-4.27/-9.15	-11.16/-9.35	-13.96/-13.37	-8.81/-3.56	-15.94/-18.87	-6.18/-15.29	-13.22/-15.91	-19.06/-11.04	-11.65/-11.89	-18.5/-16.06	-12/-16.57
Θ(140°)	-19.64/-13.25	-15.46/-13.19	-8.89/-5.99	-1.57/-13.25	-1.78/-8.42	-9.74/-5.73	-6.06/-9.95	-17.57/-13.29	-14.73/-10.16	-16.19/-13.12	-16.67/-17.75	-18.63/-9.47	-10.28/-14.43	-17.86/-18.4	-13.31/-18.06	-17.86/-18.43	-18.98/-19.18	
Θ(150°)	-10.49/-9.5	-8.34/-8.31	-7.86/-9.88	-16.41/-12.41	-9.98/-10.2	-7.33/-4.48	-4.5/-9.68	-12.92/-13.86	-15.3/-17.55	-17.27/-19.04	-18/-17.51	-18.94/-16.9	-11.09/-9.92	-13.37/-18.83	-19.07/-17.06	-16.59/-18.17	-18.43/-19.18	-14.55/-10.62
Θ(160°)	-17.15/-17.97	-16.28/-15.32	-17.96/-17.2	-14.3/-13.4	-14.49/-15.75	-10.62/-7.4	-6.95/-8.02	-9.73/-10.89	-12.09/-15.18	-16.17/-11.16	-8.74/-9.03	-11.04/-18.77	-18.66/-17.82	-16.18/-14.21	-14.44/-14.92	-16.45/-1		



Radiated Composite Gain Data

Appendix A

Θ(30°)	-13.26/-16.37	-15.83/-14.52	-11.43/-9.76	-9.73/-11.26	-13.64/-18.55	-17.89/-14.95	-10.16/-7.13	-9.34/-18.24	-13.88/-9.43	-8.12/-7.3	-8.74/-11.17	-13.93/-11.95	-7.39/-5.93	-5.34/-4.95	-4.05/-3.4	-4.85/-7	-9.36/-11.45	-11.5/-11.05
Θ(40°)	-17.48/-18.73	-18.15/-13.93	-10.88/-8.32	-7.4/-7.04	-6.64/-11.8	-18.44/-14.82	-9.14/-8.66	-17.82/-12.79	-9.68/-9.17	-17.2/-17.25	-18.76/-17.56	-17.45/-17.31	-11.6/-7.89	-7.13/-6.47	-6.85/-6.3	-8.4/-7.47	-9.1/-13.42	-18.83/-18.86
Θ(50°)	-13.19/-12.58	-18.42/-18.5	-15.04/-10.77	-9.36/-6.36	-4.88/-8.9	-18.16/-17.59	-14.57/-10.86	-15.43/-8.08	-4.5/-3.86	-5.2/-7.4	-7.52/-8.18	-8.56/-7.76	-7.08/-7.76	-8.06/-6.7	-11.29/-15.48	-7.7/-7.45	-13.56/-18.49	-15.29/-13.89
Θ(60°)	-5.58/-5.79	-9.35/-17.13	-18.61/-12.25	-7.5/-5.09	-4.22/-8.72	-11.05/-10.94	-10.86/-8.17	-8.58/-8.95	-10.11/-12.08	-9.23/-8.58	-7.33/-8.56	-9.91/-10.02	-8.75/-11.72	-18.72/-13.25	-10.27/-9.33	-7.15/-6.71	-7.75/-9.65	-17.14/-12.45
Θ(70°)	-6.88/-7.89	-11.62/-18.63	-18.17/-9.31	-2.64/-2.44	-6.72/-12.06	-6.06/-8.51	-14.06/-13.02	-8.77/-4.42	-5.39/-10.54	-18.32/-10.88	-8.5/-7.75	-8.52/-11.71	-9.27/-16.98	-14.36/-11.52	-10.07/-9.67	-8.3/-9.25	-13.06/-13.59	-18.63/-12.38
Θ(80°)	-11.62/-9.19	-9.69/-18.4	-11.05/-4.29	-0.16/-1.13	-9.8/-12.66	-4.07/-10.91	-8.43/-8.22	-11.84/-6.76	-3.43/-6.15	-19.37/-10.59	-7.7/-7.45	-12.89/-15.12	-13.32/-18.49	-15.76/-18.29	-9.38/-11.24	-14.37/-10.88	-15.99/-15.09	-19.21/-16.3
Θ(90°)	-9.93/-10.91	-15.45/-18.8	-14.87/-6.49	-0.61/-0.39	-1.51/-4.49	-9.89/-8.61	-5.1/-3.29	-2.81/-4.38	-5.91/-6.35	-15.05/-18.82	-10.64/-10.21	-12.4/-8.18	-14.01/-17.81	-18.04/-10.7	-5.69/-10.6	-13.41/-18	-18.44/-15.17	-13.63/-16.47
Θ(100°)	-10.87/-17.1	-18.03/-18.12	-9.01/-0.99	-0.31/-1.62	-1.25/-5.75	-3.17/-1.11	-5.57/-3.16	-2.28/-3.03	-8.04/-16.18	-16.43/-11.8	-10.86/-7.61	-10.74/-12.16	-17.69/-18.38	-12.22/-8.81	-7.64/-12.91	-10.4/-17	-18.86/-15.35	-15.18/-10.9
Θ(110°)	-18.56/-18.68	-18.41/-18.31	-6.76/-2.09	-4.07/-7.76	-3.91/-4.33	-1.28/-1.32	-3.36/0.25	-3.12/-10.86	-12.16/-13.04	-17.88/-14.05	-15.15/-17.87	-18.69/-16.91	-19.35/-16.59	-11.63/-11.43	-7.8/-12.27	-18.65/-17.19	-18.02/-12.83	-16.35/-19.26
Θ(120°)	-14.21/-13.6	-10.37/-16.87	-8.18/-5.24	-4.31/-3.81	-7.15/-7.15	-2.87/-4.26	-2.41/-0.32	-2.57/-11.21	-15.59/-5.96	-6.62/-8.19	-14.64/-11.2	-11.81/-18.67	-18.79/-13.94	-16.01/-9.99	-17.96/-7.42	-10.91/-16.61	-18.33/-11.35	-19.17/-19.04
Θ(130°)	-18.02/-14.77	-11.87/-10.2	-5.38/-5.65	-7.89/-9.25	-6.41/-2.78	-0.95/-1.57	-0.43/-0.95	-7.82/-14.34	-18.04/-11.31	-8.77/-14.38	-14.39/-9.36	-8.9/-9.08	-14.89/-12.65	-16.13/-13.95	-8.57/-10.64	-13.89/-19.24	-10.74/-9.99	-10.31/-14.11
Θ(140°)	-16.52/-18.18	-15.8/-9.12	-7.54/-10.25	-10.95/-4.72	-2.97/-5.7	-7.15/-8.03	-3.45/-0.69	-4.45/-7.95	-7.64/-15.81	-9.4/-6.83	-11.25/-18.46	-18.25/-14.34	-14.96/-16.83	-11.71/-7.59	-18.3/-16.5	-18.83/-14.23	-14.42/-17.84	-17.3/-13.17
Θ(150°)	-15.27/-15.9	-18.49/-18.34	-14.91/-12.76	-9.79/-6.88	-10.23/-14.21	-15.15/-8.9	-5.58/-4.89	-7.44/-9.47	-6.08/-5.63	-8.24/-13.34	-19.68/-18.23	-16.44/-17.58	-18.61/-15.77	-14.33/-18.55	-18.79/-15.58	-17.79/-17.23	-11.39/-11.74	-17.42/-18.27
Θ(160°)	-17.22/-18.12	-16.09/-14.03	-9.78/-8.14	-8.07/-11.51	-13.65/-12.09	-12.16/-9.67	-7.91/-6.87	-7.29/-9.05	-12.07/-14.56	-18.29/-17.63	-12.38/-12.51	-15.51/-14.31	-12.79/-11.66	-11.69/-10.98	-13.36/-17.12	-18.38/-14.81	-14.6/-16.99	-17.06/-18.54
Θ(170°)	-19.08/-18.16	-16.36/-13.74	-11.98/-14.23	-17.23/-18.88	-18.71/-18.58	-19.33/-15.14	-12.71/-12.86	-14.35/-15.32	-17.47/-18.64	-15.45/-11.59	-12.87/-15.4	-18.28/-17.51	-18.67/-17.88	-13.06/-14.49	-17.91/-19.24	-19.3/-18.14	-17.38/-18.51	-18.71/-17.79
Θ(180°)	-9.78/-10.14	-10.59/-10.05	-10.75/-12.33	-13.17/-14.86	-15.45/-17.75	-18.57/-17.75	-18.61/-18.14	-18.52/-17.91	-15.65/-13.11	-12.82/-10.77	-10.45/-10.56	-9.7/-9.27	-9.59/-11.21	-11.51/-13.14	-13.2/-14.67	-16.81/-17.36	-15.71/-13.86	-11.95/-11.57
Freq(Hz)	5.785G/Pol.	Theta/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-3.84/-3.34	-3.9/-4.22	-5.23/-5.53	-6.92/-8.85	-11.66/-15.14	-18.45/-16.26	-12.31/-8.2	-5.89/-4.53	-3.87/-3.12	-2.98/-2.75	-3.27/-5.05	-5.61/-6.36	-8.97/-10.15	-15.01/-18.95	-18.75/-14.19	-10.58/-9.04	-6.86/-5.97	-5/-4.25
Θ(10°)	-2.8/-2.92	-3.75/-5.23	-6.12/-8.16	-10.2/-12.57	-17.04/-19.35	-17.12/-18.85	-16.1/-12.47	-10.05/-8.45	-7.44/-5.94	-4.76/-4.53	-4.3/-4.81	-4.99/-6.21	-7.03/-8.49	-11.41/-17.26	-19.29/-16.37	-10.53/-7.2	-5.31/-3.84	-3.35/-3.07
Θ(20°)	-2.44/-2.42	-2.89/-4.24	-6.25/-7.64	-10.4/-18.4	-18.35/-18.49	-14.43/-13.81	-13.53/-10.51	-8.33/-7.99	-8.54/-9.38	-8.97/-7.11	-6.47/-5.37	-4.38/-4.62	-6.81/-9.45	-15.96/-18.36	-17.73/-18.63	-15.1/-8.41	-5.98/-4.85	-3.74/-3.46
Θ(30°)	-1.69/-1.1	-1.17/-1.38	-1.59/-1.82	-4.57/-9.87	-12.18/-15.52	-18.92/-18.94	-18.85/-18.15	-18.52/-18.19	-15.94/-14.86	-12.91/-10.11	-7.46/-6.8	-6.81/-6.75	-7.66/-10.96	-16.32/-15.9	-16.44/-17.76	-14.14/-11.5	-7.47/-5.04	-3.46/-2.11
Θ(40°)	-3.12/-1.78	-0.96/-1.21	-1.95/-3.29	-4.73/-6.32	-8/-10.14	-15.95/-15.38	-13.85/-13.66	-10.45/-8.05	-8.81/-10.62	-12.2/-11.38	-7.51/-6.97	-7.48/-11.04	-17.23/-15.76	-12.86/-10.94	-12.74/-18.63	-13.44/-7.16	-5.53/-5.04	-3.83/-3.48
Θ(50°)	-3.38/-4.25	-3.29/-2.92	-2.47/-2.84	-4.89/-6.92	-6.48/-5.97	-7.45/-5.56	-6.22/-7.57	-12.77/-9.73	-14.3/-17.85	-14.02/-11.25	-10.08/-9.48	-8.35/-13.78	-18.65/-13.45	-8.71/-7.8	-7.47/-10	-10.41/-7.57	-5.99/-5.37	-4.36/-4
Θ(60°)	-2.67/-2.22	-1.37/-0.67	0.02/0.63	-2.86/-10.46	-10/-7.54	-3.68/-2.71	-17.89/-11.5	-1.4/-1.12	-5.52/-8.98	-8.55/-8.59	-11.44/-14.42	-10.87/-11.63	-15.87/-14.37	-13.54/-10.41	-5.42/-13.48	-13.65/-12.26	-8.9/-4.58	-4.4/-3.09
Θ(70°)	-10.01/-6.58	-4.18/-1.39	-0.74/-0.5	-5.17/-14.08	-11.03/-9.81	-4.96/-4.86	-1.87/-0.98	-1.83/-4.73	-5.77/-5.96	-7.31/-6.18	-8.6/-15.44	-18.38/-14.66	-12.3/-16.25	-9.07/-7.14	-10.13/-16.1	-10.32/-11.81	-5.97/-4.9	-9.16/-12.78
Θ(80°)	-16.55/-8.57	-4.14/-4.07	-4.8/-3.85	-8.14/-12.61	-10.43/-4.05	-2.24/-3.71	-0.16/0.06	-0.24/-1.45	-1.54/-1.04	-0.94/-1.92	-8.68/-13.74	-18.8/-18.19	-13.28/-9.49	-7.54/-8.85	-4.61/-11.02	-12.22/-9.96	-6.4/-5.59	-6.83/-10.46
Θ(90°)	-18.69/-11.52	-9.2/-10.98	-7.37/-2.4	-2.6/-5.15	-7.18/-0.23	1.33/-1.79	-0.69/2.35	2.62/0.71	0.76/-1.23	-3.89/-5.07	-6/-12.19	-18.04/-18.33	-15.58/-18.85	-10.14/-12.25	-8.42/-15.48	-13.66/-10.36	-9.5/-5.93	-7.61/-18.86
Θ(100°)	-15.86/-14.93	-12.39/-11.38	-6.04/-3.75	-5.79/-7.63	-9.34/-4.12	0.2/-0.68	-0.15/0.65	1.71/3.22	1.87/-2.79	-4.81/-5.35	-6.85/-8.84	-7.09/-18.63	-11.19/-8.87	-4.91/-6.12	-6.55/-15.95	-16.24/-8.57	-5.18/-7.28	-13.91/-18.41
Θ(110°)	-12.73/-17.04	-17.55/-14.35	-15.22/-8.4	-8.78/-14.21	-14.82/-5.22	-2.84/-0.55	0.32/15	3.05/2.24	-0.71/-1.5	-0.99/-2.64	-4.4/-6.91	-12.5/-18.84	-17.35/-6.95	-11.37/-4.56	-15.47/-11.22	-10.99/-12.3	-7.46/-7.48	-9.07/-14.03
Θ(120°)	-18.19/-13.35	-12.43/-11.25	-7.15/-5	-7.58/-8.78	-6.81/-3.55	-3.31/0.35	1.71/2.16	0.95/-1.91	-2.06/-0.92	-1.08/-0.82	-3.76/-3.17	-1.75/-7.97	-6.73/-14.7	-9.64/-10.97	-9.69/-15.58	-13.27/-10.42	-13.09/-12.3	-15.26/-18.54
Θ(130°)	-17/-13.15	-8.46/-13.74	-16.23/-18.83	-19.13/-12.58	-6.04/-11.08	-4.86/-0.93	-2.04/-0.95	-1.5/-4.46	-2.91/-3.44	-2.66/-1.08	-4.64/-4.2	-5.71/-17.78	-7.34/-8.88	-17.58/-7.96	-12.69/-13.1	-18.38/-18.57	-10.35/-13.66	-10.75/-10.54
Θ(140°)	-18.34/-14.08	-13.57/-16.29	-17.67/-12.2	-6.61/-5.49	-10.02/-7.06	-0.42/-1.75	-4.44/-4.16	-5.26/-11.38	-6.18/-4.96	-4.91/-4.12	-7.75/-8.76	-13.87/-8.78	-13.96/-8.11	-10.67/-10.18	-18.53/-18.8	-14.37/-7.34	-9.29/-18.17	-16.66/-17.25
Θ(150°)	-14.55/-18.46	-18.02/-16.59	-9.06/-5.02	-4.45/-5.57	-8.18/-7.4	-3.93/-5.49	-7.02/-7.52	-10.8/-16.15	-12.63/-9.87	-8.99/-9.41	-11.05/-17.56	-11.72/-6.94	-7.55/-11.54	-14.43/-17.73	-15.51/-16.72	-9.67/-14.59	-17.19/-15.52	-15.76/-14.21
Θ(160°)	-9.43/-12.93	-16.89/-12.22	-8.13/-6.17	-4.8/-5.57	-8.65/-13.92	-13.18/-12.11	-14.69/-18.9	-18.62/-18.54	-16.65/-19.45	-17.24/-17.74	-17.46/-18.1	-18.45/-19.05	-18.29/-18.47	-14.93/-11.91	-13.3/-17.79	-17.32/-17.92	-18.69/-16.81	-13.15/-12.39
Θ(170°)	-18.36/-16.12	-12.45/-9.92	-8.83/-7.16	-5.72/-6.98	-8.06/-8.92	-11.03/-10.82	-11.04/-10.66	-10.22/-9.03	-9.52/-8.7	-10.1/-12.22	-14.96/-13.6	-15.51/-17.68	-18.78/-18.1	-18.08/-17.32	-12/-10.08	-9.72/-10.54	-13.29/-16.28	-18.15/-18.18
Θ(180°)	-18.98/-17.94	-18.35/-18.79	-15.59/-12.97	-11.25/-9.96	-8.48/-8.42	-8.26/-8.45	-8.12/-8.1	-7.74/-8.13	-8.51/-10.67	-13.55/-17.89	-18.61/-19.17	-17.57/-14.6	-10.95/-10.13	-11.08/-9.48	-9.25/-8.07	-8.91/-9.22	-10.16/-11.9	-12.86/-15.73



Total Gain Data

Freq(Hz)	2.45GPol.	TotalAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-7.31/-6.57	-6.08/-6.68	-6.04/-6.41	-6.71/-6.88	-7.27/-7.24	-7.64/-8.34	-8.40/-8.78	-7.62/-7.14	-7.52/-8.19	-9.55/-10.43	-8.35/-8.33	-7.32/-6.43	-6.50/-6.20	-6.32/-6.50	-6.50/-6.41	-6.46/-6.36	-6.55/-6.23	-7.29/-7.42
Θ(10°)	-10.29/-9.48	-8.26/-7.02	-6.91/-7.09	-6.71/-6.58	-6.02/-6.11	-6.50/-7.41	-8.14/-8.76	-8.00/-7.38	-7.00/-7.61	-8.93/-9.00	-7.90/-6.69	-6.09/-6.83	-6.15/-6.66	-6.99/-7.71	-8.73/-9.24	-10.29/-10.69	-10.59/-11.39	-11.46/-11.27
Θ(20°)	-9.65/-9.85	-9.96/-8.45	-7.68/-7.08	-5.95/-5.10	-4.58/-4.35	-4.94/-5.64	-6.65/-7.43	-7.21/-6.58	-6.62/-7.54	-9.40/-11.98	-11.82/-10.05	-7.54/-5.94	-5.78/-5.86	-6.89/-8.44	-10.78/-14.78	-14.13/-14.17	-13.05/-12.38	-11.33/-10.38
Θ(30°)	-6.12/-6.82	-7.88/-8.14	-8.42/-7.13	-6.01/-4.59	-3.57/-3.35	-3.52/-3.94	-3.83/-3.45	-4.42/-7.32	-13.55/-14.79	-10.59/-7.20	-6.13/-6.05	-6.88/-9.16	-12.59/-13.14	-12.64/-10.23	-8.16/-7.53	-7.56/-6.23	-7.56/-6.23	-7.56/-6.23
Θ(40°)	-3.36/-3.29	-3.78/-4.42	-4.55/-4.23	-3.34/-2.17	-1.42/-0.92	-0.65/-0.23	0.48/1.30	1.66/1.70	1.40/0.80	-0.21/-1.77	-4.25/-8.73	-14.82/-12.20	-8.30/-7.41	-9.28/-12.18	-13.05/-11.30	-8.84/-7.38	-6.47/-6.00	-5.15/-4.32
Θ(50°)	-2.68/-2.98	-3.36/-3.68	-2.90/-1.26	0.07/1.00	1.31/1.42	1.75/2.71	3.81/4.24	4.07/3.44	2.95/1.62	0.63/-0.52	-2.39/-5.46	-11.76/-13.03	-7.27/-5.95	-8.64/-11.18	-10.66/-9.52	-8.73/-8.11	-6.99/-5.19	-4.10/-3.14
Θ(60°)	-1.34/-2.75	-4.03/-4.82	-3.55/-0.31	2.30/3.66	3.91/3.59	3.37/3.07	3.70/3.80	4.18/3.31	2.17/1.19	0.05/-0.66	-1.05/-2.04	-4.62/-10.87	-10.69/-7.17	-7.61/-8.39	-8.58/-7.43	-5.59/-4.62	-4.11/-3.28	-1.92/-1.53
Θ(70°)	-1.34/-2.03	-2.70/-2.90	-2.76/-0.13	2.90/3.73	4.44/4.55	4.11/4.00	3.71/2.98	2.77/1.68	0.47/-0.64	-1.75/-1.71	-1.08/-1.39	-3.71/-10.93	-12.69/-6.30	-5.10/-5.89	-8.69/-7.61	-3.79/-2.73	-3.40/-3.34	-2.14/-1.53
Θ(80°)	-0.77/-0.69	-0.51/0.05	-0.65/-1.06	0.91/1.78	3.27/4.37	4.32/3.47	2.35/1.99	0.51/-0.82	-2.26/-3.80	-4.99/-4.52	-3.85/-4.16	-6.28/-13.58	-11.45/-6.30	-5.02/-7.10	-11.24/-6.19	-3.07/-2.80	-3.00/-3.24	-2.33/-1.41
Θ(90°)	-0.42/-0.98	-0.39/0.87	0.60/-0.47	-0.69/-0.30	2.08/4.17	4.34/2.78	0.33/-1.23	-1.58/-1.20	-1.36/-2.65	-3.81/-3.87	-3.66/-4.89	-7.68/-12.58	-10.35/-7.90	-8.05/-12.44	-11.43/-5.08	-3.31/-2.62	-1.33/-0.82	-0.69/-0.30
Θ(100°)	-1.70/-2.91	-2.32/-0.74	-0.23/0.05	-0.77/-4.56	-4.32/0.27	1.70/1.08	-1.04/-2.34	-1.80/-0.57	-0.03/-0.59	-1.58/-2.48	-3.62/-5.58	-9.51/-11.88	-10.84/-11.10	-12.25/-11.81	-7.23/-4.48	-2.80/-1.39	-0.66/-0.58	-1.05/-1.44
Θ(110°)	-3.00/-3.28	-3.74/-4.89	-4.33/-1.85	-0.99/-3.39	-9.26/-0.47	-0.58/-0.04	-1.59/-3.95	-3.92/-1.41	0.01/0.36	-0.22/-0.98	-2.54/-4.07	-7.55/-8.12	-8.02/-9.26	-9.04/-9.59	-7.57/-4.81	-2.72/-0.98	-0.54/-1.66	-2.67/-2.87
Θ(120°)	-5.23/-3.02	-3.54/-6.04	-5.79/-2.95	-0.73/-0.99	-3.98/-3.80	-0.33/-0.02	0.41/-1.59	-1.55/-0.34	-0.37/-1.54	-2.89/-5.41	-6.79/-5.57	-6.08/-12.49	-9.62/-6.00	-4.75/-4.66	-5.80/-8.67	-11.55/-8.89	-11.55/-8.89	-11.55/-8.89
Θ(130°)	-6.22/-4.65	-7.50/-13.14	-6.77/-3.66	-2.74/-3.18	-3.17/-0.61	1.16/1.61	0.65/-0.92	-2.03/-2.41	-2.97/-3.46	-3.68/-3.31	-2.79/-3.95	-6.07/-9.53	-13.88/-10.27	-7.94/-7.50	-7.38/-6.23	-6.39/-7.81	-9.91/-10.73	-10.63/-9.16
Θ(140°)	-6.88/-8.04	-11.55/-12.10	-6.21/-3.78	-3.77/-4.77	-3.45/-1.30	-0.15/0.04	-1.15/-2.31	-3.21/-3.89	-5.08/-6.34	-6.92/-7.27	-8.14/-9.46	-8.67/-8.90	-9.60/-5.95	-7.63/-9.14	-11.62/-13.34	-12.26/-10.47	-7.44/-5.38	-4.57/-4.98
Θ(150°)	-6.99/-10.24	-13.91/-14.79	-9.77/-0.77	-6.15/-5.50	-4.01/-2.32	-1.66/-1.98	-8.27/-8.98	-6.02/-6.49	-6.73/-7.32	-8.79/-8.86	-8.26/-7.28	-7.35/-8.16	-8.46/-8.84	-9.67/-9.98	-9.33/-10.61	-6.35/-5.21	-4.97/-5.86	-4.97/-5.86
Θ(160°)	-8.47/-8.88	-9.00/-8.71	-9.07/-8.95	-9.47/-8.20	-6.31/-5.19	-5.06/-5.16	-6.17/-7.69	-9.63/-10.73	-11.73/-12.54	-11.48/-9.15	-8.83/-9.10	-9.71/-9.46	-7.91/-7.25	-8.29/-8.86	-10.41/-11.76	-10.76/-9.02	-8.81/-8.73	-9.05/-9.09
Θ(170°)	-12.48/-12.42	-11.83/-11.52	-11.19/-11.74	-10.80/-9.13	-7.86/-7.04	-6.84/-6.86	-6.64/-6.88	-7.62/-7.09	-7.28/-7.62	-8.94/-9.06	-8.33/-7.89	-8.38/-8.33	-9.27/-9.85	-10.72/-10.76	-11.10/-11.83	-12.27/-11.84	-12.29/-12.19	-12.29/-12.19
Θ(180°)	-10.29/-9.90	-9.99/-10.17	-9.58/-9.74	-9.40/-9.68	-8.50/-7.92	-8.01/-8.12	-8.47/-8.55	-9.13/-9.96	-9.81/-10.17	-11.01/-10.48	-10.33/-9.31	-8.84/-8.05	-8.14/-8.77	-9.53/-10.79	-11.66/-13.24	-14.20/-12.55	-11.51/-9.72	-9.56/-9.14
Freq(Hz)	5.2GPol.	TotalAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-9.60/-9.30	-9.29/-10.63	-11.00/-10.98	-10.23/-10.07	-10.13/-10.50	-9.45/-11.35	-10.15/-11.95	-12.92/-11.84	-9.79/-8.92	-9.45/-11.13	-10.15/-8.21	-7.52/-7.47	-7.71/-8.54	-7.51/-7.61	-7.51/-7.61	-7.51/-7.61	-7.51/-7.61	-7.51/-7.61
Θ(10°)	-8.27/-7.44	-8.04/-7.92	-8.26/-6.81	-6.15/-6.39	-6.59/-6.36	-5.76/-4.76	-4.00/-4.34	-5.08/-5.75	-6.26/-6.41	-7.66/-7.87	-8.46/-10.20	-10.09/-11.01	-11.27/-13.35	-11.54/-13.50	-15.22/-14.63	-13.41/-11.88	-10.49/-10.61	-9.66/-8.96
Θ(20°)	-9.93/-8.65	-7.72/-9.09	-6.23/-5.53	-5.09/-6.47	-6.14/-6.52	-4.62/-8.21	-2.48/-3.33	-5.30/-7.31	-8.19/-7.19	-7.11/-9.28	-10.82/-11.39	-12.66/-15.35	-15.35/-14.89	-13.26/-11.95	-13.08/-14.78	-14.01/-12.56	-10.45/-9.29	-10.01/-7.44
Θ(30°)	-11.70/-12.01	-12.80/-11.17	-8.25/-6.85	-5.89/-4.69	-5.79/-6.03	-6.07/-3.23	-2.44/-4.44	-7.09/-10.66	-14.74/-15.06	-13.06/-12.33	-12.42/-11.20	-9.61/-10.68	-14.56/-13.82	-12.07/-12.47	-12.07/-12.47	-12.07/-12.47	-12.07/-12.47	-12.07/-12.47
Θ(40°)	-5.52/-4.74	-3.80/-2.57	-1.49/-0.84	-1.91/-3.08	-2.62/-2.74	-4.35/-4.53	-3.57/-3.74	-2.93/-2.11	-2.98/-3.91	-4.57/-5.50	-5.76/-6.81	-10.86/-14.33	-15.37/-13.90	-11.47/-12.88	-12.93/-10.26	-11.64/-11.96	-14.59/-12.53	-12.31/-8.69
Θ(50°)	-11.50/-9.42	-9.89/-7.43	-2.69/1.10	1.69/0.58	0.74/0.37	-1.11/-1.56	-1.10/-2.14	-3.92/-3.40	-6.17/-10.77	-14.83/-13.80	-11.98/-7.47	-8.73/-13.80	-12.02/-11.73	-14.33/-11.19	-13.13/-15.53	-13.45/-13.59	-10.64/-13.08	-15.43/-13.03
Θ(60°)	-5.59/-5.07	-2.92/-2.87	-4.88/-4.56	0.88/1.46	1.11/2.92	-1.88/-2.54	0.70/0.13	-2.96/-3.18	-1.89/-2.54	-12.41/-10.53	-5.88/-9.31	-9.51/-13.06	-15.29/-10.19	-12.10/-9.90	-14.18/-12.86	-13.94/-10.50	-8.01/-5.94	-8.01/-5.94
Θ(70°)	-6.37/-5.57	-2.76/0.36	1.14/-1.20	0.92/3.29	1.66/3.32	2.25/-0.57	1.57/1.98	0.78/1.95	1.83/-1.63	-5.25/-9.44	-9.56/-9.56	-9.53/-14.38	-14.58/-14.11	-15.10/-13.90	-10.99/-12.59	-12.52/-14.91	-10.11/-6.70	-8.16/-7.34
Θ(80°)	-6.49/-6.04	-3.67/-9.02	0.52/-0.51	0.05/4.14	5.03/5.56	1.49/0.59	-0.57/0.41	-0.21/1.51	1.74/-0.69	-4.31/-6.09	-6.67/-7.41	-7.57/-6.35	-7.67/-7.18	-9.26/-10.22	-15.22/-11.38	-15.02/-8.67	-8.46/-14.97	-12.93/-9.56
Θ(90°)	-5.29/-5.41	-3.39/-2.87	-3.13/-2.57	-3.05/-0.82	3.79/4.92	2.04/0.74	-1.87/0.34	-0.17/1.48	1.32/-0.23	-1.27/-2.44	-4.00/-4.87	-6.39/-9.71	-9.84/-10.42	-14.68/-11.89	-11.92/-11.28	-14.98/-13.31	-9.94/-12.74	-10.35/-5.60
Θ(100°)	-6.89/-5.43	-2.78/-4.86	-6.65/-5.03	-2.75/-1.89	-5.34/-1.92	0.12/3.33	1.88/0.67	-2.57/-0.90	-2.34/-5.91	-5.34/-1.92	-1.37/-3.58	-5.98/-4.92	-6.28/-9.07	-16.03/-10.80	-11.66/-9.29	-11.00/-9.59	-15.27/-12.68	-8.65/-6.96
Θ(110°)	-8.80/-7.43	-5.58/-6.09	-6.33/-6.44	-6.40/-3.59	0.63/2.10	0.72/-3.17	-1.83/-3.38	-4.75/-6.11	-4.53/-2.55	-2.00/-4.83	-5.19/-3.97	-12.49/-11.78	-9.59/-12.77	-14.79/-15.39	-15.27/-10.84	-10.80/-9.16	-9.65/-7.48	-7.14/-11.80
Θ(120°)	-12.49/-10.95	-13.59/-10.52	-5.65/-4.68	-4.87/-4.97	-3.07/-3.53	-1.77/-3.81	-1.64/0.40	-0.90/-1.31	-1.48/-2.14	-2.58/-3.26	-3.86/-4.06	-5.68/-8.22	-13.37/-10.76	-13.81/-8.30	-15.06/-11.32	-15.52/-10.10	-14.18/-13.51	-10.89/-14.10
Θ(130°)	-7.54/-5.89	-10.21/-14.70	-11.58/-10.20	-6.07/-5.71	-7.32/-9.14	-4.94/-5.37	-5.28/-7.02	-1.73/-9.40	-8.02/-6.74	-4.56/-8.36	-12.96/-14.51	-12.96/-14.51	-12.96/-14.51	-12.96/-14.51	-12.96/-14.51	-12.96/-14.51	-12.96/-14.51	-12.96/-14.51
Θ(140°)	-12.63/-16.98	-8.20/-7.13	-8.94/-10.86	-8.59/-6.67	-5.68/-5.68	-5.73/-7.13	-5.91/-4.13	-4.06/-6.14	-9.03/-12.70	-15.41/-11.43	-9.24/-7.36	-6.53/-12.42	-12.98/-6.77	-5.51/-13.64	-14.09/-13.36	-13.86/-12.14	-7.59/-7.48	-9.46/-12.01
Θ(150°)	-11.44/-7.99	-5.90/-4.98	-4.64/-6.65	-5.06/-4.17	-4.20/-5.32	-4.56/-5.54	-6.23/-4.56	-5.99/-7.87	-9.35/-9.94	-10.91/-13.70	-14.94/-9.21	-4.44/-3.26	-8.06/-14.26	-11.61/-10.90	-15.00/-11.03	-11.72/-12.94	-9.80/-9.35	-10.83/-11.43
Θ(160°)	-7.51/-9.22	-9.00/-8.34	-9.45/-9.14	-7.47/-7.02	-6.80/-5.93	-5.33/-5.50	-6.49/-8.54	-6.51/-9.40	-6.41/-6.57	-15.56/-11.76	-11.77/-13.85	-15.25/-15.30	-10.08/-15.14	-11.61/-11.59	-15.25/-15.30	-10.08/-15.14	-11.61/-11.59	-10.08/-15.14
Θ(170°)	-5.50/-6.47	-7.70/-6.63	-12.41/-15.08	-13.86/-12.14	-11.25/-9.73	-8.82/-9.11	-8.51/-8.11	-7.27/-6.34	-5.04/-6.60	-4.12/-3.07	-4.08/-5.37	-6.24/-7.72	-8.85/-11.11	-15.73/-14.05	-10.31/-8.27	-6.16/-5.18	-5.60/-6.17	-5.96/-5.86
Θ(180°)	-13.29/-12.53	-12.54/-12.68	-13.50/-12.24	-10.61/-9.58	-9.42/-9.21	-8.80/-8.43	-7.94/-7.26	-8.57/-9.69	-11.11/-12.16	-12.65/-14.34	-14.14/-13.16	-10.62/-8.99	-8.46/-9.71	-14.15/-14.69	-15.34/-13.78	-14.78/-14.98	-14.68/-13.71	-14.75/-13.87
Freq(Hz)	5.3GPol.	TotalAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-5.84/-6.58	-5.99/-5.74	-6.71/-7.44	-7.75/-7.46	-7.75/-7.49	-6.35/-6.62	-7.05/-7.48	-6.69/-6.26	-7.12/-7.77	-6.56/-6.00	-7.38/-6.76	-5.75/-5.56	-5.55/-5.62	-5.47/-4.91	-4.79/-5.51	-5.89/-4.95	-4.64/-5.01	-5.57/-5.62
Θ(10°)	-5.85/-6.19	-5.86/-5.48	-5.70/-6.17	-6.89/-6.49	-5.13/-4.39	-4.11/-3.81	-6.37/-7.85	-9.80/-9.78	-10.51/-8.91	-6.93/-7.82	-7.88/-9.72							



Antenna Pattern

Appendix B

θ (60°)	-4.36/-5.09	-4.25/-2.27	-0.42/0.83	2.08/2.94	3.33/2.99	2.31/1.73	1.79/1.85	2.01/1.76	1.53/1.18	0.80/0.71	1.16/2.16	2.84/3.03	2.65/2.16	1.88/1.67	1.11/0.19	-0.91/-1.48	-1.76/-2.12	-2.86/-3.71
θ (70°)	-10.25/-11.10	-9.01/-4.17	-0.71/1.28	2.44/3.39	3.78/3.61	2.88/1.94	0.98/0.21	-0.24/-0.66	-1.03/-1.68	-2.43/-2.23	-1.34/-0.15	0.83/1.28	0.92/0.48	0.22/0.33	0.00/-0.83	-1.79/-3.35	-4.84/-5.73	-7.01/-8.13
θ (80°)	-10.65/-13.12	-9.64/-5.05	-1.25/1.08	2.27/2.84	2.93/2.59	1.97/1.09	-0.21/-1.40	-2.60/-3.86	-5.40/-6.43	-5.26/-4.37	-3.07/-1.48	-0.33/0.98	0.98/0.37	-0.52/-0.87	-0.47/-0.23	-0.70/-2.16	-4.59/-7.04	-8.34/-9.11
θ (90°)	-10.54/-15.66	-9.86/-5.63	-2.95/-1.06	0.40/1.33	1.68/1.93	2.21/2.19	1.95/1.21	-0.33/-3.01	-5.45/-5.19	-4.76/-4.58	-4.46/-2.92	-1.36/0.37	1.23/0.62	-1.53/-3.11	-2.33/-1.12	-0.87/-2.37	-4.88/-6.69	-7.39/-8.38
θ (100°)	-9.04/-12.96	-8.84/-5.46	-4.66/-4.23	-3.76/-2.48	-0.77/1.27	2.44/2.83	2.63/1.71	-0.39/-4.24	-7.44/-6.81	-6.96/-7.28	-7.09/-6.69	-3.39/-0.26	0.84/0.51	-0.59/-1.68	-1.86/-1.40	-1.53/-2.95	-4.46/-4.79	-5.18/-6.77
θ (110°)	-7.96/-12.79	-13.59/-9.90	-9.85/-11.27	-10.00/-6.95	-1.99/1.56	2.47/2.32	1.64/0.65	-2.07/-6.37	-11.29/-11.34	-9.37/-1.79	-8.65/-11.14	-8.44/-4.65	-0.17/-0.56	-1.10/-2.11	-3.76/-4.93	-5.39/-5.74	-6.62/-7.02	
θ (120°)	-9.78/-11.98	-11.28/-7.58	-6.70/-6.10	-5.24/-5.40	-3.61/-1.04	-0.22/-1.00	-1.24/-0.91	-1.46/-3.54	-6.57/-7.89	-4.91/-3.58	-3.78/-5.35	-7.98/-8.38	-5.45/-2.89	-1.53/-1.65	-2.85/-4.05	-4.74/-4.80	-4.87/-6.06	-9.13/-11.29
θ (130°)	-11.68/-14.33	-14.29/-10.92	-7.61/-5.21	-3.60/-3.68	-4.49/-4.78	-4.87/-5.63	-5.21/-3.62	-3.34/-3.86	-5.47/-8.17	-8.41/-7.73	-7.76/-6.63	-6.19/-9.50	-6.59/-7.21	-6.53/-5.04	-5.02/-5.78	-6.13/-5.63	-5.50/-6.66	-8.09/-10.16
θ (140°)	-11.67/-12.15	-12.56/-12.51	-10.76/-7.90	-4.95/-3.58	-4.08/-6.02	-8.57/-9.84	-11.51/-13.38	-10.77/-7.99	-7.47/-8.95	-9.86/-9.87	-8.53/-7.33	-6.99/-6.90	-7.61/-9.48	-11.29/-9.38	-9.38/-11.15	-12.39/-9.15	-7.68/-7.74	-9.12/-11.49
θ (150°)	-7.45/-7.58	-7.87/-9.15	-9.55/-8.29	-6.26/-4.75	-4.89/-7.05	-10.70/-12.34	-10.61/-8.90	-8.54/-7.61	-7.40/-8.18	-9.75/-12.53	-13.04/-13.63	-13.06/-10.28	-9.34/-9.75	-10.68/-10.66	-10.51/-11.31	-12.24/-10.17	-8.07/-7.14	-6.93/-6.98
θ (160°)	-8.61/-9.12	-10.06/-10.16	-10.45/-9.84	-9.03/-8.72	-10.19/-13.15	-14.36/-13.21	-10.30/-10.06	-10.05/-11.14	-12.86/-13.82	-14.27/-15.37	-14.84/-14.72	-14.54/-11.58	-10.24/-10.55	-11.21/-11.19	-11.04/-9.55	-9.52/-8.75	-7.97/-7.59	-7.33/-7.80
θ (170°)	-10.69/-11.09	-11.31/-11.33	-11.14/-10.74	-11.85/-12.99	-12.86/-11.92	-12.90/-10.97	-9.44/-9.01	-8.78/-9.05	-9.15/-9.84	-10.70/-10.39	-10.94/-12.03	-14.54/-15.86	-15.56/-16.38	-15.44/-14.64	-14.95/-13.39	-12.09/-10.61	-10.65/-10.24	-9.87/-9.86
θ (180°)	-8.95/-8.85	-9.09/-9.61	-9.82/-10.96	-11.21/-11.50	-11.79/-12.10	-11.35/-11.12	-11.36/-10.85	-10.48/-9.67	-9.11/-9.22	-8.61/-8.47	-8.75/-9.41	-10.01/-10.79	-11.89/-12.90	-13.45/-13.39	-13.22/-12.42	-11.88/-11.34	-10.68/-9.88	-8.80/-8.30
Freq(Hz)	5.25GPol.	TotalAnt. 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
θ (0°)	0.20/0.25	0.02/0.06	-0.08/0.05	0.18/0.16	0.09/0.02	-0.04/-0.43	-0.33/-0.36	-0.37/-0.37	-0.14/-0.14	-0.15/0.03	-0.00/0.14	-0.11/0.00	0.13/0.11	0.28/0.41	0.35/0.02	-0.19/-0.48	-0.32/-0.07	-0.07/0.16
θ (10°)	0.68/0.71	0.54/0.42	-0.01/-0.02	-0.18/-0.55	-0.56/-0.54	-0.73/-0.48	-0.31/-0.12	0.06/0.31	0.19/0.51	0.74/0.78	0.66/0.25	0.03/-0.06	0.10/-0.05	0.10/0.05	-0.19/-0.16	-0.74/-0.63	-0.49/-0.31	-0.02/0.34
θ (20°)	1.10/1.11	1.22/0.89	0.79/0.81	0.74/0.50	0.42/0.07	-0.12/-0.13	0.10/0.40	0.58/0.54	0.48/0.05	-0.40/-0.61	0.10/0.72	0.91/1.37	1.01/0.78	0.34/-0.02	0.01/0.72	0.02/0.26	0.52/0.92	
θ (30°)	-0.25/-0.03	0.09/0.10	0.32/0.56	1.20/1.40	1.18/0.68	0.56/0.89	0.99/0.51	-0.71/-1.89	-2.91/-3.75	-4.17/-3.71	-2.43/-1.73	-1.45/-1.05	-0.51/0.23	0.61/0.36	-0.20/-0.60	-0.27/0.03	0.12/0.26	0.03/-0.63
θ (40°)	-3.26/-2.08	-1.14/-1.40	-1.10/-0.71	-0.44/0.55	1.08/1.17	1.28/0.99	0.42/-0.53	-1.10/-1.60	-1.98/-3.37	-4.71/-4.34	-3.63/-2.68	-1.99/-1.74	-0.85/0.21	0.56/0.96	0.58/-0.37	-1.35/-1.35	-1.71/-2.48	-3.09/-2.83
θ (50°)	-4.76/-4.58	-3.74/-3.56	-2.48/-1.36	-0.64/-0.68	-0.35/0.46	1.63/1.50	-0.24/-0.65	-5.37/-6.49	-6.25/-4.17	-6.35/-4.23	-2.25/-1.17	-0.58/0.21	-1.71/-1.65	-0.60/-0.02	-0.66/-1.51	-3.23/-4.76	-4.78/-4.29	
θ (60°)	-8.85/-8.50	-7.31/-5.93	-3.79/-2.07	-0.14/-0.82	-1.64/-0.50	0.70/1.13	1.48/0.94	-0.05/-1.43	-2.34/-3.66	-4.08/-5.08	-4.68/-4.80	-2.95/-1.52	-1.71/-1.09	-0.38/-1.21	-2.37/-2.50	-1.78/-3.47	-7.12/-6.82	-6.77/-8.03
θ (70°)	-6.57/-7.14	-6.13/-6.72	-7.22/-5.22	-1.39/1.33	0.68/0.92	0.59/0.05	0.50/0.07	-1.29/-2.22	-2.80/-4.62	-6.11/-8.00	-7.31/-6.32	-5.05/-4.68	-2.85/-2.72	-2.56/-2.98	-4.92/-2.56	-4.82/-6.13	-6.68/-8.64	-11.55/-9.97
θ (80°)	-8.39/-7.94	-6.76/-6.33	-4.45/-1.94	-0.61/1.49	2.68/1.88	1.83/1.07	-0.87/-3.43	-3.81/-3.53	-3.42/-3.96	-3.96/-5.93	-5.64/-6.46	-6.09/-7.32	-2.89/-1.58	-2.89/-3.51	-3.70/-2.93	-5.45/-6.07	-9.40/-11.00	-12.27/-10.05
θ (90°)	-14.76/-14.50	-15.34/-12.35	-13.19/-12.23	-6.77/-3.32	0.12/-0.37	-0.58/-1.02	-5.15/-6.84	-5.88/-6.55	-6.82/-6.50	-4.93/-4.83	-3.48/-4.62	-6.77/-6.16	-3.51/-2.97	-2.72/-3.67	-3.35/-4.53	-4.01/-6.50	-11.73/-12.28	-10.59/-10.37
θ (100°)	-13.40/-14.54	-14.95/-14.33	-11.33/-8.63	-5.52/-4.17	-3.48/-2.40	-2.98/-3.76	-4.38/-6.43	-6.91/-7.17	-7.22/-15.15	-6.37/-7.42	-7.82/-8.66	-9.02/-4.44	-6.50/-4.16	-2.61/-4.09	-3.84/-4.13	-4.47/-7.32	-11.94/-15.32	-13.43/-10.91
θ (110°)	-15.51/-13.34	-7.56/-9.50	-12.23/-7.95	-5.95/-5.94	-6.25/-6.72	-6.87/-6.53	-3.34/-2.79	-5.82/-11.30	-15.46/-14.78	-11.57/-7.21	-6.62/-6.61	-9.84/-6.31	-7.84/-6.19	-4.08/-5.52	-10.44/-5.63	-6.60/-12.05	-15.67/-15.26	-14.61/-11.68
θ (120°)	-13.01/-10.60	-8.28/-9.59	-14.33/-15.81	-13.47/-15.54	-5.36/-6.43	-5.21/-4.44	-10.47/-13.71	-7.16/-12.61	-12.34/-12.49	-10.47/-13.71	-9.76/-8.65	-12.29/-11.64	-9.59/-8.96	-12.16/-13.07	-12.09/-14.72	-15.23/-15.71	-13.62/-13.98	
θ (130°)	-11.04/-10.93	-10.87/-12.37	-10.99/-8.88	-7.88/-7.41	-9.41/-6.55	-2.61/-3.98	-7.54/-8.44	-11.71/-12.06	-12.15/-14.87	-14.34/-10.23	-8.55/-11.48	-10.44/-10.70	-7.92/-13.13	-13.49/-14.75	-8.79/-9.86	-11.58/-14.47	-12.02/-15.03	-12.36/-11.00
θ (140°)	-9.07/-9.55	-10.23/-11.18	-10.38/-11.04	-13.52/-15.16	-14.00/-6.99	-4.04/-4.23	-6.55/-10.47	-13.11/-14.40	-13.21/-10.92	-12.79/-7.64	-8.41/-10.16	-10.94/-9.42	-10.05/-8.47	-10.91/-12.73	-6.90/-7.92	-14.73/-15.32	-14.89/-14.47	-12.68/-13.79
θ (150°)	-15.46/-16.04	-15.56/-15.68	-15.06/-15.41	-12.98/-10.64	-9.70/-8.84	-8.15/-9.22	-10.22/-13.86	-13.40/-14.58	-13.68/-12.26	-12.07/-14.41	-13.83/-14.99	-15.12/-14.95	-14.65/-14.53	-13.83/-14.99	-15.74/-15.27	-15.23/-15.27	-15.64/-14.65	
θ (160°)	-14.30/-13.41	-14.14/-13.50	-12.09/-11.68	-12.01/-12.10	-13.58/-14.06	-15.59/-14.50	-15.32/-13.04	-11.39/-11.89	-13.27/-13.40	-11.67/-11.93	-12.09/-12.16	-14.06/-15.53	-15.10/-15.08	-13.65/-13.64	-15.91/-15.43	-15.18/-15.28	-14.93/-15.20	-15.44/-14.86
θ (170°)	-10.77/-10.16	-11.01/-11.97	-13.32/-13.36	-13.43/-13.35	-13.25/-14.06	-15.59/-15.10	-13.91/-12.91	-12.33/-12.72	-13.72/-13.84	-14.64/-15.29	-14.07/-14.11	-13.82/-12.18	-12.54/-13.87	-15.80/-14.97	-15.05/-15.24	-15.05/-15.21	-15.50/-14.04	-12.22/-10.51
θ (180°)	-11.99/-12.48	-12.67/-13.83	-14.12/-13.61	-13.05/-13.64	-13.33/-13.57	-14.12/-14.74	-15.57/-15.22	-15.18/-15.70	-15.47/-15.65	-15.00/-15.43	-15.12/-15.23	-14.83/-15.18	-16.35/-14.46	-15.24/-15.68	-15.12/-15.38	-15.97/-14.56	-13.43/-12.55	
Freq(Hz)	5.3GPol.	TotalAnt. 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
θ (0°)	1.05/1.09	1.34/1.68	1.63/1.89	1.99/1.98	1.92/1.77	1.67/1.61	1.33/1.14	1.03/0.86	0.62/0.95	1.29/1.77	1.74/1.87	1.74/1.87	1.89/1.84	1.60/1.27	1.11/1.07	1.14/1.17	1.05/1.08	0.80/0.78
θ (10°)	1.08/1.14	1.13/1.03	1.15/1.27	1.20/1.23	1.12/1.04	1.11/1.04	0.97/1.08	1.39/1.74	1.63/1.59	1.64/1.69	1.78/2.16	2.24/2.12	2.12/1.96	1.57/1.30	1.21/0.97	0.96/0.87	0.76/0.59	0.59/0.70
θ (20°)	1.47/1.92	2.22/1.71	1.70/2.15	2.31/2.09	1.44/0.95	0.48/0.57	0.90/1.04	1.18/1.26	1.10/0.31	0.01/-0.12	0.04/0.68	1.52/1.97	2.26/2.37	2.57/2.26	2.02/1.66	1.01/0.49	0.19/-0.07	-0.04/0.54
θ (30°)	0.14/0.84	1.02/1.01	1.47/2.13	2.97/2.98	2.51/1.10	0.30/0.87	1.88/1.89	0.63/-0.76	-1.66/-1.98	-1.86/-1.27	-0.47/0.38	0.45/0.58	0.91/1.28	1.17/0.85	1.06/0.72	0.37/0.04	0.50/0.69	0.38/0.18
θ (40°)	-3.91/-3.05	-1.63/-0.68	0.16/0.06	0.94/2.72	3.94/3.13	2.23/2.46	2.35/1.55	-0.36/-1.74	-2.97/-4.35	-4.64/-2.61	-1.61/-0.82	-0.22/-0.43	-0.02/0.51	1.03/1.38	1.05/-0.22	-1.29/-0.97	-0.97/-1.52	-1.90/-2.99
θ (50°)	-8.66/-4.74	-3.97/-2.44	-0.73/-0.95	-0.48/0.96	2.27/2.86	3.15/2.96	1.85/0.02	-0.13/-0.67	-2.32/-4.77	-5.53/-5.14	-3.87/-1.26	0.60/0.80	0.35/0.49	0.98/0.87	0.86/-0.41	-2.15/-2.22	-2.96/-3.42	-4.84/-5.29
θ (60°)	-7.76/-7.33	-5.53/-4.24	-3.44/-2.76	-1.18/-0.67	0.39/1.76	2.72/2.78	0.98/0.12	-0.42/-2.28	-3.24/-3.82	-4.51/-4.59	-1.53/-0.22	-0.78/-0.71	-0.51/0.01	-0.21/-2.72	-2.52/-3.76	-6.31/-7.93	-7.46/-8.36	
θ (70°)	-6.04/-5.75	-6.20/-5.79	-5.02/-2.37	0.17/0.69	1.20/2.63	2.37/2.02	3.20/2.89	0.61/-0.61	-1.56/-3.74	-5.00/-5.13	-3.91/-5.14	-3.57/-0.99	-0.63/-1.80	-1.22/-1.67	-3.31/-2.79	-4.07/-6.68	-7.90/-8.34	-8.37/-8.52
θ (80°)	-6.95/-8.32	-10.16/-13.80	-16.05/-8.35	-4.62/-0.41	3.05/3.51	2.50/2.85	1.97/0.19	-0.92/-1.94	-3.01/-3.39	-3.45/-3.77	-4.30/-6.10	-5.33/-5.77	-1.25/-0.98	-3.08/-2.54	-4.08/-2.39	-6.44/-6.43	-7.32/-10.37	-10.07/-7.90
θ (90°)	-11.86/-14.83	-14.09/-11.60	-15.22/-10.68	-5.17/-0.77	2.65/1.59	1.45/1.93	-2.70/-5.49	-4.										



Antenna Pattern

Appendix B

Θ(160°)	-5.87/-4.79	-4.41/-4.28	-4.79/-5.32	-6.26/-6.69	-6.15/-5.90	-5.53/-6.36	-7.12/-8.71	-9.75/-9.44	-8.73/-8.70	-8.23/-8.59	-9.35/-9.99	-10.96/-11.30	-10.95/-9.99	-9.04/-8.56	-8.90/-10.56	-11.99/-12.50	-11.46/-10.16	-8.98/-7.56
Θ(170°)	-9.31/-9.34	-9.69/-10.59	-10.98/-10.89	-11.34/-11.26	-10.86/-10.14	-9.70/-9.00	-9.09/-8.24	-8.30/-8.54	-8.56/-8.38	-7.74/-7.97	-7.78/-7.93	-8.32/-8.47	-8.54/-9.21	-8.91/-9.21	-9.65/-10.16	-10.64/-11.53	-10.66/-10.07	-9.80/-9.90
Θ(180°)	-11.43/-11.66	-12.58/-13.16	-13.19/-13.38	-13.13/-12.67	-12.87/-12.07	-10.86/-10.44	-9.23/-9.77	-9.68/-9.72	-9.23/-9.63	-9.50/-9.77	-8.52/-9.16	-9.48/-10.36	-11.17/-11.80	-12.66/-11.89	-11.76/-11.04	-11.46/-11.34	-11.33/-12.26	-12.96/-12.40
Freq(Hz)	5.2GPol.	TotalAnt. 3	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-6.09/-6.60	-7.12/-7.02	-7.05/-7.30	-6.63/-6.88	-6.76/-6.80	-6.54/-6.21	-6.06/-6.13	-6.75/-7.48	-6.53/-6.98	-5.90/-6.44	-6.53/-7.64	-7.19/-7.64	-7.19/-6.86	-6.32/-6.18	-6.53/-7.18	-6.60/-6.53	-6.29/-6.97	-6.41/-6.01
Θ(10°)	-4.59/-4.62	-4.38/-4.51	-4.35/-4.90	-5.26/-5.80	-6.40/-6.21	-5.58/-5.03	-4.25/-3.68	-3.09/-2.92	-2.55/-2.47	-2.91/-3.64	-4.08/-4.05	-4.44/-5.17	-6.78/-7.97	-8.52/-9.20	-8.86/-7.20	-6.14/-5.54	-4.71/-4.88	-4.51/-4.27
Θ(20°)	-13.99/-13.98	-11.86/-10.63	-8.80/-7.75	-5.98/-3.93	-3.43/-3.50	-3.73/-3.47	-2.96/-2.16	-2.10/-2.06	-2.84/-3.68	-4.59/-6.88	-9.22/-8.93	-6.95/-5.65	-6.22/-7.25	-9.60/-13.19	-9.82/-6.17	-5.20/-5.17	-6.49/-8.29	-10.02/-12.20
Θ(30°)	-9.88/-8.14	-6.86/-6.04	-6.06/-8.00	-10.09/-6.32	-2.72/-1.49	-2.41/-5.06	-13.35/-11.82	-13.14/-14.13	-13.35/-11.85	-13.48/-12.90	-8.53/-7.77	-9.81/-14.50	-13.00/-7.93	-7.60/-10.35	-15.11/-14.51	-13.64/-11.45	-13.64/-11.45	
Θ(40°)	-6.71/-6.56	-6.63/-5.45	-5.16/-4.87	-5.77/-7.68	-4.42/-2.06	-3.66/-8.35	-3.70/-2.01	-3.74/-6.23	-6.22/-6.14	-5.83/-7.34	-8.79/-9.83	-10.73/-15.24	-12.81/-9.91	-12.10/-16.27	-10.58/-11.10	-12.64/-10.81	-10.22/-8.95	-7.70/-7.73
Θ(50°)	-9.96/-8.31	-8.44/-8.87	-7.35/-7.36	-11.07/-3.75	-3.51/-1.53	-3.65/-2.59	0.01/-3.63	-8.30/-8.37	-10.51/-14.91	-15.02/-14.96	-11.87/-9.32	-12.62/-15.28	-15.55/-13.66	-15.71/-10.96	-9.07/-10.08	-10.16/-10.32	-11.09/-11.97	-13.41/-11.07
Θ(60°)	-5.17/-4.10	-4.91/-8.09	-6.79/-1.99	-2.05/-3.63	-4.79/-2.02	-0.46/-0.71	-0.43/-4.75	-3.02/-1.87	-2.27/-4.27	-6.89/-10.79	-12.93/-14.87	-12.41/-15.14	-11.87/-11.55	-14.49/-14.73	-9.19/-13.42	-9.25/-12.70	-15.47/-15.44	-9.07/-6.51
Θ(70°)	-3.00/-1.80	-1.56/-2.08	-1.11/-1.76	-2.52/-2.66	-4.200/63	0.64/-1.46	1.21/-0.75	-2.32/-1.90	-3.31/-4.05	-5.89/-9.85	-12.38/-15.95	-10.25/-10.09	-15.87/-11.86	-13.83/-14.86	-8.27/-14.87	-10.91/-16.14	-13.04/-9.57	-6.93/-5.12
Θ(80°)	-2.99/-1.46	-0.74/-0.09	0.05/-1.57	-1.21/-0.19	1.373/2.22	2.177/2.45	1.21/-1.24	-2.99/-1.24	-2.50/-5.39	-8.29/-7.56	-6.84/-9.68	-15.46/-12.91	-9.15/-7.04	-7.15/-12.46	-9.83/-11.07	-9.55/-13.85	-11.43/-10.70	-6.97/-5.09
Θ(90°)	-4.60/-2.21	-1.54/-1.16	-1.30/-1.23	-2.46/-1.98	-1.120/59	1.890/28	-2.94/-4.85	-1.98/-1.02	-2.97/-4.59	-9.65/-11.56	-11.28/-11.71	-11.32/-11.11	-15.37/-9.21	-7.18/-7.26	-8.48/-11.08	-10.62/-15.37	-11.25/-10.28	-6.78/-4.20
Θ(100°)	-2.92/-2.20	-2.11/-2.57	-1.91/-1.56	-3.88/-3.17	-2.55/-1.29	1.08/-2.38	-3.53/-2.67	-2.05/-4.56	-4.88/-4.25	-6.05/-5.59	-6.67/-9.45	-11.41/-12.43	-8.25/-11.13	-7.00/-6.87	-11.84/-14.13	-13.39/-14.26	-14.04/-6.79	-3.21/-2.26
Θ(110°)	-3.36/-5.42	-6.53/-4.80	-2.97/-5.24	-5.02/-3.90	-3.44/-2.88	-1.84/-4.42	-4.25/-2.50	-3.11/-12.24	-3.37/-4.00	-4.91/-2.51	-4.50/-9.76	-11.10/-13.42	-7.32/-10.02	-7.53/-9.26	-12.88/-14.65	-14.70/-13.04	-10.05/-10.56	-5.97/-3.36
Θ(120°)	-6.83/-5.97	-6.83/-6.19	-6.97/-14.64	-9.14/-4.86	-8.07/-5.76	-1.04/-4.19	-7.06/-7.41	-8.62/-11.18	-8.00/-4.94	-8.83/-11.94	-7.81/-9.89	-9.90/-10.32	-11.91/-11.54	-11.53/-10.04	-6.96/-9.34	-10.57/-9.34	-10.05/-8.07	
Θ(130°)	-8.61/-6.50	-7.24/-8.36	-9.08/-10.89	-6.78/-6.56	-13.22/-11.10	-5.28/-6.48	-7.83/-14.45	-7.07/-6.67	-9.02/-8.22	-12.91/-15.51	-10.11/-7.82	-15.26/-14.37	-10.34/-9.89	-6.36/-8.18	-14.57/-7.48	-7.23/-6.81	-4.89/-4.91	-11.44/-8.92
Θ(140°)	-5.88/-6.60	-7.80/-8.28	-11.41/-12.11	-13.61/-15.02	-14.60/-11.67	-10.16/-10.23	-6.79/-6.63	-15.47/-10.30	-9.68/-8.79	-8.39/-11.53	-14.16/-13.70	-13.95/-15.14	-12.91/-9.46	-8.42/-9.76	-9.73/-12.42	-15.60/-7.87	-5.14/-8.53	-10.28/-7.87
Θ(150°)	-9.51/-9.25	-12.97/-16.01	-14.46/-14.14	-14.09/-11.78	-9.27/-11.58	-14.14/-15.29	-13.04/-10.98	-15.60/-14.99	-15.35/-13.42	-10.10/-9.21	-12.16/-13.28	-10.75/-11.21	-12.58/-13.28	-11.73/-7.90	-10.09/-10.43	-10.68/-11.87		
Θ(160°)	-13.09/-14.11	-12.87/-12.36	-11.51/-12.35	-12.97/-10.96	-10.49/-12.23	-10.44/-9.23	-8.94/-11.02	-11.17/-11.58	-13.23/-15.26	-14.00/-12.92	-13.84/-15.31	-14.12/-11.86	-14.55/-15.01	-13.17/-12.06	-15.91/-15.25	-12.79/-11.46	-11.59/-11.90	-10.64/-11.21
Θ(170°)	-13.72/-13.73	-13.50/-13.62	-14.28/-15.47	-13.59/-12.48	-11.67/-11.13	-12.00/-13.07	-14.64/-15.53	-14.81/-14.04	-15.98/-15.72	-15.73/-15.45	-15.05/-15.90	-15.31/-15.16	-14.30/-13.74	-11.00/-10.79	-11.95/-12.52	-12.10/-12.43	-12.60/-13.17	
Θ(180°)	-11.28/-11.79	-13.41/-12.87	-12.29/-12.61	-13.20/-13.45	-14.23/-15.01	-13.14/-12.85	-11.73/-12.37	-13.22/-14.02	-14.03/-13.28	-12.35/-13.23	-13.09/-12.68	-13.76/-15.29	-15.46/-14.58	-14.60/-14.99	-13.67/-11.93	-12.45/-12.58	-14.07/-12.94	-12.63/-11.27
Freq(Hz)	5.3GPol.	TotalAnt. 3	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-5.95/-5.94	-6.56/-6.21	-6.78/-6.84	-6.23/-6.70	-7.13/-7.49	-7.71/-7.56	-7.60/-6.94	-6.64/-6.81	-6.23/-5.56	-6.67/-7.90	-6.42/-6.31	-6.27/-6.44	-6.48/-6.44	-6.24/-6.55	-5.92/-5.84	-6.40/-6.70	-6.32/-7.39	-5.92/-5.84
Θ(10°)	-3.24/-3.28	-3.21/-3.32	-3.22/-2.99	-3.09/-3.51	-3.96/-5.07	-5.79/-5.91	-5.08/-3.71	-3.06/-1.82	-1.56/-1.73	-1.87/-2.03	-2.78/-3.63	-3.80/-3.89	-5.42/-6.29	-7.22/-8.15	-8.74/-8.60	-7.08/-5.80	-5.20/-4.64	-4.13/-3.24
Θ(20°)	-9.09/-8.63	-8.66/-6.70	-6.51/-5.03	-3.71/-3.20	-3.07/-3.46	-3.94/-3.88	-2.06/-0.83	-0.58/-0.68	-1.20/-2.42	-3.96/-4.42	-4.28/-4.62	-5.11/-5.98	-6.23/-7.86	-9.99/-13.72	-12.99/-8.65	-6.41/-5.38	-5.91/-7.15	-9.41/-10.03
Θ(30°)	-5.96/-5.76	-4.77/-3.91	-2.97/-3.58	-5.51/-6.25	-4.08/-2.34	-2.23/-3.40	-13.98/-1.98	-5.26/-7.98	-7.99/-10.46	-13.99/-13.68	-12.05/-6.04	-13.05/-11.51	-11.48/-15.37	-12.05/-9.64	-5.19/-8.16	-11.05/-9.09	-6.83/-5.95	
Θ(40°)	-7.32/-7.19	-4.89/-3.12	-2.41/-1.91	-2.31/-3.56	-4.90/-1.50	-0.54/-4.47	-4.52/-1.99	-2.26/-4.76	-5.00/-6.03	-6.73/-8.03	-10.59/-12.68	-10.98/-10.69	-7.76/-7.35	-11.79/-13.94	-8.93/-9.82	-8.70/-9.68	-9.80/-5.32	-4.23/-6.01
Θ(50°)	-9.78/-8.43	-6.48/-8.40	-3.94/-3.23	-4.48/-4.22	-3.57/-1.66	-1.59/-2.21	-0.04/-0.20	-4.60/-7.40	-9.07/-9.12	-9.41/-7.74	-8.15/-9.80	-14.67/-12.67	-7.88/-10.00	-12.85/-11.12	-9.53/-11.08	-9.54/-11.89	-7.56/-7.54	-9.60/-9.34
Θ(60°)	-6.22/-4.45	-3.32/-3.32	-7.38/-3.29	-2.68/-3.73	-2.15/-2.76	0.04/-0.60	-5.16/-3.24	-4.21/-6.72	-9.32/-11.32	-13.45/-11.38	-15.59/-9.64	-12.12/-12.33	-7.48/-10.17	-14.13/-9.46	-6.22/-5.96			
Θ(70°)	-3.17/-1.90	-1.12/-2.10	-1.93/-0.81	-1.94/-1.68	-2.95/-2.20	1.690/78	1.840/01	-0.23/-0.55	-3.33/-4.13	-6.46/-12.36	-14.97/-10.54	-6.58/-9.81	-9.34/-6.51	-15.66/-10.86	-9.55/-14.87	-13.11/-14.65	-16.35/-8.68	-5.00/-4.45
Θ(80°)	-2.92/-1.37	-0.69/-0.21	0.310/83	0.09/-3.11	-1.15/-2.02	1.592/74	2.78/-0.85	-0.12/-0.64	-1.98/-2.87	-4.31/-5.38	-7.66/-15.55	-9.77/-6.08	-6.50/-7.35	-7.22/-13.24	-11.62/-11.43	-9.89/-10.72	-10.96/-7.08	-5.26/-4.00
Θ(90°)	-5.62/-3.50	-0.750/30	0.420/28	1.53/-0.13	0.181/41		-1.74/-2.38	-0.30/-0.69	-3.70/-7.38	-7.78/-8.35	-8.50/-10.83	-10.56/-5.04	-8.07/-4.96	-5.77/-7.29	-11.12/-11.00	-6.54/-12.45	-9.12/-7.05	-6.38/-6.45
Θ(100°)	-4.12/-2.47	-0.93/-0.59	-1.740/59	-0.64/-6.62	-0.84/-0.41	2.530/34	0.69/-2.30	-5.37/-3.47	-6.33/-9.84	-8.34/-8.20	-10.69/-9.31	-10.18/-8.59	-4.94/-7.41	-13.12/-11.34	-12.69/-6.27	-4.73/-5.05		
Θ(110°)	-3.84/-2.91	-2.21/-2.46	-1.67/-0.54	-3.54/-5.74	-3.89/-1.87	-0.41/-1.89	-5.91/-2.03	-1.54/-7.15	-3.00/-3.16	-5.32/-1.61	-4.94/-9.73	-6.37/-8.80	-8.53/-10.28	-6.48/-10.54	-10.34/-14.08	-15.66/-10.67	-11.93/-8.35	-4.84/-3.75
Θ(120°)	-5.63/-5.78	-6.17/-2.31	-2.11/-7.36	-9.21/-8.85	-8.10/-5.19	0.20/-1.87	-4.19/-3.64	-8.30/-9.55	-7.65/-3.69	-5.77/-5.77	-6.47/-9.02	-9.88/-6.26	-10.61/-8.54	-6.06/-9.60	-16.04/-10.75	-10.76/-5.69	-8.78/-9.74	-9.61/-10.12
Θ(130°)	-6.49/-4.05	-2.67/-3.50	-6.19/-8.00	-8.21/-7.11	-15.17/-8.62	-2.66/-4.48	-6.93/-6.19	-8.70/-15.57	-13.36/-9.63	-8.70/-15.77	-13.39/-8.76	-12.85/-11.32	-9.33/-8.49	-5.93/-9.93	-15.70/-9.01	-5.93/-6.06	-3.22/-8.87	-10.31/-8.16
Θ(140°)	-5.37/-5.53	-6.24/-7.60	-8.97/-10.71	-14.44/-13.50	-10.39/-11.86	-7.70/-7.08	-4.64/-6.36	-15.14/-7.87	-8.01/-0.05	-5.77/-10.75	-11.21/-11.74	-10.17/-11.78	-11.91/-9.78	-5.50/-8.01	-8.11/-15.45	-11.36/-6.04	-4.91/-8.28	-8.57/-8.56
Θ(150°)	-8.07/-6.19	-8.27/-11.23	-15.11/-14.30	-10.97/-6.53	-5.71/-10.15	-15.49/-13.89	-9.78/-9.27	-11.96/-14.99	-15.20/-13.88	-11.87/-10.47	-10.38/-9.24	-10.40/-12.59	-10.26/-14.27	-9.29/-10.31	-10.44/-11.78	-9.96/-7.13	-9.45/-8.04	-8.22/-9.46
Θ(160°)	-12.40/-12.45	-16.67/-9.09	-8.11/-8.31	-7.43/-6.29	-15.21/-14.59	-12.64/-14.59	-11.65/-11.19	-10.78/-9.56	-15.34/-15.53	-14.56/-13.10	-15.34/-15.53	-14.56/-13.10	-15.33/-15.21	-16.35/-15.65	-14.18/-13.14	-15.22/-10.42	-8.35/-6.66	
Θ(170°)	-10.39/-9.61	-10.36/-10.74	-11.13/-11.23	-10.94/-10.48	-9.43/-9.08	-10.07/-11.71	-13.03/-12.09	-12.94/-13.84	-13.55/-15.32	-15.19/-15.62	-14.55/-15.32	-15.34/-15.89	-15.21/-15.18	-14.39/-12.23	-11.73/-11.28	-11.25/-11.82	-11.60/-13.07	-11.18/-11.12
Θ(180°)	-12.54/-13.14	-12.31/-13.14	-14.05/-15.08	-14.40/-14.41	-14.25/-15.29	-13.54/-11.71	-11.62/-11.55	-12.03/-12.26	-12.25/-13.83	-13.42/-11.43	-10.50/-11.34	-13.87/-13.21	-13.71/-15.68	-15.22/-14.83	-12.86/-11.64	-11.28/-11.78	-12.97/-12.72	-12.40/-13.28
Freq(Hz)	5.6GPol.	Total																



Antenna Pattern

Appendix B

Θ(50°)	-7.73/-6.29	-4.33/-3.39	-2.51/-1.70	-2.22/-4.25	-5.70/-3.95	-7.40/-14.59	-12.42/-6.24	-3.44/-4.34	-7.29/-7.04	-6.38/-6.60	-8.88/-7.55	-6.07/-5.79	-8.22/-11.51	-13.40/-7.41	-4.48/-5.57	-5.11/-3.60	-4.20/-5.96	-7.23/-7.17
Θ(60°)	-6.93/-4.39	-2.91/-2.05	-1.53/-2.27	-3.45/-5.98	-5.72/-3.28	-4.39/-4.99	-7.68/-3.90	-3.00/-6.06	-7.59/-8.05	-8.51/-9.44	-12.64/-13.94	-9.12/-6.83	-7.75/-11.93	-10.53/-7.65	-6.96/-4.59	-3.91/-4.31	-6.54/-12.39	-11.50/-9.40
Θ(70°)	-8.37/-6.47	-5.54/-3.24	-1.46/-0.92	-0.38/-2.08	-2.13/-4.72	-3.42/-2.08	-9.59/-13.68	-9.02/-6.49	-7.71/-7.80	-8.01/-9.17	-8.82/-8.35	-8.56/-11.59	-12.71/-12.20	-12.55/-9.58	-9.08/-5.64	-6.88/-10.34	-8.14/-6.66	-5.69/-6.23
Θ(80°)	-15.01/-12.89	-8.42/-3.30	-1.93/-1.39	-1.48/-1.18	0.32/-3.28	-3.75/-3.98	-3.94/-1.77	-2.84/-4.93	-5.53/-6.26	-10.64/-13.36	-12.34/-6.56	-6.43/-6.94	-7.12/-15.01	-15.76/-8.42	-6.34/-6.07	-11.11/-8.76	-7.90/-12.36	-13.37/-13.24
Θ(90°)	-10.02/-8.91	-4.81/-2.65	-2.76/-2.40	-4.68/-0.55	0.84/-0.83	-2.07/-1.13	0.42/-1.00	-0.83/-3.32	-5.46/-7.49	-10.01/-13.56	-13.51/-9.08	-8.85/-10.56	-15.20/-10.79	-9.74/-6.20	-6.69/-9.27	-8.41/-9.18	-12.07/-10.05	-9.39/-10.57
Θ(100°)	-12.14/-10.07	-7.08/-6.01	-5.05/-6.62	-3.25/-6.01	-0.37/-2.63	-0.72/-1.07	2.85/-9.95	2.34/-1.03	-2.39/-2.17	-2.94/-6.61	-11.60/-15.90	-13.22/-13.24	-13.63/-14.67	-11.69/-8.38	-11.71/-7.15	-5.08/-14.01	-11.04/-9.76	-7.82/-8.73
Θ(110°)	-13.53/-13.22	-11.77/-9.86	-8.95/-4.47	-1.52/-0.52	-4.03/-4.95	-3.81/-2.31	0.86/-1.89	-0.95/-4.33	-4.24/-3.07	-3.41/-4.51	-9.17/-9.56	-6.96/-8.42	-10.20/-15.77	-9.74/-12.19	-14.56/-7.56	-8.87/-11.36	-13.57/-7.53	-8.90/-14.79
Θ(120°)	-12.93/-12.75	-13.68/-11.91	-6.37/-1.83	-2.70/-3.81	-0.65/-2.39	-1.83/-1.34	-0.56/-0.34	-3.25/-6.99	-4.22/-2.20	-2.46/-3.25	-7.57/-8.16	-7.87/-15.06	-13.05/-14.23	-13.06/-9.88	-14.79/-13.91	-9.38/-9.65	-10.07/-10.88	-14.15/-11.00
Θ(130°)	-14.42/-9.14	-8.02/-7.31	-6.43/-6.48	-5.62/-1.31	-0.78/-3.84	-3.32/-3.48	-2.75/-1.85	-4.12/-6.38	-6.59/-4.42	-3.03/-3.20	-5.65/-8.91	-7.08/-8.39	-9.69/-12.81	-9.32/-12.89	-15.76/-7.60	-8.46/-10.57	-15.37/-12.47	-12.69/-12.32
Θ(140°)	-10.68/-10.00	-9.89/-11.59	-11.29/-8.17	-6.43/-6.80	-6.96/-3.37	-3.42/-4.25	-5.61/-11.34	-15.56/-15.61	-11.38/-9.62	-7.12/-5.59	-9.59/-12.20	-11.04/-13.94	-14.14/-12.02	-13.34/-10.22	-8.80/-11.04	-13.40/-11.76	-11.05/-11.27	-15.10/-15.65
Θ(150°)	-10.44/-8.82	-9.64/-9.37	-9.28/-7.85	-4.73/-4.56	-5.09/-3.95	-3.47/-3.51	-5.44/-6.68	-8.82/-10.71	-12.78/-10.23	-8.17/-10.40	-13.87/-11.87	-11.18/-15.82	-12.44/-10.43	-11.21/-8.48	-9.26/-15.80	-15.04/-15.39	-14.23/-14.97	-15.15/-12.86
Θ(160°)	-10.74/-10.81	-10.92/-10.28	-8.32/-6.80	-6.87/-8.80	-11.15/-9.26	-6.84/-6.86	-7.96/-10.86	-13.41/-13.47	-15.56/-15.15	-12.85/-10.39	-9.53/-10.89	-12.85/-13.97	-14.62/-13.79	-13.94/-15.18	-15.76/-15.18	-13.73/-12.76	-12.65/-10.76	-11.06/-10.85
Θ(170°)	-11.07/-10.34	-10.79/-11.04	-10.24/-10.65	-10.25/-10.12	-8.15/-6.50	-5.87/-5.36	-6.39/-7.16	-7.45/-7.98	-9.59/-10.82	-10.37/-10.59	-11.65/-11.51	-12.74/-13.30	-12.03/-11.45	-11.23/-12.59	-13.33/-14.47	-15.62/-15.32	-15.40/-16.04	-14.45/-13.44
Θ(180°)	-8.39/-8.54	-8.61/-8.84	-9.31/-9.93	-10.05/-11.00	-11.32/-11.80	-12.25/-12.62	-11.92/-11.34	-10.79/-10.69	-10.31/-11.03	-11.12/-12.47	-12.61/-13.13	-13.27/-12.78	-12.92/-13.14	-13.45/-12.66	-11.49/-11.37	-10.69/-9.81	-9.85/-10.10	-9.49/-9.03
Freq(Hz)	5.35GPol.	TotalAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-4.06/-3.80	-3.12/-3.18	-2.93/-2.64	-2.82/-2.72	-2.87/-2.49	-2.70/-2.66	-2.47/-2.13	-1.79/-1.75	-1.54/-1.56	-1.67/-1.84	-1.91/-2.46	-2.42/-2.00	-1.75/-1.37	-1.20/-1.38	-1.81/-2.65	-3.05/-3.23	-3.89/-4.06	-4.19/-4.17
Θ(10°)	-1.80/-1.33	-1.19/-1.18	-1.18/-1.41	-1.40/-1.62	-1.45/-2.14	-3.28/-4.37	-5.93/-6.13	-7.14/-8.61	-10.99/-10.26	-9.97/-9.39	-9.89/-9.61	-7.58/-6.65	-4.78/-3.86	-3.21/-2.29	-1.96/-2.10	-2.16/-1.81	-1.84/-2.41	-2.34/-2.43
Θ(20°)	-2.45/-2.02	-1.53/-1.15	-1.17/-1.10	-1.03/-0.92	-1.64/-2.66	-5.44/-8.92	-13.29/-15.52	-15.27/-14.17	-12.12/-11.60	-11.70/-12.88	-12.60/-12.31	-10.75/-8.99	-7.41/-6.27	-5.00/-3.78	-3.52/-3.79	-3.73/-3.33	-2.85/-2.24	-2.00/-2.21
Θ(30°)	-2.74/-2.16	-0.99/-0.68	-1.61/-2.10	-1.86/-2.27	-3.63/-6.67	-7.90/-9.96	-11.65/-11.81	-8.45/-8.17	-10.66/-11.70	-8.53/-6.52	-5.21/-5.20	-6.81/-9.95	-10.33/-7.42	-6.12/-5.42	-4.54/-6.78	-7.68/-6.53	-5.14/-4.09	-4.62/-4.00
Θ(40°)	-1.24/-0.51	0.64/-0.67	1.14/-0.99	0.35/-2.11	-6.64/-6.15	-9.50/-9.28	-10.20/-9.70	-6.01/-5.22	-6.42/-8.06	-7.64/-6.97	-8.32/-9.06	-9.75/-7.60	-10.03/-7.81	-5.77/-9.05	-11.71/-7.75	-5.67/-4.82	-3.18/-1.37	
Θ(50°)	-4.19/-3.11	-2.14/-1.95	-1.73/-0.65	0.17/-1.23	-5.17/-4.44	-7.56/-10.00	-10.47/-3.72	-1.12/-2.83	-7.18/-9.10	-5.02/-4.01	-6.11/-8.26	-6.54/-7.53	-11.30/-11.65	-14.82/-6.75	-4.28/-8.78	-11.68/-7.58	-5.71/-6.01	-5.40/-5.13
Θ(60°)	-4.31/-2.04	-1.07/-0.68	-1.18/-3.73	-3.69/-4.73	-6.31/-2.96	-7.96/-13.46	-5.84/-0.22	-7.08/-7.06	-5.30/-4.76	-5.50/-8.50	-11.64/-8.03	-9.80/-14.04	-13.73/-7.55	-5.77/-8.46	-7.50/-5.29	-4.78/-9.85	-8.62/-6.18	
Θ(70°)	-5.39/-3.83	-3.24/-2.86	-1.90/-1.44	-0.35/-2.74	-6.22/-2.69	-7.36/-3.51	-7.20/-6.98	-6.97/-7.95	-10.09/-11.80	-10.21/-14.59	-13.22/-11.03	-15.38/-11.21	-6.35/-7.22	-10.21/-14.89	-11.24/-9.49	-6.51/-6.62		
Θ(80°)	-11.57/-8.61	-6.82/-5.42	-3.86/-1.14	0.71/-1.20	1.14/-2.01	-4.70/-3.58	-5.24/-0.53	0.61/-0.66	-1.71/-3.04	-5.89/-8.38	-10.93/-12.15	-12.03/-11.79	-11.36/-12.89	-10.18/-6.99	-3.98/-5.20	-10.93/-8.24	-7.86/-8.99	-10.34/-12.75
Θ(90°)	-12.54/-8.84	-5.38/-3.37	-1.31/-0.76	-1.21/-1.68	2.07/-0.33	-0.39/-0.08	1.74/-2.39	2.29/-1.16	-0.76/-4.29	-8.65/-12.47	-13.33/-10.30	-8.72/-10.05	-9.02/-12.43	-12.52/-4.79	-2.46/-7.95	-8.95/-9.84	-8.88/-10.76	-11.47/-13.33
Θ(100°)	-9.66/-7.53	-5.92/-8.20	-2.98/-2.37	3.75/-0.17	0.53/-1.05	-1.76/-1.62	4.09/-9.12	-1.28/-4.57	-7.81/-11.41	-6.54/-8.59	-12.15/-9.47	-15.44/-11.97	-5.59/-4.41	-12.15/-7.95	-6.28/-11.02	-11.53/-9.75	-6.81/-7.97	
Θ(110°)	-9.45/-7.81	-10.62/-8.25	-4.21/-2.37	-1.15/-0.04	-1.75/-3.31	-5.77/-0.44	4.18/-4.76	2.85/-0.92	-3.59/-1.02	-1.45/-2.73	-3.51/-5.70	-9.43/-13.33	-12.06/-8.34	-4.55/-8.12	-11.19/-7.15	-7.04/-11.73	-9.21/-5.99	-6.39/-10.81
Θ(120°)	-10.19/-9.13	-11.75/-9.53	-3.48/-0.51	-2.27/-5.29	-1.38/-1.15	-0.48/-0.22	0.62/-0.66	-1.62/-6.27	-4.45/-2.54	-2.31/-2.55	-4.66/-3.26	-4.15/-12.02	-8.18/-14.50	-13.53/-8.87	-13.71/-11.85	-10.89/-10.50	-7.52/-8.28	-12.54/-14.25
Θ(130°)	-12.69/-12.77	-10.62/-5.72	-2.96/-2.97	-5.17/-1.62	-1.01/-2.61	-0.19/-0.44	-0.88/-0.01	-1.46/-3.23	-5.34/-4.00	-3.13/-3.78	-4.34/-5.44	-7.54/-7.28	-5.84/-7.55	-11.75/-12.21	-15.44/-10.15	-10.68/-10.55	-14.99/-11.08	-10.23/-10.45
Θ(140°)	-10.85/-8.86	-9.78/-9.41	-8.41/-5.73	-3.76/-4.89	-5.48/-1.84	-1.36/-2.20	-3.36/-5.54	-9.76/-6.77	-10.06/-8.92	-6.29/-7.15	-9.12/-11.19	-6.65/-10.32	-15.83/-7.21	-7.52/-11.65	-12.02/-11.47	-8.65/-9.13	-13.31/-15.98	
Θ(150°)	-8.69/-7.49	-7.01/-7.49	-7.54/-6.48	-7.13/-7.60	-4.26/-2.76	-3.72/-2.59	-1.14/-8.11	-8.84/-9.09	-12.99/-12.94	-7.83/-8.82	-13.11/-15.27	-15.72/-14.54	-10.29/-9.37	-12.15/-9.20	-8.68/-13.19	-11.05/-13.37	-15.06/-16.08	-12.95/-8.90
Θ(160°)	-9.60/-9.61	-8.91/-8.46	-7.75/-7.80	-9.46/-12.33	-11.29/-7.88	-6.81/-6.25	-6.56/-7.67	-9.16/-10.08	-10.99/-13.45	-13.67/-10.41	-7.69/-6.35	-6.43/-8.28	-10.85/-13.25	-12.05/-9.36	-10.76/-13.28	-13.21/-12.28	-13.43/-12.83	-12.16/-9.57
Θ(170°)	-9.86/-9.99	-10.77/-11.58	-12.83/-12.79	-7.44/-6.15	-5.37/-5.33	-4.89/-6.05	-5.83/-7.15	-8.07/-9.09	-9.26/-9.17	-9.38/-11.08	-12.12/-15.00	-11.49/-8.44	-10.56/-11.38	-14.17/-15.00	-10.56/-11.38	-14.17/-15.71	-15.05/-15.65	-13.46/-11.00
Θ(180°)	-7.57/-8.15	-8.33/-8.57	-9.54/-11.36	-11.56/-11.09	-11.73/-13.10	-14.16/-13.44	-12.74/-12.62	-12.74/-12.86	-11.74/-10.89	-11.42/-11.99	-12.91/-13.04	-11.66/-11.04	-11.62/-11.30	-11.62/-11.34	-10.81/-9.20	-7.84/-7.54	-7.58/-7.08	-7.39/-7.75
Freq(Hz)	5.6GPol.	TotalAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-7.00/-7.62	-7.05/-6.86	-6.29/-6.84	-6.28/-7.12	-7.63/-7.51	-8.05/-8.89	-8.59/-8.37	-7.06/-6.25	-6.86/-7.24	-8.40/-7.73	-8.03/-8.10	-7.37/-8.08	-8.75/-7.42	-8.56/-7.95	-7.80/-7.15	-7.26/-7.37	-8.00/-7.79	-7.13/-7.00
Θ(10°)	-6.38/-6.44	-5.90/-5.77	-7.07/-6.75	-7.09/-7.82	-8.68/-8.52	-7.54/-7.40	-6.13/-5.21	-4.28/-3.49	-2.69/-2.76	-2.36/-2.25	-2.87/-2.79	-2.86/-3.52	-4.51/-5.65	-7.21/-7.20	-6.68/-6.86	-6.85/-6.32	-7.08/-6.50	-5.84/-6.40
Θ(20°)	-2.80/-2.49	-2.33/-2.20	-3.20/-5.38	-6.60/-9.30	-9.65/-9.66	-9.07/-5.56	-6.55/-5.19	-3.80/-3.75	-4.26/-4.54	-4.25/-3.26	-2.96/-2.25	-2.16/-3.22	-4.18/-4.18	-5.41/-6.55	-7.37/-7.04	-6.44/-5.25	-4.45/-3.90	-2.88/-2.43
Θ(30°)	-5.15/-3.91	-2.89/-2.49	-2.02/-2.04	-2.53/-3.22	-4.13/-7.31	-11.55/-14.49	-10.87/-8.19	-9.40/-13.24	-14.31/-12.26	-10.26/-7.21	-4.80/-3.17	-3.48/-4.36	-4.33/-3.73	-3.88/-4.50	-4.75/-6.36	-5.34/-3.38	-3.61/-3.90	-4.85/-5.85
Θ(40°)	-6.13/-6.94	-5.02/-4.39	-3.60/-4.22	-4.74/-4.00	-2.95/-4.87	-7.83/-7.94	-8.00/-9.24	-11.75/-15.28	-13.00/-10.87	-11.44/-12.17	-11.92/-8.22	-5.00/-3.73	-7.29/-6.66	-7.17/-7.23	-5.44/-4.22	-3.44/-5.07	-8.34/-8.09	
Θ(50°)	-2.34/-2.09	-1.37/-1.03	0.07/-0.76	-3.59/-5.89	-6.11/-5.34	-7.97/-8.65	-7.43/-9.22	-1.44/-13.60	-14.15/-13.60	-12.87/-11.04	-9.85/-8.27	-7.51/-6.21	-6.13/-4.26	-4.73/-6.33	-6.30/-4.90	-4.04/-2.45		
Θ(60°)	-4.50/-4.77	-3.16/-1.07	-0.19/-0.24	0.04/-0.99	-5.83/-6.60	-4.86/-1.52	-2.92/-3.88	-2.87/-5.37	-8.38/-8.82	-8.06/-10.48	-9.64/-12.18	-11.08/-11.29	-6.56/-6.78	-6.56/-6.77	-6.27/-10.04	-9.20/-5.40	-4.90/-7.49	
Θ(70°)	-5.59/-4.04	-2.13/-0.75	-0.72/-0.52	-0.46/-0.23	-3.98/-6.13	-4.73/-5.01	-1.88/-1.28	-5.11/-3.48	-1.97/-3.53	-5.09/-4.71	-5.90/-9.36	-14.79/-9.76	-7.86/-11.71	-7.69/-6.84	-7.78/-6.73	-10.43/-8.65	-7.43/-5.90	-5.33/-5.35
Θ(80°)	-8.29/-8.15	-2.12/-2.49	-2.92/-0.26	2.43/-1.43	-2.62/-2.21	-2.19/-2.22	-1.03/-0.07	-0.65/-0.68	-2.19/-2.22	-2.38/-3.4								

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

