

Antenna Composite Gain Test Report

Equipment	WiFi 6E Mesh AP
Brand Name	Adtran
Model Name	SDG-8632
Applicant	Adtran 901 Explorer Boulevard, Huntsville, Alabama, United States, 35806-2807
Standard	KDB 662911 D03 v01
Sample Received	Jul. 26, 2023
Start Test Date	Aug. 21, 2023
Final Test Date	Aug. 21, 2023


Approved by: Jackson Tsai

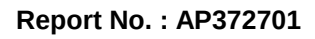
SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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



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1. Operation Mode and Antenna Information

Antenna Position	RF Port	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
6G Ant1	1	Galtronics USA, Inc	Antenna_6DB1	Dipole	UFL	6G
6G Ant2	2	Galtronics USA, Inc	Antenna_6DB2	Dipole	UFL	6G
6G Ant3	3	Galtronics USA, Inc	Antenna_6DB3	Dipole	UFL	6G
6G Ant4	4	Galtronics USA, Inc	Antenna_6DB4	Dipole	UFL	6G

Note:

6GHz Operation Mode (4TX/4RX)

6G Ant1~6G Ant4 could transmit/receive simultaneously.

2. Test Frequency

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

Band [MHz]	Test Frequency [MHz]
5925-6425	6175
6425-6525	6475
6525-6875	6695
6875-7125	6995

3. Testing Location

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Wen 33rd.St.	ADD:	No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)		
	TEL: 886-3-318-0787	FAX: 886-3-318-0287		
Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	05CH03-HY	Rex Liao	23.5~24.5°C / 40~50%	21/Aug/2023

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

4. Test Facility and Configuration

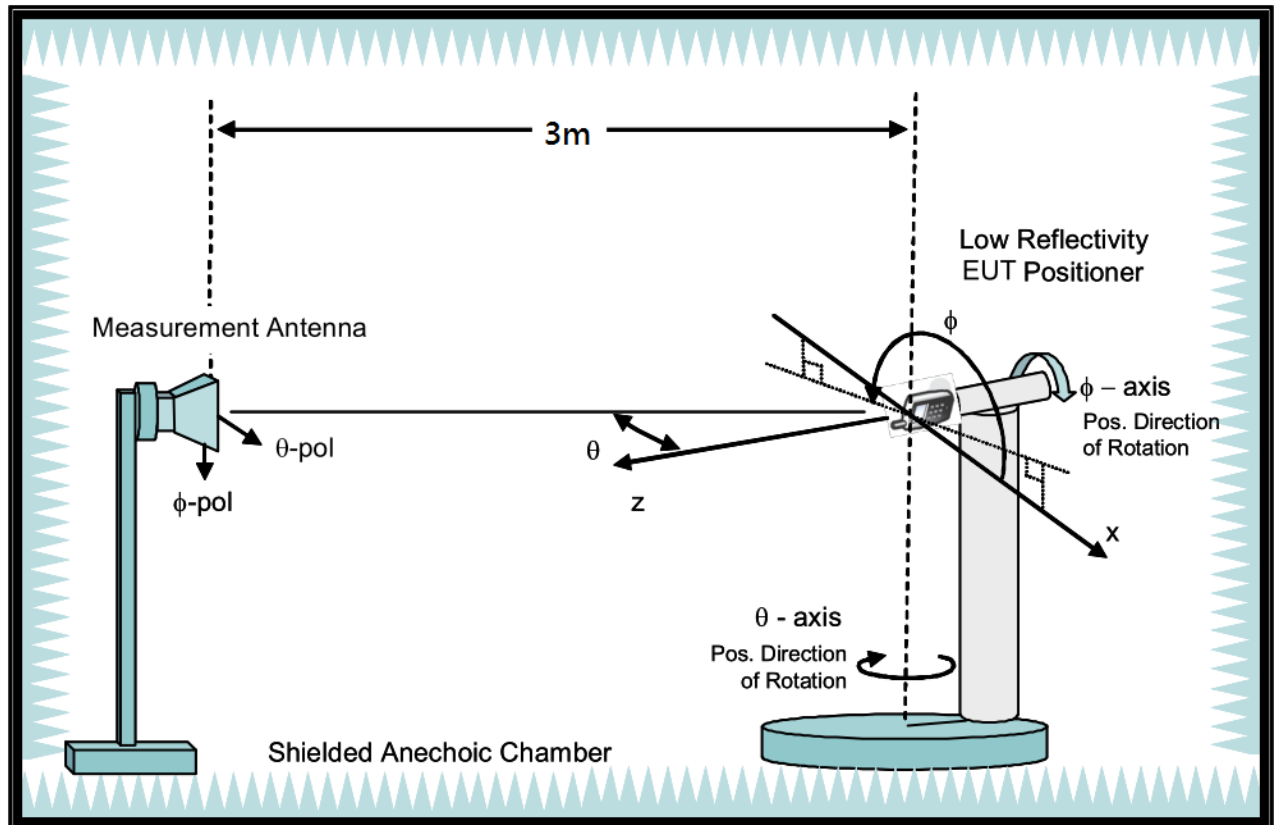
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

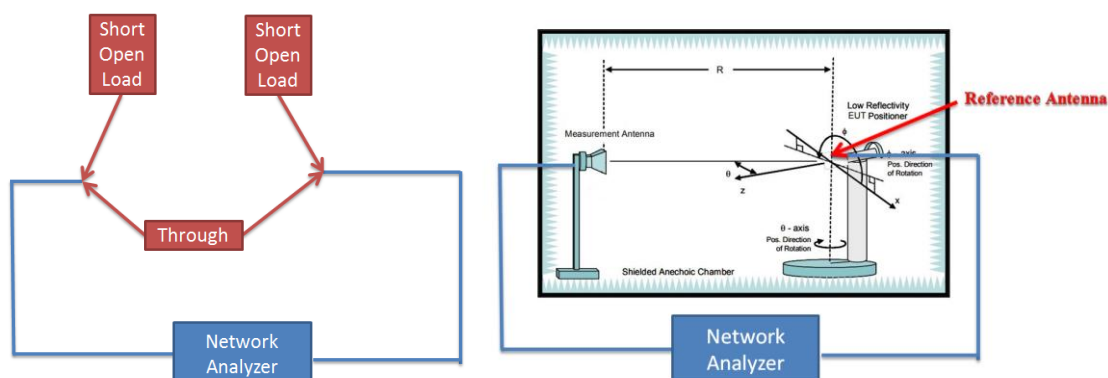
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



5. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7200
G(theta) reading (dB)	-33.75	-33.64	-32.91	-32.21	-32.45	-32.33	-32.57	-32.94	-32.78	-33.35	-32.91	-33.81	-34.54	-35.64
G(phi) reading (dB)	-33.19	-32.12	-32.48	-32.51	-32.64	-31.68	-32.24	-32.45	-32.45	-32.85	-32.45	-33.62	-34.48	-35.24
Reference gain (dBi)	10	10.4	10.6	12.3	12.5	13.3	13.3	13.2	13.1	13	13.2	12.4	11.8	11.1
Factor(theta) (dB)	43.75	44.04	43.51	44.51	44.95	45.63	45.87	46.14	45.88	46.35	46.11	46.21	46.34	46.74
Factor(phi) (dB)	43.19	42.52	43.08	44.81	45.14	44.98	45.54	45.65	45.55	45.85	45.65	46.02	46.28	46.34

Note:

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

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

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

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



6. Test Method

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

DG steps:

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

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

7. Measured Values and Calculation of Maximum Gain Positions

DG_1SS max value position

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	1.36	3.8	3.14	2.45
Ant. 2 (dBi)	2.54	0.1	2.91	1
Ant. 3 (dBi)	-0.8	-7.55	-6.13	-5.18
Ant. 4 (dBi)	-2	0.72	-0.7	-3.9
DG [1SS] (dBi)	6.48	6.16	6.55	5.19
Polarization	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	97.5	90	90	90
$\Phi(^{\circ})$	255	307.5	307.5	307.5

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

DG_1SS max value position calculation

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(1.36/20)}$	$10^{(3.8/20)}$	$10^{(3.14/20)}$	$10^{(2.45/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(2.54/20)}$	$10^{(0.1/20)}$	$10^{(2.91/20)}$	$10^{(1/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(-0.8/20)}$	$10^{(-7.55/20)}$	$10^{(-6.13/20)}$	$10^{(-5.18/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(-2/20)}$	$10^{(0.72/20)}$	$10^{(-0.7/20)}$	$10^{(-3.9/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.169	1.549	1.435	1.326
Ant. 2 [$10^{(G/20)}$] value	1.34	1.012	1.398	1.122
Ant. 3 [$10^{(G/20)}$] value	0.912	0.419	0.494	0.551
Ant. 4 [$10^{(G/20)}$] value	0.794	1.086	0.923	0.638
Sum All Antenna [Amax]	4.216	4.066	4.25	3.637
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	6.48	6.16	6.55	5.19

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

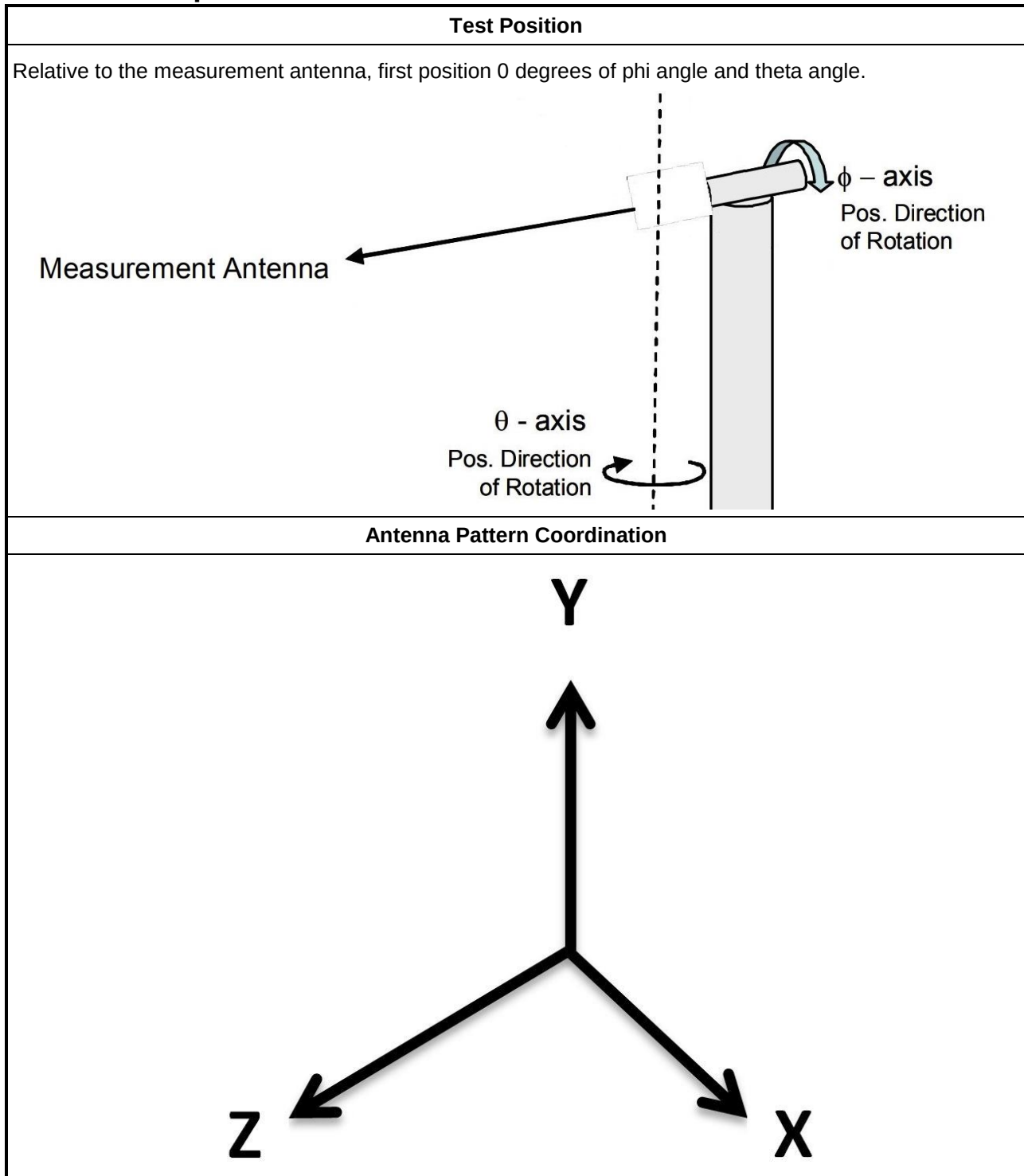
8. Summary of Test Result

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.9	4.13	3.14	2.6
Ant. 2 Max Gain (dBi)	3.52	3.35	4.59	2.48
Ant. 3 Max Gain (dBi)	2.84	2.23	2.02	2.96
Ant. 4 Max Gain (dBi)	2.01	2.8	2.73	1.34
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/300	Theta/90/300	Theta/90/307.5	Theta/90/300
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/247.5	Theta/120/247.5	Theta/127.5/210	Theta/127.5/210
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/157.5	Theta/82.5/165	Theta/90/135	Theta/105/135
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/30	Theta/90/75	Theta/90/0	Phi/120/330
Max Gain (dBi)	3.9	4.13	4.59	2.96
DG [1SS] (dBi)	6.48	6.16	6.55	5.19
DG [2SS] (dBi)	3.9	4.13	4.59	2.96
DG [4SS] (dBi)	3.9	4.13	4.59	2.96

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles.
2. The max gain is the max value of all antennas.
3. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii).
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii).

9. Test Setup



Note:

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

**10. Test Equipment and Calibration Data**

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1543	1GHz~18GHz	May 11, 2023	May 10, 2024
Dual Polarization Horn Antenna	Sporton	S0209DP	S0209DP-001	2GHz~9GHz	N.C.R.	N.C.R.
ENA Series Network Analyzer	AGILENT	E5071C	MY46419477	100kHz~8.5GHz	Jul. 28, 2023	Jul. 27, 2024
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 of 6GHz.....Page 13

Appendix B – Radiated Composite Gain of 6GHz.....Page 24

Appendix C –Test Photos.....Page 30

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Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.9	4.13	3.14	2.6
Ant. 2 Max Gain (dBi)	3.52	3.35	4.59	2.48
Ant. 3 Max Gain (dBi)	2.84	2.23	2.02	2.96
Ant. 4 Max Gain (dBi)	2.01	2.8	2.73	1.34
Ant. 1 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/300	Theta/90/300	Theta/90/307.5	Theta/90/300
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/90/247.5	Theta/120/247.5	Theta/127.5/210	Theta/127.5/210
Ant. 3 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/157.5	Theta/82.5/165	Theta/90/135	Theta/105/135
Ant. 4 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/90/30	Theta/90/75	Theta/90/0	Phi/120/330
Max Gain (dBi)	3.9	4.13	4.59	2.96
DG [1SS] (dBi)	6.48	6.16	6.55	5.19
DG [2SS] (dBi)	3.9	4.13	4.59	2.96
DG [4SS] (dBi)	3.9	4.13	4.59	2.96

DG 1SS Result

Freq(Hz)	6.175GPol	Phi-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-7.21/-6.96	-6.84/-6.62	-6.17/-5.51	-4.96/-3.95	-3.41/-2.8	-2.78/-3.35	-3.63/-4.48	-5.07/-5.58	-5.9/-6.37	-6.89/-7.67	-7.53/-7.34	-7.07/-6.69	-6.51/-6.23	-5.95/-6.29	-6.41/-5.77	-5.42/-4.63	-4.14/-4.07	-4.19/-4.62	-4.57/-5.12	-5.52/-5.69	-5.99/-5.7	-5.73/-5.51	-5.02/-5.76	-6.53/-5.75
Θ(7.5°)	-5.17/-5.14	-4.96/-4.84	-4.43/-3.99	-3.97/-3.73	-3.44/-3.08	-2.71/-2.65	-2.46/-2.63	-3.25/-3.89	-4.1/-4.76	-5.36/-3.96	-6.89/-7.27	-7.11/-6.96	-5.96/-5.68	-5.42/-5.54	-5.53/-7.31	-5.09/-6.65	-3.72/-3.06	-2.73/-3.05	-3.52/-4.22	-4.94/-5.39	-6.03/-6.23	-6.28/-6.14	-5.84/-5.95	-6.04/-6.19
Θ(15°)	-2.75/-3.28	-3.71/-4.2	-4.14/-2.7	-4.42/-4.47	-4.49/-3.65	-2.76/-2.61	-1.95/-2.02	-1.99/-2.22	-3.05/-3.84	-4.51/-5.66	-6.25/-5.8	-5.39/-4.53	-4.34/-4.4	-4.97/-6.33	-6.67/-3.71	-7.4/-6.41	-4.92/-3.53	-2.87/-2.59	-3.12/-3.81	-4.34/-5.16	-6.05/-6.1	-6.01/-5.59	-4.73/-4.17	-3.91/-3.15
Θ(22.5°)	-2.61/-2.95	-3.74/-4.37	-5.04/-5.44	-5.65/-5.61	-5.49/-5.02	-3.62/-3.33	-2.53/-2.25	-2.21/-2.55	-3.23/-3.79	-4.56/-4.51	-6.08/-2.39	-1.24/-0.46	-0.37/-1.08	-2.49/-4.61	-5.53/-6.84	-6.4/-29	-3.2/-29	-2.05/-1.86	-1.96/-2.37	-3.14/-0.4	-4.75/-5.31	-5.6/-6.12	-5.95/-4.53	-3.21/-2.46
Θ(30°)	-3.08/-3.32	-4.06/-4.76	-5.12/-4.34	-4.23/-4.24	-3.64/-2.76	-2.17/-2.33	-2.27/-2.26	-2.14/-1.91	-2.24/-2.6	-2.94/-3.19	-2.79/-2.43	-1.4/-0.67	-0.55/-0.86	-1.24/-2.19	-3.31/-4.45	-4.97/-4.32	-3.13/-2.09	-1.44/-1.46	-1.88/-2.3	-3.33/-5.11	-5.91/-6.36	-5.91/-5.36	-5.26/-4.88	-3.52/-2.73
Θ(37.5°)	-3.01/-2.28	-2.31/-3.59	-4.29/-3.8	-3.78/-3.33	-4.06/-4.76	-4.66/-4.32	-4.03/-3.87	-3.52/-3.28	-2.81/-2.3	-2.01/-1.84	-1.66/-1.26	-1.16/-0.83	-0.86/-0.94	-0.87/-1.94	-3.75/-5.05	-5.1/-4.19	-2.79/-2.03	0.98/-0.1	-0.29/-1.05	-1.55/-2.64	-3.59/-4.3	-5.41/-5.74	-5.86/-5.8	-4.51/-3.3
Θ(45°)	-2.8/-3.03	-3.98/-5.59	-5.8/-5.94	-5.43/-4.08	-4.64/-0.6	-3.29/-3.35	-3.69/-4.21	-4.44/-5.9	-4.07/-3.32	-3.12/-2.73	-2.11/-1.53	-1.73/-1.48	-1.75/-1.85	-1.11/-1.36	-1.74/-2.48	-3.68/-4.24	-2.89/-2.39	-2.39/-1.79	-1.16/-1.53	-1.86/-2.85	-3.84/-4.35	-5.45/-5.41	-5.15/-4.49	-3.22/-2.82
Θ(52.5°)	-3.18/-4.32	-4.8/-5.27	-4.66/-4.3	-4.41/-4.08	-3.22/-2.5	-2.63/-2.4	-3.85/-4.12	-4.99/-5.44	-5.41/-5.01	-5.44/-5.08	-3.94/-3.36	-3.97/-3.38	-2.8/-2.5	-2.87/-2.83	-2.58/-2.59	-2.96/-3.95	-5.18/-4.89	-3.45/-2.85	-1.89/-1.39	-2.57/-3.8	-4.47/-4.35	-5.26/-5.4	-5.66/-5.62	-3.8/-3.6
Θ(60°)	-4.42/-4.15	-4.81/-5.53	-4.83/-5.06	-5.29/-3.92	-2.54/-1.98	-1.79/-2.21	-2.31/-2.44	-4.72/-6.21	-5.6/-5.76	-6.39/-6.3	-4.77/-5.46	-4.92/-5.36	-2.9/-3.11	-3.27/-3.18	-3.19/-4.67	-5.35/-6.99	-5.83/-2.99	-1.41/-1.53	-2.72/-4.75	-5.81/-6.2	-6.32/-6.94	-7.11/-5.95	-5.15/-3.34	-1.51/-3.34
Θ(67.5°)	-3.69/-6.27	-6.27/-4.97	-3.39/-3.53	-5.39/-5.09	-6.82/-2.48	-3.78/-2.25	-3.37/-3.53	-4.78/-6.03	-5.33/-4.93	-5.19/-4.36	-2.77/-2.4	-3.67/-4.8	-4.17/-3.66	-4.65/-3.88	-5.14/-0.6	-4.03/-4.22	-5.41/-6.55	-5.22/-2.83	-1.26/-1.84	-3.28/-4.12	-4.86/-7.29	-9.15/-8.06	-7.66/-6.9	-4.09/-3.66
Θ(75°)	-5.42/-5.48	-4.92/-3.26	-1.95/-3.09	-6.37/-6.09	-3.23/-3.15	-4.83/-4.84	-4.67/-4.82	-5.8/-6.4	-6.93/-5.19	-4.46/-3.45	-2.28/-2.5	-2.57/-4.1	-4.31/-5.25	-5.39/-4.87	-4.19/-3.19	-3.65/-3.14	-2.92/-2.3	-1.77/-1.63	-1.31/-1.62	-3.26/-5.03	-4.01/-3.38	-4.11/-6.46	-6.53/-6.49	-3.97/-4.4
Θ(82.5°)	-6.47/-7.1	-6.43/-4.89	-3.33/-3.47	-5.02/-5.84	-4.13/-3.52	-4.73/-5.74	-5.24/-4.83	-6.51/-6.8	-9.78/-7.38	-5.82/-4.21	-3.2/-3.54	-3.77/-3.78	-6.01/-6.33	-7.24/-6.16	-3.63/-3.82	-2.78/-0.9	-0.39/-1.4	-2.14/-1.6	-2.28/-3.63	-5.79/-5.37	-4.03/-5.4	-5.9/-6.46	-5.52/-7.13	-6.29/-6.03
Θ(90°)	-9.79/-9.58	-8.89/-8.01	-6.17/-5.38	-7.38/-8.04	-6.78/-5.36	-3.7/-3.99	-5.3/-3.36	-4.84/-5.85	-10.95/-10.7	-9.43/-8.41	-4.98/-4.89	-6.11/-5.37	-6.66/-5.07	-7.21/-6.62	-5.95/-5.52	-5.75/-5.24	-2.31/-4.23	-4.45/-4.97	-5.53/-5.55	-9.01/-5.98	-5.15/-1.74	-7.16/-6.38	-8.01/-9.82	-8.81/-10.12
Θ(97.5°)	-8.2/-6.06	-7.44/-8.35	-8.24/-8.02	-8.66/-8.14	-9.5/-8.2	-5.32/-6.94	-8.77/-6.23	-8.11/-7.84	-11.23/-11.25	-12.05/-10.06	-8.2/-8.65	-6.81/-6.74	-8.06/-6.59	-6.34/-7.81	-6.76/-6.19	-8.8/-5.26	-4.23/-7.5	-9.96/-9.18	-10.24/-8.1	-12.53/-10.02	-9.65/-8.26	-6.96/-7.67	-5.66/-4.33	-7.36/-7.97
Θ(105°)	-5.88/-5.63	-6.78/-7.93	-8.32/-8.54	-9.55/-10.26	-11.28/-7.41	-6.32/-7.2	-7.19/-6.41	-5.22/-4.22	-8.21/-8.04	-11.2/-9.02	-7.65/-9.48	-9.61/-9.75	-6.8/-6.16	-6.02/-6.32	-5.48/-6.18	-8.13/-8.4	-8.1/-9.42	-11.16/-11.5	-11.73/-11.27	-12.56/-11.33	-9.73/-9.25	-7.58/-6.67	-4.51/-6.3	-6.41/-7.18
Θ(112.5°)	-4.2/-3.1	-6.02/-9.15	-9.75/-9.28	-10.41/-1.66	-9.06/-9.59	-9.02/-7.58	-8.77/-6.2	-6.78/-7.16	-7.16/-8.4	-11.47/-10.89	-10.24/-8.92	-7.52/-5.46	-5.47/-5.1	-6.66/-9.59	-10.46/-12.04	-8.9/-5.32	-7.26/-8.96	-5.66/-4.1	-11.25/-6.33	-8.17/-6.68	-11.71/-9.45	-7.94/-6.34	-7.82/-8.71	-7.36/-6.4
Θ(120°)	-0.88/-1.63	-3.23/-4.54	-4.71/-7.66	-9.5/-8.7	-7.42/-7.37	-8.53/-8.87	-9.06/-8.55	-9.34/-8.36	-7.05/-8	-8.79/-9.1	-8.43/-9.2	-5.84/-5.57	-3.72/-3.65	-5.13/-4.83	-5.98/-5.2	-9.05/-7.04	-6.77/-8.6	-5.93/-6.5	-11.55/-6.52	-8.31/-8.46	-7.44/-7.62	-7.51/-7.5	-7.67/-6.12	-3.83/-1.15
Θ(127.5°)	-2.19/-2.96	-3.95/-5.74	-8.45/-7.4	-8.67/-6.36	-7.37/-8.12	-8.21/-7.53	-8.24/-7.32	-7.78/-7.76	-8.55/-7.12	-6.41/-3.9	-4.1/-6.63	-3.23/-2.66	-4.44/-3.77	-5.18/-5.91	-10.97/-6.6	-7.05/-4.53	-4.86/-6.85	-6.49/-6.06	-9.25/-6.95	-7.44/-5.4	-9.25/-6.95	-7.44/-5.4	-3.02/-1.32	-3.02/-1.32
Θ(135°)	-2.44/-3.14	-5.41/-4.93	-6.14/-7.63	-6.17/-6.69	-5.52/-5.48	-6.54/-6.54	-4.93/-4.79	-5.49/-7.61	-7.41/-8.91	-6.62/-5.74	-8.39/-7.04	-7.8/-5.95	-4.33/-5.64	-3.97/-5.62	-10.77/-7.84	-7.85/-6.95	-3.23/-6.34	-7.05/-5.1	-2.65/-7.86	-8.17/-5.86	-4.81/-5.8	-8.17/-5.8	-4.72/-3.36	-4.72/-3.36
Θ(142.5°)	-8.05/-7.86	-9.71/-9.84	-7.5/-5.13	-3.86/-4.37	-4.64/-5.44	-6.72/-5.94	-4.01/-3.08	-3.59/-4.7	-6.16/-7.6	-9.14/-8.63	-5.33/-4.81	-7.92/-9.76	-8.53/-6.5	-7.38/-6.65	-5.42/-5.61	-7.64/-4.93	-6.6/-7.79	-6.64/-7.64	-7.13/-9.9	-8.73/-7.83	-6.65/-9.57	-8.15/-8.92	-7.19/-5.77	-5.01/-5.26
Θ(150°)	-5.47/-2.3	-7.18/-6.14	-6.41/-8.5	-9.02/-7.47	-6.76/-5.92	-6.09/-7.13	-8.17/-9.11	-9.11/-8.37	-7.41/-8.03	-8.93/-7.34	-6.4/-6.49	-6.91/-7.73	-7.59/-6.38	-4.75/-4.47	-6.78/-9.16	-9.36/-9.98	-8.53/-8.08	-7.24/-5.41	-5.73/-7.48	-8.85/-7.48	-6.65/-6.51	-7.18/-6.3	-7.5/-5.95	-4.37/-4.68
Θ(157.5°)	-1.12/-0.87	-1.08/-0.75	-0.36/-1.74	-3.8/-7.6	-6.43/-6.91	-6.62/-5.96	-4.66/-5.99	-4.22/-4.01	-3.92/-4.22	-4.5/-5.37	-6.45/-6.83	-6.35/-6.16	-5.2/-6.31	-3.76/-3.97	-5.57/-6.69	-4.42/-5.28	-6.52/-7.2	-8.14/-9.1	-10.13/-9.54	-7.16/-4.64	-4.24/-4.27	-3.52/-2.2	-1.85/-1.67	-1.85/-1.67
Θ(165°)	-5.43/-4.97	-4.14/-3	-2.58/-3.17	-4.13/-5.14	-6.13/-7.15	-7.03/-7.28	-7.05/-6.25	-5.97/-5.56	-5.23/-4.82	-4.87/-5.5	-6.27/-7.11	-8.03/-8.1	-8.34/-7.35	-6.33/-5.33	-4.03/-3.26	-2.89/-3.58	-4.94/-6.74	-6.93/-7.08	-7.51/-8.46	-9.29/-8.53	-7.04/-6.11	-5.57/-5.82	-5.35/-4.84	-4.81/-4.94
Θ(172.5°)	-7.3/-6.8	-6.75/-7.6	-9.39/-10.11	-9.92/-9.12	-8.45/-8	-7.38/-7.92	-7.5/-7.74	-7.46/-6.73	-6.59/-6.53	-6.71/-8.26	-8.23/-8.78	-7.62/-6.03	-4.74/-3.8	-3.19/-2.85	-3.09/-3.53	-4.41/-4.9	-5.51/-6.33	-7.9/-9.03	-9.86/-11.42	-11.46/-10	-9.04/-8.23	-7.47/-7.41	-7.9/-7.83	-8.07/-8.27
Θ(180°)	-12.43/-12.7	-11.48/-10.38	-10.07/-9.77	-9.46/-9.09	-9.75/-9.89	-8.96/-7.92	-6.91/-6.95	-6.23/-6.58	-7.27/-7.79	-8.23/-7.9	-8.07/-8.01	-7.82/-6.8	-7.67/-4.7	-7.22/-6.74	-6.61/-6.47	-6.31/-6.33	-6.97/-7.39	-7.64/-7.57	-7.72/-7.92	-8.14/-8.09	-8.17/-8.6	-7.79/-8.36	-9.79/-10.6	-11.84/-11.93
Freq(Hz)	6.175GPol	Theta-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-3.5/-3.86	-4.35/-4.69	-5.16/-5.31	-5.69/-6.5	-6.44/-9.45	-9.22/-8.58	-7.61/-6.89	-4.77/-4.3	-4.06/-4.25	-4.48/-4.82	-4.94/-5.1	-5.53/-5.91	-5.76/-5.62	-7.48/-7.53	-8.22/-8.13	-7.83/-7.51	-7.46/-7.09	-6.46/-6.32	-5.82/-5.58	-5.02/-4.57	-4.16/-3.47	-3.59/-3.7	-3.59/-3.7	-3.59/-3.7
Θ(7.5°)	-4.88/-5.6	-6.37/-7.23	-7.2/-6.47	-6.33/-6.55	-6.72/-6.82	-7.55/-8.18	-8.08/-8.32	-8.15/-7.81	-6.82/-6.19	-5.13/-4.6	-4.24/-4.64	-4.79/-4.89	-4.54/-4.38	-4.37/-4.44	-4.56/-5.5	-6.12/-6.41	-7.24/-7.83	-8.27/-8.36	-7.88/-8.87	-6.37/-5.59	-4.87/-4.37	-4.19/-4	-3.79/-3.65	-3.71/-4.24
Θ(15°)	-5.92/-5.99	-6.41/-6.39	-5.95/-5.53	-5.37/-5.51	-5.17/-5.41	-5.51/-5.95	-5.61/-6.41	-6.29/-6.61	-5.12/-4.46	-4.05/-3.9	-3.73/-3.94	-4.01/-3.76	-3.35/-3.38	-3.22/-3.35	-4.07/-4.46	-4.82/-5.16	-5.48/-5.6	-5.98/-4.93	-4.64/-5.46	-4.92/-4.69	-4.57/-4.55	-4.61/-4.58	-4.83/-4.38	-4.81/-5.01
Θ(22.5°)	-5.22/-5.79	-5.66/-4.46	-3.86/-3.26	-3.34/-3.13	-4.32/-4.85	-5.13/-5.46	-5.57/-5.18	-4.93/-4.83	-3.93/-3.29	-2.29/-2.1	-2.12/-2.44	-2.83/-3.51	-3.75/-3.12	-2.89/-3.17	-3.65/-4.21	-4.63/-5.29	-5.16/-5.05	-4.13/-4.6	-3.23/-3.7	-3.69/-3.57	-4.06/-4.73	-5.17/-5.49	-5.96/-5.96	-5.96/-5.96
Θ(30°)	-4.35/-4.84	-4.71/-3.45	-2.8/-2.64	-3.18/-3.69	-3.73/-4.07	-3.98/-3.46	-3.55/-3.34	-3.09/-3.22	-2.45/-1.89	-1.11/-0.86	-0.94/-1.4	-1.56/-1.55	-1.71/-2.08	-2.38/-2.49	-2.19/-2.58	-2.91/-2.93	-2.95/-2.86	-2.19/-1.51	-1.41/-1.7	-2.16/-2.7	-3.06/-3.31	-2.87/-2.58	-2.71/-3.8	-4.06/-4.66
Θ(37.5°)	-1.4/-1.76	-1.9/-1.47	-1.26/-1.62	-2.22/-2.7	-2.76/-2.89	-2.83/-4.22	-1.69/-1.15	-0.57/-0.39	-0.53/-0.36	-0.7/-1.27	-1.57/-1.77	-1.14/-0.37	0.070/0.1	0.29/-0.55	-0.43/-0.33	-0.06/-0.25	-0.16/-0.5	-0.0/-0.5	-0.9/-1.1	-1.55/-2.32	-2.24/-1.41	-1.24/-1.1	-1.61/-1.52	-1.57/-1.79
Θ(45°)	-0.14/-0.87	-1.58/-1.04	-1.22/-1.74	-2.59/-3.36	-3.34/-2.98	-2.25/-1.24	0.09/-0.01	0.19/-0.42	0.28/-0.25	0.160/0.1	0.420/0.58	0.390/0.4	0.930/0.5	1.021/34	1.510/36	-0.25/-0.34	-1.09/-2.25	-1.35/-2.04	0.060/0.5	1.561/5.96	0.991/1.2	1.61/-0.12	0.66/-0.36	0.66/-0.36
Θ(52.5°)	0.84/-0.26	-0.93/-0.66	-0.87/-1.23	-1.74/-																				



Radiated Composite Gain Data of 6GHz

Appendix A

Θ(22.5°)	-1.34/-2.21	-2.36/-2.22	-2.12/-2.89	-3.44/-3.03	-2.64/-2.19	-2.58/-3.05	-3.09/-3.02	-2.38/-1.66	-1.13/-1	-0.57/0.18	0.70/92	0.74/0.26	-0.37/-0.91	-1.28/-2	-2.69/-3.11	-2.94/-2.87	-3.46/-3.74	-3.79/-3.76	-3.31/-2.92	-2.97/-3.04	-2.54/-1.21	-0.71/-0.41	0.16/0.08	-0.04/-0.92
Θ(30°)	-0.7/-0.6	-1.18/-2.05	-2.36/-2.79	-3.48/-3.31	-3.13/-2.57	-2.53/-2.44	-2.98/-3.11	-2.56/-1.7	-0.8/-0.51	-0.41/0	0.53/0.65	0.81/1.18	1.3/0.92	-0.14/-1.8	-3.4/-3.97	-3.96/-3.02	-2.01/-2.04	-2.65/-3.47	-3.77/-2.83	-1.83/-1.39	-2.43/-3.17	-3.04/-2.81	-1.68/-0.86	-0.77/-1.18
Θ(37.5°)	-2.24/-1.74	-1.36/-1.33	-1.19/-1.57	-2.37/-2.38	-3.03/-2.62	-2.37/-2.92	-3.21/-2.69	-2.14/-1.8	-1.3/-0.59	-0.31/-0.29	0.73/1.39	2.03/2.71	2.34/1.95	0.38/-0.89	-2.63/-3.49	-2.72/-1.99	-1.51/-1.09	-0.71/-0.54	-0.54/-0.81	-1.3/-1.17	-1.06/-1.82	-2.47/-2.67	-3.03/-2.81	-1.94/-1.76
Θ(45°)	-2.95/-2.81	-3.43/-3.09	-3.7/-5.25	-5.15/-4.21	-3.83/-2.85	-2.89/-3.04	-2.55/-1.42	-1.06/-1.24	-1.37/-1.58	-1.56/-1.16	-0/1.1	1.71/1.55	1.38/1.3	1.07/0.35	-1.55/-4.04	-3.78/-2.13	-1.56/-1.29	-0.9/-0.51	-0.74/-1.43	-1.37/-1	-1.63/-2.9	-3.48/-3.35	-3.09/-3.31	-3.49/-3.14
Θ(52.5°)	-2.21/-0.68	-1.51/-2.19	-3.46/-4.01	-4.79/-3.59	-3.23/-3.6	-3.38/-1.64	-0.49/-0.03	-0.45/-1.52	-1.84/-1.87	-1.56/-1.19	0.41/1.7	1.18/0.77	1.0/0.78	0.35/-0.24	-1.15/-2.76	-2.33/-1.35	-0.82/-0.7	0.12/-0.08	0.19/-0.39	-0.63/-1.61	-2.06/-2.75	-3.08/-3.62	-3.07/-2.71	-3.57/-3.21
Θ(60°)	-1.77/-0.16	-0.89/-2.24	-4.19/-4.73	-3.7/-2.02	-1.38/-1.7	-1.27/0.25	-1.80/-0.79	-0.31/-1.05	-1.38/-1.63	-2.5/-2.77	-1.01/0.21	0.06/-0.7	-0.34/-0.2	-0.64/-1.42	-3.21/-1.8	-2.89/-2.18	-2.67/-2.51	-2.8/-2.55	-1.82/-2.11	-2.54/-2.71	-3.16/-4.37	-5.57/-2.07	-1.44/-1.79	-2.81/-1.93
Θ(67.5°)	-1.14/0.21	-0.2/-1.38	-4.22/-4.9	-3.58/-2.13	-2.14/-1.27	-0.91/0.33	0.57/0.34	-1.53/-3.13	-2.3/-4.2	-5.17/-4.48	-2.94/-3.28	-2.41/-1.3	-2.23/-1.76	-2.55/-2.76	-2.94/-3.33	-2.46/-1.66	-1.42/-2.71	-3/-1.11	0.8/1.67	0.19/-1.7	-1.84/-3.33	-2.31/-1.98	-3.78/-4	-5.18/-3.47
Θ(75°)	-2.51/-0.86	-1.09/-2.84	-5.33/-6.19	-4.68/-3.1	-1.6/-1.6	-1.71/0.01	1.05/-0.49	-2.33/-1.74	-2.41/-1.85	-4.46/-8.69	-6.23/-4.43	-4.86/-3.65	-4.21/-3.96	-3.88/-3.61	-3.99/-4.07	-4.23/-2.47	-0.89/-2.13	-1.63/0.04	1.61/1.75	0.31/0.06	-2.83/-2.82	-3.38/-3.75	-4.51/-6.02	-7.08/-2.85
Θ(82.5°)	-1.61/-2.34	-1.26/-2.11	-4.4/-6.59	-3.98/-1.75	-1.57/-2.37	-1.83/-1.73	-2.67/-3.76	-6.86/-5.12	-5.34/-5.75	-6.51/-7.27	-6.27/-5.22	-5.14/-4.09	-4.2/-3.87	-4.88/-4.42	-2.26/-2.72	-3.37/-0.44	-0.29/-2.08	-1.86/0.35	0.62/0.49	-1.04/-2.07	-2.16/-3.1	-6.73/-5.79	-6.18/-6.06	-5.61/-3.39
Θ(90°)	-2.99/-6.32	-5.25/-6.36	-7.26/-9.95	-8.39/-5.1	-6.62/-6.43	-5.31/-3.37	-3.46/-4.84	-8.85/-4.1	-2.99/-5.3	-7.37/-9.58	-6.59/-6.99	-7.06/-7.5	-7.8/-6.49	-7.01/-8.32	-5.25/-4.22	-4.64/-2.16	-1.52/-2.39	-1.39/-1.38	-2.18/-2.27	-5.08/-4.59	-1.69/-3.97	-7.26/-6.39	-5.59/-5.62	-4.42/-3.56
Θ(97.5°)	-3.7/-7.15	-7.5/-9.26	-8.32/-11.88	-10.89/-9.63	-6.9/-8.76	-10.7/-10.37	-9.06/-6.53	-7.68/-7.2	-8.61/-10.4	-8.43/-8.97	-9.5/-8.62	-6.66/-5.73	-6.16/-5.97	-4.84/-4.71	-5.62/-7.97	-6/-6.23	-5.78/-6.08	-6.31/-6.32	-8.24/-9.06	-12.7/-7.23	-4.83/-5.01	-6.12/-6.94	-3.8/-4.91	-3.66/-5.99
Θ(105°)	-6.57/-6.52	-12.69/-9.48	-6.94/-8.61	-8.46/-7.22	-9.09/-9.09	-9.48/-8.16	-6.21/-5.5	-4.07/-2.55	-2.49/-5.58	-5.75/-7.74	-6.85/-6.86	-7.07/-9.04	-8.41/-8.37	-6.02/-6.67	-8.11/-6.61	-9.52/-5.35	-5.56/-7.06	-8.74/-8.92	-9.89/-8.82	-9.91/-6.58	-6.71/-4	-4.57/-2.9	-3.41/-1.64	-3.85/-4.05
Θ(112.5°)	-5.37/-6.43	-7.56/-6.65	-7.44/-6.56	-9.36/-8.3	-6.87/-9.24	-8.61/-6.59	-5.48/-4.28	-2.89/-2.21	-4.11/-2.74	-3.28/-5.78	-7.1/-5.37	-6.77/-8.92	-6.7/-6.67	-7.24/-8.88	-9.51/-10.09	-6.57/-4.06	-5.48/-6.18	-7.48/-7.17	-11.03/-8.64	-5.63/-4.54	-7.92/-5.88	-3.82/-3.87	-2.29/-2.42	-2.74/-3.82
Θ(120°)	-2.95/-0.41	-5.86/-5.72	-4.71/-4.56	-4.58/-4.48	-2.81/-3.63	-4.74/-4.21	-3.65/-4.35	-3.69/-3.37	-2.91/-3.59	-3.74/-4.64	-5.74/-3.71	-4.36/-4.11	-5.26/-4.95	-5.61/-6.79	-5.63/-6.07	-8.3/-8.04	-5.12/-7.29	-5.94/-3.52	-7.57/-4.46	-3.36/-3.42	-3.29/-6.46	-4.6/-1.98	-1.09/-3.03	0.27/-7.09
Θ(127.5°)	-3.36/-3.23	-3.49/-6.59	-6.63/-7.25	-6.88/-3.59	-3.86/-5.48	-4.48/-5.65	-4.12/-3.16	-5.74/-4.08	-2.97/-2.29	-2.24/-3.11	-2.56/-2.95	-3.9/-3.51	-4.5/-3.26	-1.49/-5.37	-3.55/-4.01	-6.4/-4.09	-4.23/-3.1	-2.63/-3.43	-3.43/-3.29	-5.12/-18	-2.97/-0.19	-0.89/-2.46		
Θ(135°)	-4.68/-5.64	-5.04/-2.53	-4.22/-5.95	-5.47/-4.31	-3.4/-4.66	-4.15/-1.66	-1.81/-2.82	-3.9/-3.96	-3.01/-2.44	-3.87/-3.26	-3.17/-4.94	-3.42/-5.39	-3.63/-4.6	-3.26/-3.17	-3.96/-2.8	-5.92/-2.69	-2.44/-3.54	-4.57/-2.87	-3.5/-3.35	-1.2/-3.6	-6.94/-3.56	-3.64/-6.01	-2.31/-5.26	-3.63/-4.39
Θ(142.5°)	-2.73/-3.16	-4.21/-4.01	-2.46/-2.96	-2.46/-2.38	-2.62/-4.1	-4.74/-4.52	-4.07/-3.78	-4.61/-2.93	-2.34/-2.22	-2.11/-2.47	-2.91/-2.44	-3.54/-6.1	-5.72/-4.7	-4.57/-6.12	-5.22/-3.63	-3.41/-1.69	-2.16/-3.53	-5.18/-6.16	-4.92/-5.79	-4.99/-5.36	-5.77/-6.8	-5.92/-5.27	-3.68/-3.95	-4.51/-4.7
Θ(150°)	-5.51/-5.55	-7.01/-8.19	-8.51/-8.44	-7.47/-6.64	-6.28/-5.24	-4.5/-5.36	-5.62/-5.94	-5.37/-4.5	-4.28/-5.29	-8.3/-7.56	-4.69/-4.27	-5.26/-6.05	-7.4/-5.51	-4.98/-5.07	-6.06/-6.67	-7.74/-9.1	-8.8/-10.16	-5.81/-8.31	-10.48/-9.49	-7.75/-9.19	-7.42/-6.9	-7.91/-6.87	-5.07/-32	-2.56/-2.93
Θ(157.5°)	-4.09/-4.71	-3.42/-2.56	-3.34/-4.14	-4.66/-5.08	-5.24/-5.42	-5.21/-5.16	-4.37/-3.39	-2.99/-2.11	-1.58/-2.07	-3.35/-4.02	-3.44/-3.04	-3.96/-5.77	-6.61/-6.29	-5.78/-4.87	-4.25/-3.82	-3.72/-5.24	-5.55/-5.22	-5.09/-6.73	-8.9/-10.3	-8.74/-6.42	-4.16/-3.11	-3.66/-2.99	-2.65/-2.72	-2.63/-3.03
Θ(165°)	-6.15/-5.92	-4.27/-2.77	-3.04/-1.47	-4.95/-5.21	-6.14/-6.81	-6.36/-5.41	-4.89/-3.96	-3.08/-2.66	-2.54/-2.67	-2.97/-3.14	-3.5/-4.02	-4.73/-5.87	-6.69/-7.49	-7.42/-6.86	-5.89/-4.5	-3.03/-2.36	-2.85/-3.39	-4.24/-5.75	-7.68/-8.92	-7.71/-5.97	-4.67/-3.85	-3.2/-2.98	-2.92/-3.73	-5.09/-7.1
Θ(172.5°)	-10.02/-10.74	-10.64/-10.56	-10.28/-9.88	-9.41/-8.65	-8.23/-8.16	-9/-7.59	-6.86/-6.95	-6.42/-6.33	-6.06/-5.43	-4.84/-9.9	-5.28/-6.02	-7.28/-5.67	-5.5/-8.21	-7.53/-6.77	-5.83/-4.56	-3.98/-4.05	-3.96/-4.19	-4.51/-5.38	-6.5/-7.85	-8.23/-7.97	-7.62/-7.49	-7.34/-6.98	-6.81/-7.88	-10.05/-9.95
Θ(180°)	-6.65/-6.65	-7.12/-8.02	-8.87/-9.45	-10.61/-11.29	-11.13/-11.91	-11.63/-10.54	-9.53/-8.79	-8.36/-8.51	-9.72/-9.75	-10.63/-11.95	-11.78/-12.12	-11.23/-10.76	-10.25/-9.69	-8.81/-9.98	-7.47/-7.7	-7.39/-7.15	-7.16/-7.51	-7.03/-7.28	-7.82/-7.46	-7.59/-7.69	-8.27/-8.48	-8.35/-7.55	-6.99/-5.98	-5.93/-5.79
Freq(Hz)	6.995GPol.	ThetaA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-5.46/-4.96	4.41/-3.5	-2.27/-1.53	-0.7/-0.21	-0.18/-0.24	-0.5/-1.1	-1.53/-2.11	-2.89/-3.56	-4.27/-4.62	-5.18/-5.5	-5.56/-5.8	-5.73/-5.45	-5.01/-4.2	-3.69/-2.98	-2.36/-2	-1.87/-1.9	-2/-1.76	-1.55/-1.45	-1.78/-2.53	-3.43/-3.98	-4.88/-5.9	-5.98/-5.91	-5.88/-6.19	-6.22/-6.28
Θ(7.5°)	-4.66/-4.48	-3.92/-2.85	-2.44/-2.1	-1.66/-1.62	-1.57/-1.5	-1.33/-1.63	-2.01/-2.4	-3.17/-3.82	-4.48/-4.92	-5.66/-6.41	-6.67/-6.67	-6.56/-5.96	-5.58/-4.51	-3.39/-2.41	-1.69/-1.24	-0.96/-0.55	-0.26/-0.05	-0.16/-0.43	-0.9/-1.62	-2.66/-3.56	-4.41/-5.12	-5.22/-5.18	-4.81/-4.35	-4.84/-4.79
Θ(15°)	-3.5/-3.17	-2.56/-2.2	-2.11/-2.52	-3.07/-3.61	-3.66/-3.14	-3.09/-3.19	-3.13/-3.36	-3.73/-4.53	-5.41/-6.13	-6.47/-6.92	-7/-7.08	-6.7/-6.15	-5.42/-4.63	-3.62/-2.64	-2.02/-1.6	-1.35/-1.08	-0.73/-0.52	-0.25/-0.26	-0.56/-1.03	-1.6/-1.93	-2.97/-3.78	-3.81/-3.55	-3.12/-3.12	-3.55/-3.73
Θ(22.5°)	-3.43/-3.38	-2.83/-2.32	-2.55/-3.1	-3.21/-2.86	-2.01/-2.05	-2.12/-2.36	-1.91/-2.57	-2.71/-3.53	-4.56/-4.97	-5.19/-5.43	-5.87/-6.26	-5.65/-5.09	-4.35/-3.65	-3.11/-2.67	-1.94/-1.3	-1.18/-1.19	-1.15/-0.85	-0.81/-1.07	-1.35/-1.97	-2.23/-2.64	-3.02/-3.36	-3.39/-3.08	-2.95/-2.51	-2.66/-2.85
Θ(30°)	-2.73/-3.19	-1.98/-1.19	-0.89/-0.58	0.18/0.45	0.55/0.27	0.14/-0.21	-0.97/-1.63	-2.25/-2.55	-3.57/-3.75	-3.14/-2.54	-3.46/-4.55	-5.95/-6.98	-5.31/-3.27	-2.13/-1.95	-2.14/-2.04	-1.91/-1.7	-1.41/-0.87	-0.37/-0.07	-0.15/-0.16	-0.93/-1.8	-2.26/-2.32	-2.27/-2.43	-2.59/-2.83	-2.26/-2.38
Θ(37.5°)	-0.9/-0.6	-0.58/-0.51	-0.25/0.39	0.68/1.12	1.32/1.32	1.22/0.58	-0.48/-1.22	-1.3/-4.94	-0.79/-1.47	-1.49/-1.08	-1.48/-2.31	-2.15/-1.07	0.08/0.35	0.16/0.57	0.29/-0.1	-0.71/-1.31	-0.84/-0.06	-0.14/-0.34	0.07/0.71	0.97/0.48	-0.19/-0.61	-1.08/-1.34	-1.46/-2.65	-2.26/-1.51
Θ(45°)	-1.05/-1.71	-1.95/-2.06	-1.89/-1.02	0.03/1.33	1.4/-1.4	0.91/0.09	-0.69/-0.45	-0.51/-0.86	-1.36/-2.23	-1.72/-0.14	1.21/1.36	1.1/65	2.17/1.96	1.72/1.1	1.93/1.72	1.17/0.88	0.73/0.25	-0.03/0.91	1.71/1.58	1.57/1.21	0.7/0.33	-0.56/-1.89	-2.07/-2.27	-2.37/-1.91
Θ(52.5°)	0.56/1.54	1.03/0.72	0.29/-0.84	0.34/1.58	1.98/2.34	2.18/2.06	-1.82/0.63	0.64/0.31	-0.07/-0.6	1.06/2.28	2.79/3.1	2.49/2.22	2.22/2.03	1.93/1.78	1.41/1.27	1.06/0.36	0.29/-0.01	-0.89/0.26	0.6/-0.12	-0.95/0.29	0.26/-0.35	-1.1/-1.96	-1.89/-0.82	
Θ(60°)	3.05/2.74	1.67/1.09	0.39/0.78	1.28/1.78	1.78/1.96	2.04/1.81	1.71/1.6	1.36/0.57	0.31/-0.17	-0.45/0.38	1.03/1.9	2.79/3.37	2.92/2.73	2.44/2.68	3.21/95	1.44/1.04	0.52/-0.68	-1.01/-0.45	0.08/0.19	-0.22/-0.72	-0.51/-0.24	1.49/1.36	1.47/1.37	2.12/1.27
Θ(67.5°)	2.77/0.34	2.05/1.74	0.99/2.05	2.31/1.78	1.67/2.3	2.72/3.92	3.21/2.9	2.37/2.06	1.48/1.13	1.47/1.39	1.69/2.3	2.33/1.9	1.02/0.58	1.72/1.34	2.12/1	1.23/1.12	0.37/-0.78	-1.08/-1.58	-0.75/-0.24	-0.44/0.86	1.62/1.74	3.13/2.62	1.52/1.73	2.67/2.48
Θ(75°)	3.76/3.26	2.56/2.48	2.35/2.67	3.82/2.85	2.99/2.77	3.04/2.65	3.07/3.59	2.62/2.73	2.88/2.1	2.57/2.58	2.39/2.55	1.98/3.26	2.59/1.42	1.52/2.09	2.11/2.3	2.32/2.91	2.1/04	1.89/1.17	1.01/0.53	-0.51/-1.6	2.46/2.45	2.64/2.51	0.21/0.02	3.03/4
Θ(82.5°)	4.34/3.25	2.46/2.04	2.344/1.6	4.73/3.03	2.94/2.37	2.68/2.28	2.97/3.1	3.51/3.98	3.21/1.69	3.64/4.2	3.8/3.38	2.72/3.24	2.42/1.41	2.68/2.73	3.55/2.9	3.54/4.3								





Radiated Composite Gain Data of 6GHz

Appendix A

Θ (22.5°)	-4.67/4.45	-4.19/-3.46	-2.34/-2.81	-4.08/5.03	-6.11/-6.6	-8.34/-10.34	-11.48/-13.72	-14.29/-13.74	-12.49/-11.07	-9.56/-8.62	-9.34/-10.33	-10.52/-10.59	-10.25/-9.53	-8.12/-6.74	-5.72/-5.51	-5.95/-6.39	-8.07/-10.55	-14.23/-18.83	-18.22/-18.11	-18.93/-16.34	-14.72/-11.44	-10.67/-9.4	-6.3/-5.24	-4.75/-4.73
Θ (30°)	-5.1/-3.98	-3.46/-3.53	-3.99/-4.45	-4.85/-4.54	-4.22/-3.35	-5.24/-7.8	-12.08/-16.17	-15.45/-13.87	-12.32/-11.1	-10.09/-8.29	-7.38/-7.7	-8.09/-7.85	-7.8/-7.73	-7.9/-8.17	-8.82/-8.76	-8.03/-7.04	-6.45/-7.22	-9.05/-11.21	-13.41/-14.87	-15.29/-14.3	-11.95/-11.21	-11.68/-11.99	-9.67/-8.05	-7.3/-5.55
Θ (37.5°)	-7.66/-4.94	-3.29/-3.07	-2.67/-2.8	-3.98/-4.31	-4.39/-5.45	-7.31/-11.26	-18.52/-18.33	-17.14/-18.17	-16.27/-10.69	-6.98/-6.04	-5.82/-6.47	-5.63/-4.82	-6.09/-8.64	-9.65/-9.49	-11.24/-11.96	-8.41/-7.17	-7.23/-5.59	-9.05/-10.44	-13.89/-16.47	-15.64/-13.24	-14.04/-14.73	-18.38/-19.04	-18.34/-18.43	-13.87/-9.34
Θ (45°)	-7.47/-6.34	-6.35/-5.61	-6.88/-9.71	-8.17/-5.56	-5/-5.22	-7.06/-12.79	-18.19/-13.27	-10.95/-10.86	-10.87/-10.45	-8.45/-6.4	-4.77/-5.64	-5.21/-4.62	-5.4/-6.5	-6.7/-6.97	-8.23/-10.07	-11.36/-9.74	-7.68/-7.88	-10.13/-10.71	-9.74/-9.99	-12.85/-18.94	-17.63/-18.28	-17.45/-18.18	-18.17/-18.1	-16.2/-12.11
Θ (52.5°)	-11.28/-7.36	-6.21/-5.05	-6.69/-9.79	-9.54/-6.62	-6.19/-7.86	-12.27/-9.55	-7.85/-6.03	-6.54/-9.76	-10.58/-8.84	-8.3/-9.02	-7.89/-7.7	-7.34/-7.87	-6.72/-6.03	-7.22/-6.32	-6.77/-8.42	-8.29/-6.62	-7.83/-7.87	-6.13/-13.3	-8.77/-8.63	-9.97/-12.96	-16.55/-17.68	-18.23/-17.57	-18.61/-16.15	-13.08/-11.83
Θ (60°)	-10.49/-6.16	-4.7/-5.16	-6.73/-7.25	-4.79/-2.58	-2.71/-4.98	-5.77/-3.5	-2.25/-3.39	-7.07/-9.1	-11.47/-9.1	-7.77/-9.56	-12.16/-12.38	-13.16/-11.42	-8.43/-7.06	-6.32/-5.91	-7.09/-10.25	-14.12/-14.62	-10.89/-7.92	-7.49/-7.48	-8.02/-10.67	-12.85/-17.31	-16.48/-18.13	-16.45/-13.54	-13.41/-12.82	-14.27/-11.82
Θ (67.5°)	-9.62/-6.12	-5.64/-5.48	-7.99/-9.99	-5.91/-6.65	-7.11/-5.3	-3.31/-2.78	-3.57/-4.2	-7.04/-17.13	-12.28/-11.79	-11.56/-11.85	-12.21/-15.47	-12.09/-6.85	-7.12/-4.44	-6.53/-8.74	-6.32/-8	-6.95/-10.21	-7.24/-6.41	-8.63/-7.17	-6.59/-6.83	-8.85/-13.4	-18.93/-16.77	-9.34/-8.32	-11.49/-13.07	-18.25/-13.65
Θ (75°)	-12.05/-10.64	-9.59/-9.86	-15.54/-14.47	-7.7/-5.6	-3.63/-2.74	-3.47/-3.98	-3.59/-6.07	-8.65/-10.94	-16.92/-10.94	-15/-16.34	-12.75/-13.08	-15.1/-9.86	-7.04/-5.56	-5.91/-8.98	-9.58/-9.56	-7.87/-8.76	-7.43/-4.54	-5.73/-10.15	-11.98/-11.5	-16.16/-15.77	-16.18/-16.55	-10.11/-10.96	-11.64/-15.08	-17.83/-11.22
Θ (82.5°)	-6.9/-8.05	-6.99/-7.3	-9.5/-9.88	-5.35/-3.37	-2.91/-2.58	-4.06/-3.91	-5.14/-1.01	-13.48/-18.43	-17.33/-18.8	-16.15/-18.8	-12.35/-6.07	-7.47/-2.04	-4.28/-6.77	-6.38/-5.42	-6.06/-5.91	-5.37/-6.42	-7.15/-12.5	-16.78/-17.11	-19.12/-14.77	-13.42/-11.32	-14.62/-18.29	-18.79/-13.33	-12.6/-11.52	
Θ (90°)	-6.52/-12.48	-12.94/-12.87	-14.92/-15.36	-13.61/-9.14	-8.78/-6.22	-6.95/-6.52	-5.8/-7.02	-16.97/-9.97	-7.85/-12.95	-12.85/-18.99	-12.41/-19.68	-19.11/-19.39	-13.98/-6.57	-7.09/-14.81	-9.54/-5.8	-4.28/-4	-6.21/-5.48	-6.31/-9.98	-18.21/-19.2	-15.16/-13.36	-12.2/-13.25	-18.15/-12.65	-13.32/-10.97	-6.24/-8.2
Θ (97.5°)	-6.36/-13.32	-11.71/-18.46	-16.25/-18.74	-13.02/-17.41	-8.69/-17.07	-18.71/-15.51	-11.97/-12	-17.97/-12.63	-14.07/-15.27	-18.17/-15.9	-16.37/-16.29	-13.71/-8.94	-9.29/-7.79	-6.02/-7.96	-9.94/-10.86	-5.7/-6.22	-6.53/-7.15	-7.64/-10.23	-13.65/-13.47	-18.14/-9.75	-14.94/-14.33	-12.73/-11.85	-8.95/-9.87	-6/-8.61
Θ (105°)	-18.91/-18.46	-18.57/-16.63	-18.06/-18.35	-12.84/-12.26	-12.82/-13.35	-14.68/-10.45	-9.82/-10.33	-13.93/-8	-6.79/-10.29	-12.43/-18.03	-10.47/-10.66	-10.02/-11.99	-12.1/-12.15	-12.1/-11.53	-12.98/-7.59	-11.18/-6.94	-8.49/-10.58	-14.17/-10.06	-18.25/-13.69	-18.13/-11.22	-8.51/-7.81	-12.25/-11.56	-8.43/-6.86	-12.3/-12.88
Θ (112.5°)	-18.39/-15.58	-11.89/-10.34	-10.24/-8.1	-12.98/-15.05	-12.14/-17.63	-18.39/-11.83	-11.92/-18.07	-17.44/-10.77	-16.55/-12.17	-16.03/-19.11	-13.82/-8	-7.92/-13.39	-16.44/-17.99	-18.81/-18.15	-17.88/-13.74	-9.2/-8.89	-8.57/-13.53	-12.33/-18.07	-15.18/-17.76	-14.99/-9.37	-9.97/-12.47	-14.23/-19.29	-9.59/-10.06	-16.29/-17.53
Θ (120°)	-18.3/-13.66	-11.67/-10.04	-6.41/-7.47	-4.98/-6.63	-4.95/-6.14	-6.68/-13.23	-10.87/-12.51	-15.12/-13.37	-11.22/-17.6	-18.56/-18.11	-18.07/-17.88	-16.74/-16.94	-14.11/-18.72	-18.91/-12.83	-12.8/-11.93	-19.66/-18.87	-17.4/-15.13	-18.4/-17.48	-9.56/-11.24	-9.62/-5.29	-8.54/-9.03	-12.35/-13.67	-11.87/-10.74	-18.2/-18.72
Θ (127.5°)	-15.65/-12.05	-8.33/-11.34	-10.9/-28	-10.08/-9.12	-10.51/-10.93	-18.27/-18.57	-19.11/-13.86	-18.5/-17.92	-17.99/-10.12	-8.31/-7.05	-8.68/-11.81	-15.56/-13.69	-6.35/-11.42	-13.17/-18.11	-11.26/-14.07	-17.59/-7.76	-17.31/-9.58	-5.99/-9.58	-13.72/-9.52	-13.78/-9.43	-14.36/-7.98	-12.77/-17.41		
Θ (135°)	-12.27/-11.92	-8.27/-6.58	-10.22/-16.28	-16.83/-11.9	-7.65/-7.75	-7.07/-5.98	-7.6/-9.72	-13.37/-18.58	-18.85/-12.8	-12.12/-10.21	-11.7/-16.18	-17.69/-17.55	-17.4/-18.38	-17.94/-18.31	-18.1/-5.32	-9.94/-13.08	-7.78/-10.76	-16.25/-4.22	-5.21/-17.88	-18.04/-11.73	-18.89/-12.77	-14.52/-19.03	-11.27/-10.33	-10.26/-15.06
Θ (142.5°)	-8.16/-4.57	-5.36/-4.75	-3.88/-4.6	-5.61/-5.21	-5.06/-7.31	-9.31/-11.1	-8.91/-7.18	-8.65/-7.58	-4.77/-8.52	-15.57/-17.33	-11.49/-7.65	-8.06/-9.94	-11.36/-12	-13.61/-16.94	-11.18/-5.32	-6.59/-4.81	-4.53/-6.82	-6.49/-8.34	-18.7/-17.11	-19.27/-14.65	-15.1/-16.05	-14.67/-17.85	-9.92/-9.63	
Θ (150°)	-18.57/-12.56	-13.12/-18	-18.26/-18.27	-16.81/-16.19	-11.45/-13.81	-10.29/-58	-9.92/-10.22	-10.08/-7.3	-6.69/-8.7	-16.52/-11.97	-5.59/-4.43	-7.38/-11.74	-17.02/-10.23	-7.94/-9.38	-8.87/-7.09	-6.86/-12.54	-13.43/-13.9	-9.59/-10.72	-17.61/-17.16	-17.43/-18.53	-19.04/-14.23	-14.97/-17.25	-17.81/-17.99	-16.55/-12.03
Θ (157.5°)	-6.88/-7.13	-5.48/-4.22	-4.04/-4.99	-5.95/-7.77	-11.07/-15.68	-17.55/-16.91	-13.07/-11.62	-11.14/-8.65	-8.48/-11.47	-17.98/-18.45	-11.03/-10.18	-10.82/-10.88	-11.94/-11.53	-8.51/-6.24	-5.34/-5.28	-6.95/-11.4	-14.78/-10.93	-9.18/-10.53	-13.98/-17.34	-18.3/-18.6	-14.55/-13.89	-17.35/-10.86	-8.05/-6.52	-5.26/-4.64
Θ (165°)	-6.83/-7.02	-5.04/-3.2	-2.95/-4.4	-6.28/-7.55	-10.21/-15.9	-18.82/-17.92	-17.17/-12.89	-10.23/-9.88	-11.06/-13.55	-15/-14.71	-14.82/-14.63	-16.01/-18.58	-17.92/-15.58	-12.96/-10.58	-9.66/-8.48	-7.67/-6.87	-6.31/-6.11	-5.81/-6.56	-9.54/-18.51	-16.42/-10.54	-8.81/-8.58	-8.26/-8.17	-9.07/-11.22	-12.49/-13.03
Θ (172.5°)	-15.36/-18.06	-18.98/-18.39	-18.62/-18.2	-17.14/-12.3	-13.06/-14.39	-18.14/-16.17	-12.55/-10.01	-9.68/-10.53	-11.47/-11.1	-10.37/-10.52	-10.24/-10.55	-10.45/-11.21	-9.81/-6.78	-5.18/-4.4	-3.74/-3.99	-4.75/-6.63	-9.57/-10.02	-19/-18.3	-14.16/-12.56	-10.92/-9.95	-9.02/-9.98	-11.54/-12.03		
Θ (180°)	-8.27/-8.57	-8.77/-8.54	-9.18/-10.21	-11.96/-14.39	-15.93/-17.78	-18.92/-17.76	-18.05/-17.41	-17.67/-18.03	-18.83/-18.5	-18.64/-17.84	-17.04/-16.47	-16.02/-14.92	-13.13/-11.9	-10.69/-9.76	-9.05/-8.86	-8.68/-8.92	-9.36/-10.35	-11.75/-13.6	-14.13/-14.89	-16.79/-17.6	-15.45/-15.2	-14.6/-12.47	-16.07/-9.17	-8.7/-7.4
Freq(Hz)	6.995GPol.	Theta/Ant. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-18.87/-17.7	-18.48/-15.6	-11.42/-9.35	-7.82/-6.34	-5.52/-4.58	-3.86/-3.6	-3.38/-3.4	-3.41/-3.75	-3.88/-4.36	-5.16/-6.06	-7.07/-8.36	-10.19/-12.61	-16.34/-18.69	-18.35/-15.28	-13.07/-12.17	-10.91/-10.51	-9.73/-8.89	-8.31/-7.63	-7.91/-7.92	-8.23/-7.98	-8.09/-8.71	-9.26/-9.12	-10.86/-12.4	-14.96/-16.38
Θ (7.5°)	-11.69/-13.61	-13.99/-13.37	-13.03/-11.85	-11.45/-11.01	-10.4/-9.36	-8.43/-8.3	-8.41/-8.07	-8.25/-8.12	-7.95/-8.54	-9.58/-11.11	-12.96/-14.86	-17.24/-17.71	-18.74/-19.17	-16.85/-13.64	-11.08/-9.25	-7.86/-6.04	-4.95/-3.83	-3.08/-2.72	-2.35/-2.41	-2.74/-2.87	-3.59/-4.33	-5.64/-5.52	-8.32/-9.47	-11.47/-12.35
Θ (15°)	-6.34/-3.6	-9.07/-10.16	-11.15/-11.36	-11.76/-12.13	-11.74/-11.52	-11.15/-11.06	-10.19/-9.92	-9.84/-10.14	-10.14/-10.72	-10.86/-11.92	-13.29/-14.01	-19.01/-17.76	-18.23/-18.98	-18.93/-14.58	-11.27/-9.06	-7.22/-6.05	-4.73/-3.66	-2.47/-1.96	-1.58/-1.15	-1.25/-1.05	-1.54/-2.02	-2.68/-3.3	-4.03/-5.01	-5.41/-6.62
Θ (22.5°)	-5.4/-7.11	-7.53/-8.26	-10.35/-13.66	-15.1/-14.12	-10.44/-9.05	-7.88/-7.58	-7.14/-8.68	-9.05/-9.77	-10.9/-10.84	-10.9/-12.54	-15.64/-18.76	-18.66/-17.83	-18.42/-19.14	-18.87/-17.43	-13.15/-10.04	-8.57/-6.46	-4.49/-3.18	-2.5/-2.09	-1.84/-1.64	-1.21/-1.36	-1.37/-1.72	-1.67/-1.52	-1.44/-1.92	-2.78/-4.23
Θ (30°)	-4.23/-5.34	-5.73/-6.36	-7.52/-9.15	-9.57/-10.1	-9.3/-8.52	-7.42/-7.74	-9.04/-9.94	-11.16/-10.94	-11.04/-10.34	-8.88/-8.48	-11.19/-14.57	-16.89/-18.69	-18.49/-15.61	-11.75/-9.55	-9.58/-6.71	-4.63/-3.9	-2.55/-1.53	-1.13/-0.81	-0.94/-1.14	-1.23/-1.7	-2.21/-2.86	-2.31/-1.79	-1.64/-2.55	
Θ (37.5°)	-3.88/-4.61	-6.03/-6.02	-7.72/-10.18	-10.73/-9.79	-11.31/-11.63	-11.27/-10.99	-13.09/-12.8	-10.88/-7.69	-6.78/-5.53	-5.94/-6.87	-9.13/-12.11	-13.92/-11.6	-6.68/-7.55	-7.29/-7.12	-7.89/-8.32	-8.19/-7.16	-4.99/-2.95	-1.87/-2.08	-2.49/-1.88	-0.82/-0.45	-0.2/-0.08	-0.48/-1.18	-2/-2.98	-3.74/-3.44
Θ (45°)	-4.64/-6.02	-8.83/-8.38	-10.27/-15.02	-12.79/-10.5	-13.55/-15.29	-14.04/-14.76	-17.49/-13.56	-11.31/-11.44	-10.53/-9.9	-10.23/-9.84	-9.08/-9.19	-11.27/-8.8	-7.96/-7.96	-7.31/-6.63	-5.63/-5.78	-6.34/-7.5	-3.46/-4.23	-3.81/-2.65	-2.24/-2.37	-1.34/-0.52	0.150/0.3	-0.65/-1.94	-2.32/-4.16	-6.45/-8.45
Θ (52.5°)	-1.61/-1.17	-2.4/-3.09	-4.91/-6.39	-4.71/-4.39	-7.08/-11.64	-17.39/-16.1	-12.89/-12.04	-8.06/-6.22	-6.2/-6.5	-8.35/-9.47	-7.24/-7.7	-7.28/-6.42	-7.57/-5.82	-4.86/-5.54	-3.81/-3.48	-6.03/-5.12	-4.29/-4.37	-4.74/-6.18	-5.38/-4.07	-3.52/-3.66	-4.88/-2.1	-1.96/-3.21	-2.79/-3.5	-4.21/-3.22
Θ (60°)	0.24/-0.04	-1.98/-2.52	-3.64/-2.48	-2.13/-2.4	-4.8/-6.79	-6.77/-7.17	-11.61/-8.1	-6.94/-7.72	-7.61/-8.54	-10.88/-12.78	-11.09/-8.99	-8.5/-6.28	-8.3/-8.18	-6.08/-5.54	-3.21/-7.24	-8.43/-9.2	-5.63/-5.43	-4.88/-4.57	-2.8/-2.77	-2.93/-1.91	-2.97/-2.82	-0.24/-0.45	1.59/-1.79	0.97/-1.25
Θ (67.5°)	-1.95/-1.32	-2.82/-2.93	-4.46/-3.66	-4.07/-5.64	-7.54/-7.38	-7.87/-8.5	-8.15/-10.06	-10.17/-8.73	-10.18/-9.89	-10.12/-11.28	-10.02/-10.92	-16.45/-12.67	-13.29/-8.15	-4.97/-4.47	-2.53/-5.65	-2.44/-3.46	-5.16/-3.59	-3.35/-2.25	-3.59/-2.06	-1.870/9				



Radiated Composite Gain Data of 6GHz

Appendix A

Θ(75°)	-6.39/-7.58	-7.61/-7.24	-5.87/-8.92	-18.4/-17.99	-10.15/-10.54	-18.96/-15.73	-9.78/-8.62	-11.38/-15.29	-13.49/-11.04	-10.4/-9.8	-10.13/-7.94	-7.7/-7.69	8.6/-10.97	-12.69/-14.49	-16.65/-17.02	-17.15/-12.22	-12.18/-16.51	-16.38/-15.93	-13.06/-12.64	-11.11/-14.69	-17.12/-11.65	-10.61/-12.38	-18.24/-16.29	-9.47/-5.51
Θ(82.5°)	-11.78/-13.95	-10.26/-9.85	-8.39/-10.61	-18.21/-18.03	-11.99/-12.88	-18.7/-14.36	-8.24/-6.99	-9.39/-15.98	-16.42/-10.42	-10.54/-12.89	-10.43/-9.1	-8.71/-9.73	-13.23/-15.08	-15.51/-14.44	-13.55/-18.18	-15.59/-12.75	-11.79/-16.05	-17.59/-18.67	-16.2/-12.67	-14.27/-12	-9.92/-11.56	-9.25/-13.84	-18.33/-17.91	-13.33/-10.67
Θ(90°)	-18.32/-18.04	-18.69/-11.7	-9.94/-11.23	-18.68/-18.19	-12.86/-15.02	-13.6/-9.47	-8.34/-8.47	-13.48/-17.44	-19.24/-16.63	-13.82/-13.76	-11.44/-10.28	-9.19/-10.38	-11.32/-11.1	-16.25/-14.46	-12.44/-15.09	-17.54/-11.1	-9.93/-11.56	-17.32/-18.65	-14.49/-11.57	-10.41/-13.53	-14.51/-14.86	-11.18/-11.83	-19.78/-16.82	-16.72/-18.31
Θ(97.5°)	-17.1/-17.32	-18.05/-14.9	-18.37/-18.57	-18.89/-18.38	-18.17/-18.54	-15.81/-15.02	-12.38/-12.17	-16.64/-15.23	-16.51/-18.33	-19.06/-17.93	-15.95/-13.27	-9.77/-12.6	-13.49/-18.64	-15.14/-14.23	-12.86/-17.73	-17.86/-11.21	-9.9/-13.85	-18.25/-19.29	-19.02/-17.6	-18.23/-18.98	-18.76/-14.77	-17.61/-15.7	-15.16/-13.54	-18.27/-17.26
Θ(105°)	-17.56/-15.83	-16.5/-18.63	-18.15/-19.2	-18.27/-15.62	-16.39/-16.12	-15.75/-15.09	-15.36/-18.46	-16.1/-9.36	-14.17/-18.1	-17.86/-15.6	-14.81/-16.35	-16.15/-17.62	-15.32/-17.95	-16.53/-14.08	-8.39/-9.37	-13.64/-15.96	-13.29/-14.74	-17.96/-18.4	-19.02/-18.36	-17.97/-18.82	-18.89/-18.57	-15.13/-14.74	-15.73/-17.84	-18.42/-17.82
Θ(112.5°)	-11.71/-9.3	-16.89/-18.66	-17.89/-14.89	-17.39/-18.18	-12.03/-13.73	-18.81/-17.97	-17.35/-18.94	-15.97/-13.91	-9.61/-11.4	-16.55/-13.66	-13.42/-13.05	-18.88/-14.69	-13.4/-10.94	-9.47/-11.52	-12.07/-19.13	-16.08/-12.93	-16.92/-17.64	-16.07/-12.77	-18.41/-12.81	-11.97/-17.97	-14.18/-13.2	-13.17/-14.94	-18.75/-19.46	-15.4/-15.48
Θ(120°)	-6.44/-9.84	-9.67/-8.04	-8.33/-15.02	-18.49/-14.91	-13/-13.17	-17.81/-15.2	-11.93/-16.95	-17.18/-11.78	-8.87/-9.43	-8.97/-12.18	-10.71/-18.27	-16.86/-12.33	-12.8/-6.69	-8.95/-9.76	-12.88/-17.71	-18.37/-17.49	-18.23/-18.87	-16.1/-17.6	-16.32/-17.29	-13.81/-18.94	-19.02/-10.93	-13.79/-17.91	-14.55/-15.2	-14.66/-7.38
Θ(127.5°)	-14.51/-17.63	-11.64/-13.48	-14.8/-18.87	-15.98/-10.26	-11.39/-17.13	-18.91/-17.96	-12.4/-9.91	-14.99/-16.12	-10.85/-7.34	-10.27/-17.44	-6.99/-8.95	-7.95/-11.25	-9.38/-7.1	-10.64/-5.79	-8.71/-11.75	-19.04/-18.51	-13.74/-11.21	-14.94/-18.63	-14.21/-18.14	-10.51/-15.63	-18.84/-7.04	-10.79/-12.29	-18.72/-11.53	-18.36/-8.74
Θ(135°)	-9.74/-17.01	-14.55/-9.84	-12.78/-18.44	-13.79/-10.73	-7.6/-10.61	-17.27/-13.01	-8.9/-9.65	-11.23/-11.23	-8.67/-10.56	-8.27/-7.89	-10.27/-11.16	-7.97/-9.25	-7.46/-5.93	-7.27/-13.51	-17.62/-15.35	-15.59/-18.7	-18.18/-10.77	-7.15/-14.86	-15.27/-19.02	-16.12/-11.34	-14.02/-11.4	-10.53/-9.85	-3.08/-8.78	-12.6/-11.2
Θ(142.5°)	-15.96/-13.68	-14.66/-15.95	-12.95/-14.58	-18.94/-19.4	-15.62/-15.96	-18.81/-13.68	-7.93/-6.5	-8.36/-12.23	-13.6/-9.86	-10.06/-12.46	-9.22/-7.43	-11.62/-16.07	-12.45/-11.93	-12.97/-13.96	-13.84/-16.89	-18.71/-17.95	-18.23/-16.57	-18.87/-19.26	-12.09/-17.07	-13.54/-13.26	-11.12/-18.49	-10.95/-17.22	-17.95/-16.24	-15.31/-18.42
Θ(150°)	-11.54/-17.78	-18.07/-17.81	-19.26/-18.67	-18.6/-18.77	-19.88/-18.47	-14.75/-12.51	-13.58/-15.98	-18.93/-14.78	-13.33/-12.43	-13.02/-11.79	-11.64/-12.33	-13.13/-14.48	-17.14/-17.14	-14.16/-14.4	-17.19/-18.54	-17.93/-18.54	-17.09/-18.6	-18.79/-17.87	-13.25/-10.01	-10.36/-12.95	-11.12/-9.75	-10.85/-9.3	-8.07/-12.2	
Θ(157.5°)	-7.36/-7.62	-5/-10.44	-11.74/-17.43	-18.67/-16.99	-13.02/-11.42	-12.42/-13.04	-12/-11.38	-10.97/-11.07	-10.86/-10.82	-10.14/-11.09	-12.94/-14.2	-15.17/-18.9	-18.38/-19.2	-18.94/-15.76	-14.51/-13.81	-18.38/-19.05	-18.41/-17.87	-18.45/-17.18	-14.91/-14.62	-16.32/-16.39	-14.02/-11.4	-10.53/-9.85	-9.03/-7.65	-6.57/-7.73
Θ(165°)	-18.36/-18.18	-18.87/-18.48	-18.8/-18.64	-18.44/-15.85	-14.12/-14.62	-15.93/-17.06	-15.41/-12.75	-10.65/-9.01	-7.78/-6.92	-6.94/-7.88	-8.62/-10.41	-12.38/-14.5	-17.36/-17.87	-18.39/-18.37	-17.78/-18.27	-17.86/-18.73	-15.47/-12.72	-10.88/-10.23	-10.59/-11.25	-12.07/-9.81	-6.94/-6.19	-7.47/-9.61	-10.49/-11.72	-12.74/-14.06
Θ(172.5°)	-14.75/-13.79	-13.7/-14.33	-15.65/-18.41	-18.64/-18.33	-18.07/-16.04	-13.97/-14.39	-13.63/-13.45	-12.68/-11.09	-10.25/-9.58	-9.04/-8.9	-9.05/-9.77	-10.86/-11.43	-11.68/-12.64	-13.37/-14.53	-15.01/-14.55	-12.47/-10.46	-9.27/-9.8	-12.33/-15.59	-17.66/-18.4	-16.85/-15.76	-13.8/-15.24	-16.69/-18.83	-19.78/-16.65	-17.31/-15.25
Θ(180°)	-18.18/-19.12	-15.46/-13.44	-13.61/-15.32	-17.93/-17.66	-17.52/-16.89	-14.81/-15.03	-13.92/-13.04	-12.06/-10.82	-10.59/-10.47	-11.03/-10.74	-11.32/-11.09	-11.53/-12.33	-12.65/-14.47	-16.2/-17.57	-18.45/-17.89	-18.41/-17.9	-18.71/-17.82	-18.73/-17.65	-18.35/-19.05	-18.04/-15.51	-13.46/-10.78	-9.93/-10.06	-11.39/-13.65	-15.19/-16.87
Freq(Hz)	6.175GPol.	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-8.05/-8.51	-6.68/-8.73	-8.74/-8.93	-8.95/-10.03	-11.76/-13.24	-15.57/-16.68	-17.48/-18.67	-18.79/-18.79	-18.55/-17.82	-16.37/-14.34	-13.49/-12.54	-11.65/-11.12	-10.45/-10.28	-10.45/-11.27	-11.14/-11.91	-11.81/-12.95	-15.38/-18.18	-18.36/-18.34	-18.75/-18.53	-17.63/-16.53	-13.57/-12.62	-11.18/-9.64	-8.31/-7.4	-7.85/-9.07
Θ(7.5°)	-12.59/-13.9	-13.83/-12.82	-11.11/-10.53	-10.62/-11.13	-12.03/-13.55	-15.93/-17.34	-18.03/-19.24	-18.9/-17.06	-13.68/-11.32	-9.65/-8.86	-8.28/-8.09	-7.61/-7.06	-6.81/-6.95	-8.2/-8.73	-8.8/-8.56	-9.34/-9.84	-12.02/-14.4	-15.69/-17.64	-18.04/-17.83	-19.16/-18.31	-19/-18.14	-16.37/-13.57	-11.01/-10.63	-10.85/-11.34
Θ(15°)	-18.66/-14.3	-12.1/-10.84	-10.33/-9.76	-8.83/-8.1	-7.4/-7.76	-7.82/-8.67	-10.16/-11.11	-13.13/-13.98	-13.24/-10.95	-8.02/-7.29	-6.23/-5.93	-5.79/-5.58	-5.5/-5.22	-4.78/-4.57	-4.92/-5.34	-6.28/-6.55	-6.84/-7.24	-8.54/-9.49	-11.35/-14.24	-18.4/-18.16	-17.38/-18	-10.02/-17.63	-19.09/-18.23	-16.24/-16.81
Θ(22.5°)	-15.82/-13.82	-11.86/-9.74	-8.3/-7.5	-6.81/-7.85	-7.64/-8.49	-9.64/-10.89	-12/-12.92	-13.8/-14.34	-13.93/-11.85	-9.03/-7.39	-6.67/-6.61	-6.46/-5.74	-4.99/-4.54	-3.67/-3.39	-3.21/-3.8	-4.48/-4.74	-5.04/-5.78	-7.03/-8.77	-9.78/-10.66	-12.52/-14.94	-18.97/-17.35	-18.51/-19.12	-17.76/-16.69	-17.85/-17.88
Θ(30°)	-15.79/-13.91	-12.46/-10.77	-9.25/-9.64	-10.18/-10.84	-10.83/-11.84	-12.78/-12.76	-14.44/-15.57	-14.18/-13.78	-8.45/-7.28	-6.96/-6.73	-6.11/-5.16	-4.53/-3.93	-3.22/-2.52	-2.08/-2.85	-3.15/-2.73	-2.76/-3.82	-5.31/-6.19	-7.47/-9.01	-11.1/-11.51	-14.73/-15.19	-14.11/-11.95	-11.11/-10.8	-11.11/-10.8	-11.95/-13.94
Θ(37.5°)	-17.93/-18.25	-12.1/-9.56	-9.84/-11.01	-12.03/-13.98	-14.91/-15.98	-18.02/-18.48	-17.95/-16.63	-11.47/-12.24	-11.14/-9.52	-7.95/-6.73	-6.03/-5.41	-4.36/-3.3	-2.78/-2.77	-2.5/-1.91	-0.61/-0.18	-0.10/-0.79	-1.72/-1.87	-2.07/-2.88	-4.77/-6.21	-8.29/-9.51	-9.61/-9.56	-10.03/-11.54	-13.69/-13.46	-12.96/-15.92
Θ(45°)	-11.31/-14.87	-16.32/-12.55	-13.69/-16.46	-16.64/-18.05	-18.88/-18.14	-19.19/-16.14	-13.85/-11.86	-10.94/-9.82	-8.79/-8.71	-6.58/-5.49	-5.13/-5.2	-4.47/-3.96	-3.91/-3.17	-1.93/-1.16	-0.20/-22	0.14/-0.01	-0.11/-0.91	-2.94/-4.08	-4.94/-6.55	-6.4/-7.45	-7.63/-6.94	-6.29/-7	-10.78/-13.36	-12.74/-10.86
Θ(52.5°)	-8.78/-10.15	-15.29/-14.1	-13.32/-12.45	-10.92/-10.54	-13.12/-15.71	-15.28/-12.61	-9.62/-8.84	-9.6/-8.34	-4.64/-4.77	-3.94/-4.37	-4.84/-4.17	-3.97/-4.08	-3.01/-2.21	-1.850/-0.3	1.071/0.03	0.05/-0.03	-0.73/-2.25	-3.19/-4.29	-4.97/-4.65	-6.82/-8.18	-7.58/-5.54	-4.16/-3.66	-6.3/-4.06	-11.59/-12.6
Θ(60°)	-10.17/-7.87	-10.68/-9.11	-11.8/-10.23	-12.12/-11.23	-12.35/-13.33	-10.56/-10.31	-8.79/-7.76	-7.85/-6.77	-5.3/-3.56	-2.41/-3.06	-5.86/-4.36	-5.62/-4.18	-3.66/-4	-2.44/-0.04	0.06/-0.34	-1.01/-1.11	-1.16/-3.08	-3.91/-3.53	-3.7/-4.77	-8.1/-10.08	-7.91/-7.17	-6.68/-6	-6.46/-7.02	-7.98/-11.4
Θ(67.5°)	-5.5/-7.46	-11.37/-11.91	-13.02/-10.42	-6.56/-6.89	-10.8/-12.6	-11.04/-11.11	-9.06/-6.9	-5.57/-5.25	-4.76/-2.66	-1.37/-3.27	-4.18/-3.3	-3.37/-3.05	-3.07/-2.03	-1.01/-0.19	0.850/-42	0.130/-1	-0.42/-1.91	-1.14/-3.22	-3.72/-5.81	-8.32/-6.83	-6.84/-5.86	-5.47/-3.87	-5.64/-6.25	-3.84/-5.8
Θ(75°)	-3.72/-6.82	-8.71/-8.74	-13.11/-8.84	-6.54/-8.31	-9.65/-9.68	-7.62/-8.69	-7.26/-3.85	-2.6/-3.5	-4.29/-2.02	-0.7/-2.2	-2.87/-2.15	-0.62/-1.66	-2.58/-2.57	-1.250/-2.1	0.18/-0.71	-0.410/-0.7	-0.9/-1.7	-0.96/-8.3	-2.7/-3.3	-3.46/-4.39	-3.61/-2.24	-2.99/-2.95	-3.36/-3.73	-1.08/-4.03
Θ(82.5°)	-3.25/-7.08	-8.8/-7.36	-12.29/-11.75	-9.61/-10.86	-16.23/-9.03	-6.17/-5.88	-1.97/-2.64	0/-1.31	-3.35/-1.55	-0.89/-1.4	-2.55/-1.04	0.46/-1.36	-1.85/-1.1	-1.26/-0.26	-1.86/-3.7	-0.68/-1.21	-0.64/-6.5	0.47/-1.33	-0.91/-0.76	0.24/-3.03	-2.970/-0.62	-0.51/-1.99	-2.39/-3.98	-1.41/-4.28
Θ(90°)	-5.19/-7.66	-8.24/-8.49	-13.86/-9.52	-9.09/-10.04	-18.34/-10.34	-4.28/-3.91	-6.26/-4.25	-0.04/-0.68	-4.56/-2.48	-0.75/-0.54	-2.61/-0.39	-0.72/-0.26	-1.08/-3.05	0.970/-24	-1.12/-3.57	-1.390/68	2.333/-52	1.560/-0.88	-0.240/87	0.08/-2.59	-1.530/-51	1.01/-2.3	-1.87/-2.44	-1.29/-20.3
Θ(97.5°)	-10.44/-13.12	-5.74/-12	-14.56/-7.19	-7.68/-10.52	-18.9/-8.23	-4.57/-4.1	-6.65/-3.16	0.04/-2.57	-6.31/-2.54	-1.33/-1.27	-2.930/-7	-1.83/-2.38	-0.68/-4.08	1.820/-83	-1.53/-4.3	-3.040/-83	2.721/-89	2.540/-09	1.360/-27	-0.58/-3.09	-0.950/-37	0.1/-1.64	-2.92/-3	-1.49/-2.29
Θ(105°)	-7.96/-11.74	-4.17/-9.48	-10.25/-10.83	-13.24/-10.3	-13.4/-6.1	-4.53/-5.01	-9.97/-2.99	-0.02/-2.66	-5.03/-3.76	-1.73/-1.77	-2.610/-5	-1.461/-72	-0.67/-0.61	1.670/-85	0.67/-2.34	-1.381/-5	0.711/-02	0.86/-2.17	0.04/-0.46	-1.174/-23	-2.31/-1.62	-2.38/-4.6	-4.35/-5.3	-3.23/-3.06
Θ(112.5°)	-14.97/-11.51	-5.22/-9.88	-11.69/-15.08	-10.68/-9.67	-10.82/-5.57	-4.93/-7.89	-12.23/-5.9	-4.5/-6.35	-3.97/-1.69	-0.63/-1.85	-1.36/-0.34	-1.37/-0.47	-1.71/-1.75	0.04/-1.02	1.42/-1.33	-3.74/-1.6	1.792/-16	-0.25/-2.85	-0.330/-6	-1.99/-9.76	-4.8/-3.6	-7.69/-7.19	-8.5/-5.46	-3.07/-3.8
Θ(120°)	-12.2/-15.56	-8.28/-10.45	-15.43/-11.89	-9.36/-9.44	-14.3/-8.7	-6.5/-7.4																		



Radiated Composite Gain Data of 6GHz

Appendix A

Θ (120°)	-18.02/-12.33	-13.49/-10.54	-8.97/-10.05	-18.85/-15.88	-7.96/-9.79	-8.96/-6.89	-8.49/-7.56	-7.33/-8.92	-9.54/-6.29	-5.7/-6.32	-7.63/-5.17	-8.09/-6.03	-11.44/-9.69	-9.69/-13.47	-15.34/-16.55	-17.87/-10.94	-9.35/-11.64	-18.73/-11.22	-18.83/-8.16	-6.12/-11.32	-11.71/-12.27	-9.32/-9.14	-7.71/-6.63	-6.45/-7.54
Θ (127.5°)	-18.49/-12.33	-18.38/-18.64	-13.16/-16.77	-18.07/-8.07	-8.71/-11.3	-15.25/-11.39	-7.66/-11.45	-18.08/-9.4	-4.48/-5.71	-5.5/-8.87	-6.29/-7.16	-6.58/-5.56	-11.83/-6.03	-7.61/-15.76	-7.98/-10.22	-10.55/-8.76	-6.02/-9.63	-8.13/-12.47	-14.64/-6.69	-3.69/-15.3	-8.49/-6.16	-12.79/-2.81	-15.3/-8.56	-10.54/-14.98
Θ (135°)	-18.57/-17.57	-16.86/-10.61	-16.23/-15.96	-11.84/-7.25	-8.1/-14.95	-17.22/-9.83	-7.43/-6.74	-9.03/-9.81	-7/-5.24	-7.43/-5.75	-6.81/-6.72	-3.73/-6.03	-9.84/-5.64	-6.94/-8.76	-8.27/-17.2	-11.8/-0.22	-7.92/-7.98	-14.5/-15.71	-9.43/-5.14	-1.61/-15.11	-8.23/-5.66	-4.84/-19.03	-9.72/-17.64	-8.84/-11.3
Θ (142.5°)	-11.39/-14.58	-15.09/-12.15	-10.65/-13.69	-11.24/-12.06	-13.96/-17.61	-12.61/-8.49	-7.81/-8.89	-10.29/-9.56	-8.59/-9.4	-6.92/-8.88	-8.51/-7.43	-8.58/-12.32	-10.77/-9.76	-13.57/-16.72	-16.59/-18.41	-14.2/-11.33	-14.5/-12.46	-18.24/-19.37	-13.61/-6.12	-3.93/-11.24	-9.31/-13.7	-7.02/-10.68	-8.79/-8.89	-15.84/-14.16
Θ (150°)	-8.76/-10.23	-15.28/-12.18	-12.48/-16.75	-19/-17.66	-16.99/-16.29	-15.53/-15.94	-14.04/-13.15	-16.58/-17.25	-14.78/-16.83	-18.22/-18.81	-17.58/-17.07	-14.15/-14.45	-19.36/-17.87	-18.15/-16.47	-15.81/-18.5	-18.61/-18.2	-11.84/-15.84	-16.38/-16.55	-19.01/-11.25	-7.02/-9.33	-9.98/-6.62	-8.52/-9.89	-13.24/-9.36	-7.59/-8.13
Θ (157.5°)	-10.74/-12.04	-10.21/-11.02	-12.27/-11.02	-14.28/-13.13	-11.8/-11.26	-11.73/-10.66	-9.96/-11.21	-11.73/-10.66	-9.96/-8.32	-9/-9.15	-8.27/-7.52	-8.11/-10.28	-14.49/-17.65	-18.76/-17.49	-14.96/-16.23	-17.4/-16.8	-13.1/-13.9	-13.96/-15.33	-17.84/-18.13	-11.82/-6.64	-6.5/-8.99	-12.59/-11.82	-9.64/-8.76	-8.94/-11.63
Θ (165°)	-18.32/-17.9	-17.97/-16.29	-17.44/-18.29	-18.79/-17.93	-19.16/-18.35	-14.77/-12.55	-11.19/-9.71	-8.33/-7.4	-7.19/-7.01	-7.02/-6.9	-6.97/-7.74	-8.21/-8.46	-8.67/-10.53	-14.36/-17.22	-17.47/-19.15	-13.58/-10.54	-10.61/-11.75	-14.2/-16.08	-15.41/-12.42	-13.14/-11.77	-8.28/-7.27	-7.63/-7.79	-7.32/-8.42	-12.36/-19.49
Θ (172.5°)	-18.03/-18.16	-17.07/-19.15	-18.69/-18.48	-19.09/-19.24	-18.27/-17.03	-17.38/-14.57	-14.09/-15.86	-14.1/-12.89	-12.28/-11.35	-10.75/-11.13	-12.64/-14.39	-16.84/-19.39	-18.15/-19.05	-18.55/-17.78	-18.79/-17.89	-18.36/-18.83	-19.09/-18.79	-18.75/-18.42	-16.07/-14.62	-12.45/-11.02	-10.84/-10.32	-12.03/-13.4	-13.85/-15.08	-17.91/-17.69
Θ (180°)	-13/-13.06	-14.46/-18.43	-17.66/-18.33	-18.99/-17.06	-16.76/-18.58	-17.69/-16.16	-15.67/-16.16	-18.1/-18.7	-18.75/-17.52	-18.75/-18.05	-17.69/-14.21	-18.17/-18.3	-19.33/-18.45	-18.07/-16.18	-14.94/-16.87	-18.08/-18.69	-18.32/-17.41	-14.9/-14.43	-17.71/-18.5	-17/-17.33	-19.06/-18.89	-15.79/-14.79	-13.15/-11.69	-11.55/-12.23
Freq(Hz)	6.695GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	4.99/-4.41	-3.99/-3.59	-3.33/-3.04	-2.66/-2.3	-2.59/-2.95	-3.62/-5.06	-6.01/-7.6	-7.12/-10.92	-13.29/-14.76	-16.69/-16.59	-5.51/-4.5	-17.1/-10.9	-8.54/-6.84	-5.51/-4.5	-3.07/-2.51	-2.59/-2.89	-3.81/-3.9	-3.67/-3.83	-3.98/-5.09	-6.58/-8.62	-10.6/-12.28	-11.79/-11.14	-9.92/-8	-6.43/-5.76
Θ (7.5°)	6.68/-5.72	-5.27/-4.68	-4.41/-4.19	-3.45/-3.51	-3.22/-3.11	-3.26/-3.97	-4.37/-5.57	-6.8/-7.72	-9.99/-10.37	-12.01/-12.88	-10.57/-8.12	-6.34/-5.21	-4.44/-3.36	-2.66/-2.38	-2.52/-3.03	-3.6/-4.16	-4.37/-4.76	-5.82/-6.47	-7.72/-9.42	-12.42/-15.76	-18.49/-18.23	-13.86/-11.53	-9.12/-7.45	-7.24/-6.76
Θ (15°)	-11.28/-10.34	-9.29/-8.64	-7.74/-8.67	-10.54/-11.61	-10.99/-9.23	-8.4/-7.72	-7.68/-8.21	-8.54/-9.07	-9.11/-19.19	-12.1/-12.37	-11.55/-8.94	-7.04/-5.89	-4.84/-3.71	-2.82/-2.1	-1.72/-1.81	-2.36/-3.12	-4/-5.16	-6.19/-7.12	-9.05/-11.56	-13.69/-13.82	-13.7/-12.85	-11.62/-10.6	-10.01/-9.35	-11.31/-10.47
Θ (22.5°)	-18.26/-18.68	-19.73/-15.6	-12.94/-11.15	-11.78/-13.25	-13.94/-15.36	-15.7/-14.18	-12.24/-11.52	-9.16/-8.6	-8.8/-10.08	-11.21/-10.37	-9.47/-8.82	-6.36/-5.49	-4.19/-3.42	-2.73/-2.56	-2.42/-2.47	-3.13/-4.19	-5.03/-5.34	-5.69/-6.56	-6.99/-6.83	-9.84/-11.3	-10.76/-11.64	-15.22/-15.08	-18.77/-16.29	-
Θ (30°)	-17.96/-16.05	-10.12/-7.18	-5.88/-5.14	-4.7/-5.45	-5.53/-6.23	-7.54/-8.96	-11.12/-12.66	-11.74/-9.63	-9.17/-10.15	-10.49/-8.81	-8.46/-9.58	-10.68/-9.65	-6.54/-9.19	-3.42/-3.44	-3.54/-3.4	-3.61/-4.84	-5.79/-5.28	-4.59/-4.59	-4.97/-5.41	-8.09/-10.95	-13.92/-15.73	-14.33/-13.78	-16.67/-18.62	-18.06/-18.84
Θ (37.5°)	-8.06/-6.19	-5.76/-5.19	-4.23/-2.29	-3.86/-3.75	-3.27/-4	-5.82/-8.73	-10.82/-13.29	-11.76/-10.32	-8.66/-10.4	-10.19/-9.78	-7.57/-7.4	-5.9/-3.61	-2.22/-1.58	-1.77/-2.53	-2.85/-1.97	-1.93/-2.62	-2.05/-2.52	-3.35/-4.29	-4.22/-2.48	-4.92/-7.98	-12.4/-14.2	-17.29/-19.71	-18.64/-19.13	-11.41/-11.35
Θ (45°)	-7.19/-7.15	-5.85/-5.23	-4.7/-5.23	-5.5/-5.26	-5.34/-5.67	-7.68/-1.19	-14.41/-14.12	-12.16/-9.87	-8.66/-9.44	-9.58/-8.66	-5.24/-4.34	-4.21/-2.61	-0.78/-0.64	-1.24/-1.04	-0.58/-0.37	-1.27/-2.16	-2.26/-1.7	-1.9/-1.71	-1.77/-2.32	-4.22/-6.52	-9.28/-12.7	-15.31/-15.7	-13.11/-14.28	-9.47/-7.62
Θ (52.5°)	-11.93/-9.47	-9.39/-7.36	-6.82/-8.78	-11.41/-12.22	-11.28/-9.2	-10.21/-10.67	-13.4/-14.77	-16.32/-13.18	-9.24/-8.55	-7.36/-7.63	-6.79/-3.6	-1.460/-16	0.56/-0.08	0.03/-0.02	0.15/-0.53	-0.3/-0.9	-1.14/-1.35	-1.98/-1.61	-2.1/-2.8	-3.49/-7.9	-11.06/-9.29	-7.24/-8.1	-8.23/-10.46	-17.05/-12.65
Θ (60°)	-8.73/-10.33	-14.57/-16.53	-10.15/-15.31	-14.79/-13.18	-13.82/-14.74	-15.39/-15.13	-13.55/-11.83	-10.62/-11.4	-8.71/-8.49	-8.61/-7.04	-6.97/-9.4	-2.72/-0.81	-0.171/-31	0.660/-36	1.890/-95	0.71/-0.66	-0.6/-2.27	-4.17/-3.85	-3.96/-3.49	-4.72/-11.19	-11.99/-10.51	-6.3/-5.78	-11.39/-10.53	-9.54/-14.66
Θ (67.5°)	-8.91/-9.62	-19.1/-17.66	-19.24/-8.41	-9.03/-11.43	-15.49/-15.58	-14.09/-10.28	-6.12/-5.02	-4.69/-4.11	-4.28/-4.76	-4.34/-15	-4.21/-1.84	-0.56/-2.33	-1.29/-1.15	-0.31/-0.62	-0.61/-0.13	-0.46/-4.14	-3.93/-307	-2.18/-2.64	-6.72/-11.37	-8.38/-4.92	-4.34/-5.81	-9.5/-7.84	-5.65/-7.9	-
Θ (75°)	-3.69/-7.88	-11.71/-14.28	-13.64/-5.58	-6.7/-8.57	-12.31/-19.1	-18.79/-17.57	-7.25/-3.32	-2.06/-1.36	-1.48/-3.85	-2.45/-1.58	-1.99/-1.59	-2.17/-0.03	-0.77/-1.44	-1.82/-1.14	-0.79/-1.18	-0.64/-0.02	0.73/-3.36	-1.45/-1.73	0.14/-0.11	-3.1/-7.64	-5.45/-2.42	-3.58/-3.75	-14.89/-8.95	-2.18/-3.11
Θ (82.5°)	-3.63/-6.21	-9.16/-11.73	-11.57/-5.11	-5.3/-9.5	-13.69/-14.67	-4.82/-2	-0.55/-1.58	0.46/-3.54	-0.77/-1.16	0.680/-64	0.1/-0.28	-1.85/-3.17	-1.110/-61	1.240/-45	-0.080/-82	0.28/-1.37	-1.42/-3.27	0.010/-83	-1.09/-3.9	-2.340/-59	-0.55/-0.28	-5.98/-5.4	-0.38/-0.9	-
Θ (90°)	-9.71/-9.62	-8.09/-7.58	-10.47/-4.93	-5.39/-9.02	-7.85/-11.56	-11.94/-13.79	-4.76/-1.35	-2.67/-1.05	0.14/-2.91	-0.320/-21	1.540/-49	0.931/-05	-0.95/-2.82	0.110/-48	-1.85/-3.04	0.220/-21	1.390/-33	-0.86/-0.99	1.351/-98	1.46/-0.62	-0.430/-91	0.85/-2.15	-3.14/-3.1	-8.05/-43
Θ (97.5°)	-6.66/-7.3	-13.24/-10.9	-9.48/-6.81	-6.56/-15.03	-10.98/-11.04	-11.52/-9.53	-3.94/-2.51	-4.88/-1.47	-1.23/-4.22	0.532/-4	1.13/-0.75	0.98/-0.12	0.66/-3.69	-1.077/-1.31	-0.440/-91	-0.281/-64	2.611/-02	0.061/-0.9	1.421/-24	-0.48/-1.27	-1.50/-1	-0.57/-4.64	-4.4/-2.29	-0.15/-0.88
Θ (105°)	-5.45/-6.13	-7.22/-10.57	-13.23/-10.51	-5.78/-13.43	-10.89/-18.55	-11.4/-12.87	-3.65/-2.76	-3.57/-2.29	-3.6/-82	-3.190/-15	-1.51/-1.59	-1.73/-0.89	0.87/-2.23	0.930/-40	-0.150/-51	-0.192/-22	0.67/-1.4	-2/-4.1	-0.20/-6	-1.77/-2.82	-3.88/-2.71	-4.32/-5.8	-6.12/-4.17	-1.27/-1.21
Θ (112.5°)	-5.1/-10.17	-13.24/-8.3	-10.86/-9.77	-7.02/-13.45	-19.1/-15.08	-10.79/-12.55	-7.33/-4.13	-7.12/-5.24	-4.97/-3.29	-1.69/-2.88	-5.76/-5.49	-2.99/-1.05	-0.86/-2.26	0.091/-98	2.532/-64	-1.22/-0.14	-0.10/-46	-2.94/-9.1	0.76/-0.75	-4.39/-3.69	-6.23/-0.01	-17.83/-13.59	-7.85/-5.17	-1.42/-2.78
Θ (120°)	-13.98/-15.27	-10.61/-9.13	-8.64/-14.09	-8.75/-8.79	-12.65/-13.36	-13.89/-11.22	-7.65/-5.79	-5.61/-11.42	-7.33/-2.59	-2.36/-2.75	-2.11/-4.65	-8.62/-3.25	-5.22/-2.94	-2.85/-3.16	-0.53/-1.4	-0.940/-21	1.713/-04	-0.78/-3.64	-1.92/-1.64	0.07/-8.91	-4.13/-5.19	-6.5/-17.97	-13.39/-7.64	-12.26/-8.05
Θ (127.5°)	-12.21/-12.32	-9.83/-12.09	-18.65/-17.43	-16.6/-12.64	-10.98/-13.32	-16.79/-13.81	-8.46/-7.4	-12.17/-12.71	-8.29/-5.24	-6.25/-6.24	-4.07/-8.27	-2.58/-2.06	-3.32/-0.11	-1.222/-32	4.590/-86	-4.12/-3.91	-2.382/-72	0.481/-0.4	-4.15/-76	0.34/-12.43	-10.22/-12.1	-13.76/-18.3	-7.74/-8.87	-7.5/-11.33
Θ (135°)	-11.84/-11.1	-13.44/-11.74	-11.73/-16.13	-18.22/-18.86	-17.18/-12.28	-13.48/-14.57	-13.38/-9.73	-8.28/-13.77	-9.53/-9.7	-9.65/-7.19	-11.22/-5.2	-3.28/-5.38	0.39/-1.46	-1.041/-22	-0.61/-4.27	-12.61/-2.43	-1.741/-37	-1.13/-4.55	-2.91/-36	0.67/-17.67	-6.86/-3.37	-8.51/-17.59	-10.96/-8.37	-12.89/-13.7
Θ (142.5°)	-17.99/-19.34	-15.93/-13.49	-18.1/-11.16	-13.19/-12.8	-13.54/-18.73	-19.17/-19.12	-14.01/-12.54	-18.84/-19.19	-15.4/-11.57	-13.1/-19.74	-12.78/-4.95	-3.47/-4.51	-3.11/-3.73	-2.67/-0.21	-0.56/-3.93	-7.63/-6.15	-3.05/-2.61	-1.95/-6.55	-3.46/-1.1	1.96/-2.86	-11.66/-2.31	-5.3/-12.07	-8.84/-18.14	-18.69/-18.84
Θ (150°)	-13/-16.28	-12.36/-12.52	-19.04/-18.34	-18.09/-16.98	-14.17/-12.48	-13.23/-12.73	-14.73/-18.09	-18.58/-14.79	-14.25/-18.24	-17.94/-14.92	-12.57/-13.71	-9.98/-7.52	-9.39/-10.76	-6.55/-2.16	-0.91/-2.17	-5.47/-3.91	-6.34/-5.92	-4.33/-6.33	-4.95/-1.85	-1.174/-21	-6.71/-5.71	-5.56/-5.55	-7.08/-7.6	-9.34/-10.35
Θ (157.5°)	-11.48/-14.8	-16.73/-16.12	-18.27/-18.63	-17.68/-18.4	-17.67/-12.14	-11.16/-11.24	-12.32/-11.96	-10.33/-9.76	-11.34/-15.14	-16.55/-13.22	-10.53/-7.8	-5.59/-4.72	-4.47/-0.43	-3.45/-3.42	-3.9/-3.25	-4.68/-4.6	-5.35/-4.65	-5.21/-4.6	-8.42/-7	-4.52/-4.33	-5.77/-6.98	-7.28/-8.08	-11.94/-18.77	-19.01/-15.62
Θ (165°)	-11.45/-10.7	-11.64/-12.58	-10.15/-18.21	-7.94/-10.11	-11.1/-12.68	-12.97/-12.93	-14.51/-14.08	-16.97/-19.01	-18.89/-16.13	-11.41/-8.45	-5.75/-9.3	-4.76/-3.62	-2.13/-1.35	-0.77/-2.02	-3.85/-6.05	-7.53/-8.12	-7.8/-8.01	-9.43/-8.41	-8.1/-8.4	-8.15/-9.71	-10.11/-10.42	-12.67/-11.81	-14.04/-14.21	-12.97/-11.77



Radiated Composite Gain Data of 6GHz

Appendix A

Θ (172.5°)	-16.34/-14.85	-13.84/-15.15	-17.43/-17.15	-15.72/-13.27	-11.74/-10.56	-11.02/-12.87	-14.09/-16.6	-17.6/-17.35	-16.11/-15.62	-15.66/-19.3	-18.06/-18.86	-18.66/-16.5	-13.8/-11.25	-9.31/-8.06	-7.76/-8.54	-10.54/-12.93	-16.14/-18.56	-18.96/-18	-17.07/-19.3	-16.56/-14.72	-13.65/-12.63	-12.08/-12.12	-13.8/-18.05	-17.85/-17.77
Θ (180°)	-18.61/-19.13	-18.7/-16.91	-15.79/-14.65	-13.97/-14.48	-15.58/-17.38	-18.67/-18.6	-17.97/-19.11	-18.82/-19.1	-19.22/-18.44	-17.78/-15.39	-15.04/-14.67	-14.53/-14.88	-14.37/-13.95	-13.36/-12.48	-11.52/-11.47	-11.33/-11.51	-11.75/-12.2	-11.74/-11.03	-10.2/-9.41	-9.39/-9.27	-9.71/-10.48	-11.55/-13.26	-16.79/-17.72	-19.39/-18.65
Freq(Hz)	6.175GPol.	Theta/Ant. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-12.99/-13.7	-14.07/-13.65	-15.22/-15.94	-17.39/-19.05	-18.76/-18.35	-19.08/-18.2	-16.33/-15.21	-13.1/-11.76	-11/-9.76	-9.42/-9.08	-9.26/-10.24	-11.2/-11.77	-11.59/-11.6	-11.97/-12.27	-14.33/-16.08	-18.47/-18.16	-18.32/-17.53	-18.99/-18.41	-19.41/-16.12	-14.57/-14	-13.35/-13.89	-13.45/-13.07	-12.86/-11.05	-11.22/-12.55
Θ (7.5°)	-11.7/-12.5	-14.69/-17.04	-17.81/-18.96	-17.61/-17.82	-18.62/-18.14	-18.14/-19.34	-17.21/-15.85	-16.66/-15.97	-14.26/-12.48	-10.83/-10.26	-10.14/-11.71	-12.78/-12.9	-11.65/-10.9	-10.77/-11.49	-12.1/-14.5	-17.93/-17.96	-19.27/-18.83	-15.42/-13.59	-12.01/-10.23	-10.6/-10.25	-11.02/-11.84	-12.17/-11.23	-11.03/-11.65	
Θ (15°)	-11.26/-12.04	-14.98/-17.7	-18.59/-17.16	-17.79/-19.32	-19.43/-18.47	-16.85/-16.94	-16.16/-14.8	-12.52/-9.77	-7.79/-6.56	-6.27/-7.01	-8.31/-9.5	-9.85/-9.79	-8.84/-10.22	-11.28/-13.39	-16.95/-18.65	-18.64/-18.3	-18.23/-17.64	-16.67/-12.26	-9.64/-8.19	-7.32/-6.95	-6.82/-7.13	-7.51/-7.76	-8.98/-10.94	-10.92/-10.86
Θ (22.5°)	-12.87/-15.59	-18.65/-18.39	-18.71/-15.41	-14.61/-14.34	-13.71/-12.94	-12/-10.8	-9.81/-8.85	-7.87/-7.05	-5.89/-5.25	-4.48/-4.12	-4.61/-4.9	-5.36/-6.18	-7.07/-8.68	-11.67/-14.55	-18.86/-19.15	-16.45/-14.53	-14.43/-14.6	-13.07/-10.6	-7.61/-5.82	-4.58/-4.1	-3.94/-3.9	-4.41/-5.61	-7.41/-9.3	-10.89/-11.66
Θ (30°)	-16.35/-17.97	-18.95/-17.98	-18.73/-15.54	-15.55/-16.1	-14.27/-12.49	-10.48/-8.62	-6.89/-5.72	-4.99/-4.77	-4.46/-4.44	-4.06/-3.74	-3.35/-3.53	-3.89/-4.14	-5.05/-7.1	-8.97/-10.11	-10.29/-10.98	-10.1/-9.77	-9.45/-8.1	-5.83/-3.98	-3.16/-3.16	-3.28/-3.84	-5.06/-6.8	-7.18/-7.32	-7.81/-9.87	-12.09/-14.25
Θ (37.5°)	-17.96/-18.12	-18.81/-17.98	-16.71/-14.22	-13.4/-11.63	-8.83/-7.13	-5.85/-5.04	-4.43/-4.26	-3.68/-3.3	-2.82/-1.9	-1.71/-2.33	-2.62/-3.22	-3.21/-2.06	-1.59/-2.15	-3.29/-4.99	-7.76/-9.13	-6.74/-6.39	-6/-6.45	-6.89/-6.91	-5.19/-4.54	-5.3/-7.56	-8.72/-3.86	-8.44/-8.02	-8.51/-10.45	-13.98/-15.71
Θ (45°)	-17.08/-18.99	-16.32/-14.42	-13.78/-14.29	-16.34/-15.76	-13.34/-11.84	-8.83/-6.09	-4.77/-4.04	-3.28/-2.74	-2.96/-2.55	-2.59/-2.55	-1.97/-1.21	-0.79/-2.07	-0.63/-1.41	-1.94/-2.79	-4.96/-5.68	-4.73/-4.91	-5.13/-6.45	-6.68/-6.75	-7.48/-9.46	-10.81/-9.51	-8.79/-8.71	-7.85/-7.08	-7.03/-7.67	-9.89/-13.42
Θ (52.5°)	-10.09/-10.56	-9.98/-11.17	-12.71/-14.18	-16.32/-19.04	-17.85/-14.77	-8.79/-5.44	-4.19/-3.37	-2.84/-1.96	-1.68/-2.05	-1.91/-1.77	-1.75/-1.39	-1.01/-0.2	-0.1/-0.81	-1.85/-3.71	-5.76/-4.84	-4.65/-4.75	-4.69/-5.75	-6.76/-8.1	-10.3/-8.86	-10.99/-12.89	-9.97/-6.77	-6.41/-7.36	-8.85/-9.66	-12.09/-14.25
Θ (60°)	-10/-9.13	-7.51/-7.47	-6.96/-7.79	-7.89/-9.22	-10.53/-10.43	-6.64/-4.23	-2.61/-1.27	-0.67/-0.98	-1.36/-1.79	-2.63/-2.37	-2.53/-1.97	-1.18/-0.98	-0.46/-0.92	-1.12/-3.17	-5.55/-4.55	-5.5/-5.13	-6.27/-9.17	-12.32/-14.64	-12.71/-12.82	-13.29/-12.23	-11.21/-9.68	-8.44/-7.54	-8.97/-11.18	-12.73/-10.81
Θ (67.5°)	-11.51/-9.46	-7.46/-6.92	-4.54/-4.17	-4.62/-5.11	-6.01/-5.92	-3.87/-2.57	-1.58/-0.61	0.22/-0.4	0.33/-0.29	-0.22/-0.33	0.54/-0.63	0.27/-0.07	-0.12/-0.24	-1.16/-3.93	-3.82/-4.29	-8.43/-14.14	-16.93/-18.29	-17.73/-19.35	-18.93/-16.99	-15.01/-9.65	-8.69/-8.42	-11.64/-13.09	-17.78/-14.18	
Θ (75°)	-6.51/-5.38	-4.51/-4.29	-3.89/-3.23	-3.4/-3.58	-4.55/-3.58	-2.86/-2.51	-1.35/-0.26	1.36/-1.89	0.97/-0.94	0.51/-1.21	2.14/-2.52	1.88/-1.58	0.71/-1.21	0.84/-0.33	-2.52/-3.89	-3.65/-1.61	-5.17/-6.67	-7.4/-8.15	-13.07/-15.7	-19.04/-16.99	-13.92/-15.9	-19.19/-19.27	-18.33/-19.7	
Θ (82.5°)	-4.69/-4.89	-3.71/-3.27	-3.47/-1.97	-2.27/-2.99	-4.93/-3.1	-2.91/-2.55	-1.71/-0.61	0.75/-1.72	1.05/-0.9	0.62/-1.28	2.18/-2.84	2.21/-2.06	1.89/-2.04	1.5/-0.78	-4.59/-5.1	-3.98/-3.49	-3.57/-3.42	-2.62/-6.48	-11.5/-17.97	-10.54/-9.57	-6.56/-6.87	-7.77/-16.87	-18.28/-10.55	-8.58/-10.46
Θ (90°)	-3.35/-3.84	-2.15/-2.9	-2.93/-1.2	-2.31/-3.19	-3.97/-2.32	-3.31/-2.51	-1.87/-0.55	-0.31/-1.35	0.73/-0.4	0.40/-75	1.37/-1.69	1.97/-1	1.98/-0.3	1.17/-2.47	-4.23/-6.6	-5.51/-4.58	-4.28/-1.18	-1.89/-11.99	-6.88/-4.87	-6.42/-5.94	-10.61/-14.56	-14.78/-11.09	-7.01/-8.19	
Θ (97.5°)	-2.87/-1.69	0/-0.83	-1.36/-0.61	-1.07/-1.12	-3.22/-1.57	-1.53/-0.82	-0.98/-0.3	0.23/-1.48	0.51/-0.26	0.27/-0.61	1.65/-1.49	2.60/-93	1.61/-0.2	-1.64/-4.19	-4.35/-6.35	-5.89/-5.78	-3.20/-5	-1.06/-10.08	-7.44/-5.85	-6.67/-5.31	-10.84/-10.28	-6.71/-5.89	-3.72/-4.35	
Θ (105°)	-3.19/-1.79	0.21/-1.38	-1.24/-0.22	-0.81/-1.68	-3.22/-1.3	-1.86/-0.94	-1.53/-1.91	-1.21/-0.63	-0.49/-1.52	-1.2/-1.16	0.42/-0.53	1.49/-0.49	0.91/-0.44	-0.85/-4.29	-6.63/-5.51	-4.65/-8.3	-4.66/-0.63	-1.64/-9.01	-9.31/-5.14	-5.04/-4.98	-9.76/-8.1	-18.39/-13.18	-9.84/-4.09	-3.85/-4.77
Θ (112.5°)	-4.03/-2.41	-1.22/-1.98	-1.8/-2.04	-2.17/-3.48	-4.46/-3.47	-1.91/-1.01	-1.24/-1.06	0.04/-0.62	-2.54/-2.4	-5.15/-4.91	-3.55/-2.87	-2.35/-2.22	-2.62/-1.88	-4.34/-5.53	-8.85/-4.16	-5.96/-8.07	-1.86/-4.06	-1.97/-7.17	-1.48/-6.5	-2.24/-5.97	-8.88/-11.99	-15.19/-11.68	-1.37/-4.97	-3.75/-6.72
Θ (120°)	-2.85/-1.45	-1.51/-1.9	-3/-2.02	-1.97/-2.82	-3.63/-5.27	-3.33/-2.49	-1.29/-0.78	-0.81/-1.16	-1.47/-2.33	-3.7/-2.84	-3.37/-1.26	-3.83/-1.94	-5.29/-3.11	-6.23/-7.65	-8.84/-2.36	-5.61/-8.55	-3.49/-3.5	-2.55/-11.38	-1.28/-8.57	-11.47/-18.65	-16.22/-13.11	-18.19/-4.32	-2.82/-4.71	
Θ (127.5°)	-4.94/-4.03	-4.2/-4.28	-4.81/-3.94	-3.37/-4.5	-6.12/-6.46	-5.45/-3.17	-3.26/-3.07	-2.82/-1.68	-0.65/-0.95	-0.82/-1.02	-0.79/-2.08	-2.2/-4.34	-2.99/-6.84	-7.18/-11.63	-4.81/-2.34	-8.63/-17.74	-5.77/-7.48	-7.09/-9.33	-11/-8.29	-4.31/-12.47	-10.96/-13.66	-17.98/-8.19	-12.62/-5.29	-5.56/-7.24
Θ (135°)	-13.18/-7.74	-8.03/-7.17	-7.99/-7.65	-7.23/-9.03	-11.1/-9.41	-4.89/-7.53	-3.08/-2.09	-1.53/-1.05	-1.4/-1.64	-1.81/-1.68	-1.69/-3.46	-3.78/-6.29	-8.12/-9.75	-7.03/-7.09	-7.96/-15.45	-5.72/-5.97	-6.41/-17.92	-15.93/-10.5	-8.76/-8.65	-17.96/-12.3	-14.04/-17.97	-18.71/-10.71	-10.41/-8.11	
Θ (142.5°)	-12.82/-14.11	-13.34/-11.31	-7.97/-7.54	-7.48/-8.7	-12.92/-17.67	-14.79/-9.71	-5.46/-3.42	-2.94/-3.7	-3.78/-3	-2.69/-2.95	-4.15/-4.63	-6.37/-9.08	-8.97/-12.36	-18.25/-17.06	-11.79/-8.4	-12.7/-8.84	-8.49/-11.2	-18.48/-19.01	-18.82/-18.33	-11.07/-9.62	-10.91/-11.48	-11.12/-12.88	-15.78/-13.67	-9.41/-10.26
Θ (150°)	-9.11/-10.37	-10.63/-12.7	-11.89/-11.1	-12.63/-14.62	-15.5/-15.72	-12.52/-9.13	-7.28/-6.89	-5.9/-4.81	-4.92/-6.02	-6.86/-7.75	-9.5/-11.4	-9.64/-7.55	-7.79/-9.95	-11.02/-11.29	-7.02/-5.19	-5.22/-7.42	-10.05/-12.25	-18.01/-19.07	-17.87/-19.24	-11.89/-10.42	-15.82/-18.49	-18.44/-15.04	-10.6/-8.64	-7.62/-7.44
Θ (157.5°)	-8.83/-12.15	-16.52/-14.67	-11.23/-8.2	-7.21/-6.45	-10.97/-15.14	-16.05/-18.83	-14.44/-10.33	-8.08/-6.06	-4.21/-3.62	-3.76/-5.42	-5.53/-6.06	-6.45/-7.8	-9.42/-10.03	-11.16/-11.25	-9.96/-7.83	-7.97/-8.7	-19.04/-13.68	-15.99/-10.85	-18.54/-14.78	-17.91/-18.8	-12.84/-9.65	-10.65/-10.63	-18.26/-13.38	-9.41/-8.16
Θ (165°)	-16.69/-19.05	-18.27/-18.55	-19.06/-18.75	-14.3/-12.8	-12.19/-11.6	-12.1/-12.55	-11.97/-11.1	-9.87/-9.37	-9.4/-7.7	-9.67/-9.74	-9.64/-9.32	-8.61/-7.89	-7.03/-6.03	-5.64/-5.93	-6.54/-7.74	-9.81/-14.48	-18.74/-17.48	-16.03/-16.46	-15.97/-16.49	-17.67/-18.31	-18.85/-18.48	-10.55/-15.77	-15.41/-16.03	-14.89/-15.06
Θ (172.5°)	-18.48/-17.37	-18.83/-18.44	-17.3/-17.82	-17.66/-18.05	-19.4/-18.97	-18.7/-17.2	-15.36/-14.3	-13.97/-13.85	-13.68/-13.05	-12.24/-11.18	-11.24/-11.27	-10.94/-10.03	-8.98/-8.36	-8.81/-10.2	-13.25/-19.1	-18.39/-18.04	-17.01/-18.66	-17.94/-16.7	-12.37/-10.49	-10.59/-11.72	-14.32/-17.87	-18.61/-18.84	-18.75/-16.53	-15.85/-16.98
Θ (180°)	-15.65/-15.77	-15.76/-16.1	-15.59/-18.16	-17.82/-18.89	-18.02/-19.87	-18.1/-18.13	-17.55/-17.08	-16.92/-16.6	-16.54/-15.29	-14.9/-15.5	-15.22/-14.35	-13.1/-12.32	-10.76/-10.23	-9.81/-9.63	-9.55/-14.07	-11.68/-12.7	-13.14/-14.3	-15.46/-15.48	-15.43/-15.98	-17.34/-16.82	-16.58/-16.13	-15.09/-15.2	-14.17/-12.92	-13.11/-14.22
Freq(Hz)	6.475GPol.	Phi/Ant. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-8.09/-7.38	-7.84/-8.56	-9.79/-11.12	-12.27/-12.85	-14.06/-15.42	-17.43/-18.99	-18.35/-18.44	-16.21/-16.96	-16.05/-14.45	-13.9/-12.27	-10.61/-10.28	-10.15/-10.28	-10.35/-10.84	-11.12/-11.25	-10.44/-9.8	-9.23/-9.81	-10.6/-12.29	-13.11/-18.3	-13.53/-14.53	-16.81/-19.15	-19.18/-14.79	-11.29/-14.02	-8.88/-9.93	-9.06/-11.67
Θ (7.5°)	-10.43/-10.71	-11.57/-12.05	-11.43/-10.62	-10.36/-10.35	-10.91/-12.33	-13.67/-16.16	-18.11/-17.92	-18.85/-18.84	-16.31/-11.48	-9.94/-12.22	-8.53/-7.67	-6.37/-5.73	-5.74/-5.97	-5.61/-7.08	-7.89/-9.28	-11.09/-13.56	-16.81/-19.31	-18.3/-18.92	-19.18/-18.17	-16.76/-13.91	-12.31/-11.38	-10.75/-10.51	-10.56/-10.69	
Θ (15°)	-9.28/-9.39	-10.43/-10.82	-9.88/-8.79	-8/-7.33	-6.83/-7	-7.03/-8.31	-9.52/-10.8	-11.05/-11.95	-13.01/-15.56	-16.11/-12.75	-9.47/-5.6	-6.92/-6.4	-5.5/-6.47	-4.15/-4.24	-4.84/-5.92	-7.68/-10.05	-13.36/-18.13	-18.35/-18.02	-16.89/-18.34	-19.79/-18.13	-18.13/-16.49	-14.54/-12.79	-12.21/-10.34	-8.83/-10.46
Θ (22.5°)	-10.41/-9.51	-8.91/-8.35	-7.3/-5.87	-5.58/-5.7	-6.23/-6.92	-6.68/-3.33																		



Radiated Composite Gain Data of 6GHz

Appendix A

Θ(22.5°)	-14.93/-12.13	-11.43/-11.36	-11.41/-11.4	-10.49/-8.59	-6.94/-5.42	-4.59/-4.47	-4.08/-4.61	-5.22/-6.32	-7.42/-8.01	-7.68/-7.67	-7.94/-8.84	-9.78/-12.23	-13.99/-12.65	-11.23/-10.38	-10.13/-9.52	-8.81/-8.67	-8.76/-8.54	-8.71/-9.57	-10.34/-11.61	-12.27/-13.31	-14.29/-18.56	-18.86/-18.49	-19.29/-19.73	-18.11/-16.33
Θ(30°)	-16.73/-14.29	-13.09/-12.83	-11.45/-10.3	-9.06/-6.92	-5.63/-4.96	-4.08/-3.46	-3.14/-3	-3.29/-4.0	-5.02/-4.9	-4.1/-3.94	-4.84/-5.21	-6.87/-9.71	-9.26/-9.05	-10.82/-13.08	-14.44/-13.17	-12.06/-10.49	-8.87/-10.24	-8.85/-10.24	-10.89/-10.38	-9.94/-10.4	-10.18/-9.24	-9.5/-10.43	-12.94/-18.68	-19.21/-18.19
Θ(142.5°)	-15.41/-12.44	-12.34/-14.01	-12.36/-16.64	-6.69/-5.58	-5.11/-4.41	-3.17/-2.8	-3.08/-3.21	-2.76/-2.26	-2.39/-2.61	-2.78/-3.8	-2.22/-2.71	-2.78/-3.8	-4.61/-6.95	-8.25/-6.61	-7.23/-9.25	-11.03/-12.07	-10.81/-10	-9.83/-8.61	-7.54/-6.22	-5.16/-4.71	-5.47/-6.63	-8.28/-10.45	-10.95/-16.72	-18.64/-17.9
Θ(45°)	-13.05/-12.13	-13.84/-18.68	-18.76/-10.85	-7.61/-4.83	-3.48/-2.39	2.14/-2.03	-2.04/-1.82	-2.03/-2.06	-2.28/-2.18	-1.51/-0.33	-0.11/-0.41	-0.23/-0.53	-0.9/-1.76	-3.65/-3.56	-4.87/-5.35	-6.16/-7.12	-7.97/-8.28	-9.38/-7.52	-4.26/-3.28	-3.32/-0.05	-5.67/-7.74	-8.6/-11.53	-16.83/-14.57	-13.38/-13.02
Θ(52.5°)	-6.99/-6.51	-6.36/-8.28	-15.15/-14.53	-10.03/-6.14	-3.58/-1.84	-0.66/-0.43	-0.8/-1.23	-1.65/-1.93	-2.35/-2.39	-2.19/-1.35	-0.150/-0.63	0.57/-0.36	-0.54/-1.29	-2.82/-3.16	-4.12/-4.95	-5.38/-5.23	-5.54/-7.32	-5.98/-5.86	-5.75/-6.2	-4.77/-4.84	-5.23/-5.83	-8.46/-8.14	-10.24/-13.57	-8.54/-6.5
Θ(60°)	-4.26/-2.82	-4.22/-4.76	-8.21/-6.49	-4.52/-2.86	-1.97/-1.91	-1.81/-2.4	-1.89/-1.72	-1.56/-1.12	-0.83/-0.36	0.050/-0.31	0.981/-0.1	0.85/-0.74	-2.22/-2.85	-3.48/-3.6	-5.13/-6.97	-7.39/-7.32	-7.17/-43	-6.55/-7.22	-5.16/-6.21	-6.11/-5.55	-7.62/-9.71	-8.94/-10.52	-7.14/-7.9	
Θ(67.5°)	-4.04/-2.96	-2.19/-2.61	-3.72/-4.01	-4.23/-4.47	-3.63/-1.82	-0.650/-1.8	0.01/-0.1	-0.76/-1.32	-1.17/-1.24	-0.79/-1.07	0.330/-5	1.290/-8.5	-0.28/-1.37	-2.28/-2.57	-3.44/-4.7	-6.97/-7.38	-6.48/-7.49	-11.1/-14.65	-13.1/-10.39	-9.58/-9.28	-9.29/-8.41	-9.32/-9.32	-10.74/-9.26	-8.04/-5.71
Θ(75°)	-5.24/-3.72	-2.13/-2.1	-1.51/-0.94	-1.57/-2.6	-2.38/-0.81	0.391/-0.4	1.311/-4.8	0.41/-1.07	-0.9/-0.42	0.11/-1.01	-0.76/-0.99	0.770/-9.5	0.41/-1.04	-2.36/-2.38	-2.32/-2.98	-6.64/-5.34	-5.12/-5.81	-7.87/-11.24	-13.18/-13.4	-13.57/-10.99	-9/-8.75	-8.66/-9.62	-12.89/-13.21	-12.43/-8.56
Θ(82.5°)	-5.91/-4.65	-3.64/-3.46	-1.9/-1.03	-1.21/-1.89	-2.93/-2.12	-0.980/-6.6	0.160/-2.3	0.73/-0.16	0.330/-39	1.420/-99	0.60/-28	0.971/-31	1.51/-0.28	-1.13/-1.68	-0.28/-2.17	-4.21/-2.99	-3.64/-4.29	-4.4/-6.47	-9.85/-11.54	-17.23/-18.46	-12.1/-7.74	-10.77/-11.77	-18.37/-17.94	-15.71/-9.91
Θ(90°)	-5.6/-3.56	-3.27/-2.31	-2.12/-1.51	-0.92/-1.48	-1.67/-1.78	-1.49/-1.03	-1.69/-1.27	-0.3/-1.04	-0.47/-1.12	2.02/-1.9	1.430/-84	1.231/-44	1.750/-19	-1.28/-3.69	-0.56/-1.31	-2.73/-3.39	-3.63/-3.7	-2.63/-3.48	-7.14/-9.62	-18.91/-15.5	-10.31/-6.13	-7.3/-18.62	-16.63/-18.54	-14.3/-9.18
Θ(97.5°)	-2.23/-2.16	-4.09/-4.4	-3.1/-1.76	-0.46/-1.62	-1.8/-2.04	-2.31/-1.47	-1.42/-0.72	0.1/-26	-0.870/-74	1.871/-66	1.311/-33	0.991/-11	0.41/-3.07	-3.38/-4	-1.39/-2.65	-4/-5.28	-9.99/-4.88	-2.3/-2	-8.93/-10.66	-12.94/-10.92	-13.62/-8.26	-10.5/-17.9	-13.4/-11.82	-9.8/-8.2
Θ(105°)	-2.88/-1.62	-1.42/-2.17	-2.87/-2.88	-2.52/-1.43	-1.13/-2.12	-1.65/-1.03	-0.930/-27	1.170/-201	-1.070/-4	0.850/-6	0.691/-27	1.231/-11	1.1/-2.05	-3.11/-4.52	-2.27/-3.11	-4.51/-9.84	-11.79/-3.21	-2.89/-4.15	-13.15/-10.74	-8.82/-6.43	-15.14/-9.69	-11.01/-18.1	-18.01/-10.28	-8.36/-1.12
Θ(112.5°)	-2.89/-2.85	-3.26/-4.59	-4.81/-3.23	-3.18/-3.24	-2.33/-3.88	-1.78/-2.18	-1.63/-0.99	-2.17/-6.53	-5.14/-3.91	-2.14/-1.27	-1.48/-1.14	-0.71/-1.63	-2.14/-4.58	-6.46/-6.2	-6.89/-6.08	-5.76/-13.02	-9.13/-3.02	-1.96/-11.43	-11.58/-9.73	-4.47/-11.72	-18.71/-7.6	-11.94/-14.12	-15.92/-6.17	-6.93/-5.04
Θ(120°)	-2.84/-6.65	-2.71/-5.99	-5.33/-6.22	-7.11/-6.26	-4.49/-3.1	-2.77/-1.65	-0.94/-0.75	-2.09/-2.7	-6.06/-7.92	-3.18/-10.58	-6.69/-7.41	-5.29/-5.98	-6.51/-6.95	-9.47/-46	-5.63/-12.56	-16.63/-11.52	-14.76/-7.68	-18.87/-18.74	-13.64/-10.61	-18.77/-14.75	-15.31/-10.25	-13.64/-6.01	-4.67/-3.4	
Θ(127.5°)	-5.14/-4.61	-4.73/-4.76	-6.46/-9.06	-9.65/-10.49	-8.78/-5.21	-3.17/-2.4	-2.44/-1.71	-0.77/-2.03	-2.88/-3.58	-5.52/-4.91	-5.9/-4.04	-7.56/-8.43	-10.21/-10.65	-11.18/-13.61	-10.03/-11.04	-9.59/-9.44	-6.71/-18.86	-18.62/-17.91	-7.07/-18.75	-19.24/-6.47	-17.72/-14.73	-13.69/-9.59	-7.13/-4.77	
Θ(135°)	-16.88/-12.65	-7.71/-7.56	-9.01/-12.35	-14.79/-13.99	-10.55/-8.89	-7.17/-5.69	-3.45/-2.89	-3.28/-2.72	-2.81/-4.09	-4.22/-3.92	-4.15/-4.27	-3.87/-4.14	-3.62/-4.19	-5.51/-10.54	-11.27/-6.41	-9.24/-10.91	-8.57/-9.15	-7.2/-18.74	-18.27/-10.17	-8.8/-15.96	-10.21/-18.49	-13.91/-17.96	-15.13/-11.5	-13.86/-16.1
Θ(142.5°)	-18.29/-11.59	-10.18/-9.9	-14.32/-18.62	-19.27/-15.67	-10.22/-10.65	-4.79/-5.3	-4.77/-14.4	-4.38/-6.29	-7.01/-6.5	-6.31/-9.1	-3.9/-3.99	-5.33/-6.45	-9.66/-9.79	-12.31/-9.32	-12.95/-17.72	-19.18/-14.58	-18.92/-9.17	-18.68/-19.18	-19.07/-17.45	-15.31/-10.24	-11.51/-16.55			
Θ(150°)	-18.37/-11.73	-13.69/-15.98	-17.01/-18.92	-18.11/-14.06	-10.91/-11.24	-8.64/-6.46	-5.92/-5.87	-6.25/-5.19	-5.54/-5.66	-5.42/-5.93	-6.92/-5.88	-11.82/-16.84	-15.31/-9.9	-10.65/-13.61	-12.46/-10.08	-17.79/-9.44	-10.81/-8.77	-11.25/-17.17	-12.96/-8.39	-7.83/-10.15	-18.11/-16.63	-11.07/-16.12	-11.86/-9.04	-7.83/-11.46
Θ(157.5°)	-11.4/-15.06	-18.11/-15.85	-14.69/-16.15	-16.06/-15.15	-12.2/-10.46	-8.04/-5.61	-4.5/-3.98	-3.95/-4.55	-4.81/-4.92	-5.29/-5.79	-6.18/-5.88	-4.05/-2.53	-2.78/-3.69	-5.08/-5.34	-4.98/-5	-6.14/-6.22	-6.1/-8.32	-13.91/-18.44	-14.25/-9.9	-10.35/-14.13	-17.56/-18.5	-18.13/-19.12	-12.84/-11.25	-10.88/-10.91
Θ(165°)	-18.9/-18.84	-17.86/-17.71	-18.41/-19.18	-19.16/-18.08	-19.65/-14.1	-12.56/-11.47	-10.29/-9.37	-8.69/-8.34	-8.86/-9.25	-9.45/-8.78	-7.25/-8.8	-5.2/-4.8	-3.92/-2.96	-3.04/-6.1	-6.92/-7.74	-7.21/-7.17	-8.78/-14.05	-17.6/-18.93	-11.94/-8.95	-8.17/-11.66	-19.39/-18.74	-14.32/-13.73	-11.93/-11.22	-12.7/-16.55
Θ(172.5°)	-17.48/-18.35	-18.2/-19.19	-17.85/-17.69	-18.41/-16.53	-13.49/-11.99	-10.69/-10.12	-9.96/-9.51	-9.53/-9.14	-8.15/-7.3	-6.68/-6.31	-6.16/-6.59	-5.78/-5.71	-5.85/-6.4	-6.51/-6.5	-7.38/-9.65	-13.44/-17.38	-18.38/-18.3	-18.68/-18.87	-18.79/-18.15	-14.56/-12.18	-12.64/-15.58	-18.27/-16.99	-18.06/-18.27	
Θ(180°)	-18.51/-19.59	-18.91/-18.19	-17.73/-18.44	-17.83/-17.32	-18.77/-17.82	-18.74/-19.42	-16.78/-14.64	-13.38/-12.63	-12.45/-11.77	-11.66/-12.13	-13.04/-14.56	-16.38/-17.26	-16.77/-15.83	-14.65/-15.56	-18.3/-17.58	-18.42/-18.75	-17.32/-18.76	-18.49/-19.31	-18.08/-17.97	-19.45/-19.07	-18.13/-18.76	-18.38/-17.54	-18.29/-17.95	-17.88/-18.4
Freq(Hz)	6.995GPol.	PhiAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-7.71/-7.43	-7.47/-7.33	-7.15/-7.37	-7.63/-8.24	-8.63/-9.28	-9.43/-10.06	-9.97/-10.06	-10.77/-12.16	-12.86/-12.65	-11.93/-11.81	-12.3/-10.93	-10.13/-9.11	-8.77/-7.71	-7.11/-6.87	-6.55/-5.69	-5.54/-5.43	-5.90/-6.69	-6.31/-6.09	-7.13/-9.34	-10.68/-10.12	-10.27/-9.6	-9.4/-9.05	-9.5/-8.6	-7.78/-7.35
Θ(7.5°)	-8.1/-7.34	-6.4/-6.12	-5.79/-5.91	-6.26/-6.34	-6.71/-6.98	-7.81/-8.43	-9.42/-9.08	-8.97/-8.29	-9.18/-9.59	-10.68/-11.26	-10.41/-9.4	-8.2/-7.77	-7.55/-7.52	-7.83/-7.7	-7.71/-7.43	-7.89/-7.38	-7.85/-8.51	-8.14/-7.69	-8.7/-10.2	-13.4/-10.7	-14.68/-11.78	-10.99/-10.62	-12.12/-12.14	-10.31/-9.35
Θ(15°)	-12.94/-11.08	-9.15/-8.77	-8.15/-9.2	-6.38/-6.12	-5.96/-6.19	-7.39/-8.14	-9.12/-8.96	-8.93/-7.77	-7.14/-6.43	-9.21/-10.21	-9.97/-6.83	-6.31/-6.91	-7.54/-8.2	-6.66/-8.85	-9.74/-9.22	-7.75/-7.02	-6.92/-7.2	-8.85/-10.94	-13.95/-15.89	-15.47/-14.35	-12.78/-13.09	-15.15/-13.58		
Θ(22.5°)	-17.64/-17.15	-12.65/-8.97	-6.88/-5.91	-5.36/-5.41	-6.15/-7.42	-9.61/-11.61	-12.38/-12.04	-10.71/-8.87	-7.68/-6.71	-5.94/-6.34	-7.26/-7.88	-7.46/-6.17	-5.48/-5.44	-5.75/-6.5	-7.03/-7.08	-7.04/-7.51	-7.95/-10.03	-12.26/-13.48	-15.12/-15.45	-14.44/-11.22	-9.4/-8.94	-9.87/-11.13	-11.33/-11.76	-14.48/-18.76
Θ(30°)	-10.78/-12.24	-11.64/-10.39	-7.77/-5.65	-4.21/-3.78	-4.02/-5.41	-8.05/-10.96	-14.51/-15.81	-12.62/-10.87	-9.65/-8.85	-7.95/-6.55	-5.68/-5.02	-4.58/-4.12	-4.22/-4.76	-4.94/-5.58	-6.08/-7.09	-7.05/-6.95	-6.43/-6.25	-6.79/-8.09	-11.15/-13.9	-13.72/-14.22	-9.64/-9.1	-10.46/-11.84	-11.03/-9.93	
Θ(37.5°)	-10.78/-12.56	-9.58/-8.16	-7.73/-5.66	-4.68/-4.41	-4.14/-9.5	-7.12/-10.41	-16.71/-7.63	-17.44/-13.4	-12.46/-11.4	-9.16/-6.47	-4.39/-2.99	-1.52/-0.22	-0.08/-0.2	-0.88/-2.09	-3.11/-4.47	-6.71/-7.15	-9.61/-10.3	-10.72/-11.31	-11.2/-9.91	-7.07/-7.23	-9.13/-10.28	-12.21/-9.76	-9.97/-10.65	-11.25/-10.54
Θ(45°)	-14.83/-16.42	-10.93/-8.18	-5.43/-4.67	-3.85/-3.33	-4.17/-5.49	-7.11/-9.91	-13.75/-18.96	-19.01/-17.58	-17.66/-15.41	-11.95/-8.57	-4.51/-2.07	-0.410/-46	1.26/-1	1.050/-62	0.2/-1.75	-1.58/-2.57	-3.1/-3.7	-3.65/-6.38	-8.9/-10.29	-13.46/-15.47	-11.8/-12.73	-14.93/-17.75	-18.33/-14.79	-13.61/-13.26
Θ(52.5°)	-3.8/-3.94	-19.41/-14.17	-8.99/-9.7	-7.11/-1.18	-6.61/-6.51	-6.24/-8.14	-11.77/-13.63	-18.65/-17.25	-15.93/-13.59	-8.01/-5.48	-3.92/-2.39	-0.850/-44	0.760/-49	0.280/-0.6	-0.64/-0.34	0.410/-16	-0.770/-67	-2.58/-1.48	-9.43/-10.29	-13.38/-14.55	-12.01/-13.18	-13.12/-11.65	-10.98/-15.49	-10.73/-8.08
Θ(60°)	-4.5/-5.67	-7.27/-9.63	-10.44/-8.08	-6.11/-5.11	-4.73/-4.98	-7.09/-8.81	-9.25/-12.03	-14.61/-14.9	-10.96/-9.67	-9.24/-7.63	-7.23/-5.97	-4.4/-3.24	-2.69/-2.87	-2.14/-1.64	-2.12/-3.14	2.33/-2.85	-2.08/-2.69	-4.48/-6.14	-7.14/-8.73	-12.12/-15.58	-15.1/-12.18	-8.75/-8.99	-8.93/-10.24	-8.66/-6.08
Θ(67.5°)	-2.94/-3.95	-4.71/-8.95	-9.83/-8.67	-7.11/-6.36	-5.43/-7.09	-4.85/-3.83	-5.44/-10.36	-1.11/-1.77	-6.1/-6.94	-10.56/-15.66	-8.51/-7.24	-8.46/-9.92	-8.34/-6.67	-9.4/-5.47	-2.53/-2.46	-2.94/-4.01	-3.02/-3.32	-8.93/-8.42	-5.49/-4.92	-10.08/-18.36	-12.85/-14.34	-13.63/-10.67	-5.11/-9.21	-17.71/-26
Θ(75°)	-2.74/-2.45	-3.14/-5.47	-7.49/-6.88	-6.07/-4.02	-4.44/-6.03	-4.61/-11.22	-19.12/-18.64	-12.52/-5.96	-8.85/-6.37	-9.65/-13.25	-17.29/-16	-17												



Radiated Composite Gain Data of 6GHz

Appendix A

Θ(67.5°)	-1.82/-1.32	-0.63/0.35	0.09/-0.62	-1.42/-0.4	-0.61/-0.04	-0.29/-0.62	-0.29/-0.08	-1.01/-2.48	-4.83/-4.11	-1.09/-0.5	-1.53/-1.64	-2.73/-2.44	-5.38/-5.83	-6.46/-6.44	-10.99/-11.35	-9.62/-7.89	-10.88/-14.37	-11.98/-11.08	-11.44/-11.84	-7.2/-4.87	-4.45/-2.49	-2.74/-2.99	-3.95/-4.85	-3.56/-2.53
Θ(75°)	-2/-1.78	-0.66/-0.45	-0.27/-1.64	-1.51/-0.53	-1.29/0.12	0.03/-0.81	-1.71/-1.86	-1.37/-1.36	-3.91/-3.18	-1.32/0.25	-1.22/-0.28	-2.98/-2.42	-4.48/-6.2	-8.25/-7.51	-9.94/-9.04	-9.23/-6.38	-10.38/-15.35	-9.22/-5.85	-8.93/-11.32	-5.07/-2.85	-2.03/-1.11	-3.04/-2.89	-2.12/-3.7	-1.88/-2.56
Θ(82.5°)	-6.51/-1.96	-0.93/-1.83	-0.78/-2.94	-2.04/-1.23	-0.91/0.91	-0.26/0.03	0.33/-0.19	-0.95/-1.2	-2.74/-1.96	-0.60/-0.43	-1.28/-1.25	-1.13/-2.43	-6.26/-5.51	-3.4/-5.18	-10.35/-10.63	-6.19/-6.07	-9.7/-5.13	-3.42/-2.58	-0.15/0.66	0.58/0.17	-1.58/-0.33	-1.98/-3.87	-1.93/-1.34	
Θ(90°)	-3.77/-0.49	1.13/1.16	2.01/0.35	-0.53/0.08	0.31/1.76	0.81/1.86	0.96/0	-1.05/-2.47	-4.48/-4.07	-0.58/0.88	0.48/0.69	-1.55/-1.91	2.02/-8.03	-2.37/-3.38	-6.06/-9.64	-5.97/-6.67	-9.22/-2.22	-1.69/-1.95	-3.09/-1.7	1.35/1.51	0.58/1.27	-0.24/-2.66	-1.14/-2.21	-4.48/0.8
Θ(97.5°)	-3.85/-0.8	1.2/0.91	1.84/-0.9	-0.6/-0.12	0.75/-1.7	0.89/-1.98	0.86/-0.12	-2.44/-4.59	-7.15/-9.31	-0.71/-0.24	-2.1/-2.07	-1.84/-6.38	-8.49/-8.26	-3.14/-6.66	-12.07/-14.75	-7.24/-9.27	-7.99/-1.4	-2/-2.74	-4.5/-5.81	0.05/-0.83	-0.65/-0.3	-3.31/-1.95	-1.24/-1.8	-3.43/-1.22
Θ(105°)	-3.26/-0.37	-0.30/0.55	0.62/-2.25	-2.51/-2.35	-2.07/0.96	-0.18/0.61	0.91/-0.38	-3.76/-5.03	-7.28/-3.89	-0.56/0.1	-1.58/-2.52	-2.73/-0.31	-6.58/-4.98	-1.61/-3.08	-5.88/-11.49	-10.63/-9.96	-17.6/-4.19	-4.88/-3.33	-1.48/-1.15	-2.45/-2.46	-2.85/-2.33	-1.91/-3.37	-2.86/-1.34	
Θ(112.5°)	-3.55/-0.8	-0.47/1.24	1.38/0.65	-1.02/0.25	-0.11/0.91	0.92/0.43	-0.28/-2.22	-3.83/-5.09	-9.78/-6.06	-2.46/-2.07	-3.03/-3.2	-3.2/-4.31	-7.63/-6.64	-5.54/-5.46	-12.69/-18.42	-16.81/-14.08	-5.6/-5.19	-3.27/-4.34	-10.37/-6.36	0.19/-0.26	-0.97/-1.55	-2.54/-0.87	-0.67/-4.92	-3.72/-3.94
Θ(120°)	-0.88/-1.43	0.47/0.79	1.16/0.77	-0.56/-0.11	0.15/0.9	1.45/0.37	-0.47/-1.71	-3.47/-7.46	-15.73/-9.1	-4.4/-4.01	-4.28/-2.07	-5.09/-5.32	-9.7/-12.27	-9.77/-9.99	-9.44/-13.12	-18.64/-10.37	-6.98/-11.48	-3.08/-10.5	-16.01/-14.17	-2.69/-3.1	-3.22/-5.24	-10.39/-2.61	-1.28/-5.5	-1.1/-3.53
Θ(127.5°)	-1.08/-2.38	-1.18/-2.22	-1.22/-2.99	-3.02/-2.67	-1.61/-1.97	-1.78/-1.56	-3.16/-5.23	-7.33/-11.37	-13.18/-9.3	-5.74/-4.89	-5.42/-6.27	-8.28/-11.47	-15.43/-15.39	-11.53/-14.84	-16.91/-8.67	-13.68/-10.56	-7.03/-19.03	-4.41/-4.17	-10.26/-10.2	-2.12/-2.25	-2.95/-8.74	-8.32/-4.3	-2.44/-6.24	-1.57/-2.36
Θ(135°)	5.92/-5.55	-3.36/-3.59	-3.05/-3	-3.97/-4.95	-4.99/-4.01	-3.89/-4.38	-5.14/-6.28	-10.28/-17.77	-19.25/-10.25	-6.93/-4.88	-5.94/-5.49	-6.64/-8.13	-12.88/-17.5	-17.45/-13.89	-17.75/-16.28	-17.4/-8.56	-6.92/-10.22	-5/-5.85	-10.07/-14.11	-5.35/-5.84	-6.21/-7.93	-9.67/-9.42	-10.33/-16.98	-7.27/-6.53
Θ(142.5°)	-9/-6.88	-5.2/-3.79	-3.46/-7.29	-2.5/-2.99	-4.17/-5.36	-7/-8.42	-9.71/-10.96	-12.47/-14.99	-18.56/-17.38	-18.11/-13.62	-11.54/-11.07	-13.85/-19.13	-17.92/-17.48	-18.26/-19.74	-11.88/-10.35	-16.83/-11.35	-10.74/-12.96	-17.76/-12.08	-10.78/-10.95	-8.89/-7.78	-7.96/-6.6	-8.8/-11.89	-13.86/-11.1	
Θ(150°)	-8.93/-7.29	-4.7/-2.39	-1.15/-0.95	-0.9/-0.88	-1.14/-1.79	-2.46/-2.74	-3.57/-4.44	-6.52/-9.14	-11.64/-14.09	-16/-18	-17.58/-18.36	-17.52/-16.35	-13.87/-13.04	-13.63/-13.74	-12.75/-14.45	-18.44/-11.78	-6.39/-5.48	-8.91/-14.04	-15.52/-10.51	-8.32/-8.48	-6.55/-3.95	-3.82/-6.24	-7.49/-7.66	
Θ(157.5°)	-4.67/-6.2	-6.45/-6.54	-6.39/-6.66	-7.14/-7.55	-7.8/-8.42	-8.82/-8.87	-9.29/-10.12	-11.92/-14.83	-17.93/-19.43	-19.71/-16.22	-14.59/-14	-13.44/-15.77	-17.71/-17.82	-13.64/-13.71	-17.62/-19.56	-18.97/-17.83	-18.97/-18.71	-16.42/-13.86	-12.62/-11.04	-11.08/-10.65	-9.58/-7.68	-6.02/-5.53	-5/-4.07	-2.88/-2.69
Θ(165°)	-6.95/-7.41	-7.48/-7.54	-7.45/-7.34	-6.35/-5.41	-4.8/-7.72	-4.75/-5.21	-7.76/-9.13	-12.61/-14.82	-19.91/-16.44	-19.12/-19.03	-18.99/-18.95	-17.82/-18.75	-18.35/-14.61	-11.73/-10.05	-10.27/-13.26	-19.18/-18.84	-12.89/-10.06	-10.22/-12.32	-14.76/-16.15	-16.36/-16.56	-14.7/-12.93	-9.86/-7.71	-6.59/-6.29	
Θ(172.5°)	-15.59/-15.61	-15.21/-13.48	-12.05/-11.47	-10.38/-10.09	-9.84/-9.36	-8.79/-9.01	-9.45/-10.52	-11.39/-13.79	-17.27/-18.69	-18.14/-18.98	-17.45/-16.84	-17.2/-17.33	-18.12/-18.9	-18.89/-14.51	-15.88/-13.87	-14.42/-18.19	-18.69/-16.25	-15.65/-17.27	-18.19/-16.68	-17.16/-18.68	-17.18/-18.58	-18.74/-17.96	-16.53/-15.87	
Θ(180°)	-18.94/-17.74	-17.57/-16.66	-15.54/-16.84	-18.48/-18.52	-16.09/-13.06	-12.17/-12.08	-12.91/-15.2	-17.73/-18.91	-18.38/-19.25	-19.18/-18.56	-17.6/-19.36	-18.48/-17.75	-16.3/-16.41	-16.28/-16.83	-18.61/-17.7	-17.75/-18.95	-17.97/-18	-17.61/-17.41	-15.98/-15.08	-15.4/-16.11	-18.96/-18.33	-17.34/-18.38	-17.43/-18.32	-18.47/-17.52
Freq(Hz)	6.475GPol.	PhiAnt.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-12.79/-12.12	-12.32/-12.95	-13.53/-12.79	-12.15/-12.01	-12.31/-14.19	-16.26/-18.98	-17.38/-19.09	-18.18/-18.6	-16.59/-14.93	-13.29/-12.88	-12.96/-12.59	-11.55/-10.89	-10.97/-10.98	-10.51/-10.21	-10.07/-10.66	-12.03/-14.64	-16.61/-16.1	-15.12/-13.92	-13.6/-13.82	-14/-13.98	-14.08/-13.4	-13.91/-13.89	-13.65/-12.82	-12.08/-12.07
Θ(7.5°)	-8.9/-9.05	-10.02/-11.16	-11.63/-12.66	-14.37/-17.47	-17.72/-18.81	-18.52/-19.07	-18.53/-18.83	-17.09/-14.82	-14.32/-13.04	-12.19/-19.11	-11.85/-12.01	-11.39/-11.18	-11.99/-11.84	-11.98/-11.66	-11.24/-14.17	-11.46/-11.58	-11.16/-10.82	-10.81/-11	-11.55/-12.8	-13.91/-15.79	-16.73/-15.57	-13.85/-12.01	-10.75/-10.03	-9.28/-10.4
Θ(15°)	-6.83/-7.39	-8.66/-9.87	-10.4/-12.21	-14.58/-17.5	-19.27/-19.84	-18.96/-18.95	-18.58/-15.49	-13.41/-11.67	-9.88/-9.03	-7.91/-12	-7.25/-7.52	-7.75/-8.2	-8.19/-6.68	-10.68/-11.63	-12.46/-13.02	-13.05/-13.17	-12.34/-11.23	-10.57/-10.71	-10.88/-11.84	-13.51/-14.39	-16.01/-15.02	-12.99/-11.55	-9.67/-8.1	-7.68/-7.68
Θ(22.5°)	-6.67/-7.13	-7.67/-8.25	-9.65/-11.08	-13.84/-17.32	-17.29/-15.4	-12.95/-10.93	-9.17/-7.66	-6.14/-5.64	-5.22/-4.86	-4.16/-3.5	-3.83/-4.31	-5.03/-5.83	-6.64/-7.95	-10.24/-13.88	-17.83/-19.01	-18.39/-17.26	-14.75/-11.62	-10.17/-9.67	-10.11/-9.96	-9.87/-9.71	-11.91/-14.5	-14.08/-11.39	-9.06/-7.94	-7.1/-6.6
Θ(30°)	-5.79/-6.7	-7.16/-8.81	-10.43/-12.47	-13.94/-13.2	-9.75/-7.98	-6.74/-6.19	-5.6/-5.1	-6.47/-5.55	-5.81/-6.42	-6.5/-5.8	-4.86/-3.95	-3.24/-4.39	-4.66/-6.41	-7.99/-9.58	-10.97/-13.04	-15.23/-18.12	-18.32/-18.66	-14.04/-10.53	-8.63/-7.9	-8.36/-8.07	-7.99/-9.74	-11.29/-9.3	-7.77/-6.6	-5.73/-5.26
Θ(37.5°)	-5.39/-6.24	-7.2/-7.94	-9.49/-12.48	-17.45/-18.47	-15.61/-12.37	-8.93/-6.61	-5.59/-4.59	-5.07/-5.68	-8.27/-9.37	-3.75/-4.68	-6.98/-6.37	-10.24/-11.58	-13.7/-18.02	-18.77/-16.06	-12.82/-12.95	-13.71/-12.55	-9.96/-8.09	-6.81/-6.46	-7.49/-9.61	-11.81/-8.86	-6.38/-5.24	-4.88/-5.17		
Θ(45°)	-4.49/-4.59	-5.39/-6.32	-8.76/-12.01	-14.33/-15.29	-16.89/-13.59	-10.09/-7.3	-6.12/-5.13	-4.17/-4.14	-6.17/-9.37	-11.58/-8.1	-5.17/-3.51	-3.35/-4.08	-5.66/-6.13	-8.48/-11.54	-15.77/-15.44	-10.7/-10.93	-14.02/-12.31	-9.35/-8.7	-8.03/-9.46	-2.84/-2.86	-3.66/-6.71	-10.86/-9.46	-6.69/-5.16	-4.84/-6.43
Θ(52.5°)	-6.53/-8.78	-9.01/-10.04	-13.57/-17.51	-18.29/-17.57	-17.66/-17.7	-14.04/-11.35	-7.79/-5.47	-5.49/-6.34	-7.9/-5.55	-6.62/-6.36	-2.9/-2.76	-2.94/-5.87	-5.77/-8.42	-9.84/-13.85	-14.23/-12.79	-15.31/-11.59	-12.54/-16.27	-18.4/-11.98	-8.21/-8.52	-8.18/-7.53	-6.94/-6.92	-8.35/-7.74	-7.81/-6.55	-7.56/-8.03
Θ(60°)	-7.84/-8.74	-8.7/-12.54	-16.59/-17.44	-17.98/-18.42	-17.91/-17.31	-13.5/-9.39	-6.71/-4.7	-3.74/-5.11	-7.89/-12.03	-9.89/-6.51	-4.32/-5.67	-6.8/-8.53	-10.07/-13.62	-17.13/-17.21	-18.09/-18.39	-14.8/-17.71	-18.65/-13.38	-9/-7.8	-7.54/-7.49	-7.47/-7.26	-7.46/-7.88	-7.37/-8.22	-8.85/-10.04	
Θ(67.5°)	-8.99/-8.03	-9.14/-10.65	-13.26/-14.93	-17.64/-19.22	-18.85/-18.46	-12.97/-10.83	-8.12/-6.68	-8.65/-7.94	-6.65/-8.08	-15.55/-15.39	-9.61/-7.96	-7.98/-10.16	-11.15/-16.79	-17.76/-18.76	-17.64/-11.8	-11.04/-8.5	-10.7/-16.8	-18.75/-10.26	-7.67/-6.15	-5.32/-4.25	-5.93/-7.8	-7.83/-5.16	-5.41/-7.27	-4.82/-8.3
Θ(75°)	-12.16/-11.6	-10.52/-11.49	-13.58/-15.41	-17.42/-17.48	-18.96/-18.05	-18.19/-18.31	-14.14/-11.27	-12.61/-14.32	-15.17/-14.96	-16.55/-11.8	-7.41/-6.93	-7.96/-10.26	-13.53/-17.5	-17.86/-18.64	-15.08/-15.59	-12.2/-10.05	-10.15/-13.29	-15.48/-9.68	-6.57/-6.02	-5.9/-4.1	-3.78/-6.54	-7.66/-6.93	-6.52/-13.4	-15.32/-13.25
Θ(82.5°)	-14.33/-12.01	-8.91/-10.3	-12.42/-12.74	-18.07/-17.53	-18.84/-18.61	-19.02/-14.28	-13.26/-13.74	-18.67/-19.15	-18.4/-17.7	-15.22/-9.65	-6.7/-5.29	-5.77/-5.95	-8.44/-12.96	-13.81/-12.75	-10.97/-13.6	-13.9/-7.49	-6.49/-14.78	-17.95/-7.05	-7.29/-6.02	-5/-3.92	-4.28/-5.11	-8/-8.01	-7.45/-12.23	-17.89/-18.73
Θ(90°)	-18.55/-18.83	-17.12/-18.05	-17.26/-18.99	-17.78/-17.6	-18.5/-18.24	-16.56/-10.92	-9.29/-8.98	-9.94/-15.64	-14.31/-18.72	-19.02/-17.78	-12.74/-8.83	-9.23/-7.95	-15.55/-12.68	-17.92/-13.47	-17.15/-17.61	-14.85/-17.34	-16.58/-12.32	-13.59/-8.89	-17.21/-17.68	-16.29/-11.51	-17.84/-14.35	-10.19/-6.76	-4.88/-4.25	-4.66/-4.54
Θ(97.5°)	-8.72/-12.3	-18.39/-18.25	-17.98/-17.34	-17.73/-13.51	-17.48/-16.43	-18.32/-18.96	-19.22/-10.64	-10.34/-12.09	-10.24/-16.28	-13.34/-11.98	-12.12/-10.1	-10.99/-14.97	-14.87/-18.79	-18.76/-17.47	-11.61/-14.39	-14.24/-11.76	-12.49/-11.82	-15.72/-11.55	-15.94/-14.06	-18.76/-18.77	-11.44/-10.52	-10.02/-12.26	-9.38/-8.35	-8.56/-9.01
Θ(105°)	-5.45/-9.2	-17.86/-18.23	-17.36/-18.53	-18.07/-19.27	-18.07/-18.64	-18.91/-18.05	-10.4/-9.6	-4.38/-4.35	-5.08/-7.05	-8.14/-12.28	-13.99/-14.38	-12.57/-13.03	-11.11/-12.48	-15.41/-18.64	-18.92/-18.61	-16.23/-14.15	-12.63/-12.32	-11.24/-11.8	-12.45/-14.67	-18.63/-18.53	-16.18/-16.71	-12.71/-13.7	-8.9/-6.1	-5.9/-5.8
Θ(112.5°)	-4.31/-5.21	-8.82/-11	-19.12/-12.73	-18.66/-18.75	-16.01/-14.22	-18.47/-19.36	-13.71/-7.31	-6.1/-5.06	-4.36/-6.7	-11.08/-18.1	-19.29/-15.46	-18.96/-19.1	-15.55/-12.68	-17.92/-13.47	-17.15/-17.61	-14.85/-17.64	-16.58/-12.9	-13.59/-8.89	-17.21/-17.68	-16.29/-11.51	-17.84/-14.			



Radiated Composite Gain Data of 6GHz

Appendix A

Θ(120°)	-2.51/0.03	-0.99/0.45	0.03/0.44	0.54/1.09	0.77/1.22	-0.05/0.49	-0.47/-2.09	-3.65/-5.72	-6.69/-10.21	-18.93/-10.8	-12.44/-11.35	-8.29/-6.72	-7.56/-17.16	-9.69/-10.3	-15.32/-18.9	-12.29/-11.31	-13.31/-18.4	-9.68/-6.73	-9.38/-10.61	-3.77/-3.49	-7.11/-18.51	-6.89/-2.13	-5.54/-4.01	-3.43/-1.38
Θ(127.5°)	-1.1/-1.02	-2.04/-1.05	-1.65/-0.85	-0.37/0.32	-0.16/-0.21	-0.18/-1.84	-2.47/-2.51	-5.35/-8.32	-13.37/-17.84	-16.16/-13.28	-11.1/-8.86	-9.26/-10.19	-13.24/-9.79	-13.34/-16.56	-18.17/-3.98	-14.25/-9.04	-6.5/-12.95	-6.9/-3.5	-7.2/-12.56	-7.84/-7.15	-6.95/-7.65	-18.71/-10.71	-10.84/-3.13	-2.68/-0.77
Θ(135°)	-3.01/-2.47	-1.57/-1.43	-1.59/-2.07	-2.28/-1.95	-2.35/-3.56	-4.09/-3.91	-5.99/-8.58	-8.7/-10.57	-13.44/-14.89	-12.32/-13.76	-11.94/-12.71	-9.21/-7.27	-7.4/-9.52	-6.29/-8.63	-10.38/-18.13	-13.22/-17.97	-6.96/-14.86	-9.68/-3.43	-6.94/-12.05	-12.79/-19.14	-10.02/-15.94	-18.59/-12.49	-14.95/-8.88	-8.17/-5.42
Θ(142.5°)	-8.81/-6.25	-3.77/-3.34	-2.14/-2.07	-2.33/-2.55	-3.05/-3	-3.69/-5.1	-4.81/-4.32	-6.06/-10.19	-13.51/-9.61	-8.3/-8.78	-10.22/-14.7	-17.77/-18.68	-15.21/-17.7	-18.36/-18.91	-12.52/-13.71	-12.72/-9.1	-14.65/-15.79	-10.9/-14.8	-14.89/-10.7	-17.32/-17.91	-16.93/-19.11	-18.19/-16.71	-15.44/-14.47	-12.48/-9.88
Θ(150°)	-4.5/-3.74	-3.3/-3	-2.51/-1.75	-2.01/-2.55	-2.39/-2.07	-1.99/-2.11	-2.75/-3.79	-4.66/-5.25	-6.69/-9.71	-12.29/-16.27	-19.44/-18.36	-18.5/-19.05	-17.65/-13.78	-11.74/-11.59	-10.78/-11.61	-16.19/-18.21	-17.24/-19.03	-11.62/-9.53	-11.67/-9.5	-15.19/-18.25	-18.31/-16.28	-9.3/-7.97	-9.56/-7.28	-5.28/-4.98
Θ(157.5°)	-5.23/-5.19	-6.54/-6.69	-4.89/-3.72	-2.78/-1.93	-1.67/-1.71	-1.92/-2.28	-3.27/-4.65	-6.14/-6.78	-5.79/-5.22	-5.28/-5.75	-6.3/-6.59	-7.02/-7.82	-7.71/-7	-7/-6.63	-8.12/-13.55	-18.03/-18.12	-18.71/-17.82	-18.08/-17.09	-18.79/-17.67	-19.08/-18.43	-17.83/-17.92	-10.72/-6.36	-4.06/-2.25	-1.77/-2.98
Θ(165°)	-3.09/-3.5	-4.36/-5.64	-6.13/-5.52	-5.66/-5.61	-4.82/-4.39	-4.16/-4.28	-4.77/-5.23	-6.14/-7.98	-10.33/-12.13	-14.64/-17.79	-19.38/-18.99	-16.74/-14.4	-12.19/-10.74	-8.92/-7.58	-5.65/-3.98	-2.87/-3.79	-7.19/-13.69	-14.43/-11	-10.44/-11.94	-11.81/-10.93	-11.07/-11.21	-9.84/-6.99	-4.89/-3.93	-3.04/-2.63
Θ(172.5°)	-8.43/-9.1	-9.84/-10.44	-11.58/-10.63	-8.62/-7.38	-6.51/-6.52	-6.7/-6.51	-6.42/-6.81	-7.72/-8.34	-9.63/-11.06	-13.45/-17.23	-19.37/-18.88	-19.31/-16.64	-14.47/-12.38	-10.79/-10	-9.34/-9.67	-9.89/-11.35	-14.13/-17.91	-17.79/-18.27	-18.27/-15.01	-11.79/-10.4	-10.44/-10.62	-10.35/-9.28	-8.66/-7.93	-7.68/-7.7
Θ(180°)	-10.61/-10.11	-9.78/-9.58	-9.36/-8.69	-7.95/-8.79	-8.76/-8.32	-8.13/-8.39	-8.6/-9.14	-10.09/-11.58	-13.61/-16.18	-17.42/-16.5	-16.69/-14.55	-12.88/-11.25	-10.81/-10.35	-9.77/-9.93	-10.25/-10.64	-10.41/-9.58	-9.1/-8.94	-9.79/-11.73	-14.42/-18.25	-18.67/-18.26	-17.6/-17.58	-18.11/-15.48	-13.36/-12.21	-10.93/-10.1
Freq(Hz)	6.995GPol.	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.99/-8.95	-10.28/-11.62	-13.23/-13.63	-14.89/-14.74	-15.65/-16.4	-15.9/-13.45	-10.79/-9.49	-8.12/-6.99	-5.42/-4.46	-4.26/-4.4	-4.34/-4.49	-4.77/-5.64	-6.73/-8.25	-10.31/-13.18	-16.23/-18.79	-17.83/-18.46	-17.66/-14.39	-11.17/-9.71	-8.64/-7.73	-7.42/-6.68	-6.19/-6.2	-6.43/-6.55	-7.21/-8.43	-
Θ(7.5°)	-8.09/-9.26	-10.71/-12.64	-15.66/-18.8	-19.08/-18.72	-19.83/-14.6	-12.42/-10.43	-8.22/-6.66	-5.89/-5.42	-4.83/-4.75	-4.51/-5.05	-5.6/-6.21	-6.83/-7.44	-8.12/-9.18	-10.59/-11.69	-13.61/-13.49	-13.25/-12.31	-11/-9.93	-9.38/-8.77	-7.43/-7.15	-6.12/-5.74	-5.06/-4.96	-4.68/-4.84	-5.17/-5.53	-6.44/-7.37
Θ(15°)	-7.26/-7.98	-9.32/-10.85	-13.96/-18.89	-17.04/-15.33	-12.57/-11.03	-9.34/-7.9	-6.16/-5.1	-4.74/-5.08	-5.35/-5.69	-5.7/-6.3	-6.89/-7.39	-8.69/-9.09	-9.31/-10.19	-10.4/-11.87	-12.64/-13.43	-12.53/-12.63	-11.83/-10.9	-10.4/-9.57	-8.06/-6.51	-5.65/-4.73	-4.11/-3.69	-3.42/-3.92	-4.21/-4.86	-5.94/-7.09
Θ(22.5°)	-5.93/-6.43	-8.31/-11.45	-14.71/-18.05	-16.16/-13.7	-11.15/-8.09	-6.18/-4.7	-3.47/-2.92	-2.81/-3.25	-3.98/-4.96	-5.95/-6.87	-8.73/-11.84	-15.33/-17.8	-18.91/-17.77	-18.81/-15.52	-14.15/-13.39	-12.66/-13.05	-12.76/-11.86	-9.62/-8.14	-7/-6.35	-5.12/-4.57	-3.83/-3.19	-2.69/-2.48	-2.72/-3.15	-4.18/-4.79
Θ(30°)	-4.51/-4.83	-6.77/-7.38	-9.8/-13.36	-17.77/-16.95	-11.69/-9.25	-7.37/-5.77	-5.15/-4.64	-4.16/-3.81	-3.49/-3.8	-4.88/-6.37	-9.17/-12.9	-13.87/-11.97	-11.19/-12.19	-13.27/-15.01	-17.89/-16.16	-11.1/-10.21	-11.32/-11.7	-13.95/-13.02	-9.93/-7.31	-5.6/-4.72	-4.52/-3.95	-3.46/-3.41	-4.21/-5.03	-4.34/-4.71
Θ(37.5°)	-4.25/-5.47	-6.53/-8.83	-12.56/-15.67	-18.41/-17.85	-17.35/-12.24	-7.7/-5.94	-4.86/-3.6	-2.66/-2.32	-2.54/-2.56	-3.22/-3.82	-5.11/-4.08	-3.2/-3.17	-3.4/-4.38	-7.01/-11.61	-19.34/-18.29	-14.75/-11.83	-8.69/-8.2	-7.62/-6.95	-6.5/-6.59	-6.14/-5.03	-4.1/-3.55	-3.05/-3.51	-4.33/-4.55	-4.62/-5.08
Θ(45°)	-3.02/-3.48	-5.23/-6.89	-9.47/-12.75	-16.08/-16.83	-16.63/-12.37	-8.84/-7.01	-5.86/-4.52	-2.58/-2.01	-2.26/-2.79	-4.03/-4.48	-4.91/-5.45	-4.52/-3.47	-3.01/-3.13	-4.22/-6.84	-12.01/-19.4	-19.01/-10.61	-7.88/-8.1	-8.86/-6.6	-4.07/-2.02	-0.97/-0.89	-0.98/-1.76	-3.55/-5.05	-5.69/-4.94	-4.35/-3.38
Θ(52.5°)	-1.94/-2.74	-4.1/-6.5	9.37/-12.28	-15.55/-16.86	-14.92/-11.69	-7/-6.6	-5.16/-3.12	-2.14/-1.62	-1.78/-2.97	-5.51/-8.92	-7.56/-4.94	-3.4/-2.7	-2.82/-3.87	-6.05/-8.99	-16.96/-12.99	-10.69/-10.54	-9.21/-7.08	-5.09/-5.81	-4.54/-2.46	-1.21/-0.82	-1.02/-1.69	-2.48/-3.36	-4.4/-3.3	-2.5/-2.02
Θ(60°)	-2.02/-2.51	-4.25/-6.59	-18.31/-16.58	-15.3/-14	-17.77/-14.22	-19.41/-15.84	-14.5/-12.59	-12.17/-10.85	-11.71/-15.9	-17.69/-15.25	-12.56/-12.69	-12.9/-13.15	-14.86/-18.35	-14.67/-11.71	-10.53/-13.59	-13.28/-7.35	-12.68/-12.53	-5.93/-5.51	-3.57/-4.14	-3.33/-2.29	-4.41/-7	-10.39/-9.2	-8.79/-7.61	-8.36/-8.14
Θ(67.5°)	-4.29/-5.45	-7.32/-10.08	-13.57/-11.1	-12.96/-14.28	-19.09/-18.76	-12.06/-7.94	-4.07/-2.96	-1.94/-2.43	-3.51/-6.13	-13.79/-19.27	-10.47/-6.26	-4.56/-3.17	-4.92/-6.1	-11.04/-13.57	-19.03/-13.45	-17.66/-12.13	-11.63/-8.44	-5.99/-3.73	-2.89/-4.09	-3.25/-2.53	-3.24/-3.38	-4.59/-4.53	-5.65/-4.84	-3.93/-3.89
Θ(75°)	-5.61/-7.41	-9.78/-13.47	-17.68/-14.74	-13.12/-15.18	-16.64/-16.71	-10.58/-12.99	-12.34/-6.34	-3.03/-3.83	-4.93/-6.83	-10.24/-19.63	-17.65/-9.64	-7.21/-7.29	-7.79/-9.92	-12.33/-14.72	-17.37/-18.44	-18.86/-9.82	-11.14/-12.21	-7.35/-2.81	-2.24/-2.62	-1.96/-1.76	-3.12/-4.28	-6.96/-7.57	-8.61/-7.52	-5.28/-4.94
Θ(82.5°)	-12.95/-14.32	-13.96/-19.42	-18.91/-18.84	-15.3/-14	-17.77/-14.22	-19.41/-15.84	-14.5/-12.59	-12.17/-10.85	-11.71/-15.9	-17.69/-15.25	-12.56/-12.69	-12.9/-13.15	-14.86/-18.35	-14.67/-11.71	-10.53/-13.59	-13.28/-7.35	-12.68/-12.53	-5.93/-5.51	-3.57/-4.14	-3.33/-2.29	-4.41/-7	-10.39/-9.2	-8.79/-7.61	-8.36/-8.14
Θ(90°)	-16.48/-19.2	-18.08/-18.04	-18.53/-18.35	-13.62/-12.88	-13.53/-8.1	-17.98/-12.96	-12.15/-9.83	-15.02/-15.23	-15.71/-13.17	-11.3/-14.73	-18.46/-19.45	-14.06/-12.77	-13.76/-18.41	-19.22/-12.23	-9.83/-15.13	-19.03/-9.66	-8.54/-18	-7.43/-2.7	-5.73/-5.84	-6.28/-5.78	-8.16/-10.94	-18.9/-11.29	-13.4/-18.83	-18.18/-18.77
Θ(97.5°)	-12.84/-12.3	-13.09/-18.63	-18.45/-17.19	-17.98/-15.34	-14.81/-12.48	-17.58/-9.24	-7.11/-5.68	-6.49/-8.09	-8.37/-8.28	-11.16/-11.05	-14.51/-15.55	-15.85/-13.27	-18.38/-18.54	-14.33/-13.92	-13.29/-18.9	-14.64/-15.6	-14.18/-19.23	-17.01/-10.58	-9.33/-13.45	-14.32/-17.98	-11.98/-10.24	-11.85/-13.11	-12.1/-8.36	-10.73/-9.82
Θ(105°)	-9.28/-9.38	-8.06/-9.74	-9.78/-10.89	-18.48/-15.41	-16.8/-14.54	-17.35/-9.59	-7.77/-5.43	-5.19/-2.47	-2.01/-2.47	-5.89/-9.34	-11.69/-17.81	-19.1/-18.96	-18.79/-13.78	-12.32/-12.17	-11.57/-15.27	-18.8/-18.11	-15.34/-11.46	-17.3/-18.46	-10.19/-12.42	-17.44/-11.52	-11.84/-9.67	-5.13/-7.8	-6.21/-6.84	-8.25/-8.06
Θ(112.5°)	-5.49/-6.98	-6.8/-8.06	-9.43/-10.05	-19.17/-14.33	-18.77/-13.62	-19.37/-18.62	-18.14/-11.32	-4.9/-2.54	-3.19/-4.88	-6.64/-7.33	-10.82/-14.52	-13.76/-12.32	-8.95/-7.92	-9.2/-14.86	-17.64/-18.36	-14.3/-15.17	-15.57/-16.03	-12.9/-12.24	-7.91/-7.78	-4.51/-4.83	-5.4/-8	-3.09/-2.45	-3.42/-5.94	-
Θ(120°)	-3.13/-5.25	-8.3/-8.13	-8.16/-10.49	-8.49/-17.41	-12.39/-18.58	-12.76/-15.26	-18.1/-16.33	-8.43/-5.7	-5.21/-4.21	-5.55/-5.1	-7.14/-6.58	-7.01/-9.44	-11.91/-10.29	-10.48/-7.3	-15.56/-18.15	-15.84/-17.76	-8.83/-11.27	-10.83/-4.04	-7.14/-11.62	-2.47/-2.29	-3.74/-8.79	-5.11/0.43	1.34/0.49	1.17/-1.68
Θ(127.5°)	-1.19/-3.23	-3.41/-4.71	-6.02/-6.62	-9.49/-14.72	-19.07/-13.7	-14.3/-18.9	-16.22/-14.27	-8.22/-6.15	-4.07/-4.71	-5.34/-7.56	-12.26/-12.61	-18.95/-14.28	-16.51/-11.72	-14.11/-10.39	-14.82/-13.82	-18.91/-10.3	-18.6/-16.2	-7.96/-8.28	-11.46/-16.59	-9.68/-8.44	-7.35/-2.92	-5.75/-7.01	0.12/-0.25	0.65/-1.46
Θ(135°)	-7.53/-7.07	-5.5/-5.29	-4.64/-5.56	-8.45/-10.78	-16.33/-16.35	-9.58/-8.55	-10.79/-10.52	-7.1/-2.97	-2.33/-2.31	-4.08/-5.85	-8.28/-12.01	-17.68/-18.12	-17.49/-18.87	-11.26/-11.7	-17.18/-18.81	-9.77/-8.34	-13.52/-16.28	-10.14/-16.29	-18.09/-12.39	-13.04/-6.66	-7.53/-7.43	-3.62/-2.97	-4.2/-6.88	-8.53/-10.78
Θ(142.5°)	-3.92/-4.7	-6.54/-7.08	-8.87/-8.57	-10.59/-16.05	-18.34/-15.35	-18.62/-15.02	-15.26/-16.2	-11.48/-12.13	-11.91/-9.12	-6.55/-7.21	-8.6/-9.36	-12.36/-17.49	-18.49/-11.71	-8.02/-6.9	-8.52/-13.6	-18.87/-18.02	-14.59/-7.39	-6.76/-9.55	-6.78/-5.19	-6.54/-6.56	-13.74/-17.57	-17.24/-11.65	-7.4/-5.52	-
Θ(150°)	-9.49/-8.7	-10.27/-11.78	-15.91/-17.25	-16.38/-12.6	-9.52/-7.39	-6.11/-6.25	-8.54/-6.9	-8.58/-7.49	-7.81/-8.13	-8.68/-9.78	-9.51/-10.4	-9.87/-9.38	-8.8/-7.27	-9.04/-11.43	-14.07/-13.07	-12.15/-15.35	-14.14/-12.38	-12.65/-10.56	-9.78/-13.81	-18.73/-17.82	-18.32/-17.94	-12.09/-8.07	-6.14/-5.11	-5.03/-6.05
Θ(157.5°)	-13.17/-11.35	-12.81/-14.66	-12.98/-18.35	-17.27/-16.05	-13.44/-11.7	-10.28/-8.29	-6.76/-6.45	-7.14/-6.52	-5.35/-4.29	-4.21/-4.43	-5.17/-5.31	-6.04/-8.36	-8.28/-7.54	-8.86/-9.6	-14.97/-16.85	-13.53/-13.18	-9.7/-7.33	-7.35/-9.6	-13.96/-16.09	-13.2/-8.11	-5.29/-3.14	-2.32/-3.07	-4.79/-5.31	-6.36/-9.32
Θ(165°)	-8.72/-9.94	-12.26/-15.97	-18.15/-18.46	-18.58/-18.11	-12.76/-8.84	-6.9/-5.75	-6.04/-4.31	-3.85/-3.64	-3.42/-3.34	-4.81/-5.66	-6.05/-6.76	-8.43/-12.27	-17.81/-17.83	-18.74/-17.89	-13.07/-11.2	-9.95/-8.79	-8.71/-10.46	-14.46/-16.15	-					



Antenna Patternof 6GHz

Appendix B

Total Gain Data

Freq(Hz)	6.175GPol.	TotalAnt. 1	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-6.13-6.37	-6.49-6.65	-6.14-6.11	-6.65-6.47	-6.57-6.77	-7.39-6.08	-8.28-8.35	-8.09-7.37	-7.08-6.64	-5.85-6.09	-5.72-5.82	-5.91-6.16	-6.17-6.16	-6.29-6.38	-6.45-5.94	-6.34-6.42	-6.78-7.03	-7.48-8.41	-8.06-8.35	-7.78-7.43	-7.39-7.07	-7.04-7.17	-7.18-7.13	-6.98-7.05
Θ(7.5°)	-4.56-4.35	-4.15-3.93	-3.97-3.58	-3.72-3.93	-4.05-4.32	-5.11-6.08	-6.66-7.69	-8.59-8.87	-9.77-7.96	-8.23-8.78	-8.87-8.87	-7.36-7.76	-7.43-7.74	-6.94-7.35	-6.36-7.63	-7.53-7.22	-7.22-7.45	-7.24-6.82	-6.16-5.98	-5.52-4.98	-4.96-5.16	-5.60-5.66	-5.47-5.55	
Θ(15°)	-4.47-5.34	-5.32-5.18	-4.69-4.17	-4.26-4.16	-4.72-4.87	-5.02-6.05	-6.47-7.70	-8.59-9.50	-10.82-11.45	-10.82-10.90	-10.46-10.66	-10.86-9.85	-9.35-9.22	-9.39-10.22	-10.55-10.97	-11.19-10.98	-10.82-9.58	-9.39-7.75	-7.22-6.15	-6.20-6.35	-6.34-6.55	-6.28-5.87	-5.43-5.06	-4.55-4.34
Θ(22.5°)	-5.64-6.24	-6.68-6.53	-6.65-6.67	-6.29-6.31	-7.79-8.38	-8.18-8.51	-7.97-7.59	-7.54-8.44	-9.44-9.42	-8.96-8.10	-7.52-6.44	-5.14-4.51	-4.42-4.75	-5.42-6.91	-8.57-10.52	-11.04-10.63	-9.57-8.85	-7.71-6.84	-6.34-6.19	-6.29-6.56	-7.10-7.05	-6.83-6.34	-6.09-5.47	-5.19-5.63
Θ(30°)	-5.19-7.81	-9.93-8.91	-7.30-5.43	-4.65-4.60	-5.51-6.08	-6.00-6.26	-6.39-6.39	-6.16-6.00	-6.38-6.92	-7.64-8.41	-8.25-8.12	-6.90-5.59	-4.32-4.23	-4.67-5.66	-9.45-9.98	-8.97-7.01	-5.21-4.52	-4.59-5.27	-5.60-5.31	-4.78-4.35	-3.81-3.80	-4.42-4.34	-4.01-4.54	
Θ(37.5°)	-0.73-1.44	-2.99-3.85	-3.44-3.31	-4.99-6.69	-7.93-8.44	-7.48-6.53	-5.15-4.62	-4.54-5.30	-6.25-7.19	-9.05-11.83	-14.33-13.57	-11.43-7.81	-6.18-5.97	-5.33-5.37	-6.08-7.34	-8.12-6.58	-3.91-2.79	-2.50-2.98	-3.26-4.11	-3.83-3.96	-3.79-2.91	-2.46-2.16	-2.66-2.18	-1.51-1.51
Θ(45°)	-0.09-0.64	-2.94-4.01	-3.90-3.40	-5.36-6.83	-6.99-7.03	-4.74-3.54	-3.06-3.42	-3.96-4.50	-5.13-6.07	-8.29-10.35	-11.45-11.49	-11.47-9.47	-7.40-6.43	-4.79-3.02	-2.67-3.84	-5.76-6.36	-4.67-3.42	-2.63-2.26	-2.78-3.31	-2.70-2.21	-2.09-0.93	0.350-9.0	1.01-1.42	0.79-0.77
Θ(52.5°)	-0.56-1.53	-3.88-3.93	-2.49-2.60	-4.10-4.31	-3.94-2.48	-1.48-1.77	-2.85-4.84	-7.23-8.84	-8.35-6.98	-7.06-7.98	-8.25-7.62	-7.60-8.21	-8.54-7.28	-6.03-2.99	-2.27-4.17	-4.69-4.80	-5.15-3.65	-3.55-5.05	-4.29-3.86	-3.80-1.96	-1.70-1.22	0.880-7.0	0.431-1.8	0.32-0.98
Θ(60°)	-1.41-1.93	-3.26-3.73	-3.15-3.20	-3.01-2.23	-4.38-4.91	-0.05-0.28	-1.84-4.68	-8.28-10.38	-8.88-8.78	-8.73-7.21	-8.30-9.28	-9.48-8.51	-7.34-6.73	-6.11-4.19	-2.98-5.10	-3.66-4.11	-5.17-4.64	-3.93-4.01	-4.54-3.80	-2.57-0.93	-0.67-1.41	0.350-2.1	0.060-7.1	0.02-0.74
Θ(67.5°)	-0.64-0.98	-2.49-2.78	-3.44-2.63	-1.19-0.94	-1.00-0.89	-1.34-2.27	-4.89-8.55	-9.91-9.66	-7.91-8.17	-8.74-8.92	-7.53-8.49	-5.90-6.72	-7.23-4.47	-4.90-2.73	-1.76-4.34	-1.12-2.81	-3.12-2.04	-1.62-1.14	-0.45-0.35	-1.56-0.95	-0.80-0.36	-1.63-1.92	-1.29-0.63	0.70-0.06
Θ(75°)	-1.26-0.51	-2.08-0.99	-1.51-0.69	-0.19-0.20	-1.30-1.12	-0.74-1.75	-4.02-5.89	-7.90-10.47	-11.74-11.42	-11.77-12.07	-9.66-11.04	-7.89-6.65	-5.86-2.74	-2.79-2.53	-3.96-2.36	0.19-1.29	-1.36-1.52	-0.39-0.07	0.851-6.8	0.750-32	1.13-1.38	-1.44-0.71	-1.061-1.8	1.82-0.19
Θ(82.5°)	-2.40-0.12	-2.33-0.69	-0.98-0.03	0.93-0.25	-0.87-0.11	0.24-1.24	-2.61-3.40	-5.65-11.12	-15.48-13.46	-12.21-9.46	-10.29-10.09	-7.77-4.60	-5.07-0.33	-4.12-2.48	-1.38-0.79	2.471-3.0	1.180-4.0	2.481-9.7	1.822-17	3.942-59	1.820-39	-0.49-1.31	1.22-0.61	
Θ(90°)	-2.44-0.13	-1.72-0.50	-1.06-0.26	-0.20-0.46	-1.66-0.10	1.11-0.21	-2.10-3.49	-4.48-5.67	-13.09-11.03	-14.08-12.89	-9.52-8.87	-12.90-6.36	-8.41-0.18	-0.38-4.82	-1.56-0.16	1.591-4.2	0.74-0.53	0.710-8.9	1.730-42	1.152-55	2.622-10	1.60-0.31	-1.62-0.61	1.82-0.09
Θ(97.5°)	-2.66-0.58	-2.53-2.98	-2.16-0.99	-1.31-3.27	-6.52-3.39	-1.04-3.40	-5.48-2.86	-4.18-2.64	-11.21-10.66	-15.52-11.21	-7.68-4.66	-4.40-5.12	-5.48-0.42	0.01-1.42	-3.57-2.53	0.021-9.1	-0.63-1.10	1.41-0.78	0.811-86	-1.401-90	0.200-54	-0.01-0.80	-0.770-91	1.530-96
Θ(105°)	-2.56-2.85	-2.37-2.04	-0.64-0.78	-0.74-2.04	-4.53-2.79	-1.00-2.16	-2.82-2.26	-4.18-9.68	-11.77-8.66	-8.36-3.71	-11.73-7.89	-4.29-5.37	-6.05-1.26	-0.08-3.59	-4.43-1.79	-0.97-0.57	-4.18-3.07	-1.34-2.68	-2.32-3.26	-7.20-2.17	-1.32-0.44	-1.29-2.51	-1.131-55	0.60-1.30
Θ(112.5°)	-3.45-2.08	-2.11-2.96	-1.72-0.23	-2.06-2.99	-4.83-6.36	-4.84-7.12	-9.31-6.51	-7.06-7.55	-8.45-8.85	-7.92-13.80	-9.99-5.35	-3.91-6.96	-8.84-3.08	-2.56-10.65	-8.31-5.55	-3.56-1.49	-3.50-5.18	-2.59-0.76	-2.79-2.02	-4.84-3.35	-2.52-2.62	-4.15-6.05	-4.22-2.85	-1.05-1.21
Θ(120°)	-1.16-0.28	-3.05-4.01	-2.39-3.73	-4.72-7.36	-8.39-9.14	-10.00-7.20	-6.16-4.78	-5.32-7.88	-15.03-12.89	-9.97-11.59	-10.28-4.46	-2.79-3.07	-4.68-1.82	0.71-1.56	-5.34-2.53	-0.75-0.96	-1.15-5.22	-3.021-7.3	-2.55-4.08	-3.66-3.56	-1.25-2.22	-4.79-11.00	-3.51-0.51	0.04-1.64
Θ(127.5°)	-1.91-3.60	-4.30-3.09	-4.78-3.53	-4.62-4.83	-4.38-4.68	-4.67-5.38	-6.29-8.10	-8.93-11.87	-8.26-8.61	-5.18-4.24	-5.13-7.06	-6.83-0.93	-8.29-0.51	-5.14-5.85	-1.05-1.41	-4.01-5.32	-2.79-7.69	-8.210-57	-4.47-7.24	-5.66-5.14	-1.05-3.51	-8.18-9.27	-3.290-15	-0.21-2.24
Θ(135°)	-3.93-3.34	-4.59-3.79	-5.43-5.78	-4.57-6.07	-6.07-5.54	-6.63-7.14	-6.43-6.08	-7.28-11.90	-13.16-11.79	-9.69-9.42	-13.43-15.39	-11.67-11.45	-12.53-9.40	-4.16-11.03	-6.55-3.23	-9.68-2.09	-4.98-10.74	-4.232-28	-3.481-70	-3.08-4.31	-3.200-05	-8.54-5.22	-7.28-2.12	-2.65-6.36
Θ(142.5°)	-1.83-8.81	-7.54-8.79	-7.58-5.16	-3.31-4.31	-6.09-7.88	-9.62-9.51	-8.12-6.40	-5.82-6.27	-6.91-8.40	-12.72-10.29	-5.06-3.22	-4.87-5.62	-7.06-6.55	-6.50-9.01	-7.05-0.73	-5.36-2.12	-2.49-0.35	-5.86-1.07	-12.19-8.33	-9.44-8.41	-9.87-1.48	-8.32-7.95	-10.40-9.45	
Θ(150°)	-5.64-7.51	-6.44-6.14	-8.03-10.54	-11.58-11.19	-10.50-10.30	-12.41-13.07	-9.16-7.10	-5.64-5.29	-6.33-8.51	-5.28-3.80	-2.90-3.09	-4.18-5.30	-5.28-4.41	-5.24-6.82	-8.05-8.90	-9.01-6.48	-4.01-3.24	-5.58-8.82	-5.90-5.33	-5.40-5.42	-6.63-5.73	-4.79-4.37		
Θ(157.5°)	-0.87-1.75	-2.64-2.34	-1.64-2.71	-5.48-9.04	-12.19-14.17	-11.08-8.75	-6.58-5.84	-5.26-5.34	-6.10-7.18	-8.42-7.41	-7.22-7.64	-6.58-5.81	-5.24-4.59	-4.37-4.76	-6.12-9.10	-11.00-8.39	-5.46-3.78	-3.37-4.45	-6.65-8.21	-9.59-11.13	-8.75-7.69	-7.72-6.75	-4.24-2.57	-1.72-0.96
Θ(165°)	1.140-0.4	0.06-0.18	-1.20-3.46	-6.52-9.80	-13.14-13.76	-13.02-11.23	-9.58-8.68	-8.85-9.38	-9.90-12.84	-10.79-11.66	-9.71-9.11	-11.20-14.13	-13.02-9.80	-7.88-6.41	-5.87-5.78	-5.02-3.72	-2.53-1.57	-1.38-1.96	-3.37-5.1	-6.58-6.86	-5.92-9.46	-4.05-2.97	-1.21-0.37	0.96-0.96
Θ(172.5°)	-5.50-5.82	-6.54-7.95	-10.07-10.21	-10.82-11.36	-11.81-12.68	-13.33-14.17	-15.05-15.29	-14.83-14.62	-15.00-12.84	-12.98-10.56	-9.88-8.88	-7.86-6.71	-5.81-5.10	-4.54-3.89	-3.64-3.25	-2.98-2.76	-2.62-2.56	-2.62-2.82	-3.25-3.69	-4.32-4.72	-5.26-5.58	-5.51-5.37	-5.32-4.96	-4.51-5.72
Θ(180°)	-12.67-12.07	-12.59-13.29	-14.68-13.02	-11.30-10.56	-10.63-10.70	-10.29-9.37	-9.48-9.91	-9.91-10.80	-11.13-11.80	-11.78-11.54	-12.09-11.80	-11.53-10.69	-9.75-8.75	-7.53-6.93	-6.60-6.56	-6.48-6.80	-7.15-7.45	-7.40-7.58	-7.53-7.73	-8.19-9.42	-10.53-11.18	-10.86-10.53	-11.73-11.43	-12.38-13.21
Freq(Hz)	6.475GPol.	TotalAnt. 1	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-14.88-13.94	-13.20-14.94	-15.67-15.62	-15.27-15.33	-15.28-14.31	-14.03-13.51	-14.03-14.92	-14.56-14.48	-14.92-15.91	-15.97-16.17	-14.90-15.40	-15.62-15.12	-14.59-15.02	-14.74-14.91	-14.43-14.05	-14.97-15.34	-15.46-15.18	-15.53-14.63	-14.25-13.39	-13.04-13.89	-14.34-15.27	-15.16-15.47	-15.41-15.79	-15.96-14.94
Θ(7.5°)	-14.46-14.43	-15.73-15.68	-14.92-14.61	-15.23-15.16	-15.10-14.96	-14.09-13.61	-14.38-14.03	-14.01-13.96	-15.46-15.62	-14.94-15.67	-14.87-15.68	-15.63-15.40	-14.48-13.88	-12.91-12.55	-11.60-11.63	-12.51-12.57	-13.35-13.60	-12.53-12.61	-11.83-11.69	-11.64-11.63	-11.43-12.67	-13.88-15.55	-15.66-14.69	-15.73-16.05
Θ(15°)	-12.00-12.07	-11.22-10.69	-10.13-10.36	-10.59-9.08	-8.65-9.63	-10.80-11.48	-11.41-11.13	-11.73-12.54	-15.13-15.44	-15.13-15.44	-15.08-14.61	-15.15-14.37	-12.43-10.52	-9.06-8.32	-7.32-7.00	-7.77-7.07	-6.83-6.87	-6.24-6.03	-6.20-5.88	-6.19-6.12	-6.59-7.63	-8.81-10.24	-12.23-12.38	
Θ(22.5°)	-6.04-5.96	-7.08-7.24	-7.69-7.03	-7.03-6.93	-7.24-8.83	-9.24-8.67	-8.72-9.37	-9.23-9.16	-9.91-11.37	-11.54-11.02	-12.25-13.91	-15.01-14.16	-12.10-11.74	-11.75-12.41	-12.73-12.72	-11.21-9.68	-8.39-6.97	-6.27-5.37	-5.33-5.12	-5.19-5.23	-4.57-4.00	-4.19-4.62	-5.35-5.62	-6.20-6.85
Θ(30°)	-4.64-8.45	-4.58-3.63	-3.17-1.14	-4.64-6.62	-7.67-11.08	-11.68-11.32	-10.72-9.36	-8.61-8.73	-9.81-11.95	-11.89-10.87	-9.18-9.36	-9.27-8.10	-7.14-7.38	-8.94-11.55	-12.63-11.31	-9.32-7.71	-6.84-6.23	-5.47-4.42	-3.44-2.50	-1.97-2.06	-2.53-3.67	-5.03-6.70	-7.30-6.13	-5.44-6.43
Θ(37.5°)	-1.31-1.77	-2.46-2.79	-3.40-4.87	-5.59-5.37	-5.49-7.94	-9.15-9.04	-7.79-6.04	-7.90-7.60	-9.99-11.98	-11.94-9.91	-7.94-6.89	-6.41-5.38	-5.12-5.7											



Antenna Patternof 6GHz

Appendix B

Θ(15°)	-8.61/-8.79	-8.63/-8.22	-7.79/-7.69	-7.29/-7.20	-6.54/-6.35	-5.73/-5.74	-5.99/-5.80	-5.82/-5.75	-6.06/-6.14	-6.21/-5.97	-5.42/-5.35	-5.20/-4.90	-4.77/-4.49	-4.21/-3.99	-4.07/-4.25	-4.54/-4.36	-4.23/-4.04	-4.37/-4.25	-4.67/-4.93	-5.98/-6.06	-6.87/-7.30	-8.04/-8.78	-9.60/-11.14	-10.24/-8.90
Θ(22.5°)	-8.73/-8.67	-7.94/-7.18	-6.33/-6.68	-6.28/-7.56	-7.21/-8.02	-8.39/-8.48	-7.45/-6.77	-6.30/-6.12	-6.77/-7.15	-6.57/-5.83	-5.13/-4.71	-4.43/-3.79	-3.24/-3.06	-2.62/-2.99	-2.39/-2.91	-3.28/-3.06	-2.99/-3.20	-3.97/-4.65	-4.96/-5.08	-5.71/-6.50	-7.63/-9.02	-10.50/-12.57	-11.06/-10.89	-9.96/-8.76
Θ(35°)	-9.41/-8.03	-7.68/-5.08	-6.80/-7.08	-8.69/-10.06	-10.18/-10.03	-9.45/-8.89	-8.09/-7.48	-6.39/-6.01	-5.89/-6.11	-5.94/-5.48	-4.62/-4.11	-3.21/-2.74	-2.52/-2.02	-1.87/-0.98	-0.86/-1.79	-2.24/-1.94	-1.78/-2.35	-2.93/-2.80	-2.97/-3.48	-4.77/-6.43	-9.13/-11.00	-10.34/-9.50	-8.32/-8.03	-7.99/-6.06
Θ(37.5°)	-12.55/-11.76	-9.53/-8.31	-8.53/-9.21	-9.96/-10.24	-12.57/-13.61	-12.64/-11.49	-10.04/-8.92	-7.31/-6.58	-6.25/-5.90	-5.50/-4.62	-3.47/-2.25	-1.62/-1.29	-1.06/-1.05	-0.82/-0.71	0.07/0.62	0.24/-0.40	-1.16/-1.05	-0.99/-1.30	-2.37/-2.68	-3.78/-4.90	-5.42/-5.89	-7.16/-8.98	-10.84/-11.32	-10.96/-10.86
Θ(45°)	-9.00/-12.44	-14.21/-11.34	-11.92/-12.91	-14.76/-15.15	-15.91/-15.73	-14.07/-11.47	-10.00/-8.81	-7.46/-6.72	-6.22/-5.88	-5.23/-4.41	-3.44/-3.29	-1.47/-1.29	-1.57/-1.07	-0.29/-0.04	0.52/0.63	0.33/0.21	0.06/-0.65	-2.40/-2.98	-3.21/-3.91	-3.86/-4.76	-5.52/-5.39	-4.82/-5.22	-8.72/-11.60	-10.47/-8.83
Θ(52.5°)	-7.34/-9.43	-13.00/-10.92	-10.95/-10.08	-9.79/-10.02	-12.03/-13.57	-13.55/-11.45	-8.90/-7.66	-6.26/-7.07	-5.12/-3.63	-3.32/-3.78	-3.22/-1.55	-1.26/-1.26	-0.64/-0.47	-0.38/-0.75	1.45/1.30	0.29/-0.77	-0.58/-2.06	-2.89/-3.70	-3.70/-2.80	-4.56/-6.24	-6.03/-4.33	-3.32/-2.99	-5.62/-9.87	-10.52/-9.56
Θ(60°)	-7.93/-5.14	-7.51/-7.49	-8.84/-8.49	-9.10/-10.52	-11.37/-12.29	-9.80/-8.72	-6.23/-5.05	-5.23/-5.55	-4.51/-2.78	-1.83/-2.74	-2.84/-2.75	-2.93/-2.07	-1.59/-1.71	-0.80/-0.97	0.73/0.24	-0.56/-1.00	-1.09/-2.94	-3.77/-3.13	-2.77/-3.40	-6.04/-8.02	-6.05/-5.78	-4.90/-4.73	-6.19/-6.66	-7.58/-9.30
Θ(67.5°)	-2.55/-4.55	-7.34/-8.14	-6.48/-6.83	-5.96/-8.19	-9.75/-9.58	-9.35/-10.43	-7.26/-5.08	-4.82/-4.82	-4.00/-1.80	-0.81/-2.61	-3.27/-2.17	-2.20/-1.76	-1.56/-0.89	-0.40/-0.44	0.89/0.49	0.21/0.25	-0.26/-1.82	-1.05/-3.19	-3.26/-3.47	-5.31/-6.12	-5.42/-5.09	-5.17/-3.61	-5.38/-5.99	-2.61/-3.15
Θ(75°)	-1.84/-4.23	-5.11/-4.92	-5.12/-5.87	-6.27/-7.87	-8.88/-7.08	-7.31/-6.36	-5.33/-2.60	-2.06/-3.08	-3.80/-1.51	-0.26/-1.50	-2.12/-1.13	0.16/-0.69	-1.61/-1.98	-0.95/0.35	0.27/-0.61	-0.32/0.32	-0.59/-1.04	-0.84/-2.62	-2.32/-2.82	-2.77/-4.00	-3.42/-1.77	-2.30/-2.48	-3.22/-3.50	-0.49/-1.70
Θ(82.5°)	-2.68/-6.27	-6.46/-5.42	-6.91/-8.13	-9.05/-10.10	-10.60/-7.53	-5.93/-5.30	-4.89/-1.28	0.47/-1.16	-3.14/-1.02	-0.44/-1.10	-1.02/0.63	0.96/-0.77	-1.54/-0.93	-1.10/-0.10	-1.58/-3.55	-2.46/-0.92	-0.32/-1.72	0.54/-1.25	-0.78/-0.49	0.39/-2.51	-2.17/0.88	0.03/-1.72	-2.28/-3.81	-0.89/-3.38
Θ(90°)	-4.98/-7.28	-7.87/-6.79	-8.46/-7.88	-8.64/-9.42	-11.78/-9.07	-3.78/-2.84	-4.17/-2.86	0.15/-0.59	-4.41/-2.32	-0.54/-0.34	-2.08/0.03	-0.14/-0.14	-0.69/-2.52	1.05/0.38	-0.81/-3.27	-1.29/0.94	2.58/3.65	1.62/-0.81	-0.08/-1.11	0.45/-2.25	-1.32/0.63	1.26/-1.84	-1.80/-2.28	-1.17/-1.93
Θ(97.5°)	-9.59/-11.72	-5.49/-10.20	-13.05/-8.68	-7.37/-8.86	-15.51/-7.84	-4.26/-3.51	-5.62/-2.65	0.13/-2.34	-5.91/-2.43	-1.26/-1.18	-2.72/0.87	-1.18/-1.99	-0.46/-3.93	1.91/0.96	-1.22/-4.11	-2.90/-1.09	2.95/2.00	2.58/0.14	1.40/0.34	-0.51/-2.98	-0.88/0.44	0.17/-1.53	-2.67/-2.63	-1.40/-2.15
Θ(105°)	-7.51/-10.31	-3.92/-8.98	-9.60/-10.24	-9.61/-9.59	-11.63/-5.69	-4.21/-4.60	-8.87/-2.87	0.09/-1.57	-4.53/-3.60	-1.63/-1.59	-2.38/0.60	-1.31/-1.77	-2.53/-0.53	1.74/-1.16	1.18/-1.55	-2.81/-1.35	0.88/-1.15	0.92/-2.07	0.09/-0.39	-1.08/-4.08	-2.22/-1.53	-2.16/-4.22	-4.04/-5.06	-3.10/-2.92
Θ(112.5°)	-10.03/-7.26	-4.93/-9.34	-10.76/-11.97	-9.84/-9.10	-8.37/-5.29	-4.73/-7.48	-11.07/-5.69	-4.20/-5.65	-2.92/-1.25	-0.52/-1.57	-1.10/-0.13	-1.29/-0.31	-1.43/-1.26	0.50/-1.26	1.85/2.21	-3.58/-1.29	1.85/2.21	-1.57/-9.15	-4.33/-3.15	-6.61/-5.27	-8.11/-5.29	-8.11/-5.29	-2.82/-3.51	
Θ(120°)	-5.42/-8.81	-5.91/-6.07	-7.56/-11.97	-8.86/-8.36	-10.20/-7.37	-6.19/-6.75	-9.70/-7.96	-7.59/-6.04	-5.69/-3.30	-1.13/-2.07	-1.36/-2.08	-0.18/-0.89	-1.37/-0.41	-0.78/-1.60	0.37/-4.23	-3.50/-0.72	1.80/3.35	0.11/-2.27	-2.96/0.48	1.11/-10.62	-7.46/-2.07	-8.57/-10.40	-5.33/-7.18	-4.64/-4.41
Θ(127.5°)	-9.50/-10.65	-6.31/-8.83	-13.01/-15.22	-10.76/-9.10	-10.16/-9.61	-7.53/-11.58	-11.53/-7.48	-4.96/-5.89	-6.55/-3.92	-3.68/-1.68	-1.93/-0.50	1.50/-0.84	1.12/0.15	-1.02/3.08	1.17/-3.35	-13.42/-3.29	-0.822.46	-0.69/-1.67	-5.47/-1.06	0.23/-9.22	-13.12/-3.55	-8.53/-9.63	-9.70/-8.76	-7.85/-4.58
Θ(135°)	-7.17/-11.88	-8.38/-6.99	-9.82/-13.33	-9.69/-8.20	-6.22/-8.17	-11.33/-11.01	-8.27/-7.16	-8.26/-8.35	-7.41/-6.65	-3.42/-3.57	-0.60/-1.17	-2.20/-0.45	-0.54/-1.21	0.81/-1.51	-0.72/-1.05	-6.78/-7.57	-1.17/-0.74	-1.55/-3.19	-2.91/-0.45	0.13/-8.58	-11.42/-4.53	-1.35/-4.71	-11.66/-6.68	-10.12/-7.70
Θ(142.5°)	-13.26/-12.47	-13.03/-12.10	-9.93/-11.58	-12.78/-11.77	-11.60/-9.85	-11.66/-11.75	-7.51/-6.10	-7.35/-10.88	-12.10/-7.77	-5.76/-5.83	-3.22/-3.04	-5.12/-3.86	2.80/-1.49	-3.41/-1.74	-3.20/-7.97	-10.96/-4.71	-2.72/-3.60	-4.58/-1.77	-0.39/-0.63	0.36/-3.30	-9.55/-6.43	-2.34/-14.64	-15.42/-11.20	-11.37/-15.58
Θ(150°)	-9.74/-15.30	-14.01/-15.54	-14.50/-10.07	-8.62/-8.02	-7.76/-7.21	-8.12/-9.07	-10.56/-13.40	-15.41/-15.37	-12.03/-10.32	-9.35/-7.81	-7.16/-7.07	-6.42/-6.50	-8.24/-7.02	-4.40/-4.27	-7.48/-10.21	-6.89/-6.43	-7.62/-5.58	-5.80/-7.15	4.41/-1.81	-1.53/-4.12	-7.13/-5.65	-5.74/-8.52	-9.05/-7.99	-7.31/-10.54
Θ(157.5°)	-6.79/-7.26	-8.95/-9.34	-9.49/-13.83	-15.36/-14.97	-11.75/-11.01	-10.38/-10.69	-9.89/-9.54	-9.84/-10.04	-10.01/-10.07	-6.48/-9.56	-10.11/-10.72	-11.31/-11.07	-8.78/-6.93	-6.78/-7.06	-7.54/-5.89	-5.88/-6.66	-7.34/-7.18	-7.48/-8.68	-8.19/-6.85	-5.99/-5.83	-6.05/-6.32	-6.91/-4.75	-7.14/-6.02	-5.01/-6.53
Θ(165°)	-10.30/-9.24	-9.59/-11.81	-13.69/-12.42	-12.00/-11.73	-11.58/-12.16	-13.14/-12.64	-12.31/-11.53	-9.85/-8.49	-6.72/-5.46	-5.03/-5.22	-5.49/-5.99	-5.64/-4.68	-4.04/-3.75	-3.86/-3.73	-4.04/-4.45	-5.10/-5.75	-6.38/-6.50	-6.68/-7.02	-6.53/-5.89	-5.59/-4.78	-3.95/-4.27	-5.82/-7.36	-8.29/-9.27	-8.99/-9.00
Θ(172.5°)	-12.34/-12.24	-12.33/-12.73	-13.98/-15.18	-15.33/-15.48	-15.12/-13.92	-12.67/-12.76	-12.50/-12.29	-11.43/-10.24	-9.16/-8.42	-7.71/-7.18	-6.69/-6.43	-6.06/-5.55	-4.71/-4.07	-3.88/-4.19	-4.73/-5.85	-6.30/-6.14	-5.67/-5.61	-6.24/-6.49	-7.38/-7.99	-8.39/-8.92	-9.06/-10.54	-12.19/-14.00	-13.15/-12.59	-12.40/-11.04
Θ(180°)	-15.23/-13.70	-12.22/-11.25	-10.56/-10.04	-9.76/-9.30	-9.28/-9.18	-8.72/-9.06	-9.37/-9.60	-9.44/-9.51	-9.97/-9.75	-10.24/-10.02	-10.56/-10.31	-10.39/-10.51	-10.46/-11.02	-11.65/-12.83	-12.71/-12.85	-11.82/-11.57	-11.74/-12.10	-13.04/-13.40	-13.88/-13.10	-12.29/-11.60	-11.13/-9.70	-9.34/-9.52	-10.68/-12.18	-13.63/-13.88
Freq(Hz)	6.475GPol.	TotalAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-5.62/-5.46	-5.19/-4.82	-5.14/-5.62	-6.28/-6.45	-6.10/-5.95	-5.44/-5.20	-5.32/-5.16	-5.59/-5.38	-5.38/-5.45	-5.75/-5.95	-6.25/-6.91	-7.16/-7.16	-7.30/-7.11	-6.83/-4.69	-6.10/-5.74	-5.84/-5.77	-5.57/-4.98	-4.80/-4.77	-4.51/-4.66	-4.49/-4.21	-4.58/-4.71	-4.39/-3.34	-2.87/-2.68	-3.64/-4.59
Θ(7.5°)	-8.29/-9.10	-8.34/-7.81	-6.72/-7.03	-8.10/-8.64	-8.62/-7.82	-7.34/-6.59	-6.01/-5.76	-5.67/-5.43	-5.12/-5.08	-4.78/-4.97	-4.68/-4.67	-4.92/-5.12	-5.22/-5.06	-4.71/-4.22	-4.41/-4.70	-4.99/-5.12	-4.86/-4.60	-4.41/-4.07	-3.60/-6.33	-3.51/-3.90	-4.81/-5.31	-6.05/-6.22	-5.81/-5.69	-6.48/-6.66
Θ(15°)	-14.20/-15.44	-14.04/-12.25	-10.45/-10.94	-12.14/-11.15	-10.45/-9.30	-8.64/-8.26	-7.51/-7.16	-6.38/-5.55	-4.66/-4.20	-3.76/-3.41	-2.62/-2.68	-2.60/-2.55	-3.62/-3.66	-3.62/-3.54	-3.73/-3.86	-3.83/-3.67	-3.59/-3.29	-2.80/-2.82	-3.04/-3.49	-4.05/-4.88	-5.24/-5.50	-5.34/-6.89	-9.89/-11.99	
Θ(22.5°)	-10.40/-10.91	-9.73/-9.47	-8.93/-9.25	-8.55/-7.04	-6.83/-7.11	-7.23/-6.95	-6.96/-7.80	-8.14/-7.37	-6.03/-5.15	-4.20/-3.29	-2.49/-2.19	-2.55/-3.25	-3.69/-3.93	-3.95/-3.62	-3.27/-3.53	-3.80/-4.58	-4.88/-4.51	-3.16/-1.91	-2.52/-1.94	-2.71/-4.16	-5.09/-6.04	-6.50/-6.97	-6.04/-6.94	-9.52/-10.58
Θ(30°)	-5.67/-6.41	-6.33/-6.03	-5.70/-5.21	-5.03/-4.39	-4.65/-4.58	-4.60/-6.70	-7.42/-7.93	-8.79/-8.61	-7.35/-6.15	-4.80/-3.52	-2.84/-2.78	-2.93/-2.51	-2.33/-2.53	-3.26/-4.02	-3.58/-3.07	-3.18/-3.91	-3.89/-3.54	-3.01/-3.11	-3.35/-3.42	-3.96/-4.55	-4.49/-6.46	-5.46/-7.18	-7.81/-8.76	-9.26/-7.69
Θ(37.5°)	-6.75/-6.10	-5.44/-6.39	-6.85/-6.00	-7.77/-7.60	-6.74/-7.59	-7.03/-6.48	-7.09/-8.15	-8.17/-7.13	-5.64/-4.78	-3.81/-2.26	-1.43/-1.74	-2.72/-3.11	-2.79/-2.67	-3.17/-3.84	-3.04/-2.92	-2.22/-2.63	-2.26/-2.06	-2.41/-2.89	-2.76/-2.37	-2.39/-2.73	-4.16/-5.83	-6.74/-6.81	-6.48/-5.50	-5.02/-4.50
Θ(45°)	-9.46/-10.38	-8.19/-7.36	-8.93/-8.82	-9.50/-9.89	-9.29/-9.36	-8.73/-8.52	-7.69/-8.69	-9.29/-7.90	-5.36/-3.88	-3.60/-2.84	-1.72/-2.15	-3.10/-2.59	-1.93/-2.27	-2.27/-1.21	-0.51/-3.07	-0.80/-1.59	-1.68/-1.66	-1.68/-2.06	-3.26/-2.99	-3.82/-4.77	-3.95/-4.33	-4.81/-5.09	-5.45/-7.39	-8.98/-9.58
Θ(52.5°)	-8.73/-12.23	-14.91/-13.18	-13.24/-11.27	-11.72/-14.50	-15.65/-15.19	-15.40/-10.57	-7.63/-7.46	-8.11/-7.73	-5.75/-4.07	-3.31/-1.84	-0.82/-1.40	-1.70/-0.81	-0.20/0.28	0.53/0.17	-0.11/-0.23	-0.22/-1.19	-1.12/-1.32	-2.17/-2.73	-3.32/-3.98	-4.28/-4.03	-4.56/-5.45	-4.53/-3.59	-4.83/-6.63	-9.13/-9.24
Θ(60°)	-8.08/-10.88	-11.26/-9.80	-11.08/-10.48	-9.81/-10.38	-9.86/-10.58	-10.07/-6.95	-5.24/-4.14	-5.20/-6.59	-5.53/-3.41	-3.97/-4.06	-2.47/-1.23	-1.34/-1.08	0.00/0.73	0.33/0.78	-0.23/-1.30	-2.02/-2.73	-1.65/-3.74	-4.10/-3.60	-3.73/-4.47	-5.45/-5.86	-6.22/-6.42	-5.62/-8.46	-5.50/-6.30	-6.92/-10.06
Θ(67.5°)	-6.49/-7.95	-10.02/-13.41	-13.24/-8.88	-7.14/-8.34	-6.13/-8.76	-7.16/-6.13	-3.26/-2.05	-3.09/-4.54	-3.70/-2.97	-1.11/-6.13	-3.42/-2.02	-2.40/-2.20												



Antenna Patternof 6GHz

Appendix B

Θ(60°)	-6.61/-7.14	-5.38/-4.98	-4.47/-5.59	-5.80/-5.28	-5.12/-5.76	-4.82/-3.64	-2.01/-0.70	-0.28/-0.70	-1.09/-1.60	-2.39/-1.90	-1.82/-1.64	-1.10/-0.87	-0.07/0.06	0.24/-1.06	-1.93/-2.06	-2.14/-1.95	-2.54/-4.38	-3.67/-2.34	-2.04/-3.71	-6.63/-9.19	-10.26/-9.13	-8.03/-7.08	-6.65/-6.11	-5.76/-6.08
Θ(67.5°)	-6.33/-7.38	-5.69/-3.89	-2.10/-2.53	-3.60/-3.72	-4.27/-4.21	-3.37/-2.03	-0.94/0.16	0.98/0.98	0.75/0.66	0.17/0.81	1.22/-1.34	0.70/0.15	0.09/0.27	-0.21/-1.07	-2.19/-1.13	-1.17/-1.91	-5.04/-5.44	-3.26/-2.24	-2.36/-3.56	-10.26/-15.26	-13.70/-8.98	-8.34/-6.88	-7.30/-5.23	-5.00/-6.62
Θ(75°)	-5.27/-4.22	-3.56/-2.36	-1.58/-1.59	-2.36/-2.08	-3.74/-2.70	-2.38/-2.04	-1.07/0.43	-1.47/2.11	1.26/-1.29	0.94/-1.84	2.92/-2.25	2.65/-2.00	0.93/-1.28	0.10/-1.07	-1.47/-2.05	-1.83/-0.57	-3.02/-1.87	-0.88/-0.03	-1.48/-3.48	-8.45/-13.55	-7.70/-5.70	-9.22/-13.82	-10.48/-8.44	-7.48/-5.71
Θ(82.5°)	-3.14/-3.52	-3.10/-2.26	-1.51/-0.49	-1.35/-2.53	-4.24/-2.33	-2.26/-2.32	-1.63/-0.53	0.80/-1.77	1.15/-1.00	1.00/-1.83	2.83/-4.3	2.83/-2.51	2.20/-2.26	1.81/-0.19	-2.77/-3.52	-3.01/-2.00	-0.95/-0.26	1.23/-0.26	-2.95/-6.52	-9.87/-7.52	-3.62/-4.45	-6.78/-14.29	-11.09/-8.20	-5.32/-6.60
Θ(90°)	-3.12/-3.51	-1.72/-2.54	-2.39/-0.41	-1.86/-3.05	-3.79/-1.84	-2.33/-1.23	-1.67/-0.31	0.40/-1.72	0.82/-0.46	0.57/0.96	1.66/-1.95	2.21/-1.36	2.13/-0.47	1.26/-2.13	-3.86/-5.58	-4.95/-3.12	-2.80/-0.04	0.41/-1.57	-5.88/-5.32	-6.66/-4.02	-3.49/-4.62	-8.90/-10.89	-11.68/-9.84	-6.58/-7.56
Θ(97.5°)	-2.76/-1.22	0.37/-0.59	-0.88/0.00	-0.56/-1.45	-3.10/-1.30	-1.02/-0.40	-0.53/-0.08	0.66/-1.79	0.57/0.32	0.34/0.71	1.85/-1.76	2.70/-1.07	1.72/0.32	-0.10/-4.04	-4.20/-6.07	-5.68/-5.57	-2.88/-0.61	-0.56/-4.46	-11.76/-7.80	-7.12/-5.42	-6.10/-4.76	-8.47/-1.59	-4.75/-3.99	-3.10/-4.18
Θ(105°)	-2.63/-0.93	0.34/-0.88	-1.04/0.06	-0.55/-1.58	-3.11/-1.04	-1.32/-0.72	-1.31/-1.44	-0.72/0.80	-0.32/-1.34	-1.07/-0.89	0.67/0.66	1.53/0.60	1.18/0.10	-0.28/-3.60	-6.01/-5.07	-4.39/-7.50	-4.49/-0.55	-1.54/-8.43	-8.69/-4.76	-4.87/-4.71	-8.22/-6.78	-9.83/-7.77	-5.73/-2.42	-3.42/-4.53
Θ(112.5°)	-1.94/-1.47	-0.60/-1.77	-1.66/-1.95	-2.06/-3.72	-3.90/-2.89	-1.41/-0.39	-0.81/-0.72	0.23/-0.53	-2.42/-2.29	-4.92/-4.68	-3.40/-2.63	-1.81/-0.97	-1.13/-0.81	-3.79/-5.21	-8.47/-4.03	-5.70/-7.09	-1.40/-0.08	-1.60/-11.95	-15.01/-5.12	-2.11/-8.15	-8.44/-11.07	-13.30/-8.55	-6.06/-4.74	-2.98/-4.35
Θ(120°)	-1.63/-0.35	-0.99/-1.68	-2.80/-1.93	-1.82/-2.46	-2.95/-3.92	-2.56/-2.23	-1.12/-0.62	-0.70/-1.09	-1.39/-2.22	-3.65/-2.72	-3.12/-0.99	-2.06/-0.86	-3.15/-2.44	-5.10/-5.42	-6.03/-1.41	-5.41/-6.55	-2.70/-2.98	-2.16/-8.31	-9.46/-5.64	-1.63/-8.07	-7.10/-12.08	-8.67/-8.94	-7.69/-3.68	-2.05/-2.82
Θ(127.5°)	-1.86/-1.95	-3.11/-3.95	-4.67/-3.59	-3.19/-4.01	-4.16/-4.25	-4.23/-2.82	-3.15/-2.92	-2.72/-1.60	-0.56/-0.85	-0.75/-0.92	-0.65/-1.80	-1.61/-2.86	-1.65/-3.88	-3.27/-5.56	-3.41/-2.05	-8.08/-11.14	-4.11/-4.44	-2.25/-4.74	-7.95/-3.47	-2.05/-9.38	-4.81/-5.46	-15.61/-7.42	-9.52/-4.55	-3.00/-2.94
Θ(135°)	-5.25/-4.46	-7.96/-6.86	-6.53/-5.74	-5.68/-7.94	-9.68/-6.55	-4.33/-4.20	-2.74/-1.99	-1.42/-0.98	-1.31/-1.52	-1.71/-1.48	-1.28/-2.14	-1.29/-2.62	-2.73/-4.93	-4.73/-6.44	-5.27/-6.38	-7.56/-13.00	-5.09/-8.38	-2.56/-6.95	-7.65/-4.08	-3.60/-5.44	-14.40/-8.43	-12.73/-14.82	-13.06/-8.60	-5.58/-5.07
Θ(142.5°)	-9.06/-10.84	-12.21/-10.15	-6.57/-5.13	-4.03/-4.56	-6.15/-7.48	-4.73/-5.54	-3.43/-3.19	-2.83/-3.55	-3.59/-2.86	-3.96/-4.41	-6.08/-8.19	-12.36/-11.17	-8.63/-5.27	-4.14/-4.35	-5.37/-8.58	-13.83/-14.21	-11.77/-11.37	-8.09/-6.45	-7.75/-10.39	-10.25/-9.14	-12.77/-5.82	-4.67/-4.90		
Θ(150°)	-8.24/-9.40	-9.69/-10.93	-9.32/-8.75	-8.65/-8.03	-6.77/-5.80	-5.42/-5.32	-5.61/-6.03	-5.50/-4.63	-4.71/-5.74	-6.62/-7.37	-8.93/-10.63	-8.95/-7.15	-6.81/-7.69	-7.48/-6.88	-5.30/-4.25	-4.31/-6.09	-7.91/-9.12	-10.07/-7.40	-6.72/-9.66	-10.38/-8.42	-8.45/-10.21	-15.15/-13.42	-7.88/-5.15	-4.72/-5.92
Θ(157.5°)	-7.72/-8.94	-7.78/-6.36	-8.48/-8.08	-4.01/-4.71	-6.20/-7.95	-9.26/-10.47	-10.07/-8.70	-7.03/-5.34	-3.82/-3.31	-3.47/-4.29	-5.28/-5.66	-5.94/-7.36	-8.86/-9.24	-8.82/-8.37	-7.32/-7.02	-6.75/-6.62	-9.10/-9.94	-11.61/-11.75	-13.40/-10.78	-7.01/-6.64	-7.17/-11.40	-12.55/-9.30	-6.63/-6.33	
Θ(165°)	-14.68/-14.57	-12.01/-10.18	-6.87/-9.5	-6.97/-6.25	-6.08/-5.94	-6.17/-6.82	-7.33/-8.46	-9.21/-8.81	-8.73/-8.75	-8.58/-8.66	-8.62/-7.74	-6.29/-5.22	-4.62/-3.91	-3.41/-2.96	-2.77/-3.11	-4.58/-6.80	-12.19/-14.98	-14.23/-12.67	-13.52/-13.58	-14.26/-14.14	-13.59/-13.24	-12.58/-13.40		
Θ(172.5°)	-14.27/-12.92	-12.64/-13.48	-14.35/-14.46	-13.57/-12.02	-11.05/-9.97	-10.34/-11.51	-11.67/-12.29	-12.41/-12.25	-11.72/-11.14	-10.61/-10.56	-10.42/-10.57	-10.26/-9.15	-7.74/-6.56	-6.04/-5.99	-6.68/-8.17	-9.88/-11.76	-13.54/-15.60	-15.41/-14.29	-11.10/-9.95	-9.61/-9.96	-10.96/-11.49	-11.21/-11.28	-12.59/-14.21	-13.73/-14.35
Θ(180°)	-13.87/-12.14	-13.98/-13.48	-12.68/-12.22	-12.47/-13.14	-13.62/-15.09	-15.37/-15.35	-14.74/-14.97	-14.76/-14.66	-14.67/-13.58	-13.10/-12.43	-12.12/-11.50	-10.75/-10.40	-8.19/-8.69	-8.22/-7.81	-7.41/-7.93	-8.49/-9.05	-9.38/-10.11	-10.20/-9.70	-9.06/-8.55	-8.74/-8.57	-8.90/-9.43	-9.96/-11.11	-12.28/-11.68	-12.19/-12.88
Freq(Hz)	6.475GPol.	TotalAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.61/-7.08	-7.50/-7.75	-8.41/-9.19	-9.59/-9.37	-8.85/-8.76	-9.01/-9.15	-9.40/-9.80	-10.08/-9.83	-9.89/-8.49	-9.84/-9.86	-9.78/-9.62	-9.46/-9.63	-9.71/-10.48	-10.38/-10.53	-9.85/-9.28	-8.30/-8.33	-8.40/-8.83	-8.86/-8.48	-7.59/-7.52	-7.81/-7.53	-7.76/-7.53	-7.04/-7.27	-7.67/-7.97	-7.98/-7.31
Θ(7.5°)	-8.81/-9.97	-10.88/-11.10	-11.16/-10.92	-10.64/-10.03	-9.44/-9.20	-9.04/-9.57	-9.46/-9.23	-8.62/-7.66	-7.17/-6.84	-6.78/-6.86	-6.12/-6.41	-7.23/-7.09	-6.11/-5.48	-5.51/-5.61	-5.90/-5.98	-6.12/-6.41	-7.10/-7.90	-8.53/-8.63	-8.79/-9.32	-9.78/-9.75	-10.11/-10.11	-10.10/-10.50	-9.95/-9.81	-10.05/-8.85
Θ(15°)	-8.79/-8.86	-9.88/-10.14	-9.38/-8.40	-7.69/-7.02	-6.47/-6.64	-6.42/-6.76	-6.79/-6.39	-5.81/-5.61	-5.61/-5.81	-5.58/-5.18	-4.66/-4.65	-5.07/-5.25	-4.89/-4.43	-4.02/-4.11	-4.64/-5.45	-6.53/-7.77	-9.06/-10.36	-11.26/-10.79	-11.19/-12.09	-12.81/-12.31	-11.94/-11.53	-10.52/-9.55	-8.95/-8.31	-8.50/-8.63
Θ(22.5°)	-9.53/-9.88	-8.43/-7.61	-6.68/-5.43	-5.15/-5.26	-5.70/-6.16	-5.43/-5.37	-5.04/-4.74	-4.67/-5.11	-5.83/-6.20	-5.73/-4.45	-3.72/-3.66	-3.99/-3.70	-3.05/-2.09	-1.79/-2.04	-2.46/-3.29	-4.78/-5.65	-6.95/-8.02	-9.06/-10.36	-10.71/-9.57	-8.21/-7.79	-7.44/-7.20	-6.81/-6.81	-7.12/-7.59	-8.13/-6.69
Θ(30°)	-8.80/-9.60	-7.58/-6.69	-6.25/-5.64	-4.94/-3.32	-2.83/-2.46	-2.69/-3.45	-4.53/-4.46	-6.16/-6.40	-5.93/-5.44	-5.73/-5.73	-5.05/-4.21	-3.36/-2.11	-1.44/-1.34	-1.95/-2.16	-2.27/-2.89	-4.08/-5.28	-6.43/-7.38	-8.83/-9.06	-7.96/-6.60	-5.85/-5.41	-5.14/-5.38	-6.24/-6.96	-5.58/-6.46	-7.14/-6.45
Θ(37.5°)	-9.98/-10.46	-12.11/-10.89	-9.62/-6.70	-4.37/-2.67	-2.32/-2.26	-2.43/-2.31	-2.39/-2.94	-4.39/-5.42	-5.44/-4.82	-4.56/-4.23	-3.31/-2.28	-1.89/-1.04	-0.26/-0.80	-0.78/-0.67	-0.92/-1.67	-2.30/-2.88	-4.21/-5.07	-6.07/-6.05	-5.79/-5.94	-6.03/-5.52	-6.12/-8.14	-9.37/-10.35	-11.08/-10.50	-11.52/-11.38
Θ(45°)	-5.74/-6.63	-8.97/-11.57	-10.21/-7.75	-5.35/-3.42	-2.82/-1.93	-1.37/-1.04	-1.30/-1.77	-2.51/-3.48	-4.31/-4.42	-3.56/-2.45	-2.21/-1.12	-1.12/-0.79	0.09/0.13	0.61/0.39	-0.89/-0.56	-0.08/-0.45	-0.61/-1.05	-1.48/-2.59	-3.31/-3.01	-3.32/-2.57	-7.09/-7.93	-9.58/-9.94	-10.47/-10.98	-8.79/-6.91
Θ(52.5°)	-7.11/-5.16	-6.19/-7.11	-7.73/-6.42	-4.45/-3.65	-2.96/-2.97	-2.26/-1.00	-0.13/-0.25	-0.92/-1.82	-2.37/-2.60	0.51/-1.09	1.03/-1.19	0.07/0.13	0.06/0.78	0.02/0.65	-2.07/-0.98	-1.10/-1.17	-1.98/-2.73	-4.43/-4.60	-6.05/-6.68	-6.61/-7.89	-8.16/-10.46	-10.22/-9.68	-8.65/-6.70	
Θ(60°)	-3.60/-2.50	-3.25/-4.49	-6.15/-5.33	-4.00/-3.53	-3.47/-3.46	-1.48/0.13	0.76/0.45	-0.34/-1.43	-1.83/-1.69	-1.99/-1.25	-0.05/-1.12	1.25/-1.53	0.60/0.50	-0.64/0.01	-0.15/0.79	0.58/0.08	-1.29/-4.29	-6.33/-5.78	-5.81/-6.14	-6.87/-7.06	-8.05/-9.22	-10.19/-8.52	-8.13/-7.04	-7.43/-4.08
Θ(67.5°)	-4.04/-2.23	-1.62/-0.92	-2.31/-2.24	-2.27/-1.67	-1.92/-1.56	0.23/0.13	1.42/0.56	-0.39/-0.90	-2.26/-2.68	-2.68/-2.24	-0.94/0.45	0.83/0.73	-0.75/-1.04	-1.28/-1.20	-1.40/-1.44	-1.66/-1.33	-2.74/-4.70	-4.52/-2.71	-2.22/-3.38	-5.86/-9.94	-11.87/-11.07	-9.29/-6.08	-5.69/-4.29	-6.24/-3.80
Θ(75°)	-5.39/-3.57	-2.22/-1.13	-2.15/-2.00	-1.96/-1.82	-2.21/-1.93	-0.43/0.65	1.47/-1.14	0.13/-0.51	-0.83/-1.42	-1.39/-1.77	-0.19/0.88	1.92/-1.79	0.59/-1.03	-1.84/-1.64	-1.15/-1.59	-2.65/-2.32	-3.05/-4.23	-1.99/-0.58	0.02/-1.63	-6.89/-14.97	-12.11/-8.18	-9.08/-7.51	-9.32/-7.70	-7.21/-6.89
Θ(82.5°)	-4.43/-3.01	-2.53/-1.41	-1.75/-2.30	-2.23/-2.37	-2.25/-3.21	-2.73/-1.57	-1.40/-1.55	-0.17/-0.46	-0.03/0.04	0.61/-0.51	0.71/0.95	2.28/-1.88	-0.80/-0.28	-1.17/-0.50	-0.16/-0.98	-2.53/-2.51	-3.21/-0.95	1.38/0.51	-0.89/-3.73	-12.38/-13.92	-7.29/-6.93	-8.24/-10.71	-11.16/-7.87	-7.29/-6.20
Θ(90°)	-3.44/-4.63	-4.15/-1.96	-1.32/-2.20	-2.85/-1.80	-1.88/-3.31	-2.29/-1.62	-0.34/0.10	0.06/0.48	-0.56/-1.06	-0.65/-0.62	0.28/0.17	1.77/0.22	0.95/-0.51	-1.11/-1.01	-0.40/-2.69	-5.79/-5.05	-3.73/-2.53	-0.50/-0.48	-4.26/-5.59	-12.38/-9.97	-5.27/-5.81	-8.97/-10.62	-10.68/-8.57	-6.75/-4.04
Θ(97.5°)	-1.46/-2.00	-1.41/-2.99	-3.32/-2.39	-2.63/-1.92	-1.35/-2.45	-1.59/-1.28	0.40/-1.31	0.87/-0.79	-0.91/-1.51	-0.68/-0.55	-0.09/-1.10	1.00/0.11	0.39/-2.64	-1.39/-2.65	-2.29/-3.45	-4.05/-7.65	-7.60/-3.43	-2.55/-4.29	-8.82/-9.86	-10.43/-11.28	-7.62/-5.12	-9.92/-13.56	-8.41/-10.37	-7.30/-6.64
Θ(105°)	-1.66/-1.76	-1.57/-2.23	-1.64/-1.26	-2.73/-2.11	-0.97/-1.93	-1.60/-1.55	-0.58/0.20	-2.42/-2.66	-2.69/-2.91	-2.63/-1.39	-0.33/0.59	0.97/0.42	-0.44/-1.57	-2.00/-3.04	-3.57/-4.57	-6.87/-8.00	-9.81/-4.77	-4.01/-7.06	-10.35/-8.47	-6.81/-7.70	-11.38/-9.92	-9.40/-13.18	-12.98/-8.97	-7.49/-6.89
Θ(112.5°)	-2.76/-2.66	-2.20/-4.13	-4.56/-5.41	-3.83/-2.64	-2.44/-2.34	-1.86/-1.40	-0.57/-1.00	-2.12/-2.70	-4.79/-7.67	-5.22/-5.55	-3.69/-2.97	-2.14/-2.77	-3.47/-3.45	-4.84/-4.49	-8.99/-8.51	-4.54/-8.25	-7.83/-2.92	-						



Antenna Patternof 6GHz

Appendix B

Θ(112.5°)	-2.49/-0.23	-0.02/-1.39	1.43/0.76	-0.93/-0.30	-0.04/-0.97	0.96/0.48	-0.23/-2.06	-3.00/-4.05	-7.69/-5.17	-2.32/-1.98	-2.86/-3.06	-3.06/-3.95	-6.69/-5.56	-5.31/-5.23	-11.76/-13.62	-11.05/-10.93	-5.40/-4.74	-2.49/-3.06	-9.59/-5.89	0.24/-0.14	-0.89/-1.40	-2.05/-0.55	-0.17/-3.62	-2.97/-3.35
Θ(120°)	0.28/-0.63	0.84/0.86	1.20/0.83	-0.49/-0.06	0.24/-0.00	1.58/0.43	-0.38/-1.39	-2.88/-5.93	-9.70/-7.68	-4.21/-3.86	-4.08/-6.38	-4.50/-4.99	-8.26/-10.17	-9.06/-6.10	-7.48/-8.15	-12.38/-9.61	-6.24/-9.03	-2.03/-7.56	-14.07/-10.22	-2.40/-2.50	-3.07/-5.05	-9.49/-1.81	-0.52/-3.07	-0.06/-1.60
Θ(127.5°)	-0.13/-1.36	-0.64/-1.82	-1.13/-2.80	-2.89/-2.55	-1.53/-1.86	-1.62/-1.29	-2.73/-4.09	-5.05/-7.46	-10.88/-8.85	-5.12/-3.54	-4.21/-5.75	-7.70/-8.12	-7.60/-8.90	-9.60/-13.12	-11.05/-5.53	-11.96/-5.50	-6.28/-13.97	-3.59/-3.31	-9.65/-9.00	-1.79/-1.98	-2.65/-7.66	-7.48/-3.72	-1.43/-3.90	-0.37/-1.21
Θ(135°)	-5.39/-4.91	-3.13/-3.24	-2.91/-2.90	-3.82/-4.72	-4.77/-3.89	-3.76/-4.16	-4.43/-4.99	-7.43/-10.32	-11.88/-9.26	-6.64/-4.63	-5.48/-5.23	-6.32/-6.93	-8.96/-11.40	-9.98/-8.56	-9.35/-9.90	-12.28/-7.36	-6.51/-7.65	-3.28/-4.60	-9.32/-12.19	-4.88/-5.59	-5.94/-6.86	-8.36/-8.03	-8.40/-11.26	-6.24/-5.64
Θ(142.5°)	-7.40/-6.43	-5.03/-3.62	-3.32/-2.64	-2.40/-2.90	-4.02/-5.15	-6.70/-7.79	-8.26/-7.26	-6.86/-7.81	-10.43/-15.02	-15.49/-15.22	-15.28/-12.23	-10.70/-10.07	-11.07/-10.68	-9.78/-8.60	-6.66/-10.07	-11.17/-8.99	-14.60/-10.73	-6.50/-9.21	-13.30/-10.81	-10.00/-10.02	-8.38/-6.63	-6.54/-5.85	-7.36/-8.52	-9.17/-7.95
Θ(150°)	-5.53/-4.68	-3.44/-1.50	-0.56/-0.72	-0.83/-0.79	-1.07/-1.69	-0.89/-12.69	-2.36/-4.22	-6.32/-8.73	-10.89/-12.69	-13.87/-15.42	-15.13/-15.29	-13.00/-10.02	-7.31/-6.90	-9.27/-12.37	-11.68/-12.62	-13.19/-10.77	-6.17/-4.91	-8.04/-12.62	-13.88/-9.69	-7.01/-6.05	-5.24/-3.64	-3.67/-5.90	-6.38/-5.62	
Θ(157.5°)	-2.11/-2.95	-3.52/-3.82	-4.04/-4.93	-6.28/-7.25	-7.49/-7.97	-7.47/-6.61	-6.14/-7.18	-8.62/-9.83	-9.33/-8.77	-8.21/-7.88	-8.37/-8.95	-8.42/-8.07	-7.92/-7.94	-7.01/-8.18	-12.16/-13.81	-11.36/-10.14	-10.29/-12.77	-13.95/-12.72	-11.73/-10.26	-10.40/-9.94	-8.46/-6.04	-4.12/-3.22	-2.82/-2.36	-1.95/-1.41
Θ(165°)	-5.63/-6.19	-6.46/-6.19	-5.63/-5.64	-5.22/-4.77	-4.43/-4.57	-4.55/-5.04	-5.65/-5.89	-6.37/-7.26	-8.12/-9.09	-9.79/-10.19	-11.45/-13.02	-15.45/-15.87	-15.02/-15.47	-15.54/-13.11	-9.37/-6.85	-5.90/-7.31	-11.10/-16.06	-11.72/-9.55	-9.65/-11.29	-12.88/-12.94	-13.44/-12.12	-9.59/-8.54	-7.13/-5.88	-5.30/-5.04
Θ(172.5°)	-13.50/-13.91	-13.53/-12.25	-11.01/-10.30	-9.36/-9.04	-8.58/-8.07	-7.18/-7.18	-6.77/-6.90	-6.98/-7.45	-8.36/-9.19	-10.27/-12.24	-13.31/-12.76	-11.16/-9.95	-9.39/-9.25	-9.38/-9.68	-10.02/-10.25	-12.07/-15.08	-15.45/-15.47	-15.84/-13.92	-13.54/-14.88	-15.08/-13.27	-13.26/-13.35	-12.17/-12.19	-12.06/-13.02	-13.44/-13.90
Θ(180°)	-15.44/-14.98	-14.98/-14.29	-13.55/-14.69	-15.52/-15.45	-14.18/-11.49	-10.20/-9.42	-8.87/-8.81	-8.84/-9.52	-10.26/-11.51	-12.32/-13.21	-13.29/-14.20	-13.82/-14.01	-13.43/-13.67	-13.94/-14.13	-15.86/-15.46	-15.08/-15.02	-15.40/-15.30	-15.24/-14.40	-14.03/-13.57	-13.80/-14.13	-15.44/-15.74	-14.99/-15.98	-14.97/-15.29	-15.31/-14.76
Freq(Hz)	6.475/GPol.	Total/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-11.24/-10.84	-10.79/-11.39	-11.13/-10.29	-9.85/-9.57	-9.59/-10.44	-10.76/-11.98	-11.77/-11.72	-11.15/-11.26	-10.76/-10.30	-10.22/-10.48	-10.97/-11.09	-10.66/-10.16	-10.23/-10.31	-9.84/-9.29	-9.03/-9.04	-9.48/-10.25	-10.30/-9.84	-9.65/-9.10	-9.00/-9.21	-9.10/-9.74	-10.20/-9.98	-10.33/-10.53	-10.52/-10.32	-10.05/-10.48
Θ(7.5°)	-8.23/-7.98	-8.42/-8.70	-8.27/-8.53	-9.22/-9.85	-9.54/-9.71	-9.59/-9.11	-8.86/-9.18	-8.99/-9.29	-9.57/-9.25	-8.76/-8.96	-9.21/-9.13	-8.74/-8.71	-9.26/-8.99	-9.34/-9.38	-8.92/-9.26	-9.58/-9.87	-10.13/-10.01	-9.96/-9.56	-9.49/-9.65	-10.41/-11.59	-11.86/-11.66	-11.05/-10.65	-10.11/-9.37	-8.86/-9.45
Θ(15°)	-5.46/-5.37	-5.45/-5.75	-5.49/-5.92	-6.39/-6.78	-6.94/-7.06	-7.14/-7.31	-7.75/-8.25	-9.06/-9.14	-8.24/-7.84	-6.99/-6.44	-6.40/-6.39	-6.12/-6.04	-5.89/-6.07	-6.61/-6.95	-7.57/-8.29	-8.92/-9.82	-10.12/-10.89	-10.02/-10.03	-10.12/-10.89	-12.46/-13.01	-13.95/-13.07	-11.71/-10.75	-9.16/-8.23	-7.15/-6.80
Θ(22.5°)	-4.88/-4.60	-4.59/-4.22	-4.48/-4.75	-5.36/-5.69	-5.61/-5.72	-5.77/-6.09	-5.76/-6.01	-5.29/-5.14	-4.78/-4.53	-3.92/-3.36	-3.70/-4.09	-4.61/-5.14	-5.74/-6.27	-7.12/-8.57	-10.01/-10.64	-11.14/-11.60	-11.78/-10.51	-9.45/-9.21	-9.51/-9.25	-9.35/-9.23	-10.77/-12.84	-12.80/-10.67	-8.37/-6.98	-5.74/-5.14
Θ(30°)	-3.34/-3.73	-3.51/-3.62	-3.70/-3.65	-3.54/-3.23	-3.11/-3.33	-3.21/-3.26	-3.54/-3.62	-4.14/-4.45	-5.00/-5.95	-6.17/-5.60	-4.68/-3.81	-3.08/-3.33	-4.20/-5.24	-6.21/-7.49	-7.76/-8.40	-9.62/-11.22	-11.39/-12.97	-12.81/-9.77	-8.25/-4.77	-7.91/-7.70	-7.60/-8.77	-9.74/-8.64	-6.84/-5.47	-3.83/-3.00
Θ(37.5°)	-2.64/-4.32	-4.42/-3.53	-3.49/-4.31	-3.36/-4.04	-3.20/-2.85	-2.42/-2.36	-2.37/-2.50	-3.35/-3.33	-3.40/-4.34	-6.40/-6.99	-7.42/-7.87	-8.58/-9.83	-10.29/-10.10	-10.30/-11.62	-12.07/-10.89	-8.84/-7.57	-6.57/-6.18	-7.12/-9.06	-8.84/-7.57	-6.57/-6.18	-7.12/-9.06	-10.91/-8.11	-5.45/-4.42	-4.04/-3.99
Θ(45°)	-2.67/-2.56	-2.95/-2.98	-3.63/-3.65	-3.29/-2.65	-2.06/-1.76	-1.50/-1.12	-1.06/-0.99	-1.17/-1.98	-4.82/-8.68	-9.59/-6.32	-3.57/-2.35	-2.49/-3.32	-5.43/-5.88	-8.07/-10.46	-13.10/-11.55	-8.39/-8.72	-10.55/-10.85	-8.80/-8.26	-7.57/-4.71	-2.73/-2.73	-3.28/-5.63	-8.33/-7.41	-5.46/-3.94	-3.15/-2.98
Θ(52.5°)	-3.31/-3.24	-2.95/-2.86	-2.96/-2.35	-2.86/-1.80	-1.61/-1.86	-1.74/-1.99	-1.81/-1.51	-1.94/-2.96	-5.08/-6.89	-4.17/-2.13	-0.99/-0.82	-1.48/-3.87	-4.81/-7.21	-8.43/-12.52	-10.14/-8.59	-9.77/-7.68	-9.75/-13.25	-13.51/-11.03	-7.55/-8.00	-7.80/-6.62	-5.11/-4.46	-4.57/-3.95	-4.53/-4.18	-3.63/-4.29
Θ(60°)	-2.31/-1.81	-1.49/-2.16	-3.22/-3.93	-3.24/-2.60	-1.44/-0.48	-0.17/-0.04	-0.23/-0.00	-0.38/-1.76	-4.57/-6.65	-5.24/-2.17	-1.29/-1.33	-2.48/-4.19	-5.92/-7.85	-7.99/-12.36	-13.30/-11.46	-8.64/-9.30	-11.00/-12.75	-15.65/-10.69	-8.51/-7.47	-7.18/-6.27	-3.73/-2.33	-2.62/-1.29	-2.56/-3.76	-3.18/-3.34
Θ(67.5°)	-2.76/-1.34	-1.49/-1.96	-2.57/-3.24	-1.72/-1.02	-0.020/0.54	0.60/0.17	-0.59/-1.38	-2.06/-2.53	-3.14/-3.91	-3.95/-1.55	-1.95/-3.46	-4.16/-7.25	-9.40/-14.45	-12.15/-15.70	-14.00/-7.43	-5.48/-4.69	-7.12/-11.71	-13.72/-7.54	-5.47/-4.86	-4.71/-3.26	-2.47/-1.52	-1.52/-1.21	-2.28/-3.27	-3.51/-2.87
Θ(75°)	-0.79/0.16	0.41/0.35	-0.57/-1.21	0.09/0.20	1.19/0.89	0.87/0.11	0.54/0.11	-1.23/-3.05	-4.59/-6.18	-4.36/-1.38	-0.56/-2.04	-3.16/-5.67	-6.75/-12.44	-13.30/-9.46	-6.02/-3.89	-7.09/-9.62	-4.69/-4.37	-3.94/-2.07	-1.17/-0.64	-0.61/-1.23	-1.85/-5.79	-4.03/-2.86		
Θ(82.5°)	0.44/-1.30	1.41/-0.94	-0.45/-1.66	0.04/-0.67	0.93/-0.42	1.29/-1.34	0.05/-1.01	-1.52/-4.56	-6.22/-6.53	-2.05/-0.12	-0.77/-2.10	-2.56/-3.75	-5.43/-9.99	-6.71/-6.63	-9.74/-8.39	-6.73/-3.29	-4.79/-7.87	-5.48/-3.55	-3.57/-2.90	-1.100/2.27	1.190/2.27	-1.42/-1.23	-0.71/-2.97	-2.21/-1.56
Θ(90°)	1.62/-1.38	2.38/-1.11	0.16/-0.83	0.34/-0.32	1.44/0.60	2.85/2.28	1.34/-0.01	-1.30/-3.59	-2.97/-3.78	-2.38/-0.75	-0.48/-1.88	-4.13/-3.01	-3.28/-6.45	-5.52/-6.91	-10.52/-9.85	-5.04/-3.40	-4.21/-3.89	-4.56/-5.74	-4.29/-3.53	-1.130/2.4	1.51/-1.24	-1.47/-1.23	0.65/-2.07	-1.95/-1.63
Θ(97.5°)	1.51/0.93	2.52/-1.16	1.13/0.06	1.54/-1.44	2.33/0.71	2.75/-1.75	0.79/-0.67	-0.96/-3.16	-4.44/-7.75	-4.09/-3.29	-4.82/-4.73	-3.65/-4.59	-4.79/-13.13	-7.06/-8.02	-8.33/-7.25	-8.78/-5.94	-4.83/-4.24	-1.30/-1.17	-1.29/-1.35	-2.93/-1.37	-0.66/-1.58	-2.06/-4.01		
Θ(105°)	1.44/-1.45	2.33/-1.02	0.22/-1.51	-0.37/-1.18	1.09/-0.91	1.33/-1.44	0.10/-0.88	-0.18/-1.75	-2.57/-4.85	-4.04/-2.02	-2.59/-4.48	-3.81/-3.53	-4.57/-9.82	-6.96/-7.07	-10.67/-15.91	-8.89/-10.46	-11.71/-3.65	-6.88/-5.04	-4.68/-8.24	-4.52/-2.86	-1.34/-2.48	-5.49/-2.38	-1.38/-2.00	-0.73/-0.36
Θ(112.5°)	0.48/-1.80	1.32/-1.58	0.85/-0.36	-0.23/-0.26	-0.80/-0.26	-1.11/-0.43	-1.56/-1.59	-2.16/-2.22	-1.98/-3.14	-5.11/-3.35	-5.62/-6.53	-5.91/-6.01	-8.25/-8.26	-5.78/-8.31	-12.35/-14.25	-9.77/-13.69	-7.85/-7.52	-6.17/-2.65	-7.19/-7.11	-2.12/-0.87	-1.91/-2.84	-3.62/-0.42	-0.91/-2.17	-1.67/-0.28
Θ(120°)	0.25/0.82	0.16/-1.56	0.56/0.80	0.66/-1.16	1.06/-1.32	0.68/-0.21	-0.50/-1.83	-2.82/-1.87	-3.21/-8.11	-6.99/-12.61	-7.59/-7.37	-4.21/-5.13	-6.99/-12.60	-8.72/-6.50	-7.14/-13.04	-8.59/-11.91	-7.62/-10.35	-3.67/-4.96	-11.37/-12.47	-3.19/-3.39	-3.58/-8.37	-7.36/-0.83	-0.94/-1.87	0.33/-0.31
Θ(127.5°)	0.56/-0.28	-0.12/-0.69	-1.30/-1.48	-2.14/-1.70	-2.07/-1.84	-1.38/-1.71	-2.80/-2.59	-1.91/-3.28	-6.20/-8.08	-10.05/-7.90	-5.55/-5.36	-8.10/-7.30	-9.97/-13.02	-11.98/-15.21	-15.55/-3.24	-14.01/-5.68	-4.69/-14.86	-4.71/-3.58	-9.24/-14.26	-5.99/-5.50	-5.73/-7.82	-7.78/-3.98	-4.39/-3.14	-0.92/-1.12
Θ(135°)	-3.66/-2.73	-1.51/-2.43	-2.34/-3.85	-4.17/-5.02	-4.58/-4.78	-5.47/-4.58	-2.78/-2.47	-4.11/-4.00	-3.98/-6.56	-9.47/-10.61	-9.40/-17.57	-5.70/-5.55	-7.23/-11.42	-7.93/-9.90	-10.11/-15.13	-14.99/-6.79	-8.14/-10.96	-6.75/-3.89	-8.62/-11.17	-7.52/-7.83	-5.95/-9.72	-9.12/-7.55	-8.97/-9.72	-7.35/-6.46
Θ(142.5°)	-6.86/-5.01	-3.98/-3.53	-3.21/-2.52	-2.42/-2.05	-1.89/-1.96	-2.30/-3.38	-4.93/-4.65	-3.38/-4.34	-5.32/-6.14	-7.36/-8.14	-10.77/-7.90	-5.50/-12.68	-14.86/-13.48	-10.77/-7.90	-6.49/-6.25	-10.46/-8.57	-14.91/-12.06	-10.34/-12.72	-10.12/-9.49	-9.89/-9.27	-10.10/-10.49	-9.17/-8.96		
Θ(150°)	-4.22/-3.70	-2.82/-2.39	-2.29/-1.97	-1.48/-1.42	-1.75/-1.60	-1.85/-2.57	-4.04/-5.94	-7.15/-7.73	-9.56/-11.36	-11.75/-10.46	-8.97/-8.52	-9.60/-14.37	-16.12/-13.77	-8.39/-6.81	-8.61/-12.31	-10.71/-13.11	-15.11/-14.47	-7.06/-6.74	-11.41/-12.68	-13.62/-14.28	-12.85/-11.91	-8.80/-6.75	-6.57/-6.39	-5.19/-4.25
Θ(157.5°)	-2.34/-3.38	-4.24/-6.45	-5.22/-4.96	-4.39/-3.81	-3.92/-3.85	-3.97/-4.06	-4.15/-4.68	-5.45/-5.81	-4.94/-4.07	-3.91/-4.35	-5.19/-5.97	-6.99/-9.50	-5.21/-6.09	-5.99/-6.65	-10.10/-14.35	-13.92/-13.18	-15.43/-15.43	-12.45/-9.96	-11.33/-14.28	-15.05/-12.23	-7.42/-6.44	-3.19/-2.12	-1.90/-1.73	-1.18/-1.30
Θ(165°)	-4.60/-5.26	-5.42/-6.19	-7.58/-8.26	-7.65/-6.70	-5.53/-5.13	-4.88/-4.74	-4.79/-5.22	-5.64/-5.																

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

