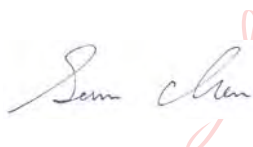




Antenna Composite Gain Test Report

FCC ID	Z8H89FT0086
Equipment	X7-55X Wi-Fi 7 Indoor Access Point
Brand Name	Cambium Networks
Model Name	X7-55X
Applicant	Cambium Networks Inc. 3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA
Manufacturer	Cambium Networks Inc. 3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA
Standard	KDB662911 D03 v01
Sample Received	Jun. 25, 2024
Start Test Date	Nov. 28, 2024
Final Test Date	Nov. 29, 2024

 Sam Chen
2025.04.21
17:36:34 +08'00'

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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



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History of this test report

[illegible]

1. Operation Mode and Antenna Information

Antenna Position	RF Port	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
2G Ant1	1	ACCTON	RFMTA202028IMLB901-1	Dipole	I-PEX	2.4GHz
2G Ant2	2	ACCTON	RFMTA202028IMLB901-2	Dipole	I-PEX	2.4GHz
5G Ant1	1	ACCTON	RFMTA202028IMLB901-3	Dipole	I-PEX	5GHz UNII 1-4 or UNII 1-2A
5G Ant2	2	ACCTON	RFMTA202028IMLB901-4	Dipole	I-PEX	5GHz UNII 1-4 or UNII 1-2A
5G Ant3	3	ACCTON	RFMTA202028IMLB901-5	Dipole	I-PEX	5GHz UNII 1-4 or UNII 1-2A
5G Ant4	4	ACCTON	RFMTA202028IMLB901-6	Dipole	I-PEX	5GHz UNII 1-4 or UNII 1-2A
5GH6G Ant1	1	ACCTON	RFMTA202028IMLB901-7	PIFA	I-PEX	5GHz UNII 2C-4 or 6GHz
5GH6G Ant2	2	ACCTON	RFMTA202028IMLB901-8	PIFA	I-PEX	5GHz UNII 2C-4 or 6GHz
5GH6G Ant3	3	ACCTON	RFMTA202028IMLB901-9	PIFA	I-PEX	5GHz UNII 2C-4 or 6GHz
5GH6G Ant4	4	ACCTON	RFMTA202028IMLB901-10	PIFA	I-PEX	5GHz UNII 2C-4 or 6GHz

Note:

For Radio 1:

2.4GHz Operation Mode (2TX/2RX)

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

2G Ant1~2 could transmit/receive simultaneously.

For Radio 2:

5GHz Operation Mode (4TX/4RX)

5G Ant1~4 can be used as transmitting/receiving antenna.

5G Ant1~4 could transmit/receive simultaneously.

For Radio 4:

5GHz or 6GHz Operation Mode (4TX/4RX)

5GH6G Ant1~4 can be used as transmitting/receiving antenna.

5GH6G Ant1~4 could transmit/receive simultaneously.



2. Table for Radio function

Radio \ Function	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz	Bluetooth	Zigbee
1	V	-	-	-	-
2	-	V (UNII 1-3 or UNII 1-2A)	-	-	-
3	-	-	-	V	V
4	-	V (UNII 2C-4)	V	-	-

Note 1: For WLAN 5GHz: The Radio 2 and 4 can't operate at the same frequency simultaneously.

Note 2: The above information was declared by manufacturer.

3. Test Frequency

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

Band [MHz]	Test Frequency [MHz]
2400-2483.5	2400
	2450
	2483.5
5150-5250	5200
5250-5350	5300
5470-5725	5600
5725-5850	5785
5850-5895	5885
5925-6425	6175
6425-6525	6475
6525-6875	6695
6875-7125	6995

4. Testing Location

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	05CH03-HY	Rofy Chen	23.5-24.5 / 45-55	Nov. 28, 2024 ~ Nov. 29, 2024

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

5. Test Facility and Configuration

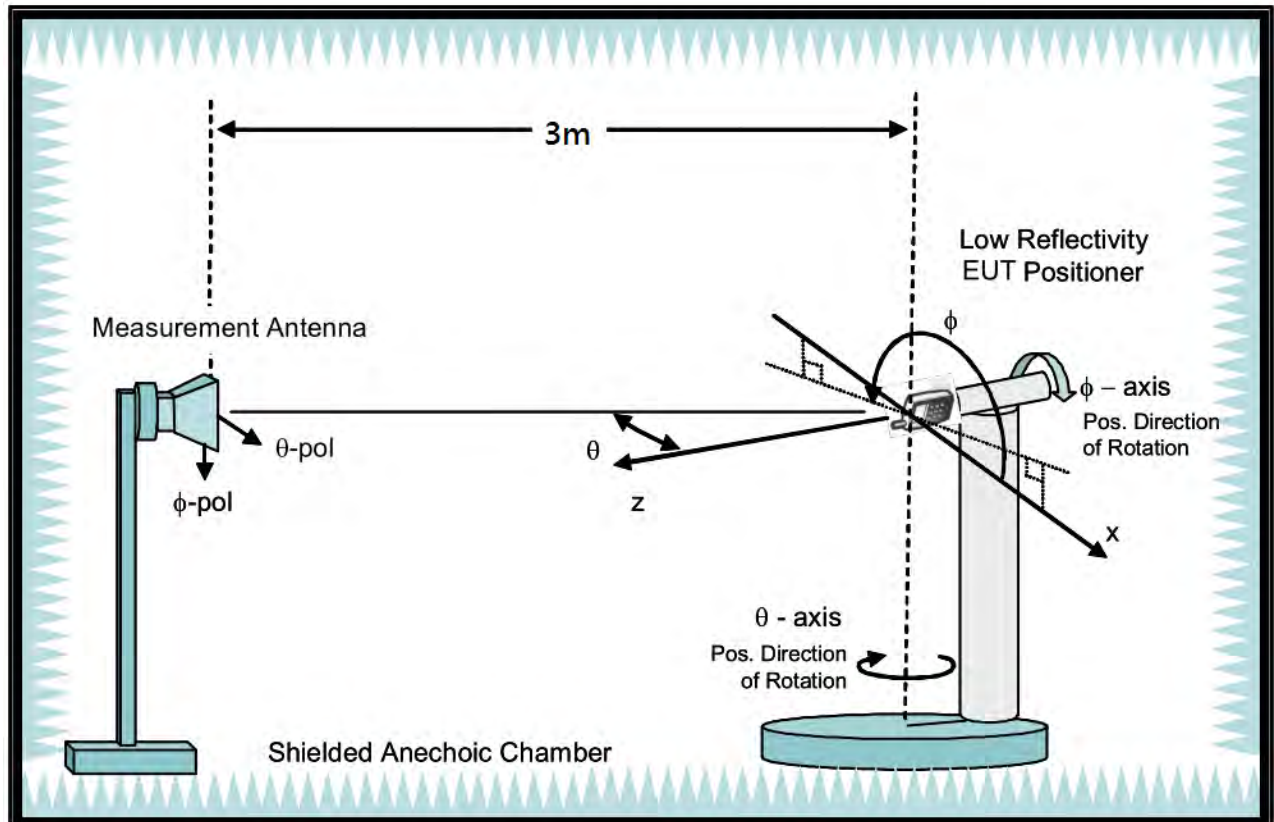
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

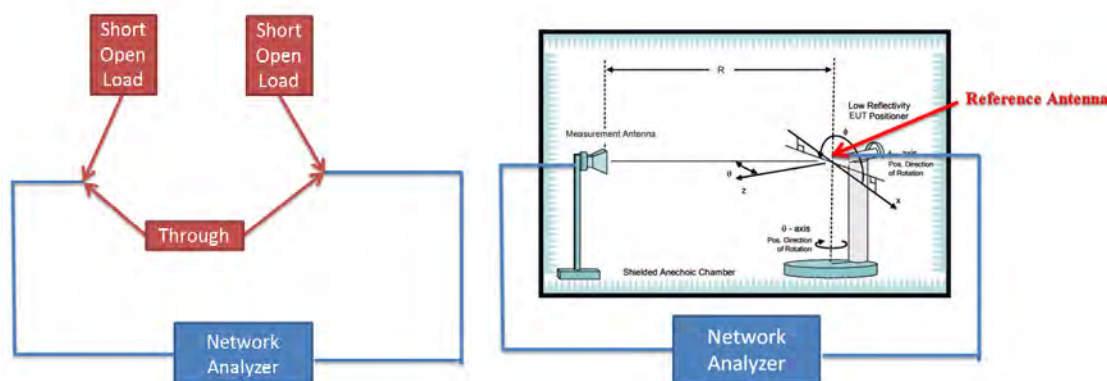
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



6. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7200
G(theta) reading (dB)	-33.55	-33.38	-32.91	-32.29	-32.48	-32.25	-32.33	-32.85	-32.67	-33.37	-32.53	-33.75	-34.72	-35.33
G(phi) reading (dB)	-33.11	-32.68	-32.48	-32.45	-32.85	-31.35	-32.76	-32.68	-32.57	-32.81	-32.85	-33.62	-34.33	-35.29
Reference gain (dBi)	10.3	10.3	10.1	11.1	11.3	11.7	12.1	11.5	11.2	11.1	11.3	11	11.1	10.5
Factor(theta) (dB)	43.85	43.68	43.01	43.39	43.78	43.95	44.43	44.35	43.87	44.47	43.83	44.75	45.82	45.83
Factor(phi) (dB)	43.41	42.98	42.58	43.55	44.15	43.05	44.86	44.18	43.77	43.91	44.15	44.62	45.43	45.79

Note:

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

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

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

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



7. 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 8 tables.

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

8. Measured Values and Calculation of Maximum Gain Positions

For 2G Ant1~2:

DG_1SS max value position

Frequency (Hz)	2.4G	2.45G	2.4835G
Ant. 1 (dBi)	4.03	3.46	2.49
Ant. 2 (dBi)	3.76	4.22	3.54
DG [1SS] (dBi)	6.91	6.86	6.04
Polarization	Phi	Phi	Phi
$\Theta(^{\circ})$	15	45	52.5
$\Phi(^{\circ})$	225	180	172.5

Note: The DG 1SS max value position is the maximum value of section 12 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	2.4G	2.45G	2.4835G
Ant. 1 [$10^{(G/20)}$]	$10^{(4.03/20)}$	$10^{(3.46/20)}$	$10^{(2.49/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(3.76/20)}$	$10^{(4.22/20)}$	$10^{(3.54/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.59	1.489	1.332
Ant. 2 [$10^{(G/20)}$] value	1.542	1.626	1.503
Sum All Antenna [Amax]	3.132	3.115	2.835
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	6.91	6.86	6.04

Note:

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

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



For 5G Ant1~4:

DG_1SS max value position

Frequency (Hz)	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 (dBi)	2.97	4.11	4.41	5.95	3.84
Ant. 2 (dBi)	1.26	1.05	1.44	3.29	2.2
Ant. 3 (dBi)	4.1	4.36	3.88	0.92	-0.66
Ant. 4 (dBi)	1.79	3.26	2.62	-2.83	2.15
DG [1SS] (dBi)	8.62	9.31	9.18	8.43	8.05
Polarization	Phi	Phi	Phi	Phi	Phi
$\Theta(^{\circ})$	60	52.5	75	30	37.5
$\Phi(^{\circ})$	37.5	37.5	180	52.5	67.5

Note: The DG 1SS max value position is the maximum value of section 12 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 [$10^{(G/20)}$]	$10^{(2.97/20)}$	$10^{(4.11/20)}$	$10^{(4.41/20)}$	$10^{(5.95/20)}$	$10^{(3.84/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(1.26/20)}$	$10^{(1.05/20)}$	$10^{(1.44/20)}$	$10^{(3.29/20)}$	$10^{(2.2/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(4.1/20)}$	$10^{(4.36/20)}$	$10^{(3.88/20)}$	$10^{(0.92/20)}$	$10^{(-0.66/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(1.79/20)}$	$10^{(3.26/20)}$	$10^{(2.62/20)}$	$10^{(-2.83/20)}$	$10^{(2.15/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.408	1.605	1.661	1.984	1.556
Ant. 2 [$10^{(G/20)}$] value	1.156	1.128	1.18	1.46	1.288
Ant. 3 [$10^{(G/20)}$] value	1.603	1.652	1.563	1.112	0.927
Ant. 4 [$10^{(G/20)}$] value	1.229	1.455	1.352	0.722	1.281
Sum All Antenna [Amax]	5.396	5.841	5.757	5.278	5.052
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	8.62	9.31	9.18	8.43	8.05

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



For 5GH6G Ant1~4:

DG_1SS max value position

Frequency (Hz)	5.6G	5.785G	5.885G	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	0.49	3.81	2.85	-2.14	1.46	2.13	1.57
Ant. 2 (dBi)	2.56	0.72	0.57	-2.09	2.91	3.92	2.06
Ant. 3 (dBi)	2.23	3.51	1.62	7.48	2.16	-0.46	-1.39
Ant. 4 (dBi)	4.68	4.43	3.99	2.92	-0.25	3.09	0.78
DG [1SS] (dBi)	8.64	9.25	8.37	8.52	7.67	8.34	6.87
Polarization	Theta	Theta	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	75	75	75	75	60	75	67.5
$\Phi(^{\circ})$	217.5	255	255	345	247.5	247.5	15

Note: The DG 1SS max value position is the maximum value of section 12 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	5.6G	5.785G	5.885G	6.175G	6.475G	6.695G	6.995G
Ant. 1 [10^(G/20)]	10^(0.49/20)	10^(3.81/20)	10^(2.85/20)	10^(-2.14/20)	10^(1.46/20)	10^(2.13/20)	10^(1.57/20)
Ant. 2 [10^(G/20)]	10^(2.56/20)	10^(0.72/20)	10^(0.57/20)	10^(-2.09/20)	10^(2.91/20)	10^(3.92/20)	10^(2.06/20)
Ant. 3 [10^(G/20)]	10^(2.23/20)	10^(3.51/20)	10^(1.62/20)	10^(7.48/20)	10^(2.16/20)	10^(-0.46/20)	10^(-1.39/20)
Ant. 4 [10^(G/20)]	10^(4.68/20)	10^(4.43/20)	10^(3.99/20)	10^(2.92/20)	10^(-0.25/20)	10^(3.09/20)	10^(0.78/20)
Ant. 1 [10^(G/20)] value	1.058	1.551	1.388	0.782	1.183	1.278	1.198
Ant. 2 [10^(G/20)] value	1.343	1.086	1.068	0.786	1.398	1.57	1.268
Ant. 3 [10^(G/20)] value	1.293	1.498	1.205	2.366	1.282	0.948	0.852
Ant. 4 [10^(G/20)] value	1.714	1.665	1.583	1.4	0.972	1.427	1.094
Sum All Antenna [Amax]	5.407	5.8	5.244	5.333	4.835	5.224	4.412
DG [10*log (Amax^2/ Nant)]	8.64	9.25	8.37	8.52	7.67	8.34	6.87

9. Summary of Test Result

For 2G Ant1~2:

Freq(Hz)	2.4G	2.45G	2.4835G
Ant. 1 Max Gain (dBi)	5.18	5.54	4.85
Ant. 2 Max Gain (dBi)	4.3	4.91	4.16
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/15/75	Phi/22.5/225	Phi/22.5/232.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/52.5/172.5	Phi/22.5/52.5	Phi/37.5/60
Max Gain (dBi)	5.18	5.54	4.85
DG [1SS] (dBi)	6.91	6.86	6.04
DG [2SS] (dBi)	5.18	5.54	4.85

For 5G Ant1~4:

Freq(Hz)	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	4.53	4.73	5.43	5.95	4.1
Ant. 2 Max Gain (dBi)	4.42	4.45	5.71	4.41	4.4
Ant. 3 Max Gain (dBi)	4.41	4.77	3.91	3.44	3.28
Ant. 4 Max Gain (dBi)	4.3	4.6	3.73	4	4.35
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/75/255	Phi/60/37.5	Phi/30/45	Phi/30/52.5	Phi/30/52.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/60/112.5	Phi/60/112.5	Phi/37.5/90	Phi/37.5/82.5	Phi/37.5/82.5
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/52.5/30	Phi/37.5/262.5	Phi/82.5/292.5	Phi/37.5/120	Phi/82.5/277.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/52.5/52.5	Phi/52.5/97.5	Phi/45/45	Phi/37.5/217.5	Phi/45/225
Max Gain (dBi)	4.53	4.77	5.71	5.95	4.4
DG [1SS] (dBi)	8.62	9.31	9.18	8.43	8.05
DG [2SS] (dBi)	5.62	6.31	6.18	5.95	5.05
DG [4SS] (dBi)	4.53	4.77	5.71	5.95	4.4

**For 5GH6G Ant1~4:**

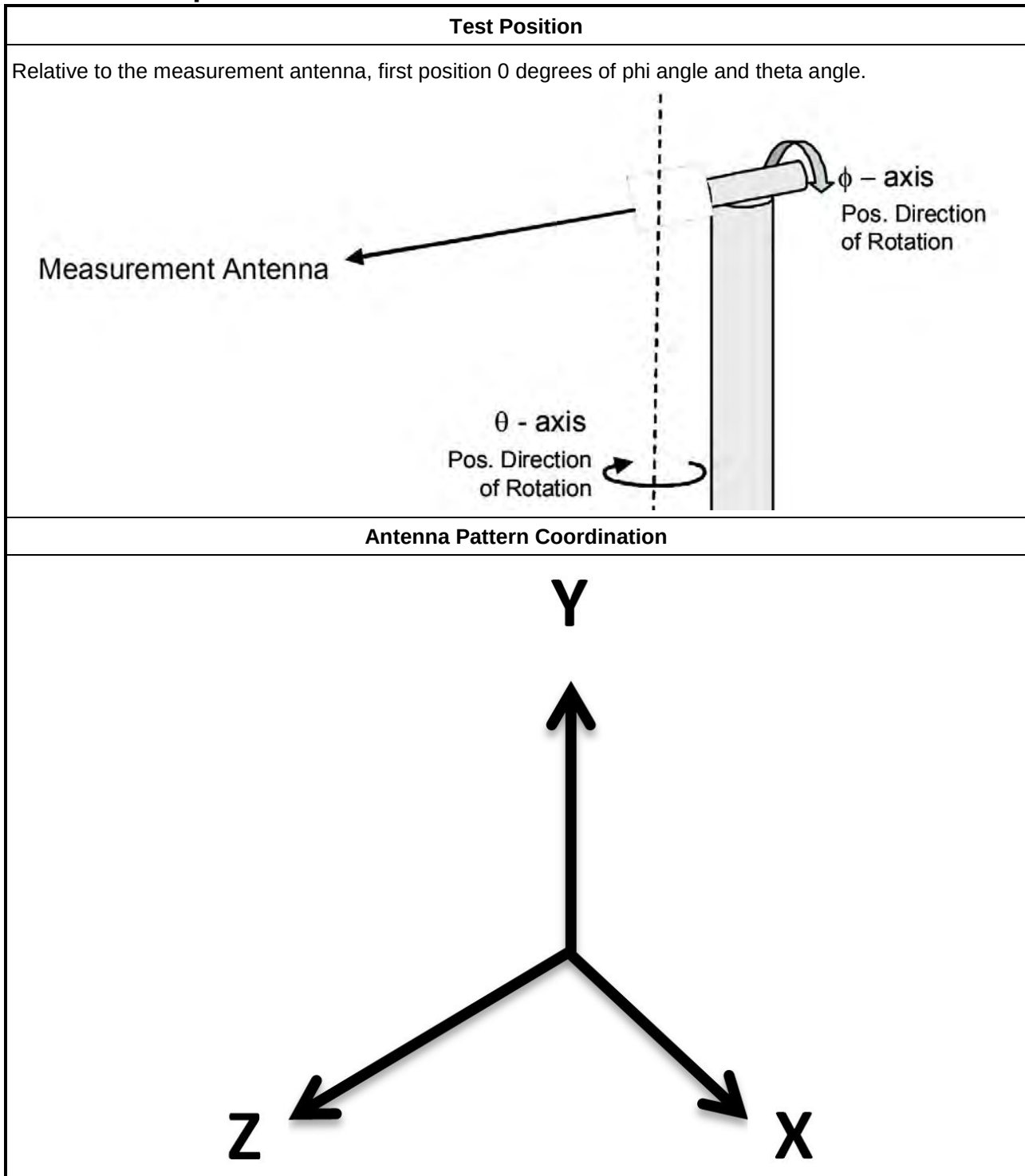
Frequency (Hz)	5.6G	5.785G	5.885G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	7.62	7.57	7.21	6.61	6.48	5.84	4.61
Ant. 2 Max Gain (dBi)	4.54	4.69	4.98	5.24	4.56	4.54	4.66
Ant. 3 Max Gain (dBi)	5.08	6.56	5.89	7.48	6	5.31	4.96
Ant. 4 Max Gain (dBi)	6.95	6.9	5.49	6.12	4.54	4.71	4.98
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75 /150	Theta/75 /150	Theta/75 /157.5	Theta/82.5 /150	Theta/82.5 /157.5	Theta/82.5 /157.5	Theta/60 /142.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5 /60	Theta/67.5 /75	Theta/67.5 /75	Theta/67.5 /90	Theta/75 /247.5	Theta/60 /247.5	Theta/60 /255
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75 /337.5	Theta/82.5/ 292.5	Theta/82.5 /277.5	Theta/75 /345	Theta/82.5 /285	Theta/75 /352.5	Theta/75 /352.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5 /240	Theta/82.5/ 240	Theta/75/2 17.5	Theta/82.5 /247.5	Phi/22.5/1 87.5	Theta/67.5/ 315	Theta/75/ 307.5
Max Gain (dBi)	7.62	7.57	7.21	7.48	6.48	5.84	4.98
DG [1SS] (dBi)	8.64	9.25	8.37	8.52	7.67	8.34	6.87
DG [2SS] (dBi)	7.62	7.57	7.21	7.48	6.48	5.84	4.98
DG [4SS] (dBi)	7.62	7.57	7.21	7.48	6.48	5.84	4.98

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)

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)

10. Test Setup



Note:

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



11. Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1531	1GHz~18GHz	Dec. 20, 2023	Dec. 19, 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. 30, 2024	Jul. 29, 2025
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.



12. Test Results

Please refer to the appendix.

Appendix A – Radiated Composite Gain of Radio 1 2.4GHz.....	Page 17
Appendix B – Radiated Composite Gain of Radio 2 5GHz.....	Page 23
Appendix C – Radiated Composite Gain of Radio 4 5GHz UNII 2C-4 and 6GHz.....	Page 37
Appendix D – Antenna Pattern of Radio 1 2.4GHz.....	Page 56
Appendix E – Antenna Pattern of Radio 2 5GHz.....	Page 59
Appendix F – Antenna Pattern of Radio 4 5GHz UNII 2C-4 and 6GHz.....	Page 66
Appendix G – Test Photos.....	Page 75



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Freq(Hz)	2.4G	2.45G	2.4835G
Ant. 1 Max Gain (dBi)	5.18	5.54	4.85
Ant. 2 Max Gain (dBi)	4.3	4.91	4.16
Ant. 1 Polarization/Θ(°)/Φ(°)	Phi/15/75	Phi/22.5/225	Phi/22.5/232.5
Ant. 2 Polarization/Θ(°)/Φ(°)	Phi/52.5/172.5	Phi/22.5/52.5	Phi/37.5/60
Max Gain (dBi)	5.18	5.54	4.85
DG [1SS] (dBi)	6.91	6.86	6.04
DG [2SS] (dBi)	5.18	5.54	4.85



Sporton International Inc. Hsinchu Laboratory



Radiated Composite Gain Data_Radio 1_2.4GHz

Appendix A

Θ(22.5°)	2.99/3.11	3.2/3.32	3.46/3.65	3.85/4	4.05/3.92	3.64/3.16	2.56/1.88	1.16/0.54	0.15/0.09	0.35/0.73	1.17/1.68	2.13/2.51	2.82/3.08	3.28/3.45	3.67/3.92	4.13/4.23	4.19/3.95	3.58/3.14	2.73/2.35	2.14/2.12	2.23/2.42	2.62/2.77	2.85/2.83	2.79/2.79
Θ(30°)	4.62/4.56	4.47/4.4	4.41/4.45	4.5/4.54	4.51/4.38	4.19/3.92	3.58/3.16	2.67/2.17	1.77/1.48	1.68/2.21	2.9/3.49	3.95/4.23	4.36/4.4	4.37/4.36	4.45/4.63	4.84/5	5.06/5	4.84/4.61	4.37/4.15	3.99/3.91	3.92/3.99	4.17/4.36	4.54/4.63	4.65/4.6
Θ(37.5°)	5.51/5.3	5.06/4.89	4.79/4.73	4.71/4.73	4.75/4.78	4.76/4.69	4.55/4.36	4.05/3.58	3.02/2.6	2.62/3.27	4.12/4.84	5.3/5.5	5.5/5.36	5.16/5.02	5.02/5.08	5.16/5.2	5.19/5.18	5.18/5.18	5.21/5.22	5.16/5.04	4.92/4.87	4.92/5.06	5.25/5.43	5.55/5.6
Θ(45°)	5.72/5.47	5.15/4.89	4.66/4.44	4.29/4.29	4.45/4.64	4.73/4.74	4.71/4.71	4.62/4.32	3.84/3.37	3.17/3.51	4.33/5.17	5.72/5.96	5.91/5.63	5.27/5.05	4.97/4.95	4.88/4.79	4.72/4.73	4.86/5.09	5.42/5.65	5.77/5.6	5.44/5.28	5.16/5.13	5.23/5.44	5.68/5.8
Θ(52.5°)	5.22/5.07	4.81/4.52	4.15/3.75	3.5/3.55	3.83/4.19	4.41/4.43	4.41/4.54	4.63/4.45	3.99/3.51	3.26/3.48	4.31/5.19	5.81/6.04	5.84/5.38	4.97/4.8	4.72/4.59	4.43/4.35	4.38/4.48	4.64/4.93	5.3/5.57	5.62/5.5	5.34/5.13	4.94/4.67	4.57/4.73	5.03/5.24
Θ(60°)	4.18/4.15	4.05/3.81	3.36/2.79	2.4/2.46	2.86/3.38	3.77/3.83	3.78/4.02	4.39/4.34	3.82/3.16	2.77/2.79	3.41/4.33	5.14/5.5	5.3/4.77	4.34/4.11	4/3.76	3.55/3.55	3.77/3.95	4.04/4.16	4.43/4.71	4.81/4.69	4.51/4.28	4/3.66	3.43/3.51	3.82/4.13
Θ(67.5°)	2.9/2.91	2.9/2.7	2.15/1.43	0.84/0.89	1.46/2.15	2.73/2.96	2.93/3.17	3.66/3.7	3.04/2.23	1.87/1.9	2.45/3.31	4.09/4.39	4.05/3.36	2.96/2.93	2.85/2.64	2.56/2.79	3.15/3.25	3.04/2.87	3.1/3.56	3.82/3.79	3.61/3.26	2.79/2.34	2.13/2.28	2.66/2.93
Θ(75°)	1.57/1.72	1.8/1.54	0.89/0.01	-0.85/-1.03	-0.55/0.21	1.02/1.5	1.53/1.52	1.96/2.22	1.76/0.88	0.49/0.5	0.8/1.57	2.43/2.95	2.73/2.07	1.59/1.57	1.53/1.3	1.2/1.58	2.1/2.18	1.71/1.23	1.48/2.15	2.67/2.85	2.78/2.44	1.71/0.95	0.66/0.8	1.13/1.49
Θ(82.5°)	-0.61/-0.12	0.15/-0.05	-0.66/-1.44	-2.14/-2.35	-2.03/-1.33	-0.46/0.01	-0.25/-0.71	-0.0/0.92	0.89/-0.12	-0.84/-1	-0.9/-0.27	0.57/1.22	1.14/0.55	0.13/0.07	-0.13/-0.5	-0.46/0.12	0.73/0.79	0.35/0.07	0.45/1.04	1.38/1.47	1.42/1.12	0.27/0.66	-1.07/-1.05	-1.01/-0.83
Θ(90°)	-3.37/-2.55	-2.03/-2.25	-2.9/3.64	-4.34/-4.51	-4.26/-3.57	-2.43/-1.54	-1.35/-1.83	-1.65/-0.4	-0.29/-1.73	-3.02/-2.92	-2.26/-1.57	-0.87/-0.03	0.1/-0.56	-1.46/-1.97	-2.33/-2.28	-1.67/-0.93	-0.43/-0.66	-1.55/-2.12	-1.67/-0.95	-0.35/-0.03	-0.01/-0.54	-1.75/-2.83	-2.91/-2.81	-3.17/-3.47
Θ(97.5°)	-4.29/-3.49	-3.4/-3.92	-4.46/-4.77	-5.59/-6.74	-7.29/-6.48	-4.53/-2.81	-1.97/-2.23	-2.59/-1.73	-1.84/-3.64	-5.06/-4.53	-3.57/-3.42	-3.34/-2.67	-2.64/-3.5	-4.59/-5.29	-5.04/-3.89	-2.88/-2.21	-2.11/-3.06	-4.39/-4.24	-3.39/-2.85	-2.09/-1.36	-1.04/-1.62	-3.19/-4.28	-4.13/-4.26	-4.78/-4.81
Θ(105°)	-5.78/-4.89	-5.26/-6.12	-6.53/-6.39	-6.61/-7.29	-7.95/-7.99	-6.62/-4.84	-3.59/-3.51	-4.14/-3.28	-3/4.55	-6.67/-6.68	-5.54/-5.34	-5.64/-4.88	-4.29/-4.55	-5.64/-7.01	-7.25/-6.15	-5.23/-4.59	-4.84/-6.13	-6.55/-5.14	-4.57/-4.82	-4.43/-3.33	-2.64/-3.15	-4.78/-5.63	-5.14/-5.58	-6.8/-6.89
Θ(112.5°)	-7.64/-6.49	-7.14/-8.03	-8.32/-8.52	-9.03/-9.6	-9.61/-9.43	-8.58/-7.09	-5.12/-4.31	-4.63/-4.58	-4.67/-6.45	-9.09/-9.25	-7.85/-7.57	-7.51/-6.59	-5.9/-6.15	-7.85/-9.52	-10/-8	-6.37/-5.9	-7.02/-7.58	-7.38/-6.74	-7.26/-8.2	-7.32/-5.56	-4.65/-5.27	-6.89/-7.12	-6.36/-6.86	-8.49/-9.01
Θ(120°)	-9.75/-8.69	-9.23/-9.74	-10.33/-9.12	-8.99/-10.21	-9.95/-10.22	-9.74/-8.91	-6.33/-5.18	-5.69/-6.56	-6.87/-7.83	-9.49/-9.91	-8.9/-8.46	-8.33/-8.49	-8.4/-8.74	-9.57/-10.82	-11.05/-9.75	-8.17/-8.1	-8.77/-9.27	-7.93/-8.05	-9.35/-10.29	-9.31/-7.7	-6.91/-7.65	-9.3/-9.14	-8.22/-8.48	-9.65/-10.41
Θ(127.5°)	-10.48/-11.09	-11.32/-11.57	-12.86/-11.19	-9.93/-9.99	-10.56/-10.9	-10.83/-10.01	-7.84/-7.06	-7.9/-9.66	-10.19/-10.52	-11.58/-11.98	-10.93/-9.68	-9.21/-9.57	-10.04/-9.77	-10.36/-11.58	-11.47/-11.09	-10.25/-9.67	-9.78/-9.91	-8.04/-9.09	-11.32/-12.26	-11.54/-10.58	-10.08/-10.56	-11.16/-10.28	-9.29/-9.29	-9.54/-9.83
Θ(135°)	-10.67/-11.58	-11.73/-11.73	-12.32/-12.07	-11.61/-10.24	-9.63/-10.04	-10.81/-11.28	-9.85/-8.44	-8.71/-10.11	-11.79/-12.48	-13.18/-14.45	-13.89/-12.14	-11.01/-10.94	-11.18/-10.88	-11.16/-11.28	-10.84/-10.58	-10.25/-10.16	-9.94/-10.48	-11.08/-12.21	-12.85/-13.24	-11.51/-10.42	-10.1/-10.45	-11.04/-11.27	-10.79/-10.55	-10.46/-10.3
Θ(142.5°)	-13.47/-13.6	-12.88/-13.23	-13.54/-13.89	-12.8/-10.6	-9.22/-8.88	-9.81/-11.33	-10.86/-9.13	-8.6/-9.27	-10.83/-12.24	-13.63/-14.73	-14/-12.91	-12.42/-12.79	-12.66/-12.13	-11.96/-11.29	-10.86/-10.65	-10.16/-10.95	-11.06/-11.22	-11.07/-11.17	-11.57/-10.7	-10.9/-6.1	-9.7/-10.34	-11.51/-12.92	-13.94/-14.25	-14.26/-14.74
Θ(150°)	-15.4/-14.32	-13.97/-13.7	-13.07/-13.8	-14.52/-14.52	-13.24/-12.09	-11.52/-10.92	-10.1/-9.32	-9.12/-9.66	-10.63/-11.77	-13.22/-14.13	-13.64/-13.59	-14.63/-15.33	-15.17/-15.61	-15.34/-15.02	-13.7/-12.39	-11.78/-11.41	-11.52/-12	-12.06/-12.41	-11.77/-11.54	-11.98/-12.73	-13.74/-14.05	-14.93/-14.47	-14.15/-14.92	
Θ(157.5°)	-14.56/-15.48	-15.18/-15.3	-15.47/-14.72	-15.67/-14.98	-15.7/-15.4	-14.64/-13.64	-12.04/-11.51	-11.41/-11.96	-13.08/-13.71	-13.51/-13.44	-12.44/-13.04	-13.42/-14.44	-15.22/-15.36	-15.28/-14.87	-13.72/-13.28	-12.62/-12.38	-12.48/-12.62	-12.89/-14.26	-15.69/-14.92	-14.44/-13.99	-14.17/-13.68	-13.79/-13.49	-13.34/-13.39	-13.89/-14.41
Θ(165°)	-14.88/-15.49	-15.46/-15.69	-15.24/-14.79	-15.95/-15.61	-16.13/-14.87	-15.55/-14.7	-13.92/-13.7	-13.56/-13.47	-13.85/-14.58	-14/-12.13	-11.79/-11.35	-12.06/-12.12	-13.15/-13.56	-14.6/-14.5	-14.98/-14.15	-13.7/-13.97	-14.4/-14.17	-14.78/-15.92	-15.43/-14.62	-15.53/-15.76	-15.96/-16.3	-15.27/-15.38	-15.3/-15.24	-14.89/-14.8
Θ(172.5°)	-15.81/-15	-15.68/-15.36	-15.5/-15.39	-15.48/-15.62	-15.57/-16.17	-15.1/-15.78	-14.92/-14.89	-15.12/-15.81	-15.96/-15.17	-13.57/-13.09	-12.87/-12.11	-13.05/-13.68	-14.95/-15.29	-15.75/-15.45	-14.92/-15.23	-15.69/-15.36	-15.21/-15.17	-15.36/-15.45	-14.65/-15.35	-15.21/-15.32	-15.18/-15.66	-15.79/-15.89	-15.47/-15.29	-15.19/-15.3
Θ(180°)	-15/-14.53	-15.54/-15.68	-15/-15.35	-15.22/-15.34	-15.29/-15.88	-15.58/-15.1	-15.06/-15.87	-15.8/-15.75	-15.47/-15.42	-15.19/-14.94	-14.41/-14.78	-15.16/-15.54	-15.7/-15.56	-15.2/-15.31	-15.23/-14.78	-15.81/-15.14	-15.07/-15.13	-14.97/-15.15	-15.16/-14.78	-15.38/-15.56	-14.73/-15.86	-15.56/-15.71	-14.98/-14.57	-15.75/-15.16
Freq(Hz)	2.4835GPol.	Theta/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-0.51/-1.09	-1.8/-2.82	-4.29/-6.1	-8.47/-11.17	-13/-11.15	-8.17/-6.19	-4.63/-3.35	-2.37/-1.57	-0.86/-0.32	0.10/0.37	0.46/0.36	0.08/-0.39	-1.1/-2.12	-3.32/-4.71	-6.35/-7.94	-9.25/-10.25	-11.18/-10.39	-9.35/-6.63	-4.47/-2.86	-1.65/-0.75	-0.09/0.37	0.62/0.77	0.76/0.59	0.35/-0
Θ(7.5°)	-0.42/-0.71	-1.12/-1.74	-2.72/-4.07	-5.8/-7.84	-9.25/-8.86	-7.18/-5.44	-3.91/-2.65	-1.64/-0.88	-0.20/0.38	0.85/1.16	1.22/1.04	0.58/-0.09	-0.99/-2.25	-3.83/-5.86	-7.3/-8.63	-10.68/-11.53	-11.76/-10.88	-9.78/-7.24	-5.33/-3.88	-2.78/-1.88	-1.2/-0.73	-0.43/-0.25	-0.15/-0.13	-0.17/-0.28
Θ(15°)	-0.89/-0.83	-0.94/-1.24	-1.86/-2.83	-4.73/-7.44	-6.43/-4.99	-3.75/-2.72	-1.97/-1.34	-0.67/-0.03	0.51/0.92	1.13/1.05	0.73/0.21	-0.57/-1.63	-3/-4.64	-6.26/-7.46	-8.75/-10.34	-11.87/-11.14	-11.12/-9.05	-7.51/-6.29	-5.22/-4.3	-3.58/-3.04	-2.62/-2.17	-1.8/-1.46	-1.14/-0.94	
Θ(22.5°)	-2.09/-1.77	-1.65/-1.75	-2.24/-3.16	-4.47/-6.13	-7.46/-7.35	-6.15/-4.79	-3.7/-2.97	-2.47/-2.06	-1.54/-0.94	-0.36/0.07	0.33/0.38	0.21/-0.18	-0.81/-1.73	-2.83/-3.92	-4.91/-6.14	-7.64/-9.48	-11.42/-11.48	-11.56/-10.74	-9.75/-8.78	-7.68/-6.75	-6.16/-5.65	-5.16/-4.63	-4.05/-3.47	-2.89/-2.39
Θ(30°)	-4.53/-4.08	-3.78/-3.71	-4.11/-5	-6.46/-8.24	-9.21/-8.28	-6.63/-5.16	-4.13/-3.53	-3.3/-3.24	-3.02/-2.65	-2.32/-2.01	-1.75/-1.5	-1.39/-1.46	-1.86/-2.57	-3.51/-4.3	-4.96/-5.77	-7/-8.6	-10.16/-10.99	-11.69/-12	-11.77/-11.06	-10.12/-9.38	-8.87/-8.44	-7.97/-7.34	-6.69/-6.1	-5.43/-4.81
Θ(37.5°)	-8.52/-8.01	-7.42/-7.05	-7.17/-7.99	-9.58/-11.18	-10.96/-9.18	-7.43/-6.04	-5/-4.22	-3.87/-4.01	-4.32/-4.65	-4.95/-5.12	-5.07/-4.73	-4.28/-4.1	-4.52/-5.5	-6.51/-6.89	-6.95/-7.38	-8.34/-9.61	-10.14/-10.53	-11.41/-11.78	-12.45/-12.35	-11.94/-11.69	-11.5/-11.23	-10.76/-10.13	-9.42/-9.11	-8.91/-8.62
Θ(45°)	-13.31/-12.78	-12.58/-11.91	-11.09/-11.11	-11.52/-11.95	-11.49/-9.74	-8.74/-8.08	-7.22/-6.1	-5.15/-4.94	-5.39/-6.43	-7.64/-7.71	-7.84/-8.52	-7.51/-6.82	-7.2/-8.51	-9.85/-9.94	-9.1/-9.08	-9.75/-10.38	-10.92/-10.74	-10.58/-11.32	-12.29/-12.61	-12.6/-12.4	-12.29/-12.27	-11.87/-10.9	-10.17/-9.76	-10.32/-11.34
Θ(52.5°)	-15.13/-15.75	-15.16/-14.7	-12.52/-12.36	-11.94/-11.87	-10.88/-9.69	-9.75/-9.71	-9.49/-8.76	-7.02/-6.1	-6.39/-8.24	-10.51/-9.71	-10.18/-10.25	-9.37/-8.98	-10.14/-12.25	-12.25/-12.73	-12.44/-11.55	-11.49/-11.53	-11.7/-11.26	-10.99/-11.34	-12.04/-12.24	-12.05/-11.85	-11.8/-12.23	-12.3/-11.35	-10.43/-9.45	-10.89/-13.15
Θ(60°)	-15.51/-15.2	-13.88/-11.85	-10.75/-10.59	-11.01/-10.68	-10.34/-9.73	-10.71/-10.57	-10.68/-10.68	-9.03/-7.74	-7.58/-9.56	-12.68/-11.58	-10.29/-10.14	-9.67/-9.49	-10.71/-11.29	-11.62/-12.65	-13.45/-11.81	-11.08/-10.57	-10.34/-10.57	-9.87/-10.44	-11.53/-11.89	-11.49/-11.24	-11.33/-12.1	-12.75/-11.82	-9.9/-9.7	-11.17/-14.05
Θ(67.5°)	-15.54/-13.53	-11.86/-10.71	-10.36/-10.45	-10.87/-10.57	-10.45/-10.61	-11.93/-11.55	-11.85/-11.23	-10.67/-9.88	-9.6/-11.56	-13.86/-12.62	-10.46/-9.68	-9.31/-9.84	-10.39/-11.37	-12.23/-13.27	-13.44/-12.62	-11.67/-10.69	-10.1/-10.42	-10.14/-10.4	-11.14/-11.78	-11.1/-10.67	-10.66/-11.37	-12.43/-11.91	-10.27/-9.68	-10.51/-13.43
Θ(75°)	-15.48/-14.7	-12.92/-12.0																						

Gain Result

[illegible]



Radiated Composite Gain Data Radio 1 2.4GHz

Appendix A

Θ(22.5°)	-0.32/-0.79	-1.38/-1.96	-2.51/-2.83	-2.9/-2.77	-2.7/-2.9	-3.37/-4.32	-5.69/-7.31	-8.92/-9.95	-9.87/-8.55	-6.52/-4.6	-2.79/-1.12	0.25/-0.39	2.28/-2.97	3.51/-3.95	4.3/-4.58	4.78/-4.85	4.77/-4.51	4.08/-3.54	2.94/-2.3	1.72/-1.24	0.93/-0.79	0.77/-0.79	0.72/-0.55	0.27/-0.11
Θ(30°)	2.16/-1.83	1.35/-0.71	-0.03/-0.8	-1.43/-1.79	-1.99/-2.19	-2.38/-2.74	-3.27/-3.93	-4.67/-5.39	-5.99/-5.93	-4.91/-3.28	-1.52/-0.6	1.33/-2.3	3.04/-3.6	3.92/-4.3	4.5/-4.69	4.78/-4.82	4.82/-4.76	4.62/-4.37	4.03/-3.59	3.12/-61	2.21/-96	1.96/-2.09	2.25/-2.36	2.37/-2.77
Θ(37.5°)	3.29/-3.08	2.67/-2.06	1.60/-1.3	-0.89/-1.43	-1.62/-1.47	-1.2/-1	-1.01/-1.18	-1.56/-2.12	-0.84/-3.3	-3.31/-9.6	-0.26/-1.23	2.31/-0.5	3.52/-8.3	4.03/-4.25	4.48/-4.6	4.56/-4.45	4.35/-4.33	4.44/-3.4	4.27/-4.08	3.75/-6.3	2.86/-2.66	2.87/-3.06	3.22/-3.3	
Θ(45°)	3.64/-3.57	3.23/-2.56	1.52/-0.25	-1.01/-1.92	-2.16/-1.79	-1.1/-0.41	-0.04/-0.02	-0.24/-0.65	-1.08/-1.58	-1.96/-1.55	-0.16/-1.29	2.31/-2.91	3.22/-3.7	3.53/-68	3.94	3.86/-3.58	3.33/-1.7	3.23/-33	3.51/-3.56	3.42/-3.13	2.76/-2.5	2.48/-2.66	2.86/-3.06	3.28/-3.49
Θ(52.5°)	3.36/-3.45	3.15/-2.46	1.34/-0.01	-1.38/-2.55	-3.1/-2.84	-1.38/-0.13	0.63/-0.83	0.48/-0	-0.37/-0.69	-1.15/-1.19	-0.05/-1.28	2.12/-2.49	2.55/-2.57	2.69/-2.86	2.99/-2.97	2.78/-2.53	2.32/-1.6	2.06/-2.06	2.21/-2.35	2.33/-2.13	1.87/-1.73	1.84/-2.06	2.25/-2.41	2.73/-0.6
Θ(60°)	2.71/-2.89	2.67/-1.99	0.94/-0.27	-1.61/-3.11	-4.18/-3.87	-2.19/-3.03	0.96/-1.47	1.23/-0.58	-0.07/-0.55	-1.15/-1.65	-0.99/-0.36	1.28/-1.55	1.44/-1.36	1.47/-1.56	1.51/-1.28	1.20/-0.91	0.90/-76	0.45/-0.15	1.07/-39	0.55/-0.44	1.75/-2.8	0.51/-0.05	1.33/-1.44	1.75/-2.28
Θ(67.5°)	1.84/-2.11	1.92/-1.3	0.39/-0.61	-1.89/-3.52	-4.74/-4.51	-2.56/-0.31	1.23/-1.83	1.54/-0.69	-0.38/-1.14	-1.8/-2.47	-1.91/-0.67	0.06/-0.1	-0.2/-0.32	-0.15/-0.07	-0.29/-0.63	-0.82/-0.68	-0.5/-0.77	-1.49/-2.25	-2.39/-1.87	-1.27/-1.15	-1.43/-1.7	-1.3/-0.49	0.02/-0.15	0.56/-1.29
Θ(75°)	0.63/-1.11	1.02/-0.48	-0.28/-1.13	-2.39/-4.06	-5.31/-4.94	-2.82/-0.55	0.87/-1.23	0.71/-0.28	-1.36/-2.09	-2.68/-3.63	-3.72/-2.53	-1.83/-1.93	-2.44/-2.65	-2.34/-2.25	-2.74/-3.32	-3.37/-2.71	-2.07/-2.23	-3.34/-5.03	-5.91/-5.14	-3.68/-2.84	-2.76/-2.96	-2.84/-2.15	-1.59/-1.55	-1.2/-0.19
Θ(82.5°)	-1.16/-0.44	-0.42/-0.9	-1.5/-2.09	-3.13/-4.59	-5.54/-4.96	-3.02/-1.17	-0.25/-0.25	-0.7/-1.19	-1.86/-2.75	-3.89/-5.62	-5.95/-4.72	-4.22/-3.47	-4.74/-4.76	-4.5/-4.87	-5.86/-6.56	-6.07/-4.84	-3.95/-4.16	-5.52/-7.33	-8.74/-7.43	-5.81/-4.87	-4.72/-4.71	-4.3/-3.4	-2.8/-2.85	-2.82/-2.06
Θ(90°)	-2.78/-1.9	-1.56/-1.86	-2.34/-2.9	-3.97/-5.54	-6.77/-6.43	-4.56/-2.56	-1.4/-1.01	-1.08/-1.49	-2.63/-4.46	-6.31/-7.92	-7.38/-5.59	-4.92/-4.98	-5.54/-5.96	-6.03/-6.78	-8.34/-8.63	-7.55/-6.27	-5.72/-6.65	-8.98/-11.42	-12.06/-10.13	-7.4/-6.1	-6.27/-7.03	-7.07/-5.96	-5.03/-4.74	-4.44/-3.62
Θ(97.5°)	-4.25/-3.4	-3.02/-3.19	-3.59/-4.17	-5.47/-7.19	-8.44/-7.18	-5.51/-3.34	-2.18/-2	-3.22/-3.05	-4.71/-6.82	-8.07/-8.83	-8.12/-7.38	-7.67/-8.21	-9.18/-10.28	-10.98/-12.6	-13.16/-11.11	-9.18/-7.98	-7.9/-7.9	-12.81/-13.45	-13.16/-12.21	-9.18/-7.4	-7.35/-8.2	-8.69/-7.73	-6.84/-6.82	-6.57/-5.35
Θ(105°)	-6.21/-5.33	-5.07/-5.26	-5.5/-5.92	-6.7/-7.69	-8.02/-7.28	-5.87/-4.49	-3.81/-3.73	-3.86/-4.22	-5.73/-7.9	-9.64/-11.09	-10.87/-10.43	-10.39/-10.03	-10.89/-12.51	-13.45/-15.26	-15.74/-13.26	-11.62/-11.11	-12.18/-15.97	-17.71/-13.55	-12.66/-13.02	-10.94/-8.98	-8.68/-9.45	-10.33/-9.22	-7.81/-7.56	-8.1/-7.5
Θ(112.5°)	-7.8/-6.77	-6.66/-7.05	-7.39/-7.75	-8.47/-9.2	-9.3/-8.79	-7.95/-7.2	-6.64/-6.01	-5.3/-5.53	-7.36/-9.87	-11.68/-12.36	-11.88/-11.77	-10.98/-11.05	-13.03/-15.16	-17.2/-17.88	-18.53/-14.61	-12.98/-13.44	-17.32/-17.35	-15.22/-12.53	-12.65/-13.74	-12.53/-11.18	-10.95/-11.78	-12.41/-11.18	-9.44/-8.47	-8.57/-8.68
Θ(120°)	-9.88/-8.84	-8.68/-9.39	-9.86/-9.87	-9.89/-10.01	-9.96/-9.81	-9.55/-9.27	-8.54/-7.54	-6.94/-7.5	-9.39/-11.28	-12.55/-13.32	-13.9/-14.08	-12.92/-13.36	-15.82/-18.84	-18.64/-18.51	-18.26/-17.11	-15.81/-17.1	-18.06/-18.06	-13.55/-13.14	-14.73/-16.15	-15.01/-13.32	-12.38/-12.54	-13.46/-13.14	-11.74/-10.58	-10.17/-10.26
Θ(127.5°)	-11.52/-11.36	-11.28/-12.06	-13.17/-12.86	-11.53/-10.64	-10.48/-10.72	-11.19/-11.51	-10.9/-10.27	-8.7/-10	-10.4/-12.42	-14/-15.57	-16.52/-14.77	-13.84/-15.35	-18.32/-17.9	-18.22/-19.01	-17.51/-18.61	-18.72/-17.63	-18.36/-16.17	-13.67/-14.93	-18.05/-18.1	-16.3/-15.26	-14.15/-13.49	-13.73/-13.5	-12.32/-11.55	-11.06/-11.06
Θ(135°)	-12.26/-12.12	-12.02/-12.3	-12.98/-12.95	-11.7/-10.49	-10.18/-10.49	-11.05/-11.33	-10.94/-10.31	-10.12/-10.58	-11.74/-13.4	-15.1/-16.49	-15.58/-13.45	-12.89/-14.14	-16.82/-17.87	-18.93/-18.42	-17.38/-18.08	-18.2/-18.49	-17.72/-18.7	-18.77/-19.13	-18.14/-18.36	-15.25/-13.86	-13.18/-13.21	-14.4/-15.68	-14.81/-13.71	-13.15/-12.6
Θ(142.5°)	-15.77/-14.68	-14.73/-14.15	-14.9/-15.63	-14.82/-13.03	-12/-11.62	-11.63/-11.5	-10.89/-10.24	-10.04/-10.39	-12.6/-13.2	-15.23/-16.61	-15.15/-13.98	-14.4/-16.79	-18/-17.66	-18.23/-19.72	-18.6/-19.17	-18.22/-19.28	-18.82/-18.99	-18.32/-18	-18.76/-16.41	-14.77/-13.67	-13.15/-13.27	-16.36/-16.16	-16.66/-15.75	-15.8/-16.22
Θ(150°)	-18.01/-17.43	-15.71/-14.79	-14.71/-15.63	-17.06/-18.07	-17.56/-18.06	-14.49/-12.66	-11.05/-10.13	-9.81/-10.28	-11.61/-13.83	-16.89/-19.01	-18.61/-17.73	-18.27/-19.57	-18.94/-18.04	-19.72/-17.38	-17.77/-18.85	-18.61/-19.14	-16.76/-15.17	-14.9/-14.11	-14.06/-14.45	-15.25/-16.43	-17.04/-16.61	-15.82/-16.16	-14.71/-17.16	
Θ(157.5°)	-17.35/-18.07	-18.46/-18.1	-18.35/-18.48	-19.04/-17.53	-18.57/-19.08	-17.48/-15.06	-12.97/-11.93	-11.66/-12.3	-13.89/-16.39	-17.79/-19.46	-17.79/-19.29	-17.79/-18.56	-18.28/-18.12	-17.8/-18.24	-18.1/-18.19	-18.89/-18.95	-19.08/-18.41	-17.42/-18.59	-19.25/-17.55	-16.6/-16	-15.87/-15.92	-16.23/-16.58	-16.88/-16.87	-16.61/-16.69
Θ(165°)	-17.26/-17.97	-19.02/-19.39	-17.6/-18.41	-19.27/-18.16	-19.48/-18.28	-17.85/-17.61	-16.36/-15.29	-15.02/-15.14	-15.94/-17.42	-19.18/-17.2	-18.18/-17.67	-19.05/-17.39	-18.07/-17.64	-18.86/-18.17	-19.28/-18.06	-17.54/-18.21	-18.81/-17.95	-18.17/-18.58	-19.09/-17.32	-18.39/-19.95	-19.6/-19.16	-18.24/-19	-18.84/-18.44	-17.71/-17.13
Θ(172.5°)	-19.02/-17.74	-18.71/-19.13	-18.5/-19.21	-18.73/-18.42	-18.36/-18.98	-18.85/-18.9	-17.29/-17.13	-18.36/-19.2	-18.93/-18.56	-17.45/-18.64	-19.3/-17.18	-18.43/-18.01	-18.97/-17.1	-19.19/-18.17	-17.87/-17.77	-18.43/-18.08	-17.73/-17.91	-17.48/-18.98	-17.6/-18.25	-17.96/-18.15	-18.83/-18.46	-18.71/-19.23	-18.02/-17.82	-18.4/-17.98
Θ(180°)	-18.24/-18	-18.51/-18.82	-18.53/-18.41	-18.07/-18.86	-17.94/-19.06	-18.08/-18.34	-17.67/-18.92	-18.51/-19.1	-18.57/-17.64	-18.13/-18.39	-17.82/-18.71	-19.07/-18.56	-18.49/-18.47	-18.21/-17.87	-19.33/-18.09	-18.92/-18.03	-17.59/-17.53	-17.84/-18.08	-18.32/-19.1	-17.79/-18.17	-18.05/-17.26	-18.63/-17.85		
Freq(Hz)	2.4835GPol.	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°)	-2.25/-2.71	-3.36/-4.31	-5.65/-7.48	-10.22/-14.08	-18.54/-17.09	-13.09/-10.35	-8.37/-6.76	-5.47/-4.44	-3.51/-2.77	-2.14/-1.64	-1.31/-1.19	-1.24/-1.46	-1.89/-2.57	-3.43/-4.54	-5.97/-7.6	-9.76/-12.62	-17.41/-17.82	-18.01/-12.13	-8.43/-6.03	-4.35/-3.16	-2.34/-1.78	-1.44/-1.24	-1.18/-1.3	-1.49/-1.77
Θ(7.5°)	-2.75/-2.97	-3.36/-3.97	-5.03/-6.59	-8.89/-12.09	-15.02/-14.45	-11.58/-9.3	-7.05/-5.6	-4.37/-3.39	-2.47/-1.64	-0.93/-0.39	-0.14/-0.11	-0.36/-0.75	-1.36/-2.2	-3.24/-4.52	-6.06/-8	-10.65/-13.45	-18.05/-18.68	-17.89/-12.61	-9.29/-7.05	-5.5/-4.42	-2.89/-2.66	-2.54/-2.5	-2.54/-2.64	
Θ(15°)	-3.53/-4.38	-3.65/-4.05	-4.86/-6.17	-8.18/-10.94	-13.59/-13.31	-10.55/-8.1	-6.42/-5.26	-4.35/-3.54	-2.62/-1.73	-0.96/-0.38	-0.04/-0.06	0/-0.2	-0.59/-1.18	-2.05/-3.19	-4.83/-6.94	-9.78/-13.77	-19.12/-17.94	-19.31/-14.5	-11.58/-9.6	-8.19/-7.21	-6.53/-5.95	-4.42/-4.04	-3.72/-3.54	
Θ(22.5°)	-4.94/-4.71	-4.71/-5.02	-5.76/-7.01	-8.93/-11.62	-13.83/-12.59	-9.66/-7.4	-6.03/-5.26	-4.77/-4.19	-3.3/-2.3	-1.4/-0.85	-0.55/-0.44	-0.47/-0.62	-0.93/-1.48	-2.31/-3.53	-5.18/-7.42	-10.48/-14.46	-19.37/-18.68	-18.57/-16.05	-14.08/-12.56	-11.31/-10.42	-9.8/-9.13	-8.33/-7.62	-6.89/-6.26	-5.67/-5.18
Θ(30°)	-8.01/-7.56	-7.39/-7.52	-8.21/-9.42	-11.4/-13.93	-14.85/-12.02	-9.6/-98	-6.04/-5.77	-5.85/-5.86	-5.15/-3.97	-2.94/-2.3	-2.08/-2.08	-2.16/-2.27	-2.48/-2.88	-3.62/-4.78	-6.49/-8.64	-11.35/-14.54	-17.54/-18.55	-19.17/-18.73	-17.73/-16.43	-15.19/-14.3	-13.57/-12.7	-11.79/-10.82	-10.09/-9.56	-8.89/-8.26
Θ(37.5°)	-13.32/-12.6	-12.1/-12.08	-12.69/-14.11	-16.75/-18.82	-16.27/-11.79	-8.94/-7.23	-6.51/-6.39	-6.83/-7.49	-7.38/-6.37	-5.18/-4.43	-4.5/-4.99	-5.38/-5.61	-5.94/-6.55	-10.07/-12.44	-15.3/-18.02	-17.88/-17.67	-19.03/-18.64	-19.26/-18.04	-17.02/-16.65	-16.36/-15.74	-15.11/-14.76	-14.57/-14.63	-14.43/-13.74	
Θ(45°)	-19.43/-17.33	-18.13/-19.08	-18.65/-18.62	-18.69/-18.16	-15.95/-11.48	-9.90/-7.88	-7.49/-7.62	-8.2/-9.19	-6.97/-9.16	-7.93/-7.02	-7.12/-7.97	-8.57/-8.64	-9.01/-9.79	-10.54/-11.14	-12.31/-14.79	-17.71/-18.57	-18.94/-18.19	-17.34/-18.39	-18.87/-17.55	-17.15/-17.46	-17.56/-17.31	-16.94/-17.04	-16.34/-17.96	-17.72/-17.17
Θ(52.5°)	-18.64/-19.1	-17.27/-18.17	-16.76/-17.7	-17.74/-18.8	-16.05/-12.01	-9.86/-9.06	-9.05/-9.38	-9.94/-10.52	-1.05/-1.14	-10.59/-9.46	-9.69/-10.59	-10.46/-10.39	-11.1/-12.9	-13.18/-13.8	-14.91/-16.85	-17.72/-17.34	-18.31/-18.81	-18.93/-19.03	-18.59/-17.29	-16.93/-17.56	-17.76/-17.54	-17.24/-17.66	-19.72/-17.88	-18.27/-17.81
Θ(60°)	-18.47/-18.46	-18.21/-18.42	-13.42/-13.74	-16.46/-18.66	-18.02/-13.8	-11.47/-10.62	-10.84/-11.03	-11.63/-12.32	-12.44/-13.4	-13.43/-11.63	-11.11/-11.37	-10.73/-10.48	-10.88/-11.57	-12.55/-13.58	-14.38/-14.91	-14.6/-14.16	-15.47/-19.13	-17.78/-18.37	-19.09/-17.63	-16.35/-17.03	-17.7/-17.79	-17.45/-17.98	-17.72/-18.33	-19.32/-18.75
Θ(67.5°)	-18.22/-18.75	-17.25/-14.27	-12.8/-13.15	-16.72/-15.09	-12.7/-12.03	-12.38/-13.1	-13.99/-14.3	-13.89/-14.49	-15.08/-13.31	-12.15/-11.43	-10.45/-10.24	-10.52/-11.39	-12.87/-14.38	-14.98/-14.71	-14.05/-13.91	-15.54/-19.5	-17.27/-18.35	-18.73/-18.82	-18.39/-18.75	-18.5/-18.75	-18.38/-19.02	-19		



Radiated Composite Gain Data Radio 1_2.4GHz

Appendix A

Θ(67.5°)	-0.49/-0.97	-0.83/-0.88	-1.7/-3.31	-4.61/-3.78	-1.34/-1.01	2.46/2.58	1.37/-0.77	-1.52/-0.17	0.54/-0.05	-0.40/-7.1	1.92/2.13	2.27/9	3.48/2.91	1.24/-0.8	-1.41/-0.51	0.47/0.73	0.29/-0.12	0.54/0.9	2.86/3.07	2.83/2.65	2.55/1.94	0.52/-0.64	-0.09/1	1.34/0.7
Θ(75°)	-2.42/-2.67	-2.26/-2.41	-3.42/-5.39	-7.2/-7.06	-4.95/-2.47	-0.59/0.1	-0.75/-3.14	-4.71/-2.53	-0.97/-1.47	-2.47/-1.22	0.49/0.92	0.78/1.49	2.32/2.1	0.55/-1.49	-1.94/-0.72	0.41/0.6	-0.18/-1.09	-0.48/-1.25	2.37/2.5	2.15/2.05	2.16/1.59	-0.18/-2	-1.52/-0.37	-0.16/-1.05
Θ(82.5°)	-6.42/-5.9	-5.29/-5.75	-7.33/-9.51	-10.33/-8.84	-7.01/-5.47	-3.76/-2.81	-3.51/-6.11	-8.75/-5.02	-2.11/-2.27	-3.67/-2.32	-0.57/-0.5	-1.07/-3.07	0.59/0.34	-1.4/-3.44	-3.45/-1.74	-0.35/-0.12	-0.93/-1.74	-0.80/-8.4	1.57/1.33	0.80/96	1.30/58	-1.84/-0.7	-3.38/-2.51	-3.04/-4.67
Θ(90°)	-7.91/-6.89	-7.23/-9.07	-11.52/-12.28	-11.26/-10.16	-10.03/-10.62	-8.61/-6.3	-5.6/-6.68	-10.58/-8.86	-4.06/-3.41	-5.39/-4.76	-2.12/-1.4	-2.38/-2.64	-1.51/-1.16	-2.51/-4.84	-5.36/-3.21	-1.2/-0.59	-1.35/-2.59	-1.97/-0.48	-0.09/-0.77	-1.33/-0.55	0.33/-0.2	-2.49/-4.34	-3.51/-3.33	-4.76/-7.05
Θ(97.5°)	-8.61/-7.35	-8.36/-10.99	-12.67/-11.18	-9.43/-8.83	-10.32/-16.63	-15.96/-10.08	-7.63/-7.24	-10.06/-10.45	-5.12/-4.17	-6.47/-6.69	-3.63/-3.17	-4.78/-5.56	-4.18/-3.49	-4.62/-6.48	-6.49/-4.33	-2.5/-2.15	-3.55/-4.82	-3.07/-1.59	-1.85/-3.04	-3.11/-1.53	-0.42/-1.09	-3.65/-5.34	-4.44/-4.66	-6.57/-8.68
Θ(105°)	-9.84/-8.43	-10.41/-15.12	-16.75/-13.29	-10.98/-9.85	-10.97/-16.68	-19.14/-17.95	-11.44/-7.93	-8.74/-11.94	-7.47/-5.64	-7.68/-9.17	-6.4/-7.2	-5.92/-4.72	-6.39/-4.95	-5.3/-6.66	-7.2/-5.97	-4.33/-3.95	-5.31/-5.6	-3.5/-2.71	-4.11/-6.55	-6.29/-3.76	-2.45/-3.42	-6.35/-7.04	-5.81/-6.73	-9.83/-11.93
Θ(112.5°)	-11.69/-10.7	-14.24/-19.37	-15.99/-12.61	-11.84/-12.25	-13.56/-15.11	-15.62/-16.59	-13.93/-7.99	-7.96/-11.44	-9.09/-7.19	-9.04/-11.69	-9/-7.51	-8.17/-10.06	-10.23/-8.73	-8.23/-7.96	-7.82/-7.04	-5.81/-5.66	-7.37/-6.69	-4.78/-5.2	-8.3/-10.09	-7.19/-4.87	-4.13/-5.42	-7.64/-7.45	-7.19/-9.21	-13.43/-14.41
Θ(120°)	-14.3/-14.44	-18.02/-19.02	-15.71/-12.57	-11.46/-12.08	-12.81/-12.48	-13.28/-19.38	-15/-8.25	-7.57/-11.02	-13.59/-11.42	-12.05/-13.29	-10.16/-7.39	-6.79/-7.85	-9.61/-9.9	-8.57/-7.66	-7.98/-8.4	-8.25/-8.93	-10.12/-7.59	-5.27/-5.88	-8.94/-10.74	-8.93/-7.65	-7.51/-9.08	-11.14/-10.37	-10.22/-12.57	-16.29/-16
Θ(127.5°)	-14.77/-17.64	-18.01/-17.69	-18.22/-15.36	-13.53/-13.72	-14.31/-14.09	-15.44/-17.93	-15.33/-9.45	-8.54/-10.97	-14.69/-15.24	-15.93/-18.13	-13.77/-10.62	-9.75/-10.03	-10.43/-9.98	-9.1/-9.18	-10.42/-11.82	-12.62/-12.91	-10.84/-7.78	-6.75/-8.5	-13.4/-16.15	-13.17/-12.25	-12.6/-13.37	-12.79/-11.38	-11.6/-13.83	-15.5/-14.64
Θ(135°)	-16.08/-18.35	-17.78/-18.9	-17.41/-18.83	-18.06/-16.58	-14.45/-12.53	-12.55/-15.42	-18.13/-15.96	-13.88/-14.94	-17.72/-18.38	-17.37/-18.35	-18.54/-15.35	-12.64/-10.95	-10.68/-11.17	-11.34/-11.4	-11.92/-12.98	-14.14/-13.91	-11.75/-9.69	-9.31/-11.18	-14.42/-13.38	-11.17/-10.67	-11.07/-11.53	-11.65/-11.59	-12.5/-14.12	-14.79/-14.4
Θ(142.5°)	-18.84/-18.57	-18.95/-18.07	-18.73/-18.36	-18.58/-16.54	-13.38/-11.5	-11.57/-13.96	-18.73/-18.59	-18.78/-16.46	-17.21/-17.77	-17.93/-19.13	-17.69/-16.55	-13.8/-12.63	-12.92/-14.55	-16.22/-16.58	-15.67/-14.68	-13.65/-12.39	-10.87/-9.99	-10.15/-11.2	-11.87/-11.15	-10.39/-10.54	-11.52/-12.94	-14.42/-16.06	-18.28/-17.97	-18.39/-18.42
Θ(150°)	-18.32/-17.77	-18.02/-18.96	-17.97/-18.81	-18.95/-19.24	-18.62/-17.58	-17.62/-17.25	-18.16/-19.34	-18.13/-18.88	-19.27/-17.17	-18.16/-17.93	-17.72/-16.18	-15.16/-14.84	-15.41/-15.07	-14.23/-13.32	-12.71/-13.84	-12.58/-11.48	-10.02/-9.76	-10.34/-11.29	-12/-12.31	-12.69/-13.68	-15.61/-18.24	-19.35/-19	-18.99/-18.17	-18.94/-17.57
Θ(157.5°)	-18.05/-19.14	-19.3/-18.15	-17.64/-16.59	-16.14/-16.47	-18.19/-18.6	-18.66/-18.72	-19.08/-18.81	-17.77/-18.11	-18.94/-18.62	-18.3/-18.45	-18.36/-19.71	-17.17/-15.6	-15.04/-14.89	-14.66/-13.91	-12.87/-11.89	-11.11/-10.54	-10.19/-10.28	-10.84/-11.81	-13.32/-15.15	-16.99/-17.87	-17.4/-16.14	-15.12/-14.66	-15.13/-16.57	-19.17/-19.04
Θ(165°)	-18.1/-18.26	-16.95/-16.69	-17.32/-18.36	-19.43/-19.29	-19.13/-18	-18.11/-17.77	-18.38/-18.59	-18.78/-16.46	-18.47/-18.79	-18.7/-18.45	-18.8/-17.27	-16.42/-15.55	-15.63/-15.31	-14.97/-14.71	-14.34/-13.95	-13.62/-13.75	-10.87/-9.99	-18.71/-17.73	-19/-18.2	-19.62/-18.56	-18.5/-19.07	-19.18/-18.74	-19.19/-19.12	
Θ(172.5°)	-19.43/-18.58	-18.21/-18.65	-19.16/-18.33	-17.12/-18.42	-17.93/-18.59	-18.38/-18.93	-19.27/-19.02	-18.47/-17.52	-18.46/-19.23	-18.34/-17.16	-18.6/-17.47	-18.53/-17.72	-19.87/-19.67	-18.67/-19.05	-17.73/-18.51	-19.05/-17.94	-18.94/-18.3	-18.2/-17.61	-17.89/-19.21	-18.66/-17.99	-18.22/-18.92	-17.69/-18.77	-19.12/-17.97	
Θ(180°)	-17.98/-17.52	-17.94/-18.88	-19.07/-18.83	-18.3/-17.81	-18.9/-19	-19.38/-18.53	-18.93/-18.59	-17.32/-17.81	-18.02/-17.62	-17.96/-18.29	-17.56/-18.1	-19.12/-18.89	-18.41/-18.09	-19.02/-17.77	-19.11/-18.1	-18.69/-18.52	-18.87/-19.01	-19.2/-18.62	-17.92/-17.73	-18.45/-18.82	-18.43/-18.44	-17.61/-19.24	-17.68/-18.44	-17.92/-17.79
Freq(Hz)	2.450/Pol	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-1.9/-2.57	-3.45/-4.45	-5.66/-7.06	-8.82/-10.66	-11.4/-10.09	-8.3/-6.74	-5.47/-4.3	-3.19/-2.23	-1.54/-1.13	-0.91/-0.83	-0.86/-1	-1.34/-1.92	-2.74/-3.69	-4.73/-5.75	-6.85/-8.21	-9.8/-11.23	-11.95/-11.71	-10.21/-8.37	-6.71/-5.23	-3.93/-2.91	-2.13/-1.52	-1.14/-0.92	-0.86/-0.97	-1.2/-1.53
Θ(7.5°)	-1.64/-2.05	-2.61/-5.23	-4.36/-6.59	-7.33/-9.25	-10.63/-10.82	-9.73/-8.19	-6.62/-5.17	-3.85/-2.87	-2.15/-1.71	-1.48/-1.48	-1.62/-1.86	-2.32/-3.09	-4.22/-5.72	-7.41/-9	-10.35/-11.55	-12.52/-12.51	-11.76/-10.41	-8.74/-7.2	-5.91/-4.72	-3.7/-2.86	-2.24/-1.74	-1.37/-1.1	-0.93/-0.95	-1.1/-1.33
Θ(15°)	-2.91/-2.97	-2.98/-3.34	-4.23/-5.57	-7.39/-9.41	-10.91/-11.25	-10.41/-8.53	-6.99/-5.82	-5.03/-4.61	-4.26/-3.94	-3.96/-3.46	-3.7/-4.41	-5.63/-7.44	-10.02/-13.56	-14.27/-17.85	-16.45/-12.85	-10.75/-9.08	-7.59/-6.48	-5.53/-4.68	-4.04/-3.61	-3.39/-3.27	-3.14/-2.92	-2.8/-2.77	-2.83/-2.94	
Θ(22.5°)	-5.91/-5.06	-4.52/-4.45	-4.97/-6.12	-7.74/-9.27	-9.89/-9.24	-7.99/-6.76	-5.95/-5.58	-5.66/-6.06	-6.59/-6.85	-6.71/-6.19	-5.47/-5.05	-5.07/-5.68	-6.97/-9.21	-12.77/-18.33	-18.49/-17.83	-14.67/-11.92	-9.81/-8.41	-7.3/-6.48	-5.74/-5.32	-5.15/-5.27	-5.64/-6.15	-6.61/-6.96	-7.22/-7.33	-7.07/-6.46
Θ(30°)	-10.08/-9.12	-6.17/-5.23	-5.18/-5.87	-6.87/-7.63	-7.66/-7.8	-6.56/-6.1	-5.88/-6.01	-6.66/-7.8	-7.94/-10.92	-17.11/-10.03	-8.32/-6.25	-6.96/-8.44	-18.71/-16.28	-13.21/-11.03	-9.51/-8.55	-7.8/-7.21	-6.92/-6.96	-7.46/-6.49	-10.66/-12.15	-14.1/-15.26	-15.27/-14.72	-15.17/-17.46	-13.92/-18.11	
Θ(37.5°)	-10.81/-9.98	-11.5/-5.65	-5.19/-5.59	-6.25/-6.69	-6.61/-6.53	-6.75/-7.21	-7.66/-7.96	-8.43/-9.49	-11.74/-15.31	-18.76/-15.74	-12.09/-9.36	-7.57/-6.7	-6.86/-7.8	-9.51/-11.89	-14.48/-14.86	-13.91/-11.54	-10.34/-9.7	-9.23/-9.84	-9.14/-9.86	-11.24/-13.94	-18.76/-17.49	-16.83/-13.15	-11.14/-10.61	-11.05/-11.42
Θ(45°)	-9.66/-9.26	-7.84/-6.38	-5.71/-5.84	-6.19/-6.24	-6.02/-6.25	-7.5/-9.7	-12.01/-13.11	-12.39/-11.62	-12.36/-15.9	-19.11/-18.66	-15.14/-11.62	-8.96/-7.18	-6.64/-7.07	-8.41/-10.4	-13.09/-14.64	-14.25/-13.07	-12.04/-11.32	-11.04/-11.28	-11.9/-13.21	-15.91/-18	-17.97/-13.61	-9.93/-7.73	-6.59/-6.59	-7.66/-9
Θ(52.5°)	-9.16/-8.78	-7.92/-9.61	-6.49/-6.67	-6.66/-5.98	-5.38/-5.85	-8.24/-12.98	-18.95/-19.02	-18.2/-13.98	-12.01/-13.95	-17.23/-16.62	-12.53/-10.62	-8.9/-7.29	-6.79/-7.36	-8.52/-10.33	-12.63/-13.98	-13.91/-13.22	-12.22/-11.52	-11.4/-11.94	-13.21/-15.67	-19.46/-18.8	-15.58/-11.22	-8.01/-9.53	-4.91/-5.21	-6.8/-6.58
Θ(60°)	-9.01/-8.08	-7.57/-7.28	-7.44/-7.85	-7.08/-7.4	-5.67/-6.4	-9.82/-17.3	-18.54/-17.25	-19.31/-13.68	-12.58/-12.79	-17.76/-17.58	-12.99/-10.91	-9.42/-7.94	-7.41/-7.92	-8.87/-10.43	-12.71/-13.84	-13.8/-13.4	-12.58/-11.48	-10.74/-10.87	-12.25/-15.4	-15.34/-11.58	-8.55/-7.58	-4.69/-5.08	-6.98/-9.03	
Θ(67.5°)	-10.86/-9.06	-8.38/-8.4	-8.91/-9.37	-9.08/-7.7	-6.84/-7.94	-12.3/-17.51	-14.69/-13.74	-18.46/-17.51	-13.63/-13.57	-17.48/-19.03	-13.58/-11.24	-8.99/-8.98	-8.92/-9.42	-10/-11.75	-14.36/-15.18	-15.15/-14.83	-13.88/-12.37	-11.06/-10.63	-11.83/-15.26	-17.32/-18.29	-15.31/-12.71	-9.37/-6.76	-5.88/-6.07	-8.41/-11.32
Θ(75°)	-13.41/-10.77	-10.41/-10.79	-11.65/-12.13	-11.79/-10.09	-8.9/-8.81	-14.63/-19.11	-13.93/-13.4	-18.92/-18.3	-15.14/-14.45	-18.14/-18.21	-16.39/-13.4	-11.76/-10.93	-10.77/-11.05	-11.38/-12.67	-15.12/-15.72	-14.81/-14.39	-13.75/-12.59	-11.36/-10.62	-11.4/-14.46	-18.58/-18.3	-15.79/-14.38	-11.29/-8.18	-6.99/-7.84	-10.98/-15.39
Θ(82.5°)	-13.05/-10.79	-11.92/-13.79	-15.31/-16.69	-16.77/-14.28	-12.04/-12.9	-18.49/-18.25	-14.74/-15.24	-18.07/-18.1	-16.41/-13.2	-18.17/-16.46	-14/-13.14	-13.21/-13.53	-13.38/-14.45	-15.86/-15.29	-14.32/-14.48	-14.31/-12.87	-11.38/-10.68	-11.5/-14.38	-19.35/-18.72	-15.84/-14.73	-12.12/-9.27	-8.17/-9.36	-12.8/-16.35	
Θ(90°)	-15/-11.87	-13.12/-17.15	-18.55/-18.27	-18.08/-19.02	-15.39/-15.44	-17.06/-18.05	-16.16/-16.64	-18.06/-18.78	-17.9/-18.39	-17.11/-17.54	-18.35/-17.54	-17.06/-16.38	-16.96/-16.67	-16.48/-17.16	-18.04/-17.02	-16.2/-16.7	-16.45/-13.83	-11.54/-10.52	-11.12/-13.68	-16.9/-17.85	-16.1/-14.53	-12.82/-10.41	-9.29/-10.57	-13.92/-18.11
Θ(97.5°)	-17.32/-12.88	-13.81/-18.23	-18.05/-18.36	-17.97/-18.69	-16.52/-15.5	-17.85/-17.91	-16.22/-17.09	-17.8/-17.81	-18.8/-18.76	-19.12/-18.53	-18.11/-17.25	-18.75/-17.79	-17.51/-18.01	-18.74/-18.91	-17.87/-16.87	-16.81/-17.67	-17.75/-15.17	-12.8/-11.77	-12.52/-15.84	-18.62/-17.84	-16.07/-14.34	-13.28/-11.44	-10.34/-11.68	-15.88/-18.36
Θ(105°)	-18.34/-14.16	-14.84/-17.53	-18.65/-18.95	-18/-18.66	-18.67/-17.22	-19.43/-18.65	-15.72/-16.91	-19.05/-18.28	-19.19/-17.72	-17.93/-18.74	-17.99/-16.89	-18.83/-19.3	-19.38/-18.15	-18.11/-17.76	-18.38/-17.26	-17.51/-18.81	-18.62/-17.03	-13.95/-12.19	-12.9/-16.67	-17.58/-17.29	-16.14/-13.89	-13.34/-12.44	-11.34/-11.86	-15.07/-18.22
Θ(112.5°)	-17.79/-13.58	-14.33/-18.28	-17.27/-17.66	-18.13/-18.52	-18.76/-19.27	-18.53/-18.31	-14.68/-16.68																	



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Freq(Hz)	5.2G	5.3G	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	4.53	4.73	5.43	5.95	4.1
Ant. 2 Max Gain (dBi)	4.42	4.45	5.71	4.41	4.4
Ant. 3 Max Gain (dBi)	4.41	4.77	3.91	3.44	3.28
Ant. 4 Max Gain (dBi)	4.3	4.6	3.73	4	4.35
Ant. 1 Polarization/θ(°)/Φ(°)	Phi/75/255	Phi/60/37.5	Phi/30/45	Phi/30/52.5	Phi/30/52.5
Ant. 2 Polarization/θ(°)/Φ(°)	Phi/60/112.5	Phi/60/112.5	Phi/37.5/90	Phi/37.5/82.5	Phi/37.5/82.5
Ant. 3 Polarization/θ(°)/Φ(°)	Phi/52.5/30	Phi/37.5/262.5	Phi/82.5/292.5	Phi/37.5/120	Phi/82.5/277.5
Ant. 4 Polarization/θ(°)/Φ(°)	Phi/52.5/52.5	Phi/52.5/97.5	Phi/45/45	Phi/37.5/217.5	Phi/45/225
Max Gain (dBi)	4.53	4.77	5.71	5.95	4.4
DG [1SS] (dBi)	8.62	9.31	9.18	8.43	8.05
DG [2SS] (dBi)	5.62	6.31	6.18	5.95	5.05
DG [4SS] (dBi)	4.53	4.77	5.71	5.95	4.4



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

DG 1SS Result

Freq(Hz)	5.2GPol.	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°)	-5.89/-5.63	-5.27/-4.7	-4.38/-4.35	-4.72/-4.59	-4.27/-4.37	-2.28/-1.46	-1.01/-0.78	-0.06/-0.7	-0.71/-0.65	-0.81/-1.43	-2.59/-3.32	-4.04/-4.62	-4.78/-4.86	-5.06/-5.1	-5.15/-4.81	-4.05/-3.67	-3.45/-2.84	-1.99/-1.5	-1.23/-1.18	-0.40/-0.52	-0.84/-1.35	-2.02/-3.02	-4.09/-4.99	
Θ(7.5°)	-4.09/-3.98	-3.58/-3.06	-2.4/-1.87	-1.63/-1.58	-1.56/-1.85	-1.99/-2.01	-1.7/-1.4	-1.38/-1.32	-1.28/-1.05	-1.2/-1.49	-1.57/-1.72	-2.21/-2.3	-2.84/-2.74	-2.68/-2.52	-2.37/-2.36	-2.19/-1.83	-1.32/-0.61	-0.120/-0.16	0.17/0.03	-0.14/-0.29	-0.62/-1.34	-2.56/-3.47	-4.43/-4.86	-5.15/-4.99
Θ(15°)	1.31/92	2.54/-93	3.18/-23	3.3/-25	3.12/-89	2.76/-2.58	2.62/-2.75	2.62/-43	2.22/-1.82	1.220/-7	0.440/-36	0.08/-0.29	-0.52/-0.49	-0.02/-6	0.37/0.46	0.65/-1.1	1.74/-2.3	2.65/-2.72	2.48/-2.01	1.56/-1.15	1.1/-1.17	1.21/-23	1.27/0.95	0.550/-4.7
Θ(22.5°)	3.44/-3.79	4.26/-63	4.85/-13	4.85/-71	5.56/-45	5.26/-23	5.39/-57	5.48/-17	4.65/-406	3.61/-3.35	3.43/-3.38	3.11/-2.92	2.85/-2.94	3.32/-3.49	3.27/-2.3	2.53/	3.84/-4.77	5.65/-99	5.86/-35	4.74/-3.1	4.32/-4.71	4.69/-4.3	3.72/-2.8	3.08/-0.7
Θ(30°)	5.03/-1	5.41/-5.99	6.38/-6.34	6.19/-15	6.57/-6.94	777/-19	7.427/-1.1	6.19/-5	3.68/-0.1	3.33/-96	4.58/-4.92	4.88/-4.88	4.98/-4.98	5.15/-5.1	5.24/-23	3.68/-3.9	4.74/-5.87	6.71/-6.97	6.79/-6.43	6.05/-6.1	5.25/-5.36	5.55/-5.47	4.78/-4.14	4.17/-4.1
Θ(37.5°)	6.32/-6.35	6.61/-7.33	7.927/-7	6.96/-6.77	7.267/-5.9	7.74/-8.2	8.467/-9.4	6.66/-2.5	4.61/-4.57	4.765/-0.9	5.67/-93	5.98/-6.5	6.84/-6.94	7.237/-4.1	6.78/-5.7	4.994/-7.9	5.57/-6.67	6.97/-6.71	6.53/-6.34	5.81/-5.1	4.78/-4.92	5.07/-6.06	5.14/-5.32	5.56/-5.95
Θ(45°)	6.56/-6.79	7.067/-66	8.26/-25	7.647/-36	7.757/-92	7.667/-89	8.38/-16	75/-92	5.68/-5.88	5.95/-96	6.23/-21	6.01/-6.03	6.43/-6.67	777/-44	6.95/-12	5.48/-5.31	6.137/-16	7.567/-43	6.727/-0.3	6.44/-5.21	4.24/-6.4	5.125/-0.8	4.86/-5.38	6.056/-3.7
Θ(52.5°)	6.987/-4.9	7.4277/-9	8.348/-4.8	8.17/-65	8.027/-9.1	7.467/-5.7	8.048/-0.5	7.256/-4.8	6.275/-8.3	5.86/-4.7	6.635/-7.6	5.025/-2.9	6.48/-7	6.846/-9	6.155/-8.1	5.715/-5.9	5.996/-8.6	6.796/-3	6.156/-1.9	5.954/-8.9	4.245/-0.8	5.745/-8.8	5.134/-8.2	5.476/-0.9
Θ(60°)	7.497/-6.6	7.477/-9.1	8.128/-62	8.557/-89	8.118/-22	7.767/-37	7.477/-65	7.717/-26	7.136/-7.8	6.517/-2.1	7.145/-89	5.175/-59	6.667/-33	6.886/-4.8	6.376/-0.4	6.136/-1.9	6.126/-7.3	6.655/-6	5.235/-3.1	5.034/-4.8	4.696/-12	6.746/-7.9	6.085/-4	5.976/-68
Θ(67.5°)	7.437/-22	6.797/-22	7.518/-15	8.117/-56	7.767/-99	7.637/-08	6.87/-28	7.677/-77	8.07/-8	7.698/-2.1	7.86/-24	6.417/-08	7.967/-82	6.716/-66	7.26/-56	6.666/-99	6.857/-35	7.186/-36	5.845/-7	6.066/-52	6.57/-13	7.447/-35	6.746/-37	6.917/-16
Θ(75°)	6.556/-22	5.635/-88	6.176/-78	6.946/-4.9	6.66/-6.93	6.56/-06	5.856/-77	7.277/-23	7.777/-84	7.477/-57	7.335/-96	5.926/-67	7.387/-68	6.795/-65	6.46/-0.3	6.056/-97	7.37/-84	7.967/-35	6.66/-8.3	7.816/-32	7.797/-35	7.347/-0.5	5.995/-84	6.356/-64
Θ(82.5°)	5.16/-4.59	3.53/-95	4.32/-92	5.1/-46	4.925/-2	5.134/-97	4.555/-57	5.935/-9.1	6.586/-6	6.26/-27	6.165/-24	5.536/-15	6.115/-82	4.364/-0.3	5.024/-62	4.965/-94	6.797/-53	7.446/-96	6.526/-6	7.838/-37	7.386/-34	6.085/-84	4.754/-32	5.135/-19
Θ(90°)	3.222/-7.3	1.4/-9	2.262/-5.1	2.672/-27	2.592/-83	2.296/-86	2.253/-44	4.013/-84	4.334/-56	4.293/-97	4.53/-72	3.174/-29	4.634/-72	3.81/-76	2.822/-53	2.373/-88	5.225/-77	6.65/-72	5.354/-97	6.276/-97	5.784/-19	3.934/-15	2.932/-67	3.553/-3.8
Θ(97.5°)	1.67/-1.44	-0.31/-0.77	-0.84/-0.27	0.31/-0.12	0.1/-0.28	0.040/-0.29	0.491/-6.5	1.85/-1.45	1.95/-1.86	1.06/-1	2.131/-56	1.352/-0.6	2.031/-6.5	-0.25/-0.22	0.730/-1.3	0.751/-1.3	2.572/-8.7	2.692/-5.9	2.461/-7.8	3.14/-1	2.821/-0.4	0.49/-1.4	0.581/-0.8	1.461/-4.4
Θ(105°)	-0.73/-0.58	-2.06/-3.44	-2.68/-2.16	-1.83/-1.65	-2.03/-1.61	-1.12/-1.18	-0.430/-0.5	-0.03/-1.37	-0.581/-0.6	-1.5/-0.58	0.020/-0.7	-0.48/-2.38	-1.67/-1.7	-1.1/-1	-0.9/-1.92	-1.44/-1.44	-2.24/-3.45	-1.070/-26	-0.54/-1.82	-1.240/-36	-0.82/-1.01	-0.78/-0.55		
Θ(112.5°)	-2.92/-2.65	-3.81/-4.49	-3.78/-4.58	-3.42/-3.56	-3.9/-2.87	-2.59/-3.02	-1.78/-3.7	-2.37/-3.24	-1.95/-2.13	-3.02/-2.97	-2.09/-1.58	-1.61/-1.91	-1.95/-2.38	-3.69/-4.51	-2.01/-2.62	-2.92/-3.05	-2.45/-1.32	-3.57/-3.68	-2.45/-1.2	-1.392/-3.63	-2.37/-1.55	-2.74/-2.66	-8.62/-2.57	
Θ(120°)	-4.71/-4.19	-5.27/-6.54	-5.35/-5.82	-5.35/-5.52	-6.54/-7.17	-8.6/-5.74	-4.8/-5.02	-4.56/-5.03	-4.7/-4.65	-4.4/-3.51	-4.1/-4.16	-5.98/-4.97	-4.87/-2.67	-4.07/-5.56	-7.53/-5.69	-5.57/-2.96	-3.78/-2.75	-2.67/-5.28	-4.58/-4.62	-3.51/-1.52	-1.44/-4.37	-3.32/-4.42	-7.89/-5.27	-5.16/-5
Θ(127.5°)	-6.74/-6.61	-7.4/-6.59	-7.49/-7.59	-6.77/-5.96	-7.71/-9.5	-8.51/-8.32	-7.97/-8.21	-8.71/-8.66	-6.45/-6.66	-7.06/-6.08	-4.93/-5.09	-6.38/-8.16	-5.95/-5.41	-7.92/-6.63	-9.74/-7.4	-4.115/-15	-6.81/-5.7	-6.65/-6.98	-4.84/-6.97	-8.2/-5.96	-5.24/-7.78	-5.18/-5.99	-10.74/-8.05	-5.62/-5.98
Θ(135°)	-8.29/-7.36	-7.94/-7.42	-6.94/-8.56	-8.2/-6.66	-6.78/-8.88	-9.28/-7.72	-8.15/-9.38	-6.77/-8.2	-6.27/-6.46	-7.93/-7.52	-5.89/-5.61	-4.14/-5.95	-6.67/-5.93	-8.67/-4.89	-10.72/-10.91	-9.04/-7.2	-7.44/-8.05	-8.54/-7.08	-6.22/-7.75	-10.03/-6.78	-6.32/-5.87	-7.91/-8.03	-10.01/-9.07	-6.57/-7.18
Θ(142.5°)	-7.15/-8.84	-9.95/-8.39	-7.93/-10.24	-11.5/-8.82	-7.43/-7.29	-6.68/-9.66	-10.41/-9.24	-7.53/-7.42	-9.78/-11.19	-10.37/-10.73	-10.33/-10.47	-9.79/-9.06	-8.15/-7.98	-10.23/-10.36	-11.27/-8.92	-7.19/-7.71	-7.74/-7.63	-6.13/-7.11	-8.34/-6.79	-7.05/-6.44	-7.87/-5.8	-9.02/-10.44	-9.63/-9.75	-8.45/-7.86
Θ(150°)	-11.3/-12.09	-12.6/-11.42	-11.62/-10.64	-11.25/-12.24	-12.08/-9.71	-8.92/-9.68	-8.92/-8.66	-7.47/-5.2	-5.44/-7.92	-9.31/-10.1	-9.42/-8.29	-7.65/-7.07	-8.61/-8.51	-9.03/-10.27	-11.42/-12.02	-12.06/-12.58	-12.16/-12.29	-10.92/-10.64	-9.59/-9.5	-9.98/-4.99	-11.21/-11.46	-10.47/-10.43	-11.24/-10.21	-10.47/-10.67
Θ(157.5°)	-12.54/-12.38	-12.59/-12.06	-12.35/-12.28	-12.41/-12.19	-11.64/-10	-8.38/-7.78	-8.19/-8.78	-8.6/-9.59	-10.59/-11.62	-12.48/-11.58	-11.96/-11.62	-10.52/-12.22	-12.36/-11.11	-11.11/-11.69	-12.19/-12.3	-11.98/-12.58	-12.44/-12	-12.03/-12.21	-11.96/-11.8	-11.68/-12.25	-12.11/-11.68	-11.68/-12.25	-11.15/-11.21	-10.4/-11.4
Θ(165°)	-12.51/-11.93	-12.33/-11.67	-11.23/-11.49	-12.34/-12.16	-10.92/-10.2	-10.14/-10.95	-10.68/-10.58	-11.35/-11.76	-12.17/-12.46	-12.18/-11.96	-11.18/-10.84	-10.57/-11.27	-11.95/-12.18	-12.02/-12.12	-12.52/-12.34	-11.76/-12.2	-12.3/-12.08	-12.08/-12.53	-11.97/-11.08	-10.79/-10.44	-11.66/-11.2	-10.77/-10.78	-11.32/-11.97	-10.48/-12.38
Θ(172.5°)	-11.39/-12.35	-11.91/-11.43	-11.08/-10.82	-10.41/-9.29	-9.41/-9.72	-11.15/-12.12	-12.08/-11.54	-11.21/-11.19	-11/-10.73	-10.32/-9.92	-10.53/-11.67	-12.81/-12.23	-12.35/-12.14	-11.65/-10.99	-10.72/-10.62	-11.09/-11.55	-11.81/-12.25	-12.23/-12.31	-12.25/-12.31	-12.67/-12.19	-11.56/-11.64	-12.1/-11.92	-11.78/-11.53	-10.87/-10.77
Θ(180°)	-12.1/-12.62	-12/-11.97	-12.44/-12.03	-11.35/-10.55	-9.75/-9.49	-9.03/-8.95	-9/-9.28	-9.61/-9.58	-10.18/-10.47	-10.18/-9.85	-10.07/-10.77	-11.14/-11.48	-11.86/-12.72	-12.14/-12.76	-11.57/-12.5	-12.03/-11.31	-10.97/-10.35	-9.62/-9.33	-9.21/-9.38	-9.21/-9.48	-9.17/-9.46	-9.57/-10.09	-10.81/-11.48	-11.82/-11.95
Freq(Hz)	5.2GPol.	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°)	-2.26/-1.88	-1.75/-1.56	-1.33/-1.18	-1.37/-1.77	-2.31/-2.9	-3.44/-3.84	-4.64/-5.14	-5.31/-4.87	-4.76/-4.91	-4.91/-4.76	-4.79/-4.27	-3.48/-2.61	-2.02/-1.6	-1.29/-1.07	-1.21/-1.41	-1.9/-2.26	-2.44/-3.25	-4.82/-6.35	-6.93/-5.94	-5.48/-5.24	-5.74/-5.6	-4.59/-5.34	-3.24/-3.53	-3.53/-2.84
Θ(7.5°)	-3.53/-3.7	-4.3/-0.53	-5.38/-5.41	-5.37/-5.36	-5.43/-5.36	-5.08/-4.79	-5/-5.48	-5.6/-4.57	-3.42/-2.9	-2.64/-2.77	-3.05/-3.16	-3.82/-3.74	-3.38/-2.4	-1.8/-1.51	-1.49/-1.61	-1.84/-1.96	-2.31/-1.38	-4.5/-5.1	-5.56/-5.58	-5.46/-6	-7.14/-6.76	-6.25/-5.72	-5.1/-4.1	-3.23/-2.8
Θ(15°)	-6.99/-6.02	-6.42/-7	-7.3/-7.64	-6.47/-5.1	-4.42/-3.64	-2.86/-2.22	-2.29/-2.84	-3.48/-3.16	-3.25/-3.55	-3.78/-4.31	-4.51/-4.52	-4.18/-4.12	-4.61/-5.7	-6.83/-7.25	-6.23/-5.17	-4.54/-5.6	-5.04/-4.76	-6.67/-8.04	-8.45/-8.23	-8.82/-10.9	-10.8/-10.73	-9.53/-7.59	-10.99/-7.02	
Θ(22.5°)	-7.98/-6.89	-7.25/-8.19	-8.6/-6.6	-4.55/-3.68	-3.66/-3.91	-3.78/-3.41	-3.55/-4.44	-6.03/-6.77	-5.49/-4.03	-4.65/-6.89	-9.22/-10.97	-8.03/-6.52	-7.49/-7.66	-5.25/-3.96	-4.39/-5.26	-5.94/-6.19	-5.24/-4.64	-4.88/-6.03	-7.04/-6.93	-6.44/-5.57	-5.11/-6.61	-4.39/-5.06	-5.88/-6.37	-7.46/-7.67
Θ(30°)	-5.63/-5.96	-6.73/-8.24	-8.55/-6.43	-3.65/-2.9	-4.26/-6.47	-7.95/-6.77	-7.47/-1.44	-4.74/-5.62	-3.64/-1.6	-1.56/-3.82	-7.17/-8.27	-6.49/-6.28	-7.09/-5.74	-2.93/-4.28	-4.06/-5.88	-8.18/-7.97	-5.65/-3.3	-2.89/-3.62	-5.8/-8.44	-8.85/-7.98	-6.13/-4.78	-3.78/-4.28	-4.98/-4.6	-5.04/-5.84
Θ(37.5°)	-2.74/-2.52	-3.14/-5.26	-7.96/-7.13	-3.26/-3.13	-4.91/-6.06	-6.75/-5.99	-5.13/-4.34	-3.98/-5.31	-6.43/-6.48	-5.96/-5.94	-5.13/-4.82	-4.64/-5.99	-5.99/-6.06	-5.98/-5.1	-3.32/-1.37	-5.91/-7.76	-5.75/-3.89	-2.86/-2.21	-3.15/-4.61	-10.73/-10.26	-9.1/-7.04	-6/-5.22	-4.57/-3.44	-3.31/-3.06
Θ(45°)	-3.92/-4.1	-4.29/-4.64	-5.4/-4.45	-2.54/-3.79	-6.52/-5.82	-6.37/-8.21	-6.49/-4.2	-5.17/-8.02	-11.33/-9.81	-4.45/-2.37	-4.21/-6.16	-7.31/-6.89	-6.16/-7.72	-9.42/-6.68	-2.91/-3.32	-6.44/-6.72	-5.53/-4.94	-5.56/-3.27	-3.02/-6.37					



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(22.5°)	4.645.21	5.936.64	7.027.21	7.116.98	6.96.71	6.255.99	5.95.86	5.625.12	4.54.18	4.344.74	5.145.26	5.014.47	4.084.23	4.64.82	4.543.78	3.032.73	3.023.54	4.114.38	4.394.5	4.434.28	4.013.69	3.63.8	4.24.47	4.444.26
Θ(30°)	5.355.98	6.917.55	7.928.15	8.238.2	8.017.7	7.317.12	7.046.94	6.566.14	5.675.48	5.475.94	6.687.02	6.715.86	5.25.42	6.237.04	7.26.65	5.434.51	4.755.55	6.356.68	6.756.93	6.856.01	4.773.97	4.244.53	4.815.09	5.215.36
Θ(37.5°)	6.146.42	6.917.77	8.368.51	8.277.9	7.417.2	7.387.62	7.57.1	6.766.59	6.285.85	5.55.45	6.397.14	7.065.94	5.936.23	6.386.74	7.617.5	6.094.66	4.815.68	7.538.02	7.746.54	5.295.02	5.475.59	5.485.76	5.485.76	
Θ(45°)	6.646.59	7.127.92	8.238.42	8.127.51	6.965.59	7.717.48	7.126.49	6.877.43	6.95.99	5.745.62	5.896.89	7.466.52	6.066.15	6.286.45	7.878.35	7.145.31	5.25.81	6.27.32	8.228.04	7.036.09	5.856	6.265.82	5.014.88	5.466.26
Θ(52.5°)	6.616.55	7.057.33	7.167.69	7.496.94	6.476.3	6.627.38	7.126.54	6.967.44	6.455.64	6.165.85	5.325.95	6.616.2	5.95.69	5.725.53	7.147.63	6.594.91	5.45.86	5.446.86	7.626.65	5.925.91	5.785.73	5.695.4	3.893.18	3.915.66
Θ(60°)	7.176.59	6.746.67	6.527.12	7.236.89	6.546.28	6.236.46	6.296.37	6.716.41	6.285.43	6.566.76	6.115.71	6.336.74	6.575.36	5.75.24	6.256.65	6.554.96	5.635.49	4.114.13	4.664.05	3.533.88	4.75.96	6.085.86	4.173.54	3.995.99
Θ(67.5°)	7.76.33	6.26.04	6.076.65	7.116.92	6.756.78	6.846.66	6.517.34	7.796.97	6.367.08	7.617.54	6.976.78	7.598.45	8.196.05	6.255.67	5.366.81	6.565.95	6.576.43	4.984.65	5.054.11	3.785.13	6.017.21	7.046.22	5.015.17	5.977.32
Θ(75°)	7.655.74	4.984.94	5.125.75	6.366.35	6.356.7	6.145.43	5.486.36	6.947.1	6.697.70	7.527.55	7.286.97	7.836.69	9.187.06	5.475.82	4.316.13	6.956.84	7.897.86	6.516.34	6.555.76	7.87.7	7.185.94	4.755.7	5.997.23	
Θ(82.5°)	6.414.39	3.13.12	3.784.26	4.874.95	5.015.38	4.293.92	4.945.21	5.146.01	6.176.25	6.466.46	6.065.71	7.27.78	7.715.04	4.384.83	6.356.53	7.016.32	7.048.3	8.057.01	6.164.71	3.794.79	3.794.79	5.376.37		
Θ(90°)	4.473.01	1.351.54	2.362.59	3.013.08	3.153.5	2.282.58	3.84.06	3.334.4	4.834.28	4.664.75	5.054.04	5.76.58	7.065.01	1.773.63	0.733.59	4.114.94	6.216.49	5.025.56	5.754.85	5.887.19	6.484.94	4.282.4	1.863.1	3.594.7
Θ(97.5°)	2.491.33	-0.63/-0.75	-0.050.44	0.971.25	0.941.18	0.171.23	2.692.47	1.282.33	2.962.37	2.632.84	2.911.3	3.584.06	4.851.31	0.382.16	-1.041.39	1.482.78	3.733.4	1.73.26	3.21.62	3.114.65	3.531.49	1.14/-0.64	-0.131.14	5.997.23
Θ(105°)	0.4/-0.02	-2.82/-2.91	-2.39/-1.62	-1.34/-0.62	-1.64/-1.2	-2.25/-1.41	1.03.38	-1.420.38	0.340.12	-0.38/-0.03	1.360.17	1.52.61	3.05/-1.1	-1.330.46	-2.31/-1.76	-0.99/-0.06	0.4/-0.43	-1.760.27	-0.57/-2.37	-0.38/-1.57	0.3/-1.99	-1.64/-2.43	-2.31/-0.37	-0.68/-1.2
Θ(112.5°)	-1.38/-2.39	-4.72/-4.91	-3.53/-2.47	-3.37/-2.74	-2.96/-2.68	-3.76/-3.67	-0.97/-1.14	-3.25/-2.13	-1.02/-1.17	-2.83/-1.63	-0.19/-1.68	-2.08/-1.06	-1.5/-3.81	-5.58/-1.41	-3.66/-4.09	-1.68/-0.78	-0.62/-2.6	-4.01/-0.86	-1.06/-2.63	-0.74/-0.21	-1.69/-3	-2.85/-3.61	-3.96/-3.16	-3.12/-0.8
Θ(120°)	-3.98/-4.49	-5.83/-5.64	-4.95/-3.35	-3.73/-3.94	-4.8/-3.71	-5.37/-6.91	-3.7/-2.46	-5.03/-5.8	-3.52/-2.94	-4.27/-4.92	-1.82/-0.2	-1.45/-2.79	-3.52/-3.72	-3.96/-6.41	-2.97/-2.95	-3.73/-2.99	-4.95/-2.6	-0.92/-1.85	-1.47/-1.85	-1.81/-4.53	-6.03/-6.11	-5.28/-3.92	-5.07/-3.32	
Θ(127.5°)	-5.84/-4.96	-5.78/-4.87	-5.84/-4.13	-4.69/-6.11	-6/-5.75	-6.25/-7.75	-7.26/-5.22	-4.6/-5.51	-5.97/-7.74	-8.23/-8.24	-4.95/-2.55	-2.56/-2.71	-3.75/-4.33	-5.76/-4.94	-10.19/-8.93	-4.02/-5.58	-7.87/-6.21	-3.59/-5.9	-6.02/-6.24	-5.12/-9.43	-7.06/-6.76	-7.68/-4.32	-4.96/-6.26	
Θ(135°)	-6.62/-6.03	-6.71/-7.85	-7.68/-5.93	-6.17/-5.17	-5.39/-8.69	-7.98/-6.8	-7.6/-7.35	-6.39/-4.14	-4.45/-4.9	-7.36/-6.73	-6.48/-6.13	-6.19/-5.93	-5.88/-5.67	-6.62/-7.87	-10.92/-7.22	-4.91/-5.62	-6.13/-6.01	-6.9/-6.03	-5.69/-9.65	-8.06/-5.43	-4.94/-8.29	-7.58/-6.76	-6.56/-6.11	-4.43/-5.66
Θ(142.5°)	-7.93/-6.22	-7.95/-10.44	-9.65/-6.84	-7.5/-7.41	-6.57/-6.4	-8.05/-9.38	-10.3/-8.13	-7.2/-8.84	-8/-8.45	-7.33/-8.11	-7.47/-6.04	-4.54/-4.76	-4.7/-6.86	-8.91/-9.14	-10.29/-8.71	-8.07/-6.47	-7.2/-4.43	-5.92/-8.63	-7.18/-5.57	-6.8/-8.28	-9.84/-8.06	-8.98/-7.94	-7.71/-7.67	
Θ(150°)	-5.45/-6.82	-8.22/-9.26	-10.38/-9.84	-1.99/-10.1	-10.91/-10.42	-9.18/-7.69	-7.65/-8.23	-6.93/-6.2	-9.77/-12.1	-11.57/-10.14	-8.47/-7.12	-7.16/-6.71	-8.42/-8.5	-9.06/-11.82	-12.44/-9.96	-11.26/-12.2	-12.10/-16.3	-13/-13.1	-10.96/-10.35	-10.91/-11.01	-12.42/-11.53	-9.59/-7.61	-7.96/-7.79	
Θ(157.5°)	-10.27/-11.05	-11.78/-10.35	-10.6/-12.36	-12.24/-11.44	-11.13/-9.77	-7.75/-6.59	-6.59/-7.52	-8.63/-9.11	-9.02/-8.68	-9.23/-9.36	-7.45/-6.93	-7.56/-8.43	-9.46/-10.05	-9.81/-9.23	-9.17/-10.16	-12.31/-12.65	-11.54/-9.59	-9.17/-11.12	-11.16/-9.43	-7.66/-7.83	-9.61/-10.79	-11.46/-12.54	-11.69/-10.02	-9.47/-9.92
Θ(165°)	-12.4/-12.05	-11.9/-10.72	-9.61/-9.58	-10.32/-10.44	-10.16/-10.09	-9.39/-9.39	-8.74/-8.49	-9.23/-10.78	-11.61/-12.25	-12.41/-12.63	-11.61/-11.06	-11.32/-12.19	-11.19/-10.33	-10.57/-11.27	-11.38/-11.94	-11.23/-11.71	-12.52/-11.42	-11.88/-12.66	-11.74/-11.11	-11.21/-11.94	-11.28/-11.87	-12.33/-12.14	-11.36/-11.59	-11.87/-11.85
Θ(172.5°)	-10.98/-11.62	-12.25/-11.99	-11.76/-11.1	-10.25/-9.61	-8.93/-8.77	-7.96/-8.01	-8.57/-9.98	-11.05/-11.15	-10.17/-10.16	-9.68/-9.67	-10.4/-10.89	-11.86/-11.74	-12.12/-12.53	-12.63/-12.22	-11.79/-11.06	-10.14/-9.78	-10.29/-11.06	-10.93/-10.04	-9.35/-8.71	-8.11/-7.46	-7.54/-7.77	-7.87/-8.12	-8.07/-8.42	-8.7/-8.75
Θ(180°)	-9.12/-9.81	-9.88/-10.23	-10.78/-11.23	-10.87/-10.17	-10.03/-10.34	-10.26/-10.48	-10.25/-8.99	-8.65/-9.35	-9.63/-10.42	-10.07/-9.82	-9.99/-10.5	-10.63/-10.83	-11.57/-11.17	-10.07/-10.07	-9.06/-8.5	-8.19/-7.56	-6.35/-6.62	-6.67/-5.84	-6.1/-6.25	-7.09/-7.39	-7.33/-7.28	-7.62/-8.16	-8.99/-8.47	-8.57/-9
Freq(Pol)	5.66GPol	Theta	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-0.010.03	0.220.34	0.590.24	-0.29/-0.48	-0.75/-1.13	-1.45/-1.89	-2.21/-2.39	-2.42/-2.81	-2.99/-2.86	-2.67/-2.36	-2.23/-2.19	-2.25/-2.45	-2.33/-2.27	-2.19/-1.7	-1/-0.55	-0.76/-1.52	-2.05/-2.23	-1.92/-1.82	-2.48/-3.44	-0.04/-3.2	-2.31/-1.82	-1.87/-2.04	-0.980.18	0.820.91
Θ(7.5°)	-1.52/-2.13	-2.84/-3.78	-4.17/-4.35	-4.57/-5.22	-4.76/-4.05	-3.51/-3.11	-3.25/-3.48	-3.7/-3.61	-3.86/-3.75	-3.5/-2.91	-1.92/-1.15	-0.61/-0.27	0.230.58	0.791.06	1.261.48	1.350.7	-0.51/-1.79	-2.59/-2.69	-2.95/-3.91	-4.97/-4.35	-3.43/-3.19	-3.46/-2.86	-1.92/-1.3	-1.121.04
Θ(15°)	-1.91/-1.5	-1.71/-2.03	-2.68/-3.95	-5.65/-7.12	-4.84/-4.45	-4.01/-3.83	-3.04/-2.27	-2.22/-2.92	-3.58/-3.78	-3.19/-2.31	-1.82/-1.79	-2.07/-2.98	-3.83/-3.9	-3.46/-3.05	-3.21/-3.6	-4.25/-4.56	-3.81/-3.05	-2.54/-2.51	-2.69/-3.13	-5.24/-2.69	-7.24/-7.69	-6.65/-5.54	-3.56/-2.02	
Θ(22.5°)	-2.49/-2.04	-2.93/-3.47	-3.71/-3.99	-4.58/-4.85	-5.05/-4.96	-4.36/-4.24	-3.72/-2.79	-1.45/-1	-1.53/-1.56	-1.6/-2.78	-3.98/-5.18	-8.67/-6.5	-7.46/-6.96	-6.27/-7.35	-6.33/-4.77	-2.93/-2.52	-3.16/-4.39	-4.17/-4.25	-4.2/-3.72	-2.92/-2.35	-3.12/-4.47	-4.36/-4.36	-4.9/-5.91	-6.72/-4.84
Θ(30°)	-1.57/-1.28	-2.18/-2.33	-3.99/-4.94	-5.16/-6.0	-6.15/-6.8	-5.78/-5.12	-3.28/-1.21	-0.44/-1.32	-2.97/-2.08	-0.520.25	-0.87/-2.09	-3.83/-4.5	-6.46/-6.4	-5.18/-3.38	-2.27/-2.53	-2.76/-3.87	-6.47/-4.59	-3.64/-2.33	-2.63/-4.7	-5.34/-4.2	-3.84/-4.28	-3.59/-3.56	-3.47/-3.57	-3.47/-3.18
Θ(37.5°)	-1.05/-0.9	-1.7/-2.01	-2.09/-4.24	-3.63/-3.55	-4.42/-4.94	-5.14/-5.15	-1.93/-0.31	-1.75/-4.64	-3.52/-3.54	-2.55/-0.56	-0.53/-1.32	-2.68/-4.23	-3.7/-4.42	-5/-9.95	0.04/-2.46	-5.07/-7.52	-7.59/-2.98	-2.05/-1.75	-1.58/-2.61	-5.23/-8.01	-5.64/-3.75	-3.66/-4.24	-3.93/-1.54	-0.5/-1.38
Θ(45°)	0.58/-0.36	-0.69/-0.1	0.11/-0.42	-0.71/-0.96	-3.37/-6.5	-3.37/-5.12	-1.32/-0.73	-2.99/-5.25	-3.4/-2.97	-3.54/-3.27	-2.21/-4.2	-1.62/-2.33	-2.77/-2.57	-3.24/-2.2	-1.01/-3.51	-4.15/-7.24	-9.39/-4.51	-1.77/-0.21	-0.14/-2.37	-6.15/-6.46	-4.07/-3.44	-4.35/-6.53	-4.07/-0.89	0.580.21
Θ(52.5°)	-0.370.13	0.73/-0.42	-0.65/-1.99	-2.08/-2.03	-4.42/-8.79	-9.71/-5.85	-3.39/-3.87	-6.02/-4.71	-2.84/-2.33	-3.08/-3.39	-2.59/-2.27	-0.71/-2.25	-3.53/-3.71	-2.39/-4.03	0.94/-4.46	-3.52/-4.5	-6.88/-5.1	-3.9/-3.01	-3.13/-4.41	-5.23/-4.98	-3.98/-3.69	-4.28/-7.48	-3.97/-9.3	1.250.68
Θ(60°)	-2.01/-1.35	-0.39/-0.9	0.13/-1.22	-2.84/-2.35	-4.63/-8.48	-8.87/-4.82	-4.02/-4.53	-6.89/-4.48	-2.9/-3.75	-4.06/-2.64	-2.45/-3.65	-1.19/-0.33	-1.73/-3.77	-2.61/-0.01	3.12/-1	-7.14/-7.07	-7.17/-5.79	-5.75/-6	-5.9/-6.91	-5.15/-3.97	-3.47/-3.21	-2/-4.86	-3.16/-2.38	-0.18/-0.9
Θ(67.5°)	-3.92/-4.75	-2.99/-2.09	-0.43/-0.93	-3.28/-3.44	-5.27/-7.89	-7.66/-3.83	-2.56/-3.05	-5.31/-4.89	-4.96/-2.8	-2.89/-0.93	-4.89/-2.52	-0.71/-0.56	-2.56/-3.12	-1.31/-48	-3.99/-1.18	-6.67/-5.9	-6.13/-4.88	-5.4/-5.48	-5.38/-7.35	-5.43/-2.94	-2.38/-1.68	-0.93/-3.51	-2.46/-1.98	-7.71/-7.97
Θ(75°)	-5.21/-6.33	-4.83/-4.52	-2.15/-1.8	-4.29/-5.79	-6.38/-7.62	-8.2/-3.96	-1.51/-1.95	-5.35/-6.26	-6.71/-3.28	-2.39/-1.77	-6.55/-5.19	-2.33/-4.07	-1.17/-3.41	-2.67/-1.27	2.120.18	-4.84/-6.24	-6.71/-4.52	-4.84/-3.49	-3.54/-8.04	-5.75/-2.61	-2.04/-1.01	-1.82/-1.47	-3.48/-2.62	-1.62/-3.09
Θ(82.5°)	-7.09/-7.63	-6.93/-7.09	-4.03/-3.26	-4.81/-6.57	-6.59/-7.02	-7.79/-4.9	-1.69/-2.15	-6.28/-8.4	-7.19/-2.85	-2.37/-3.79	-7.37/-4.18	-3.37/-1.57	-2.49/-4.01	-3.96/-2.82	-0.2/-1.63	-4.31/-5.51	-7.18/-4.94	-5.08/-3.48	-4.53/-9.4	-4.92/-2.02	-2.28/-1.64	-4.23/-6.62	-6.12/-4.39	-3.38/-4.97
Θ(90°)	-7.99/-9.49	-9.55/-9.59	-6.23/-4.78	-6.41/-8.59	-7.28/-8.03	-10.19/-8.15	-2.41/-3.5</																	



Radiated Composite Gain Data_Radio 2_5GHz

Appendix B

Θ(67.5°)	4.92/4.83	5.54/5.26	4.96/5.67	6.24/5.92	6.29/6.3	5.3/5.16	4.41/4.75	4.86/6	5.48/4.1	4.99/5.31	4.97/6.05	6.16/6.45	6.26/5.59	5.59/5.19	5.42/5.32	5.51/4.89	3.89/4.07	4.27/3.48	4.27/9.82	2.59/2.29	2.82/3.96	3.62/4.13	4.12/3.99	4.07/4.95
Θ(75°)	4.8/4.5	4.8/4.28	3.76/4.77	5.97/5.56	5.79/5.52	5.05/5.95	5.29/5.32	4.93/5.78	6.03/4.03	5.14/6.11	5.52/5.79	6.32/6.31	7.07/5.5	5.88/5.15	4.94/5.16	5.88/5.62	5.22/5.75	6.04/5.08	5.81/5.79	5.2/5.14	4.28/5.11	4.86/4.73	4.16/4.37	4.41/5.23
Θ(82.5°)	3.74/2.85	3.16/2.61	2.2/3.4	4.67/4.28	4.6/4.01	4.57/5.43	4.53/4.86	4.91/4.78	4.71/2.85	4.61/5.65	4.36/4.7	5.41/5.69	5.01/3.67	4.13/2.95	3.07/4.6	5.07/4.89	5.73/6.27	6.73/6.22	6.28/6.35	6.12/5.86	4.69/4.61	4.49/4.01	3.25/3.76	3.64/4.5
Θ(90°)	2.03/0.54	1.31/0.81	0.39/1.29	2.69/2.49	3.2/2.38	3.22/3.68	2.56/3.2	3.93/3.49	2.99/2.19	3.13/4.33	3.07/3	3.56/3.91	4.97/2.27	3.34/2.35	0.97/2.99	3.09/3.43	4.8/4.81	5.45/5.21	5.46/5.5	5.14/4.51	3.71/2.93	2.92/1.81	1.7/2.19	1.98/2.66
Θ(97.5°)	0.36/-1.47	-0.73/-1.29	-2.02/-0.37	0.56/0.43	1.07/-0.03	1.28/1.61	0.82/0.85	2.01/1.64	0.37/-0.47	0.75/2.51	0.79/0.23	1.7/1.97	0.16/-0.65	0.21/-0.78	-0.63/0.97	0.35/0.5	1.6/1.19	2.12/2.5	2.35/2.17	2.51/1.85	1.36/0.28	0.68/-0.29	0.27/0.56	0.16/1.03
Θ(105°)	-2.08/-4.16	-2.48/-2.1	-2.91/-2.99	-1.02/-1.45	-1.05/-2.49	-2.01/-0.24	-0.53/-1.2	0.3/-0.55	-0.71/-2.33	-0.62/0.01	-0.33/-2.02	-1.24/0.63	0.55/-1.8	-1.75/-2.03	-2.63/-1.96	-1.6/-1.03	-0.45/-1.95	-1.43/-0.38	-1.19/-2.73	-1.26/-1.34	-1.72/-2.35	-0.88/-2.57	-1.58/-1.25	-3.08/-0.38
Θ(112.5°)	-3.68/-5.37	-4.1/-5.04	-6.54/-5.88	-3.05/-2.62	-3.64/-3.46	-3.78/-2.81	-2.01/-3.67	-2.55/-1.39	-2.37/-3.58	-3.46/-2.3	-2.9/-4.14	-2.41/-1.95	-3.28/-3.54	-3.44/-3.9	-5.16/-4.09	-2.01/-1.87	-3.66/-2.64	-2.55/-0.68	-1.6/-3.93	-1.59/-1.89	-3.03/-3.47	-1.67/-4.02	-4.04/-3.45	-4.74/-2.77
Θ(120°)	-4.68/-6.34	-6.28/-7.14	-7.53/-7.85	-5.34/-5.24	-5.15/-3.99	-5.06/-4.85	-3.74/-5.47	-5.94/-4.59	-3.85/-4.68	-6.16/-4.46	-3.34/-3.84	-3.56/-5.06	-5.36/-6.87	-6.79/-5.53	-6.57/-7.15	-3.68/-3.47	-3.4/-2.97	-3.47/-2.6	-3.86/-4.78	-3.37/-3.39	-3.91/-4.45	-4.21/-6.33	-8.41/-5.02	-6.45/-4.08
Θ(127.5°)	-5.23/-6	-7.78/-7.53	-7.49/-8.07	-6.93/-7.45	-6.68/-4.98	-6.25/-6.4	-4.7/-4.94	-7.51/-7.6	-7.46/-7.08	-7.08/-6.07	-6.93/-6.06	-6.45/-6.18	-6.58/-5.91	-4.61/-4.46	-7.88/-9.42	-4.94/-5.1	-8.28/-6.42	-8.44/-6.51	-7.97/-7.08	-5.71/-6.5	-6.28/-5.81	-5.2/-8.22	-8.22/-6.41	-7.62/-5.53
Θ(135°)	-8.14/8.39	-7.85/-8.65	-9.51/-9.45	-7.52/-6.38	-9.84/-8.45	-6.99/-6.99	-6.87/-6.29	-7.38/-7.59	-7.51/-10.32	-8.83/-7.99	-7.62/-6.68	-9.24/-8.83	-7.72/-8.11	-9.12/-10.73	-12.05/-8.17	-4.49/-5.94	-6.8/-4.92	-7.95/-6.51	-5.98/-4.7	-4.15/-5.26	-6.41/-7.21	-7.11/-8.13	-10.18/-9.03	-8.06/-6.04
Θ(142.5°)	-8.5/-8.78	-8.69/-9.25	-9.48/-10.23	-9.37/-8.1	-9.28/-10.19	-9.3/-7.84	-9.39/-8.41	-8.31/-9.37	-7.03/-6.18	-9.06/-9.37	-8.78/-6.31	-5.24/-7.18	-9.07/-9.65	-6.12/-6.49	-9.34/-9.6	-9.43/-9.43	-8.32/-5.17	-5.6/-7.8	-8.58/-9.76	-9.91/-11.25	-11.21/-11.45	-11.14/-10.24	-7.73/-6.88	
Θ(150°)	-9.42/-9.73	-9.93/-10.72	-11.17/-11.38	-10.96/-10.56	-8.35/-7.27	-8.06/-7.93	-9.55/-11.44	-7.31/-5.88	-7.4/-11.65	-11.94/-9.64	-10.22/-9	-7.34/-7.98	-8.84/-9.22	-10.92/-8.93	-8.99/-11.18	-12.2/-12.42	-12.26/-12.07	-10.72/-8.78	-10.4/-11.85	-10.74/-11.94	-12.01/-11.75	-11.2/-10.81	-10.31/-10.14	-9.14/-8.76
Θ(157.5°)	-11.66/-11.6	-12.49/-12.49	-11.26/-12.39	-12.52/-11.06	-9.27/-9.3	-9.41/-6.99	-5.44/-6.28	-9.36/-11.91	-10.46/-11.25	-12.18/-11.9	-9.62/-9.51	-10.98/-10.43	-10.57/-10.87	-11.51/-12.3	-11.89/-11	-11.84/-11.18	-11.27/-10.76	-11.2/-12.65	-12.48/-10.38	-9.17/-10.37	-11.28/-11.82	-11.99/-11.57	-11.59/-12.64	-11.09/-11.38
Θ(165°)	-11.78/-12.42	-12.33/-11.79	-11.36/-11.11	-11.54/-11.66	-9.96/-9.05	-8.39/-8.93	-9.27/-9.65	-10.65/-11.9	-11.76/-12.61	-11.95/-11.66	-12.04/-13.02	-11.85/-11.46	-11.43/-11.78	-12.17/-12.68	-12.64/-12.48	-11.91/-11.2	-11.54/-12.04	-12.23/-12.22	-11.93/-11.33	-11.79/-11.02	-11.21/-10.53	-10.41/-10.29	-10.24/-9.57	-9.93/-10.81
Θ(172.5°)	-11.13/-10.88	-11.02/-11.35	-12.2/-12.62	-12.03/-11.26	-10.32/-9.97	-9.53/-9.41	-10.45/-10.39	-10.59/-10.54	-11.48/-11.75	-11.7/-11.48	-11.42/-11.35	-10.73/-10.6	-11.65/-11.72	-11.72/-11.92	-11.76/-11.79	-11.22/-10.63	-9.63/-8.94	-8.89/-8.36	-8.64/-8.85	-8.75/-9.13	-9.47/-9.71	-9.81/-9.57	-10/-10.01	-10.13/-10.78
Θ(180°)	-12.44/-12.35	-11.94/-12.35	-11.93/-11.97	-12.11/-12.41	-11.48/-11.63	-11.05/-10.32	-10.58/-10.76	-11.86/-12.25	-11.81/-11.52	-10.83/-10.75	-10.68/-11.18	-11.57/-12.34	-12.47/-12.28	-12.41/-12.42	-11.85/-11.6	-11.61/-11.78	-10.89/-9.85	-9.48/-9.5	-9.52/-9.35	-9.4/-8.97	-9.95/-10.1	-10.66/-11.13	-11.21/-11.06	-11.2/-11.53
Freq(Hz)	5.885/5Pol.	Theta/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-1.79/-1.27	-1.3/-2.01	-2.37/-3.08	-3.19/-3.16	-3.63/-3.75	-4.05/-3.71	-3.32/-3.11	-3.11/-3.05	-2.95/-2.94	-3.47/-3.81	-3.89/-3.92	-3.55/-2.79	-2.67/-2.27	-2.17/-2.1	-2.19/-2.22	-2.29/-2.22	-2.47/-2.42	-2.73/-3.16	-3.48/-3.47	-3.18/-3.36	-3.19/-3.5	-3.28/-2.73	-2.68/-2.65	-2.28/-1.66
Θ(7.5°)	-2.47/-2.84	-2.55/-1.89	-1.34/-1.45	-1.75/-1.24	-0.67/-0.36	-0.74/-1.39	-2.02/-2.37	-2.64/-3.33	-3.7/-3.63	-3.55/-3.47	-2.91/-2.68	-2.5/-2.82	-2.65/-2.71	-2.97/-2.46	-2.36/-2.23	-2.43/-2.9	-3.65/-3.9	-3.34/-2.44	-1.95/-1.72	-1.28/-1.11	-1.92/-1.68	-1.85/-1.94	-2.03/-2.14	
Θ(15°)	0.49/0.61	0.07/-0.84	-2.41/-4.75	-5.24/-4.08	-2.63/-1.85	-2.04/-2.46	-3.21/-3.14	-2.49/-1.49	-0.98/-0.86	-1.08/-1.15	-1.21/-1.02	-0.73/-0.64	-0.86/-1.03	-1.06/-1.13	-1.43/-1.97	-2.89/-4.54	-5.82/-6.37	-5.39/-4.87	-4.44/-3.93	-3.48/-2.9	-3.11/-4.39	-5.46/-5.38	-4.04/-2.13	-7.10/-0.19
Θ(22.5°)	-2.97/-2.61	-2.19/-2.15	-2.43/-3.65	-5.52/-6.72	-5.65/-5.54	-5.02/-4.7	-4.43/-2.76	-1.07/0.23	1.25/1.59	0.94/-0.3	-0.9/-0.07	0.43/0.28	-0.5/-1.35	-1.87/-2.74	-3.06/-1.81	-0.92/-1.79	-3.64/-5.4	-7.03/-8.44	-8.73/-7.86	-6.54/-5.51	-4.36/-4.2	-5.34/-5.41	-5.12/-5.33	-3.98/-2.23
Θ(30°)	-2.2/-2.73	-4/-4.43	-1.51/0.03	-0.36/-1.47	-3.47/-6.13	-6.38/-5.6	-3.61/-1.43	-1.07/0.18	1.08/0.83	1.54/2.27	1.39/0.83	0.45/0.17	0.21/0.3	-0.06/-1.39	-2.83/-2.12	-2.31/-2.67	-2.54/-2.82	-4.06/-3.59	-2.93/-3.37	-3.34/-3.52	-5.37/-6.7	-7.17/-5.9	-3.42/-2.98	-3.97/-4.07
Θ(37.5°)	-0.35/-0.48	-1.26/-0.94	-0.77/-0.33	1.18/1.23	-0.37/-3.59	-3.53/-3.76	-3.45/-2.65	-3.39/-1.94	0.20/0.38	-1.03/-1.98	-1.07/-1.12	-1.61/-0.85	0.11/1.23	1.68/0.82	-1.06/-4.08	-3.72/-2.52	-2.49/-2.3	-1.85/-1.23	-1.24/-2.35	-3.55/-5.07	-7.42/-7.12	-5.47/-3.43	-1.01/-0.77	-2.36/-1.55
Θ(45°)	-1.97/-2.79	-1.22/-0.26	-0.57/-3.02	-1.82/-0.47	-0.16/-2.58	-1.3/-1.24	-1.98/-2.76	-5.09/-4.32	-1.38/-0.05	-1.15/-5.4	-4.77/-3.85	-2.99/-0.62	0.61/1.7	2.51/91	1.58/-2	-2.02/0.35	-0.03/-0.82	-1.33/-2.05	-2.4/-2.85	-2.45/-3.89	-7.15/-8.31	-7.42/-5.63	-2.74/-0.85	-0.54/-1.6
Θ(52.5°)	0.85/0.53	-0.67/-0.99	0.69/-1.27	-2.79/-2.2	-1.09/-2.1	-2.32/-2.54	-2.46/-3.57	-5.64/-4.48	-0.91/0.99	-0.14/-4.3	-1.02/0.25	-1.92/-1.06	0.56/1.16	2.13/2.29	2.08/-1.69	-1.82/0.22	-0.61/-2.26	-2.78/-3.74	-4.42/-4.04	-1.89/-2.75	-4.39/-5.09	-5.1/-4.35	-3.08/-0.35	-2.27/1.08
Θ(60°)	1.77/2.29	1.81/0.65	0.92/1.17	-1.02/-2.31	-0.87/-1.93	-3.41/-3.48	-2.48/-4.79	-6.71/-7.03	-3.62/-0.71	-0.37/-2.59	-2.44/-1.35	0.91/2.34	3.02/-0.15	-5.97/-3.55	-3.82/-5.22	-3.96/-4.46	-4.61/-4.16	-1.75/-1.87	-3.82/-2.53	-2.17/-1.22	-0.79/-0.92	1.69/1.22		
Θ(67.5°)	0.61/1.23	1.43/0.2	-0.03/1.09	-1.26/-3.9	-1.14/-2.41	-3.32/-2.61	-1.74/-5.22	-5.46/-6.15	-7.61/-2.94	-1.68/-3.5	-2.06/-1.03	-3.44/-3.13	-4.01/-2.36	-0.93/0.62	1.68/-1.08	-7.03/-5.61	-4.02/-3.68	-3.48/-4.11	-3.9/-3.96	-1.2/-0.85	-2.93/-1.47	-1.51/-0.03	0.18/-1.2	-0.72/-0.67
Θ(75°)	-2.4/-0.66	-0.21/-1.1	-1.27/0.13	-1.75/-5.51	-3.07/-3.07	-3.45/-4.05	-3.6/-5.78	-4.82/-5.29	-8.46/-5.5	-3.63/-4.76	-4.3/-1.59	-2.72/-3.57	-3.97/-3.48	-2.87/-1.96	-0.86/-1.52	-6.28/-8.14	-3.36/-2.63	-3.38/-3.2	-2.95/-2.74	-1.6/-0.34	-2.12/-1.8	-2.59/-0.81	0.03/-1.2	-2.29/-3.41
Θ(82.5°)	-5.36/-3.1	-2.37/-3.41	-2.9/-1.58	-3.38/-6.7	-4.31/-4.99	-4.94/-5.16	-4.63/-7.14	-5.7/-5.76	-8.14/-8.66	-7.06/-7.42	-4.23/-2.62	-3.5/-6.04	-6.63/-4.29	-5.48/-4.92	-3.9/-4.21	-8.49/-9.22	-2.4/-2.45	-3.85/-2.96	-1.48/-3.26	-2.17/-1.83	-3.54/-2.65	-4.65/-2.4	-2.15/-2.65	-4.09/-6.02
Θ(90°)	-8.32/-5.98	-4.14/-4.61	-4.34/-3.38	-5.14/-8.22	-6.95/-7.31	-7.86/-8.17	-7.51/-9.06	-7.32/-7.78	-9.02/-9.82	-9.16/-7.82	-5.52/-4.33	-3.73/-8.05	-7.98/-5.93	-7.45/-6.34	-6.78/-5.65	-9.45/-10.72	-4.47/-3.81	-5.32/-4.23	-3.88/-5.53	-4.29/-3.03	-5.69/-5.51	-7.04/-5.17	-5.68/-5.23	-6.58/-8.24
Θ(97.5°)	-8.71/-7.14	-5.75/-5.95	-5.57/-5.09	-7.54/-10.13	-7.85/-9.38	-9.62/-9.44	-9.69/-10.47	-9.13/-9.73	-10.26/-10.56	-9.67/-10.64	-8.04/-7.08	-7.81/-9.97	-8.46/-10.43	-7.92/-9.53	-9.41/-8.56	-10.56/-10.87	-5.7/-7.15	-9.87/-6.74	-6.55/-9.46	-7.66/-6.71	-9.12/-11	-9.57/-8.19	-8.03/-7.37	-8.32/-9.12
Θ(105°)	-8.21/-7.26	-7.27/-7.41	-7.3/-6.26	-8.58/-11.01	-9/-9.61	-11.42/-11.24	-11.3/-10.78	-9.86/-12.19	-9.19/-10.53	-10.32/-9.44	-12.25/-8.6	-8.71/-10.85	-10.9/-10.61	-10.15/-9.72	-9.51/-10.61	-10.17/-11.44	-6.8/-10	-10.5/-9.34	-9.08/-11.09	-9.37/-10.4	-10.53/-12.02	-11.54/-10.14	-9.85/-9.86	-10.21/-10.6
Θ(112.5°)	-8.92/-9.52	-8.85/-10.01	-8.78/-8.4	-9.86/-11.38	-10.58/-10.72	-11.82/-11.14	-11.73/-10.66	-9.64/-11.22	-10/-10.75	-9.98/-8.22	-10.34/-8.93	-10.38/-10.96	-10.04/-10.22	-10.61/-11.31	-11.78/-10.03	-12.07/-11.75	-5.92/-8.39	-11.21/-9.05	-9.1/-10.67	-10.11/-11.03	-11.19/-11.9	-10.87/-10.54	-10.44/-11.35	-8.9/-10.4
Θ(120°)	-9.44/-8.82	-7.98/-9.88	-11.5/-9.67	-9.61/-11.31	-11.85/-12.18	-12.74/-11.76	-12.09/-11.59	-10.49/-11.18	-11.58/-10.79	-12.29/-10.86	-11.01/-11.62	-10.83/-12.45	-12.24/-10.73	-11.68/-12.24	-11.12/-12.18	-11.88/-10.45	-9.24/-11.32	-10.14/-11.68	-10.93/-12.31	-11.11/-10.38	-9.3/-1			



Sporton International Inc. Hsinchu Laboratory



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(22.5°)	-1.77/-1.04	0.41/2.06	3.26/4.07	4.44/4.27	3.57/2.59	1.22/-0.19	-1.33/-1.26	0.03/1.37	2.29/2.57	2.15/1.03	-0.47/-1.94	-3.29/-4.75	-4.95/-2.81	-0.58/0.68	0.63/-0.51	-2.37/-4.13	-5.89/-6.09	-4.99/-3.66	-2.73/-1.5	-1.71/-2.93	-4.95/-6.03	-4.76/-3.02	-1.63/-1.08	-1.41/-2
Θ(30°)	0.53/1.24	2.37/3.23	4.15/5.05	5.43/5.88	4.24/2.87	0.73/-1.84	-4.14/-3.03	-0.27/-1.71	2.78/3.22	3.15/2.35	1/-0.23	-1.46/-3.22	-3.91/-1.17	1.68/2.99	2.57/0.91	-1.44/-3.68	-4.81/-3.77	-2.68/-1.53	-0.6/-0.15	-0.92/-2.92	-6.38/-9.27	-6.38/-3.51	-1.18/0.12	0.34/0.2
Θ(35°)	0.81/0.94	1.14/0.94	0.57/1.21	1.08/2.26	2.32/1.83	0.38/-2.32	-0.94/-4.04	-1.07/-0.9	1.43/1.35	1.32/0.54	-0.26/0.73	1.07/-0.11	0.68/2.76	3.32/3.84	2.60/0.97	-0.21/-0.97	-1.28/-1.1	-0.67/0.52	1.73/1.86	1.1/-0.73	-3.44/-3.97	-2.12/-1.36	-1.17/-0.89	-0.27/0.22
Θ(45°)	0.74/0.38	0.97/0.52	-1.26/-1.37	-1.51/-1.45	-0.08/-1.49	1.92/0.48	-1.73/-1.64	1.1/2.6	2.82/6.1	2.77/1.98	-0.62/-0.23	1.8/1.41	1.11/1.68	1.3/0.75	1.54/1.8	0.21/-1.38	-1.87/-0.31	1.41/1.93	1.83/1.49	0.41/-1.04	-1.43/-0.71	0.78/1.1	-1.33/-3.79	-3.31/-0.81
Θ(52.5°)	1.26/1.08	1.87/1.7	0.53/0.36	-0.77/-1.82	-1.34/0.7	2.07/1.55	0.36/0.59	1.84/1.74	0.19/0.41	2.18/1.93	-1.52/-1.67	0.86/0.76	-0.98/-2.46	-2.2/-1.54	1.92/2.28	-0.23/-3.24	-3.21/-0.03	1.53/1.74	0.78/-0.38	-0.09/-0.1	-0.13/0.44	1.65/2.07	-0.74/-4.14	-2.73/-0.49
Θ(60°)	2.52/0.7	2.45/1.7	0.85/0.9	0.22/-0.04	-0.12/0.48	0.76/-0.69	-0.26/-0.53	0.11/-1.67	0.50/-1.42	-0.41/1.87	0.32/-1.93	0.62/-1.54	0.59/-3.65	-3.92/-1.21	1.93/2.62	1.8/1.154	-1.34/-1.38	2.24/1.87	0.72/-0.59	0.06/0.89	2.46/1.9	1.71/2.66	1.02/-1.35	-1.54/0.76
Θ(67.5°)	2.79/2.11	1.95/0.8	0.8/1.14	1.01/1.76	2.04/2.44	2.42/0.74	-0.25/2.34	2.86/0.12	-0.94/-0.36	0.45/2.37	0.69/-0.03	0.68/2.72	3.49/-2.61	-1.24/0.4	2.16/1.76	0.38/-0.32	0.68/2.78	2.48/2.34	1.21/-1.1	0.47/2.63	3.16/1.88	0.64/1.78	1.07/-0.4	-0.63/1.48
Θ(75°)	2.46/1.26	0.71/-0.32	0.11/-0.1	0.04/1.26	2.15/2.51	1.95/0.05	-0.35/2.62	3.5/1.93	1.04/0.63	0.51/2.35	1.75/-0.69	1.03/0.75	4.41/-0.02	-2.76/-0.38	-0.17/-1.46	1.34/1.64	2.06/3.92	2.76/2.46	2.09/-0.93	0.8/3.15	3.78/2.21	-0.16/-0.08	0.13/-0.12	-0.96/0.61
Θ(82.5°)	1.67/0	-1.03/-2.41	-1.49/-2.7	-1.68/0.12	1.03/0.94	0.08/-1.81	-1.68/1.36	1.81/1.21	1.52/0.42	-0.19/1.45	-0.08/-1.83	-0.08/0.33	3.52/-3.96	-2.64/-2.59	-2.82/-0.09	0.45/-1.77	2.53/3.86	1.59/1.56	1.55/-2.13	0.32/2.76	3.18/1.29	-0.82/-1.59	-1.18/-0.24	-1.16/-0.32
Θ(90°)	-0.35/-1.66	-2.31/-3.05	-2.54/-4.73	-4.06/-2.19	-0.73/-1.19	-2.15/-3.26	-2.45/0.13	0.15/0.03	0.18/-1.73	-2.4/-0.44	-0.57/-6.25	-0.91/-2.2	2.22/-1.94	7.56/-3.74	-5.91/-0.53	-1.49/0.21	0.61/1.98	-1.01/-0.64	0.37/-5.44	-1.59/0.51	1.25/-1.48	-2.47/-4.53	-3.45/-1.68	-2.83/-1.83
Θ(97.5°)	-2.11/-3.43	-4.94/-4.55	-4.6/-7.91	-7.06/-4.67	-2.92/-3.71	-4.71/-6.03	-3.68/-1.8	-2.86/-2.56	-2.47/-3.81	-3.93/-2.38	-3.77/-8.14	-2.59/-3.83	-0.37/-7.65	-7.55/-3.38	-8.28/-4.4	-5.71/-1.31	-0.83/-0.77	-5.97/-3.14	-1.41/-10.75	-0.50/-2.06	-1.58/-5.28	-5.61/-7.55	-5.55/-3.38	-5.92/9
Θ(105°)	-4/-4.82	-6.52/-5.9	-7.32/-10.81	-11.89/-6.96	-5.61/6.26	-7.62/-9.22	-5.25/-4.82	-6.22/5	-6.26/-6.57	-6.4/-5.14	-4.68/-9.11	-4.68/-4.88	-3.99/-7.1	-8.68/-4.47	-9.66/-5.67	-6.38/-3.49	-3.21/-4.27	-8.72/-5.72	-2.53/-12.44	-9.75/-4.92	-3.99/-6.36	-7.66/-10.28	-6.87/-4.82	-5.88/-4.62
Θ(112.5°)	-5.59/-6.36	-9.17/-8.6	-7.79/-10.29	-13.84/-9.21	-7.7/-7.61	-10.23/-10.52	-5.53/-6.44	-9.03/-7.39	-6.34/-7.13	-9.26/-7.76	-6.11/-10.35	-7.94/-6.85	-10.41/-7.47	-12.81/-5.52	-11.11/-7.34	-7.18/-3.53	-4.02/-6.18	-10.34/-5.03	-3.5/-14.85	-9.37/-5.21	-6.1/-6.62	-8.17/-14.07	-9.75/-7.7	-8.56/-6.41
Θ(120°)	-6.5/-9.35	-9.47/-8.77	-8.61/-11.65	-13.09/-12.45	-10.62/-7.02	-10.11/-14.28	-9.46/-7.53	-10.87/-10.78	-7.67/-7.35	-12.12/-18.63	-10.47/-7.9	-10.86/-9.69	-13.51/-10.65	-4.48/-9.48	-16.8/-14.01	-7.39/-7.97	-6.38/-6.1	-12.66/-6.07	-6.02/-17.35	-11.21/-8.76	-8.78/-8.07	-10.59/-18.47	-10.44/-7.72	-9.52/-9.9
Θ(127.5°)	-8.83/-9.36	-11.67/-11.88	-10.32/-11	-11.53/-14.14	-11.76/-9.33	-10.99/-10.62	-10.02/-9.91	-10.6/-10.36	-9.11/-10.24	-12.17/-15.27	-13.66/-11.17	-15.22/-9.99	-8.82/-9.64	-9.34/-9.76	-11.02/-12.38	-7.11/-11.43	-9.85/-16.12	-15.8/-9.83	-10.88/-17.19	-14.88/-10.87	-10.53/-10.75	-14.11/-17.79	-12.49/-7.86	-8.05/-10.83
Θ(135°)	-9.98/-10.7	-13.54/-12.31	-12.55/-16.78	-17.55/-11.11	-11.16/-15.64	-12.7/-9.77	-14.81/-18.72	-13.05/-7.31	-6.7/-6.96	-11.73/-16.45	-12.23/-13.5	-19/-18.03	-9.56/-8.84	-10.57/-13.21	-19.52/-14.24	-9.46/-8.7	-7.19/-12.05	-11.93/-9.87	-8.56/-18.04	-17.55/-10.85	-6.99/-10.46	-15.1/-14.26	-13.4/-10.46	-7.37/-7.89
Θ(142.5°)	-10.9/-13.7	-16.15/-18.71	-15.21/-17.48	-13.73/-12.21	-15.99/-17.64	-15.16/-17.5	-17.88/-13.43	-11.53/-12.34	-12.16/-11.16	-13.77/-18.5	-17.45/-12.66	-10.53/-9.38	-8.82/-13.31	-16.96/-18.99	-14.56/-15.77	-12.86/-8.55	-12.06/-16.99	-14.5/-9.82	-12.39/-13.93	-10.71/-9.03	-7.9/-12.8	-10.44/-7.76	-18.27/-13.35	-10.46/-10.25
Θ(150°)	-9.32/-11.24	-13.9/-13.23	-13.82/-17.53	-17.79/-17.15	-14.93/-13.34	-17.55/-18.03	-17.55/-16.45	-9.97/-8.08	-9.93/-18.31	-13.77/-13.59	-14/-13.36	-13.24/-14.52	-13.86/-10.98	-13.35/-16.48	-14.73/-17.78	-18.24/-15.25	-16.09/-18.94	-17.84/-17.83	-18.69/-15.51	-16.89/-14.43	-16.99/-16.1	-19.2/-18.69	-13.72/-11.09	-10.34/-10.1
Θ(157.5°)	-13.43/-16.01	-17.87/-15.78	-15.87/-18.52	-18.07/-18.15	-17.5/-18.16	-15.02/-9.23	-7.42/-8.57	-13.66/-18.23	-16.32/-15.28	-18.66/-18.51	-13.35/-13.67	-16.23/-18.48	-19.09/-17.93	-17.49/-17.64	-18.12/-17.84	-18.21/-19.14	-16.92/-16.7	-18.04/-18.2	-18.28/-16.83	-15.92/-12.82	-12.59/-16.14	-18.21/-19.03	-18.54/-15.36	-13.02/-13.53
Θ(165°)	-19.42/-19.05	-18.87/-19.13	-18.03/-18.95	-19.08/-16.92	-15.4/-15.02	-14.56/-13.12	-11.67/-11.76	-14.16/-17.91	-18.71/-18.8	-18.51/-18.65	-19.03/-18.16	-16.92/-16.96	-18.22/-17.74	-17.65/-18.24	-17.54/-19.02	-17.67/-18	-18.6/-18.82	-18.72/-18.81	-17.76/-16.06	-18.08/-15.56	-14.45/-16.16	-18.75/-17.66	-17.05/-18.37	-16.97/-16.66
Θ(172.5°)	-17.99/-18.02	-18.56/-17.8	-18.61/-17.67	-16.22/-15.03	-14.69/-15.61	-18.29/-18.64	-17.79/-18.01	-18.5/-16.25	-14.53/-13.63	-13.16/-13.51	-14.72/-15.71	-15.94/-17.29	-18.5/-18.77	-18.89/-17.15	-15.77/-14.13	-13.51/-13.02	-12.81/-13.75	-13.73/-13.91	-13.13/-13.02	-12.69/-11.81	-12.73/-14.23	-16.48/-18.11	-17.06/-15.16	-14.46/-14.21
Θ(180°)	-11.27/-12.64	-12.36/-12.7	-13.75/-15.25	-16.18/-16.91	-17.23/-17.53	-18.19/-19.23	-18.75/-18.07	-17.48/-18.47	-15.79/-14.16	-12.84/-12.83	-14.55/-16.51	-18.06/-18.49	-19.34/-19.6	-17.34/-18.74	-17.72/-17.79	-17.73/-15.24	-13.02/-11.95	-10.77/-8.62	-8.5/-8.56	-8.54/-8.44	-8.44/-8.74	-9.07/-9.35	-9.9/-10.88	
Freq(Hz)	5.66GPol	ThetaAnt.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-4.9/-4.26	-3.75/-3.41	-3.02/-3.15	-3.49/-3.51	-3.8/-4.06	-4.39/-4.91	-6.05/-7.83	-10.24/-14.52	-17.77/-18.83	-18.22/-15.32	-12.57/-10.73	-9.47/-8.08	-6.94/-6.57	-6.21/-5.88	-5.32/-4.88	-4.85/-5.27	-5.08/-5.26	-5.42/-5.72	-6.31/-7.97	-10.7/-13.6	-17.73/-18.96	-18.48/-15.61	-10.96/-9.08	-7.14/-5.78
Θ(7.5°)	-4.63/-4.15	-4.47/-4.55	-4.74/-5.52	-5.89/-6.66	-6.99/-7.54	-8.39/-9.13	-10.41/-11.69	-13.93/-15.47	-19.13/-18.41	-18.27/-19.38	-15.3/-13.04	-11.05/-9.83	-8.89/-8.81	-9/-8.8	-8.36/-7.45	-6.67/-6.42	-6.78/-7.11	-7.92/-8.85	-9.53/-12.34	-17.55/-19.33	-18.69/-18.47	-17.37/-13.21	-10.29/-8.32	-6.71/-5.22
Θ(15°)	-5.84/-5.24	-5.46/-5.75	-6.87/-6.07	-7.64/-7.72	-7.24/-7.9	-8.25/-9.34	-9.88/-9.41	-9.48/-9.23	-9.74/-10.78	-12.11/-13.41	-11.65/-8.53	-6.42/-4.94	-6.03/-8.92	-15.12/-18.85	-15.83/-12.53	-12.57/-13.35	-15.01/-18.25	-19.15/-18.73	-18.98/-15.27	-13.38/-12.3	-11.72/-12.3	-12.72/-13.63	-12.73/-10.66	-8.29/-6.84
Θ(22.5°)	-6.24/-5.28	-5.3/-5.56	-6.12/-6.31	-5.75/-5.83	-6.1/-7.11	-7.47/-7.4	-6.62/-5.67	-5.33/-6.84	-10.49/-11.56	-9.32/-9.09	-9.42/-9.95	-10.34/-9.34	-9.63/-10.63	-12.53/-15.58	-12.87/-9.13	-7.2/-7.26	-8.59/-10.65	-11.88/-12.78	-15.37/-18.93	-15.33/-11.11	-9.1/-7.96	-7.67/-8.42	-9.11/-9.15	-8.51/-7.86
Θ(30°)	-8.9/-6.96	-6.9/-7.5	-6.75/-6.37	-8.78/-16.71	-19.12/-14.71	-12.54/-10.3	-6.56/-4.34	-5.09/-9.02	-18.88/-12.66	-7.6/-6.66	-7.82/-8.79	-10.84/-14.69	-15.56/-12.26	-9.04/-7.31	-3.99/-2.5	-3.19/-1.73	-18.31/-18.79	-18.13/-18.93	-16.19/-17.42	-18.58/-15.57	-11.05/-9.05	-8.17/-9.14	-11.49/-15.38	-17.56/-12.94
Θ(37.5°)	-6.44/-6.98	-12.23/-19.16	-18.12/-19.15	-17.62/-16.08	-14.48/-9.87	-9.53/-11.01	-5.03/-3	-6.7/-18.34	-10.34/-8.65	-7.84/-7.23	-7.5/-5.8	-6.37/-7.35	-6.96/-10.38	-12.48/-6.91	-3.65/-3.74	-7.84/-17.99	-14.17/-11.89	-13.96/-12.96	-12.43/-13.33	-18.49/-18.5	-9.81/-8.45	-9.16/-11.15	-16.86/-17.46	-11.6/-9.51
Θ(45°)	-5.55/-6.92	-7.4/-9.08	-8.94/-8.89	-6.72/-6.05	-8.61/-14.82	-18.12/-12.49	-4.81/-2.46	-5.33/-15.93	-9.74/-5.42	-4.74/-5.77	-9.11/-7.02	-7/-7.15	-4.95/-7.41	-17.64/-11.31	-18.28/-9.73	-10.11/-19.04	-15.83/-14.25	-11.16/-8.24	-7.4/-8.62	-13.51/-17.97	-17.71/-7.61	-10.86/-17.64	-18.03/-11.24	-7.84/-5.66
Θ(52.5°)	-7.34/-6.93	-5.42/-6.16	-6.57/-7.37	-5.85/-5.36	-9.52/-16.57	-16.44/-11.51	-7.96/-6.36	-11.06/-15.82	-10.54/-5.74	-5.82/-11.25	-14.04/-11.7	-7.77/-7.8	-10.04/-13.12	-12.74/-5.64	-3.95/-19.47	-12.93/-16.08	-17.71/-18.7	-14.76/-10.56	-9.03/-8.33	-10.9/-18.5	-11.62/-9.38	-12.13/-18.77	-11.17/-4.75	-2.78/-2.76
Θ(60°)	-6.99/-9.26	-6.78/-6.77	-7.2/-10.04	-6.95/-9.67	-12.31/-16.15	-12.07/-9.81	-10.34/-13.33	-18.17/-10.35	-10.02/-15.46	-13.69/-16.35	-18.72/-18.66	-11.42/-11.32	-12.95/-13.88	-9.21/-4.47	0.15/-8.49	-19.55/-19.8	-14.75/-14.24	-18.03/-15.86	-14.58/-11.46	-11.43/-17.08	-13.04/-12.03	-10.46/-13.7	-7.32/-4.13	-1.94/-2.46
Θ(67.5°)	-6.37/-13.33	-12.89/-8.2	-10.52/-14.38	-9.49/-10.85	-18.54/-12.69	-8.22/-7.89	-7.49/-8.35	-10.95/-8.76	-14.94/-11.58	-8.57/-1.17	-17.98/-8.5	-11.51/-15.29	-14.73/-14.68	-5.88/-2.56	-0.98/-8.22	-9.89/-11.63	-8.64/-12.77	-17.07/-15.71	-16.74/-13.74	-14.5/-14.29	-10.8/-11.35			



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(67.5°)	-0.110/3.1	1.6/1.43	0.870/0.77	-0.11/-1	-0.80/43	0.26/-1.12	-3.35/-2.11	1.85/2.68	-1.38/-8.7	-2.44/-0.65	-0.53/-1.02	0.31/-1.31	0.35/-4.8	-2.47/-1.92	0.28/0.68	0.40/-19	0.33/0.9	1.12/1.86	1.04/-2.19	-1.99/-0.46	0.65/0.07	-0.74/-0.39	0.18/-0.08	-5.3/-2.83
Θ(75°)	-0.23/-0.04	0.64/-0.12	-0.67/-0.07	-0.08/-0.77	-0.19/0.46	0.43/0.43	-0.99/-0.56	2.26/3.55	2.46/-2.56	-1.61/-0.6	-0.08/0.66	0.18/0.16	2.24/-4.66	-2.88/-2.98	-1.77/-0.37	1.48/-1.42	1.63/2.23	2.12/-49	1.67/-1.37	-0.32/-1.48	1.40/-79	-1.14/-1.66	-0.33/0.45	-4.67/-3.14
Θ(82.5°)	-1.26/-1.59	-1.27/-2.08	-2.77/-1.16	-1.14/-2.13	-1.13/-1.19	-0.75/0.57	0.31/-1.57	2.93/2.52	2.47/-2.11	-1.39/0.45	-0.65/-1.06	-1.52/-0.73	-0.42/-1.25	-4.46/-5.43	-3.69/-0.65	1.36/0.87	1.72/0.06	1.71/2.06	0.76/-2.25	0.19/-1.52	0.91/-0.48	-1.73/-3.28	-2.21/-1.27	-5.97/-4.25
Θ(90°)	-2.51/-3.05	-2.87/-4.49	-5.06/-3.85	-2.82/-3.61	-2.84/-4.32	-2.47/0.03	-0.80/57	1.85/0.21	1.17/-1.78	-3.87/-0.78	-1.98/-2.85	-2.43/-3.91	-0.85/-9.91	-5.64/-5.16	-7.08/-3.71	-1.33/-0.6	0.33/0.74	-0.08/0.1	-0.67/-3.61	-0.87/0.06	-0.59/-2.77	-2.87/-6.33	-3.67/-3	-7.05/-6.56
Θ(97.5°)	-4.01/-4.5	-4.09/-6.87	-8.09/-6.06	-5.19/-6.28	-5.01/-7.81	-4.36/-1.41	-2.93/-1.66	-0.13/-2.4	-1.63/-4.89	-6.16/-2.04	-4.21/-6.76	-5.37/-5.76	-5.48/-18.6	-10.04/-7.28	-6.55/-5.37	-3.71/-3.02	-3.23/-8.23	-4.99/-3.7	-5.42/-10.14	-4.69/-4.07	-4/-6.86	-5.98/-8.3	-4.5/-4.92	-8.63/-6.72
Θ(105°)	-6.78/-6.38	-6.1/-8.25	-8.47/-8.74	-6.67/-8.45	-8.12/-11.41	-8.51/-4.48	-5.97/-6.19	-2.62/-3.56	-3.37/-5.85	-6.14/-4.92	-6.21/-9.29	-7.34/-8.25	-6.83/-10.9	-10.09/-5.99	-8.87/-9.58	-6.58/-4.45	-5.9/-5.15	-7.64/-4.58	-6.29/-12.44	-8.08/-7.7	-6.76/-7.06	-8.36/-11.3	-7.01/-7.69	-13.66/-7.73
Θ(112.5°)	-7.78/-8.31	-8.52/-11.44	-14.79/-14.26	-11.14/-8.49	-8.42/-12.95	-9.5/-5.96	-4.94/-5.73	-4.24/-3.63	-6.14/-6.59	-9.11/-7.73	-9.9/-9.03	-7.8/-10.44	-13.29/-16.33	-10.98/-8.61	-12.83/-9.63	-5.14/-5.48	-6.15/-4.3	-7.85/-4.97	-6.53/-13.8	-8.47/-7.26	-7.17/-6.63	-6.97/-14.05	-8.48/-9	-11.97/-9.39
Θ(120°)	-8.04/-97	-8.14/-12.75	-15.93/-18.88	-17.9/-11.6	-9.04/-8.79	-15.44/-11.21	-5.46/-6.15	-11.39/-9.05	-5.38/-7.4	-13.85/-9.91	-7.61/-10.57	-9.48/-14.18	-13.47/-17.28	-11.52/-6.95	-18.58/-12.7	-6.66/-7.03	-7.05/-5.82	-8.43/-7.54	-6.87/-10.16	-10.45/-8.36	-10.65/-7.52	-9.87/-18.61	-10.79/-9.32	-11.58/-10.2
Θ(127.5°)	-9.19/-11	-12.9/-13.1	-15.03/-17.33	-17.31/-16.91	-12.38/-8.24	-11.09/-14.49	-9.03/-6.46	-9.53/-11.21	-8.86/-8.63	-15.88/-12.97	-12.56/-12.55	-17.81/-18.13	-18.85/-13.33	-7.22/-8.35	-16.11/-15.29	-9.48/-12.44	-8/-11.07	-15.14/-10.88	-10.63/-12.97	-18.31/-11	-11.58/-8.18	-10.6/-16.55	-10.39/-9.97	-11.5/-11.91
Θ(135°)	-14.42/-13.24	-14.05/-15.72	-18.47/-18.93	-17.7/-17.73	-17.46/-14.84	-9.72/-8.21	-15.39/-15.79	-12.63/-9.38	-10.2/-14.11	-16.74/-14.8	-13.90/-18.15	-18.69/-15.37	-12.23/-10.38	-12.28/-15.6	-18.1/-9.69	-7.82/-7.49	-6.94/-10.25	-11.91/-9.85	-8.46/-8.93	-11.77/-9.08	-7.88/-8.4	-12.35/-18.67	-18.92/-17.99	-14.43/-10.84
Θ(142.5°)	-13.44/-12.91	-14.76/-18.66	-17.45/-18.86	-16.19/-16.23	-19.21/-18.27	-16.04/-11.64	-14.99/-14.84	-18/-14.9	-8.71/-8.31	-14.57/-17.94	-12.84/-10.8	-11.59/-13.69	-14.03/-16.61	-12.76/-17.42	-18.74/-17.18	-16.07/-11.91	-13.08/-16.67	-15.21/-11.04	-8.97/-14.66	-18.32/-16.84	-12.42/-18	-17.86/-17.41	-11.76/-17.17	-11.19/-52
Θ(150°)	-13.88/-13.26	-13.49/-16.21	-19.38/-17.99	-18.04/-18.83	-15.37/-14.68	-17.78/-17.07	-16.67/-17.64	-9.76/-7.7	-9.52/-15.47	-18.38/-17.4	-16.64/-16.77	-16.06/-16.52	-16.22/-16.21	-16.12/-16.41	-13.29/-14.21	-19.17/-18.85	-18.11/-18.29	-17.63/-16.25	-16.71/-17.54	-18.08/-18.9	-18.24/-17.89	-17.92/-17.88	-18.76/-17.31	-11.64/-12.75
Θ(157.5°)	-17.84/-16.93	-18.49/-19.05	-17.7/-18.85	-18.63/-15.1	-11.15/-10.96	-12.29/-10.78	-9.12/-10.15	-15.05/-17.97	-14.54/-14.73	-18.29/-17.24	-14.75/-15.73	-19.43/-19.12	-18.82/-17.97	-18/-19.22	-18.12/-18.11	-17.59/-14.3	-13.64/-15.19	-18.25/-18.96	-18.78/-18.11	-17.2/-17.83	-16.07/-16.18	-17.1/-18.62	-18.8/-18.27	-17.74/-18.94
Θ(165°)	-17.8/-18.88	-18.47/-17.52	-17.53/-18.36	-18.44/-18.25	-16.32/-13.35	-11.33/-10.11	-9.62/-10.37	-13.38/-18.97	-17.97/-18.97	-17.42/-17.73	-18.09/-19.21	-17.94/-17.32	-16.56/-17.13	-18.66/-18.61	-19.32/-18.66	-17.21/-15.63	-14.96/-17.46	-18.56/-17.64	-18.31/-17.31	-18.46/-18.45	-13.98/-13.95	-15.35/-16.13	-17.86/-18.12	-18.94/-16.96
Θ(172.5°)	-17.74/-18.77	-17.92/-18.45	-19.09/-19.17	-17.73/-17.58	-18.93/-19.42	-18.91/-17.9	-18.98/-18.83	-18.19/-18.72	-15.63/-15.61	-15.2/-14.69	-14.41/-15.37	-16.14/-16.36	-16.69/-17.32	-16.43/-16.13	-15.95/-15.54	-14.87/-15.04	-15.19/-14.69	-14.13/-13.35	-13.31/-13.72	-14.92/-16.65	-18.99/-17.99	-18.91/-18.77	-17.81/-19	
Θ(180°)	-17.63/-17.05	-17.85/-18.8	-19.03/-18.56	-17.63/-19.14	-17.71/-17.99	-17.67/-18.56	-19.07/-17.47	-18.63/-18.41	-16.11/-14.9	-14.6/-15.4	-16.48/-18.15	-18.28/-19.2	-19/-18.91	-19.37/-19.18	-17.86/-17.51	-17.18/-18.76	-16.31/-14.51	-13.41/-13.05	-12.17/-12.36	-12.4/-11.35	-12.37/-13.36	-13.67/-13.15	-13.55/-13.96	-15.08/-15.9
Freq(Hz)	5.885GPol	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-14.4/-14.29	-14.06/-15.29	-15.33/-16.66	-17.27/-17.54	-18.87/-18.31	-18.71/-19.01	-17.7/-18.85	-18.29/-17.32	-17.54/-17.03	-17.39/-15.97	-13.85/-13.11	-12.44/-11.05	-11.45/-10.93	-10.18/-10.52	-10.57/-10.33	-10.55/-10.34	-11.47/-11.66	-12.74/-14	-14.83/-15.95	-17.53/-19.37	-17.06/-18.37	-18.57/-18.02	-17.56/-18.79	-17.2/-16.49
Θ(7.5°)	-4.56/-4.12	-4.01/-4.21	-4.63/-5.11	-5.54/-5.66	-6.08/-6.46	-7.25/-8.3	-9.53/-10.7	-11.09/-10.32	-15.4/-16.97	-17.98/-17.76	-16.51/-17.27	-17.93/-18.27	-17.29/-18.59	-17.48/-10.15	-18.31/-12.32	-12.4/-13.29	-14.46/-14.31	-13.83/-13.4	-11.59/-10.45	-10.08/-10.78	-11.05/-11.19	-11.08/-9.1	-9.87/-6.87	-6.02/-5.23
Θ(15°)	-4.87/-4.33	-4.49/-4.62	-6.55/-7.33	-7.26/-7.34	-8.09/-8.73	-10.09/-11.9	-13.49/-13.86	-12.86/-10.77	-9.29/-8.26	-7.46/-6.29	-5.26/-4.01	-2.9/-2.6	-3.69/-5.67	-8.15/-9.69	-7.54/-6.89	-6.16/-6.45	-7.24/-8.46	-8.97/-10.28	-10.04/-9.6	-10.23/-11.33	-13.91/-18.92	-18.49/-14.88	-15.63/-11.83	-8.9/-6.13
Θ(22.5°)	-4.08/-4.25	-5.14/-5.96	-6.83/-7.07	-6.68/-6.25	-7.54/-11.53	-17.2/-18.82	-18.78/-12.62	-8.9/-6.13	-3.6/-1.98	-1.62/-2.7	-4.2/-3.33	-1.39/-0.96	-1.53/-2.75	-3.66/-4.01	-3.5/-2.9	-3.22/-4.62	-7.6/-11.04	-14.92/-15.54	-15.66/-17.09	-17.27/-18.69	-16.01/-11.39	-8.97/-8.92	-9.23/-9.3	-6.5/-4.99
Θ(30°)	-8.4/-7.42	-7.53/-6.88	-4.03/-6.88	-4.93/-4.7	-6.28/-7.13	-9.76/-14.36	-12.28/-8.84	-13.52/-8.3	-2.81/-1.58	-1.59/-5.37	-9.44/-13.47	-10.99/-8.77	-7.64/-5.39	-2.79/-1.87	-2.18/-3.7	-5.65/-8.48	-8.05/-8.78	-6.33/-5.1	-5.96/-7.53	-9.44/-10.79	-16.37/-18.79	-13.9/-11.49	-12.03/-16.17	-18.88/-12.33
Θ(37.5°)	-8.82/-8.45	-8.96/-8.69	-5.71/-6.27	-10.13/-8.6	-7.82/-11.04	-8.32/-9.56	-9.85/-9.03	-17.83/-8.85	-3.68/-5.87	-11.66/-15.58	-11.55/-11.22	-15.99/-17.18	-15.76/-7.12	-3.72/-3.09	-3.25/-1.82	-9.48/-10.16	-6.83/-5.48	-4.91/-4.26	-18.77/-16.26	-18.31/-17.88	-11.08/-6.36	-6.64/-12.23	-19.05/-13.63	
Θ(45°)	-7.14/-6.32	-7.43/-9.26	-8.42/-10.95	-17.72/-8.14	-6.11/-10.76	-10.68/-9.73	-11.22/-12.06	-18.98/-12.87	-4.64/-3.43	-4.35/-7.13	-12.13/-10.69	-8.13/-8.99	-10.97/-8.16	-6.53/-8.6	-8.09/-7.41	-9.99/-8.01	-7.45/-7.04	-5.68/-7.95	-13.48/-17.54	-18.08/-19.01	-16.11/-18.52	-16.73/-10.33	-8.3/-8.53	-7.11/-5.94
Θ(52.5°)	-3.39/-4.71	-8.5/-3.66	-8.07/-13.68	-15.4/-8.03	-5.81/-4.73	-10.71/-11.6	-13.67/-12.69	-13.79/-11.29	-4.56/-7.72	-6.08/-17.5	-7.37/-3.81	-3.81/-5.86	-8.84/-16.35	-15.74/-17.79	-18.38/-9.95	-12.82/-11.72	-9.94/-8.24	-8.99/-17.66	-18.52/-16.99	-17.99/-18.58	-13.02/-16.79	-12.56/-14.41	-8.7/-7.6	-2.18/-1.14
Θ(60°)	-2.59/-4.5	-6.25/-8.29	-8.29/-6.36	-5.84/-8.16	-11.83/-13.23	-15.62/-16.55	-12.38/-14.98	-14.26/-16.94	-10.47/-17.47	-10.16/-7.12	-5.51/-7.37	-16.58/-15.18	-16.11/-11.39	-13.73/-10.46	-16.56/-11.67	-15.27/-10.32	-9.48/-19.76	-19.11/-18.6	-16.64/-16.42	-19.11/-18.6	-10.02/-7.34	-7.34/-10.33	-3.21/-1.87	
Θ(67.5°)	-3.95/-5.21	-5.36/-8.24	-8.42/-5.99	-9.41/-9.52	-7.66/-9.94	-13.64/-9.82	-14.2/-18.7	-10.24/-13.68	-18.7/-18.95	-11.11/-16.43	-18.22/-15.61	-16.41/-18.76	-18.05/-18.9	-10.2/-13.48	-11.23/-7.66	-11.02/-18.01	-18.28/-10.09	-8.49/-14.43	-15.59/-12.52	-18.2/-18.84	-19.07/-9.94	-6.84/-5.69	-5.93/-10	-5.56/-4.12
Θ(75°)	-6.71/-5.7	-6.49/-6.97	-9.18/-6.06	-9.16/-11.2	-11.73/-13.83	-15.22/-6.63	-13.76/-18.19	-13.4/-14.93	-17.89/-19.03	-13.97/-17.87	-13.69/-8.26	-13.16/-18.36	-17.64/-16.34	-15.37/-18.91	-13.53/-8.91	-9.61/-16.53	-18.54/-12.55	-9.97/-10.52	-17.35/-18.28	-19.13/-15.9	-16.38/-8.99	-6.77/-5.47	-5.33/-6.99	-8.52/-11.9
Θ(82.5°)	-9.04/-9	-8.83/-11.15	-9.01/-7.03	-9.44/-11.89	-12.21/-17.16	-13.86/-8	-12.91/-18.77	-17.05/-17.61	-17.67/-19.45	-17.69/-18.58	-8.79/-6.12	-8.93/-19.2	-18.55/-16.8	-18.31/-18.94	-16.01/-12.26	-15.05/-16.16	-17.82/-13.18	-10.81/-10.48	-12.73/-10.51	-16.66/-13.43	-15.4/-10.31	-8.43/-7.71	-8.06/-8.22	-11.86/-9.42
Θ(90°)	-10.45/-9.88	-9.23/-10.18	-10.29/-8.93	-10.36/-13.71	-17.03/-19.13	-18.36/-12.26	-18.51/-18.51	-19.01/-18.93	-19.04/-17.95	-18.81/-18.49	-12/-7.67	-6.59/-17.32	-17.04/-14.6	-16.71/-18.98	-17.86/-17.24	-18.2/-18.83	-18.99/-17.01	-11.3/-11.01	-14.66/-12.26	-18.28/-13.38	-14.6/-11.59	-9.3/-6.68	-10.01/-11.14	-11.5/-11.32
Θ(97.5°)	-9.57/-10.3	-11.61/-9.68	-11.42/-11.14	-11.69/-16.1	-16.09/-18.76	-16.16/-14.3	-18.51/-18.05	-18.4/-18.86	-18.34/-18.59	-18.19/-13.77	-13.11/-9.62	-9.98/-18.94	-18.45/-17.99	-18.5/-17.58	-17.44/-17.88	-18.94/-18.02	-18.44/-18.79	-14.62/-12.6	-13.99/-14.63	-18.41/-15.73	-18.4/-18	-12.57/-13.72	-10.91/-11.32	-14.92/-11.02
Θ(105°)	-9.13/-10.68	-10.21/-12.9	-12.87/-11	-11.98/-15.84	-18.85/-18.76	-19.25/-17.64	-18.11/-18.02	-19.21/-18.55	-17.58/-17.97	-18.79/-16.35	-17.21/-13.64	-12.71/-16.61	-17.79/-18.4	-18.24/-18.48	-16.87/-17.73	-18.42/-17.91	-18.34/-18.64	-18.79/-15.72	-17.54/-17.07	-18.01/-16.95	-17.77/-18.09	-15.79/-16.33	-11.15/-14.42	-15.17/-13.52
Θ(112.5°)	-9.99/-11.14	-10.21/-12.5	-12.29/-11.33	-14.31/-15.02	-18.21/-19.02	-17.22/-16.2	-17.6/-18.17	-17.98/-16																



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(120°)	-9.48/-11.13	-11.51/-10.54	-10.79/-13.08	-9.49/-9.2	-15.54/-10.59	-12.05/-12.5	-10.08/-11.3	-8.69/-9.57	-11.35/-12.56	-14.78/-14.39	-10.89/-8.78	-8.39/-10.41	-11.12/-10.15	-9.63/-10.88	-13/-12.59	-12.84/-11.38	-14.83/-10.7	-10.21/-8.61	-9.37/-11.72	-14.77/-10.46	-7.63/-9.98	-8.43/-11.98	-13.68/-11.53	-11.37/-10.35
Θ(127.5°)	-14.83/-15.5	-11.85/-10.58	-10.86/-15.58	-12.5/-9.71	-17.88/-11.59	-11.75/-17.21	-12.84/-13.08	-12.55/-11.26	-14/-14.41	-15.42/-18	-13.87/-10.9	-10.38/-11.32	-13.98/-18.62	-11.45/-12.12	-18.73/-11.35	-10.36/-13.42	-17.11/-18.25	-12.42/-11.4	-11.61/-15.2	-19.2/-16.16	-10.94/-11.73	-11.75/-13.45	-14.41/-10.01	-10.68/-14.5
Θ(135°)	-18.51/-17.1	-13.3/-10.93	-11.54/-17.37	-11.54/-17.37	-14.18/-17.96	-13.01/-17.05	-18/-14.03	-14.61/-13.95	-14.3/-18.27	-16.02/-13.33	-14.33/-18.07	-15.67/-15.02	-14.6/-15.15	-18.29/-18.03	-17.75/-15.66	-18.09/-14.64	-15.21/-19.02	-13.67/-15.65	-16.49/-15.87	-18.93/-17.72	-16.71/-12.37	-15.19/-16.25	-17.58/-11.99	-11.96/-16.97
Θ(142.5°)	-19.29/-18.11	-14.32/-12.3	-14.48/-17.48	-18.5/-13.02	-14.81/-18.09	-16.09/-13.65	-14.23/-14.75	-12.83/-11.55	-11.58/-13.85	-18.63/-14.07	-12.43/-13.59	-13.97/-14.77	-11.54/-10.93	-14.54/-17.75	-18.36/-16.39	-13.68/-17.63	-17.37/-19.19	-11.68/-17.35	-13.2/-9.97	-14.46/-19.13	-15.22/-10.69	-14.36/-19.65	-18.57/-17.45	-18.69/-18.04
Θ(150°)	-17.09/-17.62	-16.91/-17.28	-16.82/-16.11	-18.61/-17.45	-18.98/-19.06	-17.43/-14.72	-13.43/-12.8	-12.9/-15.51	-16.88/-13.13	-12.87/-15.31	-17.2/-18.59	-18.3/-18.79	-18.55/-16.51	-12.76/-14.2	-18.6/-18.7	-19.49/-17.24	-18.01/-17.3	-18.02/-18.22	-11.51/-12.13	-16.74/-17	-15.73/-13.98	-16.77/-18.04	-18.75/-18.9	-19.18/-17.81
Θ(157.5°)	-15.95/-14.91	-15.29/-17.64	-18.44/-19.31	-16.69/-16.07	-18.44/-19.31	-14.27/-18.44	-18.77/-16.63	-14.11/-14.08	-17.45/-18.29	-18.19/-15.83	-13.78/-14.51	-16.07/-17.65	-17.21/-16.71	-18.19/-17.92	-18.97/-18.53	-18.11/-18.38	-18.86/-17	-17.97/-18.83	-18.19/-18.86	-17.24/-18.51	-15.06/-17.54	-18.54/-18.68	-17.53/-18.23	
Θ(165°)	-18.11/-18.96	-17.24/-18.32	-18.7/-17.25	-17.15/-15.66	-16.06/-17.3	-17.94/-18.55	-18.46/-18.27	-17/-16.1	-17.15/-18.26	-18.53/-18.96	-17.57/-18.35	-18.95/-17.18	-18.96/-18.39	-17.62/-18.16	-18.65/-18.81	-18.71/-18.86	-19/-17.91	-18.44/-17.61	-17.87/-18.94	-18.54/-18.59	-18.61/-18.99	-19.27/-17.81	-16.01/-16.03	-18.53/-17.88
Θ(172.5°)	-17.96/-19.58	-19.22/-18.11	-18.61/-17.81	-18.71/-18.34	-18.07/-18.35	-18.3/-18.17	-18.43/-18.19	-16.63/-16.98	-16.43/-15.72	-16.05/-16.79	-18.44/-18.26	-18.71/-18.1	-17.43/-18.95	-18.77/-15.2	-17.51/-18.68	-18.76/-18.65	-18.45/-16.1	-14.16/-12.56	-12.12/-13.11	-14.77/-17.96	-19.17/-18.22	-19.21/-17.91	-18.75/-17.87	-17.55/-17.89
Θ(180°)	-18.02/-18.35	-18.78/-18.11	-18.74/-19.4	-18.3/-17.9	-16.79/-16.1	-15.69/-14.31	-14.04/-13.87	-13.96/-14.82	-15.94/-17.29	-19.16/-19.09	-18.36/-18.86	-19.3/-18.82	-17.81/-19.22	-18.68/-18.06	-18.69/-17.44	-18.64/-18.55	-19.43/-17.47	-18.98/-17.09	-16.32/-16.45	-17.12/-17.53	-17.47/-16.48	-15.44/-16.12	-17.12/-16.93	-17.75/-18.88
Freq(Hz)	5.3GPol.	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°)	-11.55/-11.6	-11.48/-11.37	-11.72/-12	-13.04/-14.44	-15.46/-15.23	-15.5/-15.41	-16.71/-19.26	-17.34/-18.63	-17.47/-18.3	-18.77/-19.12	-17.44/-18.39	-18.19/-16.43	-14.42/-14.26	-15.05/-15.24	-15.12/-14.99	-15.8/-17.21	-18.87/-18	-18.54/-17.66	-15.36/-14.14	-13.72/-14.37	-14.19/-14.25	-15.53/-16.6	-15.03/-12.88	-10.92/-10.29
Θ(7.5°)	-13.71/-13.81	-16.03/-19.47	-17.56/-18.04	-18.68/-17.7	-17.57/-14.53	-12.84/-11.92	-12/-13.39	-14.72/-15.12	-15.7/-15.6	-15.06/-13.24	-11.63/-10	-8.43/-7.63	-8.52/-10.08	-11.81/-12.4	-12.21/-12.57	-13.57/-14.84	-15.91/-16.51	-17.38/-18.95	-18.92/-17.72	-19.23/-18.99	-17.12/-18.28	-18.68/-18.45	-18.47/-17.83	-19.84/-15.52
Θ(15°)	-14.87/-13.27	-12.62/-12.77	-12.89/-13.58	-15.06/-16.52	-19.69/-17.48	-18.55/-18.98	-18.95/-18.44	-18.17/-16.73	-15.57/-13.4	-11.65/-10.82	-11.3/-13.28	-13.4/-13.09	-13.93/-15.36	-18.08/-18.36	-18.41/-17.51	-18.43/-18.42	-17.36/-16.25	-16.01/-16.37	-16.87/-18.73	-17.61/-18.05	-16.39/-12.48	-10.43/-9.65	-9.96/-13.66	-18.33/-14.8
Θ(22.5°)	-15.37/-13.64	-13.03/-13.14	-15.02/-16.2	-13.78/-12	-11.65/-12.54	-13.53/-14.64	-14.81/-16.72	-14.58/-15.34	-11.94/-10.56	-10.69/-12.19	-15.95/-17.92	-18.81/-17.59	-18.11/-13.71	-11.7/-11.59	-13.91/-17.49	-19.14/-17.76	-13.01/-11.46	-11.69/-14.16	-18.07/-19.38	-18.79/-18.82	-18.31/-11.43	-8.8/-8.09	-8.62/-10.53	-15.95/-18.24
Θ(30°)	-14.14/-12.1	-9.8/-9.89	-14.28/-17.14	-15.94/-12.4	-10.46/-11.33	-13.43/-16.6	-19.09/-18.47	-15.39/-12.16	-10.89/-10.35	-9.71/-9.3	-9.24/-9.02	-10.61/-17.32	-9.12/-13.27	-8.17/-6.14	-6.52/-8.04	-12.34/-18.27	-17.72/-11.64	-8.26/-7.73	-9.11/-12.96	-18.07/-17.72	-15.55/-11	-9.54/-9.84	-10.12/-10.77	-13.02/-14.14
Θ(37.5°)	-13.88/-11.9	-10.78/-10.7	-12.37/-16.05	-17.04/-12.01	-10.44/-12.64	-19.17/-18	-15.15/-10.84	-9.78/-11.67	-13.16/-11.55	-9.42/-7.43	-6.8/-6.71	-8.37/-14.55	-14.07/-11.92	-7.95/-6.73	-6.38/-7.64	-10.38/-14.9	-19.1/-17.78	-11.19/-6.91	-6.21/-8.52	-13.91/-18.91	-18.12/-15.15	-12.83/-11.54	-11.7/-13.44	-18.02/-18.33
Θ(45°)	-11.82/-12.07	-11.75/-16.04	-16.91/-18.73	-19.12/-19.34	-15.46/-13.56	-15.67/-15.22	-11.77/-10.26	-11.99/-15.45	-13.28/-10.66	-10.91/-11.73	-11.01/-13.26	-14.34/-18.43	-18.93/-18.96	-6.59/-6.46	-8.21/-9.81	-12.86/-17.5	-18.09/-17.94	-17.43/-12.62	-7.29/-7.09	-10.16/-14.52	-16.58/-13.82	-11.88/-6.96	-11.8/-15.11	-18.63/-14.79
Θ(52.5°)	-8.42/-6.83	-10.14/-14.44	-18.83/-18.58	-17.34/-14.22	-11.97/-9.32	-10.51/-12.06	-12.34/-12.39	-11.91/-9.84	-9.3/-9.56	-9.58/-11.71	-14.79/-13.87	-12.67/-12.07	-18.64/-17.59	-14.11/-9	-12.64/-13.18	-17.29/-18.07	-18.83/-18.16	-19.19/-15.32	-9.42/-8.08	-11.37/-19.36	-12.69/-8.82	-6.86/-6.38	-10.11/-14.98	-14.08/-9.73
Θ(60°)	-5.75/-5.9	-7.6/-8.62	-11.58/-12.41	-10.85/-11.46	-11.14/-9.67	-11.25/-13.69	-10.56/-8.55	-7.98/-8.03	-9.52/-8.95	-8.08/-8.67	-12.22/-15.74	-11.65/-9.15	-9.59/-16.41	-17.77/-11.05	-12.29/-10.76	-16.04/-18.76	-16.53/-14.94	-17.56/-15.98	-11.28/-8.8	-11.65/-15.09	-8.32/-6.14	-6.32/-7	-10.87/-12.55	-9.81/-7.31
Θ(67.5°)	-6.48/-7.08	-7.32/-7.4	-9.79/-11.05	-10.63/-10.76	-11.02/-9.96	-12.16/-14.52	-9.07/-8.08	-7.97/-8.9	-13.8/-8.85	-7.21/-8.82	-12.56/-14.5	-11.28/-7.76	-10.78/-13.31	-12.16/-12.64	-12.85/-11.37	-14.16/-18.75	-15.08/-10.98	-10.48/-12.28	-10.43/-7.35	-9.63/-11.82	-6.64/-4.78	-6.06/-6.92	-8.26/-7.66	-5.93/-5.4
Θ(75°)	-8.15/-9.05	-9.02/-7.74	-9.2/-10.61	-11.51/-13.14	-15.22/-12.8	-15.18/-14.47	-8.61/-8.51	-9.25/-10.87	-15.13/-12.2	-12.05/-17.55	-14.43/-9.54	-9.64/-12.72	-9.21/-17.49	-12.25/-11.35	-11.08/-12.79	-18.89/-10.4	-9.14/-9.83	-9.05/-6.7	-8.39/-9.99	-6.64/-5.31	-6.52/-7.2	-8.81/-8.38	-6.24/-5.78	
Θ(82.5°)	-10.35/-11.59	-10.8/-8.92	-10.53/-12.98	-14.04/-16.54	-18.44/-12.23	-14.99/-14.59	-9.49/-10.4	-12.05/-14.06	-16.75/-15.33	-10.92/-9.99	-13.41/-18.44	-11.65/-8.43	-10.03/-10.27	-12.37/-18.05	-13.04/-11.85	-10.5/-13.04	-18.5/-11.93	-9.46/-8.94	-6.95/-5.94	-7.7/-9.45	-8.14/-8.57	-11.36/-10.92	-8.49/-7.54	
Θ(90°)	-15/-14.63	-14.09/-11.83	-13.61/-15.35	-14.97/-17.93	-18.14/-14.25	-15.76/-17.14	-11.29/-12.2	-15.34/-19	-19.69/-18.52	-15.3/-12.59	-12.12/-18.22	-17.2/-13.72	-9.61/-14.07	-13.12/-16.25	-12.36/-13.37	-10.74/-13.06	-18.81/-15.13	-13.63/-10.03	-8.42/-6.83	-8.87/-8.96	-8.96/-9.42	-10.75/-11.45	-13.98/-13.46	-12.4/-8.26
Θ(97.5°)	-18.44/-17.84	-16.25/-14.13	-17.27/-18.15	-16.25/-17.39	-18.3/-16.17	-17.7/-19.19	-13.56/-13.46	-17.5/-18.31	-19.29/-14.8	-17.19/-18.8	-16.05/-18.1	-16.73/-12.33	-14.2/-16.62	-19.2/-17	-14.74/-15.41	-13.64/-17.66	-18.27/-18.48	-17.76/-13.29	-10.12/-9.46	-12.84/-12.23	-11.54/-13.85	-14.54/-13.84	-15.7/-18.45	-17.01/-9.36
Θ(105°)	-18.59/-17.94	-17.62/-15.22	-19.3/-17.81	-18.18/-18.48	-18.02/-18.64	-17.24/-18.22	-16.72/-15.57	-16.69/-17.45	-18.25/-16.62	-14.17/-18.51	-18.17/-17.06	-15.51/-12.59	-13.41/-16.74	-17.54/-18.34	-16.26/-16.23	-14.67/-18.73	-18.54/-17.33	-19.01/-17.22	-14.78/-14.09	-18.91/-13.85	-15.52/-18.69	-15.05/-15.61	-18.53/-17.57	-15.65/-12.57
Θ(112.5°)	-17.63/-17.96	-15.83/-18.2	-18.16/-18.22	-18.53/-18.83	-18.79/-18.47	-19.13/-18.08	-18.57/-17.97	-18.88/-17.15	-18.21/-17.41	-14.44/-18.23	-18.07/-18.08	-15.57/-15.3	-13.86/-19.04	-15.03/-17.74	-17.43/-16.79	-13.9/-18.27	-18.86/-18.96	-16.52/-18.71	-12.81/-14.39	-16.67/-14.11	-17.69/-17.98	-16.21/-16.36	-18.83/-18.14	-19.09/-17.56
Θ(120°)	-18.3/-18.67	-18.18/-19.03	-18.19/-18.23	-18.09/-17.47	-19.03/-18.13	-18.54/-18.91	-19.18/-18.68	-17.77/-17.26	-16.79/-18.9	-18.99/-10.38	-19.2/-18.18	-19.1/-16.79	-18.91/-17	-14.94/-18.21	-18.01/-18.31	-16.63/-18.57	-18.3/-18.36	-18.11/-17.48	-17.34/-17.48	-18.79/-19.26	-19.39/-16.38	-15.02/-17.8	-18.94/-18.21	-17.95/-15.92
Θ(127.5°)	-18.74/-18.47	-18.77/-19.73	-18.95/-18.27	-18.43/-18.42	-18.67/-18.6	-18.95/-18.15	-18.98/-18.79	-18.18/-17.4	-15.49/-17.8	-16.82/-18.21	-19.27/-18.44	-17.38/-18.01	-18.91/-18.37	-18.75/-19.08	-17.95/-19.18	-17.97/-16.93	-18.1/-18.01	-17.98/-18.18	-16.77/-18.91	-19.06/-18.9	-16.37/-18.87	-14.28/-19.12	-18.5/-19.28	-18.58/-18.13
Θ(135°)	-18.99/-15.92	-15.68/-18.71	-18.55/-18.8	-17.54/-17.67	-19.25/-18.8	-18.73/-18.86	-18.86/-18.53	-18.63/-17.92	-18.36/-17.89	-16.83/-17.49	-18.01/-19.18	-18.22/-18.28	-18.17/-18.55	-17.87/-18.39	-17.98/-18.24	-17.79/-17.4	-18.34/-17.59	-17.92/-18.16	-16.63/-19.71	-17.35/-18.44	-15.37/-19.43	-18.26/-18.03	-18.8/-18.67	-18.16/-18.29
Θ(142.5°)	-18.19/-18.31	-18.17/-17.1	-18.91/-18	-18.34/-17.97	-18.03/-17.73	-18.87/-18.93	-19.11/-18.28	-19.2/-18.73	-19.03/-18.58	-17.66/-17.47	-18.78/-18.6	-15.56/-14.37	-17.64/-16.66	-17.62/-18.34	-19.32/-17.69	-17.96/-19.08	-18.06/-19.43	-18.09/-18.32	-16.68/-18.19	-18.78/-18.78	-18.3/-12.12	-15.95/-18.25	-18.36/-18.01	-17.72/-18.97
Θ(150°)	-18.12/-19	-14.31/-18.18	-18.37/-19.05	-18.88/-18.73	-18.75/-14.39	-16.72/-18.56	-18.98/-17.34	-18.81/-17.35	-16.03/-18.13	-17.44/-19.01	-18.42/-17.78	-18.39/-18.51	-18.54/-18.83	-18.08/-18.98	-18.98/-18.17	-18.54/-18.98	-18.21/-17.8	-17.71/-17.64	-19.15/-17.56	-19.17/-19.08	-16.84/-12.98	-16.21/-17.43	-19.05/-19	-19.65/-18.56
Θ(157.5°)	-19.35/-17.64	-19.07/-16.																						



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(165°)	-17.64/-18.8	-16.33/-13.35	-12.56/-12.52	-12.73/-13.09	-14.35/-15.09	-16.92/-17.4	-18.5/-19.22	-19.21/-19.16	-17.34/-17.01	-14.02/-13.1	-13.69/-17.01	-17.99/-17.96	-17.78/-17.82	-18.31/-18.73	-18.5/-15.49	-15.09/-16.71	-19.24/-18	-17.18/-19.12	-19.59/-16	-13.3/-12.34	-13.16/-13.66	-13.41/-14.83	-16.38/-16.87	-17.83/-17.71
Θ(172.5°)	-15.15/-14.63	-15.18/-16.3	-18.54/-18.19	-18.24/-18.28	-18.52/-16.67	-14.58/-13.43	-14.91/-19.22	-17.85/-18.42	-18.94/-18.67	-19.28/-19.14	-17.99/-17.42	-17.34/-18.73	-17.76/-18.1	-17.66/-18.2	-18.38/-18.57	-19.06/-18.46	-14.84/-12.77	-11.81/-12.09	-12.7/-12.56	-12.26/-12.54	-14.23/-17.77	-18.61/-17.08	-17.77/-18.34	-18.26/-18.5
Θ(180°)	-18.52/-18.66	-18.17/-19.08	-18.97/-17.81	-18.17/-18.18	-18.23/-18.55	-17.72/-18.34	-18.24/-17.62	-18.66/-17.97	-18.98/-17.76	-18.71/-17.68	-18.11/-18.29	-18.76/-17.59	-16.67/-16.76	-18.19/-18.44	-17.21/-18.05	-18.17/-18.28	-18.78/-18.04	-18.17/-17.99	-18.54/-18.41	-17.46/-17.19	-17.83/-19.18	-17.42/-15.18	-14.75/-15.53	-18.76/-17.21
Freq(Hz)	5.785GPol.	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°)	-8.5/-7.81	-6.57/-5.8	-4.53/-4.97	-4.58/-4.25	-4.27/-4.43	-4.45/-4.42	-4.47/-4.35	-4.91/-5.87	-7.19/-8.78	-10.32/-11.98	-13.01/-12.81	-12.06/-10.13	-8.22/-7.5	-7.06/-6.6	-6.47/-6.16	-6.02/-6.23	-6.46/-6.61	-6.65/-6.69	-6.92/-9.71	-8.87/-5.37	-7.46/-7.82	-9.25/-8.79	-8.05/-7.5	
Θ(7.5°)	-18.47/-18.15	-17.87/-14.76	-13.35/-11.23	-9.63/-8.22	-7.75/-7.94	-8.12/-8.73	-9.12/-9.61	-10.14/-9.81	-8.57/-7.47	-6.94/-6.64	-6.26/-5.98	-5.94/-6.22	-7.58/-9.5	-11.09/-11.47	-10.91/-9.2	-7.38/-6.07	-5.09/-4.34	-3.75/-3.81	-4.52/-5.77	-7.35/-8.25	-9.11/-9.73	-10.69/-13.83	-18.59/-19.29	-16.78/-16.39
Θ(15°)	-3.58/-3.08	-3.02/-3.53	-5.14/-8.65	-14.24/-14.07	-10.08/-8.09	-8.24/-9.29	-10.47/-10.73	-8.81/-6.38	-4.51/-3.68	-3.32/-3.08	-2.98/-3.34	-4.14/-5.71	-7.39/-7.9	-7.27/-6.97	-7.13/-8.46	-10.7/-15.03	-15.33/-10.74	-7.86/-6.39	-5.67/-5.27	-5.77/-6.85	-8.62/-11.13	-11.88/-12.92	-14.21/-11.52	-8.63/-5.97
Θ(22.5°)	-11.23/-9.86	-6.77/-4.36	-3.8/-5.13	-8.58/-15.94	-18.72/-14.46	-12.41/-12.6	-11.16/-7.46	-3.63/-1.24	-0.35/-0.8	-2.64/-4.69	-5.63/-6.34	-8.03/-11.76	-17.97/-18.57	-13.71/-8.67	-6.78/-7.61	-11.23/-18.98	-18.48/-14.91	-13.11/-12.71	-10.55/-8.01	-5.84/-4.98	-16.97/-19.62	-15.6/-19.05	-18.57/-9.1	
Θ(30°)	-4.37/-6.15	-9.39/-17.53	-10.36/-5.1	-2.48/-3.05	-5.7/-10.57	-18.89/-17.21	-13.31/-5.04	-1.23/-0.47	-1.67/-4.44	-7.55/-4.84	-2.54/-2.27	-2.87/-4.27	-5.39/-6.44	-12.73/-15.11	-6.63/-5.11	-5.97/-7.76	-8.13/-7.79	-10.78/-16.81	-17.98/-14.1	-9.51/-19	-4.82/-5.25	-6.43/-5.99	-4.62/-4.56	-4.91/-6.12
Θ(37.5°)	-4.54/-4.73	-4.8/-6.08	-11.57/-8.26	-2.36/-1.53	-4.25/-12.31	-13.36/-8.45	-6.84/-4.43	-4.41/-7.15	-9.88/-9.98	-7.14/-3.14	-1.67/-2.94	-4.89/-4.91	-2.74/-1.76	-4.35/-15.51	-15.04/-7.39	-4.22/-5.04	-7.24/-9.09	-9.29/-7.84	-7.48/-7.85	-8.56/-8.6	-6.78/-4.95	-4.89/-4.49	-3.17/-2.88	-2.82/-3.27
Θ(45°)	-4.23/-6.95	-9.73/-10.13	-11.32/-18.79	-8.99/-5.95	-6.09/-18.44	-9.39/-5.67	-4.78/-4.79	-9.44/-17.55	-10.69/-8.58	-7.27/-6.2	-5.01/-7.07	-8.81/-7.22	-4.68/-1.68	-2.03/-5.24	-9.98/-17.51	-4.46/-1.94	-5.45/-12.62	-10.32/-7.27	-4.31/-3.72	-4.88/-7.99	-11.73/-11.43	-6.84/-4.79	-3.01/-4.32	
Θ(52.5°)	-2.59/-2.27	-2.95/-5.56	-8.65/-10.6	-18.89/-9.47	-5.01/-13.74	-8.77/-5.24	-4.68/-5.55	-10.55/-18.7	-11.6/-12.09	-9.13/-11.59	-17.81/-17.27	-7.52/-4.59	-2.19/-1.14	-1.06/-0.74	-3.21/-13.06	-2.53/-1.49	-5.23/-12.69	-9.88/-9.11	-5.93/-4.36	-5.33/-6.71	-12.42/-12.13	-18.6/-18.69	-9.2/-3.82	-1.84/-3.19
Θ(60°)	-3.94/-0.82	- 4.14/-1.9	-6.52/-8.35	-9.04/-8.27	-2.26/-7.22	-7.12/-9.54	-5.67/-7.09	-12.88/-17.72	-14.56/-14.01	-8.22/-8.39	-7.57/-7.32	-6.17/-6.42	-4.21/-2.39	-2.16/-1.29	-1.89/-10.87	-5.13/-3.58	-7.32/-17.36	-7.05/-7.1	-6.61/-7.08	-6.13/-7.6	-12.83/-13.92	-12.64/-15.46	-7.51/-3.69	-2.97/-6.44
Θ(67.5°)	-6.14/-1.52	-0.75/-2.1	-6.73/-8.36	-5.74/-7.45	-3.05/-4.74	-4.53/-7.21	-7.56/-6.89	-18.41/-11.54	-9.49/-8.59	-6.87/-6.16	-3.74/-3.77	-7.51/-7.74	-4.38/-5.67	-8.82/-4.96	-5.06/-14.95	-6.92/-5.95	-11.58/-7.64	-4.36/-4.53	-5.38/-9.01	-7.13/-7.35	-9.23/-11.29	-11.04/-13.19	-9.25/-6.09	-6.47/-9.65
Θ(75°)	-10.34/-4.32	-2.47/-3.89	-6.87/-9.92	-6.39/-7.41	-5.26/-5.89	-4.24/-6.82	-7.71/-8.97	-18.98/-8.92	-7.86/-7.27	-5.02/-5.16	-4.73/-4.58	-7.99/-9.58	-7.3/-3.41	-11.12/-13.64	-7.58/-16.68	-10.18/-6.51	-12.61/-7.89	-4.5/-4.52	-5.39/-12.96	-7.72/-5.98	-6.55/-9.04	-10.93/-13.14	-13.45/-8.32	-10.16/-17.38
Θ(82.5°)	-17.94/-8.54	-5.97/-6.42	-8.28/-13.37	-7.6/-9.01	-7.3/-8.22	-6.08/-10.49	-9.48/-11.24	-17.31/-8.29	-8.48/-7.58	-5.96/-6.03	-6.83/-8.07	-13.48/-8.6	-5.86/-6	-13.02/-18.1	-9.03/-18.56	-11.69/-9.2	-14.92/-6.13	-4.79/-3.91	-5.76/-18.59	-8.96/-7.21	-6.37/-10.27	-12.4/-18.7	-15.95/-8.97	-13.22/-19.04
Θ(90°)	-18.76/-11.26	-9.12/-10.23	-11.23/-17.27	-11.53/-11.03	-9.74/-11.45	-7.64/-8.81	-11.39/-11.61	-17.45/-11.1	-10.01/-11.83	-8.2/-6	-6.33/-9.72	-14.21/-17.37	-11.61/-6.7	-12.72/-18.61	-8.12/-13.59	-18.19/-11.35	-18.38/-10.07	-7.18/-4.95	-7.61/-18.38	-10.03/-8.26	-6.55/-9.97	-13.28/-17	-17.45/-12.26	-13.67/-19.02
Θ(97.5°)	-17.13/-13.77	-11.38/-11.86	-11.32/-17.89	-14.66/-16.09	-12.62/-13.07	-11.31/-10.93	-14.69/-18.77	-18.86/-13.48	-14.46/-17.85	-14.76/-10.54	-10.9/-13.2	-18.1/-19.02	-15.34/-15.12	-13.47/-19.45	-12.88/-16.14	-18.59/-15.19	-19.48/-11.21	-11.51/-7.55	-11.69/-18.5	-13.33/-12.65	-9.07/-13.63	-16.79/-18.39	-19.24/-15.13	-18.34/-18.13
Θ(105°)	-17.29/-12.56	-15.72/-17.26	-13.77/-13.9	-17.65/-18.76	-17.88/-13.84	-15.34/-11.86	-14.41/-19.24	-17.8/-15.23	-13.04/-14.71	-16.31/-23.17	-16.61/-16.98	-16.5/-16.65	-15.15/-9.86	-18.04/-19.06	-17.85/-17.89	-19.47/-15.1	-17.25/-18.84	-16.72/-12.88	-15.87/-18.42	-18.1/-18.46	-13.15/-16.16	-17.74/-18.94	-19.04/-16.92	-16.34/-18.06
Θ(112.5°)	-16.82/-17.31	-18.04/-18.62	-16.76/-16.15	-16.51/-17.85	-18.31/-13.87	-17.21/-4.86	-12.09/-16.42	-16.05/-13.61	-13.39/-11.22	-10.56/-12.76	-18.81/-18.67	-19.37/-17.78	-14.40/-12.06	-19.03/-17.99	-15.11/-15.1	-18.89/-14.44	-12.93/-14.19	-18.92/-10.7	-17.65/-18.94	-14.9/-16.73	-19.01/-15.55	-18.5/-18.69	-18.51/-19.17	
Θ(120°)	-19.4/-17.38	-14.76/-18.28	-17.13/-16.47	-17.35/-17.83	-19/-15.9	-17.3/-18.72	-16.09/-16.61	-18.93/-15.93	-13.02/-14.45	-13.81/-11.06	-14.64/-14.92	-17.89/-19.02	-17.48/-13.53	-18.33/-17.34	-15.15/-17.84	-18.87/-13.4	-18.42/-18.66	-19.1/-15.24	-18.43/-18.09	-18.58/-12.74	-11.81/-17.57	-18.35/-17.98	-19.3/-17.55	-13.77/-18.63
Θ(127.5°)	-18.11/-17.38	-17.85/-18.82	-17.88/-16.58	-18.35/-17.92	-19.51/-19.09	-19.13/-17.79	-18.17/-18.16	-16.68/-18.13	-19.09/-19.13	-18.44/-19.05	-18.34/-18.41	-17.46/-18.73	-19.05/-18.67	-17.18/-18.78	-19.05/-18.84	-12.49/-14.16	-14.36/-18.44	-19.07/-17.26	-18.79/-19.95	-18.41/-18.43	-17.52/-17.96	-17.65/-18.13	-17.78/-18.46	-15.96/-13.7
Θ(135°)	-17.83/-15.04	-18.28/-18.03	-18.02/-18.28	-18.04/-18.8	-19.02/-18.68	-16.87/-17.21	-18.72/-18.03	-18.37/-19.18	-18.14/-18.6	-17.87/-18.66	-15.8/-16.3	-17.64/-17.85	-18.15/-13.24	-18.39/-18.62	-18.58/-18.63	-18.29/-18.46	-18.77/-17.85	-16.23/-19.07	-17.83/-17.97	-18.81/-18.06	-19.53/-18.55	-10.01/-14.68	-18.01/-18.1	-18.11/-14.24
Θ(142.5°)	-16.8/-15.18	-15.49/-15.15	-13.57/-16.75	-17.8/-19.02	-15.7/-15.76	-18.3/-18.71	-18.75/-18.07	-17.91/-18.11	-17.85/-18.51	-19.3/-17.67	-17.16/-17.3	-18.36/-16.31	-17.9/-18.69	-18.22/-17.99	-19.1/-18.96	-16.15/-18.48	-18.46/-17.59	-15.98/-18.92	-17.52/-18.53	-17.96/-17.73	-17.81/-18.04	-19.31/-14.67	-15.68/-15.38	-18.77/-15.59
Θ(150°)	-14.26/-16.03	-19.07/-18.59	-17.1/-13.08	-17.97/-17.19	-14.61/-13.84	-18.63/-18.09	-17.75/-17.88	-17.55/-16.39	-15.85/-14.43	-17.02/-17.7	-17.89/-19.21	-15.6/-17.83	-18.32/-18.59	-17.05/-18.41	-15.03/-12.59	-12.92/-17.92	-18.53/-18.08	-17.68/-18.62	-16.25/-18.32	-18.56/-18.53	-17.42/-14.34	-16.87/-17.5	-19.38/-18.44	-18.05/-19.05
Θ(157.5°)	-16.21/-14.73	-15.12/-18.46	-17.97/-18.23	-18.95/-17.78	-13.13/-12.74	-17.16/-10.2	-15.55/-18.7	-15.87/-16.38	-19.21/-18.57	-17.57/-17.43	-18.74/-18.21	-17.72/-18.34	-14.66/-16.63	-17.41/-17.66	-17.64/-17.85	-18.69/-18.72	-17.81/-19.12	-15.29/-16.11	-19.15/-19.02	-18.92/-18.35	-18.89/-18.56	-17.85/-18.57		
Θ(165°)	-16.43/-18.17	-18.6/-17.89	-16.55/-15.71	-16.91/-19.21	-18.95/-17.52	-18.61/-18.5	-18.68/-18.05	-19.19/-18.33	-18.62/-17.62	-18.79/-18.77	-18.41/-17.86	-17.59/-18.62	-19.14/-18.37	-18.05/-18.1	-14.42/-14.78	-17.91/-19.07	-18.3/-18.44	-19.3/-17.58	-15.36/-14.86	-15.38/-18.71	-18.43/-18.71	-18.52/-18.57	-17.78/-12.67	-10.46/-11.24
Θ(172.5°)	-16.45/-19.1	-16.99/-14.03	-12.56/-11.67	-11.22/-10.9	-12.48/-14	-16.74/-17.9	-17.87/-18.34	-18.88/-19.22	-19.13/-17.75	-18.81/-17.49	-18.4/-17.59	-18.61/-16.79	-16.09/-14.87	-15.73/-17.77	-17.42/-18.87	-18.97/-18.55	-18.14/-18.18	-17.84/-18.11	-17.67/-18.16	-19.28/-17.09	-18.14/-18.04	-15.61/-13.52	-13.96/-13.97	-10.68/-9.62
Θ(180°)	-19.26/-18.85	-17.73/-15.99	-17.99/-18.78	-17.25/-18.78	-18.05/-18.35	-18.09/-17.8	-17.79/-18.38	-18.11/-18.07	-18.38/-18.02	-18.07/-18.67	-18.89/-18.47	-18.74/-18.69	-18.39/-18.29	-17.9/-17.53	-17.79/-18.18	-19.26/-19.16	-17.27/-16.4	-16.92/-18.64	-18.87/-19.18	-19.23/-18.51	-18.58/-17.48	-17.84/-17.55	-18.24/-18.32	-17.24/-17.88
Freq(Hz)	5.885GPol.	PhiAnt.2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-4.57/-5.18	-5.65/-6.02	-6.84/-7.63	-8/-8.46	-8.98/-8.93	-8.4/-7.88	-7.35/-6.26	-5.56/-4.94	-3.97/-2.94	-2.25/-1.85	-1.66/-1.77	-2.08/-2.55	-2.93/-3.35	-3.97/-4.89	-6.21/-7.16	-6.97/-6.66	-6.32/-5.92	-5.82/-5.06	-4.69/-4.26	-3.93/-3.47	-3.18/-3.44	-4/-4.34	-4.15/-4.36	-4.94/-5.05
Θ(7.5°)	-1.8/-2.06	-2.39/-2.75	-3.34/-3.93	-4.46/-4.62	-4.18/-3.26	-2.35/-1.77	-1.49/-1.66	-2.08/-2.81	-3.35/-3.67	-														



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(7.5°)	-4.55/-5	-6.55/-8.91	-10.45/-9.8	-8.19/-7.55	-8.29/-9.82	-11.6/-13.4	-15.42/-15.84	-13.65/-11.21	-9.19/-7.88	-6.09/-4.77	-3.84/-3.1	-2.46/-2.41	-2.75/-3.35	-4.31/-5.69	-7.51/-9.73	-11.98/-13.31	-14.63/-16.91	-19.23/-16.51	-12.31/-9.89	-8.3/-6.74	-6.03/-5.25	-4.23/-3.39	-2.52/-1.97	-1.76/-2.1
Θ(15°)	-18.48/-17.83	-18.77/-19.05	-17.58/-18.83	-14.45/-10.19	-8.66/-7.87	-7.01/-6.91	-7.31/-7.47	-7.61/-7.79	-8.29/-8.79	-8.95/-8.55	-7.46/-5.98	-4.83/-3.89	-3.86/-4.7	-6.45/-7.3	-7.74/-8.59	-10.55/-14.44	-19.82/-17.21	-14.04/-12.57	-13.03/-15.19	-19.22/-18.71	-17.79/-19.03	-18.88/-16.76	-14.81/-14.45	-15.85/-17.7
Θ(22.5°)	-14.83/-15.74	-16.02/-16.54	-18.01/-12.18	-8.52/-7.1	-7.44/-7.94	-8.09/-8.84	-10.24/-11.39	-11.68/-10.7	-8.69/-7.81	-8.74/-11.3	-15.02/-16.71	-12.61/-11.68	-16.19/-15.83	-7.75/-5.15	-8.29/-7.26	-11.48/-19.29	-18.07/-12.67	-9.71/-8.2	-9.23/-9.54	-8.61/-8.88	-7.97/-8.94	-6.59/-7.28	-8.72/-9.4	-10.06/-11.17
Θ(30°)	-5.73/-7.76	-11.72/-16.7	-13.78/-9.01	-5.8/-4.38	-5.15/-6.05	-14.66/-18.14	-16.19/-15.31	-17.02/-16.24	-10.07/-7.15	-7.76/-12.8	-18.38/-15.22	-11.83/-10.68	-13.87/-17.35	-8.47/-5.35	-6.11/-9.27	-16.66/-18.05	-14.45/-10.3	-9.3/-10.45	-12.41/-13.99	-14.62/-11.93	-7.89/-4.97	-3.71/-3.74	-5.17/-6.94	-7.73/-8.26
Θ(37.5°)	-2.09/-3.77	-6.8/-9.84	-10.75/-10.89	-8.19/-5.85	-6.45/-11.34	-18.6/-15.65	-13.65/-14.09	-17.92/-17.92	-18.61/-18.06	-18.56/-15.25	-11.07/-10.9	-13.16/-15.11	-15.59/-16.6	-10.37/-7.09	-6.36/-6.66	-17.71/-15.09	-9.48/-7.76	-7.75/-8.19	-9.4/-11.71	-15.71/-15	-10.5/-6.44	-4.54/-4.5	-4.84/-4.37	-2.96/-2.24
Θ(45°)	-5.3/-6.37	-7.68/-7.55	-9.34/-14.02	-14.93/-14.02	-10.09/-14.08	-17.54/-18.45	-14.79/-12.38	-15.72/-18.26	-16.75/-18.54	-9.16/-6.5	-7.81/-9.35	-16.42/-8.73	-15.05/-17.27	-17.38/-8.01	-4.68/-8.86	-18.49/-13.18	-11.08/-8.15	-7.21/-7	-9.21/-13.52	-16.29/-16.52	-12.29/-9.99	-7.29/-7.03	-5.86/-3.84	-2.92/-2.06
Θ(52.5°)	-5.38/-6.97	-7.81/-7.92	-10.15/-15.16	-17.91/-13.88	-11.17/-14.83	-18.86/-19.24	-12.61/-7.23	-7.24/-8.36	-10.13/-11.79	-8.6/-5.55	-10.24/-14.96	-18.56/-16.05	-14.92/-11.74	-8.86/-5.98	-3.71/-8.15	-18.01/-11.64	-10.57/-9.19	-9.18/-9.77	-13.41/-12.54	-10.79/-9.45	-8.94/-7.34	-7.49/-8.67	-8.18/-6.31	-5.82/-5.25
Θ(60°)	-5.27/-6.24	-7.28/-7.9	-8.6/-13.54	-18.02/-14.69	-12.19/-16.44	-17.95/-19.07	-15.38/-7.15	-4.99/-4.1	-4.92/-8.75	-6.6/-8.2	-11.85/-13.17	-11.24/-13.5	-10.71/-12.39	-13.32/-10.4	-6.45/-8.02	-18.98/-10.64	-10.96/-13.07	-8.59/-9.59	-11.03/-8.04	-5.12/-4.82	-6.02/-7.5	-8.05/-9.4	-8.03/-8.07	-6.2/-6.01
Θ(67.5°)	-7.43/-7.39	-11.55/-11.52	-8.99/-13.4	-15.18/-13.3	-12.51/-15.45	-12.46/-19.04	-17.28/-8.32	-4.79/-3.81	-4.28/-10.2	-8.42/-13.31	-17.86/-10.81	-7.05/-9.94	-9.18/-12.43	-8.77/-11.94	-9.09/-8.83	-18.48/-8.14	-8.52/-7.64	-6.03/-7.52	-6.95/-4.52	-3.63/-3.09	-5.6/-8.46	-10.7/-11.56	-10.16/-11.83	-6.99/-5.97
Θ(75°)	-8.03/-9.31	-13.46/-12.19	-10.3/-17.32	-17.32/-13.17	-13.17/-19.28	-10.22/-17.82	-18.52/-10.77	-6.14/-5.69	-6.38/-10.36	-11.48/-15.81	-15.75/-14.77	-7.29/-9.72	-9.85/-11.81	-10.59/-10.4	-10.85/-7.65	-19.16/-7.79	-6.34/-7.99	-6.04/-6.34	-5.92/-4.75	-2.9/-3.5	-6.29/-11.38	-13.92/-12.03	-10.84/-13.35	-8.12/-6.82
Θ(82.5°)	-10.68/-11.45	-12.89/-11.88	-11.9/-16.37	-17.92/-13.69	-12.05/-18.03	-12.1/-17.96	-18.15/-13.72	-8.79/-8.76	-12.32/-12.5	-13/-18.02	-10.11/-12.01	-8.7/-9.55	-9.11/-8.92	-8.53/-11.01	-13.9/-10.71	-18.45/-6.91	-6.55/-7.9	-7.03/-8.35	-6.38/-6.01	-4.6/-4.92	-8.17/-12.89	-15.29/-11.19	-11.76/-15.38	-9.38/-8.11
Θ(90°)	-11.6/-15.13	-13.75/-12.17	-11.48/-14.43	-17.85/-16.33	-15.65/-18.68	-13.33/-17.85	-18.39/-17.06	-11.42/-11.34	-18.01/-17.92	-13.45/-15.99	-11.32/-9.72	-9.43/-8.75	-8.45/-10.53	-10.66/-10.23	-13.9/-12.42	-19.23/-8.58	-6.64/-11.46	-12.15/-13.03	-10.73/-8.77	-6.84/-7.77	-12.6/-16	-18.63/-12	-14.18/-18.86	-13.97/-10.92
Θ(97.5°)	-14.28/-17.45	-15.63/-13.82	-11.22/-14.68	-18.88/-19.13	-17/-18.11	-16.02/-18.03	-18.87/-16.65	-12.23/-12.95	-17.61/-18.02	-16.64/-18.16	-12.89/-11.04	-11/-12.7	-16.96/-12.22	-12.9/-13.84	-16.29/-14.37	-17.9/-11.55	-12.02/-18.72	-17.33/-17.31	-13.58/-12.85	-11.02/-12.68	-18.42/-19.39	-18.39/-12.1	-16.83/-18.61	-16.07/-12.69
Θ(105°)	-16.17/-18.87	-15.67/-16.1	-13.78/-16.66	-17.4/-18.01	-13.78/-16.66	-17.92/-13.72	-17.85/-18.26	-19.45/-18.69	-13.27/-11.65	-14.07/-12.45	-17.57/-15.22	-15.86/-13.97	-12.7/-15.22	-10.05/-14.74	-18.2/-13	-15.25/-18.52	-18.06/-18.26	-18.06/-19.06	-16.02/-18.75	-18.57/-19.16	-18.3/-18.15	-18.2/-14.05	-17.99/-19.01	-17.99/-13.63
Θ(112.5°)	-17.91/-17.56	-14.94/-13.9	-12.63/-17.93	-18.39/-18.99	-18.63/-18.45	-17.95/-18.02	-17.82/-18.83	-13.09/-13.37	-14.62/-10.63	-16.4/-14.76	-16.64/-17.91	-18.74/-17.67	-18.68/-13.8	-12.27/-17.61	-17.22/-13.09	-18.22/-11.73	-17.76/-18.79	-19.24/-18.21	-18.87/-18.96	-15.96/-17.75	-17.99/-18.22	-18.12/-18.35	-18.15/-16.08	
Θ(120°)	-16.36/-16.36	-13.28/-14.44	-15.4/-15.25	-17.99/-15.47	-17.82/-18.4	-18.98/-17.55	-17.55/-19.02	-17.52/-17.93	-18.74/-11.31	-14.58/-17.63	-14.62/-17.92	-18.09/-16	-18.63/-11.76	-16.33/-17.01	-18.33/-19.01	-14.53/-10.43	-16.95/-19.39	-17.87/-17.64	-16.42/-18.87	-14.51/-17.71	-18.48/-18.78	-18.86/-17.8	-17.5/-18.07	-17.96/-17.22
Θ(127.5°)	-18.69/-15	-16.71/-17.4	-14.63/-12.67	-17.88/-18.94	-17.94/-17.57	-17.95/-18.34	-18.15/-17.64	-18.15/-17.64	-18.15/-17.64	-17.78/-17.5	-16.19/-15.14	-15.91/-17.74	-15.23/-17.63	-16.68/-18.36	-18.27/-15.75	-17.26/-18.24	-18.43/-18.59	-17.65/-16.34	-13.14/-18.44	-18.22/-18.22	-18.94/-18.99	-18.08/-18.86	-19.06/-18	-18.02/-18.08
Θ(135°)	-12.71/-18.08	-13.81/-14.69	-16.17/-15.66	-18.17/-18.6	-18.46/-17.85	-17.92/-18.16	-17.95/-18.98	-19.3/-18.17	-18.32/-17.72	-17.73/-14.88	-16.03/-17.51	-17.71/-17.46	-15.51/-15.77	-17.95/-18.89	-18.83/-19.31	-18.66/-17.47	-18.85/-14.27	-12.47/-18.77	-17.5/-18.07	-18.45/-17.96	-16.67/-17.91	-19.24/-18.64	-16.04/-18.34	
Θ(142.5°)	-17.69/-17.56	-18.06/-14.68	-14/-15.61	-18.09/-17.26	-18.96/-18.14	-19.33/-17.78	-16.41/-15.66	-15.43/-15.95	-17.57/-17.46	-18.71/-15.26	-15.57/-18.21	-19/-18.54	-18.22/-19.15	-18.97/-18.94	-18.6/-18.1	-17.91/-13.17	-14.41/-19.65	-17.81/-18.76	-18.09/-18.52	-15.58/-19.41	-19.43/-18.3	-19.15/-18.39	-18.7/-18.33	-17.45/-19.11
Θ(150°)	-18.14/-17.88	-12.4/-12.08	-13.67/-17	-18.34/-14.35	-14.53/-18.2	-18.77/-16.66	-16.55/-14.99	-18.76/-18.68	-14.28/-15.92	-18.32/-13.05	-14.55/-16.91	-18.66/-18.43	-19.02/-17.94	-18.05/-16.33	-17/-19.23	-18.19/-18.16	-19.05/-17.48	-18.65/-18.32	-18.32/-17.17	-18.29/-18.25	-18.76/-18.95	-18.55/-17.7	-19.04/-19.08	-18.8/-19.23
Θ(157.5°)	-17.53/-15.56	-12.36/-11.67	-13.28/-14.52	-13.77/-13.97	-16.72/-18.13	-19.1/-18.55	-16.65/-16.97	-18.91/-18.21	-16.42/-17.08	-17.58/-18.33	-18.37/-18.05	-19.04/-14.51	-13.57/-15.15	-19.02/-19.18	-18.11/-19.17	-18.67/-18.5	-17.96/-19.15	-18.99/-18.95	-17.96/-18.95	-18.64/-18.81	-18.73/-17.67	-18.87/-18.94	-17.82/-17.08	-14.77/-15.37
Θ(165°)	-12.87/-12.3	-13.32/-12.62	-11.52/-11.35	-12.54/-13.27	-12.78/-12.36	-12.79/-13.68	-16.4/-18.77	-19.23/-18.2	-18.87/-18.61	-18.35/-18.25	-17.06/-17.19	-19.07/-17.91	-18.15/-16.27	-16.02/-16.92	-18.84/-18.77	-18.31/-17.37	-18.69/-18.71	-17.87/-17.97	-17.7/-19.22	-19.84/-17.45	-19.07/-19.3	-18.36/-18.94	-19.25/-18.03	-18.94/-15.18
Θ(172.5°)	-13.24/-13.88	-13.57/-13.99	-15.04/-15.62	-15.91/-17.2	-16.87/-19.03	-18.89/-18.47	-17.96/-18.07	-17.72/-17.86	-17.61/-15.64	-14.17/-12.52	-11.96/-12.49	-14.32/-18.85	-18.51/-18.64	-18.07/-18.24	-19.06/-17.39	-18.65/-18.74	-17.63/-17.92	-17.28/-19.19	-19.37/-19.03	-18.01/-19.14	-18.71/-17.8	-17.86/-14.82	-12.49/-12.22	-12.72/-16.61
Θ(180°)	-11.71/-10.52	-9.29/-8.61	-8.47/-10.13	-11.75/-13.42	-15.43/-18.15	-18.47/-19.1	-17.31/-18.56	-18.46/-18.58	-18.36/-17.83	-18.22/-17.26	-15.64/-14.01	-11.89/-9.7	-8.28/-8.04	-8.12/-8.15	-9.1/-10.63	-11.92/-13.02	-14.02/-15.41	-16.81/-18.83	-18.61/-18.24	-17.9/-18.73	-17.74/-17.81	-14.34/-12.25	-11.62/-11.46	-11.17/-10.89
Freq(Hz)	5.3GPol	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°)	-17.63/-18.08	-18.76/-17.16	-13.57/-10.75	-8.3/-4.4	-5.21/-4.5	-4.58/-4.87	-5.16/-5.1	-5.59/-6.12	-6.92/-7.96	-9.26/-11.08	-13.79/-17.48	-18.81/-17.81	-19.25/-16.48	-12.72/-10.14	-8.12/-6.58	-5.75/-7.19	-4.8/-4.02	-3.69/-3.6	-3.5/-3.51	-3.57/-3.82	-4.02/-4.37	-4.96/-5.6	-6.7/-8.49	-10.72/-13.98
Θ(7.5°)	-8.02/-6.8	-5.95/-5.54	-5.59/-6	-5.74/-4.84	-3.88/-3.31	-3.17/-3.02	-3.01/-3.02	-3.01/-2.95	-2.92/-3.31	-3.82/-4.79	-6.53/-8.65	-11.64/-15.76	-19.32/-19.09	-14.71/-11.86	-9.71/-8.13	-7.61/-7.2	-7.66/-8.05	-6.98/-7.74	-11.17/-12.14	-13.29/-15.1	-16.82/-18.7	-17.98/-18.8	-18.82/-18.6	-15.95/-12.55
Θ(15°)	-3.86/-4.37	-3.26/-3.23	-3.54/-3.96	-4.05/-3.59	-2.93/-2.2	-1.68/-1.56	-1.58/-1.3	-1.21/-1.31	-1.57/-1.83	-2.23/-2.85	-3.79/-4.58	-4.91/-5.44	-6.05/-6	-5.44/-5.24	-6.06/-7.07	-7.78/-7.73	-7.27/-6.18	-5.33/-4.67	-4.58/-5.06	-6/-7.11	-8.12/-8.28	-8.17/-7.28	-6.4/-5.96	-5.38/-6.4
Θ(22.5°)	-1.84/-1.69	-2.01/-2.52	-3.23/-4.37	-3.18/-2.33	-1.37/-0.59	-4.07/-0.27	0.250/0.64	0.49/-0.32	-1.31/-1.75	-1.65/-1.32	-0.99/-0.24	0.340/-2	-0.24/-0.85	-2.19/-0.53	9.35/-12.79	-11.75/-8.31	-4.29/-1.43	0.58/2.05	2.56/2.28	1.4/-0.08	-2.07/-4.31	-7.09/-8.9	-8.2/-6.35	-4.27/-2.79
Θ(30°)	0.91/-1.29	0.930/-16	-1.03/-2.11	-2.8/-2.42	-0.860/0.64	1.48/-1.94	2.24/-2.43	2.06/-6.60	1.52/-2.57	-3.33/-2.21	-2.04/-1.82	-1.37/-1.05	-0.84/-1.16	-2.47/-5.41	-10.1/-15.43	-13.85/-8.59	3.57/-0.39	0.63/0.48	2.93/-1.29	4.01/-2.12	-4.5/-7.13	-8.39/-6.09	-2.30/-0.2	
Θ(37.5°)	2.092/-39	2.422/-21	1.350/-23	-1.11/-2.08	-1.46/-0.51	0.290/0.98	1.932/-58	1.930/-35	-0.76/-0.51	0.251/-0.9	0.940/-39	-0.32/-0.89	-0.87/-0.32	-0.27/-1.04	-3.52/-6.65	-8.46/-7.63	-2.561/-59	3.934/-77	4.352/-93	0.57/-2.07	-3.82/-4.49	-5.3/-6.14	-6.21/-4.53	-1.36/-11
Θ(45°)	1.592/-01	3.013/-48	3.472/-89	1.61/-0.4	-1.13/-0.7	-0.180/-36	1.391/-92	1.630/-22	-0.740/-65	1.591/-66	1.651/-18	0.610/-19	-0.170/-34	1.011/-23	0.46/-0.73	-2.49/-3.38	-0.761/83	3.23/85	4.052/-69	-0.8/-4.1	-5.41/-9.5	-5.31/-5.77	-4.84/-2.93	-0.85/-1
Θ(52.5°)	1.471/-1	2.053/-3	4.334/-36	3.291/-21	0.303/-12	-0.83/-																		



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(60°)	-4.89/-6.59	-6.83/-5.67	-5.91/-9.02	-16.09/-6.96	-6.68/-12.5	-15.4/-8.57	-5.79/-4.87	-5.91/-6.46	-2.28/-1.55	-3/-1.57	-1.27/-2.42	-1.87/-1.58	-4.77/-6.59	-4.99/-0.91	1.02/-3.31	-17.97/-18	-15.27/-7.97	-5.72/-5.56	-6.23/-8.27	-5.1/-2.66	-2.79/-3.52	-4.21/-5.95	-4.46/-5.24	-3.04/-4.07
Θ(67.5°)	-9.09/-17.78	-12.32/-9.3	-5.77/-4.96	-13.39/-9.62	-8.27/-17.76	-16.74/-10.47	-5.47/-3.84	-5.63/-6.71	-3.31/-1.51	-5.19/-2.65	-4.09/-4.5	0.120/39	-3.95/-4.57	-3.610/-6	1.68/-2.07	-11.91/-17.4	-14/-7.65	-4.65/-4.91	-5.3/-8.73	-4.87/-2.29	-1.79/-1.26	-3.23/-6.88	-6.73/-6.23	-3.96/-5.03
Θ(75°)	-10.34/-15.27	-14.31/-13.66	-7.32/-5.18	-11.45/-12.74	-10.07/-18.07	-18.14/-13.31	-5.53/-3.91	-6.65/-8.94	-5.69/-4	-9.48/-6.7	-11.52/-13.54	-2.13/-35	-1.19/-4.79	-5/-7.7	1.5400/7	-14.6/-15.23	-14.78/-7.79	-3.84/-5.8	-5.08/-8.11	-5.62/-2.83	-2.32/-1.48	-5.08/-9.21	-6.64/-7.84	-5.86/-8.67
Θ(82.5°)	-12.39/-14.45	-17.84/-18.22	-9.76/-6.12	-9.93/-12.78	-12.23/-18.6	-14.17/-17.84	-6.17/-5.12	-7.92/-12.38	-7.62/-6.39	-12.19/-10.72	-17.31/-8.93	-3.15/-0.04	-4.2/-5.15	-6.35/-1.46	0.03/0.99	-6.17/-14.33	-15.94/-9.69	-4.85/-5.68	-5.16/-11.1	-5.52/-3.05	-3.72/-3.48	-9.77/-14.43	-13.07/-9.56	-7.11/-9.52
Θ(90°)	-14.07/-16.15	-18.57/-17.54	-12.91/-8.15	-10.65/-13.56	-12.21/-17.84	-18.63/-18.94	-8.97/-7.7	-9.89/-15.1	-10.15/-9.24	-13.56/-9.41	-12.96/-8.7	-7.52/-2.01	-4.12/-5.05	-8.95/-4.88	-2.63/-2.26	-6.13/-12.84	-13.73/-12.3	-6.98/-7.79	-6.58/-13.01	-9.27/-6.4	-7.9/-7.54	-14.65/-17.21	-12.32/-10.98	-7.84/-12.45
Θ(97.5°)	-11.53/-13.37	-17.33/-18.14	-18.74/-12.52	-12.8/-16.24	-13.82/-18.82	-18.31/-17.54	-9.48/-9.48	-13.3/-18.64	-13.16/-11.28	-11.96/-11.34	-12.72/-8.88	-8.33/-5.41	-7.94/-13.53	-12.54/-7.17	-5.16/-5.54	-11.92/-17.03	-14.75/-18.27	-12.09/-11.08	-10.04/-15.85	-14.24/-10.17	-13.4/-15.65	-18.24/-19.06	-17.06/-14.61	-10.06/-14.66
Θ(105°)	-13.15/-14.84	-17.63/-17.74	-18.54/-15.72	-15.98/-18.26	-14.17/-19.18	-17.77/-18.13	-9.78/-10.31	-14.81/-18.64	-17.46/-14.11	-14.19/-15.47	-17.46/-11.57	-10.09/-7.87	-8.33/-11.99	-17.65/-10.17	-7.19/-8.9	-11.81/-16.3	-12.7/-17.45	-18.06/-17.65	-12.95/-18.98	-17.66/-13.08	-16.47/-17.24	-18.74/-18.5	-18.5/-16.15	-13.85/-15.18
Θ(112.5°)	-12.76/-17.03	-19.18/-18.49	-18.63/-16.71	-18.24/-15.59	-16.03/-19.23	-19.13/-18.15	-12.71/-11.56	-14.52/-13.87	-17.63/-17.69	-16.9/-18.54	-12.84/-17.58	-13.28/-10.27	-12.98/-15.5	-12.62/-11.71	-9.22/-9.61	-13.63/-14.38	-13.85/-17.79	-18.76/-14.31	-11.47/-18.11	-18.1/-17.58	-18.79/-19.04	-18.32/-17.31	-17.85/-14.17	-14.81/-13.97
Θ(120°)	-15.11/-15.81	-17.19/-15.47	-19.03/-18.02	-19.29/-17.75	-13.96/-18.4	-18.41/-18.16	-17.85/-15.89	-15.11/-18.61	-18.33/-16.86	-13.34/-12.98	-10.73/-11.41	-18.82/-14.54	-12.13/-14.83	-12.13/-9.84	-13.04/-11.96	-16.96/-18.35	-17.81/-14.6	-13.97/-13.19	-12.69/-18.21	-17.36/-17.75	-19.12/-17.73	-17.76/-18.13	-18.06/-16.66	-18.91/-15.24
Θ(127.5°)	-11.33/-13.81	-17.02/-14.44	-18.24/-17.96	-17.88/-19.16	-17.86/-18.18	-19.08/-18.25	-17.54/-17.11	-14.61/-18.36	-18.77/-18.77	-14.39/-18.88	-12.52/-14.11	-12.94/-18.05	-18/-18.85	-15.33/-15.81	-15.08/-18.2	-16.58/-19.16	-17.87/-18.69	-17.98/-19.07	-18.58/-18.99	-18.54/-19.05	-18.72/-18.95	-18.94/-18.25	-17.86/-19.24	-18.2/-13.83
Θ(135°)	-19.14/-11.93	-15.69/-16.46	-14.86/-19.24	-18.88/-18.73	-19.09/-17.84	-18.12/-18.22	-19.16/-17	-18.81/-17.72	-15.84/-16.74	-18.61/-15.1	-16.78/-12.29	-12.06/-16.41	-17.82/-14.83	-14.19/-17.65	-18.04/-17.9	-18.03/-18.87	-18.31/-18.57	-18.71/-17.8	-17.7/-17.52	-18.77/-18.49	-17.7/-18.31	-18.25/-17.7	-17.7/-18.31	-18.25/-17.7
Θ(142.5°)	-12.32/-17.41	-11.74/-15.21	-17.97/-18.07	-18.92/-16.68	-13.84/-15.81	-17.2/-17.9	-18.31/-19.53	-18.69/-19.35	-15.78/-16.67	-17.07/-18.54	-16.5/-18.29	-17.93/-17.36	-17.9/-14.45	-15.03/-17.49	-18.94/-18.65	-18.84/-17.23	-18.16/-16.42	-16.43/-14.78	-17.32/-19.37	-19.18/-18.04	-18.23/-18.57	-18.02/-18.94	-17.71/-18.55	-18.88/-13.8
Θ(150°)	-13.1/-17.1	-17.89/-18.54	-15.49/-17.63	-17.03/-16.84	-17.93/-17.49	-18.61/-17.82	-18.47/-17.57	-18.22/-17.7	-17.57/-17.38	-17.79/-18.16	-14.05/-13.3	-14.13/-18.06	-15.68/-19.22	-17.99/-19.36	-18.62/-18.44	-18.14/-19	-19.37/-16.82	-14.1/-15.33	-17.66/-19.36	-18.41/-18.01	-18.99/-18.57	-18.48/-18.82	-17.8/-14.86	-18.26/-17.95
Θ(157.5°)	-15.11/-12.55	-11.67/-11.96	-14.69/-13.29	-11.49/-11.79	-12.93/-16.64	-18.7/-19.07	-16.24/-17.41	-18.28/-18.04	-18.93/-17.64	-18.71/-17.9	-17.98/-16.35	-13.92/-14.62	-18.22/-19.12	-17.93/-17.92	-17.89/-18.58	-16.52/-18.15	-18.66/-17.95	-18.14/-18.56	-18.33/-17.59	-18.22/-19.73	-17.78/-17.35	-17.13/-18.43	-17.13/-18.43	-19.2/-17.7
Θ(165°)	-18.96/-18.38	-17.67/-18.66	-18.6/-18.92	-18.07/-19.32	-17.28/-18.67	-15.77/-12.68	-13.21/-15.55	-19.18/-18.19	-17.3/-17.88	-18.31/-18.65	-18.54/-15.89	-12.3/-12.13	-17.56/-17.93	-13.18/-10.53	-11.54/-14.93	-18.64/-18.31	-18.54/-18.15	-18.16/-18.46	-17.43/-17.36	-17.7/-15.31	-13.73/-14.37	-14.7/-13.47	-11.58/-10.32	-10.52/-11.93
Θ(172.5°)	-9.51/-9.6	-12.12/-14.98	-15.01/-15.71	-17.65/-16.82	-16.87/-16.07	-14.33/-14.14	-15.51/-17.23	-19.43/-18.65	-19.35/-17.54	-17.38/-15.82	-15.54/-15.18	-14.77/-13.21	-13.45/-14.28	-15.89/-17.46	-18.9/-18.47	-19.73/-16.97	-15.63/-15.46	-15.34/-15.6	-15.51/-14.82	-15.34/-13.77	-12.76/-12.02	-11.92/-12.2	-12.14/-11.26	-10.9/-11.53
Θ(180°)	-12.32/-12.52	-11.47/-11.79	-12.98/-12.89	-12.21/-13.37	-15.7/-17.65	-18.14/-18.35	-18.79/-17.77	-17.8/-16.01	-14.51/-13.02	-12.37/-12.2	-11.49/-10.66	-10.18/-9.77	-9.38/-9.4	-9.82/-11.23	-12.78/-15.54	-18.54/-19.05	-18.25/-18.31	-18.4/-17.54	-15.71/-13.99	-13.57/-12.61	-12.45/-12.08	-11.23/-10.8	-11.16/-11.85	-12.57/-12.53
Freq(Hz)	5.785GPol.	PhiAnt.3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-10.56/-8.88	-8.71/-8.04	-8.06/-7	-5.27/-4.05	-3.72/-3.65	-3.54/-3.22	-0.295/-2.96	-3.43/-4.1	-5.42/-6.85	-8.19/-9.8	-11.82/-13.94	-14.13/-12.41	-10.26/-8.72	-7.61/-6.42	-5.4/-4.4	-4.07/-3.52	-2.83/-2.23	-1.75/-1.42	-1.1/-1.09	-1.01/-1.24	-1.43/-1.73	-2.02/-2.44	-3.24/-4.43	-6.16/-7.66
Θ(7.5°)	-6.25/-4.26	-3.16/-2.4	-1.83/-1.6	-1.2/-0.92	-0.46/-0.25	-0.504/-0.27	0.240/61	0.80/-96	0.510/-11	-0.62/-1.73	-3.15/-4.79	-6.94/-9.66	-13.23/-16.2	-17.09/-14.95	-12.71/-10.61	-8.72/-7.44	-7.23/-6.97	-6.81/-7.19	-8.06/-9.76	-11.74/-15.5	-18.57/-18.4	-18.83/-15.15	-11.83/-6.62	
Θ(15°)	-1.87/-1.1	-0.380/-2.4	0.751/0.1	1.121/-2.4	1.331/-2	0.80/-37	-0.11/-0.1	0.020/0.1	-0.17/-0.63	-0.9/-1.24	-1.98/-3.13	-4.33/-5.22	-6.35/-8.21	-9.92/-10.85	-10.63/-9.88	-8.71/-8.08	-9.2/-10.13	-10.82/-11.98	-12.72/-13.19	-12.53/-10.14	-7.84/-5.92	-4.31/-3.52	-3.43/-3.89	-4.01/-3.68
Θ(22.5°)	-0.62/-0.66	-0.5/-0.26	0.050/-3.4	0.560/-1.1	1.321/-6.4	1.741/-56	0.970/-46	0.310/-17	-0.030/-0.81	-1.32/-2.62	-3.72/-4.9	-5.12/-4.4	-4.07/-3.6	-3.61/-3.67	-3.78/-3.68	-3.22/-3.13	-3.99/-5.28	-6.1/-7.74	-7.7/-7.21	-6.4/-5.42	-4.72/-3.92	-2.89/-1.83	-0.94/-0.52	-0.43/-0.75
Θ(30°)	-3.11/-2.82	-1.92/-1.22	-0.57/-0.21	0.290/-92	0.810/-28	-0.25/-0.46	-0.68/-0.6	0.191/-47	2.532/-54	1.33/-0.49	2.11/-3.1	-3.02/-2.87	-2.56/-2.64	3.1/-3.4	-3.62/-3.63	-2.71/-1.54	-1.64/-2.92	-3.98/-4.08	-2.39/-1.96	-1.52/-1.26	-0.540/-0.5	-0.27/-0.98	-1.48/-1.8	-1.99/-2.51
Θ(37.5°)	-2.48/-1.59	-0.750	0.510/-3.4	0.210/-72	0.59/-0.47	-2.49/-4.53	-4.58/-2.38	0.532/-45	3.442/-45	1.450/-0.4	-0.92/-0.59	-1.01/-1.88	-1.41/-6.41	-6.07/-4.72	-3.68/-3.99	-3.11/-1.85	-1.59/-1.15	-0.260/-56	0.650/-12	-0.58/-0.34	0.931/-9	1.840/-49	-1.72/-3.87	-3.87/-3
Θ(45°)	0.160/-73	0.410/-29	0.37/-0.37	-0.440/-85	1.26/-0.74	-5.61/-11.71	-10.6/-4.64	-0.94/-11	1.520/-98	0.420/-14	0.621/-94	2.72/-11	0.79/-1.71	-3.74/-1.47	0.740/-67	-0.36/-1.21	-1.63/-1.14	0.762/-29	2.241/-84	1.060/-27	0.711/-59	1.510/-18	-2.18/-14.5	-3.44/-0.78
Θ(52.5°)	2.142/-19	0.77/-0.7	-1.74/-2.56	-1.151/-13	1.36/-1.18	-7.02/-14.5	-8.57/-3.7	-1.15/-0.34	-1.08/-1.93	-2.09/-2.39	-0.771/-33	1.881/-34	0.21/-1.33	-1.910/-65	2.412/-17	1.410/-38	-2.42/-4.52	-0.542/-07	2.031/-19	-0.37/-1.35	-0.370/-77	0.92/-0.33	-2.38/-2.04	-0.71/-38
Θ(60°)	2.31/-9	3.71/-1.69	-2.44/-2.01	-0.331/-53	1.56/-0.76	-5.06/-8.29	-6.08/-3.65	-1.48/-0.28	-1.25/-2.81	-2.37/-3.38	-3.2/-2.52	-2.22/-2.19	-0.9/-0.5	-1.38/-1.72	-1.09/-1.09	-2.04/-3.2	-7.06/-10.29	-1.73/-3.69	-2.16/-2.44	-3.97/-2.8	0.242/-0.4	1.140/-29	-2.28/-0.92	0.642/-09
Θ(67.5°)	2.321/-92	0.62/-1.41	-2.51/-1.93	0.171/-7	1.920/-9	-5.34/-6.17	-3.56/-2.7	-2.6/-6.1	-3.1/-3.26	-0.480/-49	0.57/-1.67	-2.790/-85	1.3/-1.7	-0.62/-2.57	-2.393/-12	-4.83/-9.99	-10.07/-8.92	-5.85/-3.7	-4.91/-1.39	-0.230/-19	1.282/-55	1.651/-31	-1.580/-51	1.852/-05
Θ(75°)	1.21/-16	-0.21/-9.2	-2.98/-2.42	-0.410/-65	0.393/-3	-5.74/-4.54	-2.46/-1.9	-3.85/-4.66	-4.13/-3.35	0.311/-78	1.67/-0.56	-1.961/-03	2.672/-09	0.59/-2.66	-3.31/-3.78	-4.12/-5.07	-3.67/-2.8	-0.71/-0.16	-1.560/-81	1.861/-34	1.71/-8	0.931/-36	-1.810/-1	1.471/-65
Θ(82.5°)	-0.36/-0.22	-1.27/-3.08	-4.01/-3.44	-2.22/-1.03	-1.53/-5.3	-6.09/-4.45	-3.71/-3.08	-4.33/-6.07	-5.23/-3	0.211/-18	0.36/-1.89	-0.572/-54	1.830/-44	-2.26/-4.1	-4.5/-3.34	-2.14/-2.39	-1.33/-1.32	0.391/-29	0.812/-55	2.591/-59	1.23/-0.31	-0.060/-62	-2.83/-1.21	0.480/-25
Θ(90°)	-1.33/-1.49	-2.85/-4.92	-6.49/-5.51	-3.67/-2.38	-3.38/-4.1	-7.93/-5.17	-5.35/-5.5	-6.44/-8.05	-6.67/-4.32	-0.80/-06	-0.82/-2.74	-2.780/-03	1.970/-47	-2.1/-4.69	-9.28/-6.92	-4.31/-2.68	0.2/-0.68	0.170/-69	0.51/-16	0.35/-1.22	-1.17/-2.46	-1.9/-1.91	-4.23/-3.99	-1.42/-1.57
Θ(97.5°)	-3.27/-3.7	-5.03/-7.27	-9.52/-8.01	-5.36/-5.27	-6.45/-11.71	-8.72/-6.42	-7.22/-8.42	-8.03/-9.64	-10.3/-6.33	-2.72/-1.87	-3.27/-6.42	-4.45/-1.54	-2.68/-5.92	-7.27/-10.26	-13.23/-6.2	-5.97/-3.94	-1.97/-4.33	-2.46/-2.09	-1.86/-2.6	-2.46/-3.08	-3.22/-5.65	-4.18/-5	-6.29/-4.94	-3.25/-3.23
Θ(105°)	-4.44/-6.14	-9.71/-10.28	-12.6/-8.56	-6.01/-7.53	-8.91/-15.48	-11.25/-8.4	-8.41/-11.1	-10.27/-11.08	-9.89/-9.3	-5.93/-4.47	-5.58/-8.54	-8.32/-5.68	-2.63/-4.2	-7.43/-9.88	-18.49/-11.63	-18.5/-12.67	-10.60/-8.54	-5.43/-10.2	-6.28/-3.07	-4.82/-8.32	-6.93/-6.95	-6.05/-7.34	-4.98/-6.48	-9.71/-7.



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ(105°)	-17.08/-12.88	-12.85/-17.77	-17.84/-15.66	-12.66/-17.16	-17.68/-19.02	-19.38/-18.37	-17.73/-13.58	-13.91/-17.99	-19.32/-16.89	-13.47/-14.38	-18.67/-15.92	-16.28/-18.09	-14.81/-16.68	-18.49/-14.78	-13.6/-14.04	-13.95/-19.29	-9.32/-11.2	-16.04/-18.1	-18.57/-18.4	-15.13/-16.55	-17.88/-18.01	-18.7/-18.83	-17.72/-14.45	-17.99/-18.07
Θ(112.5°)	-18.5/-15.97	-17.93/-18.14	-17.9/-17.54	-14.31/-18.26	-19.28/-17.99	-18.7/-17.74	-16.94/-13.63	-12.24/-17.08	-18.59/-19.12	-18.57/-13.85	-13.14/-14.02	-14.91/-13.57	-15/-16.07	-19.02/-15.69	-15.13/-15.31	-18.11/-18.79	-7.1/-8.37	-17.91/-18.9	-18.04/-18.51	-12.45/-16.27	-19.53/-18.66	-18.24/-18.85	-17.39/-18.66	-15.03/-18.74
Θ(120°)	-19.85/-18.01	-16.54/-17.22	-19.13/-17.38	-17.86/-16.44	-17.86/-18.04	-17.43/-17.95	-17.89/-17.46	-17.36/-14.02	-18.96/-15.24	-18.92/-13.17	-17.67/-19.02	-17.46/-17.03	-18.71/-18.22	-14.08/-16.64	-14.08/-17.91	-17.19/-13.82	-12.01/-14.02	-17.26/-19.5	-19.41/-18.57	-15.97/-19.15	-17.12/-19.24	-17.83/-18.31	-16.86/-17.82	-14.77/-17.8
Θ(127.5°)	-19.08/-17.16	-16.07/-17.42	-18.4/-19.29	-18.23/-19.08	-16.98/-16.4	-15.08/-18.76	-18.28/-17.01	-14.59/-16.18	-18.47/-14.99	-18.32/-18.9	-18.53/-17.94	-19.11/-18.86	-15.29/-18.45	-17.94/-19.4	-18.25/-18.14	-16.31/-12.88	-18.41/-17.79	-19.14/-17.3	-16.11/-18.75	-16.6/-17.45	-18.17/-16.26	-18.04/-17.78	-17.58/-18.79	-16.75/-17.89
Θ(135°)	-18.72/-14.86	-18.84/-16.91	-18.39/-18.3	-18.67/-14.85	-16.99/-16.62	-14.37/-16.68	-17.94/-18.74	-18.08/-18.36	-19.08/-18.94	-17.55/-18.63	-17.78/-16.97	-17.9/-14.97	-18.01/-17.09	-18.1/-18.33	-18.25/-19.04	-18.6/-17.49	-18.07/-18.13	-15.62/-16.46	-13.41/-18.84	-14.01/-19.17	-17.82/-12.79	-17.93/-19.03	-17.08/-17.69	-16.56/-14.01
Θ(142.5°)	-18.45/-18.41	-17.4/-19.14	-18.78/-18.51	-18.95/-18.15	-18.55/-14.25	-14.71/-16.06	-17.31/-16.03	-17.31/-18.99	-18.64/-18.31	-17.23/-18.09	-17.55/-19.41	-18.49/-18.65	-17.31/-16.58	-16.54/-17.48	-16.64/-16.71	-16.39/-18.33	-15.26/-12.49	-18.54/-17.98	-17.71/-18.96	-18.09/-16.96	-19.03/-17.95	-15.95/-18.9	-19.14/-18.78	-18.67/-18.02
Θ(150°)	-18.27/-17.86	-18.94/-18.3	-18.06/-17.56	-18.39/-17.63	-17.83/-17.54	-18.59/-19.01	-14.33/-15.14	-18.02/-18.33	-19.12/-18.75	-17.32/-16.46	-15.29/-19.25	-18.61/-19	-17.72/-18.7	-18.47/-18.23	-18.19/-17.87	-14.1/-18.14	-19.48/-17.71	-17.46/-18.58	-16.76/-13.31	-13.31/-17.32	-18.14/-18.22	-19.1/-19.31	-17.64/-19.07	-17.98/-17.7
Θ(157.5°)	-16.07/-11.19	-9.92/-9.24	-10.25/-14.08	-16.03/-18.34	-18.38/-18.31	-16.41/-12.44	-11.56/-13.01	-15.71/-17.77	-18.97/-19.53	-18.11/-17.57	-18/-18.33	-17.62/-12.73	-14.87/-17.29	-17.98/-18.99	-18.82/-18.14	-16.5/-18.56	-18.22/-18.12	-19.23/-18.6	-18.55/-17.94	-18.72/-18.7	-19.06/-15.8	-17.96/-18.43	-17.56/-17.96	-19.02/-16.69
Θ(165°)	-18.28/-19.05	-18.74/-19.83	-16.05/-13.42	-11.61/-12.6	-16.05/-18.45	-18.24/-18.34	-16.5/-17.5	-18.41/-18.73	-18.69/-18.58	-17.99/-19.11	-17.65/-19.32	-14.85/-12.43	-13.62/-17.92	-18.3/-11.65	-11.57/-13.4	-13.38/-14.1	-17.55/-18.72	-17.67/-17.65	-17.01/-18.12	-18.62/-19.5	-17.82/-17.97	-18.03/-17.6	-15.37/-14.52	-15.14/-18.72
Θ(172.5°)	-11.94/-12.21	-12.83/-14.51	-16.5/-18.93	-17.08/-18.64	-18.48/-17.99	-19.14/-18.92	-18.6/-19.05	-18.01/-19.02	-19.17/-18.6	-19.15/-18.24	-15.06/-13.81	-13.38/-13.07	-12.46/-11.87	-11.69/-13.23	-16.96/-18.97	-18/-18.34	-17.39/-18.95	-17.51/-17.05	-18.61/-18.38	-18.74/-19.1	-18.93/-18.56	-19.2/-17.75	-18.39/-15.1	-11.78/-11.03
Θ(180°)	-17.22/-17.15	-17.07/-15.98	-16.42/-16.65	-16.28/-15.66	-17.37/-18.64	-17.18/-18.82	-18.15/-18.05	-17.55/-17.99	-17.99/-19.11	-19.48/-18.95	-18.74/-18.79	-17.37/-15.57	-13.33/-11.94	-11.64/-12.2	-14.74/-17.98	-17.79/-18.29	-18/-18.45	-18.94/-18.21	-19.08/-19	-18.66/-18.77	-18.18/-18.45	-18.65/-19.42	-18.99/-17.95	-17.86/-17.82
Freq(Hz)	5.2GPol	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°)	-9.05/-9.46	-10.19/-10.79	-11.57/-13.96	-17.43/-18.16	-18.96/-18.37	-14.36/-11.26	-9.26/-8.32	-7.68/-6.58	-5.97/-5.42	-5.15/-5.16	-5.53/-5.88	-6.23/-6.96	-7.86/-8.8	-10.28/-11.87	-12.94/-13.95	-14.77/-16.18	-18.16/-18.13	-17.05/-16.99	-15.83/-16.08	-15.34/-12.54	-10.41/-8.84	-9.58/-8.99	-8.28/-8.02	-8.03/-8.3
Θ(7.5°)	-9.4/-9.29	-9.47/-10.2	-10.38/-10.16	-18.91/-9.62	-9.77/-11.51	-14.54/-17.15	-17.89/-18.77	-19.48/-17.68	-17.26/-15.32	-14.57/-13.2	-10.69/-9.49	-9.57/-9.73	-10.24/-11.82	-14.4/-16.88	-15.71/-12.8	-10.02/-7.68	-5.94/-5.6	-4.02/-4.11	-2.67/-3.03	-4.54/-4.64	-5.15/-5.64	-6.14/-5.62	-6.63/-7.89	
Θ(15°)	-7.89/-6.99	-6.03/-5.44	-4.88/-5.05	-5.27/-5.83	-6.83/-6.29	-9.78/-11.56	-12.13/-11.99	-11.96/-11.64	-10.94/-10.48	-10.99/-11.2	-10.67/-10.3	-11.16/-12.85	-15.56/-17.76	-17.08/-16.19	-15.74/-13.32	-10.67/-7.97	-5.93/-4.59	-3.85/-3.48	-3.91/-4.79	-5.31/-5.44	-5.13/-5	-5/-4.49	-5.18/-5.78	-6.62/-7.79
Θ(22.5°)	-4.38/-6.49	-4.25/-3.34	-2.64/-2.24	-2.63/-4.05	-6.16/-6.43	-6.05/-6.43	-7.35/-9.78	-7.68/-6.76	-5.82/-5.15	-4.47/-3.72	-2.84/-2.85	-3.41/-3.79	-4.15/-3.63	-2.21/-1.56	-1.88/-2.73	-3.15/-2.67	-1.93/-1.23	-0.64/-0.25	-0.31/-0.97	-1.77/-2.67	-3.24/-3.05	-3.65/-4.75	-5.62/-5.51	-4.66/-4.4
Θ(30°)	-0.71/-5.4	-2.18/-1.46	-0.320/-0.9	-0.64/-1.98	-0.44/-1.96	0.14/-0.61	-1.21/-3.59	-4.35/-4.53	-1.98/-0.54	-0.98/-1.16	-1.45/-0.31	0.761/-1.2	1.08/-0.55	-1.41/-0.87	1.08/-0.55	-0.57/-0.63	-1.36/-1.43	-0.830/-1.2	0.880/-7	-0.51/-1.33	-1.01/-1.05	-1.41/-1.52	-0.9/-0.38	
Θ(37.5°)	-0.09/-0.48	-0.99/-0.81	0.51/-1.28	1.220/-96	1.171/-96	2.31/-16	-0.43/-2	-3.21/-4.19	-4.9/-5.48	-5.3/-4.17	-2.35/-1.16	-0.120/-6.4	0.860/-8.1	1.722/-5.4	2.070/-4.7	-0.61/-0.89	-0.41/-0.52	-1.85/-2.46	-1.310/-26	1.131/-41	1.130/-15	-1.01/-2.09	-2.34/-1.37	-0.280/-38
Θ(45°)	-0.71/-0.36	-0.38/-0.7	0.212/-0.1	3.243/-42	3.363/-28	2.771/-97	1.421	0.39/-0.63	-2.94/-5.05	-4.78/-3.53	-2.15/-1.47	-0.510/-23	0.130/-13	0.562/-27	2.50/-61	-1.85/-1.77	0.321/-0.7	1.291/-99	2.292/-57	2.481/-35	-0.09/-0.62	-1.11/-2.57	-4.8/-3.87	-1.98/-112
Θ(52.5°)	-0.750/-0.6	-0.02/-0.72	-0.531/-93	4.014/-3	3.632/-45	2.593/-26	3.593/-44	2.440/-93	-0.53/-2.6	-2.84/-0.36	0.740/-69	1.221/-89	1.761/-28	1.622/-78	1.650/-61	-2.48/-1.84	-0.030/-61	1.271/-67	2.92/-98	1.52/-0.83	-2.2/-1.55	-1.16/-1.49	-3.17/-4.04	-3.26/-1.81
Θ(60°)	-0.540/-18	-0.18/-0.28	-0.81/-1.79	3.823/-63	2.342/-08	2.83/-44	3.923/-87	3.191/-92	0.720/-45	0.191/-22	1.5/-1.2	2.04/-2.76	2.121/-11	1.73	2.96/-189	-0.130/-0.5	1.120/-64	-1.24/-2.42	-0.88/-0.97	-3.86/-4.71	-3.73/-0.77	0.48/-0.14	-1.75/-2.91	-2.88/-1.54
Θ(67.5°)	-1.22/-0.5	-1.01/-0.99	-1.540/-88	2.542/-09	1.131/-19	2.152/-53	2.655/-02	2.481/-68	1.251/-46	2.052/-84	2.561/-77	2.512/-29	2.011/-17	1.953/-54	3.883/-38	2.251/-47	1.710/-47	-1.22/-2.16	-2.85/-4.16	-3.33/-4.08	-0.920/-33	0.87/-0.08	-1.48/-2.08	-2.16/-1.15
Θ(75°)	-2.17/-1.69	-2.77/-2.56	-2.86/-0.84	0.750/-47	1.240/-31	1.270/-68	0.921/-99	1.540/-45	0.470/-76	1.642/-26	1.950/-89	1.061/-74	1.350/-53	1.262/-58	3.233/-07	0.45/-0.31	0.221/-14	-1.49/-2.07	1.432/-76	0.85/-0.77	0.49/-0.06	-2.04/-2.1	-3.09/-2.68	
Θ(82.5°)	-4.25/-3.51	-5.29/-5.34	-5.05/-2.76	-1.07/-1.41	-1.78/-1.12	-0.08/-0.58	-0.14/-0.1	0.53/-0.8	-0.7/-0.37	0.5/-1.4	0.86/-0.19	0.54/-1.17	-0.88/-1.36	-0.56/-1.06	1.821/-66	0.33/-1.16	-0.37/-1.34	0.722/-38	-0.68/-0.9	2.513/-19	1.04/-2.28	-1.68/-1.79	-3.27/-4.14	-4.35/-4.88
Θ(90°)	-6.19/-5.31	-6.72/-6.45	-6.27/-5.31	-3.59/-2.92	-3.02/-2.48	-1.43/-2.76	-2.81/-2.07	-1.38/-2.87	-2.84/-2.1	-1.38/-0.58	-1.1/-1.6	-1.59/-0.86	-1.69/-2.74	-2.1/-1.19	0.17/-0.15	-2.13/-3.64	-3.25/-4.7	-0.082/-14	-0.96/-2.01	1.592/-4	-0.06/-5.35	-4.99/-4.05	-4.76/-6.05	-5.35/-3.74
Θ(97.5°)	-8.79/-6.71	-8.41/-8.96	-7.71/-8.85	-6.73/-8.56	-4.74/-4.46	-3.29/-3.77	-3.88/-2.48	-3.69/-5.45	-3.98/-3.85	-3.93/-4.57	-2.89/-4.46	-4.41/-3.76	-5.43/-4.81	-5.97/-3.64	-2.59/-2.08	-3.73/-6.01	-5.4/-7.59	-2.46/-0.28	-4.21/-4.04	-0.63/-0.62	-3.16/-0.39	-8.91/-6.34	-1.97/-7.07	-7.86/-9.22
Θ(105°)	-12.12/-9.76	-9.31/-10.68	-9.45/-10.01	-7.73/-5.11	-5.54/-6.46	-4.53/-4.97	-6.53/-4.83	-4.8/-6.66	-6.26/-5.42	-5.23/-5.08	-5.7/-6.38	-6.11/-4.97	-7.33/-7.88	-8.09/-6.15	-4/-2.2	-5.53/-9.65	-9.41/-14.59	-7.45/-4.67	-9.93/-10.68	-5.09/-5.21	-8.02/-12.7	-11.42/-7.07	-9.21/-9.77	-11.66/-11.12
Θ(112.5°)	-16.36/-10.73	-11.03/-13.12	-9.72/-9.91	-9.55/-6.94	-7.38/-6.69	-6.1/-6.32	-8.55/-4.77	-6.92/-8.41	-10.07/-9.65	-7.56/-6.44	-7.01/-8.93	-6.46/-6.05	-5.68/-9.11	-8.87/-7.1	-7.05/-6.07	-7.56/-13.44	-12.99/-10.55	-9.66/-8.83	-14.99/-11.31	-6.37/-7.75	-9.75/-15.51	-15.89/-8.54	-11.19/-12.25	-16.87/-12.07
Θ(120°)	-18.13/-11.55	-10.98/-14.12	-12.11/-13.7	-12.29/-9.34	-9.45/-11.14	-9.79/-7.82	-9.9/-10.46	-8.32/-8.46	-11.67/-12.07	-10.81/-6.62	-9.19/-9.55	-11.08/-9.81	-11.18/-11.61	-12.05/-9.72	-10.42/-10.65	-12.34/-9.93	-17.57/-10.88	-9.11/-9.32	-16.83/-14.34	-7.29/-7.67	-8.65/-14.61	-16.22/-10.46	-16.28/-12.98	-17.94/-16.13
Θ(127.5°)	-15.35/-11.49	-13.51/-13.89	-15.2/-14.08	-13.01/-11.18	-10.57/-13.92	-10.56/-8.92	-12.21/-14.62	-12.49/-11.05	-11.49/-12.36	-12.91/-10.6	-9.22/-9.35	-9.35/-11.78	-14.76/-13.38	-13.91/-12.04	-11.39/-13.4	-8.63/-11.75	-18.46/-11.43	-10.19/-9.06	-14.98/-18.13	-10.88/-9.34	-9.94/-16.51	-12.65/-11.55	-18.28/-18.42	-16.37/-17.93
Θ(135°)	-17.7/-14.42	-13.91/-14.96	-15.47/-14.34	-13.38/-10.07	-9.82/-12.57	-15.51/-10.89	-10.46/-12.84	-14.35/-13.39	-13.16/-15	-13.18/-11.39	-11.34/-10.89	-8.21/-8.47	-11.77/-13.86	-16.21/-17.37	-15.49/-18.75	-16.38/-12.41	-18.57/-18.1	-14.9/-10.56	-17.29/-18.07	-19.33/-12.81	-13.66/-15.14	-17.45/-13.89	-16.56/-16.82	-15.11/-18.25
Θ(142.5°)	-13.1/-14.13	-18.4/-18.66	-13.81/-14.22	-17.98/-14.31	-11.05/-12.35	-17.2/-19.01	-13.41/-11.12	-11.95/-12.57	-18.33/-18.34	-17/-14.87	-15.19/-15.19	-16.47/-15.24	-13.51/-14.28	-14.97/-15.28	-18.71/-17.97	-14.56/-16.73	-18.75/-18.7	-9.78/-8.91	-18.09/-18.73	-19.02/-11.92	-11.57/-15.49	-18.03/-18.68	-15.9/-17.94	-17.7/-17.88
Θ(150°)	-16.94/-18.27	-19.47/-18.16	-13.29/-13.37	-15.29/-18.61	-18.43/-13.09	-12.25/-14.64	-18.27/-18.51	-14.43/-13.47	-15.02/-15.37	-16.17/-18.87	-14.49/-13.06	-12.1/-11.95	-11.55/-12.1	-12										



Radiated Composite Gain Data Radio 2_5GHz

Appendix B

Θ (150°)	-19.31/-16.37	-16.97/-18.47	-19.13/-17.87	-18.63/-17.78	-18.93/-17.94	-19.34/-18.2	-19.09/-18.16	-18.67/-17.98	-17.79/-18.64	-18.01/-17.73	-17.4/-17.53	-18.48/-13.77	-17.81/-16.75	-15.65/-18.63	-18.3/-18.49	-17.2/-18.23	-18.58/-15.67	-18.47/-17.59	-19.21/-17.94	-18.05/-17.97	-18.16/-18.34	-18.59/-17.43	-18.94/-18.24	-16.84/-16.24
Θ (157.5°)	-17.55/-17.85	-17.82/-17.59	-18.69/-18.46	-17.84/-17.85	-17.39/-18.51	-18.16/-18.81	-17.79/-19.38	-18.8/-18.28	-18.07/-19.35	-18.9/-19.33	-18.79/-18.79	-17.93/-18.45	-18.52/-15.14	-14.6/-18.8	-18.22/-17.8	-18.9/-17.53	-17.7/-19.05	-19.28/-17.94	-18.32/-18.01	-17.73/-19.22	-18.47/-17.35	-17.06/-16.71	-19.23/-18.35	-18.64/-19
Θ (165°)	-18.38/-18.3	-17.21/-19.05	-18.31/-19.14	-18.51/-18.03	-18.49/-19.63	-18.68/-19.35	-18.98/-18.03	-18.2/-17.62	-19.28/-18.24	-18.04/-17.78	-17.8/-17.35	-17.19/-18.47	-17.64/-17.52	-18.44/-16.99	-18.55/-18.27	-18.18/-19.09	-18.68/-17.64	-18.95/-17.99	-18.94/-17.43	-18.86/-17.71	-18.86/-18.77	-18.97/-18.24	-17.55/-17.09	
Θ (172.5°)	-19.09/-18.32	-17.72/-18.06	-18.18/-18.51	-17.95/-18.59	-18.46/-18.38	-19.42/-17.27	-18.36/-19.06	-18.29/-18.26	-17.13/-17.84	-17.56/-16.21	-16.07/-17.2	-18/-17.73	-18.32/-16.75	-15.28/-16.23	-19.08/-18.7	-18.01/-19.21	-19.13/-18.29	-17.46/-18.86	-18.47/-18.4	-17.35/-16.07	-16.75/-18.05	-18.3/-16.2	-15.23/-16.01	-19.16/-18.66
Θ (180°)	-17.33/-18.68	-18.37/-17.67	-18.31/-18.81	-17.71/-18.06	-19.44/-17.88	-18.77/-17.07	-18.68/-19.36	-17.82/-18.46	-18.32/-17.75	-18.78/-18.9	-18.06/-18.65	-18.01/-18.63	-19.34/-18.05	-17.79/-18.32	-18.37/-19.09	-17.47/-17.76	-17.98/-18.25	-17.35/-19	-17.99/-17.65	-18.78/-18.36	-17.21/-17.99	-17.91/-17.76	-17.22/-18.61	-18.31/-18.28
Freq(Hz)	5.66GPol	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°)	-6.9/-6.63	-6.02/-6.4	-7.31/-8.21	-8.68/-9.73	-11.21/-14.13	-17.24/-18.57	-18.2/-16.52	-13.79/-11.57	-10.75/-10.2	-9.13/-8.06	-7.33/-6.73	-6.02/-5.5	-5.32/-5.18	-5.32/-5.01	-5.56/-6.42	-6.82/-7.23	-7.98/-9.31	-12.98/-18.09	-17.9/-18.91	-18.25/-18.66	-15.4/-12.39	-10.62/-9.25	-7.6/-6.54	-6.2/-5.95
Θ (7.5°)	-4.5/-4.18	-3.67/-4.23	-4.83/-5.17	-5.42/-6.06	-7.32/-8.97	-10.64/-11.88	-14.04/-16.9	-18.05/-18.26	-15.29/-13.18	-11.13/-8.89	-6.86/-5.64	-4.75/-4.44	-4.86/-5.64	-6.1/-7.7	-9.91/-13.31	-17.02/-15.04	-11.97/-10.62	-8.93/-6.91	-5.85/-5.46	-5.99/-6.19	-5.81/-5.43	-6.01/-6.62	-5.92/-5.01	-4.75/-4.54
Θ (15°)	-3.02/-2.16	-2.21/-2.97	-3.78/-4.63	-6.26/-7.71	-8.18/-7.86	-7.56/-7.36	-7.63/-8.4	-9.49/-10.45	-10.81/-10.7	-9.58/-7.46	-5.41/-4.18	-3.96/-4.42	-5.16/-5.8	-5.58/-5.73	-6.21/-6.29	-6.69/-6.92	-7.29/-7.04	-5.71/-4.33	-3.61/-2.99	-2.75/-2.74	-2.62/-2.44	-2.57/-3.01	-3.46/-3.88	-3.92/-3.56
Θ (22.5°)	-3.06/-1.5	-0.71/-0.47	-0.9/-1.9	-3.69/-3.62	-2.09/-1.1	-0.82/-0.79	-0.97/-1.87	-3.9/-6.94	-10.43/-10.93	-8.38/-5.28	-2.97/-1.86	-1.53/-1.64	-1.64/-1.85	-2.25/-2.91	-3.86/-4.92	-5.47/-4.53	-2.82/-1.54	-0.77/-0.73	-1.11/-1.84	-2.43/-2.39	-2.13/-2.66	-4.29/-6.18	-6.78/-6.81	-6.07/-4.35
Θ (30°)	-0.95/-0.36	0.26/-0.7	1.05/-1	0.34/-0.51	-0.79/-0.37	0.38/-0.96	0.78/-0.89	-3.95/-6.64	-7.52/-7.51	-7.12/-3.72	-0.27/-1.08	0.71/-0.01	0.38/-1.32	2.14/-4.29	1.92/-0.92	-0.52/-1.29	-0.79/-0.26	0.80/-8.1	0.43/-0.51	0.76/-0.27	-0.46/-0.53	-0.36/-0.88	-1.84/-2.44	-2.57/-2.2
Θ (37.5°)	1.62/-0.8	-0.11/-0.14	1.44/-2.42	2.56/-1.18	-0.78/-0.53	1.47/-0.68	2.46/-0.9	-1.38/-2.89	-3.47/-3.96	-4.48/-3.95	-0.81/-0.98	1.07/-0	0.61/-1.04	2.02/-2.58	3.06/-2.99	1.15/-1.4	-1.74/-0.7	-1.51/-3.16	-2.15/-0.37	1.62/-1.27	-0.31/-1.29	-1.31/-0.61	-0.43/-0.16	0.59/-0.74
Θ (45°)	0.84/-0.43	-1.92/-1.26	0.77/-2.67	3.732/-7.8	-0.43/-0.6	2.37/-3.7	2.71/-0.6	-0.22/-0.78	-1.51/-2.52	-4.49/-5.53	-3.17/-1.29	-0.91/-2.25	-1.46/-0.37	0.89/-1.87	3.33/-4.4	1.84/-1.41	-1.01/-0.55	-0.16/-0.09	0.29/-0.53	0.63/-0.14	-1.2/-2.57	-3.07/-3.71	-3.51/-2.46	0.19/-1.23
Θ (52.5°)	-0.48/-1.55	-2.04/-1.41	-0.48/-1.92	3.59/-2.73	-0.03/-0.54	2.89/-4.5	2.52/-1.2	0.64/-0.08	0.71/-0.03	-1.2/-2.67	-1.57/-1.58	-2.44/-1.45	-0.4/-0.63	-0.35/-0.22	0.51/-0.29	-0.84/-3.29	-1.2/-0.3	0.46/-2.1	3.06/-1.96	0.7/-0.75	-2.55/-3.67	-5.46/-5.74	-5.45/-6.94	-5.4/-7.2
Θ (60°)	-1/-1.41	-0.57/-0.15	-0.74/-0.72	3.04/-3.1	1.59/-0.89	1.49/-1.84	1.79/-0.9	0.72/-1	1.14/-0.8	1.30/-8.9	1.11/-4.4	0.89/-1.24	0.56/-0.39	-0.29/-0.61	0.71/-1.45	0.07/-1.56	-0.46/-2.14	-4.52/-2.66	-0.15/-0.46	-3.87/-10.12	-9.21/-3.7	-3.22/-4.31	-2.11/-1.2	-4.56/-1.34
Θ (67.5°)	-0.82/-3.03	-1.33/-0.13	-0.92/-0.2	2.34/-2.59	1.35/-0.62	0.72/-1.47	2.06/-1.23	1.07/-1.5	2.22/-2.64	2.89/-2.39	3.07/-3.38	2.92/-2.57	1.83/-8.1	0.71/-62	0.66/-2.91	2.26/-1.44	0.31/-2.7	-6.94/-5.03	-1.17/-4.08	-13.31/-7.42	-4.34/-0.95	-0.21/-2.42	-0.64/-0.41	-1.9/-1.48
Θ (75°)	-0.35/-3.66	-3.53/-1.6	-2.1/-1.36	0.9/-2	0.80/-44	-0.83/-0.39	0.82/-0.6	-0.78/-0.45	1.31/-2.56	2.51/-1.89	2.64/-5.2	2.72/-3.71	2.62/-1.76	-0.09/-1.18	-0.43/-0.02	2.62/-1.21	1.17/-0.66	-3.1/-0.45	0.41/-2.33	-2.18/-0.14	-0.47/-0.24	0.38/-0.56	-0.92/-0.55	-2.56/-1.64
Θ (82.5°)	-1.47/-4.91	-5.61/-2.99	-2.76/-2.46	-1.07/-0.54	-0.46/-0.02	-2.52/-1.61	-0.33/-1.77	-2.19/-0.52	-0.33/-1.07	1.01/-0.32	1.33/-2.03	2.47/-1.77	0.85/-0.76	-1.28/-0.61	-0.56/-2.29	1.26/-0.48	0.29/-0.73	-1.64/-0.77	1.17/-0.66	0.47/-1.06	0.3/-0.7	-0.55/-1.22	-2.02/-3.08	-4.42/-2.78
Θ (90°)	-3.4/-6.29	-8.69/-5.4	-4.01/-4.51	-2.77/-0.93	-2.47/-1.38	-4.56/-2.79	-0.66/-2.06	-3.56/-1.59	-0.96/-0.14	-0.36/-1.87	-0.39/-0.56	0/-1	-0.06/-0.94	-4.12/-1.43	-3.39/-0.28	-1.42/-2.44	-1.91/-1.71	-1.58/-0.89	0.22/-1.23	0.52/-1.36	-0.91/-1.93	-2.32/-3.46	-4.53/-5.35	-7.57/-5.13
Θ (97.5°)	-5.92/-7.56	-10.28/-8.2	-7.44/-6.78	-4.69/-2.46	-4.08/-2.67	-5.85/-3.34	-1.06/-2.44	-4.54/-2.79	-2.56/-2.14	-2.67/-4.36	-1.84/-3.26	-2.27/-2.33	-0.74/-3.59	-3.87/-3.3	-3.14/-2.13	-3.62/-4.54	-5.39/-6.33	-3.65/-1.37	-2.53/-3.98	-0.79/-0.76	-3.83/-5.59	-5.44/-6.33	-7.08/-7.67	-9.5/-7.78
Θ (105°)	-8.16/-8.05	-12.62/-12.91	-9.83/-8.4	-6.32/-4.16	-5.91/-4.68	-7.14/-6.85	-3.26/-4.66	-7.67/-4.04	-3.82/-4	-4.95/-7.6	-3.89/-5.64	-5.03/-3.32	-2.79/-4.96	-5.39/-6.16	-6.46/-6.59	-6.29/-8.92	-7.56/-11.15	-7.63/-5.79	-7.64/-8.64	-4.38/-3.64	-7.49/-10.26	-7.63/-7.8	-11.67/-9.3	-12.64/-10.16
Θ (112.5°)	-11.51/-10.77	-11.04/-13.4	-12.85/-8.27	-8.14/-6.83	-7.28/-6.14	-6.14/-6.83	-4.9/-6.5	-9.91/-7.24	-5.83/-3.4	-6.51/-5.2	-4.69/-7.03	-9.26/-9.38	-8.89/-14.39	-7.17/-7.81	-7.14/-9.68	-6.68/-15.14	-9.63/-16.11	-9.21/-2.67	-8.99/-11.69	-6.17/-7.03	-9.77/-10.99	-11.91/-8.1	-14.12/-15.65	-16.98/-12.16
Θ (120°)	-18.11/-11.01	-10.08/-11.09	-15.31/-8.55	-7.39/-8.21	-9.04/-9.27	-8/-10.45	-7.71/-9.64	-10.42/-12.6	-9.26/-8.94	-8.06/-6.17	-4.38/-3.87	-5.01/-8.65	-9.33/-7.88	-5.33/-6.63	-5.42/-8.32	-6.69/-18.36	-15.03/-12.63	-9.34/-8.49	-10.91/-8.2	-4.85/-5.9	-6.32/-12.41	-17.2/-12.71	-18.83/-15.49	-17.67/-13.16
Θ (127.5°)	-18.28/-11.3	-10.38/-15.68	-12.91/-8.05	-8.65/-9.12	-10.53/-11.25	-9.4/-13.07	-16.98/-10.96	-8.98/-10.52	-13.64/-17.36	-17.89/-16.21	-8.84/-6.6	-5.63/-7.28	-8.37/-11.63	-13.19/-15.16	-19.24/-18.52	-11.41/-11.71	-19.37/-10.87	-14.64/-13.82	-18.13/-13.72	-7.88/-10.86	-10.53/-18.34	-18.56/-17.48	-17.75/-18.93	-15.53/-15.75
Θ (135°)	-11.94/-11.92	-15.01/-18.31	-13.19/-9.34	-9.35/-10.87	-10.94/-13.79	-11.6/-9.95	-12.65/-17.53	-12.98/-10.34	-11.75/-14.16	-13.13/-11.96	-12.38/-13.63	-12.44/-12.53	-10.37/-10.66	-11.35/-12.79	-14.04/-14.33	-15.53/-13.01	-19.39/-13.78	-15.21/-14.09	-19.06/-18.15	-13.13/-11.61	-13.64/-16.88	-19.03/-15.39	-13.91/-19.46	-18.2/-18.29
Θ (142.5°)	-13.09/-13.05	-15.19/-18.98	-14.53/-10.06	-10.81/-13.22	-11.6/-12.64	-18.71/-15.01	-12.62/-12.12	-14.3/-18.82	-15/-12.16	-10.29/-10.93	-11.12/-10.01	-6.94/-6.35	-8.21/-12.61	-16.51/-18.02	-17.82/-16.65	-15.08/-12.69	-17.93/-12.59	-10.91/-8.09	-13.18/-17.49	-16.13/-12.2	-11.61/-13.15	-18.51/-14.18	-16.33/-18.33	-18.49/-17.34
Θ (150°)	-11.46/-13.75	-18.02/-18.05	-18.3/-11.53	-10.59/-14.85	-19.09/-19.45	-17.75/-17.21	-15.54/-11.63	-11.22/-15.52	-14.51/-17.57	-15.91/-10.99	-15.85/-18.52	-18.44/-16.02	-12.41/-10.8	-11.53/-12.31	-14.54/-17.44	-18.97/-13.61	-16.61/-18.38	-19/-13.99	-19.21/-18.98	-14.84/-14.24	-18.84/-16.32	-17.89/-16.96	-18.94/-18.88	-19.04/-13.47
Θ (157.5°)	-17.98/-18.66	-15.98/-18.66	-18.73/-18.95	-18.31/-17.64	-19.55/-15.4	-13.03/-13.63	-15.4/-15.35	-13.13/-11.96	-13.13/-10.42	-9.91/-10.45	-11.26/-12.85	-13.2/-12.65	-12.76/-14.06	-18.82/-18.75	-14.11/-14.55	-18.53/-18.43	-15.98/-13.29	-12.57/-17.6	-18.01/-14.62	-12.2/-13.17	-14.68/-13.87	-15.75/-18.3	-19.6/-18.15	-19.09/-17.62
Θ (165°)	-18.46/-17.63	-15.46/-12.53	-10.9/-10.29	-11.44/-13.31	-14.08/-13.71	-12.67/-12.18	-13.5/-16.23	-18.71/-17.77	-17.84/-18.33	-18.71/-18.29	-15.13/-14.77	-16.66/-18.94	-18.01/-18.66	-18.81/-18	-18.73/-18.3	-17.69/-19.22	-17.66/-15.73	-16.49/-18.78	-18.91/-18.71	-18.99/-19.13	-18.47/-19.12	-17.82/-18.61	-18.1/-18.24	-18.59/-17.63
Θ (172.5°)	-17.87/-17.8	-18.91/-17.84	-18.29/-17.55	-18.01/-18.59	-16.34/-12.72	-10.56/-9.99	-10.76/-12.53	-14.67/-15.51	-15.79/-15.13	-14.52/-14.01	-14.87/-17.28	-18.75/-18.24	-17.9/-18.31	-16.93/-18.04	-18.62/-19.28	-15.97/-14.12	-16.29/-18.33	-18.67/-18.22	-19/-17.18	-15.37/-14.87	-14.78/-15.24	-14.09/-13.66	-14.2/-16.11	-17.89/-19.07
Θ (180°)	-15.55/-15.37	-15.25/-16.84	-17.99/-18.02	-17.42/-16.23	-15.93/-17.65	-18.08/-18.57	-19.1/-17.62	-17.21/-18.35	-18.41/-19.54	-17.79/-18.41	-18.17/-17.41	-18.14/-17.11	-19.33/-18.83	-18.65/-14.27	-12.89/-12.54	-10.75/-10.03	-10.96/-12.88	-13.48/-14.09	-17.73/-18.18	-17.76/-16.25	-18.24/-18.66	-18.38/-15.42	-14.84/-14.98	
Freq(Hz)	5.66GPol	ThetaAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345



Radiated Composite Gain Data_Radio 2_5GHz

Appendix B

Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-17.01/-15.64	-14.54/-14.04	-13.55/-12.3	-11.62/-12.28	-13.69/-15.1	-14.89/-14.79	-14.93/-17.58	-18.24/-18.67	-18.81/-19.23	-18.31/-18.4	-18.09/-16.38	-14.2/-12.55	-11.64/-11.07	-10.67/-11.78	-11.51/-11.18	-11.5/-12.11	-13.57/-14.61	-14.61/-15.82	-18.33/-18.99	-18.09/-17.7	-17.98/-18.83	-18.06/-17.37	-16.58/-15.69	-14.25/-14.38
Θ(7.5°)	-4.02/-3.9	-3.98/-4.14	-4.55/-5.16	-6.39/-7.72	-8.48/-10.2	-13.02/-15.4	-16.46/-15.2	-14.02/-13.08	-12.74/-12.1	-10.73/-9.12	-8.61/-7.87	-7.31/-6.38	-5.86/-5.88	-6.23/-6.67	-7.58/-9.15	-10.69/-11.75	-12.11/-12.18	-13.41/-13.94	-15.45/-16.56	-15.76/-14.25	-13.29/-13.64	-13.49/-11.88	-10.87/-9.5	-7.67/-6.38
Θ(15°)	-1.64/-1.09	-0.71/-0.47	-0.56/-1.07	-1.56/-1.69	-1.55/-1.65	-1.89/-2.21	-2.93/-3.55	-4.04/-4.59	-5.35/-6.02	-5.46/-4.14	-3.3/-2.93	-2.82/-2.77	-3.21/-4.14	-4.5/-4.24	-3.97/-4.04	-4.33/-4.3	-4.49/-4.56	-4.54/-3.96	-3.76/-3.8	-3.3/-2.69	-2.12/-2.04	-2.38/-2.57	-3.03/-3.24	-2.98/-2.25
Θ(22.5°)	-3.16/-1.59	-0.91/-0.67	-0.91/-1.18	-0.95/-0.22	0.44/0.35	-0.33/-1.33	-2.78/-4	-3.95/-3.61	-3.24/-3.55	-4.39/-3.81	-2.64/-1.75	-1.09/-1.67	-2.63/-3.45	-3.95/-3.38	-3.28/-3.42	-3.52/-3.94	-4.11/-3.56	-3.07/-2.53	-2.85/-3.4	-3.58/-3.42	-2.79/-2.83	-3.8/-4.37	-4.36/-4.21	-4.2/-3.89
Θ(30°)	-3.15/-1.81	-0.37/0.25	-0.29/-1.11	-1.48/-1.44	-0.28/0.76	0.79/-0.49	-2.26/-2.72	-1.79/-1.03	-0.98/-1.25	-2.18/-3.67	0.05/0.7	0.02/-1.27	-1.71/0.02	1.27/1.2	0.46/0.06	-0.08/0.51	0.43/0.75	0.15/-0.66	-0.91/-0.77	-0.23/0.02	-1.17/-3.31	-5.12/-5.19	-5.2/-4.49	
Θ(37.5°)	-1.59/-2.54	-1.06/-0.23	0.14/-0.52	-2.4/-2.83	0.17/2.15	2.15/0.56	-1.18/-1.41	-1.14/-0.9	-0.63/-1.21	-2.66/-4	-4.18/-2.49	-0.61/0.42	1.18/0.81	0.19/1.13	2.35/3.73	4.31/3.33	0.85/-1.97	-2.28/-2.12	-3.11/-4.06	-2.6/-1.2	-0.32/0.13	-0.9/-2.09	-1.97/-0.69	-0.28/-1.71
Θ(45°)	-1.94/-4.46	-3.56/-2.4	-0.22/0.04	-2.01/-2.98	0.52/2.74	2.3/0.28	-1.04/0.68	-0.86/-1.1	-0.51/-0.33	-1.57/-3.18	-3.14/-1.56	-0.66/-0.6	0.76/1.26	0.07/0.36	1.33/3.24	4.35/3.28	-0.73/-2.47	-2.78/-5.6	-5.81/-2.24	-1.27/-1.71	-1.28/-2	-2.72/-2.85	-1.69/-0.55	0.82/-0.78
Θ(52.5°)	-4.59/-4.32	-3.64/-4.43	-1.3/0.11	-0.37/-1.32	0.39/2.1	1.27/-0.3	-0.01/0.25	-0.47/-0.46	1.02/1.58	0.42/-1.77	-2.21/0.34	0.62/-1.52	0.74/0.38	-0.83/-1.35	-0.3/0.99	2.78/1.64	-0.98/0.12	0.84/-0.26	0.11/1.92	2.18/-0.14	-2.48/-3.85	-5.01/-5.62	-4.93/-3.64	-1.5/-3.03
Θ(60°)	-7.94/-4.12	-1.92/-2.55	-1.41/0.24	1.19/0.56	-0.15/-1.1	0.26/-0.15	0.56/0.38	-0.54/-0.3	1.35/2.31	0.71/-1.08	-1.7/0.91	2.2/0.56	0.92/1.35	0.48/0.46	-0.31/-0.24	1.3/-0.87	-3.11/-2.81	-1.45/-1.81	-1.21/-0.2	-1.2/-4.26	-5.53/-6.59	-9.84/-7.09	-6.01/-6.58	-3.94/-4.38
Θ(67.5°)	-7.96/-4	-1.72/-1.83	-1.35/-0.01	1.66/1.08	-0.49/0.89	0.25/0.64	0.53/-0.23	-0.79/0.08	0.72/1.57	0.08/-0.88	-1.43/1.55	2.66/1.47	1.81/1.7	1.25/0.47	0.26/0.55	1.04/0.53	-2.56/-2.27	-4.74/-7.87	-3.2/-3.67	-9.96/-15.9	-10.29/-3.65	-4.24/-5.54	-3.92/-5.21	-4.1/-4.04
Θ(75°)	-8.64/-5.13	-2.54/-2.12	-2.62/-1.64	1.17/0.7	-0.85/-0.02	0.41/-1.79	1.17/-0.09	-0.82/-1.13	0.28/0.06	-0.43/-1.24	-2.01/0.33	2.44/1.48	1.84/1.8	1.65/0.92	1.03/0.71	0.69/0.65	-1.33/0.21	-3.31/-5.23	-0.75/-0.9	-4.84/-5.34	-7.14/-2.53	-1.66/-3.53	-3.15/-4.87	-4.13/-4.31
Θ(82.5°)	-9.43/-7.9	-3.88/-3.1	-3.76/-3.59	0.06/-0.42	-1.15/-0.91	0.46/1.07	0.03/-1.55	-1.25/-2.4	-1.17/-2.51	-2.39/-2.33	-3.66/-0.58	1.05/0.68	-0.5/-0.1	-0.31/-0.64	-0.73/-0.41	-0.98/-0.67	-0.34/0.96	-0.55/-0.34	0.85/0.79	-1.23/-1.35	-4.55/-2.81	-1.73/-3.24	-3.64/-4.92	-5.34/-5.62
Θ(90°)	-11.58/-11.98	-6.04/-4.02	-4.45/-5.08	-1.61/-1.73	-1.89/-1.84	-0.81/-0.98	-1.64/-4.34	-2.98/-3.29	-3.45/-3.38	-2.91/-4.97	-5.88/-1.97	-1.34/-1.4	-0.45/-1.46	-1.55/-1.5	-1.84/-2.03	-3.41/-3.21	-2.65/-1.3	-0.92/0.06	0.2/0.72	-0.84/-2.13	-4.77/-4.64	-3.11/-4.47	-5.05/-7.02	-6.85/-7.29
Θ(97.5°)	-13.13/-14.36	-8.33/-6.15	-5.95/-6.15	-3.36/-3.19	-3.56/-2.76	-2.6/-5.96	-4.4/-2.8	-5.92/-6.15	-5.47/-6.17	-8.4/-4.08	-2.58/-2.89	-4.3/-4.61	-4.21/-3.67	-4.02/-5.34	-6.84/-7.19	-5.44/-4.58	-3/-1.93	-2.19/-1.46	-2.77/-3.55	-6.02/-6.76	-7.11/-6.57	-6.79/-8.76	-8.31/-9.35	
Θ(105°)	-12.16/-18.35	-9.99/-7.18	-7.15/-7.75	-3.98/-3.49	-5.36/-4.66	-4.1/-3.16	-3.76/-6.77	-5.31/-6.65	-7.27/-6.64	-7.35/-9.6	-8.21/-5.42	-5.88/-4.57	-4.4/-6	-7.45/-6.55	-5.25/-6.91	-8.76/-9.66	-8.52/-8.6	-7.21/-6.08	-6.33/-6.68	-6.44/-5.33	-9.85/-10.59	-8.8/-10.85	-8.26/-9.63	-15/-12.3
Θ(112.5°)	-12.65/-14.4	-11.21/-9.83	-8.5/-9.82	-5.72/-4.31	-8.47/-5.57	-6.3/-5.46	-5.68/-9.17	-9.73/-8.22	-9.13/-11.12	-11.51/-10.45	-11.03/-8.64	-6.7/-6.41	-7.22/-8.52	-8.78/-9.69	-7.63/-10.52	-9.22/-12.73	-10.25/-10.05	-12.15/-8.42	-6.59/-8.51	-7.96/-7.94	-12.92/-15.7	-11.31/-9.12	-12.56/-14.5	-16.99/-14.4
Θ(120°)	-12.62/-14.84	-13.79/-12.41	-9.17/-10.18	-8.22/-6.61	-6.18/-7.7	-8.38/-10.93	-13.72/-9.6	-9.76/-11.45	-14.68/-13.33	-13.97/-13.18	-11.27/-8.53	-9.36/-13.14	-13.65/-15.55	-10.3/-11.9	-10.08/-18.46	-9.27/-11.05	-9.73/-7.41	-8.72/-11.12	-13.34/-18.99	-10.92/-8.16	-17.29/-19.13	-19.13/-17.44	-12.09/-15.52	
Θ(127.5°)	-13.9/-13.55	-14.27/-12.57	-10.36/-10.1	-10.82/-8.46	-9.63/-10.12	-8.55/-9.96	-10.25/-11.01	-16.86/-18.03	-13.54/-12.61	-11.11/-10.85	-13.88/-12.56	-10.02/-10.11	-11.59/-14.37	-13.52/-11.95	-11.42/-13.16	-10.7/-15.46	-18.23/-11.24	-12.69/-10.57	-16.45/-13.37	-10.81/-15.12	-12.67/-17.99	-12.06/-13.92	-19.44/-19.31	-17.52/-12.42
Θ(135°)	-12.35/-16.31	-14.29/-10.88	-10.83/-11.31	-12.97/-9.83	-11.23/-11.19	-10.7/-13.22	-14.23/-13.04	-15.16/-17.81	-17.94/-15.6	-14.6/-17.4	-13.8/-10.61	-14.19/-12	-9.4/-12.79	-15.04/-18.54	-17.87/-17.58	-11.8/-16.01	-17.72/-10.65	-16.72/-14.59	-16.62/-12.19	-10.53/-13.46	-16.44/-19.1	-19.13/-19.45	-17.99/-18.46	-15.61/-11.33
Θ(142.5°)	-13.27/-16.25	-14.71/-12.48	-11.56/-15.4	-16.54/-11.34	-10.45/-15.99	-14.36/-10.37	-11.28/-14.34	-16.34/-17.07	-15.8/-17.4	-16.33/-14.78	-14.46/-13.39	-11.65/-11.84	-12.65/-14.33	-14.36/-16.53	-19.7/-17.27	-18.38/-17.31	-18.14/-15.16	-13.44/-9.34	-13.84/-16.6	-14.14/-14.44	-16.28/-18.79	-17.76/-15.23	-17.29/-19.13	-12.09/-10.79
Θ(150°)	-17.38/-17.43	-19.05/-16.43	-15.12/-17.62	-17.71/-15.77	-10.64/-9.46	-11.5/-15	-15.39/-17.63	-19.52/-18.52	-18.83/-18.36	-15.82/-15.75	-17.97/-16.79	-12.9/-11.62	-11.78/-11.86	-14.62/-13.98	-16.02/-17.91	-18.78/-19.26	-18.52/-17.64	-18.4/-14.51	-16.44/-18.19	-18.12/-18.6	-18.08/-18.32	-19/-18.58	-16.35/-17.74	-15.15/-13.16
Θ(157.5°)	-18.24/-18.59	-18.6/-17.63	-16.43/-18.95	-18.58/-16.1	-15.12/-16.2	-18.14/-17.35	-15.39/-13.67	-14.36/-18.38	-18.46/-18.69	-18.37/-18.48	-18.09/-18.35	-18.8/-18.47	-18.72/-16.06	-15.59/-18.55	-18.41/-14.98	-16.25/-18.3	-18.58/-18.59	-18.42/-18.88	-18.19/-17.46	-14.73/-15.95	-16.94/-18.06	-19.09/-17.7	-17.71/-18.78	-14.07/-13.87
Θ(165°)	-18.25/-17.89	-17.2/-18.03	-18.36/-17.35	-18.24/-17.42	-13.29/-11.76	-12.67/-15.65	-18.02/-18.78	-17.49/-16.09	-16.69/-17.88	-18.79/-17.9	-18.47/-18.96	-16.45/-17.19	-18.19/-19.19	-19.39/-18.95	-18.69/-17.63	-17.48/-17.45	-18.37/-18.19	-18.33/-18.83	-18.21/-18.68	-18.44/-18.38	-18.53/-17.75	-18.39/-18.54	-17/-16.06	-16.21/-17.44
Θ(172.5°)	-16.39/-14.03	-14.44/-14.72	-16.63/-18.37	-18.59/-17.87	-18.82/-18.35	-18.76/-17.86	-18.21/-18.45	-19.16/-17.82	-18.73/-18.75	-19.07/-18.65	-17.46/-18.96	-17.73/-16.62	-18.07/-17.07	-17.14/-18.44	-17.93/-14.36	-12.39/-11.6	-12.08/-12.68	-14.44/-16.63	-17.79/-19.25	-19.59/-17.1	-16.52/-16.73	-17.45/-18.17	-19.85/-18.63	
Θ(180°)	-18.62/-19.49	-18.38/-18.91	-17.46/-17.46	-18.1/-17.44	-16.38/-14.86	-14.3/-13.64	-14.05/-14.76	-15.55/-17.3	-18.42/-18.27	-18.15/-18.69	-18.09/-18.87	-18.02/-18.3	-18.43/-17.35	-18.76/-17.58	-18.47/-18.88	-17.41/-16.16	-15.11/-14.42	-15.35/-17.08	-16.76/-14.41	-14.26/-15.58	-16.49/-15.62	-16.05/-18.68	-17.99/-19	-18.43/-17.76
Freq(Hz)	5.885GPol.	ThetaAnt. 4																						
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-15.14/-15.97	-16.87/-18.6	-17.55/-18.44	-18.17/-17.09	-18.68/-17.6	-18.21/-15.16	-13.18/-11.76	-11.76/-10.89	-9.69/-9.23	-10.25/-10.55	-10.43/-10.39	-10.52/-10.43	-10.96/-11.83	-13.63/-16.12	-18.37/-17.52	-18.78/-14.1	-13.7/-14.64	-16.06/-15.64	-13.51/-13.36	-13.65/-13.46	-12.78/-13.15	-16.14/-17.86	-19.04/-17.26	
Θ(7.5°)	-9.6/-10.88	-12.91/-13.13	-11.66/-11.56	-10.53/-9.15	-8.26/-7.87	-9.13/-11.33	-13.02/-14.02	-15.86/-19.07	-17.12/-19.06	-18.29/-16.67	-15.75/-18.14	-17.97/-17.91	-18.72/-14.16	-11.92/-10.25	-9.23/-17.02	-18.57/-9.03	-8.28/-7.7	-9.29/-10.94	-10.61/-9.12	-8.75/-8.36	-7.46/-7.17	-7.75/-8.05	-8.37/-9.43	
Θ(15°)	-10.04/-11.64	-14.98/-16.39	-16.2/-13.94	-10.52/-9.23	-8.37/-8.23	-8.95/-10.36	-12.89/-15.87	-18.24/-17.38	-17.98/-17.58	-18.76/-18.8	-18.68/-18.95	-18.63/-19.07	-19.47/-16.8	-12.60/-9.9	-9.24/-8.6	-8.21/-8.74	-9.52/-9.81	-9.9/-10.17	-11.93/-13.75	-13.25/-10.37	-8.94/-10.19	-11.99/-13.78	-14.67/-12.88	-10.6/-10
Θ(22.5°)	-9.53/-10.21	-12.94/-16.32	-17.45/-15	-12.5/-14.47	-18.87/-18.64	-14.79/-10.8	-9.29/-10.38	-13.31/-15.61	-18.91/-17.35	-17.28/-17.92	-19.07/-16.41	-15.3/-18.99	-18.31/-12.07	-7.7/-7.82	-11.6/-14.01	-9.55/-8.07	-8.26/-10.26	-13.33/-17.31	-18.05/-14.67	-15.55/-13.91	-10.45/-10.15	-10.91/-10.22	-9.98/-11.75	-14.2/-12.5
Θ(30°)	-6.26/-6.27	-8.16/-12.75	-12.49/-9.72	-9.93/-11.07	-13.75/-18.27	-16.35/-10.15	-7.82/-8.68	-10.58/-13.23	-17.87/-19.4	-17.76/-17.58	-18.96/-17.45	-18.73/-19.16	-17.85/-13.42	-8.9/-6.96	-8.78/-10.44	-11.38/-8.3	-6.35/-7.26	-11.35/-13.85	-14.59/-18.94	-16.53/-14.77	-17.73/-17.59	-19.08/-14.18	-9.97/-11.4	-13.04/-9.91
Θ(37.5°)	-6.79/-6.67	-9.28/-9.06	-6.92/-5.81	-5.29/-6.38	-8.05/-10.66	-16.05/-18.78	-18.08/-15.3	-11.54/-10.92	-10.78/-10.57	-13.03/-18.12	-13.87/-12	-9.03/-10.08	-											



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Freq(Hz)	5.6G	5.785G	5.885G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	7.62	7.57	7.21	6.61	6.48	5.84	4.61
Ant. 2 Max Gain (dBi)	4.54	4.69	4.98	5.24	4.56	4.54	4.66
Ant. 3 Max Gain (dBi)	5.08	6.56	5.89	7.48	6	5.31	4.96
Ant. 4 Max Gain (dBi)	6.95	6.9	5.49	6.12	4.54	4.71	4.98
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/75/150	Theta/75/150	Theta/75/157.5	Theta/82.5/150	Theta/82.5/157.5	Theta/82.5/157.5	Theta/60/142.5
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/67.5/60	Theta/67.5/75	Theta/67.5/75	Theta/67.5/90	Theta/75/247.5	Theta/60/247.5	Theta/60/255
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/75/337.5	Theta/82.5/292.5	Theta/82.5/277.5	Theta/75/345	Theta/82.5/285	Theta/75/352.5	Theta/75/352.5
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/82.5/240	Theta/82.5/240	Theta/75/217.5	Theta/82.5/247.5	Phi/22.5/187.5	Theta/67.5/315	Theta/75/307.5
Max Gain (dBi)	7.62	7.57	7.21	7.48	6.48	5.84	4.98
DG [1SS] (dBi)	8.64	9.25	8.37	8.52	7.67	8.34	6.87
DG [2SS] (dBi)	7.62	7.57	7.21	7.48	6.48	5.84	4.98
DG [4SS] (dBi)	7.62	7.57	7.21	7.48	6.48	5.84	4.98





Radiated Composite Gain Data Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(22.5°)	-1.04/-1.28	-3.96/-6.03	-2.170-26	0.21/-0.2	0.82/-1.23	1.06/-0.02	-1.25/-2.61	-2.87/-3.84	-3.83/-2.68	-1.67/-2.32	-2.1/-1.54	0.03/-0.62	0.06/-1.46	-2.49/-2.81	-2.14/-2.4	-2.38/-2.59	-3.33/-3.17	-1.48/-0.7	1.12/-1.18	0.47/-0.32	0.56/-0.45	0.45/-0.62	0.4/-0.57	-1.14/-1.59
Θ(30°)	-0.42/-0.38	-2.94/-6.29	-3.8/-1.36	-1.58/-2.95	-0.03/-1.89	0.55/-1.45	-1.9/-3.2	-5.16/-3.34	-0.9/-1.66	-1.93/-3.12	-4.13/-3.23	-1.55/-1.04	-2.68/-3.51	-1.42/-0.81	-3.08/-3.79	-3.36/-2.73	-1.97/-2.16	-2.17/-1.53	-0.74/-0.56	-1.07/-0.97	-1.21/-2.11	-3.37/-2.41	-0.45/-0.14	0.25/-0.7
Θ(37.5°)	-2.17/-1.76	-2.65/-2.54	-2.2/-3.56	-4.78/-3.09	-1.80/-16	0.44/-0.03	-1.78/-0.9	-1.56/-0.8	-1.38/-2.4	0.21/-0.38	-3.08/-2.37	-3.26/-0.3	-0.2/-2.63	0.09/-0.09	-2.23/-2.32	-0.84/-0.17	-1.2/-1.94	-2.92/-2.8	-1.37/-0.64	1.22/-0.55	-0.4/-11.75	-2.85/-2.22	-1.93/-1.6	-2.73/-2.99
Θ(45°)	-1.55/-1.23	-2.77/-3.72	-4.14/-7.5	-4.99/-3.18	-3.55/-7.01	-3.080-81	-0.48/-2.04	-2.21/-2.03	-0.74/-0.2	1.91/-31	-1.74/-2.99	-4.29/-5.39	-1.4/-1.66	-3.97/-2.39	-4.37/-5.62	-3.96/-3.64	-6.7/-4.2	-3.61/-7.19	-3.71/-1.38	0.580-89	-1.99/-4.52	-1.70/-16	-3.96/-3.41	-1.75/-3.07
Θ(52.5°)	-0.94/-3.34	-2.78/-5.09	-5.92/-8.64	-6.69/-3.9	-0.67/-1.91	-4.22/-1.27	-1.47/-4.17	-5.72/-3.73	-0.08/-0.7	0.08/-2.01	-3.18/-6.96	-5.28/-1.7	-3.28/-2.36	-6.14/-9.5	-5.64/-3.08	-4.52/-6.92	-5.97/-3.02	-4.81/-5.45	-5.48/-5.53	-2.51/-5.07	-3.72/-4.9	-3.68/-0.59	-3.23/-1.89	-1.18/-2.93
Θ(60°)	-1.24/-4.25	-3.32/-6.38	-5.59/-7.41	-5.97/-8.49	-3.2/-2.45	-5.53/-4.7	-4.23/-7.02	-8.73/-6.56	-2.7/-2.44	-2.56/-3.5	-3.64/-3.8	-7.21/-2.12	-0.91/-2.61	-5.03/-9.27	-6.91/-3.34	-5.05/-4.54	-5.05/-3.51	-7.4/-6.57	-8.95/-9.67	-4.55/-2.58	-4.91/-2.34	-3.93/-1.04	-3.21/-2.34	-3.1/-2.32
Θ(67.5°)	-1.68/-2.76	-3.47/-8.5	-6.62/-7.6	-5.25/-9.05	-6.57/-6.89	-6.4/-5.8	-5.03/-4.83	-9.58/-8.51	-6.11/-7.55	-6.12/-7.45	-4.72/-2.46	-4.29/-1.34	-1.77/-6.16	-6.92/-8.03	-5.71/-6.3	-4.04/-2.2	-5.39/-3.48	-8.1/-6.6	-7.96/-6.11	-6.2/-6.38	-4.69/-1.74	-4.88/-2.96	-3.22/-3.41	-5.49/-2.29
Θ(75°)	-2.49/-3.34	-4.15/-7.47	-7.21/-6.85	-6.6/-8.86	-5.29/-0.7	-0.06/-7.52	-5.88/-4.36	-9.87/-6.61	-5.88/-9.36	-8.64/-9.38	-6.54/-4.3	-0.86/-5.44	-1.9/-5.4	-7.08/-8.21	-4.45/-6.52	-7.04/-3.03	-5.17/-5.25	-5.11/-6.29	-3.64/-4.82	-6.06/-10.9	-5.85/-2.39	-3.46/-6.9	-4.2/-6.47	-4.88/-2.9
Θ(82.5°)	-3.32/-3.77	-4.46/-7.78	-8.37/-6.63	-8.16/-7.48	-4.31/-9.09	-6.66/-6.88	-6.35/-4.01	-9.69/-4.69	-6.87/-7.28	-7.51/-10.53	-6.63/-2.69	-4.17/-5.03	-5.63/-7.88	-7.76/-6.49	-3.78/-1.19	-7.26/-3.06	-6.48/-5.95	-5.27/-5.64	-0.7/-6.22	-6.73/-9.36	-7.58/-3.35	-3.34/-8.03	-3.39/-8.73	-6.3/-3.91
Θ(90°)	-4.63/-5.25	-6.13/-7.93	-7.51/-7.1	-9.95/-7.43	-5.79/-9.32	-7.27/-8.33	-6.91/-6.28	-10.62/-3.98	-7.1/-6.56	-8.16/-10.57	-4.91/-6.86	-1.92/-7.32	-4.99/-6.16	-6.69/-6.55	-3.69/-7.48	-7.53/-6.13	-8.27/-6.43	-5.12/-7.14	-3.21/-7.01	-5.99/-12.11	-5.89/-5.03	-5.79/-8.76	-5.59/-10.98	-7.08/-5.35
Θ(97.5°)	-4.68/-6.48	-7.68/-8.56	-8.38/-9.09	-10.96/-8.52	-6.8/-8.65	-7.59/-7.92	-8.58/-6.85	-9.36/-5.34	-8.04/-6.3	-9.93/-9.14	-5.39/-7.77	-5.94/-6.84	-5.55/-6.01	-5.56/-5.29	-4.49/-9.36	-7.49/-5.4	-6.88/-7.64	-7.28/-9.3	-4.1/-6.46	-9.35/-9.09	-6.8/-6.7	-9.03/-8.21	-6.58/-9.72	-7.29/-7.15
Θ(105°)	-5.92/-6.38	-8.3/-9.83	-9.86/-10.95	-10.91/-9.06	-8.05/-8.13	-7.28/-8.57	-9.67/-9.29	-9.79/-6.62	-8.16/-6.89	-10.06/-10.01	-5.91/-9.9	-6.61/-6.32	-4.12/-6.55	-5.61/-5.49	-3.04/-10.47	-6.02/-6.32	-8.73/-7.18	-8.65/-9.91	-6.94/-5.5	-9.6/-11.41	-7.73/-8.12	-9.74/-7.88	-9.74/-8.91	-6.21/-7.03
Θ(112.5°)	-6.9/-6.1	-8.92/-10.38	-9.25/-10.29	-11.27/-11.62	-9.33/-8.47	-8/-7.45	-10.03/-9.37	-8.31/-6.8	-9.58/-9.32	-8.18/-12.17	-8.9/-7.93	-4.15/-4.84	-2.99/-3.63	-4.75/-6.03	-5.31/-9.54	-6.06/-8.18	-8.48/-8.8	-8.77/-8.44	-4.85/-7.22	-9.3/-12.15	-7.19/-9.47	-9.4/-9.63	-10.06/-9.79	-5.87/-5.78
Θ(120°)	-6.72/-6.73	-11.94/-8.58	-9.99/-9.92	-10.44/-11.81	-8.73/-10.27	-9.29/-8.21	-8.01/-10.58	-8.25/-7.72	-11.05/-10.75	-8.09/-9.48	-10.14/-8.85	-6.71/-5.3	-5.13/-5.03	-5.54/-7.71	-5.64/-9.15	-7.57/-7.71	-8.32/-8.72	-10.68/-8.91	-7.74/-5.88	-9.88/-11.65	-7.39/-10.54	-10.38/-9.82	-11.6/-11.64	-7.47/-6.64
Θ(127.5°)	-8.88/-8.69	-11.58/-9.49	-9.71/-10.46	-10.47/-12.26	-10.93/-9.36	-11.53/-11.18	-9.9/-9.01	-8.93/-10.29	-9.88/-10.71	-9.25/-11.06	-10.96/-7.32	-5.45/-7.05	-7.77/-10.5	-7.05/-6.86	-11.76/-9.61	-9.59/-11.33	-10.24/-8.71	-8.24/-12.28	-12.6/-11.32	-8.52/-10.92	-10.9/-8.84	-7.67/-7.85		
Θ(135°)	-7.78/-11.3	-9.38/-8.65	-9.1/-11.41	-10.64/-10.95	-10.72/-8.68	-11.3/-11.07	-11.29/-11.6	-10.93/-10.88	-7.57/-9.37	-9.81/-11.9	-10.34/-9.71	-11.14/-11.17	-7.17/-7.95	-10.75/-9.04	-8.32/-6.34	-9.3/-10.64	-12.5/-12.42	-12.44/-10.7	-11.51/-10.32	-9.55/-11.76	-12/-10.02	-12.12/-10.4	-9.18/-9.32	-8.07/-8.26
Θ(142.5°)	-8.08/-11.43	-12.58/-9.12	-8.57/-10.89	-10.46/-11.92	-11.68/-9.46	-7.26/-6.37	-12.17/-10.28	-6.81/-9.39	-10.77/-9.45	-8/-8.21	-6.79/-8.41	-10.25/-7.87	-6.1/-8.44	-6.47/-6.61	-6.92/-6.43	-7.59/-10.66	-11.74/-10.36	-11.93/-11.4	-7.53/-9.08	-11.5/-8.12	-9.64/-11.2	-10.28/-12.21	-10.28/-8.29	-8.47/-8.69
Θ(150°)	-7.11/-7.35	-11.9/-9.99	-8.16/-8.2	-8.52/-10.72	-10.25/-10.35	-12.67/-11.02	-9.88/-10.53	-9.6/-7.77	-12.12/-8.93	-6.3/-9.25	-10.41/-8.01	-7.4/-8.35	-6.94/-6.97	-9.09/-9.03	-10.37/-11.99	-10.52/-11.28	-11.09/-9.84	-10.45/-7.62	-7.85/-9.23	-8.53/-7.46	-10.11/-10.12	-10.32/-11.17	-9.54/-7.13	-8.6/-9.59
Θ(157.5°)	-12.16/-11.02	-9.6/-8.01	-7.26/-6.61	-7.82/-9.02	-8.86/-8.22	-9.84/-11.17	-11.42/-11.09	-9.78/-9.63	-10.17/-9.14	-8.14/-8.64	-7.25/-7.19	-8.35/-8.28	-7.39/-9.37	-11.45/-10.36	-9.67/-10.34	-10.25/-9.92	-10.35/-11.64	-10.59/-9.11	-10.47/-12.33	-9.34/-7.31	-9.53/-11.22	-10.03/-9.73	-8.61/-8.94	-10.98/-11.63
Θ(165°)	-7.32/-7.98	-8.52/-8.79	-9.88/-11.13	-11.28/-10.4	-9.3/-8.63	-9.62/-10.16	-10/-8.25	-7.82/-7.92	-8.77/-8.6	-8.3/-8.6	-8.31/-8.54	-11.48/-10	-7.25/-7.29	-9.88/-7.38	-7.08/-7.19	-7.61/-9.74	-11.95/-9.97	-8.16/-7.49	-9.64/-11.16	-9.24/-8.15	-10.34/-10.25	-9.95/-11.39	-11.66/-11.06	-8.45/-7.92
Θ(172.5°)	-9.42/-9.74	-10/-9.88	-8.83/-8.1	-7.94/-7.94	-8.78/-9.39	-9.97/-10.92	-9.99/-8.2	-7.78/-7.1	-6.56/-6.05	-6.61/-8.12	-9.71/-12.15	-12.57/-10.82	-10.43/-9.97	-9.82/-10.74	-10.52/-10.91	-10.91/-9.5	-8.76/-7.75	-6.76/-7.81	-10.71/-11.46	-11.79/-12.12	-11.37/-10.05	-9.32/-9.75	-11.65/-9.91	-8.67/-9.67
Θ(180°)	-7.87/-7.83	-8.27/-8.6	-7.78/-9.01	-10.59/-10.83	-11.53/-11.41	-10.89/-11.74	-10.43/-9.65	-8.66/-8.5	-8.43/-8.68	-8.96/-9.59	-9.36/-8.79	-9.73/-10.8	-11.21/-12.04	-10.05/-9.74	-8.86/-7.92	-7.78/-7.84	-7.83/-9.81	-11.16/-10.58	-11.38/-11.34	-12.84/-12.85	-12.12/-12.17	-11.94/-12.66	-11.8/-9.87	-9.81/-8.48
Freq(Hz)	5.885GPol.	Theta/-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-0.37/-0.66	-1.09/-1.32	-2.41/-3.09	-3.67/-5.03	-5.82/-5.94	-6.07/-4.86	-4.81/-5.1	-3.71/-2.96	-2.61/-1.79	-0.85/-0.03	0.61/-1	1.551-81	1.931-8	1.610-73	-0.61/-1.91	-3.35/-4.75	-5.96/-7.31	-7.51/-6.85	-5.59/-4.21	-3.08/-1.82	-1.06/-0.68	-0.58/-0.58	-0.48/-0.31	-0.59/-1.08
Θ(7.5°)	3.43/3.27	2.82/-1.2	1.13/-0.1	-1.14/-2.27	-2.75/-2.87	-3.07/-3.58	-3.93/-3.15	-1.96/-1.41	-0.46/-0.12	-0.16/-0.3	-0.77/-1.55	-2.8/-3.28	-2.76/-2.5	-2.32/-1.54	-1.14/-1.12	-0.54/-0.18	-0.010-13	0.070-22	-0.45/-0.84	-0.93/-1.01	-1.33/-0.78	0.34/-0.3	1.762-61	2.763-07
Θ(15°)	2.412-57	2.482-24	2.04/-1.66	0.61/-0.4	-1.23/-2.64	-3.89/-4.57	-2.83/-1.05	-0.260-38	0.660-69	0.640-58	0.24/-0.42	-1.41/-1.79	-1.93/-2	-1.53/-0.72	-0.65/-0.04	0.71/-0.3	1.21/-23	1.32/-15	1.170-96	0.570-62	0.91/-37	1.592-13	2.172-4	
Θ(22.5°)	0.871-81	3.233-75	3.352-81	3.283-59	3.392-33	1.171-79	2.573-12	2.952-43	1.70-52	-1.29/-2.6	0.410-48	0.61/-31	1.410-86	-0.070-06	0.82/-46	1.692-22	2.793-2	4.074-58	4.383-7	2.650-93	0.78/-49	-0.530-19	0.931-03	
Θ(30°)	-2.84/-0.42	2.643-02	1.833-83	6.47/-1.4	6.193-43	-1.1/-2.02	0.882/-77	3.122-52	1.721-28	1.460-66	-2.44/-3.88	-0.14/-1.94	1.912/-1	2.833-47	3.082-6	2.212-43	2.472-02	1.932-36	3.134-28	4.794-15	3.393-24	2.762-49	2.563-	2.04/-0.79
Θ(37.5°)	2.472-03	2.314-67	5.475-45	5.675-54	3.371-66	4.395-	3.993-87	3.862-29	1.842-36	3.373-26	1.510-04	0.794-43	5.343-95	0.971-19	4.484-79	3.593-15	1.270-99	2.943-1	2.564-04	4.082-03	2.484-62	3.732-86	4.744-52	3.611-18
Θ(45°)	3.082-19	3.176-02	7.956-28	2.944-68	4.963-93	5.145-02	4.444-3	3.762-31	2.132-23	3.073-29	3.034-44	4.474-77	5.45-31	3.663-85	4.495-03	4.463-98	2.214-37	6.25-09	3.044-41	4.552-59	2.294-92	4.892-88	4.113-95	3.133-46
Θ(52.5°)	2.21-26	2.663-46	5.294-79	3.475-89	5.576-56	6.635-53	6.957-06	4.523-11	4.584-25	3.183-82	2.490-78	3.363-85	5.445-58	4.853-02	5.296-61	5.626-33	6.027-18	8.236-69	4.665-16	4.144-95	6.035-38	4.063-24	2.823-93	4.053-8
Θ(60°)	3.712-78	3.514-16	4.414-76	4.934-87	2.616-92	7.897-48	7.477-71	6.375-39	2.924-15	3.812/-47	1.53-26	5.464-75	4.134-85	5.757-96	7.037-12	5.976-51	7.877-19	4.964-15	3.395-05	5.685-01	3.184-38	2.984-27	5.945-07	
Θ(67.5°)	4.414-72	4.715-82	4.54-06	4.825-31	3.67-43	8.157-32	5.837-77	7.576-55	3.195-4	5.244-66	6.216-31	5.445-59	5.734-48	3.795-45	6.078-07	7.16-87	6.836-7	8.217-51	5.715-66	5.545-49	5.314-32	2.985-79	4.615-39	7.275-83
Θ(75°)	3.644-71	4.165-84	3.591-83	3.536-15	4.917-31	7.095-99	4.717-77	7.115-96	4.385-74	5.345-64	7.077-62	5.035-61	5.45-62	2.574-92	5.597-24	6.65-1	7.756-97	8.37/-53	6.247-78	6.796-23	5.244-75	2.626-38	4.495-15	7.185-44
Θ(82.5°)	1.023-08	2.364-12	1.150/-43	2.525-31	4.345-46	4.754-07	4.527-35	6.564-55	3.675-03	4.545-73	6.6/-27	3.834-75	5.615-27	2.534-07	4.356-49	4.995-55	7.856-32	7.5/-67	5.967-88	6.286-34	7.			



Radiated Composite Gain Data Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(75°)	-5.93/-5.69	-2.59/-8.29	-6.42/-4.06	-11.57/-6.25	-4.5/-5.74	-1.81/-4.71	-7.01/-9.54	-3.68/-4.01	-5.93/-3.32	-5.22/-2.21	-6.78/-5.48	-6.87/-3.67	-6.36/-5.04	-6.14/-3.32	-2.7/-3.82	-3.21/-2.47	-5.63/-1.74	-2.2/-1.91	-8.22/-2.36	-2.52/-7.67	-3.38/-1.81	-4.14/-3.33	-1.6/-4.06	-4.53/-3.3
Θ(82.5°)	-6.25/-4.61	-2.84/-9.21	-6.98/-6.42	-10.48/-5.18	-3.46/-6.7	-2.75/-4.77	-5.82/-6.27	-2.14/-5.9	-4.26/-4.97	-4.26/-1.98	-9.97/-6.21	-6.7/-6.95	-4.2/-3.73	-3.16/-4.37	-2.76/-3.06	-4.11/-2.01	-3.68/-2.43	-0.94/-1.07	-5.6/-1.78	-3.73/-6.31	-2.84/-1.99	-5.55/-5.32	-3.43/-6.15	-5.91/-4.78
Θ(90°)	-8.11/-6.54	-3.64/-9.52	-8.26/-8.44	-9.58/-5.81	-5.21/-6.14	-3.96/-7.83	-5.1/-5.46	-2.53/-6.01	-4.5/-5.48	-4.07/-3.47	-7.52/-5.63	-6.35/-4.84	-6.63/-5.81	-2.03/-4.79	-2.81/-6.13	-3.11/-4.51	-6.18/-2.66	-3.5/-2.91	-6.07/-8.47	-2.26/-2.16	-6.18/-4.52	-6.68/-6.65	-6.09/-7.65	
Θ(97.5°)	-8.98/-7.47	-4.81/-9.12	-8.67/-8.99	-9.86/-6.38	-7.87/-6.57	-3.18/-8.54	-6.23/-5.04	-3.29/-4.88	-5.73/-4.81	-4.98/-6.15	-9.33/-5.68	-8.48/-4.9	-3.6/-3.8	-3.25/-4.67	-4.19/-7.34	-3.98/-5.86	-3.76/-3.74	-5.74/-4.79	-5.7/-4.59	-10.25/-7.85	-3.77/-3.66	-8.92/-6.58	-7.9/-9.63	-7.79/-9.93
Θ(105°)	-8.08/-6.25	-6.51/-9.41	-9.02/-8.81	-11.26/-7.56	-9.42/-6.25	-4.17/-11.24	-8.13/-7.68	-4.77/-6.08	-7.38/-7.23	-7.13/-8.37	-7.8/-8.79	-5.86/-4.04	-5.4/-3.84	-2.56/-6.25	-3.09/-8.97	-5.89/-8.54	-5.09/-4.51	-7.24/-5.5	-5.75/-6.31	-6.17/-4.7	-7.28/-6.54	-8.88/-9.31	-8.47/-8.91	
Θ(112.5°)	-5.65/-5.88	-7.27/-15	-7.1/-8.22	-11.98/-9.42	-8.84/-5.81	-5.23/-11.8	-8.83/-7.13	-5.18/-8.69	-7.74/-7.94	-10.44/-7.89	-6.67/-5.66	-3.58/-4.22	-6.69/-7.64	-6.81/-9.16	-6.63/-6.54	-8.08/-4.86	-9.27/-5.17	-5.56/-6.7	-9.19/-8.88	-3.5/-9.43	-11.59/-6.09	-7.66/-9.18	-7.53/-7.13	
Θ(120°)	-7.28/-6.89	-6.61/-7.21	-7.02/-8.66	-9.85/-9.54	-10.79/-7.07	-9.86/-10.44	-10.31/-7.26	-7.27/-8.61	-9.07/-9.09	-10.91/-9.83	-8.88/-8.35	-4.79/-5.98	-7.62/-5.16	-8.31/-8.11	-9.02/-7.72	-9.1/-5.47	-6.26/-10.09	-9.74/-9.37	-6.37/-6.44	-8.76/-9.4	-4.7/-5.75	-9.14/-7.3	-9.13/-9.72	-8.83/-6.23
Θ(127.5°)	-7.25/-7.86	-9.09/-7.43	-6.91/-11.18	-7.85/-9.99	-10.7/-8.54	-9.01/-8.35	-11.6/-8.66	-5.82/-6.62	-8.59/-10.71	-9.15/-9.89	-8.18/-8.6	-7.76/-8.48	-7.71/-8.7	-10.02/-7.97	-7.51/-5.44	-6.68/-9.77	-9.47/-7.4	-11.61/-10.91	-7.61/-6.22	-10.78/-11	-6.77/-6.94	-9.04/-7.46	-6.86/-9.85	-7.02/-4.24
Θ(135°)	-7.12/-10.04	-9.87/-9.65	-9.11/-8.51	-10.34/-9.47	-6.91/-9.07	-6.68/-9.93	-10.64/-9.33	-8.05/-6.85	-7.12/-7.7	-8.88/-6.93	-9.2/-9.64	-11.02/-11.84	-10.14/-8.19	-8.29/-9.92	-9.91/-9.76	-7.85/-6.2	-8.18/-7.38	-10.89/-8.48	-6.24/-5.44	-8.12/-8.41	-10.79/-6.91	-9.91/-8.53	-7.97/-8.97	-11.37/-6.36
Θ(142.5°)	-6.81/-7.6	-10.74/-11.23	-8.93/-8.65	-9.5/-10.05	-8.79/-7.98	-6.2/-7	-8.64/-10.34	-7.4/-6.42	-6.07/-3.25	-6.23/-9.78	-6.83/-9.31	-9.17/-8.23	-8.98/-6.19	-7.61/-8.97	-11.19/-7.77	-6.72/-8.96	-9.72/-8.14	-7.7/-9.25	-9.91/-10.07	-8.79/-7.71	-7.37/-9.19	-8.77/-8.9	-7.47/-10.16	-7.3/-7.38
Θ(150°)	-7.07/-8.36	-9.02/-7.83	-6.21/-6.72	-9.64/-10.4	-11.11/-6.61	-6.41/-7.48	-7.02/-8.02	-8.04/-7.32	-7.19/-5.71	-6.74/-7.96	-7.5/-6.4	-7.57/-8.71	-8.14/-6.85	-9.48/-8.88	-12.12/-8.58	-8.78/-11.14	-10.58/-10.16	-10.48/-9.44	-8.28/-11.2	-8.27/-8.21	-9.11/-7.42	-8.24/-7.57	-6.67/-7.75	-6.34/-8.89
Θ(157.5°)	-9.11/-8.03	-8.91/-9.23	-10.07/-10.25	-9.04/-9.32	-9.8/-10.19	-7.67/-6.84	-6.78/-8.48	-9.13/-7.72	-7.34/-10.03	-5.98/-9.44	-7.45/-8.37	-9.44/-8.9	-11.12/-7.27	-6.21/-9.96	-8.64/-6.79	-6.25/-5.6	-5.27/-7.91	-8.95/-5.29	-5.77/-3.3	-5.71/-5.18	-7.99/-7.48	-6.71/-6.25	-7.02/-7.6	-6.24/-7.6
Θ(165°)	-10.58/-8.98	-8.95/-8.19	-7.59/-7.36	-6.76/-6.84	-8.1/-9.94	-8.64/-7.83	-7.5/-7.39	-7.47/-8.05	-8.49/-8.07	-8.44/-8.17	-8.47/-8.8	-8.57/-8.06	-10.36/-9.27	-6.59/-7.67	-8.62/-7.41	-6.8/-8.28	-10.15/-9.98	-7.39/-5.73	-5.18/-5.86	-7.95/-9.64	-9.26/-9.4	-9.68/-9.58	-8.55/-6.76	-7.25/-9.56
Θ(172.5°)	-10.66/-10.3	-8.79/-7.9	-7.41/-7.4	-7.08/-7.14	-6.81/-6.56	-5.93/-5.63	-7.38/-8.8	-10.53/-11.91	-11.89/-10.81	-9.49/-8.75	-9.97/-10.75	-11.13/-9.68	-9.01/-9.26	-9.31/-9.19	-9.41/-9.61	-8.68/-8.2	-7.78/-8.04	-7.95/-8.14	-8.63/-9.63	-10.56/-10.93	-10.64/-10.82	-11.09/-10.65	-10.75/-11.35	-11.67/-12.08
Θ(180°)	-10.46/-10.37	-9.51/-9.73	-9.96/-10.15	-10.27/-10.9	-10.89/-12.04	-12.46/-11.21	-10.92/-10.64	-10.57/-10.13	-10.13/-10.01	-10.05/-9.95	-9.83/-10.01	-10.62/-10.65	-11.17/-11.6	-12.92/-12.4	-11.77/-10.53	-10.05/-8.99	-8.01/-7.93	-8.87/-9.14	-8.54/-9.06	-9/-9.33	-10.31/-10.56	-10.54/-12.25	-12.44/-12.09	-11.54/-11.58
Freq(Hz)	6.475GPol.	Theta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	0.96/0.52	0.46/-0.53	-1.62/-2.43	-3.33/-4.23	-4.98/-5.3	-5.47/-5.54	-4.42/-3.51	-2.98/-2.73	-2.1/-3.4	-0.69/-0.12	0.26/0.3	1.591/7.8	1.48/1.24	1.04/0.53	0.259/-1.77	-2.63/-3.98	-5.32/-5.88	-6.97/-6.25	-4.44/-2.69	-1.73/-0.72	0.430/9.1	1.431/8.2	1.861/9.5	1.745/7.57
Θ(7.5°)	0.45/0.36	0.3/0.24	0.01/-0.21	-0.3/-0.88	-1.35/-1.89	-2.68/-3.02	-3.16/-2.35	-1.04/-0.21	0.38/1.28	1.59/1.55	1.63/1.48	1.03/0.55	0.51/0.47	0.41/0.08	0.74/-0.95	-1.15/-1.71	-2.11/-1.8	-1.69/-1.53	-1.35/-1.84	-2.03/-2.34	-3.03/-3.11	-2.2/-0.7	0.46/0.81	1.15/1.36
Θ(15°)	-1.63/-1.32	-1.47/-1.73	-2.19/-1.76	-1.14/-0.67	-2.3/-3.06	-4.65/-6.04	-6.58/-6.53	-4.74/-5.14	-5.61/-7.42	-6.83/-9.39	-1.84/-6.1	0.22/0.59	0.45/0.53	0.94/1.42	1.72/1.58	0.73/-0.73	-2.53/-4.4	-4.8/-4.41	-4.38/-3.36	-2.76/-3.15	-3.11/-3.19	-3.85/-3.83	-3.14/-3.25	-2.9/-2.55
Θ(22.5°)	-2.88/-1.82	-0.97/-0.88	-1.3/-1.18	-1.09/-1.59	-0.96/-2.61	-3.91/-4.87	-3.84/-1.06	-0.72/0.81	-1.72/0.81	-0.94/-0.33	0.64/1.49	1.31/1.17	1.85/2.51	1.72/-0.21	-1.42/-0.46	1.98/3.69	4.67/4.58	3.91/3.19	1.98/1.48	1.96/1.86	1.51/1.19	2.07/2.95	2.81/1.2	-2.08/-2.4
Θ(30°)	-0.79/-1.57	-0.42/0.62	0.01/-0.27	1.07/1.34	0.85/0.31	-0.68/-0.26	0.49/0.71	2.15/2.81	0.81/-0.93	0.84/2.14	2.37/1.92	0.83/1.12	2.27/2.13	1.79/2.32	3.59/5.55	5.38/4.22	3.14/1.46	-0.5/-0.95	-1.41/-3.74	-6.01/-2.47	2.25/4.83	5.51/4.98	3.46/0.66	-0.64/-1.18
Θ(37.5°)	0.85/0.27	1.19/1.76	0.77/0.3	2.02/2.59	2.87/2.41	1.48/0.81	1.58/1	1.79/2.59	0.15/1.97	3.71/4	5.29/4.36	2.62/4.03	2.45/2.01	4.26/5.65	4.42/5.44	3.23/3.55	4.96/4.44	3.37/3.03	1.92/0.88	0.96/1.97	4.11/3.99	3.12/3.32	4.47/3.91	2.62/0.96
Θ(45°)	2.77/3.67	2.66/4.39	3.58/4.09	5.54/5.04	4.03/2.64	2.48/3.34	3.04/3.35	4.19/4.16	2.44/3.22	3.71/2.48	4.14/5.45	4.85/2.34	3.81/2.27	4.82/4.29	4.13/4.51	4.43/5.25	4.64/0.06	2.48/2.46	2.26/-0.05	0.43/2.22	5.75/5.82	4.66/3.15	4.01/4.54	2.57/-0.48
Θ(52.5°)	4.18/4.03	3.64/6.04	5.49/1.68	4.26/5.95	5.13/9.9	5.05/6.16	5.68/6.17	7.07/6.66	5.32/4.37	3.72/5.57	6.51/6.76	6.04/6.14	3/5.52	5.28/3.13	6.09/5.44	5.29/5.73	4.96/7.21	6/3.94	3.99/3.31	5.44/5.04	5.81/3.41	5.07/5.82	4.71/3.21	3.32/2.43
Θ(60°)	5.72/4.59	4.28/5.73	5.39/4.41	4.36/5.74	5.48/4.09	5.09/6.05	5.72/6.05	6.58/5.46	5.51/3.96	3.45/4.89	5.17/6.22	5.57/5.28	3.15/2.27	5.55/5.2	4.82/4.38	5.62/6.87	6.25/7.67	7.04/3.69	3.14/2.74	5.11/5.66	5.76/2.58	4.84/6.56	5.22/3.55	4.38/4.03
Θ(67.5°)	6.33/4.38	4.35/4.9	3.66/4.34	3.61/5.54	5.56/5.55	5.33/6.14	6.48/5.06	5.24/0.15	3.50/1.22	3.61/6.57	4.19/5.32	2.23/4.78	3.64/67	5.86/3.32	3.70/7.86	3.63/7.06	5.84/6.72	5.96/9.95	5.32/1.11	5.33/3.99	4.74/5.21	5.33/4.99	4.74/5.21	5.24/9.4
Θ(75°)	6.22/4.01	3.94/4.11	1.68/2.38	2.96/5.06	4.07/2.59	5.25/5.09	4.56/2.8	6.36/5.07	5.34/2.79	5.3/2.5	3.44/6.45	5.53/4.97	4.72/4.29	4.32/3	5.17/5.92	5.03/5.86	6.67/1.17	6.46/5.6	5.31/2.94	6.35/6.1	5.1/2.7	5.25/3.01	4.27/5.63	5.71/5.52
Θ(82.5°)	5.41/2.94	3.04/2.97	0.94/0.73	0.92/3.99	1.01/1.35	4.29/2.78	2.83/0.88	5.69/5.01	5.31/4.2	4.32/1.2	4.58/5.56	3.94/4.89	3.94/4.46	1.64/3.94	4.32/6.17	4.64/5.13	5.48/6.59	6.49/5.84	6.16/4.19	6.46/5.32	4.4/2.52	4.78/0.97	3.55/4.26	5.17/5.64
Θ(90°)	2.92/1.45	0.79/2.23	0.33/-1.17	-1.33/2.85	-1.73/-1.71	2.33/0.42	1.25/-3.3	3.84/3.97	4.12/-1.24	2.69/1.14	3.04/4.62	2.68/3.91	3.59/3.58	2.59/0.77	3.38/4.84	2.85/2.9	3.56/5.11	5.05/4.45	4.6/2.84	4.34/4.27	2.49/0.94	3.1/5.6	0.91/2.42	3.67/4.49
Θ(97.5°)	0.15/0.02	-2.18/1.05	-0.84/-3.34	-3.63/-0.39	-4/-5.06	-0.28/-1.7	-0.93/-5.73	1.65/2.4	1.72/-3.87	0.41/-0.79	1.08/2.36	1/2.31	1.19/1.85	-2.1/1.83	0.54/2	0.18/-0.71	1.84/2.59	1.98/1.44	-0.63/-0.44	0.41/3.36	-0.52/-2.35	0.22/-4.43	-1.89/-0.52	2.25/3.08
Θ(105°)	-1.09/-1.64	-3.65/-0.5	-2.39/-5.7	-4.77/-3.25	-5.21/-3.77	-2.26/-2.85	-2.89/-4.53	0.24/-0.74	-1.96/-3.92	-2.21/-2.65	0.89/-0.09	-0.37/-1	0.15/-1.95	-2.84/-0.59	0.15/-0.26	-1.72/-3.21	-0.28/0.05	0.34/-0.22	-2.14/-4.29	-2.45/-1.12	-2.89/-3.16	-1.72/-1.75	-2.58/-1.78	-0.28/1.66
Θ(112.5°)	-3.08/-3.36	-4.38/-3.38	-4.83/-6.1	-6.98/-7.73	-6.18/-2.97	-5.63/-6.2	-2.84/-2.98	-1.98/-2.71	-3.07/-3.66	-0.73/-1.17	-2.47/-3.62	-1.68/-2.3	-6.65/-2.98	-3.45/-3.1	-3.21/-3.58	-1.51/-1.2	-2.01/-2.23	-1.71/-3.94	-0.61/-1.72	-2/-4.41	-4.04/-7.61	-2.89/-3.76	-3.18/0.55	
Θ(120°)	-4.71/-6.29	-6.43/-5.1	-5.41/-7.32	-9.76/-6.93	-5.68/-5.76	-7.18/-5.42	-9.23/-7.78	-3.79/-2.71	-4.71/-7.9	-7.36/-4.98	-4.24/-4.33	-3.94/-5.1	-2.17/-3	-4.05/-8.57	-4.23/-4.87	-4.87/-5.12	-5.44/0.54	-2.3/-3.87	-4.08/-6.88	-5/-4.99	-1.43/-4.1	-4.95/-11.07	-3.2/-6.48	-2.36/-3.06
Θ(127.5°)	-5.43/-6.2	-6.85/-6.86	-4.94/-8.8	-10.64/-8.99	-4.46/-7.17	-7.93/-5.23	-7.51/-7.98	-7.57/-4.87	-3.98/-4.64	-7.19/-4.15	-7.8/-6.29	-5.02/-7.58	-7.31/-7.84	-7.59/-6.79	-7.13/-7.35	-3.8/-4.25	-4.51/-1.57	-2.83/-4.48	-3.8/-7.36	-5.81/-4.42	-3.22/-5.83	-7.24/-7.42	-3.99/-7.9	-6.82/-6.04
Θ(135°)	-7.22/-6.89	-7.96/-8.11	-9.54/-9.53	-7.94/-10.8	-8.33/-6.85	-8.55/-6.7	-8.05/-9.01	-7.44/-5.02	-4.89/-4.05															



Radiated Composite Gain Data_ Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(127.5°)	-5.33/-9.45	-8.73/-6.86	-8.22/-8.43	-11.79/-9.12	-7.85/-9.31	-10.84/-9.09	-8.35/-10.07	-9.74/-11.23	-9.72/-10.67	-7.54/-10.26	-11.49/-12.16	-9.21/-12.28	-10.05/-10.1	-12.52/-9.79	-7.35/-6.24	-9.08/-7.96	-6.51/-6.08	-7.2/-7.61	-8.15/-8.5	-10.23/-8.45	-11.25/-9.35	-8.91/-7.15	-7.99/-10.01	-7.62/-8
Θ(135°)	-6.64/-7.53	-7.85/-8.27	-9.8/-7.87	-12.02/-10.92	-10.56/-10.85	-10.07/-11.76	-9.3/-10.55	-8.53/-10.19	-9.99/-8.41	-10.06/-9.29	-11.33/-11.47	-12.47/-11.62	-11.66/-10.4	-12.25/-8.49	-10.42/-9.46	-7.01/-6.83	-8.52/-8.25	-8.03/-9.05	-8.89/-9.88	-10.55/-9.61	-11.79/-7.85	-9.96/-7.61	-10.63/-8.29	-9.24/-6.59
Θ(142.5°)	-7.41/-6.42	-7.52/-11.14	-7.91/-6.29	-7.08/-8.28	-7.04/-3.75	-7.19/-3.4	-6.5/-9.21	-9.54/-7.35	-6.18/-9.03	-12.47/-8.53	-10.7/-8.89	-8.55/-9.2	-8.08/-7.16	-9.71/-10.56	-11.13/-9.95	-11.02/-7.37	-8.46/-9.77	-10.57/-10.52	-8.9/-10.86	-11.93/-9.29	-8.22/-10.16	-9.78/-9.32	-8.49/-9.54	-9.4/-8.62
Θ(150°)	-12.06/-10.53	-8.23/-8.91	-7.95/-9.98	-10.5/-9.19	-6.35/-6.32	-9.06/-6.61	-8.68/-7.41	-5.09/-9.09	-9.16/-6.43	-9.4/-12.42	-11.76/-11.27	-12.65/-10.29	-9.64/-10.45	-9.39/-9.79	-11.03/-11.5	-12.17/-11.34	-10.99/-11.03	-10.16/-11.97	-7.45/-10.49	-11.28/-9.05	-11.71/-10.12	-10.11/-9.04	-7.71/-8.85	-8.79/-6
Θ(157.5°)	-9.08/-8.91	-9.98/-10.49	-8.09/-9.35	-11.03/-8.22	-5.84/-6.57	-7.55/-5.96	-6.25/-12.53	-8.62/-7.02	-8.24/-10.97	-9.13/-8.39	-9.23/-10.58	-11.06/-10.68	-10.56/-7.86	-6.75/-8.37	-10/-10.48	-11.34/-11	-11.99/-10.35	-6.87/-6.77	-6.71/-7.97	-8.17/-8.16	-9.4/-8.48	-6.9/-7.4	-9.1/-9.92	-11.2/-11.66
Θ(165°)	-11.87/-12.09	-11.19/-9.72	-9.29/-9.57	-9.09/-8.34	-7.58/-7.45	-6.9/-7.69	-9.05/-12.2	-11.7/-8.86	-9.81/-10.33	-8.8/-8.67	-10.21/-11.45	-10.76/-10.22	-10.72/-10.16	-7.55/-6.31	-5.75/-6.9	-7.95/-8.12	-8.51/-7.66	-8.03/-9.27	-8.38/-6.7	-5.91/-5.69	-6.64/-8.27	-8.68/-8.8	-9.47/-8.34	-7.18/-8.69
Θ(172.5°)	-9.12/-9.93	-10.29/-11.6	-11.96/-11.14	-8.05/-6.44	-5.81/-6.17	-7.75/-10.57	-12.64/-12.44	-11.8/-8.92	-7.62/-8.25	-9.34/-10.27	-11.99/-12.02	-11.41/-11.2	-9.48/-8.18	-7.3/-7.49	-7.77/-8.46	-8.9/-9.31	-11.14/-11.41	-11.43/-11.67	-9.75/-8	-8.6/-9.42	-11.33/-12.16	-10.99/-10.09	-9.08/-8.74	-8.34/-8.1
Θ(180°)	-11.87/-10.34	-10.1/-10.53	-10.43/-11.04	-10.85/-11.5	-11.13/-11.18	-11.17/-11.62	-11.77/-11.17	-11.59/-11.72	-11.53/-10.38	-10.55/-10.69	-10.65/-10.67	-10.48/-10.79	-11.66/-12.66	-12.03/-9.83	-8.47/-8.48	-8.18/-8.04	-7.73/-7.45	-8.07/-8.94	-9.67/-9.07	-10.21/-9.71	-10.42/-9.9	-9.43/-8.9	-9.55/-9.44	-9.3/-9.29
Freq(Hz)	6.995GPol.	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°)	2.23/2.1	1.66/1.4	0.98/0.42	-0.25/-1.3	-2.42/-3.18	-3.93/-4.02	-3.12/-2.79	-1.74/-0.93	0.16/0.97	1.64/2.25	2.82/3.01	3.06/3.27	3.17/2.76	2.25/1.69	0.84/0.03	-0.85/-1.15	-1.9/-2.65	-2.89/-2.52	-2.5/-2.09	-1.64/-0.74	-0.05/0.12	0.93/1.32	1.21/1.07	1.37/1.81
Θ(7.5°)	1.98/1.07	0.59/-0.23	-0.52/-0.92	-1.01/-0.75	-1.42/-1.43	-1.33/-1.6	-1.13/-1.2	-1.25/-0.84	-0.33/0.02	0.42/0.69	0.85/0.85	0.92/1.01	1.08/1.24	1.41/1.48	1.31/0.71	0.25/-0.6	-1.74/-2.82	-3.1/-3.15	-3.36/-3.38	-2.62/-0.87	0.51/1.68	2.54/3.07	3.24/3.11	2.95/2.57
Θ(15°)	1.39/2.54	2.91/2.63	1.53/-0.26	-2.66/-4.48	-3.84/-3.04	-2.03/-1.45	-1.41/-0.99	-0.9/-1.2	-1.34/-2.36	-3.16/-1.4	0/0.98	1.03/0.98	1.49/1.61	1.34/1.94	2.29/2.51	2.57/2.12	1.44/0.59	-0.34/-1.18	-1.62/-3.12	-3.8/-3.48	-2.22/-0.97	0.01/1.14	1.2/0.81	0.56/1.09
Θ(22.5°)	-0.4/-1.39	-0.81/0.02	-0.39/-1.33	-2.96/-5.58	-6/-4.26	-2.56/-3.18	-4.58/-4.72	-3.87/-3.25	-2.31/-1.86	-1.37/-1.07	0.33/2.27	3.01/2.36	0.98/-0.04	0.19/0.76	0.9/0.63	-0.62/-0.96	-0.07/0.99	1.41/0.99	-0.52/-2.16	-2.22/-1.58	-0.05/1.12	1.19/0.17	-1.57/-1.82	-1.1/-0.65
Θ(30°)	2.44/0.86	-1.15/-1.47	-1.58/-1.51	-0.35/0.33	-0.95/-3.36	-1.83/-0.07	0.42/1.04	2.15/2.49	2.71/3.22	3.28/1.63	-0.51/1.05	1.72/1.26	1.22/0.19	0.82/3.7	2.9/2.34	3.17/3.9	3.77/2.85	3.43/4.12	3.42/1.61	1.58/2.16	2.66/1.76	0.52/-0.91	-1.79/-0.34	1.49/2.24
Θ(37.5°)	3.15/2.34	1.21/-0.14	2.63/0.7	-0.24/0.39	0.89/1.61	4.27/3.95	2.32/1.4	2.63/2.4	2.34/2.48	1.52/1.63	3.88/3.43	3.79/3.55	1.65/2.37	3.89/4.41	4.67/4.27	3.67/3.74	2.72/3.34	3.63/3.46	4.33/4.16	3.13/2.81	1.96/0.99	1.93/4.7	2.06/0.52	2.01/3.48
Θ(45°)	4.8/3.84	3.65/1.23	2.33/4.26	2.7/3.59	3.37/2.8	3.05/2.86	2.84/2.97	4.31/4.24	2.49/3.76	4.26/3.98	4.13/4.21	4.58/4.77	2.64/1.87	3.58/5.2	5.56/4.95	4.6/3.37	3.94/5.09	3.24/3.01	3.36/4.3	4.52/4.88	2.57/2.79	4.65/5.82	4.25/3.06	2.85/4.08
Θ(52.5°)	5.84/4.41	3.74/4.33	2.17/3.61	4.52/5.15	4.14/2.14	3.12/5.6	4.36/4.51	5.75/5.29	4.98/5.87	5.79/6.01	4.46/4.68	5.24/4.68	5.26/4.49	4.49/4.86	5.02/4.17	5.66/4.6	4.72/5.42	4.06/4.84	4.09/4.76	4.62/4.75	2.69/4.04	4.55/5.65	5.84/5.67	2.27/3.79
Θ(60°)	5.49/4.76	5.43/5.46	4.54/0.8	5.32/3.25	3.14/4.21	4.79/6.55	5.65/4.4	4.89/3.85	5.24/6.69	6.25/6.36	5.35/5.56	5.35/5.32	2.49/5.04	4.14/4.24	4.56/2.39	5.68/5.81	5.45/3.7	6.29/5.33	5.22/4.85	4.65/4.05	4.85/4.45	3.51/5.32	5.2/5	2.91/3.84
Θ(67.5°)	5.67/5.75	6.87/4.55	5.54/4.29	4.39/0.87	4.48/4.67	5.82/4.91	4.36/4.62	3.19/4.03	5.59/5.88	4.66/4.41	4.05/5.8	4.97/0.77	2.19/3.49	4.46/1.82	1.79/3.74	5.06/4.6	4.46/5.6	6.58/4.83	3.98/2.9	4.66/3.88	4.44/6.05	4.14/5.42	4.79/3.35	4.23/4.95
Θ(75°)	5.16/5.14	6.75/5.92	5.34/3.89	3.27/1.11	4.66/4.17	4.04/3.94	3.71/4.45	2.63/2.25	5.14/7.5	4.02/3.61	4.44/8.9	4.06/3.33	-0.32/1.8	4.27/0.81	1.61/2.8	5.93/5.9	3.36/5.3	6.05/5.7	2.47/2.01	4.23/5	4.41/6.55	4.64/5.21	3.62/2.86	4.81/4.92
Θ(82.5°)	3.13/84	5.25/2.8	3.92/2.47	1.88/-2.68	3.01/1.99	2.86/3.42	2.39/2.95	3.15/0.83	3.31/2.74	2/3.3	4.19/3.18	1.99/-1.32	1.62/0.51	2.53/1.02	2.18/2.82	4.49/3	1.79/6.73	4.49/5.93	1.46/1.51	2.04/5.78	3.91/6.1	4.88/4.3	2.65/1.66	4.23/3.19
Θ(90°)	1.09/2.46	3.38/0.43	1.06/0.61	0.51/-2.72	0.56/-0.74	1.47/2.82	0.57/0.33	2/1.44	1.71/0.93	0.18/1.74	4.32/3.33	1.65/-0.7	-0.83/1.75	0.47/-0.08	1.75/-0.16	2.2/2.14	0.18/4.44	2.69/4.62	0.94/1.03	-0.61/3.94	2.39/4.42	3.76/2.15	1.23/0.88	3.47/2.13
Θ(97.5°)	0.04/0.83	1.28/-2.12	-1.94/-1.96	-0.55/-3.26	-2.52/-3.64	0.01/0.78	-1.98/-0.3	0.55/-0.18	0.25/-2.56	-1.3/0.07	0.76/2.35	-1.97/-2.51	-0.46/-2.24	-0.9/-1.3	-1.07/-1.38	-0.85/-0.03	-1.98/2.37	1.15/2.18	-1.38/-1.88	-2.66/-0.85	-1.12/0.79	0.7/-0.92	-0.76/0.27	1.86/1.19
Θ(105°)	-0.59/-2.37	-0.34/-3.51	-3.89/-3.82	-4.14/-5.23	-3.19/-4.47	-2.3/-2.22	-5.21/-4.29	-2.95/-2.05	-1.54/-5	-3.06/-3.96	-1.11/-0.23	-1.02/-2.45	-2.66/-1.12	-2.89/-4.86	-3.1/-3.49	-0.92/-0.43	-3.65/0.85	0.76/1.08	-3.44/-5.99	-3.04/-5.5	-3.28/-2.56	-1.45/-2.65	-3.12/-2.92	0.72/-0.9
Θ(112.5°)	-4.42/-4.92	-4.06/-5.98	-7.3/-3.57	-5.52/-8.12	-4.49/-5.5	-2.29/-1.92	-2.99/-4.72	-5.26/-3.24	-3.5/-6.47	-5.26/-2.54	-2.52/-3.87	-5.13/-5.45	-2.92/-5.05	-4/-6.97	-4.2/-6.74	-1.68/-3.45	-4.43/-0.32	-0.71/-1.75	-5.2/-4.28	-3.51/-3.74	-3.69/-2.3	-3.89/-5.2	-3.66/-3.95	-0.39/-3.75
Θ(120°)	-6.92/-7.55	-6.71/-9.88	-10.96/-5.36	-7.14/-7.65	-7.72/-8.4	-4.62/-3	-2.69/-6.12	-6.54/-6.37	-5.89/-6.46	-5.95/-3.25	-4.35/-4.96	-7.35/-6.86	-6.7/-4.64	-8.14/-10.47	-8.63/-9.06	-3.6/-4.3	-3.13/-6.05	-2.49/-3.91	-6.28/-7.2	-3.94/-6.9	-3.23/-3.18	-7/-7.19	-3.97/-4.97	-3.12/-6.97
Θ(127.5°)	-10.19/-8.34	-7.74/-10.44	-9.81/-6.34	-8.85/-8.71	-10.28/-9.22	-6.53/-6.83	-6.04/-4.45	-7.18/-7.39	-6.81/-9.53	-7.89/-3.75	-7.96/-7.92	-7.77/-6.22	-6.5/-10.41	-5.14/-9.84	-7.5/-7.95	-4.23/-2	-6.28/-4.43	-2.45/-3.31	-5.98/-8.65	-5.07/-9.07	-3.89/-6.89	-10.31/-5.83	-4.43/-5.18	-4.71/-7.96
Θ(135°)	-11/-9.75	-10.2/-8.5	-7.38/-8.64	-7.89/-8.59	-5.86/-8.82	-7.82/-6.96	-5.37/-5.77	-6.98/-5.66	-6.09/-6.17	-9.15/-7.54	-8.96/-8.16	-8.79/-9.19	-6.29/-5.49	-7.11/-6.12	-7.72/-6.94	-5.26/-4.55	-5.47/-8.05	-4.94/-4.62	-6.99/-8.42	-5.48/-6.63	-6.98/-10.07	-7.43/-7.68	-5.6/-5.87	-5.19/-8.74
Θ(142.5°)	-10.58/-11.19	-9.53/-11.16	-7.55/-8.67	-8.09/-8.71	-6.27/-8.91	-12.15/-9.11	-7.37/-5.7	-7.67/-6.18	-4.41/-7.95	-8.08/-8.4	-7.14/-6.97	-7.59/-7.61	-11.99/-12.27	-12.89/-11.98	-12.18/-10.65	-5.89/-6.83	-8.29/-7.52	-6.28/-8.39	-11.19/-9.98	-6.3/-5.81	-8.53/-10.34	-10.12/-7.86	-8.05/-6.82	-5.84/-8.42
Θ(150°)	-8.96/-7.88	-6.77/-5.42	-6.78/-9.06	-9.1/-9.8	-10.67/-11.31	-9.25/-6.59	-6.74/-5.93	-7.05/-7.68	-8.73/-5.76	-6/-10.59	-8.85/-9.28	-9.58/-8.87	-8.88/-11.32	-11.09/-10.58	-8.06/-10.09	-12.04/-10.78	-8.14/-7.47	-6.86/-6.69	-8.57/-9.7	-10.25/-11.86	-9.87/-10.76	-10.85/-6.9	-6.06/-6.6	-8.52/-10.94
Θ(157.5°)	-10.89/-7.92	-7.38/-7.39	-9.69/-11.74	-10.43/-9.03	-7.87/-8.07	-8.75/-9	-8.89/-9.12	-9.06/-9.81	-11.4/-10.16	-8.96/-10.58	-12.34/-11.72	-11.44/-11.38	-11.95/-12	-12.28/-11.33	-10.47/-11.57	-11.24/-10.57	-9.38/-8.28	-8.91/-9.89	-10.34/-10.29	-9.93/-8.14	-6.37/-7.6	-11.51/-11.23	-8.84/-8.69	-11.05/-12.47
Θ(165°)	-7.06/-6.88	-6.91/-7.71	-9.3/-10.12	-10.39/-10.87	-10.69/-10.42	-8.83/-7.82	-7.02/-8.14	-9.83/-9.09	-9.2/-9.99	-10.9/-9.49	-8.18/-8.72	-9.87/-12.16	-12.59/-11.92	-11.6/-12.27	-10.12/-9.98	-10.14/-9.35	-8.76/-7.55	-7.19/-7.64	-8.59/-9.6	-11.47/-11.54	-9.85/-8.18	-7.6/-7.94	-9.72/-11.39	-9.86/-8.33
Θ(172.5°)	-10.42/-9.48	-8.79/-8.04	-7.06/-6.63	-6.36/-7.58	-9.3/-9.96	-10.12/-9.73	-9.74/-10.99	-10.76/-10.61	-8.86/-7.92	-7.9/-9.24	-9.36/-8.76	-8.45/-7.66	-7.72/-8.31	-8.46/-10.66	-11.11/-12.58	-11.9/-10.68	-8.86/-7.92	-7.44/-8.24	-8.11/-8.63	-9.75/-10.5	-11.3/-11.29	-11.91/-12.45	-12.88/-11.77	-11.63/-10.88
Θ(180°)	-10.18/-10.36	-11.51/-11.46	-11.5/-11.18	-11.59/-10.57	-9.66/-9.27	-10.18/-10.93	-9.83/-10.23	-10.39/-10.3	-11.43/-12.8	-11.96/-11.39	-11.2/-10.03	-9.72/-9.39	-10.11/-11.33	-11.2/-11.96	-10.54/-10.11	-9.5/-9.36	-9.33/-8.52	-7.71/-6.78	-7.36/-7.65	-7.54/-7.81</				



Radiated Composite Gain Data Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Gain Result

Freq(Hz)	5.6GPol.	PhiAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)		
Θ(0°)	-13.82-8.03	-9.16-9.95	-10.40-12.84	-19.27-18.76	-18.83-13.97	-18.79-12.77	-13.19-13.98	-14.88-14.91	-15.96-17.18	-15.83-14.45	-13.67-11.78	-11.20-10.77	-18.86-18.35	-12.99-11.78	-10.38-9.77	-17.86-18.35	-12.35-18.85	-12.99-11.78	-10.38-9.77	-17.86-18.35	-12.35-18.85	-12.99-11.78	-10.38-9.77	-17.86-18.35	-12.35-18.85	
Θ(7.5°)	-19.15-15.51	-9.55-6.04	-5.24-5.52	-5.21-5.5	-5.94-6.23	-8.39-11.76	-15.88-17.49	-13.98-10.2	-6.81-5.35	-4.93-4.18	-4.07-4.53	-5.03-6.57	-6.19-6.41	-8.5-10.14	-13.81-16.97	-17.3-14.7	-13.59-16.33	-15.27-13.76	-12.82-12.86	-13.67-16.46	-17.54-15.25	-12.51-13.67	-18.28-17.94	-17.89-18.01		
Θ(15°)	-14.89-18.88	-12.33-7.05	-4.86-3.72	-3.12-3.26	-3.46-4.26	-6.64-9.82	-11.81-11.04	-8.93-7.57	-7.79-9.46	-11.88-14.83	-15.04-10.49	-7.89-6.7	-5.4-4.9	-5.35-7.32	-13.02-18.51	-12.51-8.47	-6.95-6.69	-6.88-8.34	-11.65-19.49	-17.55-12.45	-8.48-6.92	-6.23-6.77	-7.96-9.18	-10.15-14		
Θ(22.5°)	-11.82-18.11	-15.04-7.15	-5.51-6.32	-9.53-11.23	-8.95-8.94	-9.88-9.9	-8.33-6.37	-10.66-13.41	-14.29-11.98	-9.04-6.32	-3.83-2.44	-2.26-2.39	-4.05-8.14	-9.39-7.42	-7.7-8.83	-5.89-5.17	-5.7-5.48	-6.64-5.55	-5.44-9.89	-18.29-12.77	-6.49-8.27	-10.87-12.84	-11.43-10.84			
Θ(30°)	-9.9-12.15	-10.61-3.58	-1.11-1.91	-6.49-17.8	-13.14-12.16	-6.77-4.6	-5.55-7.54	-9.71-16.48	-18.75-9.66	-6.98-5.3	-4.63-2.69	-3.37-3.93	-3.45-5.59	-14.18-4.07	-2.84-8.31	-6.11-6.19	-8.42-5.7	-5.15-7.7	-10.97-12.31	-12.19-14.8	-13.06-10.53	-7.7-6.11	-6.57-12.21	-14.46-8.86		
Θ(37.5°)	-13.21-15.71	-11.52-6.48	-4.08-3.91	-8.15-7.96	-7.9-14.95	-5.24-4.98	-8.69-5.92	-5.91-12.9	-17.84-6.04	-3.63-5.16	-6.47-2.62	-3.6-13.32	-6.86-5.85	-18.24-4.81	-8.96-8.95	-2.99-5.13	-6.63-6.01	-9.18-13.87	-19.04-19.47	-19.23-19.05	-11.72-10.27	-8.95-6.19	-5.3-12.32	-15.8-12.49		
Θ(45°)	-13.01-9.47	-16.03-6.19	-6.56-10.13	-7.25-4.82	-4.74-19.26	-6.99-7.62	-13.89-6.92	-9-13.04	-19.03-12.44	-6.37-4.58	-7.37-11.27	-2.72-2.65	-19.54-10.31	-14.6-9.81	-12.49-11.26	-5.91-9.93	-7.76-6.62	-9.49-12.67	-16.03-16.78	-12.75-18.25	-10.62-7.31	-11.2-14.39	-11.75-19.19	-6.96-9.32		
Θ(52.5°)	-8.96-4.9	-9.92-3.06	-5.97-10.75	-5.86-5.83	-4.28-14.13	-13.78-15.22	-14.43-7.1	-8.59-10.21	-18.74-9.33	-9.96-6.72	-6.27-16.26	-18.33-5.89	-11.62-9.23	-10.07-19.46	-15.63-17.83	-13.14-6.82	-3.3-6.58	-6.89-18.24	-12.29-17.44	-9.97-17.91	-12.01-7.88	-11.38-17.38	-16.4-9.69	-3.56-9.61		
Θ(60°)	-6.2-3.89	-8.97-2.84	-5.76-8.09	-3.82-12.21	-8.87-15.48	-15.02-13.13	-18.65-4.99	-9.96-7.89	-16.67-8.59	-12.47-8.13	-11.66-10.93	-7.35-3.38	-5.8-5.61	-12.33-12.42	-14.96-18.78	-18.13-3.84	-1.59-3.18	-3.42-9.47	-8.51-16.39	-7.58-13.23	-13.64-12.34	-9.35-16.77	-9.54-7.31	-5.91-12.32		
Θ(67.5°)	-10.92-5.01	-10.08-6.68	-6.96-7.31	-6.16-17.84	-12.87-17.47	-13.51-12.7	-18.24-9.3	-13-6.24	-12.71-12.15	-6.27-8.9	-13.4-3.78	-2.72-2.65	-4.73-10.54	-7.4-12.54	-11.81-17.64	-18.13-5.11	-3.74-3.54	-3.88-6.15	-10.52-16.46	-8.46-15.63	-9.76-10.42	-5.62-17.81	-6.3-8.92	-5.23-11.73		
Θ(75°)	-13.72-7.55	-10.02-7.79	-7.63-8.68	-8.63-17.93	-18.71-18.35	-14.79-10.91	-14.04-9.84	-15.05-6.41	-14.05-12.57	-5.17-6.36	-8.52-2.59	-3.86-2.08	-10.55-6.88	-13.87-11.72	-11.56-11.92	-13.94-5.77	-5.23-4.81	-5.76-3.84	-16.25-11.98	-11.68-11.92	-12.68-18.24	-7.47-17.87	-6.93-10.64	-11.13-13.31		
Θ(82.5°)	-16.85-7.9	-13.98-13.65	-7.92-15.32	-13.19-15.84	-18.23-18.36	-10.5-10.36	-19.18-9.35	-10.99-8.85	-18.26-12.16	-2.45-2.36	-8.42-11.93	-11.1-15.35	-7.24-15.26	-11.05-8.11	-9.29-5.41	-7.48-6.3	-18.39-17.31	-16.57-12.1	-18.39-17.61	-6.97-18.37	-8.77-17.07	-10.33-14.54				
Θ(90°)	-17.71-11.84	-12.78-13.31	-8.46-13.99	-16.09-14.28	-16.19-18.84	-12.33-11.24	-18.78-9.51	-10.85-11.26	-16.64-10.48	-8.47-17.52	-2.11-2.57	-9.41-10.13	-13.31-13.66	-6.55-13.03	-11.87-13.7	-12.88-8.66	-12.33-10.82	-11.87-13.3	-15.49-14.23	-17.11-15.16	-19.71-18.42	-8.13-18.04	-1.9-12.33	-14.79-14.41		
Θ(97.5°)	-16.39-12.37	-16.79-18.68	-11.22-19.38	-18.67-15.11	-12.9-18.14	-14.81-11.46	-18.15-10.7	-9.71-17.5	-13.1-11.8	-12.54-8.16	-3.25-8.3	-14.74-18.67	-7.57-5.49	-11.9-6.8	-7.81-6.19	-14.75-15.94	-19.04-15.38	-15.84-12.47	-13.89-17.29	-17.44-18.83	-17.95-14.59	-9.36-15.6	-14.1-12.59	-18.33-17.08		
Θ(105°)	-19.02-14.8	-17.53-18.03	-11.86-18.01	-17.89-16.84	-18.87-19.22	-13.43-19.37	-15.87-12.24	-11.98-18.12	-14.81-12.47	-17.96-8.15	-3.36-11.5	-19.07-10.8	-6.99-6.6	-4.31-6.84	-6.38-6.54	-12.99-9.98	-18.46-17.93	-13.59-14.32	-18.07-17.48	-14.44-18.39	-18.59-16.49	-10.6-17.05	-15.87-15.21	-18.62-18.98		
Θ(112.5°)	-18-18.61	-10.88-19.39	-12.63-18.45	-18.01-18.9	-16.26-19.18	-14.02-17.77	-18.15-18.26	-10.71-19.12	-18.89-12.95	-16.87-7.88	-11.9-10.39	-10.82-10.83	-8.97-2.05	-7.83-5.82	-8.28-9.93	-12.26-11.97	-18.98-19.05	-18.04-11.66	-19.29-14.33	-16.88-18.46	-15.59-13.31	-16.1-19.14	-18.33-18.04	-19.14-18.12		
Θ(120°)	-11.49-18.16	-11.9-18.01	-12.73-18.66	-17.74-17.14	-15.26-17.91	-16.06-15.56	-18.76-17.94	-18.88-17.83	-18.59-13.82	-10.59-9.28	-15.88-9.7	-11.86-7.83	-3.52-3.86	-5.82-6.94	-6.58-7.49	-11.53-11.57	-17.78-16.46	-17.93-13	-18.22-14.55	-14.29-18.99	-17.87-15.41	-16.18-18.56	-17.97-14.24	-17.84-18.68		
Θ(127.5°)	-18.74-17.55	-12.81-18.77	-17.95-18.83	-18.58-18.14	-17.67-16.67	-16.64-17.32	-18.26-18.23	-18.78-18.63	-13.71-18.46	-12.52-10.85	-10.89-12.87	-10.67-5.38	-5.25-7.4	-7.91-6.92	-14.34-14.21	-9.74-13.45	-19.07-15.23	-14.68-10.06	-17.69-15.08	-17.78-16.03	-15.2-15.18	-13.47-19.09	-17.43-12.51	-16.04-13.4		
Θ(135°)	-11.07-9.21	-13.24-11.67	-13.14-18.37	-15.66-17.97	-14.17-11.44	-13.44-17.96	-15.12-17.52	-9.74-15.22	-10.29-10.55	-17.88-9.82	-10.4-14.68	-17.91-9.08	-8.2-6.69	-11.52-14.36	-13.76-11.13	-11.46-12.42	-18.74-15.59	-17.49-12.39	-18.24-18.07	-18.2-11.59	-14.41-18.09	-13.67-18.62	-18.01-17.25	-15.97-11.93		
Θ(142.5°)	-14.1-16.42	-13.86-12.86	-17.01-9.45	-8.2-14.48	-15.9-13.93	-18.22-11.1	-13.14-16.76	-7.81-11.38	-17.56-9.32	-10.55-8.98	-10.42-18.74	-14.86-11.03	-15.59-10.33	-11.76-16.83	-7.31-11.15	-14.48-12.19	-17.44-15.74	-13.36-14.09	-18.71-17.14	-15.47-10.12	-12.3-16.95	-13.67-18.46	-19-17.7			
Θ(150°)	-14.58-18.58	-16.94-17.42	-14.77-11.18	-10.89-11.7	-7.97-10.85	-19.03-7.48	-7.75-19.2	-12.5-10.54	-13.59-18.47	-17.22-16.12	-13.1-19.14	-15.72-12.39	-17.59-11.8	-9.39-18.31	-10.69-12.98	-18.55-15.5	-13.17-19.5	-15.39-15.68	-19.13-13.14	-10.47-9.8	-11.76-14.92	-15.89-16.5	-17.75-19.18	-12.12-15.6		
Θ(157.5°)	-18.53-19.93	-17.76-19.21	-12.85-11.04	-11.3-9.06	-6.42-8.88	-16.77-10.02	-7.33-9.3	-18.43-16.99	-10.52-9.86	-11.88-13.03	-14.75-17.67	-17.94-16.35	-11.77-11.74	-18.05-17.47	-11.42-13.35	-18.51-16.91	-18.16-18.03	-19.45-18.1	-18.05-18.07	-16.89-16.99	-17.97-17.37	-15.69-14.85	-13.72-12.46	-12.66-15.01		
Θ(165°)	-13.36-14.85	-15.8-15.21	-14.26-18.84	-17.96-16.92	-12.31-13.02	-12.56-11.41	-13.66-13.72	-14.77-16.08	-15.11-15.85	-15.29-15.38	-16.89-18.76	-14.65-19.58	-7.66-7.79	-9.95-8.6	-6.78-7.59	-9.67-12.59	-17.18-19.31	-13.49-19.17	-18.18-19.08	-18.66-17.99	-14.23-11.81	-11.08-14.26	-16.18-13.15	-13.87-15.71		
Θ(172.5°)	-16.01-18.19	-19.22-17.6	-19.31-17.45	-18.04-18.53	-17.98-18.22	-17.81-18.96	-18.79-18.55	-15.8-16.75	-15.9-17.14	-18.69-18.28	-18.94-13.48	-14.44-12.59	-11.4-11.13	-10.83-11.47	-13.56-17.16	-18.24-18.32	-16.77-19	-17.91-18.77	-17.99-18.13	-18.19-18.31	-17.43-15.52	-13.88-16.3	-14.14-10.75	-10.64-12.85		
Θ(180°)	-17.59-18.86	-19.08-17.51	-16.04-15.5	-17.19-18.45	-17.71-18.06	-18.54-18.51	-15.84-14.16	-13.05-12.5	-12.41-14.3	-14.72-14.79	-15-16.75	-17.13-18.26	-15.55-17.08	-16.24-18.42	-18.36-17.9	-17.66-15.78	-14.58-17.34	-18.55-16.7	-17.5-18.97	-14.99-14.64	-14.31-14.56	-15.75-13.93	-14.34-16.66	-17.25-19.02		
Freq(Hz)	5.6GPol.	ThetaAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)		
Θ(0°)	-15.84-13.8	-12.55-10.68	-9.91-8.38	-8.18-8.38	-8.02-8.69	-9.35-9.54	-9.46-9.6	-10.84-12.68	-11.22-10.32	-11.76-12.35	-12.02-12.34	-12.74-14.62	-15.64-16.54	-17.39-18.18	-15.02-12.68	-11.95-9.72	-8.84-8.63	-7.89-7.96	-8.21-9.54	-9.76-10.77	-12.96-16.98	-18.52-16.98	-18.8-16.21	-11.44-9.48		
Θ(7.5°)	-5.36-5.49	-4.92-5.13	-6.08-8.26	-9.98-12.76	-18.55-18.57	-16.97-13.88	-11.59-10.05	-10.46-12.21	-12.58-14.07	-15.82-14.25	-11.61-8.78	-7.08-6.01	-5.77-5.21	-4.42-4.32	-4.48-5.57	-7.39-7.8	-9.28-12.28	-14.93-17.21	-18.48-18.95	-17.5-18.96	-17.12-12.99	-11.76-12.63	-11.41-9.71	-9.03-8.25		
Θ(15°)	-11.86-10.41	-9.51-8.63	-8.4-7.74	-6.76-7.8	-10.05-11.9	-14.34-13.24	-11.21-9.04	-7.57-6.08	-5.77-6.3	-6.78-7.23	-8.1-8.91	-9.32-8.75	-8-6.85	-5.08-3.61	-3-3.05	-3.68-4.45	-4.45-1.46	-4.18-3.85	-3.29-3.27	-3.55-4.31	-5.26-6.17	-7.29-8.95	-10.89-12.77	-13.83-11		
Θ(22.5°)	-3.56-1.57	-0.24-0.39	-3.3-9.78	-18.07-11.1	-11.04-12.82	-13.78-15.32	-18.18-17.66	-15.86-8.76	-6.32-5.05	-3.96-3.31	-3.19-2.35	-1.59-1.01	-0.96-1.27	-1.020-51	1.831.75	0.37-0.81	-0.88-2.33	-5.88-9.03	-7.6-5.74	-5.57-6.04	-7.45-8.74	-8.68-7.47	-5.57-8.74	-4.95-6.79		
Θ(30°)	-6.67-4.1	-6.93-2.23	-0.9-5.13																							



Radiated Composite Gain Data Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(22.5°)	-12.85/-11.92	-13.28/-18.69	-9.73/-6.85	-8.62/-17.73	-8.09/-2.98	-1.66/-3.3	-7.82/-14.62	-12.23/-11.58	-11.71/-11.41	-9.76/-7.89	-6.7/-6.86	-7.74/-10.2	-10.54/-8.46	-9.59/-14.7	-11.14/-8.46	-9.66/-10.81	-9.12/-6.38	-5.09/-5.25	-5.64/-6.76	-11.05/-12.39	-10.63/-8.95	-9.05/-8.69	-9.6/-12.84	-14.44/-11.99
Θ(30°)	-18.14/-12.76	-9.27/-11.17	-13.99/-9.03	-7.02/-8.61	-6.38/-3.91	-5.48/-9.85	-9.15/-10.22	-14.76/-12.29	-11.44/-17.96	-12.09/-7.91	-5.82/-4.76	-5.45/-8.49	-19.41/-11.5	-5.11/-6.82	-13.27/-11.97	-10.27/-15.9	-4.26/-3.35	-9.43/-10.3	-10.07/-10.79	-12.59/-12.88	-10.3/-11.12	-14.52/-11.68	-7.53/-6.34	-9.64/-16.81
Θ(35°)	-17.73/-18.15	-17.99/-12.13	-10.01/-17.64	-11.04/-13.14	-17.62/-8.25	-5.73/-4.2	-3.01/-5.59	-15.2/-9.16	-10.44/-13.41	-10.99/-6.76	-4.77/-5.83	-9.26/-6.92	-8.99/-17.8	-6.61/-5.73	-11.16/-10.23	-5.92/-3.07	-4.7/-6.96	-18.38/-18.14	-10.92/-7.15	-7.62/-12.65	-13.59/-6.02	-9.02/-11.99	-14.18/-12.22	-17.34/-18.72
Θ(45°)	-12.63/-10.82	-9.13/-13.68	-9.09/-18.72	-9.54/-6.63	-8.3/-18.66	-12.75/-7.54	-5.93/-6.42	-9.25/-8.85	-12.2/-5.99	-5.29/-7.41	-5.6/-4.46	-7.61/-18.06	-10.22/-6.51	-15.99/-9.07	-9.75/-16.17	-7.2/-5.13	-7.73/-11.2	-14.37/-18.88	-16.21/-9.37	-6.39/-8.96	-18.32/-16.55	-8.63/-9.07	-14.53/-15.84	-9.44/-6.73
Θ(52.5°)	-12.93/-10.12	-7.53/-16.26	-10.24/-17.83	-10.75/-1.75	-6.26/-9.15	-13.49/-14.64	-17.17/-14.64	-11.31/-11.37	-8.5/-3.62	-7.96/-18.41	-17.85/-12.72	-9.62/-9.24	-9.61/-3.03	-10.77/-10.85	-14.32/-7.88	-6.35/-7.84	-9.9/-10.31	-8.51/-12.06	-17.22/-14.11	-7.85/-9.79	-14.9/-18.91	-13.52/-15.84	-12.73/-12.77	-7.53/-8.34
Θ(60°)	-18.15/-14.76	-12.65/-13.99	-10.25/-12.13	-10.64/-14.12	-10.94/-12	-12.09/-15.69	-17.72/-15.15	-17.33/-19.39	-10.94/-12	-12.57/-6.07	-13.28/-17.63	-13.14/-10.95	-12.58/-5.99	-9.29/-6.87	-8.78/-13.96	-8.93/-13.43	-10.37/-12.98	-18.19/-16.36	-11.21/-10.95	-12.85/-14.97	-10.21/-18.95	-11.73/-11.38	-12.66/-10.98	
Θ(67.5°)	-17.32/-17.52	-11.55/-18.48	-15.21/-11.93	-12.31/-18.62	-19.18/-18.88	-13.07/-12.55	-11.4/-8.84	-18.18/-13.67	-17.33/-10.62	-17.47/-16.63	-13.02/-5.06	-8.37/-4	-8.24/-11.42	-13.52/-14.79	-17.65/-13.37	-8.46/-5.7	-9.35/-11.55	-9.83/-11.39	-17.47/-11.93	-14.65/-13.26	-19.34/-13.11	-8.94/-18.77	-11.28/-9.85	-18.34/-16.8
Θ(75°)	-17.14/-18.15	-12.94/-18.71	-18.39/-12.78	-14.77/-19	-17.45/-19.09	-15.42/-11.11	-11.04/-8.99	-19.12/-9.84	-10.02/-13.19	-17.14/-17.45	-6.88/-7.92	-4.84/-10.8	-9.83/-14.97	-18.61/-19.3	-11.32/-19.41	-10.08/-5.04	-9.41/-11.64	-10.48/-10.81	-18.66/-12.87	-18.66/-17.29	-18.61/-17.13	-11.1/-17.2	-14.31/-13.14	-15.36/-19.1
Θ(82.5°)	-16.52/-18.5	-11.56/-18.64	-18.59/-14.38	-18.66/-18.4	-18.77/-18.19	-12.76/-12.08	-11.32/-8.07	-18.45/-8.76	-10.8/-11.86	-13.63/-16.76	-6.4/-3.93	-12.78/-14.25	-18.55/-17.67	-17.94/-10.41	-6.26/-16.14	-10.29/-4.74	-12.53/-15.07	-17.5/-10.18	-13.8/-10.17	-18.08/-14.65	-18.36/-14.9	-14.29/-16.19	-17.99/-15.02	-12.77/-18.36
Θ(90°)	-17.05/-18.49	-15.18/-18.05	-17.7/-16.67	-18.21/-18.84	-17.87/-14.43	-14.25/-13.41	-12.45/-9.35	-18.19/-8.56	-14.16/-11.53	-16.46/-18.63	-4.26/-7.44	-7.24/-18.55	-19.17/-12.99	-11.94/-8.75	-5.46/-14.64	-11.56/-7.76	-19.18/-15.77	-17.91/-16.13	-19.22/-16.42	-13.52/-19.04	-11/-12.72	-18.45/-18.31	-16.16/-18.54	-11.12/-14.93
Θ(97.5°)	-13.73/-18.57	-14.65/-18.83	-17.14/-17.86	-18.31/-18.26	-15.12/-13.76	-13.29/-14.99	-13.18/-14.17	-16/-12.21	-17.78/-11.05	-19.32/-10.76	-6.69/-13.17	-15.05/-17.22	-9.25/-7.42	-8.72/-9.67	-6.8/-14.04	-11.18/-7.27	-18.49/-16.51	-17.6/-13.98	-13.42/-12.71	-13.5/-18.22	-10.75/-12.93	-19.03/-16.45	-17.82/-18.83	-12.76/-13.77
Θ(105°)	-14.89/-13.67	-11.89/-18.88	-18.64/-18.53	-17.28/-18.63	-18.41/-18.68	-11.37/-14.82	-14.51/-16.85	-17.13/-13.95	-17.79/-14.58	-7.69/-13.87	-14.46/-11.87	-9.49/-4.45	-1.64/-6.35	-4.74/-13.05	-8.96/-8.99	-18.89/-15.89	-17.46/-16.27	-14.24/-12.79	-14.85/-17.3	-10.62/-14.69	-18.91/-18.93	-19.77/-19.13	-18.56/-16.54	-11.78/-11.93
Θ(112.5°)	-15.69/-13.66	-14.71/-15.03	-17.51/-19.08	-16.22/-19.01	-16.6/-17.43	-11.66/-17.32	-17.7/-17.78	-15.81/-18.7	-17.96/-19.04	-14.6/-18.11	-18.64/-12.5	-6.31/-8.29	-4.44/-4.18	-5.81/-6.06	-9.66/-10.69	-6.39/-11.06	-17.79/-19.12	-18.46/-18.5	-16.35/-16.18	-15.46/-18.75	-13.68/-18.3	-18.21/-17.98	-18.7/-18.64	-12.36/-11.07
Θ(120°)	-13.88/-13.38	-17.54/-12.66	-18.58/-17.89	-19.01/-17.67	-17.6/-18.59	-19.27/-16.22	-16.85/-17.14	-19.23/-17.74	-18.75/-17.76	-11.97/-10.27	-14.78/-6.85	-3.24/-5.84	-7.76/-4.89	-9.76/-10.91	-7.42/-12.01	-17.5/-16.76	-17.38/-18.2	-17.93/-18.05	-19.16/-19.18	-12.9/-14.24	-17.86/-17.84	-16.11/-15.84	-17.93/-16.04	
Θ(127.5°)	-18.78/-13.7	-18.39/-10.77	-17.84/-17.76	-17.77/-17.27	-18.73/-16.48	-16.54/-18.81	-18.43/-15.21	-18.26/-17.46	-18.91/-18.7	-19.3/-19.6	-16.72/-7.22	-17.23/-9.57	-7.03/-8.43	-9.65/-16.92	-10.89/-7.45	-11.43/-18.97	-15.99/-18.44	-18.02/-18.91	-18.99/-16.83	-17.67/-19.13	-18.36/-14.66	-17.58/-18.38	-17.54/-17.74	-13.25/-17.52
Θ(135°)	-12.74/-18.7	-15.59/-14.11	-13.46/-19.11	-17.84/-16.44	-18.05/-16.33	-18.04/-18.8	-18.9/-18	-18.45/-16.5	-18.32/-14.32	-17.83/-18.39	-17.77/-18.14	-14.55/-13.68	-8.28/-8.93	-18.38/-13.49	-16.17/-9.48	-14.15/-17.75	-18.31/-18.52	-18.97/-17	-17.47/-15.96	-17.87/-17.44	-18.76/-18.67	-16.91/-17.82	-15.18/-17.81	-16.17/-18.46
Θ(142.5°)	-14.23/-14.5	-18.16/-11.41	-8.82/-16.61	-17.97/-18.97	-18.62/-17.94	-11.5/-10.48	-18.63/-17.91	-13.57/-13.03	-18.04/-13.98	-13.44/-16.46	-9.19/-10.16	-19.1/-14.98	-8.87/-16.25	-10.1/-11.38	-11.19/-12.01	-13.5/-16.65	-17.2/-14.92	-16.98/-18.44	-18.36/-19.1	-18.62/-14.25	-14.47/-15.15	-17.67/-17.81	-17.8/-14.13	-16.2/-15.73
Θ(150°)	-14.14/-13.72	-17.73/-17.47	-17.34/-14.48	-15.66/-17.84	-13.76/-12.71	-19.07/-16.15	-11.83/-15.61	-18.28/-13.58	-14.8/-15.57	-10.12/-9.16	-17.62/-15.13	-10.86/-14.73	-17.95/-12.31	-13.62/-17.43	-17.79/-18	-12.85/-16.66	-18.92/-19.26	-12.68/-13.94	-18.41/-18.31	-17.49/-12.53	-12.02/-13.54	-15.91/-18.45	-18.53/-12.73	-13.55/-16.34
Θ(157.5°)	-18.74/-17.2	-14.68/-14.19	-14.65/-11.98	-10.56/-9.58	-8.92/-10.49	-16.01/-18.7	-14.83/-15.85	-15.43/-13.01	-15.22/-16.7	-9.61/-9.14	-11.68/-14.82	-11.99/-11.94	-13.03/-16.47	-19.12/-17.45	-16.58/-17.48	-14.62/-12.84	-13.83/-14.83	-14.3/-15.93	-17.65/-17.93	-15.29/-12.72	-13.52/-16.21	-17.51/-16.73	-16.64/-17.8	-19.01/-17.2
Θ(165°)	-8.86/-8.78	-10.53/-14.59	-17.91/-18.5	-18.61/-17.59	-16.46/-13.37	-18.2/-15.87	-12.72/-11.4	-10.89/-12.7	-16.43/-14.95	-12.29/-11.77	-12.16/-15.43	-18.92/-13.02	-10.03/-11.6	-13.27/-6.09	-5.44/-7.45	-11.01/-14.54	-16.61/-18.42	-18.86/-13.68	-18.53/-17.81	-18.78/-17.32	-17.96/-18.46	-16.62/-14.61	-16.24/-17.95	-14.88/-12.57
Θ(172.5°)	-15.4/-17.65	-18.79/-16.76	-18.93/-19.25	-18.96/-18.8	-18.16/-18.29	-17.82/-18.54	-15.09/-11.2	-10.46/-10.32	-9.91/-9.73	-11.24/-13.41	-15.77/-17.57	-19.59/-15.75	-17.18/-16.34	-13.27/-12.73	-13.17/-13.88	-14.55/-13.06	-11.35/-11.27	-12.2/-12.99	-15.24/-17.87	-18.73/-18.58	-18.59/-14.46	-12.45/-13.11	-16.37/-15.09	-14.88/-17.1
Θ(180°)	-14.94/-12.75	-11.81/-11.92	-12.24/-14.41	-17.57/-18.39	-18.81/-17.86	-16.04/-16.06	-15.24/-13.34	-12.46/-11.58	-11.33/-10.43	-10.17/-10.77	-10.52/-10.52	-12.05/-14.5	-17.3/-17.87	-18.85/-18.28	-18.23/-19.35	-14.66/-16.62	-17.21/-16.91	-17/-14.79	-19.05/-19.39	-18.28/-18.08	-18.44/-19.18	-19.01/-19.07	-18.22/-17.54	
Freq(Hz)	5.885GPol.	ThetaAnt.1	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-5.56/-5.49	-6.97/-9.1	-9.22/-10.9	-12.21/-15.13	-19.01/-17.87	-16.18/-13.04	-11.54/-10.41	-8.06/-6.25	-5.71/-5.43	-4.71/-4.27	-4.12/-4.23	-4.24/-4.24	-4.44/-5.02	-5.63/-6.07	-8.08/-8.99	-11.34/-14.43	-16.4/-16.67	-14.35/-12.12	-9.95/-8.78	-8.71/-7.23	-6.22/-5.84	-5.87/-6.26	-6.58/-6.38	-6.11/-6.48
Θ(7.5°)	-7.56/-4.73	-9.19/-11.75	-15.73/-17.37	-18.96/-18.37	-12.39/-11.01	-9.48/-9.87	-8.02/-7.09	-6.67/-7.11	-6.85/-3.75	-7.46/-1.62	-7.9/-8.94	-11.63/-15.32	-15.58/-17.67	-18.91/-18.75	-19.12/-16.63	-16.83/-11.47	-10.47/-8.91	-7.13/-6.41	-6.31/-5.12	-4.12/-2.43	-4.6/-5	-4.69/-4.29	-4.67/-4.73	-4.95/-5.02
Θ(15°)	-18.59/-18.06	-17.95/-18.22	-12.68/-8.39	-6.52/-4.92	-5.52/-9.18	-17.34/-19.25	-4.62/-5.19	-4.24/-3.48	-4.37/-5.22	-7.41/-10.82	-14.51/-16.31	-15.86/-11.95	-9.68/-8.3	-7.72/-7.45	-8.2/-6.75	-5.35/-4.61	-4.13/-4.42	-5.02/-5.16	-4.54/-3.63	-3.71/-4.09	-4.49/-4.74	-5.27/-6.21	-8.06/-10.24	-15.9/-18.41
Θ(22.5°)	-10.38/-9.48	-8.51/-6.92	-4.91/-4.03	-4.19/-5.18	-7.14/-12.98	-15.13/-7.6	-3.81/-1.47	0.11/-0.98	0.99/-0.24	-1.61/-3.53	-5.28/-4.74	-2.5/-7.01	-0.25/-0.14	0.23/-0.13	-1.4/-2.49	-3.26/-3.89	-3.88/-3.34	-1.99/-0.62	1.05/-2.16	2.31/-1.52	-0.19/-2.86	-4.10/-8.89	-19.13/-16.8	-11.32/-9.75
Θ(30°)	-12.1/-18.63	-8.85/-3.78	-2.33/-5.19	-1.23/-1.63	-3.43/-1.74	-15.31/-14.55	-4.99/-1.85	-1.32/-2.47	-4.85/-6.62	-6.59/-7.86	-11.77/-14.34	-6.22/-2.32	-2.05/-2.63	-0.66/-1.34	1.62/-1.66	0.14/-2.27	-2.14/-1.71	-2.12/-2.09	-1.01/-0.21	1.10/-37	-1.66/-5.46	-10.3/-15.5	-17.35/-17.22	-17.77/-18.44
Θ(37.5°)	0.12/-3.13	-8.62/-0.2	1.27/-2.69	-3.14/-1.54	-5.15/-18.96	-3.07/-0.19	0.54/-1.32	1.02/-0.5	-1.02/-1.24	-1.43/-1.9	-1.57/-1.78	-1.34/-0.63	-0.54/-3.55	-3.95/-0.97	3.61/-8.66	2.28/-2.78	-8.36/-6.6	-1.92/-0.49	-0.03/-0.11	-1.96/-8.19	-17.86/-10.57	-6.08/-3.49	-3.28/-5.32	-5.16/-3.05
Θ(45°)	0.12/-0.54	-4.13/-0.13	2.34/-1.05	-2.45/-0.5	-2.94/-4.24	1.29/-0.91	1.51/-0.51	0.91/-0.56	1.08/-0.79	0.58/-1.42	1.38/-0.78	2.33/-0.2	1.21/-0.65	-0.58/-1.68	2.07/-4.12	0.11/-4.82	-12.02/-2.12	1.21/-86	2.912/-73	Φ(81°)	-7.52/-2.61	-8.28/-4.14	-1.53/-0.36	-3.48/-2.09
Θ(52.5°)	-3.89/-2.76	-3.35/-3.25	-1.45/-1.12	-2.11/-0.15	-2.01/-0.78	3.02/-2.88	3.96/-8.85	1.79/-2.7	3.79/-0.65	4.53/-8.7	1.18/-3.17	1.16/-1.92	0.07/-0.46	1.45/-2.29	1.14/-1.6	-2.65/-2.53	-5.73/-1.8	0.20/-7.5	1.15/-14	-1.98/-5.55	0.22/-1.5	-0.37/-3.29	-6.72/-1.56	-1.74/-4.09
Θ(60°)	-2.98/-3.55	-3.06/-0.6	-11.31/-3.33	-0.30/-1	-2.56/-0.27	1.37/-2.14	1.49/-1.18	1.21/-2.58	2.29/-1.74	2.45/-0.24	0.79/-0.36	1.51/-0.51	-0.13/-2.23	-2.33/-0.69	-1.59/-1.3	-2.82/-0.86	-5.07/-8.1	1.11/-2.12	1.19/-0.58	-2.02/-2.79	-1.34/-0.11	-1.33/-1.09	-3.91/-4.72	-1.89/-3.11
Θ(67.5°)	-1.11/-1.75</																							



Radiated Composite Gain Data Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ (75°)	-16.22/-12.9	-15.02/-16.22	-18.91/-11.36	-19.17/-18.15	-9.99/-11.23	-6.84/-10.79	-8.45/-14.43	-19.13/-13.04	-14.28/-10.1	-12.22/-6.97	-9.01/-8.23	-15.25/-10.07	-17.6/-18.85	-13.76/-14.36	-15.85/-11.81	-4.11/-4.7	-6.45/-4.94	-11.74/-12	-18.38/-12.22	-9.18/-17.05	-18.51/-11.03	-13.55/-12.19	-12.1/-11.82	-10.74/-6.59
Θ (82.5°)	-17.44/-10.63	-10.01/-18.31	-18.43/-12.11	-17.73/-14.28	-12.07/-10.8	-7.57/-14	-8.37/-9.86	-16.78/-12.46	-11.56/-17.73	-8.99/-5.28	-13.51/-8.38	-14.34/-19.21	-7.07/-6	-10.67/-11.88	-10.4/-11.82	-7.51/-5.9	-5.54/-5.13	-8.7/-13.73	-18.47/-12.47	-12.74/-11.88	-16.03/-9.57	-12.27/-11.52	-12.7/-14.54	-15.05/-7.06
Θ (90°)	-16.2/-14.8	-10.79/-18.49	-18.1/-13.98	-18.93/-17.85	-15.93/-8.18	-10.49/-17.51	-7.22/-11.14	-16.68/-9.74	-11.6/-16.46	-9.18/-8.4	-14.76/-8.2	-17.99/-9.32	-10.2/-13.27	-3.09/-8.99	-8.88/-18.75	-6.45/-8.62	-6.72/-6.29	-9.41/-12.97	-11.85/-16.07	-13.07/-12.1	-13.8/-9.59	-11.77/-16.85	-12.23/-13.12	-10.17/-8.22
Θ (97.5°)	-13.32/-19.01	-12.63/-18.58	-19.32/-14.01	-18.28/-18.25	-18.56/-9.3	-9.78/-18.07	-10.15/-9.92	-17.87/-7.79	-12.17/-9.11	-10.27/-12.8	-12.76/-10.76	-16.25/-8.49	-5.38/-4.34	-7.58/-7.52	-9.47/-17.86	-8.8/-8.64	-8.45/-9.51	-10.88/-14.5	-16.13/-14.59	-15.51/-10.92	-8.53/-9.83	-14.72/-18.88	-11.49/-12.27	-13.07/-10.56
Θ (105°)	-10.6/-17.71	-16.67/-17.67	-18/-16.42	-16.29/-18.91	-18.86/-13.21	-14.12/-18.77	-14.77/-13.18	-17.14/-10.5	-19.16/-10.82	-14.45/-18.7	-17.27/-17.93	-7.56/-7.32	-8.47/-5.64	-2.67/-6.92	-9.54/-14.28	-7.15/-10.75	-10.59/-8.47	-9.24/-11.57	-14.54/-12.13	-12.38/-15.13	-9.49/-8.57	-11.38/-16.76	-10.07/-17.73	-18.19/-11.39
Θ (112.5°)	-14.94/-18.77	-15.1/-14.94	-18.32/-19.09	-16.71/-17.26	-14.24/-12.02	-17.92/-17.52	-15.85/-13.83	-11.44/-16.49	-17.8/-14.83	-18.21/-14.17	-15.21/-8.02	-7.78/-9.48	-3.42/-2.38	-9.4/-10.13	-13.62/-12.15	-8.69/-7.94	-14.81/-11.44	-13.08/-10.29	-16.7/-11.55	-9.48/-16.87	-7.93/-12.03	-17.65/-19.1	-12.32/-12.39	-14.9/-10.03
Θ (120°)	-15.35/-18.74	-8.7/-15	-10.72/-18.44	-12.05/-13.43	-12.64/-15	-19.05/-18.21	-17.84/-18.67	-18.15/-17.86	-19.36/-14.47	-18.27/-13.28	-18.03/-9.61	-8.43/-6.01	-10.58/-3.6	-11.71/-14.32	-11.05/-9.05	-10.74/-10.29	-15.9/-16.2	-15.71/-11.15	-16/-10.25	-9.75/-14.63	-9.27/-7.3	-19.15/-19.24	-12.31/-15.29	-11.45/-13.87
Θ (127.5°)	-13.05/-18.09	-10.71/-16.62	-10.72/-17.95	-16.72/-12.82	-18.22/-11.01	-18.13/-19.31	-19.38/-18.23	-12.71/-14.4	-18.58/-19.14	-11.61/-18.72	-13.68/-10.47	-9.94/-10.64	-8.23/-12.52	-15.1/-7.43	-16.63/-13.76	-6.25/-14.06	-16.91/-11.33	-14.32/-15.58	-9.9/-11.43	-17.37/-13.76	-12.91/-11.63	-18.94/-19.35	-10.37/-18.76	-13.9/-12.57
Θ (135°)	-10.21/-18.7	-13.19/-14.94	-15.08/-12.15	-17.36/-9.85	-12.41/-17.07	-10.37/-11.17	-17.72/-18.36	-15.03/-12.14	-16.77/-14.67	-17.22/-12.8	-11.88/-19.18	-17.72/-18.17	-11.78/-12.94	-15.52/-12.44	-8.85/-14.91	-18.73/-9.72	-10.37/-15.15	-11.17/-17.57	-10.37/-15.15	-18.65/-17.87	-18.63/-10.72	-11.31/-16.43	-19.21/-13.01	
Θ (142.5°)	-8.38/-10.5	-16.79/-14.78	-13.76/-11.49	-14.65/-12.29	-13.69/-18.12	-14.91/-11.97	-9.86/-16.87	-17.4/-17.11	-9.72/-6.82	-8.91/-18.69	-9.57/-16.28	-10.58/-12.76	-18.64/-9.86	-9.41/-14.98	-14.93/-10.05	-18.76/-18.47	-14.5/-9.63	-11.04/-17.72	-17.87/-19.18	-16.11/-18.92	-16.07/-18.2	-12.38/-14.62	-15.19/-18.44	-18.75/-15.15
Θ (150°)	-10.22/-10.39	-9.32/-9.62	-15.55/-18.81	-16.32/-12.99	-17.43/-11	-11.49/-13.42	-12.1/-18.23	-12.96/-11.08	-16.76/-12.09	-11.37/-16.2	-17.79/-12.1	-13.83/-14.3	-12.49/-14.4	-17.01/-9.98	-18.27/-10.03	-10.64/-13.94	-14.3/-18.93	-18.39/-18.84	-14.43/-16.57	-19.15/-13.86	-14.84/-10.62	-15.37/-16.83	-18.56/-17.34	-17.63/-11.84
Θ (157.5°)	-13.15/-16.39	-17.96/-13.75	-13.69/-19	-18.21/-13.86	-18.42/-13.28	-8.31/-10.15	-15.36/-18.27	-9.58/-7.61	-8.76/-15.68	-9.67/-6.2	-15.91/-18.2	-14.22/-13.77	-19.25/-10.03	-8.84/-13.48	-9.61/-6.13	-6.8/-7.84	-8.15/-11.7	-18.44/-12.77	-10.32/-13.87	-17.04/-12.53	-13.11/-13.19	-13.35/-16.3	-18.01/-19.2	-12.69/-10.63
Θ (165°)	-16.62/-15.6	-12.84/-11.23	-12.28/-14.95	-18.63/-18.12	-17.44/-13.04	-9.87/-10.97	-14.59/-17.87	-15.11/-13.36	-16.59/-18.19	-18.34/-16.83	-18.39/-18.04	-15.29/-12.72	-13.18/-10.31	-7.04/-9.63	-9.94/-7.48	-7.51/-9.67	-12.17/-14.72	-14.99/-11.57	-10.6/-12.25	-15.81/-13.49	-10.51/-9.78	-10.73/-11.88	-12.74/-13.14	-13.79/-13.92
Θ (172.5°)	-14.61/-10.43	-13.08/-13.39	-12.58/-14.17	-14.06/-12.01	-9.44/-8.9	-10.16/-13.1	-18.08/-18.62	-17.84/-19.34	-17.15/-15.34	-16.36/-17.09	-17.76/-18.86	-19.02/-14.55	-13.15/-11.89	-10.63/-9.87	-8.86/-10.02	-10.23/-10.99	-12.21/-13.65	-14.24/-16.51	-19.23/-19.04	-17.93/-16.94	-14.32/-13.28	-14.08/-16.21	-17.02/-19.31	-17.94/-18.6
Θ (180°)	-17.18/-19.28	-14.41/-13.09	-12.56/-13.13	-13.89/-15.33	-15.26/-17.12	-18.76/-17.99	-18.43/-17.61	-18.24/-18.27	-18.76/-17.49	-18.51/-16.49	-15.56/-16.06	-19.72/-18.74	-18.38/-18.91	-19.11/-17.89	-15.15/-14.36	-14.53/-13.65	-12.58/-11.95	-11.89/-12.56	-11.74/-13.51	-13.28/-13.07	-14.04/-15.65	-15.58/-17.49	-19.08/-18.45	-18.01/-19.21
Freq(Hz)	6.475GPol.	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°)	-6.72/-2.99	-7.12/-8.34	-9.32/-11.14	-12.9/-13.63	-16.19/-17.67	-18.47/-17.71	-18.71/-16.56	-18.22/-18.71	-15.53/-13.91	-12.57/-11.66	-11.33/-13.04	-9.62/-9.71	-10.21/-10.26	-11.34/-11.18	-13.3/-15.69	-16.94/-18.67	-18.69/-18.07	-17.43/-13.96	-10.35/-8.63	-7.77/-6.8	-5.12/-4.01	-3.55/-3.31	-3.25/-3.04	-2.98/-3.5
Θ (7.5°)	-8.64/-10.52	-14.22/-17.4	-17.86/-16.09	-11.7/-9.29	-17.79/-15.67	-10.75/-12.35	-11.71/-9.54	-7.22/-5.76	-4.83/-3.49	-2.66/-2.32	-1.64/-1.46	-2.1/-2.39	-2.61/-4.35	-4.25/-9.52	-7.84/-8.73	-9.8/-10.02	-10.22/-9.92	-8.79/-8.46	-7.52/-8.48	-10.04/-11.62	-11.98/-12.2	-12.83/-10.53	-8.17/-8.27	-10.18/-12.18
Θ (15°)	-7.54/-6.11	-5.77/-6.6	-7.4/-8.79	-9.63/-12.72	-15.6/-15.68	-13.99/-11.2	-9.26/-9.06	-9.33/-10.23	-11.16/-11.71	-11.24/-10.06	-8.38/-8.59	-17.99/-10.64	-11/-11.34	-13.33/-16.01	-14.62/-13.29	-15.32/-18.43	-18.08/-13.66	-10.96/-10.68	-10.96/-10.72	-10.9/-11.94	-12.59/-14.06	-16.74/-18.31	-18.64/-13.61	-9.21/-6.97
Θ (22.5°)	-15.83/-9.71	-7.9/-8.87	-13.58/-16.95	-1.56/-6.32	-6.64/-5.9	-8.1/-15.29	-15.98/-9.27	-5.29/-2.5	-1.21/-1.13	-1.58/-2.64	-3.17/-2.24	-1.93/-1.91	-3.02/-5.27	-8.06/-11.83	-17.79/-17.3	-8.01/-3.5	-1.41/-1.54	-2.54/-3.21	-2.93/-3.49	-4.42/-7.51	-12.69/-18.11	-11.22/-7.59	-7.51/-9.95	-17.97/-13.29
Θ (30°)	-8.75/-17.72	-14.59/-10.32	-7.59/-4.39	-3.57/-6.89	-14.14/-18.14	-18.03/-11.53	-6.24/-2.85	-0.11/-0.42	-1.29/-2.21	-1.79/-1.93	-3.8/-4.84	-7.38/-2.52	-1.29/-4.47	-8.5/-8.15	-7.68/-3.35	-2.52/-2.56	-2.49/-3.24	-3/-3.68	-7.44/-13.77	-15.35/-14.77	-10.03/-6.47	-5.92/-6.17	-7.01/-10.98	-12.6/-10.5
Θ (37.5°)	-1.44/-3.56	-9.13/-4.83	-6.75/-8.55	-6.57/-5.65	-2.38/-2.6	-6.08/-10.62	-5.98/-5.02	-0.74/-0.54	0.27/-0.16	-0.58/1	2.56/0.51	1.93/-3.45	-0.62/-1.6	0.06/-3.15	-8.2/-4.27	-1.5/-0.43	-1.01/-0.33	-1.39/-3.27	-5.38/-6.06	-5.04/-6.05	-7.33/-6.2	-7.09/-15.26	-9.65/-3.32	
Θ (45°)	-2.87/-2.4	-2.24/-0.32	-1.36/-9.44	0.422/-6.4	1.04/-2.68	-7.06/-5.24	-6.08/-2.49	0.84/-1.3	0.45/-0.03	-1.99/-2.59	1.18/-2.72	1.522/-7.1	3.180/-67	0.823/-92	1.48/-5.01	-4.6/-3.63	-4.53/-3.92	-6.84/-6.43	-4.76/-12.41	-14.42/-4.87	-2.38/-1.51	-2.05/-4.4	-3.51/-4.83	-9.97/-5.05
Θ (52.5°)	-0.37/-2.27	-3.12/-0.15	1.7/-3.69	0.612/88	0.421/-48	0.41/-0.72	-3.53/0.8	1.68/-0.71	0.471/-0.4	3.084/-32	3.75/3.4	3.448/0.5	14/-72	2.20/-68	-1.71/-1.75	-3.15/-2.62	-3.63/-1.72	-1.19/-0.2	-3.97/-4.01	-1.7/-3.36	-6.89/-11.51	-8.97/-8.9	-8.73/-5.18	-2.39/-2.16
Θ (60°)	-0.13/-1.19	-5.2/-4.45	0.74/-0.31	-1.99/-2	1.723/-0.4	0.73/-0.69	-1.64/-0.08	1.06/-0.23	3.22/-12	1.553/-39	2.1/43	0.883/-72	0.660/-96	4.07/-3.11	-3.1/-0.68	-2.76/-4.8	0.321/-46	2.280/-77	-3.73/-2.39	-1.03/-1.65	-4.89/-0.92	-16.8/-4.28	-2.8/-5.53	-3.81/-1.77
Θ (67.5°)	-2.91/-1.56	-7.5/-4.21	-4.25/-1.02	-5.170/-97	2.260/-57	-0.96/-1.24	-1.78/-2.3	1.060/-89	1.791/-72	-0.48/-5.42	0.974/-33	0.961/-91	-5.96/1.84	0.71/-2.03	-5.77/-0.06	-3.37/-0.81	0.62/-0.55	1.52/-3.57	-4.77/-6.77	-1.09/-0.97	-5.35/-7.76	-15.81/-4.36	-2.24/-5.01	-4.4/-5.13
Θ (75°)	-4.23/-1.38	-7.39/-2.78	-18.49/-8.47	-7.61/-0.66	1.02/-3.35	-1/-2.62	-5.88/-7.33	-0.71/0.53	0.341/-28	2.70/-88	4.890/-83	-2.44/-0.98	-0.450/-39	-3.47/-0.19	-1.35/-0.52	2.1/-1.68	-1.64/-5.01	-0.13/-2.57	-10.28/-8.89	-18.25/-9.49	-5.35/-4.91	-2.99/-6.4		
Θ (82.5°)	-4.43/-4.36	-7.83/-2.38	-14.42/-8.74	-11.23/-2.17	-0.48/-7.66	-2.49/-4.87	-7.49/-8.41	-3.21/-0.74	-10.73/-0.36	2.59/-2.48	5.026/-48	-2.58/-0.53	-4.78/-1.29	-4.13/-0.37	-1.2/-1.4	-3.19/-0.19	-6.650/-29	1.27/-0.71	-0.7/-10.06	-18.21/-12.28	-17.67/-17.72	-9.31/-7.55	-3.06/-4.22	
Θ (90°)	-6.12/-7.26	-9.53/-2.77	-9.94/-11.27	-13.23/-9.95	-4.38/-11.06	-3.53/-6.11	-8.24/-12.92	-5.94/-0.64	-1.64/-2.57	1.20/-89	2.45/-49	2.56/-11.7	-2.54/-2.65	-1.26/-5.38	-2/-0.48	-3.92/-3.56	-15.13/-0.61	-1.05/-0.92	-2.39/-2.74	-4.18/-14.94	-11.06/-15.54	-18.9/-18.04	-12.19/-8.23	-4.35/-3.87
Θ (97.5°)	-9.26/-7.19	-10.26/-3.03	-8.05/-14.5	-18.28/-6.34	-7.59/-11.54	-5.67/-8.48	-10.04/-12.7	-9/-2.03	-4.27/-5.92	-2.18/-1.05	-0.08/-2.73	-0.15/-3.25	-4.51/-0.89	-5.16/-5.3	-9.58/-4.76	-11.85/-7.86	-9.35/-2.03	-2.72/-2.69	-6.53/-6	-6.58/-11.22	-10.1/-18.34	-13.94/-16.33	-12.22/-12.57	-4.92/-3.76
Θ (105°)	-8.11/-7.89	-10.35/-4.54	-7.54/-18.9	-1.68/-9.54	-14.4/-11.94	-5.86/-10.22	-16.87/-15.46	-11.77/-9.92	-6.13/-4.07	-1.11/-0.8	0.17/-9.48	-4.79/-3.61	-7.29/-3.23	-6.88/-7.81	-11.96/-7.29	-6.94/-4.29	-2.1/-3.66	-5.39/-7.56	-3.26/-11.51	-11.14/-12.81	-16.38/-17.7	-11.14/-12.81	-8.22/-9.91	
Θ (112.5°)	-7.65/-7.01	-9.6/-7.45	-13.04/-16.02	-18.33/-16.48	-18.2/-15.74	-9.11/-7.67	-19.11/-16.04	-17.39/-11.54	-6.27/-8.22	-5.16/-2.16	-0.93/-1.76	-4.12/-9.39	-9.33/-7.65	-17.6/-4.72	-13.2/-12.33	-18.93/-9.34	-8.94/-4.74	-4.71/-8.21	-11.72/-7.67	-2.88/-14.79	-14.28/-12.8	-18.75/-16.56	-8.26/-14.84	-14.24/-4.3
Θ (120°)	-9.93/-12.7	-18.95/-15.4	-14.93/-13.42	-18.31/-19.18	-14.08/-15.31	-9.96/-7.89	-18.28/-16.18	-11.2/-7.95	-9.99/-15.57	-12.5/-8.48	-6.58/-5.44	-6.29/-15.67	-7.11/-14.25	-10.49/-15.71										



Radiated Composite Gain Data_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(112.5°)	-11.04/-18.47	-11.13/-16.17	-17.86/-18.89	-18.25/-11.65	-9.58/-15.75	-18.5/-17.22	-18.34/-18.61	-17.28/-15.65	-15.92/-11.68	-17.94/-9.52	-12.5/-8.87	-9.89/-6.63	-10.17/-4.19	-6.51/-13.93	-18.44/-16.97	-12.49/-11.76	-18.7/-16.14	-12.25/-12.17	-18.05/-15.47	-16.18/-18.23	-18.76/-17.7	-13.51/-14.45	-16.46/-17.56	-16.18/-11.8
Θ(120°)	-8.6/-17.48	-12.74/-17.11	-19.05/-14.58	-17.6/-16.69	-12.15/-14.95	-18.02/-17.77	-17.8/-14.61	-18.39/-19.31	-17.2/-18.84	-9.58/-8.95	-15.21/-17.02	-10.36/-14.89	-6.53/-8.51	-11.46/-18.23	-13.46/-15.53	-9.99/-11.34	-13.32/-11.95	-13.25/-12.83	-18.42/-13.7	-14.85/-18.92	-18.47/-15.06	-18.17/-10.49	-12.38/-19.25	-16.61/-13.16
Θ(127.5°)	-7.73/-11.98	-12.23/-9.4	-12.06/-15.86	-16.58/-14.87	-13.51/-10.27	-18.4/-19.29	-10.03/-16.17	-17.48/-14.98	-14.41/-17.87	-16.48/-17.61	-17.83/-18.44	-10.58/-18.23	-11.17/-13.24	-19.43/-17.52	-12.73/-8.29	-10.14/-10.38	-12.07/-10.53	-11.14/-12.78	-17.79/-11.69	-14.58/-16.69	-15.08/-18.88	-17.57/-9.11	-14.2/-14.66	-18.36/-13.27
Θ(135°)	-10.62/-9.71	-19.61/-12.76	-13.39/-12.65	-17.69/-13.72	-16.49/-18.15	-18.42/-17.28	-19.13/-17.93	-16.5/-17.78	-17.21/-13.02	-18.42/-15.41	-14.06/-15.92	-18.62/-18.12	-19.28/-19.12	-18.57/-10.43	-14.74/-12.46	-8.81/-10.97	-12.53/-15.79	-10.5/-17.44	-18.29/-18.1	-17.78/-18.63	-18.48/-17.6	-14.33/-15.72	-14.9/-13.15	-15.62/-11.81
Θ(142.5°)	-11.1/-8.93	-9.66/-14.28	-9/-17.84	-7.3/-7.24	-13.59/-6.4	-10.81/-5.14	-9.55/-11.87	-11.12/-9.9	-7.97/-15.23	-19.21/-13.57	-13.42/-12.24	-12.32/-14.26	-11.22/-17.13	-12.45/-14.93	-17.06/-16.52	-13.89/-14.25	-15.76/-17.88	-18.87/-18.17	-18.92/-18.44	-18.57/-17.75	-18.78/-16.65	-16.46/-16.14	-16.07/-17.51	-18.99/-18.49
Θ(150°)	-17.59/-15.88	-10.76/-12.6	-12.85/-11.95	-12.73/-11.56	-8.67/-8.19	-17.18/-7.9	-10.43/-8.78	-5.89/-10.9	-11.82/-8.7	-12.76/-18.62	-18.73/-18.88	-18.65/-14.33	-16.99/-12.92	-13.66/-11.02	-14.52/-18.69	-17.41/-17.78	-14.81/-14.04	-17.19/-17.46	-18.6/-17.63	-18.03/-18.6	-18.18/-19.27	-18.11/-17.12	-15.02/-16.25	-19.34/-14.9
Θ(157.5°)	-13.98/-14.11	-17.51/-14.86	-10.61/-11.25	-16.57/-12.27	-6.82/-7.52	-10.74/-5.74	-6/-18.8	-10.47/-9.55	-13/-17.92	-16.62/-13.4	-19.32/-15.71	-16.95/-18.63	-15.68/-8.1	-6.67/-8.11	-11.35/-15.99	-15.59/-16.02	-17.6/-15.49	-12.34/-10.73	-10.64/-14.35	-16.15/-12.97	-11.86/-11.29	-12.48/-14.53	-16.41/-18.21	-16.31/-17.33
Θ(165°)	-18.61/-18.39	-14.19/-12.83	-12.51/-10.9	-10.3/-9.86	-10.22/-11.61	-10.42/-10.15	-11.62/-17.55	-16.84/-14.66	-16.21/-19.01	-19.01/-18.99	-18.03/-18.99	-14.95/-14.32	-14.11/-11.92	-8.15/-6.08	-5.44/-5.86	-7.27/-8.86	-10.31/-11.57	-12.21/-10.79	-11.35/-16.02	-16.79/-13.52	-11.79/-12.84	-12.18/-12.18	-13.15/-10.2	-9.5/-11.85
Θ(172.5°)	-12.94/-14.7	-17.76/-18.96	-19.45/-16.07	-14.86/-12.69	-10.6/-10.28	-11.3/-15.15	-18.8/-18.93	-18.21/-14.34	-11.54/-11.84	-14.96/-17.03	-18.32/-18.09	-17.11/-14.58	-10.86/-9.83	-9.35/-9.92	-11.27/-12.53	-15.21/-18.06	-18.9/-19.33	-17.06/-18.87	-17.16/-17.28	-18.59/-16.44	-17.1/-16.33	-13.32/-11.67	-11.73/-11.77	-12.39/-12.86
Θ(180°)	-19.73/-16.26	-15.94/-17.99	-18.19/-18.62	-17.68/-17.67	-17.64/-17.93	-18/-18.26	-18.86/-18.28	-18.02/-18.05	-18.18/-16.15	-15.53/-15.11	-16.21/-15.99	-17.18/-18.09	-18.71/-19.25	-17.32/-10.88	-10.3/-10.43	-10.76/-11.19	-10.38/-9.69	-10.44/-12.99	-14.51/-13.66	-14.95/-13.63	-13.1/-12.06	-11.96/-11.61	-11.61/-11.41	-11.1/-10.94
Freq(Hz)	6.995GPol.	ThetaAnt.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.12/-7.3	-8.63/-10.33	-12.25/-14.3	-18.17/-18.96	-18.82/-16.45	-13.31/-10.37	-8.3/-6.97	-5.35/-4.19	-3.43/-2.8	-2.61/-2.03	-1.8/-2.47	-2.61/-2.6	-3.16/-3.73	-5.19/-8.16	-10.92/-15.8	-17.63/-17.89	-18.89/-15.25	-15.15/-10.71	-11.02/-11.08	-9.33/-8.06	-8.97/-8.88	-7.06/-6.3	-7.21/-8.33	-7.04/-5.46
Θ(7.5°)	-4.67/-5.92	-6.5/-8.07	-8.71/-9.41	-8.28/-7.35	-7.42/-7.27	-7.3/-7.92	-8.45/-9.55	-9.57/-19.9	-7.66/-4.69	-5.63/-4.34	-3.08/-2.91	-2.68/-2.56	-3.15/-4.42	-6.02/-7.3	-9.03/-12.09	-13.44/-16.44	-16.02/-15.67	-12.9/-10.43	-8.57/-6.13	-4.69/-3.98	-3.43/-2.87	-2.12/-1.73	-1.68/-1.9	-2.34/-3.52
Θ(15°)	-9.32/-6.89	-5.84/-5.37	-6.83/-6.44	-4.69/-6.48	-7.25/-9.36	-11.69/-16.01	-14.52/-13.01	-10.47/-8.37	-5.36/-4.47	-3.54/-1.18	0.21/-1.15	1.14/-0.48	-0.65/-2.36	-4.16/-6.94	-10.34/-13.57	-15.21/-18.15	-18.12/-17.32	-15.15/-12.94	-11.82/-12.47	-12.91/-12.36	-8.77/-6.01	-3.97/-2.84	-2.95/-4.7	-7.93/-10.3
Θ(22.5°)	-5.98/-9.09	-12.1/-10.89	-9.07/-9.92	-11.37/-13.56	-12.3/-9.9	-6.89/-6.23	-8.43/-10.67	-7.49/-4	-1.63/-1.34	-2.6/-5.03	-1.99/-1.13	1.28/-0.99	-4.05/-5.34	-5.13/-6.64	-7.83/-8.23	-11.79/-15.27	-8.86/-5.95	-6.23/-9.65	-14.43/-14.22	-13.78/-14.1	-14.2/-14.89	-18.68/-18.45	-12.13/-8.05	-6.36/-6.46
Θ(30°)	-5.56/-9.93	-17.64/-16.09	-13.71/-12.58	-14.78/-1.84	-3.96/-13.75	-10.15/-7.56	-10.27/-9.34	-5.77/-2.95	-0.41/-1.29	1.51/-0.73	-6.25/-5.05	-2.03/-2.01	-2.7/-5.88	-9.7/-8.61	-4.73/-2.66	-3.99/-2.87	-0.8/-0.93	-1.79/-1.76	-3.59/-5.87	-10.16/-8.48	-7.71/-7.2	-5.58/-4.37	-6.72/-7.45	-5.14/-5.05
Θ(37.5°)	-11.68/-7.07	-11.58/-1.29	-0.56/-2.18	-11.08/-2.93	-5.52/-1.15	-1.05/-0.79	-12.31/-3.26	-5.76/-6.24	-4.01/-1.8	-0.51/-0.14	-0.9/-2.89	-1.06/-2.21	-1.95/-0.41	-0.57/-0.78	-0.33/-1.38	-3.22/-4.12	-6.43/-4.33	-3.83/-5.97	-7.21/-4.23	-4.06/-7.02	-8.42/-8.65	-6.33/-1.44	-1.6/-2.74	-2.91/-6.79
Θ(45°)	-4.53/-12.12	-1.01/-0.24	-20/-49	-2.08/-5.1	-1.49/-2.97	-6.82/-5.37	-5.34/-10.34	-4.55/-4.29	-8.39/-3.39	0.78/-1.51	1.94/-0.12	0.33/-1.2	-3.37/-1.59	0.87/-2.3	1.47/-4.97	-2.41/-4.26	-6.88/-2.01	-3.91/-3.84	-4.23/-4.16	-5.3/-8.14	-8.93/-10.42	-5.1/-0.92	-1.37/-5.19	-3.47/-2.81
Θ(52.5°)	-2.7/-8.64	-0.71/-1.48	-3.48/-2.17	1.37/-5.1	-2.39/-9.71	-4.15/-2.87	-5.12/-6.65	-2.44/-4.94	-2.95/-1.48	0.39/-2.87	3.64/-0.73	1.45/-0.63	2.87/-3.78	2.69/-0.8	-1.56/-5.17	-1.43/-4.75	-4.21/-2.12	-3.12/-3.36	-4.5/-4.64	-5.57/-1.69	-15.82/-18.93	-8.13/-1.38	-3.01/-3.04	-16.24/-2.92
Θ(60°)	-3.33/-7.46	1.61/-59	0.59/-5.52	0.37/-4.47	0.39/-1.64	-0.83/-3.79	-3.93/-4.93	-4.09/-4.6	0.13/-5.77	1.824/-6.1	3.68/-0.25	0.912/-35	-1.88/-3.74	3.36/-0.52	-0.59/-5.34	-2.69/-1.47	-3.29/-0.69	1.21/-2.36	-1.48/-3.2	-4.19/-11.83	-6.17/-5	-5.67/-2.98	-5.25/-2.94	-5.25/-2.94
Θ(67.5°)	-3.09/-7.43	1.57/-1.28	1.96/-2.27	-2.94/-2.86	1.86/-0.64	-2.83/-6.3	-3.82/-4.05	-4.52/-2.25	-2.06/-6.31	0.912/-57	0.84/-2.3	-0.05/-1.88	-4.58/-1.04	2.06/-3.01	-0.6/-3.92	-3.79/-1.12	-1.93/-1.75	1.8/-2.9	-3.22/-6.07	-3.16/-18.55	-5.16/-3.03	-8.53/-5.29	-2.02/-7.64	-6.55/-5.88
Θ(75°)	-3.79/-6.28	0.26/-3.6	2.16/-0.25	-5.42/-2.72	1.77/-1.16	-5.22/-8.11	-4.66/-4.35	-2.69/-6.48	-0.55/-6.35	0.451/-77	0.363/-93	0.060/-46	-4.33/-2.54	1.65/-2.56	1.14/-2.48	-2.64/-1.1	-1.78/-1.28	-0.63/-5.32	-8.4/-5.79	-2.7/-17.27	-4.1/-3.34	-6.93/-7.68	-2.22/-8.6	-7.94/-10.61
Θ(82.5°)	-6.64/-6.69	-1.31/-4.95	1.05/-1.52	6.92/-2.27	0.02/-3.27	-6.85/-6.37	-6.62/-7.98	-2.24/-5.5	-3.39/-3.65	-0.19/-1.64	2.743/-36	1.94/-3.58	-1.33/-0.77	-0.24/-2.62	-0.38/-3.86	-4.33/-2.26	-3.720/-29	-4.62/-4.36	-11.32/-4.81	-7.04/-6.76	-4.08/-4.16	-0.01/-7.52	-3.32/-6.15	-9.03/-15.28
Θ(90°)	-7.52/-5.13	-2.16/-5.02	-1.4/-4.28	-7.62/-3.67	-2.85/-5.29	-8.99/-4.47	-8.17/-19.18	-3.69/-4.9	-4.31/-3.85	-2.810/-31	2.823/-61	-1.44/-2.89	-4.16/-1.3	-1.93/-3.55	-1.99/-7.68	-5.56/-5.53	-6.28/-1.93	-7.62/-3.3	-7.4/-5.93	-11.84/-5.88	-5.95/-6.6	-3.86/-6.28	-3.99/-4.37	-6.83/-13.05
Θ(97.5°)	-7.16/-63	-4.03/-6.14	-4.75/-7.79	-8.16/-5.37	-5.31/-9.37	-10.7/-35	-10.99/-18.54	-2.86/-5.59	-5.81/-6.89	-4.4/-3.97	-1.44/-1.11	-8.21/-5.44	-4.13/-2.46	-5.16/-5.67	-6.19/-10.6	-13.27/-10.66	-8.89/-2.57	-5.34/-3.09	-7.12/-11.34	-10.23/-9.11	-7.6/-11.09	-5.12/-6.28	-3.48/-4.36	-7.86/-14.91
Θ(105°)	-8.44/-14.97	-6.49/-10.18	-9.33/-8.61	-13.32/-10.32	-5.11/-11.78	-16.27/-16.72	-10.7/-16.27	-6.41/-6.26	-8.89/-11.29	-8.06/-9	-2.9/-2.61	-6.01/-6.35	-7.26/-3.79	-4.77/-6.26	-5.28/-13.8	-12.11/-6.86	-6.92/-3.23	-3.68/-3.61	-8.97/-14.51	-8.9/-14.76	-9.9/-8.48	-5.6/-5.64	-5.93/-15.43	-5.93/-15.43
Θ(112.5°)	-11.57/-18.23	-10.61/-15.01	-9.75/-9.39	-18.51/-18.1	-6.88/-13.19	-14.43/-9.44	-11.3/-18.33	-10.88/-7.82	-15.23/-7.6	-13.86/-4.6	-2.67/-8.31	-13.73/-11.76	-5.84/-11.32	-13.73/-16.22	-12.66/-12.33	-14.31/-11.26	-12.31/-5.25	-5.84/-5.54	-14.73/-15.1	-10.46/-14.91	-13.34/-19.26	-18.52/-11.73	-5.43/-6.82	-6.97/-18.83
Θ(120°)	-12.57/-18.4	-15.68/-17.95	-18.73/-16.8	-18.91/-11.21	-11.8/-18.78	-15.26/-8.74	-8.5/-19.09	-17.86/-14.28	-7.35/-9.81	-13.96/-7.25	-5.8/-5.48	-9.13/-11.4	-13.29/-11.05	-18.77/-16.1	-14.28/-9.31	-13.35/-7.35	-10.24/-7.41	-4.09/-7.11	-8.74/-17.93	-7.08/-16.84	-16.19/-13.25	-18.17/-14.84	-5.6/-7.97	-5.57/-18.97
Θ(127.5°)	-15.26/-19	-18.1/-19.2	-13.24/-13.15	-18.69/-13.18	-18.98/-13.65	-19.16/-17.8	-18.12/-17.19	-13.24/-16.3	-17.56/-18.43	-12.8/-5.3	-13.28/-11.65	-19.2/-7.31	-11.99/-16.34	-10.75/-15.29	-15.86/-13.21	-15.17/-8.41	-11.31/-7.41	-9.2/-13.3	-10.79/-17.83	-13.81/-18.1	-18.35/-12.94	-7.83/-9.67	-8.24/-19.05	-8.24/-19.05
Θ(135°)	-18.22/-15.72	-18.36/-17.01	-13.54/-16.95	-18.09/-18.32	-11.01/-12.75	-15.03/-18.72	-10.36/-17.62	-10.6/-11.9	-13.95/-7.29	-19.13/-18.72	-15.23/-16.3	-13.08/-18.17	-19.56/-10.81	-19.47/-18.34	-14.22/-14.53	-16.22/-13.32	-10.01/-10.07	-13.42/-15.48	-13.81/-17.9	-13.18/-16.74	-18.52/-18.83	-18.85/-14.55	-8.91/-9.92	-17.77/-18.62
Θ(142.5°)	-19.36/-17	-18.87/-18.07	-18.89/-19.43	-17.59/-18.9	-16.62/-15.24	-18.18/-16.04	-19.05/-18.74	-18.17/-8.97	-9.02/-18.97	-11.09/-10.21	-8.97/-15.41	-16.04/-12.87	-18.36/-18.52	-19.43/-17.25	-18.19/-18.25	-10.85/-11.11	-11.74/-6.8	-6.78/-10.33	-15.1/-15.62	-16.13/-10.52	-13.84/-18.24	-14.81/-17.03	-12.52/-8.39	-7.69/-12.69
Θ(150°)	-11.46/-8.61	-9.67/-11.01	-12.53/-15.5	-12.75/-13.16	-10.85/-10.06	-10.7/-10.93	-11.21/-13.66	-12.04/-17.78	-17.66/-15.28	-14.72/-18.6	-18.31/-19.3	-13.86/-16.12	-16.45/-15	-11.55/-7.31	-9.08/-12.15	-12.16/-14.69	-19.11/-18.88	-16.37/-16.98	-18.37/-13.12	-10.23/-9.52	-10.58/-15.7	-10.23/-9.52	-10.58/-15.7	-10.58/-15.7
Θ(157.5°)	-13.78/-9.98	-10.22/-12	-14.43/-16.59	-18.54/-18.05	-12.62/-11.3	-13.56/-17.9	-18.34/-19.19	-18.56/-16.24	-17.0															



Radiated Composite Gain Data Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(157°5)	-19.24/-15.01	-17.36/-18.29	-18.51/-15.09	-15.7/-18.55	-18.9/-18.15	-17.44/-15.38	-18.44/-18.42	-16.82/-15.75	-17.89/-17.73	-18.34/-17.28	-19.1/-19.05	-17.73/-16.57	-18.66/-18.4	-18.11/-14.58	-12.68/-14.03	-15.92/-18.05	-17.92/-16.57	-12.74/-14.62	-19.32/-12.11	-7.19/-8.16	-12.28/-14.55	-18.87/-16.36	-10.58/-10.11	-17.07/-18.69
Θ(165°)	-17.43/-15.97	-18.62/-17.54	-18.06/-17.37	-18.32/-18.1	-14.55/-12.97	-13.51/-15.19	-17.7/-19.21	-18.09/-17.7	-18.29/-17.74	-17.96/-19.06	-18.43/-18.7	-17.61/-18.79	-18.88/-18.28	-17.51/-17.59	-18.49/-18.55	-18.45/-18.55	-13.61/-14.24	-10.24/-13.28	-18.13/-15.98	-10.08/-9.68	-11.18/-13.53	-18.24/-18.61	-17.36/-18.67	-17.47/-19.21
Θ(172.5°)	-18.36/-17.93	-18.08/-18.63	-18.23/-17.11	-15.64/-14.71	-13.61/-14.73	-15.84/-17.91	-18.16/-17.1	-17.79/-16.25	-13.35/-15.25	-15.41/-16.74	-17.94/-17.48	-17.99/-18.07	-18.99/-17.44	-18.36/-17.87	-17.99/-15.88	-16.69/-15.21	-16.35/-17.97	-18.99/-19.08	-15.38/-14.59	-17.47/-18.95	-15.06/-19.43	-18.17/-18.02	-19.17/-18.02	
Θ(180°)	-19.05/-19.17	-18.86/-17.92	-19.55/-18.27	-19.16/-18.76	-19.04/-19.69	-17.94/-16.76	-17.11/-18.25	-18.16/-18.59	-18.53/-18.66	-18.05/-17.74	-17.95/-17.48	-18.28/-19.14	-17.96/-18.91	-18.44/-17.83	-18.06/-16.77	-19.03/-16.66	-18.41/-17.57	-18.31/-18.53	-17.76/-19.27	-18.84/-18.38	-19.28/-18.16	-17.39/-18.55	-18.14/-17.83	-19.03/-17.13
Freq(Hz)	5.785GPol.	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°)	-4.36/-4.51	-4.55/-5.21	-6.24/-7.18	-7.72/-8.13	-8.98/-10.66	-13.25/-15.32	-15.13/-14.57	-13.64/-11.12	-9.15/-7.87	-6.83/-5.97	-5.5/-5.18	-4.35/-3.48	-2.79/-2.74	-2.85/-3.1	-4.04/-5.52	-6.38/-7.33	-9.41/-12.44	-16.68/-18.81	-18.55/-13.9	-10.9/-8.96	-7.47/-6.29	-5.7/-5.01	-4.81/-4.93	-5.14/-5.48
Θ(7.5°)	-3.08/-2.71	-2.65/-2.99	-3.67/-3.82	-4.27/-4.88	-5.95/-7.76	-10.47/-14.05	-19.13/-16.35	-12.67/-9.54	-7.56/-7.03	-7.05/-7.33	-8.02/-9.25	-12.01/-13.99	-12.3/-9.2	-7.06/-6.22	-5.2/-4.52	-4.35/-4.74	-4.79/-4.92	-5.69/-6.64	-7.46/-8.45	-9.17/-9.73	-9.4/-8.57	-7.49/-6.12	-4.83/-4.07	-3.55/-3.3
Θ(15°)	-0.95/-0.33	-0.03/-0.15	-0.36/-0.96	-1.58/-2.3	-2.9/-3.54	-4.85/-6.12	-7.43/-8.78	-10.9/-13.91	-17.95/-19.07	-18.18/-11.97	-9.54/-8.06	-7.42/-7.39	-6.65/-4.89	-3.16/-1.05	-0.53/-0.69	-1.26/-2.28	-4.12/-5.89	-7.25/-8.02	-7.98/-8.31	-9.53/-10.86	-12.68/-12.71	-10.66/-8.08	-6.49/-5.26	-3.58/-2.42
Θ(22.5°)	-5.45/-3.76	-2.52/-2.38	-3.26/-3.72	-2.57/-1.2	-0.56/-1.52	-4.18/-0.85	-10.84/-11.08	-10.64/-10.63	-8.63/-6.83	-5.61/-4.86	-6/-10.5	-11.94/-6.8	-7.07/-7.49	-6.96/-5.55	-4.4/-3.74	-3.44/-4.77	-6.27/-6.61	-6.53/-5.8	-3.74/-2.38	-2.34/-3.1	-4.42/-5.96	-1.27/-1.0	-8.42/-7.05	-5.88/-4.67
Θ(30°)	-18.77/-8.91	-4.42/-4.62	-4.34/-1.6	0.240/-18	7/0-1	-2.21/-6.79	-14.9/-18.7	-15.01/-8.13	-4.1/-3.02	-4.32/-5.75	-5.8/-5.05	-3.53/-3.27	-4.94/-5.14	-3.2/-2.13	-2.58/-4.51	-5.76/-6.16	-5.44/-4.59	-6.25/-7.93	-5.08/-2.04	-0.30/-44	0.970/-22	-8.71/-3.38	-6.72/-13.94	-10.79/-12.13
Θ(37.5°)	-8.33/-8.58	-6.81/-8.67	-6.55/-2.87	-1.79/-3.68	-6.14/-6.47	-3.51/-3.71	-1.56/-3.76	-3.51/-6.4	-4.16/-2.71	-4.43/-2.4	-1.07/-3.42	-6.38/-3.16	1.742/-87	1.28/-1	-2.98/-4.18	-2.07/-1.98	-3.69/-3.55	-8.56/-7.8	-5.96/-3.28	-0.780/-31	0.061/-78	-2.4/-8.4	-14.26/-12.33	
Θ(45°)	-7.01/-6.01	-12.07/-9.79	-3.92/-3.57	-4.39/-3.89	-2.12/-2.02	-2.77/-3.6	-4.18/-1.27	-0.95/-4.83	-5.72/-2.5	-4.16/-4.7	-3.04/-6.89	-7.22/-2.95	1.371/-82	0.291/-32	1.89/-92	0.840/-61	-0.67/-2.37	-4.87/-12.26	-9.68/-6.42	-9.41/-6.47	-5.37/-2.19	-1.34/-2.5	-3.69/-4.32	-18.66/-8.87
Θ(52.5°)	-5.16/-1.75	-5.86/-6.36	-3.49/-3.89	-4.65/-7.3	-4.38/-7.2	-1.580/-61	-0.620/-45	-1.18/-7.5	-8.19/-5.42	-10.05/-6.28	-5.56/-3.37	-2.56/-2.77	-1.620/-85	3.092/-87	0.840/-1	-1.68/-4.71	-1.73/-6.95	-6.71/-3.76	-6.47/-6.77	-3.82/-4.74	-6.33/-1.38	-9.25/-8.38		
Θ(60°)	-2.51/-35	-1.240/-0.7	1.61/-0.88	-1.78/-1.93	-4.2/-0.89	3.53/-13	2.212/-87	-0.64/-0.53	-5.42/-10.34	-12.08/-3.31	-2.66/-1.94	-2.08/-6.04	-3.230/-38	2.782/-24	1.241/-18	3.083/-44	2.171/-89	-0.84/-0.59	-4.22/-7.41	-6.66/-4.34	-5.35/-3.39	-8.99/-0.9	-5.29/-4.7	
Θ(67.5°)	-2.62/-2.63	1.193/-6	4.331/-85	0.612/-6	1.711/-54	4.693/-84	3.013/-59	-1.160/-37	-5.65/-6.49	-4.26/-1.87	-2.64/-1.83	-6.84/-4.19	-1.43/-0.13	-0.51/-1.72	0.251/-86	2.242/-46	1.252/-19	0.580/-76	0.04/-2.8	-2.65/-3.24	-5.45/-3.18	-7.77/-1.25	-10.24/-3.25	-2.34/-3.69
Θ(75°)	-5.24/-187	0.823/-75	3.951/-62	-0.383/-12	2.972/-62	3.411/-91	1.262/-37	-1.890/-59	-3.54/-67	-2.34/-2.32	-2.91/-182	-5.51/-183	-2.83/-3.81	-6.15/-3.25	-0.28/-0.51	-0.41/-1.53	0.520/-94	1.59/-0.8	-0.65/-2.32	-6.77/-10.4	-7.041/-13	-5.76/-5.75	-1.57/-3.19	
Θ(82.5°)	-9.44/-0.28	-2.281/-85	1.87/-0.22	-2.731/-97	1.951/-51	1.290/-06	-20.4/-6	-3.89/-0.93	-5.07/-5.37	-1.44/-2.66	-4.12/-2.91	-11.54/-2.47	-8.08/-11.42	-9.88/-1.87	-0.12/-3.94	-4.150/-27	-0.96/-1.1	-0.42/-0.93	1.23/-0.67	-0.22/-2.07	-7.740/-38	-7.40/-77	-5.18/-5.59	-2.31/-4.17
Θ(90°)	-9.67/-2.37	-4.83/-0.74	-0.77/-2.13	-4.77/-0.27	-1.02/-1.1	-1.8/-3.12	-2.48/-1.56	-4.72/-3.5	-6.39/-6.41	-1.99/-3.71	-5.45/-3.28	-9.48/-5.38	-5.06/-7.77	-9.83/-10.44	-4.43/-4.68	-7.96/-1.79	-1.31/-4.38	-2.75/-2.87	-1.94/-3.14	-2.35/-2.12	-10.84/-1.19	-10.04/-0.7	-6.07/-12.49	-3.65/-6.97
Θ(97.5°)	-9.55/-2.89	-5.81/-2.66	-2.67/-4.7	-6.37/-2.23	-2.88/-2.75	-3.99/-6.01	-4.71/-4.57	-7.05/-9.53	-7.43/-6.93	-3.63/-6.92	-9.97/-5.5	-16.4/-8.17	-14.14/-10.36	-10.13/-12.4	-7.02/-4.32	-8.72/-3.63	-3.14/-6.82	-5.83/-5.22	-6.04/-7.65	-6.75/-3.47	-16.4/-5.1	-17.5/-3.73	-10.35/-18.1	-4.96/-9.32
Θ(105°)	-8.17/-6.81	-7.94/-6.52	-5.44/-7.73	-9.04/-2.16	-3.28/-3.98	-6.96/-10.67	-6.26/-5.64	-6.74/-9.88	-9.47/-7.8	-5.75/-10.38	-11.78/-9.71	-6.33/-14.63	-10.23/-14.12	-8.55/-4.88	-10.27/-7.56	-9.09/-4.68	-3.26/-6.46	-8.93/-6.43	-8.91/-7.93	-11.5/-5.24	-18.06/-6.33	-13.45/-7.95	-1.31/-18.55	-7.41/-12.57
Θ(112.5°)	-9.41/-10.74	-8.72/-10.86	-7.45/-18.03	-8.74/-2.85	-4.22/-4.83	-7.82/-13.31	-8.8/-7.41	-6.81/-9.31	-14.96/-6.64	-7.05/-10.34	-12.31/-14.3	-13.79/-11.55	-18.11/-9.22	-9.08/-9.82	-8.08/-10.02	-10.17/-6.33	-7.62/-7.34	-5.76/-7.02	-6.81/-8.83	-9.24/-4.51	-13.61/-7.36	-18.24/-8.12	-10.79/-17.86	-11.98/-13.24
Θ(120°)	-12.55/-9.49	-10.24/-9.9	-8.32/-16.42	-8.03/-5.64	-9.9/-12.65	-15.1/-18.45	-11.23/-9.91	-18.63/-7.56	-9.64/-10.25	-16.05/-10.7	-15.56/-11.39	-9.09/-16.06	-9.75/-19.93	-14.61/-9.37	-9.49/-7.61	-14.23/-7.55	-11.3/-8.39	-8.16/-11.26	-10.52/-6.73	-11.94/-11.08	-17.64/-12.57	-17.01/-17.92	-18.91/-15.68	
Θ(127.5°)	-19.04/-10.83	-19.06/-15.92	-12.48/-18.11	-8.49/-0.86	-15.95/-19.11	-18.84/-18.41	-12.58/-12.27	-19.03/-17.37	-18.59/-8.87	-14.56/-10.23	-16.45/-9.92	-16.46/-12.39	-16.67/-16.9	-12.8/-14.54	-18.59/-3.91	-7.63/-9.41	-13.44/-11.09	-15.11/-10.16	-9.07/-12.19	-17.05/-9.42	-14.67/-12.9	-18.12/-17.97	-18.78/-18.28	-17.05/-17.4
Θ(135°)	-12.82/-16.94	-11.74/-18.61	-16.74/-15.71	-12.04/-14.42	-17.23/-13.96	-16.14/-17.73	-11.2/-11.47	-13.88/-15.68	-15.57/-10.79	-18.12/-11.6	-11.82/-16.21	-13.8/-9.86	-12.05/-13.34	-11.8/-11.42	-11.35/-9.87	-9/-8.24	-18.17/-13.27	-12.66/-10.08	-7.85/-9.08	-18.31/-12.76	-8.73/-18.76	-13.89/-17.77	-19.13/-18.18	-18.54/-12.85
Θ(142.5°)	-19.03/-14.72	-10.58/-19.99	-16.34/-18.85	-15.49/-12.63	-18.77/-17.99	-17.73/-19.32	-17.59/-17.6	-17.54/-19.85	-18.41/-18.78	-18.97/-15.76	-15.66/-13.88	-18.9/-18.28	-17.88/-17.74	-18.93/-18.9	-8.23/-8.91	-11.37/-14.7	-14.92/-17.54	-14.37/-15.7	-11.77/-16.27	-17.61/-18.5	-13.49/-18.21	-19.07/-18.75	-18.54/-14.78	-16.46/-16.24
Θ(150°)	-18.08/-14.69	-16.02/-18.01	-17.21/-18.8	-18.54/-17.92	-17.79/-18.6	-18.73/-15.81	-13.39/-13.78	-18.64/-18.27	-17.99/-18.44	-17.74/-17.87	-17.79/-18.16	-18.61/-17.48	-18.76/-18.82	-18.69/-15.72	-14.87/-12.24	-13.36/-10.81	-13.81/-18.45	-19.36/-16.8	-17.28/-18.1	-18.51/-19.2	-15.01/-11.19	-12.97/-18.52	-17.06/-19.46	-16.58/-18.4
Θ(157.5°)	-18.69/-18.31	-18.14/-18.81	-17.84/-18.16	-17.17/-18.64	-19.61/-18.42	-17.47/-18.26	-17.83/-16.7	-16.08/-15.37	-16.53/-17.85	-17.31/-17.9	-18.31/-18.28	-17.75/-19.11	-18.36/-17.82	-17.85/-14.57	-12.99/-12.88	-11.76/-12.3	-13.54/-11.99	-11.96/-14.04	-16.17/-17.27	-18.73/-18.86	-17.51/-15.44	-17.59/-17.95	-18.4/-18.75	-18.06/-18.56
Θ(165°)	-18.53/-17.76	-18.68/-17.22	-18.1/-18.26	-18.73/-18.53	-18/-18.06	-13.94/-18.71	-18.39/-18.55	-18.19/-18.69	-17.9/-18.84	-18.98/-18.74	-18.43/-14.73	-13.03/-13.23	-12.9/-12.78	-12.15/-11.89	-12.8/-14.71	-14.46/-14.27	-13.22/-12.77	-16.64/-18.52	-16.31/-15.7	-17.71/-17.8	-18.33/-18.68	-16.45/-12.9	-11.31/-12.63	-15.16/-18.4
Θ(172.5°)	-15.16/-14.2	-13.16/-12.49	-11.7/-11.21	-11.07/-11.48	-13.05/-17.19	-18.38/-19.02	-18.06/-17.32	-18/-18.74	-18.01/-17.57	-17.89/-18.71	-17.01/-17.37	-14.33/-13.09	-13.25/-12.4	-11.12/-11.6	-11.78/-11.41	-10.98/-11.3	-12.38/-14.79	-16.37/-15.03	-15.21/-15.18	-15.59/-16.03	-16.62/-17.39	-17.78/-17.58	-17.82/-15.83	-16.77/-17.05
Θ(180°)	-17.64/-19.1	-17.92/-18.61	-18.97/-18.14	-19.03/-19.29	-18.29/-18.17	-18.14/-18.02	-18.58/-17.84	-17.45/-17.94	-18.27/-18.63	-17.62/-15.71	-14.21/-14.81	-16.58/-16.5	-15.61/-17.72	-18.31/-16.82	-18.36/-18.23	-18.91/-17.58	-17.4/-18.18	-18.98/-18.36	-18.72/-17.29	-18.95/-18.82	-18.67/-18.51	-18.01/-19.03	-18.01/-18.63	-17.72/-16.67
Freq(Hz)	5.885GPol.	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-14.35/-9.59	-7.18/-6.68	-5.88/-4.23	-3.21/-2.95	-3.33/-3.31	-2.92/-2.51	-2.61/-2.79	-3.01/-3.44	-4.08/-4.79	-5.98/-7.15	-8.66/-10.06	-11.97/-15.12	-16.66/-15.15	-12.58/-7.81	-5.23/-4.12	-3.36/-2.19	-1.98/-2.28	-2.09/-1.8	-1.98/-2.17	-3.22/-4.96	-6.47/-8.16	-10.28/-15.17	-18.35/-15.21	-12.82/-11.12
Θ(7.5°)	-10.04/-15.39	-1																						



Radiated Composite Gain Data_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Θ(7.5°)	-2.01/-1.84	-1.51/-1.73	-2.05/-2.65	-3.26/-5.08	-7.36/-9.59	-13.83/-18.7	-18.85/-13.39	-10.58/-8.96	-8.72/-8.96	-9.77/-11.39	-14.95/-17.6	-12.39/-9.52	-7.01/-5.57	-5.12/-4.81	-4.41/-4.76	-5.3/-5.61	-6.58/-7.15	-6.71/-6.19	-6.09/-5.78	-5.65/-5.61	-5.58/-4.65	-3.66/-3.36	-3.23/-2.63	-2/-2.22
Θ(15°)	-3.22/-2.25	-1.56/-0.83	-0.72/-1.53	-3.35/-5.75	-8.48/-10.67	-12.44/-15.47	-16.92/-15.06	-11.03/-8.44	-8.32/-8.55	-9/-11.07	-14.35/-16.6	-16.05/-14.9	-15.43/-15.67	-14.63/-13.78	-8.54/-6.69	-5.05/-3.71	-3.12/-3.12	-3.47/-4.33	-6.97/-11.76	-17.89/-16.27	-10.59/-7.53	-6.1/-6.25	-7.19/-8.34	-7.24/-5.75
Θ(22.5°)	-1.47/-2.51	-2.19/-0.75	0.09/0.17	-0.06/-0.2	-1.14/-1.38	-4.39/-4.36	-3.97/-1.02	-1.17/-9.44	-4.39/-4.03	-6.27/-6	-2.27/-0.74	-0.07/0.69	0.89/0.18	-1.35/-3.29	-7.49/-8.39	-6.17/-5.91	-5.33/-5.05	-5.53/-3.97	-2.56/-3.14	-6.18/-7.6	-4.53/-3.02	-4.03/-5.7	-4.98/-2.67	-1.27/-0.75
Θ(30°)	-6.05/-4.63	-0.31/1.2	0.57/-0.64	-0.61/0.45	0.19/-2.33	-7.23/-11.58	-7.14/-6.22	-9.91/-15.33	-11.71/-11.76	-6.98/-1.08	1.67/1.85	0.73/1.25	2.41/4.7	-1.38/-2.41	-2.2/-2.24	-1.45/-0.1	0.76/1.68	2/-1.38	-11.94/-4.72	-1.85/-3.38	-2.38/0.23	0.09/-1.85	-2.65/-2.33	-2.28/-3.53
Θ(37.5°)	-6.33/-3.15	1.4/-2.28	1.56/0.18	-0.39/-0.07	0.41/-0.22	-2.59/-4.52	-5.16/-7.5	-11.51/-13.99	-13.48/-19	-6.53/-1.68	-0.76/-0.29	1.06/0.46	-0.10/-0.2	1.18/0.39	0.62/1.78	3.21/4.08	2.74/0.42	-1.13/-1.4	-1.6/-5.2	-5.02/-2.56	-3.74/-2.25	0.33/1.13	-1.46/-5.14	-3.84/-3.46
Θ(45°)	-10.65/-3.96	-2.04/-1.98	-1.04/-0.87	-2.75/-3.88	-3.41/-3.13	-2.88/-1.32	1.51/0.14	-5.53/-6.82	-4.11/-8.28	-9.11/-4.38	-3.35/1.2	2.21/18	0.61/0.22	-1.31/-1.98	1.63/5	4.89/3.75	3.43/69	1.99/-1.43	-4.2/-1.74	-0.3/-1.85	0.75/-2.03	-6.68/1.41	1.77/-3.07	-4.96/-8.18
Θ(52.5°)	-11.71/-1.76	-1.04/-1.95	-1.55/-1.78	-3.8/-6.15	-2.77/-0.31	0.21/1.15	2.16/0.43	-0.84/-1.4	-0.4/-5.12	-3.92/-3.15	0.52/1.49	1.65/1.63	0.01/-0.7	-1.83/-0.34	1.85/3.06	3.03/2.15	-0.21/1.69	2.53/2.01	-1.09/-0.87	-1.09/-4.4	2.34/0.68	-7.57/-1.63	1.16/-2.41	-5.13/-13.76
Θ(60°)	-6.79/-0.62	0.12/-2.55	-9.01/-14.6	-12.2/-16.86	-3.16/1.78	2.15/3.86	3.93/-2.15	0.63/-0.1	0.55/-1.81	-2.32/-2.83	-1.23/-1.04	0.49/1.34	0.68/-1.21	-2.43/-3.52	-1.47/-0.39	0.12/2.82	2.64/2.25	1.15/1.47	1.98/-0.64	1.52/-2.47	1.18/-0.06	-2.55/-5.16	-1.38/-2.7	-4.92/-10.38
Θ(67.5°)	-4.72/1.34	2.01/1.86	-1.21/-6.46	-9.18/-6.41	-0.423/0.7	2.625/11	5.24/-2.51	1.4/-0.6	-0.61/-0.66	-1.09/-3.95	-1.32/-2.14	2.03/1.25	-1.36/-2.81	-2.78/-0.84	1.48/1.31	-0.81/0.06	2.04/2.69	2.16/-1.48	0.83/-1.73	1.26/-0.42	-1.21/-1.64	0.81/-4.34	-1.23/-0.8	-3.23/-5.71
Θ(75°)	-4.98/1.23	1.98/3.3	0.54/-3.52	-9.96/-4.36	1.17/2.63	1.96/4.21	4.85/-0.57	1.53/-1.22	-2.58/-0.76	-1.51/-4.17	-2.93/-2.84	2/1.13	-0.85/-2.64	-3.77/-1.48	1.87/1.41	-1.47/-3.85	0.12/1.39	3.1/-1.5	-0.8/-3.57	-0.86/0.82	-1.98/-2.83	2.52/-6.69	0.02/-0.92	-2.09/-3.32
Θ(82.5°)	-5.35/-0.68	-0.32/1.72	-1.15/-3.08	-9.54/-5.61	0.31/3.8	0.31/2.18	2.83/-0.53	0.76/-2.01	-5.16/-3.29	-2.74/-2.5	-3.93/-0.09	-0.1/-1.69	-1.13/-3.97	-3.37/-1.87	-0.71/-1.11	-4.62/-6.49	-1.44/-2.21	1.89/-1.14	-4.18/-5.98	-3.8/-0.29	-3.46/-3.91	2.39/-5.06	-0.3/-2.43	-2.27/-2.92
Θ(90°)	-6/-4.324	-3.11/-0.47	-2.32/-3.01	-1.21/-0.27	-2.88/-1.37	-2.62/-1.08	-0.99/-2.72	-1.38/-3.2	-9.76/-4.7	-4.12/-4.01	-5.93/-2.79	0.44/-1.79	-2.15/-2.74	-3.27/-4.51	-2.42/-2.14	-6.69/-6.79	-2.34/-5.22	-0.99/-3.4	-7.36/-7.93	-11.17/-3.1	-5.18/-8.14	0.77/-6.66	-2/-4.05	-3.63/-3.95
Θ(97.5°)	-7.44/-5.75	-4.43/-3.04	-4.29/-6.25	-13.25/-10.39	-5.2/-4.47	-4.74/-4.32	-2.63/-5.11	-3.36/-6.05	-12.57/-4.76	-5.23/-5.84	-6.35/-3.52	-2.68/-4.49	-3.04/-4.41	-4.78/-4.63	-5.41/-4.79	-7.43/-6.35	-2.97/-5.55	-3.97/-6.87	-8.49/-12.32	-18.62/-7.64	-8.31/-12.74	-2.85/-10.3	-5.9/-5.58	-3.41/-4.77
Θ(105°)	-11.35/-6.45	-7.1/-5.86	-9.04/-14.76	-15.07/-18.83	-8.99/-14.57	-11.67/-18.62	-13.42/-15.63	-10.74/-13.03	-18.19/-18.22	-12.79/-14.29	-15.13/-14.22	-11.04/-12.06	-7.72/-2.74	-7.07/-8.47	-9.3/-14.05	-17.49/-9.26	-9.81/-7.67	-13.79/-10.5	-11.76/-14.02	-15.81/-12.88	-7.88/-12.23	-18.72/-9.27	-13.81/-10.4	-18.6/-18.28
Θ(112.5°)	-17.02/-11.69	-12.28/-8.18	-8.75/-11.16	-9.4/-9.09	-5.66/-6.23	-6.74/-8.36	-6.31/-7.7	-8.37/-13.4	-13.11/-7.38	-8.42/-13.75	-6.09/-7.75	-9.47/-4.08	-7.11/-7.15	-8.55/-11.33	-9.5/-8.21	-7.89/-12.21	-8.54/-7.04	-10.02/-7	-7.83/-13.21	-18.42/-12.5	-7.31/-17.72	-18.42/-12.5	-15.74/-17.73	-18.25/-17.59
Θ(120°)	-15.57/-19.38	-13.34/-13.92	-8.16/-13.34	-11.24/-10.95	-11.04/-11.92	-11.71/-12.15	-9.44/-12.44	-10.74/-14.57	-13.88/-11.11	-11.22/-13.82	-8.5/-9.11	-6.65/-9.18	-6.68/-7.95	-5.54/-6.61	-10.65/-9.77	-7.4/-12.16	-10.05/-9.77	-12.39/-12.09	-8.32/-14.23	-18.35/-19.24	-10.69/-18.7	-17.32/-19.04	-18.31/-14.02	-11.41/-16.4
Θ(127.5°)	-16.33/-17.34	-18.8/-18.28	-15.07/-18.83	-8.99/-14.57	-11.67/-18.62	-13.42/-15.63	-10.74/-13.03	-18.19/-18.22	-12.79/-14.29	-15.13/-14.22	-11.04/-12.06	-7.72/-2.74	-7.07/-8.47	-9.3/-14.05	-17.49/-9.26	-9.81/-7.67	-13.79/-10.5	-11.76/-14.02	-15.81/-12.88	-7.88/-12.23	-18.72/-9.27	-13.81/-10.4	-18.6/-18.28	
Θ(135°)	-18.53/-17.86	-16.12/-18.93	-17.26/-10.77	-11.02/-16.51	-10.65/-12.7	-10.66/-8.76	-9.09/-13.87	-19.48/-4.1	-16.19/-18.71	-12.35/-9.85	-10.85/-9.12	-17.96/-9.42	-7.37/-10.01	-8.92/-14.17	-9.7/-6.36	-9.31/-3.57	-13.01/-18.64	-11.24/-9.74	-7.31/-12.49	-17.81/-18.6	-10.36/-9.41	-16.42/-17.99	-15.74/-17.73	-18.25/-17.59
Θ(142.5°)	-19.14/-19.09	-16.71/-11.95	-15/-18.39	-12.19/-19.14	-16.5/-19.4	-18.87/-14.46	-18.49/-18.92	-18.43/-16.37	-18.82/-19	-10.79/-9.11	-11.93/-10.3	-9.5/-8.73	-8.39/-8.08	-7.9/-11.26	-11.92/-10.57	-10.37/-9.06	-14.61/-15.44	-14.92/-11.2	-13.83/-18.42	-18.45/-16.41	-14.09/-12.94	-16.06/-18.66	-17.02/-12.2	-13.54/-16.23
Θ(150°)	-15.64/-16.42	-16.88/-12.79	-18.04/-17.2	-11.96/-14.38	-18.37/-13.11	-13.73/-17.06	-16.69/-19.77	-18.21/-18.57	-18.85/-18.31	-17.96/-18.75	-18.35/-13.88	-9.66/-10.32	-15.19/-13.85	-18.54/-12.58	-11.37/-15.82	-13.37/-13.56	-17.88/-10.74	-14.2/-15.87	-18.16/-16.36	-14.68/-17.53	-19.28/-18.52	-17.39/-13.84	-15.6/-18.81	-18.35/-19.3
Θ(157.5°)	-14.53/-12.83	-14.89/-17.2	-14.59/-10.26	-9.42/-11.04	-15.97/-17.46	-16.07/-17.71	-18.7/-18.09	-17.46/-16.59	-18.49/-19.35	-18.41/-18.57	-16.65/-13.61	-12.16/-10.81	-12.14/-18.18	-18.26/-14.88	-14.68/-12.64	-11.66/-13.87	-13.99/-12.88	-17.42/-14.63	-13.13/-15.15	-17.1/-18.55	-16.5/-18.02	-18.27/-18.53	-17.56/-18.25	-17.46/-18.25
Θ(165°)	-18.27/-18.3	-18.54/-18.73	-18.53/-14.46	-12.37/-14.84	-17.77/-18.31	-18.39/-18.98	-19.07/-19.25	-18.64/-17.78	-18.97/-15.02	-11.49/-9.21	-8.62/-9.16	-12.31/-17.23	-16.88/-14.25	-13.79/-18.72	-13.08/-9.79	-9.31/-10.5	-12.74/-15.52	-17.56/-16.78	-18.91/-18.93	-17.39/-18.53	-18.75/-17.71	-18.93/-17.66	-17.93/-17.89	-18.13/-18.7
Θ(172.5°)	-12.72/-11.94	-11.36/-19.7	-12.99/-15.07	-17.14/-17.93	-17.11/-15	-14.28/-15.73	-16.59/-16.35	-15.09/-14.77	-15.28/-16.25	-16.16/-12.28	-10.08/-5.98	-10.95/-14.3	-14.18/-14.77	-17.31/-19.42	-18.74/-18.05	-17.32/-16.74	-14.83/-13.7	-12.96/-13.09	-12.65/-15.09	-16.6/-17.4	-17.46/-16.92	-16.43/-13.96	-11.78/-9.74	-8.62/-7.71
Θ(180°)	-5.2/-5.3	-5.5/-5.96	-6.88/-7.8	-8.83/-9.9	-11.44/-13.46	-16.15/-18.56	-17.36/-18.58	-19.47/-17.31	-15.33/-12.25	-9.88/-8.65	-8.27/-7.73	-6.47/-5.45	-5/-5.38	-5.82/-5.51	-6.16/-7.17	-8.77/-11.31	-15.23/-17.94	-17.88/-18.84	-18.04/-17.86	-15.25/-13.68	-13.31/-13.1	-12.12/-11.41	-10.66/-10.58	-10.63/-9.65
Freq(Hz)	6.475GHzPol.	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-6.75/-7.89	-8.85/-6.51	-6.95/-7.31	-8.66/-8.85	-8.7/-8.44	-8.29/-9.02	-9.73/-9.89	-9.78/-9.47	-9.11/-9.5	-10.07/-10.42	-9.87/-9.86	-8.45/-7.89	-6.58/-5.58	-4.9/-5.78	-6.26/-6.83	-7.79/-9.36	-10.77/-11.49	-12.21/-12.64	-11.34/-8.74	-	-	-	-	-
Θ(7.5°)	-17.85/-11.96	-7.48/-5.94	-5.2/-4	-2.9/-2.11	-1.51/-1.32	-1.69/-2.01	-2.68/-3.68	-4.9/-7.58	-9.94/-13.35	-14.45/-12.75	-10.14/-8.44	-7.37/-7.77	-8.02/-7.2	-7.89/-10	-10.94/-11.11	-11.32/-11.57	-10.79/-12.17	-12.86/-12.8	-11.45/-11.07	-10.26/-10.28	-10.74/-9.52	-8.96/-9.32	-11.36/-10.99	-10.82/-11.4
Θ(15°)	-8.36/-9.05	-7.64/-5.69	-4.46/-3.36	-2.04/-1.27	-0.40/-0.45	-0.55/-1.42	-3.17/-4.69	-7.03/-10.14	-13.89/-18.47	-17.31/-17.72	-18.04/-17.91	-14.1/-12.36	-11.36/-9.46	-7.48/-5.65	-7.93/-7.95	-10.05/-13.61	-15.05/-12.78	-11.93/-13.06	-12.42/-13.66	-16.8/-17.68	-17.06/-18.17	-15.99/-14.79	-19.17/-19.35	-18.03/-13.57
Θ(22.5°)	-8.09/-17.89	-9.33/-4.48	-3.4/-3.43	-3.1/-2.35	-1.65/-1.37	-1.5/-2.07	-3.64/-7.17	-18.38/-17.55	-10.95/-6.77	-5.71/-7.87	-10.26/-8.85	-10.71/-13.19	-12.93/-13.32	-10.46/-9.59	-12.98/-17.21	-10.66/-7.1	-7.07/-8.78	-9.54/-6.33	-4.98/-4.92	-5.48/-5.78	-9.4/-17.99	-15.42/-14.9	-18.06/-12.59	-6.25/-5.48
Θ(30°)	-11.68/-12.27	-6.42/-6.3	-8.44/-9.5	-5.9/-5.28	-3.54/-2.75	-4.98/-10.72	-17.74/-13.83	-8.69/-5.37	-7.28/-5.32	-1.5/-1.65	-4.59/-6.1	-8.17/-11.72	-16.93/-17.52	-13.38/-9.68	-8.54/-10.47	-8.69/-6.67	-6.47/-19.31	-6.03/-2.74	-3.03/-3.32	-2.39/-0.9	-1.07/-5.62	-7.63/-6.07	-10.23/-13.29	-6.71/-8.08
Θ(37.5°)	-14.86/-14.96	-19.43/-13.79	-18.39/-16.12	-16.24/-18.42	-10.52/-5	-2.87/-4.77	-11.27/-9.5	-6.32/-5.72	-7.37/-11.6	-2.31/-2.23	-2.5/-4.44	-5.37/-6.4	-10.66/-6.15	-10.4/-8.97	-7.4/-15.49	-10.49/-16.08	-9.92/-18.69	-10.78/-8.15	-8.59/-7.63	-5.79/-4.94	-2.51/-3.5	-4.05/-2.16	-3.03/-11	-8.69/-8.27
Θ(45°)	-12.59/-9	-18.73/-10.51	-17.09/-8.55	-7.99/-7.86	-19.02/-17.29	-18.44/-10.34	-12.66/-15.16	-17.5/-13.96	-6.57/-10.08	-13.87/-4.73	-6.39/-8.98	-9.96/-15.08	-14.05/-8.74	-9.28/-10.16	-4.41/-18.53	-6.68/-13	-18.55/-18.48	-11.97/-18.55	-5.73/-6.68	-9.82/-12.01	-5.77/-3.97	-3.87/-2.94	-0.65/-7.35	-4.54/-9.86
Θ(52.5°)	-8.06/-8.7	-10.01/-8.43	-9.48/-8.1	-6.85/-5.44	-16.86/-17.34	-10.68/-3.57	-11.13/-8.13	-11.72/-13.27	-15.03/-9.75	-13.36/-12.53	-14.05/-9.77	-14.06/-12.46	-18.08/-12.12	-17.92/-5.99	-5.4/-13.57	-6.63/-17.79	-17.78/-12.59	-8.03/-4.68	-6.31/-5.73	-10.13/-8.09	-9.36/-6.72	-2.62/-6.02	-2.2/-6.36	-3.07/-15.43
Θ(60°)	-5.63/-																							