



Antenna Composite Gain Test Report

FCC ID	MSQ-RTAX5X00
Equipment	ROG Rapture AX10000 Tri-band Gaming Mesh Router
Brand Name	ASUS
Model Name	GT6
Applicant	ASUSTeK COMPUTER INC. 1F., No. 15, Lide Rd., Beitou, Taipei City 112, Taiwan
Manufacturer (1)	Compal Networking(KunShan) CO., LTD No.520,Nan Bang RD., Economic & Technical Development Zone, KunShan,JiangSu,China
Manufacturer (2)	ARCADYAN TECHNOLOGY (VIETNAM) CO., LTD. Land plot No. D4-5-6, Thang Long Industrial Park (Vinh Phuc), Thien Ke Commune, Binh Xuyen District, 15000 Vinh Phuc Province, Vietnam
Sample Received	Apr. 06, 2022
Start Test Date	May 25, 2022
Final Test Date	May 26, 2022

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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1. Operation Mode and Antenna Information

Antenna Position	RF Port				Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
	WLAN 2.4GHz	WLAN 5GHz UNII 1~2A	WLAN 5GHz UNII 2C~4 (Mode 1)	WLAN 5GHz UNII 2C~4 (Mode 2)					
2G5GL Ant.1	2	4	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	2.4GHz & 5GHz UNII 1~2A
2G5GL Ant.2	1	3	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	2.4GHz & 5GHz UNII 1~2A
2G5GL Ant.3	-	2	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 1~2A
2G5GL Ant.4	-	1	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 1~2A
5GH5.9G Ant.1	-	-	4	4	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 2C~4
5GH5.9G Ant.2	-	-	1	1	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 2C~4
5GH5.9G Ant.3	-	-	3	3	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 2C~4
5GH5.9G Ant.4	-	-	2	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 2C~4
5GH5.9G Ant.5	-	-	-	2	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	5GHz UNII 2C~4

Note:

For WLAN 2.4GHz:

Operation Mode (2TX/2RX)

2G5GL Ant.1~2 can be used as transmitting/receiving antenna.

2G5GL Ant.1~2 could transmit/receive simultaneously.

For WLAN 5GHz:

Operation Mode (4TX/4RX)

The 2G 5GL Ant.3~4 operate in UNII 1, UNII 2A.

2G5GL Ant.1~4 can be used as transmitting/receiving antenna.

2G5GL Ant.1~4 could transmit/receive simultaneously.

5GH5.9G Ant1~5 operate in UNII 2C, UNII 3, UNII 4.

The EUT supports the "5GH5.9G Ant.4, 5" with TX/RX diversity functions.

Mode1 was 5GH5.9G Ant.1~4 and Mode 2 was 5GH5.9G Ant.1~3+Ant.5.

5GH5.9G Ant.1~4 or 5GH5.9G Ant.1~3 + 5GH5.9G Ant.5 can be used as transmitting/receiving antenna.

5GH5.9G Ant.1~4 or 5GH5.9G Ant.1~3 + 5GH5.9G Ant.5 could transmit/receive simultaneously.

5GH5.9G Ant.4~5 can be used as transmitting/receiving antenna, but only one of them will be used at one time.

Note: Antennas' Model Name: MLX22M-121AA1-A are for EUT 1 use and MLX22M-121AA1-B are for EUT 2 use. They're same type of antennas.

2. Table for EUT Information

EUT	PCB board Version	Color of outer case	
		Black	White
EUT 1	R1.20	V	V
EUT 2	R2.00	V	V

Note: The above information was declared by manufacturer.

3. Table for Permissive Change

This product is an extension of original one reported under Sporton project number: AP221807AA.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Upgrading the PCB version of EUT to R2.00 from R1.20. The difference is listed below: (1) Mainboard: Adding common mode filter to TX path of USB3.0 (Location: FL1). (2) I/O board: Adding common mode filter to RX path of USB3.0 (Location: FL3). 2. Revising the black and white housing to the final version. 3. Adding Zero wait function for DFS. 4. Adding a set antennas (Model Name: MLX22M-121AA1-B) which is almost same as the original antenna but the grey color. The new antennas is available for the white housing only..	After evaluation, the test results don't be affected.

Note: All test results are based on original test report.



4. Test Frequency

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

Band [MHz]	Test Frequency [MHz]
2400-2483.5	2450
5150-5250	5200
5250-5350	5300
5470-5725	5600
5725-5850	5785
5850-5895	5885

5. Testing Location

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	05CH03-HY	Rex Liao	21-22 / 50-55	May 25, 2022~ May 26, 2022

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

6. Test Facility and Configuration

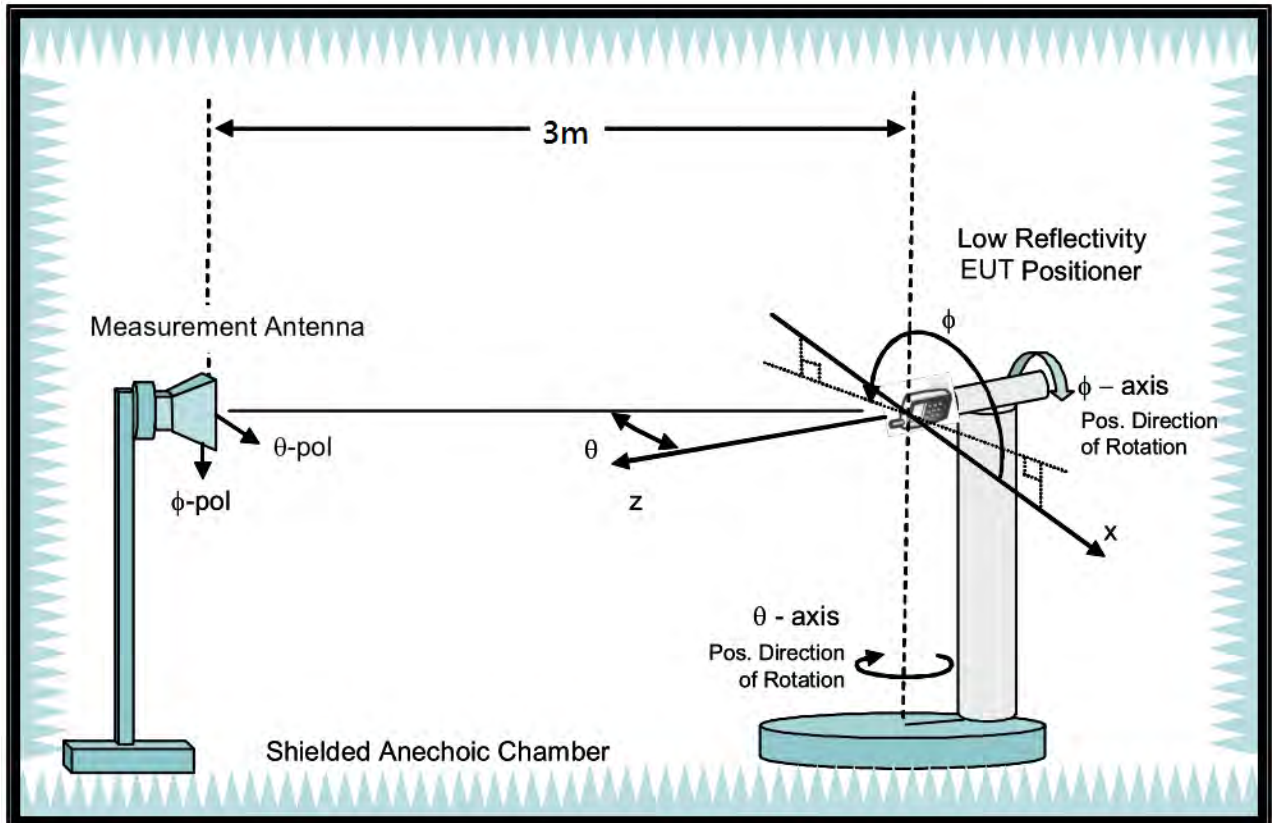
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

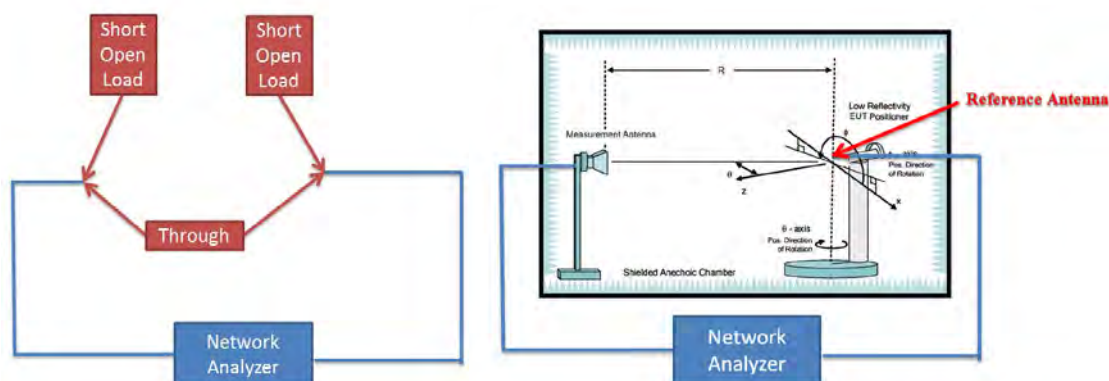
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



7. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7500
G reading (dB)	-31.4	-31.4	-31.3	-31.3	-31	-30.7	-30.1	-30.5	-30.5	-30.8	-31.3	-32.8	-34.4	-35.4
Reference gain (dBi)	10.2	10.4	10.6	12.4	12.8	13.4	13.4	13.3	13.3	13.1	13.2	12.3	11.7	11.1
Factor (dB)	41.34	41.55	41.68	43.24	43.56	43.68	43.79	43.91	43.99	44.43	44.49	45.24	46.12	46.31

Note:

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

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

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

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

8. Test Method

EUT set on multi-axis positioner and adjust EUT's physical center to measurement reference center. Measurement antenna set at phi polarization and 1.5 meter height. Port 1 of Network analyzer connect to antenna 1 of EUT. Record G value every 10 degree from 0 to 350 degree on Phi angle and 0 to 180 on theta angle of multi-axis positioner. Then set measurement antenna to theta polarization and repeat process. Repeat process to each antenna of EUT.

DG steps:

1. Each Phi and Theta polarization antenna gain are measured for all test angles.
2. Composite Phi and Theta antenna gain are computed, using formula in KDB662911 D01 d) (i) and e) (ii), for all angles.
3. Composite antenna gain are examined for all angles to determine max gain and Phi/Theta position. Max gain and phi/theta position are listed in section 9 tables.

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

9. Measured Values and Calculation of Maximum Gain Positions

For 2G 5GL

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G
Ant. 1 (dBi)	2.65	-0.07	3.14
Ant. 2 (dBi)	3.34	0.79	3.5
Ant. 3 (dBi)	-	2.32	-2.73
Ant. 4 (dBi)	-	-3	-5.47
DG [1SS] (dBi)	6.01	6.24	6.43
Polarization	Theta	Theta	Theta
$\Theta(^{\circ})$	70	60	80
$\Phi(^{\circ})$	90	200	150

Note: The DG 1SS max value position is the maximum value of section 13 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G
Ant. 1 [$10^{(G/20)}$]	$10^{(2.65/20)}$	$10^{(-0.07/20)}$	$10^{(3.14/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(3.34/20)}$	$10^{(0.79/20)}$	$10^{(3.5/20)}$
Ant. 3 [$10^{(G/20)}$]		$10^{(2.32/20)}$	$10^{(-2.73/20)}$
Ant. 4 [$10^{(G/20)}$]		$10^{(-3/20)}$	$10^{(-5.47/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.357	0.992	1.435
Ant. 2 [$10^{(G/20)}$] value	1.469	1.095	1.496
Ant. 3 [$10^{(G/20)}$] value		1.306	0.73
Ant. 4 [$10^{(G/20)}$] value		0.708	0.533
Sum All Antenna [Amax]	2.826	4.101	4.195
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	6.01	6.24	6.43

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 5GH

Mode 1: 5GH5.9G Ant.1~4

DG_1SS max value position

Frequency (Hz)	5.6G	5.785G	5.885G
Ant. 1 (dBi)	-1.42	1.29	2.17
Ant. 2 (dBi)	-1.98	-1.91	-1.69
Ant. 3 (dBi)	2.8	2.47	1.01
Ant. 4 (dBi)	0.2	2.32	1.03
DG [1SS] (dBi)	6.13	7.23	6.76
Polarization	Theta	Theta	Theta
$\Theta(^{\circ})$	90	90	90
$\Phi(^{\circ})$	0	330	330

Note: The DG 1SS max value position is the maximum value of section 13 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	5.6G	5.785G	5.885G
Ant. 1 [$10^{(G/20)}$]	$10^{(-1.42/20)}$	$10^{(1.29/20)}$	$10^{(2.17/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-1.98/20)}$	$10^{(-1.91/20)}$	$10^{(-1.69/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(2.8/20)}$	$10^{(2.47/20)}$	$10^{(1.01/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(0.2/20)}$	$10^{(2.32/20)}$	$10^{(1.03/20)}$
Ant. 1 [$10^{(G/20)}$] value	0.849	1.16	1.284
Ant. 2 [$10^{(G/20)}$] value	0.796	0.803	0.823
Ant. 3 [$10^{(G/20)}$] value	1.38	1.329	1.123
Ant. 4 [$10^{(G/20)}$] value	1.023	1.306	1.126
Sum All Antenna [Amax]	4.049	4.598	4.356
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	6.13	7.23	6.76

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 5GH

Mode 2: 5GH5.9G Ant.1~3 + 5GH5.9G Ant.5

DG_1SS max value position

Frequency (Hz)	5.6G	5.785G	5.885G
Ant. 1 (dBi)	0.84	1.8	-0.48
Ant. 2 (dBi)	-1.59	-0.84	0.02
Ant. 3 (dBi)	0.34	1.3	1.7
Ant. 5 (dBi)	-5.81	-8.89	-8.63
DG [1SS] (dBi)	4.83	5.25	4.95
Polarization	Theta	Theta	Theta
$\Theta(^{\circ})$	90	90	100
$\Phi(^{\circ})$	340	340	330

Note: The DG 1SS max value position is the maximum value of section 13 table DG 1SS Result.

DG_1SS max value position calculation

Frequency (Hz)	5.6G	5.785G	5.885G
Ant. 1 [$10^{(G/20)}$]	$10^{(0.84/20)}$	$10^{(1.8/20)}$	$10^{(-0.48/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-1.59/20)}$	$10^{(-0.84/20)}$	$10^{(0.02/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(0.34/20)}$	$10^{(1.3/20)}$	$10^{(1.7/20)}$
Ant. 5 [$10^{(G/20)}$]	$10^{(-5.81/20)}$	$10^{(-8.89/20)}$	$10^{(-8.63/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.102	1.23	0.946
Ant. 2 [$10^{(G/20)}$] value	0.833	0.908	1.002
Ant. 3 [$10^{(G/20)}$] value	1.04	1.161	1.216
Ant. 5 [$10^{(G/20)}$] value	0.512	0.359	0.37
Sum All Antenna [Amax]	3.486	3.659	3.535
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	4.83	5.25	4.95

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

10. Summary of Test Result

For 2G 5GL

Freq(Hz)	2.45G	5.2G	5.3G
Ant. 1 Max Gain (dBi)	4.1	3.53	3.81
Ant. 2 Max Gain (dBi)	3.39	3.26	4.32
Ant. 3 Max Gain (dBi)	-	2.32	2.96
Ant. 4 Max Gain (dBi)	-	2.31	2.44
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/130	Theta/90/250	Theta/80/80
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/80/90	Theta/70/140	Theta/80/140
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	-	Theta/60/200	Theta/50/200
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	-	Theta/50/330	Theta/50/330
Max Gain (dBi)	4.1	3.53	4.32
DG [1SS] (dBi)	6.01	6.24	6.43
DG [2SS] (dBi)	4.1	3.53	4.32
DG [4SS] (dBi)	-	3.53	4.32

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles. Each antenna max gain is the max value of measurement G of theta and phi through all measurement angles.
2. The max gain is the max value of all antennas.
3. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain.
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain.

For 5GH

Mode 1: 5GH5.9G Ant.1~4

Freq(Hz)	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	1.43	2.08	2.5
Ant. 2 Max Gain (dBi)	1.66	1.91	2.89
Ant. 3 Max Gain (dBi)	2.8	3.51	3.79
Ant. 4 Max Gain (dBi)	2.55	3.36	3.65
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/120/180	Theta/70/0	Theta/80/0
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/50/180	Theta/50/190	Theta/50/190
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/0	Theta/90/0	Theta/90/0
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/280	Theta/90/180	Theta/90/180
Max Gain (dBi)	2.8	3.51	3.79
DG [1SS] (dBi)	6.13	7.23	6.76
DG [2SS] (dBi)	3.13	4.23	3.79
DG [4SS] (dBi)	2.8	3.51	3.79

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles. Each antenna max gain is the max value of measurement G of theta and phi through all measurement angles.
2. The max gain is the max value of all antennas.
3. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain.
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain.

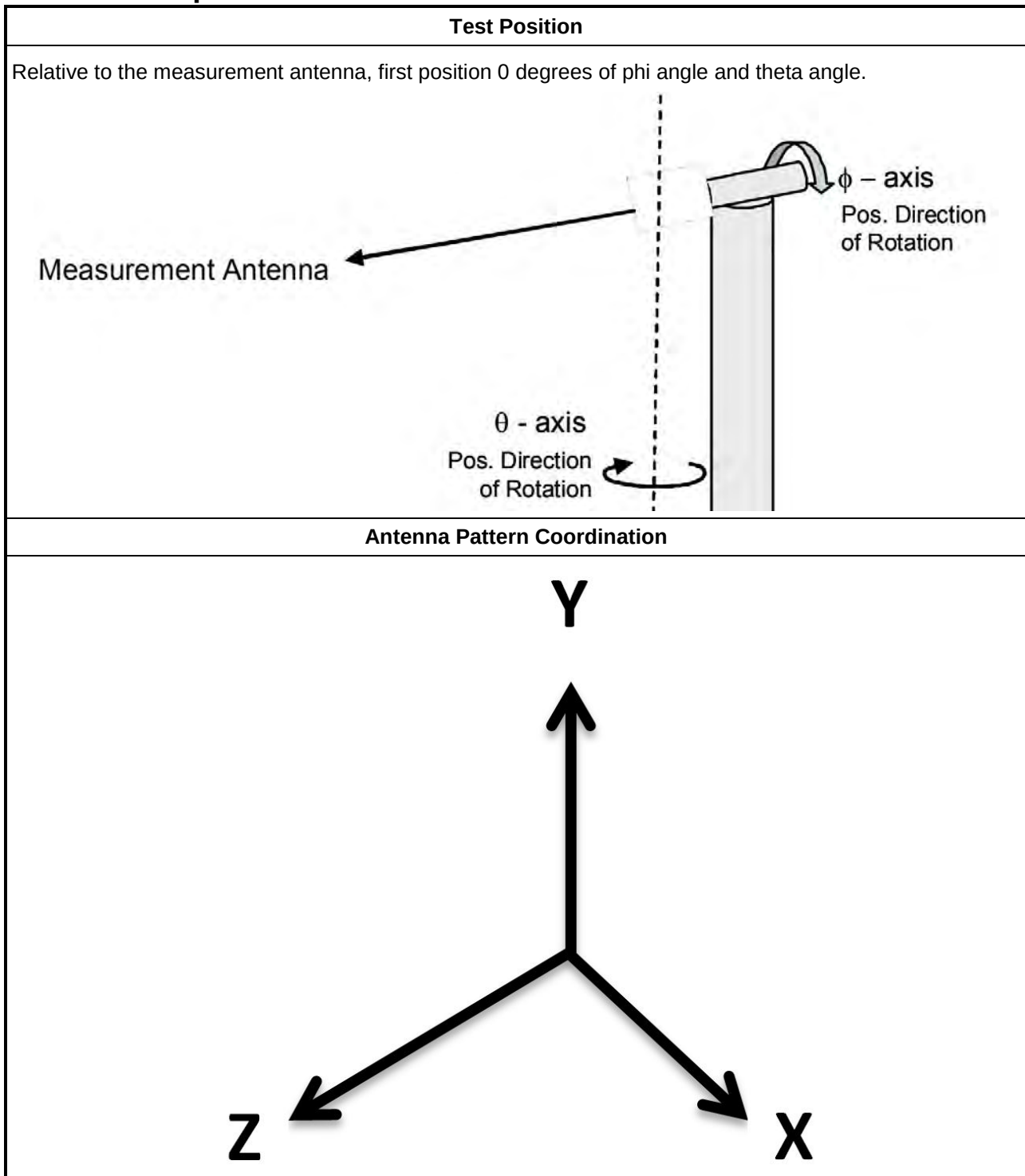
For 5GH
Mode 2: 5GH5.9G Ant.1~3 + 5GH5.9G Ant.5

Freq(Hz)	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	1.43	2.08	2.5
Ant. 2 Max Gain (dBi)	1.66	1.91	2.89
Ant. 3 Max Gain (dBi)	2.8	3.51	3.79
Ant. 5 Max Gain (dBi)	3.64	3.64	3.29
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/120/180	Theta/70/0	Theta/80/0
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/50/180	Theta/50/190	Theta/50/190
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/90/0	Theta/90/0	Theta/90/0
Ant. 5 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/20/20	Theta/0/180	Phi/80/290
Max Gain (dBi)	3.64	3.64	3.79
DG [1SS] (dBi)	4.83	5.25	4.95
DG [2SS] (dBi)	3.64	3.64	3.79
DG [4SS] (dBi)	3.64	3.64	3.79

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles. Each antenna max gain is the max value of measurement G of theta and phi through all measurement angles.
2. The max gain is the max value of all antennas.
3. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain.
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain.

11. Test Setup



Note:

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

**12. Test Equipment and Calibration Data**

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Aug. 04, 2021	Aug. 03, 2022
Dual Polarization Horn Antenna	Sporton	S0209DP	S0209DP-001	2GHz~9GHz	N.C.R.	N.C.R.
ENA Series Network Analyzer	AGILENT	E5071C	MY46419201	100kHz~8.5GHz	Feb. 21, 2022	Feb. 20, 2023
VNA Calibration Kit	TS RF	TS85033E-F	-	DC~9GHz	N.C.R.	N.C.R.
Multi-axis positioner	Sporton	MAPS01	MAPS01-001	Theta / Phi axis	N.C.R.	N.C.R.
Test Software	SPORTON	SENSE-RDG	V1.0.6	-	N.C.R.	N.C.R.

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

NCR means Non-Calibration required.



13. Test Results

Please refer to the appendix.

Appendix A – Radiated Composite Gain of 2.4GHz and 5GHz UNII 1, 2A.....	Page 18
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Freq(Hz)	2.45G	5.2G	5.3G
Ant. 1 Max Gain (dBi)	4.1	3.53	3.81
Ant. 2 Max Gain (dBi)	3.39	3.26	4.32
Ant. 3 Max Gain (dBi)		2.32	2.96
Ant. 4 Max Gain (dBi)		2.31	2.44
Ant. 1 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/90/130	Theta/90/250	Theta/80/80
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/80/90	Theta/70/140	Theta/80/140
Ant. 3 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$		Theta/60/200	Theta/50/200
Ant. 4 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$		Theta/50/330	Theta/50/330
Max Gain (dBi)	4.1	3.53	4.32
DG [1SS] (dBi)	6.01	6.24	6.43
DG [2SS] (dBi)	4.1	3.53	4.32
DG [4SS] (dBi)		3.53	4.32



Radiated Composite Gain Data of 2.4GHz and 5GHz UNII 1, 2A

Appendix A

DG 1SS Result

Freq(Hz)	2.45GPol.	PhiH-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	
DG(dBi)	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-8.91/-8.81	-8.88/-9.17	-9.76/-9.76	-9.66/-9.43	-9.47/-9.79	-10.15/-10.29	-10.3/-9.48	-8.18/-6.73	-6.61/-4.98	-4.78/-5.01	-5.58/-6.26	-6.99/-7.81	-8.66/-9.3	-9.64/-9.77	-10.17/-10.93	-11.18/-10.91	-10.44/-9.23	-8.61/-8.58
Θ(10°)	-7.5/-7.73	-8.67/-9.94	-11.34/-10.97	-9.53/-8.35	-7.71/-7.57	-7.88/-8.42	-9.47/-10.01	-9.43/-7.91	-6.56/-5.76	-5.53/-5.78	-6.31/-7.11	-7.79/-8.84	-9.79/-10.14	-11.59/-12.6	-13.68/-13.02	-11.91/-10.7	-9.01/-8	-7.48/-7.32
Θ(20°)	-7.66/-8.39	-9.92/-12.44	-14.43/-12.66	-9.61/-7.51	-6.75/-6.44	-6.53/-7.13	-8.44/-9.66	-10.56/-10.43	-9.54/-8.05	-7.21/-6.73	-7.01/-7.98	-8.98/-9.34	-10.17/-11.59	-13.32/-16.02	-14.16/-12.51	-10.42/-8.86	-7.88/-7.23	-7.26/-7.42
Θ(30°)	-12.05/-12.43	-12.73/-14.2	-15.55/-15.2	-10.86/-8.8	-7.59/-6.88	-6.71/-7.12	-15.55/-15.2	-10.99/-10.99	-9.65/-8.84	-8.8/-9.28	-9.82/-10.92	-12.73/-15.13	-16.52/-17.06	-15.97/-13.19	-11.72/-10.43	-9.96/-10.63	-11.48/-11.66	
Θ(40°)	-14.51/-14.88	-14.64/-13.9	-15.13/-16.44	-16.56/-14.43	-11.5/-8.55	-7.26/-6.97	-7.1/-7.03	-6.5/-6.18	-6.08/-6.39	-6.77/-7.61	-8.88/-10.43	-11.3/-12.51	-14.64/-16.68	-16.48/-15.81	-14.23/-11.85	-10.97/-10.47	-10.6/-11.53	-13.06/-13.24
Θ(50°)	-13.97/-12.64	-11.25/-9.99	-9.78/-10.97	-13.23/-16.97	-15.94/-13.96	-11.9/-9.84	-8.07/-6.36	-4.98/-4.28	-4.04/-4.1	-4.51/-5.3	-6.91/-9.12	-10.99/-11.91	-13.31/-15.76	-15.46/-12.72	-10.93/-9.49	-8.8/-9.14	-9.6/-10.79	-11.82/-13.67
Θ(60°)	-7.09/-6.4	-5.9/-6.6	-7.71/-8.47	-8.94/-10.68	-12.66/-11.89	-10.96/-11.72	-13.9/-14.01	-11.44/-9.58	-8.35/-8.39	-9.23/-10.19	-10.35/-11.41	-11.8/-13.12	-12.73/-10.98	-9.17/-8.21	-8.44/-9.35	-10.73/-10.52	-9.59/-8.36	
Θ(70°)	-11.48/-9.6	-8.58/-9.17	-10.75/-13.75	-16.27/-16.66	-15.43/-14.25	-12.93/-11.07	-10.04/-9.36	-9.09/-8.69	-8.72/-8.77	-7.44/-7.74	-7.24/-6.53	-7.82/-11.13	-14.57/-14.69	-12.77/-10.56	-9.01/-7.73	-7.5/-8.25	-11.47/-16.97	-15.98/-13.78
Θ(80°)	-7.14/-6.54	-6.65/-7.37	-8.32/-9.54	-10.54/-10.19	-8.62/-7.69	-8.45/-10.72	-14.49/-14.54	-13.19/-11.97	-10.99/-9.63	-8.23/-7.41	-7.02/-7.18	-9.38/-11.33	-11.74/-12.23	-11.63/-11.25	-10.36/-9.55	-10.2/-10.96	-11.67/-10.73	-9.83/-8.22
Θ(90°)	-11.24/-9.4	-8.23/-7.86	-7.88/-8.81	-9.81/-10.19	-9.09/-7.06	-6.12/-6.77	-8.36/-10.02	-10.22/-9.82	-9.1/-8.71	-8.86/-9.95	-11.71/-12.23	-11.53/-9.14	-6.95/-5.72	-5.72/-6.87	-8.88/-11.93	-13.94/-14.58	-13.5/-12.86	
Θ(100°)	-11.61/-9.6	-8.49/-8.01	-7.47/-6.8	-6.75/-7.13	-7.22/-6.72	-6.48/-6.95	-7.8/-9.33	-10.64/-10.96	-12.06/-13.24	-15.07/-13.72	-11/-10.58	-10.6/-9.3	-7.47/-7.21	-7.99/-9.1	-10.17/-10.7	-12.41/-15.31	-15.1/-14.31	-12.71/-12.6
Θ(110°)	-16.04/-12.98	-9.54/-8.42	-8.4/-7.53	-6.73/-6.29	-6.21/-6.76	-7.7/-8.66	-8.95/-8.98	-9.05/-7.94	-7.06/-8.8	-12.18/-14.26	-14.69/-13.67	-8.28/-4.93	-3.77/-4.35	-6.55/-9.96	-11.93/-13.21	-15.53/-14.54	-14.67/-15.16	-15.69/-16.17
Θ(120°)	-14.12/-9.66	-6.76/-5.95	-7.13/-7.82	-10.89/-8.62	-8.69/-8.53	-8.63/-8.82	-6.26/-6.99	-10.89/-8.68	-6.35/-6.61	-9.36/-12.68	-15.31/-11.41	-8.18/-5.66	-5.61/-7.68	-9.63/-12.22	-12.66/-14.96	-15.94/-14.17	-14.56/-16.94	-16.51/-16.42
Θ(130°)	-16.71/-16.33	-11.11/-9.86	-10.72/-9.59	-8.6/-9.07	-10.55/-12.74	-13.57/-12.04	-10.51/-9.41	-8.87/-9.1	-8.52/-8.02	-8.98/-11.39	-9.71/-5.94	-3.94/-3.67	-4.49/-6.21	-9.08/-11.71	-12.81/-16.13	-17.35/-15.08	-12.77/-11.69	-12.01/-14
Θ(140°)	-10.08/-10.77	-11.67/-13.26	-16.66/-13.18	-10.6/-9.23	-9.3/-9.59	-9.62/-8.99	-7.93/-7.08	-6.56/-6.47	-6.99/-8.17	-10.4/-13.4	-12.96/-10.26	-8.91/-8.36	-8.08/-9.27	-10.95/-10.51	-8.47/-7.75	-8.22/-8.95	-8.36/-7.87	-8.14/-9.06
Θ(150°)	-8.65/-9.13	-10.08/-12.74	-15.29/-15.77	-13.4/-12.64	-12.94/-12.98	-12.05/-10.88	-9.61/-9.67	-8.34/-7.09	-6.13/-5.17	-4.38/-3.82	-3.65/-3.96	-4.8/-5.68	-6.32/-6.7	-6.67/-6.4	-6.14/-5.84	-5.3/-5.36	-6.31/-7.8	
Θ(160°)	-7.21/-6.97	-7.06/-8.08	-9.84/-11.97	-14.62/-15.82	-15.59/-16.35	-14.69/-13.85	-14.35/-16.14	-16.28/-16.69	-5.56/-4.13	-3.47/-3.1	-3.34/-4.19	-5.7/-7.16	-8.22/-8.34	-8.22/-8.08	-8.33/-8.38	-7.92/-7.61	-7.51/-7.39	
Θ(170°)	-6.43/-6.15	-6.36/-7.04	-8.53/-10.73	-13.69/-15.8	-16.6/-14.81	-13.07/-12.38	-11.76/-11.63	-11.61/-11.08	-8.81/-8.78	-7.92/-7.62	-7.73/-7.76	-8.46/-9.78	-11.71/-12.03	-12/-12.22	-11.75/-12.43	-12.52/-12.75	-12.3/-10.83	-8.99/-7.53
Θ(180°)	-6.4/-6.72	-7.35/-8.23	-9.66/-11.53	-13.49/-14.57	-14.43/-13.82	-13.16/-12.7	-12.21/-11.82	-12.03/-11.87	-12.03/-12.07	-11.88/-12.24	-12.14/-12.27	-12.26/-11.98	-12.33/-12.45	-12.21/-11.66	-11.37/-10.98	-10.59/-9.76	-9.14/-8.15	-7.11/-6.74
Freq(Hz)	2.45GPol.	ThetaH-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-8.01/-9.3	-10.73/-11.34	-10.58/-9.99	-9.45/-9.1	-6.95/-6.74	-8.49/-9.72	-10.11/-10.04	-6.86/-6.76	-6.89/-9.72	-10.11/-10.04	-8.87/-9.13	-7.91/-7.26	-6.66/-6.76	-6.88/-6.61	-11.71/-12.9	-7/-7.33	-7.13/-9.92	-7.09/-7.37
Θ(10°)	-6.67/-6.21	-5.86/-5.16	-4.56/-4.25	-4.06/-3.73	-3.32/-2.74	-2.57/-2.46	-2.42/-2.54	-2.79/-3.24	-3.87/-4.93	-6.29/-8.29	-10.36/-12.51	-14.05/-15.35	-16.33/-16.46	-15.67/-14.29	-14.32/-13.11	-12.52/-11.71	-10.58/-9.4	-8.43/-7.33
Θ(20°)	-3.46/-2.66	-1.95/-1.43	-1.05/-0.87	-0.81/-0.73	-0.55/-0.44	-0.41/-0.48	-0.84/-1.18	-1.61/-2.07	-2.57/-3.23	-4.14/-5.39	-6.82/-8.19	-9.47/-10.19	-10.6/-11.44	-12.17/-12.34	-11.2/-10.04	-9.34/-8.19	-6.78/-5.54	-4.67/-4.01
Θ(30°)	-3.06/-2.34	-1.47/-0.71	-0.07/-0.37	0.62/-0.79	0.97/-1.04	0.83/-0.51	0.05/-0.49	-0.95/-1.23	-1.61/-2.13	-3.11/-4.35	-5.75/-7.18	-7.89/-7.74	-7.31/-6.62	-5.92/-5.44	-5.04/-4.9	-4.79/-4.64	-4.27/-3.8	-3.51/-3.3
Θ(40°)	-1.35/-0.98	-0.3/-0.5	1.12/-1.51	1.69/-1.93	0.52/-0.74	1.17/-1.16	0.62/-0.57	0.57/-0.44	-0.23/-0.9	-1.45/-1.79	-2.32/-2.81	-3.15/-3.25	-2.89/-2.36	-2.15/-2.07	-2.02/-2.02	-2.21/-2.39	-2.22/-1.86	-1.57/-1.42
Θ(50°)	0.69/-0.6	1.11/-1.99	2.54/-2.61	2.74/-3.38	2.28/-1.29	4.08/-4.4	4.25/-3.87	3.69/-3.85	3.91/-3.35	2.28/-1.29	0.91/-0.54	0.03/-0.79	-1.52/-1.57	-1.09/-1.02	-1.16/-1.14	-1/-0.79	-0.54/-0.3	0.09/-0.68
Θ(60°)	-0.67/-1.43	-1.26/-0.3	1.56/-2.31	3.38/-4.73	5.58/-6.76	5.41/-4.75	4.28/-4.31	4.24/-3.47	2.28/-1.64	1.58/-1.2	0.35/-0.84	-2.46/-4.66	-4.82/-3.82	-2.39/-1.13	-0.66/-1.02	-1.09/-1.01	-1.06/-0.68	-0.17/-0.06
Θ(70°)	3.15/-2.73	2.22/-3.3	2.77/-3.14	3.97/-5.21	5.93/-6.01	5.85/-5	5.12/-6.13	4.91/-5.5	1.63/-1.22	1.41/-29	1.06/-0.85	0.13/-1.11	0.52/-0.89	-2.85/-1.83	1.15/-0.92	0.55/-0.46	0.52/-0.82	1.82/-81
Θ(80°)	3.98/-3.69	3.21/-3.5	4.01/-3.67	3.87/-4.95	5.48/-5.09	4.81/-4.86	4.59/-4.92	5.23/-3.85	2.24/-2.47	2.83/-2.81	2.76/-2.79	2.88/-2.65	1.56/-0.45	0.78/-1.43	1.37/-1.67	2.01/-1.85	2.21/-2.58	3.05/-3.71
Θ(90°)	3.58/-3.07	2.29/-2.27	3.21/-3.39	3.64/-4.8	4.78/-4.08	3.87/-4.25	4.35/-5.11	5.28/-4.1	2.16/-2.8	3.09/-2.77	2.47/-2.69	3.33/-47	3.26/-2.44	1.97/-2.42	2.42/-2.41	3.2/-67	2.43/-2.72	3.12/-3.47
Θ(100°)	0.92/-0.66	-1.75/-0.34	2.62/-3.29	3.22/-3.24	2.93/-1.89	0.52/-0.71	-1/-0.78	0.88/-0.07	0.19/-1.36	0.82/-0.46	0.19/-1.36	0.82/-0.46	0.19/-1.36	0.82/-0.46	0.19/-1.36	0.82/-0.46	0.19/-1.36	0.82/-0.46
Θ(110°)	1.81/-0.97	-1.26/-2	0.62/-0.69	-0.69/-1.14	-1.35/-1.92	-2.21/-2.11	-1.20/-71	0.24/-1.62	0.82/-2.12	1.61/-0.89	1.17/-1.36	0.85/-0.26	-2.31/-1.3	1.41/-2.08	0.53/-0.59	1.91/-2.75	3.32/-7	1.55/-1.52
Θ(120°)	0.83/-1.51	0.51/-1.36	-0.68/-0.24	-0.56/-0.28	0.07/-0.26	-1.08/-1.85	-1.06/-0.19	-0.44/-0.47	2.41/-3.6	3.34/-2.75	2.24/-1.38	0.49/-0.25	0.02/-1.84	3.02/-2.68	0.63/-2.35	-1.29/-0.01	0.25/-0.21	-0.34/-0.41
Θ(130°)	1.14/-1.64	0.68/-1.89	-3.61/-2.03	-1.33/-1.59	-1.9/-2.01	-0.15/-0.33	0.64/-0.22	-0.97/-1.27	2.82/-66	-1.41/-1.08	0.49/-1.27	2.82/-66	-1.41/-1.08	0.49/-1.27	2.82/-66	-1.41/-1.08	0.49/-1.27	2.82/-66
Θ(140°)	-2.64/-3.08	-4.21/-4.78	-4.3/-3.02	-1.95/-1.32	-0.97/-0.6	-0.16/-0.26	0.11/-0.16	-1.61/-1.35	-0.22/-0.58	0.68/-0.38	-0.25/-1.54	-3.2/-3.87	-2.93/-2.04	-2.13/-2.27	-2.52/-3.34	-4.11/-3.22	-2.14/-2.05	-2.57/-2.53
Θ(150°)	-2.14/-2.92	-3.88/-4.76	-5.2/-5.85	-6.16/-5.44	-4.73/-3.62	-2.67/-2.06	-2.01/-2.44	-3.59/-4.86	-5.91/-6.29	-7/-8.18	-9.57/-8.64	-6.75/-3.12	-1.16/-0.1	0.26/-0.02	-0.64/-1.73	-2.83/-3.09	-2.47/-1.82	-1.62/-1.63
Θ(160°)	-4.31/-4.35	-4.07/-3.87	-3.97/-4.19	-4.35/-4.69	-5.04/-5.68	-5.82/-5.77	-5.4/-5.43	-5.35/-5.23	-5.17/-5.01	-4.56/-4.58	-4.76/-4.52	-4.75/-3.12	-3.39/-3.02	-2.93/-3.1	-3.47/-3.96	-4.75/-5.31	-5.51/-4.62	-4.91/-4.57
Θ(170°)	-7.3/-6.55	-6.16/-6.04	-6.11/-6.17	-5.88/-5.76	-5.69/-6.38	-7.22/-8.17	-9.26/-10.31	-11.01/-10.31	-9.69/-9.67	-9.92/-10.47	-11.76/-13.34	-14.42/-14.16	-12.63/-11.71	-11.19/-10.99	-10.43/-9.47	-8.51/-8.24	-8.33/-8.25	-7.92/-7.56
Θ(180°)	-9.3/-8.85	-8.26/-7.6	-6.65/-6.79	-5.3/-5.12	-5.03/-5.35	-5.85/-6.69	-7.86/-9.13	-10.27/-10.72	-11.17/-11.44	-11.61/-11.13	-10.48/-9.98	-9.5/-8.88	-8.25/-7.73	-7.81/-7.91	-8.17/-8.31	-8.97/-9.19	-9.5/-9.71	-9.67/-9.34
Freq(Hz)	5.2GPol.	PhiH-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-9.4/-10.09	-10.71/-10.11	-8.32/-7.09	-5.7/-7.73	-4.58/-3.59	-2.93/-2.97	-3.22/-3.66	-4.3/-4.8	-5.57/-7.74	-10.26/-12.1	-10.8/-9.27	-6.08/-6.59	-5.36/-4.83	-4.19/-3.72	-3.11/-3.38	-3.96/-3.95	-4.09/-4.86	-6.56/-8.66
Θ(10°)	-8.7/-8.66	-7.9/-9.91	-5.85/-5.33	-5.69/-6.43	-6.17/-6.58	-5.92/-6.09	-2.51/-2.05	-2.53/-2.21	-5.92/-6.68	-7.21/-6.59	-1.07/-7.77	-4.92/-4.61	-4.29/-4.33	-4.03/-5.23	-1.42/-2.41	-4.03/-5.23	-4.67/-4.01	
Θ(20°)	-6.61/-6.92	-7.08/-6.3	-5.18/-4															



Radiated Composite Gain Data of 2.4GHz and 5GHz UNII 1, 2A

Appendix A

Θ (60°)	4.48/4.71	3.75/2.85	2.42/4.3	1.67/0.88	1.63/1.92	1.91/1.95	2.67/4.01	5.51/5.33	5.1/4.7	4.57/5.01	5.67/4.67	2.43/1.19	0.23/-1.64	-2.07/-1.41	-1.37/1.64	2.58/1.33	1.17/2.47	2.76/3.06
Θ (70°)	3.45/4.2	4.57/4.78	4.01/3.12	3.04/3.05	4.35/3.74	3.71/4.48	3.95/4.71	5.73/5.89	5.47/4.58	4.08/4.6	5.52/5.44	4.22/3.49	1.44/1.43	-1.13/-1.69	0.58/1.12	2.28/2.85	2.69/3.36	3.81/3.36
Θ (80°)	3.16/3.71	4.91/5.15	3.78/2.86	3.73/4.46	5.68/5.29	5.3/4.98	4.79/5.16	5.99/6.43	6.14/5.1	3.82/4.25	5.55/6.17	4.78/3.52	3.18/4.24	3.07/2.66	3.38/2.99	2.02/2.74	3.18/4.57	5.04/4.7
Θ (90°)	4.43/4.23	4.44/4.31	3.95/3.82	3.92/4.26	5.92/4.23	4.19/5.03	4.91/4.33	5.02/3.77	4.66/4.31	5.01/3.66	3.98/5.04	4.92/3.66	3.59/4.81	4.94/4.53	4.97/3.17	2.17/3.78	4.36/4.64	4.22/4.9
Θ (100°)	5.42/2.94	2.14/2.74	3.86/2.4	2.65/2.65	4.2/2.63	3.25/1.71	1.49/1.07	3.96/1.38	2.17/2.73	4.12/4.51	5.43/5	4.1/4.9	4.34/5.42	4.24/3.71	5.2/2.17	1.78/4.35	4.59/4.74	4.71/5.52
Θ (110°)	3.53/0.09	0.67/1.37	1.92/1.3	2.66/0.75	2.15/0.59	0.8/1.1	1.15/-1.55	2.11/-1.22	-0.47/0.93	3.03/1.83	1.37/2.73	2.64/2.43	1.52/2.92	3.05/2.09	3.63/1.72	-1.01/2.85	2.32/0.57	0.43/3.04
Θ (120°)	4.24/1.64	0.23/-0.96	-2.82/-0.58	0.48/-2.69	-1.17/-1.95	-5.68/-5.86	-1.57/-4.24	-2.5/0.55	-0.53/-0.59	2.44/1.8	-0.83/0.77	1.47/2.12	1.31/0.85	0.03/-1.4	2.46/-5.2	-1.06/1.91	0.49/0.11	-0.35/3.48
Θ (130°)	-0.99/-0.26	-3.7/-3.16	-6.71/-2.28	-2/-2.34	-2.04/-2.85	-7.39/-5.15	-1.72/-2.66	-7.53/-2.38	-1.96/-1.2	-1.96/-1.9	-0.47/-1.17	-2.28/-1.63	-2.1/-2.15	-3.09/-2.96	-2.39/-4.74	-4.34/-5.11	-0.09/0.09	-0.9/-1.77
Θ (140°)	-3.49/-1.17	-0.8/-4.46	-4.77/-3.58	-2.62/-2.73	-1.53/-1.91	-4.47/-4.18	-2.12/-2.49	-4.23/-7.3	-6.09/-1.79	-0.69/-1.92	-4.34/-2.57	-3.17/-2.79	-1.15/-0.83	-2.46/-5.05	-3.61/-4.15	-4.2/-3.25	-3.34/-1.78	-3.25/-2.13
Θ (150°)	-0.75/-3	-3.73/-2.3	-2.34/-3.18	-4.8/-5.73	-3.76/-3.56	-3.76/-3.61	-2.42/-3.22	-4.7/-3.01	-2.07/-1.44	-0.81/-0.39	-0.87/-1.78	-3.68/-2.8	-2.71/-2.69	-5.1/-10.1	-5.95/-4.34	-3.21/-4.18	-4.34/-2.76	-2.17/0.81
Θ (160°)	-2.46/-0.82	-1.21/-2.65	-3.56/-3.95	-3.96/-3.79	-3.01/-2.59	-2.33/-2.53	-2.96/-3.26	-3.2/-2.31	-1/0.03	0.46/0.17	-0.53/-0.97	-2.09/-2.5	-3.39/-5.6	-6.91/-8.17	-6.8/-5.04	-4.76/-5.79	-4.85/-3.91	-5.43/-4.3
Θ (170°)	-3.72/-4.17	-3.5/-2.69	-2.63/-3.63	-3.8/-3.19	-2.99/-2.97	-3.68/-3.49	-2.57/-2.2	-2.15/-2.46	-2.74/-2.71	-1.98/-1.55	-1.36/-1.16	-0.89/-0.86	-1.32/-2.57	-4.18/-5.47	-5.02/-3.41	-1.92/-1.21	-1.36/-1.42	-1.96/-3.12
Θ (180°)	-2.67/-1.41	-1.3/-1.7	-2.32/-3.14	-4.1/-5.15	-6.29/-6.83	-6.16/-5.5	-5.15/-5.04	-4.77/-3.71	-2.91/-1.82	-1.03/-0.98	-1.38/-1.98	-2.68/-3.56	-4.78/-5.74	-6.46/-7.49	-8.61/-8.93	-9.14/-9.56	-8.18/-6.76	-4.67/-3.39



Radiated Composite Gain Data of 2.4GHz and 5GHz UNII 1, 2A

Appendix A

Gain Result

Freq(Hz)	2.45GPol.	PhiAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-12.43/-12.6	-13.24/-13.73	-14.55/-14.16	-13.86/-13.39	-12.97/-12.99	-11.47/-10.8	-9.88/-8.93	-7.89/-7.05	-6.58/-6.6	-7.79	-9.18/-10.7	-17.89/-15.31	-16.36/-18.31	-13.49/-12.11	-11.09/-10.48	-10.32/-10.26	-10.73/-11.36	
Θ(10°)	-10.39/-10.75	-11.77/-13.22	-14.94/-14.74	-13.42/-12.41	-11.57/-10.89	-10.53/-9.95	-9.57/-9.24	-8.56/-8.03	-8.01/-8.28	-9.14/-10.43	-11.95/-13.76	-15.61/-17.83	-19.59/-18.79	-20.17/-17.56	-15.17/-13.3	-11.87/-10.85	-10.24/-9.99	-10.18/-10.25
Θ(20°)	-10.98/-11.35	-12.48/-14.27	-16.27/-16.06	-13.9/-11.9	-11.15/-10.52	-10.11/-9.92	-10.32/-9.63	-10.05/-9.79	-9.95/-10.44	-11.48/-12.91	-14.68/-17.59	-20.12/-19.32	-18.79/-19.75	-18.96/-18.07	-15.82/-14.05	-12.66/-11.47	-11.03/-10.62	-10.86/-10.98
Θ(30°)	-19.44/-18.75	-17.34/-16.76	-17.59/-17.61	-13.95/-12.37	-17.59/-17.61	-10.13/-10.47	-10.11/-10.11	-10.39/-10.97	-10.11/-10.1	-10.51/-11.37	-12.52/-14.29	-16.63/-18.72	-19.39/-19.26	-19.58/-19.35	-18.98/-20.06	-20.06/-19.73	-19.28/-19.72	-19.71/-19.2
Θ(40°)	-15.39/-17.5	-20.78/-19.47	-19.2/-20.09	-19.44/-15.64	-12.39/-9.48	-8.43/-7.94	-7.8/-7.23	-6.6/-6.39	-8.66/-8.03	-9.63/-12.22	-15.32/-19.56	-19.48/-19	-18.89/-19.73	-19.6/-19.14	-19.29/-18.6	-19.17/-19.33	-17.93/-15.86	-14.1/-14.07
Θ(50°)	-20.48/-19.72	-19.17/-15.98	-13.69/-13.72	-15.45/-20.86	-19.51/-16.95	-12.26/-10.18	-8.16/-6.26	-4.94/-4.57	-4.92/-5.92	-7.57/-9.48	-12.14/-15.68	-17.87/-17.55	-16.8/-17.52	-19.53/-19.13	-19.95/-19.78	-18.9/-20.11	-19.17/-20.1	-18.61/-19.62
Θ(60°)	-10.47/-10.21	-10.9/-13.43	-15.8/-15.58	-13.51/-13.12	-14.45/-14.6	-14.35/-15.09	-17.5/-17.17	-14.19/-12.88	-12.81/-14.44	-17.29/-19.93	-18.72/-20.12	-16.93/-15.18	-13.87/-13.32	-13.49/-13.43	-13.3/-13.13	-13.85/-14.34	-15/-15.93	-14.78/-12.24
Θ(70°)	-11.37/-9.98	-10/-11.79	-14.39/-18.81	-20.19/-19.69	-18.21/-15.77	-12.98/-11.05	-9.77/-9.46	-10.23/-11.67	-14.23/-16.33	-13.98/-17.65	-17.72/-14.53	-14.09/-15.02	-16.44/-18.48	-18.48/-19.08	-19.95/-16.8	-15.05/-15.45	-19.08/-19.77	-18.96/-14.62
Θ(80°)	-9.08/-8.76	-9.03/-10.35	-12.61/-16.37	-19.3/-16.93	-13.12/-11.6	-12.26/-14.79	-17.99/-16.22	-13.99/-13.31	-13.97/-14.98	-15.43/-16.23	-14.86/-12.72	-13.15/-13.32	-13.43/-15.51	-17.08/-18.53	-19.12/-18.72	-19.03/-19.74	-20.4/-14.14	-11.11/-9.82
Θ(90°)	-14.59/-13.66	-13.28/-12.89	-12.6/-14.15	-15.72/-14.67	-11.63/-9.14	-7.74/-7.7	-8.34/-9.73	-10.17/-9.09	-11.69/-14.09	-16.86/-18.67	-18.92/-15.8	-13.08/-10.87	-9.59/-9.51	-10.83/-13.62	-17.18/-19.41	-18.43/-19.84	-17.41/-16.25	
Θ(100°)	-16.31/-13.94	-12.85/-12.59	-13.15/-14.12	-14.81/-13.96	-11.75/-9.16	-7.24/-6.67	-6.97/-8.48	-9.99/-10.82	-11.99/-13.7	-16.79/-20.09	-19.64/-19.1	-15.72/-11.96	-9.5/-9.29	-10.52/-13.96	-19.09/-19.48	-19.41/-18.93	-16.52/-15.14	-16.07/-17.95
Θ(110°)	-19.75/-13.28	-10.69/-11.26	-13.95/-15.68	-16.54/-15.61	-13.35/-12.33	-11.41/-10.6	-10.08/-9.98	-9.86/-9.52	-9.26/-9.78	-12.26/-17.55	-19.96/-15.29	-10.12/-7.11	-6.39/-7.81	-10.88/-16.57	-20.06/-19.78	-19.5/-16.46	-15.91/-16.62	-18.94/-19.02
Θ(120°)	-15.12/-9.75	-7.41/-7.74	-11.05/-14	-15.57/-16.73	-10.24/-9	-9.21/-8.87	-9.41/-10.07	-8.65/-12.9	-7.28/-6.73	-17.17/-19.72	-17.85/-11.34	-11.02/-15.84	-18.29/-19.76	-18.76/-15.82	-16.37/-16.22	-18.87/-19.02		
Θ(130°)	-19.68/-18.65	-13.74/-14.54	-19.47/-17.31	-15/-16.79	-19.14/-19.66	-16.89/-15.19	-15.96/-16.7	-14.63/-11.15	-7.8/-6.81	-8.26/-11.42	-13.48/-12.17	-9.81/-9.13	-11.14/-15.71	-19.6/-18.65	-16.06/-19.77	-20.21/-16.67	-16.47/-16.51	-14.44/-15.14
Θ(140°)	-13.27/-14.23	-19.51/-19.14	-16.19/-14.89	-16.12/-16.64	-16.84/-17.36	-17.81/-19.82	-18.91/-15.07	-11.68/-11.12	-12.57/-14.8	-16.34/-16.47	-16.1/-17.23	-18.54/-19.82	-16.56/-11.09	-8.41/-7.99	-8.94/-10.56	-10.54/-9.95	-9.73/-10.4	
Θ(150°)	-11.46/-11.57	-12.29/-15.32	-18.93/-19.45	-16.34/-15.04	-16.99/-19.25	-19.41/-19.08	-18.98/-17.69	-8.16/-7.26	-12.62/-9.67	-8.16/-7.26	-8.02/-10.05	-12.76/-13.3	-10.73/-9.99	-6.24/-6.55	-5.93/-6.7	-7.02/-7.55	-8.64/-10.44	
Θ(160°)	-9.67/-9.39	-10.03/-11.86	-14.1/-15.43	-16.25/-18.45	-18.33/-19.93	-19.62/-18.91	-19.27/-19.59	-19.27/-19.42	-14.61/-10.97	-8.5/-6.78	-6.01/-5.98	-6.69/-8.27	-11.2/-13.37	-14.07/-12.27	-10.77/-10.17	-10.88/-11.69	-11.79/-11.32	-10.88/-10.36
Θ(170°)	-10.62/-9.85	-10.01/-10.84	-12.54/-14.31	-16.2/-17.78	-19.67/-19.23	-18.41/-18.12	-17.66/-17.33	-17.2/-16.56	-14.93/-13.76	-12.91/-11.99	-11.91/-11.88	-12.83/-14.96	-18.02/-19.51	-19.22/-20.11	-18.31/-19.59	-19.02/-19.8	-19.06/-18.38	-15.72/-13.29
Θ(180°)	-10.66/-10.4	-11.13/-12.44	-14.55/-16.57	-18.77/-20.02	-19.53/-18.84	-17.73/-17.59	-17.57/-17.56	-18.48/-19.38	-20.36/-19.52	-19.02/-19.91	-18.86/-19.21	-19.64/-18.79	-19.36/-19.71	-18.63/-17.46	-16.71/-16.15	-15.77/-15.45	-15.45/-14.59	-13.07/-11.94
Freq(Hz)	2.45GPol.	ThetaAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-11.73/-12.4	-10.9/-11.13	-10.9/-9.16	-9.52/-9.10	-10.88/-10.73	-10.16/-11.39	-9.71/-11.57	-9.07/-8.16	-8.72/-10.18	-9.79/-9.48	-8.37/-8.74	-11.76/-12.16	-11.55/-10.98	-10.87/-11.07				
Θ(10°)	-6.82/-6.13	-5.36/-4.41	-3.78/-3.42	-3.49/-3.66	-4.13/-4.62	-5.45/-5.98	-6.53/-6.96	-7.34/-8.01	-8.72/-9.77	-11.02/-12.85	-14.61/-16.21	-17.41/-18.73	-20.16/-19.48	-19.71/-18.98	-20.11/-17.07	-14.68/-12.21	-10.16/-8.82	-7.99/-7.36
Θ(20°)	-3.34/-2.58	-1.83/-1.18	-0.6/-0.24	-0.11/-0.37	-0.89/-1.73	-2.54/-3.15	-3.9/-4.51	-5.1/-5.68	-6.44/-7.43	-8.49/-9.75	-11.05/-14.24	-13.88/-14.75	-14.76/-15.12	-14.61/-13.08	-11.17/-9.67	-8.31/-7.1	-6.16/-5.21	-4.51/-3.91
Θ(30°)	-3.69/-2.83	-1.89/-1.03	-0.17/-0.44	0.75/-0.67	0.22/-0.54	-7.25/-6.06	-8.78/-9.58	-9.77/-9.71	-7.28/-6.67	-4.88/-8.58	-8.77/-9.71	-4.68/-4.33	-5.49/-4.73	-4.83/-4.69	-4.69/-4.33	-3.31/-3.11	-3.93/-5.76	-9.49/-9.87
Θ(40°)	-3.27/-2.62	-1.77/-0.86	0.05/-0.89	1.39/-1.57	1.33/-0.66	-0.34/-1.28	-2.01/-2.48	-3.18/-3.86	-4.99/-5.94	-6.43/-6.28	-6.2/-5.87	-5.53/-5.37	-5.09/-4.58	-4.32/-4.15	-4.02/-3.88	-3.82/-3.91	-4.13/-4.32	-4.15/-3.77
Θ(50°)	-3.23/-2.77	-1.55/-0.03	1.27/-0.26	2.56/-2.87	2.89/-2.62	1.99/-1.41	1.10/-93	0.68/-0.08	-1.01/-2.17	-2.54/-2.5	-2.14/-1.89	-1.88/-2.1	-2.66/-3.78	-4.76/-5.43	-3.88/-3.47	-3.36/-3.35	-3.4/-3.41	-3.4/-3.53
Θ(60°)	-9.19/-9.65	-8.96/-4.95	1.45/-0.6	1.45/-0.6	1.74/-2.5	2.72/-2.37	1.88/-1.38	0.95/-0.23	2.69/-2.93	3.3/-3.93	5.31/-7.07	6.59/-4.64	6.31/-3.93	5.31/-3.93	5.31/-3.93	5.31/-3.93	5.31/-3.93	5.31/-3.93
Θ(70°)	-1.55/-1.65	-2.82/-3.16	-1.72/-0.08	1.43/-2.68	2.94/-2.65	2.52/-2.62	2.85/-2.91	2.09/-0.1	-2.38/-3.24	-3.27/-3.2	-2.78/-1.88	-1.48/-1.01	-1.3/-1.65	-1.51/-0.97	-0.89/-1.35	-2.33/-4.4	-6.23/-5.85	-4.08/-2.37
Θ(80°)	0.23/-0.37	-0.31/-0.29	0.77/-0.71	1.05/-1.97	1.78/-0.54	0.33/-1.29	2.22/-2.92	2.83/-1.61	-0.03/-0.82	-0.59/-0.43	-0.14/-0.21	0.61/-0.1	0.67/-0.43	-1.14/-0.93	-0.65/-0.73	-1.55/-2.88	-3.78/-3.24	-1.62/-0.37
Θ(90°)	-0.07/-0.36	-1.62/-1.95	0.06/-0.56	0.85/-2	1.94/-0.62	0.38/-1.66	4.02/-2.54	0.53/-0.09	-0.22/-1.06	-1.54/-0.95	0.37/-1.26	1.21/-0.71	-2.32/-1.51	-0.27/-0.09	-1.08/-2.88	-3.41/-2.89	-3.41/-2.89	-1.71/-0.55
Θ(100°)	-3.81/-4.95	-6.32/-3.76	-0.93/-0.03	0.57/-1.36	2.86/-4.56	-4.8/-4.24	-1.21/-0.85	1.12/-0.71	-2.86/-2.65	-3.47/-1.53	-0.53/-0.05	-1.31/-5.37	-5.23/-1.15	-0.52/-0.01	-2.42/-5.48	-5.45/-4.55	-4.44/-4.1	
Θ(110°)	-1.71/-2.9	-7.53/-11.91	-5.72/-4.92	-5.51/-4.04	-4.09/-6.81	-9.04/-7.36	-3.93/-1.41	-0.93/-1.98	-2.32/-1.78	-1.61/-1.23	-0.79/-1.1	-1.89/-3.15	-7.74/-7.14	-1.96/-0.37	0.6/-0.2	-1.08/-0.81	-0.16/-0.72	-1.68/-1.97
Θ(120°)	-5.29/-4.5	-6.2/-10.52	-7.23/-9.47	-4.52/-3.48	-2.8/-3.66	-5.2/-5.97	-4.46/-2.12	-0.85/-0.85	-0.37/-0.46	0.96/-0.45	-1.08/-2.59	-2.4/-2.47	-2.78/-1.08	0.22/-0.2	-0.84/-2.33	-3.48/-3.15	-2.27/-2.86	-5.6/-47
Θ(130°)	-2.28/-0.97	-1.84/-5.92	-9.44/-5.62	-4.26/-5.03	-6.06/-6.69	-7.4/-8.42	-8.32/-5.84	-4.23/-3.48	-0.84/-2.26	-1.76/-1.43	-3.94/-3.91	-1.42/-2.05	-3.63/-4.3	-1.42/-2.05	-2.57/-2.19	-1.97/-2.87	-4.75/-4.69	
Θ(140°)	-16.38/-19.81	-20.37/-14.31	-8.74/-5.36	-3.8/-3.4	-3.46/-3.51	-3.3/-3.04	-3.12/-3.04	-2.9/-2.12	-1.07/-0.09	0.1/-0.38	-0.96/-1.78	-3.26/-5.1	-6.11/-7.13	-8.99/-8.84	-8.42/-9.61	-11.33/-12.68	-13.58/-13.54	-12.84/-12.74
Θ(150°)	-6.79/-6.69	-6.79/-7.43	-9.23/-14.37	-19.95/-19.6	-18.07/-14.26	-11.39/-9.29	-8.48/-7.8	-7.79/-7.87	-8.13/-8.38	-9.74/-12.7	-17.94/-17.45	-10.92/-6.96	-4.68/-3.3	-2.15/-1.32	-1.18/-1.95	-3.17/-4.62	-5.95/-6.86	-7.11/-6.78
Θ(160°)	-9.94/-9.26	-8.78/-8.56	-8.85/-9.17	-9.07/-9.15	-4.93/-10.45	-11.36/-10.87	-9.27/-7.84	-6.41/-5.03	-4.43/-4.24	-6.14/-4.39	-5.57/-5.44	-5.71/-6.42	-7.78/-9.29	-10.71/-12.25	-10.71/-12.25	-12.43/-11.61		
Θ(170°)	-14.78/-12.29	-10.66/-9.23	-8.32/-7.83	-7.34/-7.28	-7.33/-8.15	-9.22/-10.47	-11.31/-11.51	-10.79/-9.61	-9/-8.87	-9.04/-9.98	-11.81/-14.38	-18.26/-19.61	-16.98/-15.51	-15.6/-17.02	-18.95/-19.07	-18.44/-19.22	-19.36/-19.66	-18.31/-16.19
Θ(180°)	-13/-11.02	-9.28/-8.21	-7.37/-6.63	-6.44/-6.73	-7.09/-7.82	-8.94/-10.74	-13.55/-16.77	-19.5/-19.94	-19.53/-18.89	-18.1/-15.54	-13.45/-11.84	-10.84/-10.09	-9.67/-9.89	-11.03/-12.29	-14.1/-16.12	-19.67/-19.99	-18.94/-17.59	-16.52/-14.52
Freq(Hz)	5.2GPol.	PhiAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-18.82/-20.49	-15.55/-13.53	-11.25/-9.99	-8.52/-7.78	-7.16/-7.08	-7.17/-7.56	-8.39/-9.2	-10.29/-11	-12.63/-15.98	-18.91/-20.21	-15.37/-13.17	-11.87/-9.17	-7.91/-7.37	-7.45/-8.1	-7.96/-8.64	-10.11/-10.91	-11.18/-12.47	-16.18/-19.68
Θ(10°)	-12.23/-9.81	-8.59/-8.01	-7.65/-8.43	-9.06/-10.21	-7.65/-8.74	-9.37/-11.7	-6.75/-9.95	-6.02/-7.02	-9.31/-18.49	-15.9								



Radiated Composite Gain Data of 2.4GHz and 5GHz UNII 1, 2A

Appendix A

Θ(60°)	-5.11/-3.48	-3.36/-1.97	-2.13/-1.73	-3.95/-2.61	1.51/3.84	1.43/2.1	1.56/1.34	2.08/2.18	2.5/2.2	1.96/0.81	-0.48/-3.13	-6.82/-6.32	-6.98/-10.87	-10.58/-15.6	-15.11/-6.05	-6.21/-7.38	-5.33/-6.18	-11.18/-11.65
Θ(70°)	-12.54/-6.25	-2.23/-1.22	1.46/1.84	0.83/0.59	2.59/2.94	2.9/2.12	1.86/2.36	2.99/2.96	3.06/2.44	1.77/1.23	1.64/1.27	0.16/-0.7	-4.25/-3.36	-9.1/-9.67	-3/-4.54	-4.45/-1.04	-1.65/-6.32	-11.19/-18.67
Θ(80°)	-11.99/-9.56	-2.33/-1.73	1.65/1.9	2.26/1.98	3.81/3.22	3.69/2.04	1.07/2.11	2.64/3.14	2.43/3.04	1.61/-0.07	2.43/3.04	1.61/-0.07	-6.68/-4.3	-2.53/-3.05	-2.26/-5.37	-3.96/-3.65	-6.68/-12.46	-5.27/-14.43
Θ(90°)	-4.57/-1.21	-3.17/0.31	2.29/-0.49	1.28/0.39	2.09/0.93	2.31/1.42	0.97/0.49	-0.65/-0.05	0.48/-0.53	-0.47/-0.92	1.95/2.24	-0.29/0.52	1.46/2.93	2.03/1.55	2.04/-0.99	-3.67/-0.93	0.82/-0.45	-3.14/-1.94
Θ(100°)	-0.15/-4.02	-5.08/2.47	-0.56/-3.9	0.16/-1.51	-0.95/-2.73	-0.16/-4.96	-6.24/-5.91	-3.53/-3.05	-0.75/-0.99	1.91/6.8	-0.89/1.66	0.82/2.7	1.41/-3.11	-0.49/-6.19	-3.94/-3.9	1.65/-1.53	-3.25/-7.05	
Θ(110°)	0.09/-8.56	-11.15/-0.49	-8.04/-6.69	-0.18/-4.84	-3.28/-6.16	-2.99/-2.47	-5.61/-4.9	-3.42/-2.92	-2.43/-4.04	-3.88/-1.14	-3.44/-2.24	-0.56/-5.29	-3.5/-6.19	-7.89/-2.14	-14.18/-6.82	-15.05/-7.75	-8.62/-8.71	-17.72/-2.23
Θ(120°)	-0.75/-4.83	-9.68/-9.38	-11.22/-14.97	-4.48/-5.99	-10.72/-17.78	-19/-9.25	-10.47/-8.27	-6.79/-5.76	-10.03/-9.14	-6.16/-7.48	-7.99/-2.45	-1.4/-2.27	-4.61/-2.58	-3.27/-9.09	-15.75/-11.97	-14.1/-11.86	-4.07/-3.44	-9.65/-5.32
Θ(130°)	-7.83/-7.84	-11.74/-13.9	-16.02/-19.49	-12.04/-7.63	-8.93/-11.76	-11.96/-7.89	-8.31/-12.36	-11.19/-9.93	-9.92/-12.04	-7.89/-9.66	-6.03/-5.61	-6.4/-10.67	-8/-3.6	-5.01/-10.53	-19.92/-19.55	-10.29/-13.76	-3.79/-4.91	-6.99/-11.98
Θ(140°)	-10.72/-10.17	-9.63/-12.25	-15.47/-16.64	-17.18/-9.92	-6.01/-5.43	-5.17/-3.96	-8.21/-14.81	-18.92/-19.63	-9.57/-11.67	-19.12/-15.16	-16.51/-9.44	-7.43/-3.09	-6.16/-19.54	-13.16/-11.7	-14.18/-6.82	-15.05/-7.75	-8.62/-8.71	
Θ(150°)	-8.76/-13.58	-19.99/-11.94	-12.82/-12.36	-10.7/-8.38	-5.28/-5.24	-6.85/-6.98	-6.24/-5.52	-4.97/-5.55	-6.4/-6.77	-7.07/-6.67	-5.73/-5.9	-7.04/-10.51	-11.58/-10.47	-12.41/-18.25	-13.5/-10.52	-10.51/-14.51	-15.29/-15.97	-13.21/-10.34
Θ(160°)	-8.54/-8.79	-11.69/-16.43	-19.74/-15.68	-10.62/-8.32	-7.34/-7.11	-7.31/-7.58	-6.03/-4.32	-3.17/-2.1	-1.35/-1.53	-1.72/-1.46	-0.92/-0.95	-2.38/-5.13	-8.16/-12.93	-13.71/-16.46	-17.93/-19.44	-17.06/-19.99	-19.34/-19.82	-17.02/-11.06
Θ(170°)	-17.55/-18.27	-17.06/-12.66	-8.4/-8.06	-6.59/-6.68	-7.09/-7	-6.59/-6.68	-4.23/-4.46	-2.93/-3.03	-3.44/-4.39	-5.24/-5.12	-4.47/-4.38	-3.84/-3.32	-5.36/-6.65	-6.23/-4.97	-4.17/-3.98	-5.12/-6.57	-8.03/-10.94	
Θ(180°)	-19.63/-20.32	-16.65/-14.38	-13.55/-14.36	-13.71/-12.83	-11.96/-10.9	-10.75/-10.6	-10.89/-11.3	-11.98/-12.67	-12.42/-12.64	-12.4/-13.03	-14.39/-15.54	-16.67/-17.45	-18.62/-19.63	-18.42/-19.52	-20.45/-19.79	-19.55/-19.36	-19.03/-19.73	-18.62/-18.35
Freq(Hz)	2.45GPol.	Phi/Ant. 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-11.44/-11.1	-10.65/-10.87	-11.3/-11.58	-11.61/-11.58	-12.02/-13.34	-15.29/-16.83	-19.06/-16.63	-16.56/-13.65	-11.28/-9.65	-8.67/-8.26	-8.04/-8.05	-8.06/-8.33	-8.5/-8.79	-9.41/-10.82	-12.89/-16.25	-19.05/-19.71	-18.92/-14.8	-12.61/-11.83
Θ(10°)	-10.63/-10.74	-11.59/-12.68	-13.8/-13.29	-11.75/-10.42	-9.93/-10.28	-11.27/-13.21	-16.88/-19.88	-19.63/-15.27	-11.48/-9.3	-7.97/-7.41	-7.31/-7.57	-7.72/-8.34	-9.04/-9.76	-11.23/-14.02	-18.53/-20.05	-19.68/-18.01	-14.26/-12.16	-10.82/-10.41
Θ(20°)	-10.68/-11.46	-13.4/-16.82	-15.47/-15.29	-11.51/-9.33	-8.56/-8.5	-9.01/-10.37	-16.71/-19.86	-16.27/-11.72	-9.12/-7.42	-7.17/-28	-14.27/-12.3	-9.8/-11.39	-14.31/-20.12	-18.77/-17.28	-14.72/-12.3	-10.76/-9.88	-9.72/-9.92	
Θ(30°)	-12.16/-13.05	-14.39/-17.68	-19.66/-18.85	-13.8/-11.29	-10.19/-9.35	-9.35/-10.15	-11.77/-13.89	-16.72/-20.16	-19.92/-17.78	-12.8/-9.94	-8.73/-8.63	-9.14/-10.65	-13.08/-17.08	-20.11/-20.08	-18.09/-13.73	-11.45/-9.83	-9.35/-10.1	-11.26/-11.71
Θ(40°)	-20.34/-18.29	-15.36/-14.93	-17.19/-18.86	-19.7/-17.92	-17.32/-14.32	-12.6/-12.65	-13.91/-13.34	-13.67/-14.22	-12.1/-11.02	-9.93/-9.27	-9.44/-9.88	-11.09/-13.05	-16.57/-19.65	-19.38/-18.51	-15.59/-12.25	-10.75/-10.02	-10.74/-13.39	-18.62/-19.17
Θ(50°)	-14.49/-12.89	-11.14/-10.78	-11.98/-14.24	-17.1/-19.19	-18.42/-19.13	-15.75/-16.74	-13.61/-14.26	-12.72/-11.26	-9.88/-8.5	-7.48/-7.28	-16.16/-9.62	-11.33/-12.91	-17.86/-20.24	-17.72/-13.29	-12.04/-8.59	-7.72/-8.07	-9.11/-10.19	-12.2/-14.49
Θ(60°)	-9.74/-8.67	-7.29/-6.97	-7.54/-8.7	-10.62/-14.3	-17.09/-15.22	-13.6/-14.39	-16.35/-16.87	-14.71/-12.31	-10.12/-19.5	-9.07/-9.46	-10.07/-11.01	-13.11/-17.2	-19.72/-19.02	-18.79/-14.58	-11.18/-9.65	-9.57/-10.75	-12.64/-11.66	-10.86/-10.58
Θ(70°)	-19.41/-16.41	-13.53/-12.58	-13.18/-15.1	-18.45/-19.65	-18.68/-19.07	-20.45/-18.79	-18.4/-16.78	-14.49/-11.74	-8.79/-8.81	-7.95/-6.96	-6.3/-6.39	-8.46/-13.34	-18.89/-16.98	-13.72/-10.23	-7.94/-7.21	-7.54/-8.44	-11.49/-20.19	-19.02/-19.69
Θ(80°)	-11.38/-10.41	-13.33/-10.41	-12.19/-9.81	-10.36/-9.88	-10.21/-9.91	-10.12/-10.76	-14.04/-10.18	-8.42/-6.97	-16.3/-11.41	-9.76/-10.53	-11.26/-13.36	-15/-12.91						
Θ(90°)	-13.92/-11.32	-9.59/-9.23	-9.46/-9.98	-10.63/-11.94	-12.6/-11.12	-10.79/-12.53	-16.08/-18.4	-18.6/-19.83	-19.22/-16.4	-12.55/-9.86	-8.72/-9.54	-11.88/-14.71	-16.29/-13.66	-10.34/-8.01	-7.04/-7.27	-8.63/-12	-15.68/-15.81	-15.7/-15.5
Θ(100°)	-13.21/-11.45	-10.33/-9.69	-8.44/-6.93	-6.59/-7.5	-8.93/-10.33	-12.54/-15.33	-17.86/-19.46	-20.12/-19.88	-19.88/-19.88	-19.6/-14.31	-10.62/-10.24	-11.91/-12.68	-11.59/-11.26	-11.5/-10.58	-9.69/-10.27	-12.69/-17.7	-20.05/-20.24	-15.39/-17.37
Θ(110°)	-18.41/-19.95	-14.92/-11.61	-9.44/-7.33	-5.97/-5.68	-10.96/-14.47	-19.64/-16.99	-15.91/-18.33	-17.61/-18.33	-17.67/-16.94	-17.18/-6.94	-15.91/-18.33	-17.67/-16.94	-11.74/-13.27	-16.26/-14.84	-14.36/-13.62	-12.28/-11.92	-12.84/-12.84	
Θ(120°)	-19.75/-17.09	-13.02/-10.37	-9.31/-8.51	-8.06/-8.44	-10.09/-12.31	-15.04/-16.36	-15.28/-16.53	-20.37/-15.62	-11.85/-15.31	-19.01/-19.83	-19.64/-11.15	-7.46/-6.63	-6.74/-7.48	-9.25/-12.24	-14.9/-16.91	-19.15/-18.8	-18.96/-19.69	-20.22/-19.86
Θ(130°)	-19.76/-20.09	-14.52/-11.47	-10.3/-9.56	-9.18/-9.05	-10.19/-13.06	-16.28/-14.92	-11.61/-9.57	-9.79/-13.2	-18.22/-19.55	-18.67/-18.98	-12.02/-6.61	-4.8/-4.77	-4.94/-5.55	-8.13/-12.02	-15.58/-18.55	-20.52/-19.79	-15.15/-13.2	-15.65/-19.41
Θ(140°)	-11.99/-12.67	-16.37/-18.93	-19.83/-14	-11.63/-10.21	-9.67/-9.86	-9.81/-8.71	-7.13/-5.62	-5/-6.11	-8.6/-11.25	-14.33/-18.4	-15.62/-10.94	-9.11/-7.9	-7.14/-8.3	-11.97/-16.9	-16.26/-16.84	-14.36/-13.62	-12.28/-11.92	-12.84/-12.84
Θ(150°)	-11.87/-12.76	-13.97/-16.2	-17.72/-18.15	-17.63/-16.3	-15.93/-13.63	-12.18/-10.67	-9.95/-9.22	-8.99/-9.52	-10.29/-10.55	-10.25/-9.21	-6.93/-6.57	-5.48/-4.7	-4.68/-5.69	-8.13/-11.86	-12.32/-11.71	-15.46/-16.19	-9.83/-9.28	-10.06/-11.19
Θ(160°)	-10.88/-10.62	-10.12/-10.39	-11.76/-14.55	-19.28/-19.23	-18.88/-18.83	-16.13/-15.2	-15.79/-14.54	-19.31/-19.98	-13.89/-10.53	-8.64/-7.51	-6.85/-6.25	-6.03/-6.24	-6.78/-7.23	-9.1/-10.52	-11.72/-12.13	-11.83/-11.1	-10.15/-9.98	-10.17/-10.45
Θ(170°)	-8.41/-8.52	-8.78/-9.32	-10.64/-13.21	-17.24/-19.99	-19.55/-16.6	-14.24/-13.32	-12.61/-12.59	-12.63/-12.77	-11.13/-10.19	-9.33/-9.46	-9.71/-9.78	-10.29/-11.05	-11.52/-12.1	-12.18/-12.12	-12.25/-12.65	-13.05/-10.32	-12.7/-10.87	-9.4/-8.46
Θ(180°)	-8.31/-8.1	-9.65/-10.19	-11.13/-12.89	-14.71/-15.67	-15.75/-15.2	-14.85/-14.16	-13.53/-12.75	-12.59/-11.93	-11.76/-12.15	-12.1/-12.24	-12.38/-12.58	-11.86/-10.73	-12.61/-12.62	-12.17/-12.56	-12.55/-12.26	-11.06/-10.73	-9.76/-8.71	-7.93/-8
Freq(Hz)	2.45GPol.	Theta/Ant. 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-10.37/-12.22	-15.63/-19.51	-19.81/-19.45	-18.52/-16.61	-13.31/-10.79	-9.21/-8.37	-8.18/-7.92	-8.07/-8.64	-9.46/-10.95	-13.09/-16.37	-18.56/-19.22	-19.81/-17.81	-14.54/-12.79	-11.22/-9.66	-8.92/-8.51	-8.55/-8.83	-8.93/-8.99	-9.4/-9.75
Θ(10°)	-13.99/-14.06	-14.85/-14.97	-14.45/-14.33	-13.28/-11.55	-9.29/-7.05	-5.71/-4.99	-4.45/-4.34	-4.49/-4.79	-5.37/-6.43	-7.87/-9.94	-12.29/-14.88	-16.72/-18	-18.6/-19.47	-19.36/-15.89	-15.22/-15.27	-16.47/-18.26	-19.36/-18.63	-17.24/-14.93
Θ(20°)	-11.41/-10.51	-9.91/-9.72	-9.88/-10.26	-10.43/-9.81	-7.44/-5.6	-4.41/-3.85	-3.8/-3.88	-4.16/-4.52	-4.79/-5.2	-5.99/-7.24	-11.28/-11.89	-12.59/-13.83	-15.8/-18.43	-18.92/-14.03	-20.13/-19.03	-16.16/-14.03	-12.73/-11.92	
Θ(30°)	-9.37/-8.91	-8.18/-7.63	-7.49/-7.46	-7.35/-6.57	-5.11/-3.69	-4.29/-2.77	-3.05/-3.55	-3.87/-3.87	-3.83/-4.07	-5.11/-6.71	-8.74/-10.84	-12.21/-11.93	-11.24/-10.82	-10.96/-11.37	-11.72/-12.49	-12.68/-12.09	-10.7/-9.61	-9.17/-9.14
Θ(40°)	-5.61/-5.63	-5.18/-4.54	-4.4/-4.82	-5.29/-4.9	-3.68/-2.66	-2.29/-2.46	-2.79/-2.41	-1.76/-1.45	-1.78/-2.26	-2.86/-3.54	-4.54/-5.78	-6.83/-7.25	-6.8/-6.23	-6.08/-6.12	-6.17/-6.36	-6.89/-7.2	-6.49/-5.45	-5.04/-5.15
Θ(50°)	-1.49/-2.07	-2.26/-2.14	-2.65/-3.84	-4.47/-3.16	-1.24/0.4	0.42/0.28	0.23/0.5	1.12/0.6	-0.46/-1.3	-1.68/-2.45	-3.91/-6.24	-8.37/-8.06	-5.82/-4.28	-3.62/-3.78	-4.15/-4.14	-3.74/-3.27	-2.46/-1.37	-0.76/-0.86
Θ(60°)	-0.33/-1.2	-1.24/-0.93	-1.46/-2.24	-1.27/0.86	2.41/3.11	2.92/0.9	1.31/3.1	1.51/0.68	-0.45/-0.63	-0.48/-1.09	-0.33/-4.88	-4.35/-3.67	-4.28/-2.57	-1.39/-6.63	-4.05/-5.06	-2.38/-2.54	-1.51/-0.4	0.43/0.41
Θ(70°)	1.55/0.9	0.82/-1.25	1.03/0.33	0.46/-1.7	2.89/3.34	3.06/2.36	1.31/-1.25	1.71/0.86	-0.49/-0.54	-0.21/-0.46	-1.19/-2.45	-4.56/-9.01	-16.04/-9.93	-5.32/-3.45	-2.95/-2.89	-2.6/-1.02	0.11/0.38	0.94/-1.53
Θ(80°)	1.66/0.98	0.69/1.2	1.22/0.61	0.66/1.91	3.13/3.39	3.05/2.37	0.89/0.76	1.56/0	-1.57/-0.26	0.22/0.02	-0.37/-0.67	-0.94/-1.99	-4.27/-5.4	-3.48/-2.29	-2.76/-2	-0.49/0.28	1	



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Radiated Composite Gain Data of 2.4GHz and 5GHz UNII 1, 2A

Appendix A

Θ(150°)	-9.74/-15.84	-13.65/-7.66	-8.93/-12.9	-16.72/-18.49	-19.99/-20.16	-17.35/-12.42	-11.04/-13.11	-10.43/-6.66	-4.07/-3.5	-5.36/-6.94	-4.77/-5.13	-7.52/-5.34	-4.7/-4.99	-8.74/-16.99	-18.74/-11.84	-10.19/-10.65	-7.67/-9.1	-8.13/-6.79
Θ(160°)	-6.11/-4.23	-4.23/-4.13	-3.89/-4.42	-7.25/-11.75	-14.58/-14.21	-13.59/-16.03	-19/-17.93	-10.5/-7.66	-6.67/-6.47	-6.56/-7.13	-8.22/-10.11	-12.65/-10.51	-10.02/-11.17	-14.76/-18.48	-19.45/-16.4	-10.55/-10.23	-10.49/-7.84	-7.68/-7.32
Θ(170°)	-3.25/-4.81	-5.61/-8.76	-15.08/-18.34	-17.12/-13.29	-13.46/-20.6	-19.05/-12.03	-9.29/-8.27	-8.71/-10.46	-12.12/-13.09	-13.01/-12	-11.46/-10.62	-10.7/-10.7	-10.97/-13.26	-16.11/-19.19	-20.17/-16.71	-12.07/-7.77	-4.49/-3.01	-2.51/-2.55
Θ(180°)	-3.1/-1.9	-2.69/-3.95	-4.84/-6.85	-8.66/-10.81	-12.75/-15.92	-15.49/-15.46	-14.57/-11.18	-8.29/-6.13	-4.22/-3.22	-2.73/-2.53	-2.35/-2.52	-3.59/-5.17	-7.44/-10.68	-14.52/-20.46	-20.01/-14.28	-10.22/-8.88	-7.61/-6.67	-5.5/-4.26
Freq(Hz)	5.3GPol.	Phi/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-19.9/-20.48	-15.48/-13.63	-10.14/-7.83	-7.3/-6.9	-5.4/-5.07	-6.78/-8.26	-9.63/-10.32	-9.88/-10.78	-13.25/-17.14	-19.21/-20.1	-16.72/-13.01	-10.26/-8.67	-8.12/-8.03	-7.33/-6.88	-6.58/-6.39	-7.01/-8.77	-10.19/-11.34	-14.21/-17.86
Θ(10°)	-18.96/-18.98	-16.54/-12.18	-9.19/-7	-7.18/-6.73	-7.18/-8.42	-8.69/-8.93	-8.77/-10.58	-12.13/-14.44	-20.06/-18.98	-13.63/-10.93	-9.34/-8.18	-7.32/-6.93	-6.9/-6.39	-5.85/-6.01	-5.28/-5.37	-5.65/-5.91	-7.45/-9.14	-11.51/-14.96
Θ(20°)	-14.59/-16.4	-15.49/-12.96	-9.38/-7	-6.27/-6.81	-9.54/-8.35	-6.66/-6.15	-6.24/-7.78	-10.21/-13.97	-17.76/-15.55	-13.17/-12.35	-12.85/-13.52	-12.32/-10.17	-8.3/-6.91	-5.74/-6.51	-7.07/-7.26	-7.29/-7.32	-8.84/-10.48	-11.33/-13.8
Θ(30°)	-12.36/-12.73	-18.86/-19.13	-15.09/-11.59	-12.32/-9.78	-6.66/-4.82	-4.98/-4.62	-5.06/-7.22	-8.69/-9.97	-13.38/-20.13	-19.03/-19.86	-18.75/-19.94	-15.34/-7.41	-3.49/-2.42	-3.6/-3.83	-3.54/-4.12	-5.34/-7.35	-10.85/-12.93	-14.08/-13.54
Θ(40°)	-17.64/-20.32	-19.51/-14.79	-9.84/-8.17	-9.47/-9.41	-9.53/-8.63	-7.34/-6.38	-5.39/-4.13	-4.06/-5.64	-8.8/-15.24	-19.03/-14	-10.51/-10.07	-15.34/-8.18	-2.23/-0.75	-1.89/-4.83	-4.28/-2.82	-3.52/-5.42	-6.76/-7.82	-9.79/-12.89
Θ(50°)	-11.55/-12.44	-10.74/-8.94	-8.71/-13.44	-11.02/-9.74	-9.42/-8.16	-10.64/-12.51	-6.43/-5.8	-6.16/-9.15	-8.24/-9.29	-16.55/-12.96	-7.26/-6.51	-8.86/-8.3	-4.4/-2.01	-2.3/-3.57	-2.85/-2.44	-3.57/-6.27	-9.36/-10.43	-9.47/-10.04
Θ(60°)	-19.47/-20.19	-13.03/-9.39	-8.08/-9.11	-7.53/-5.93	-9.66/-19.64	-16.71/-16.62	-15.2/-10.9	-11.09/-8.87	-6.22/-7.27	-10.26/-10.38	-12.05/-9.08	-7.94/-7.59	-4.89/-2.16	-2.29/-2.65	-2.15/-2.33	-3.88/-6.5	-9.71/-12.9	-11.26/-12.29
Θ(70°)	-18.87/-16.38	-16.32/-10.03	-6.65/-5.69	-3.56/-2.84	-4.63/-10.03	-4.25/-5.61	-13.84/-14.25	-4.63/-3.05	-4.07/-5.74	-8.42/-9.06	-12.69/-12.72	-6.83/-3.74	-3.72/-2.12	-1.82/-3.34	-2.77/-2.14	-4.76/-7.77	-10.56/-13.01	-12.26/-13.91
Θ(80°)	-17.93/-19.63	-19.51/-12.46	-6.64/-5.29	-2.29/-1.59	-5.31/-5.77	-2.68/-5.85	-12.56/-6.82	-2.16/-1.64	-3.55/-6.9	-12.02/-15.83	-11.47/-11.44	-13.8/-6.6	-2.17/-0.82	-2.28/-4.9	-4.31/-2.78	-5.82/-9.9	-11.83/-9.46	-8.81/-12.72
Θ(90°)	-19.75/-19.4	-16.87/-13.31	-7.8/-4.53	-3.77/-3.9	-5.72/-4.09	-1.58/-4.63	-11.53/-4.11	-2.3/-4.06	-9.38/-20.25	-16.42/-19.61	-13.15/-8.43	-6.48/-17.83	-7.73/-3.53	-3.92/-7.12	-8.96/-2.06	-2.05/-6.08	-12.15/-11.27	-8.72/-14.96
Θ(100°)	-20.18/-20.21	-14.82/-16.2	-9.67/-8.05	-8.69/-6.68	-6.22/-8.54	-3.91/-7.06	-9.66/-4.65	-3.91/-6.23	-10.45/-13.86	-10.75/-13.04	-20.04/-10.99	-5.45/-9.91	-9.1/-5.99	-5.99/-4.9	-6.28/-5.03	-1.27/-5.23	-13.57/-17.36	-10.84/-12.53
Θ(110°)	-18.85/-19.91	-19.87/-18.98	-16.67/-11.22	-9.52/-9.68	-11.27/-8.72	-4.8/-4.99	-3.92/-10.36	-11.79/-12.15	-12.1/-19.27	-14.12/-9.75	-9.68/-12.65	-7.93/-7.99	-19.71/-4.34	-6.11/-5.56	-4.15/-1.44	-3.51/-5.11	-9.49/-8.48	-7.85/-14.52
Θ(120°)	-19.58/-14.38	-18.95/-14.7	-17.31/-14.01	-11.58/-20.26	-17.9/-18.22	-8.08/-13.12	-9.54/-13.46	-19.86/-10.44	-11.02/-10.22	-8.96/-10.53	-17.84/-13.72	-6.92/-3.69	-6.94/-8.04	-5.74/-15.61	-5.64/-3.07	-4.13/-4.57	-9.37/-10.69	-8.22/-14.07
Θ(130°)	-17.39/-19.19	-18.21/-13.51	-14.89/-13.36	-19.44/-10.63	-10.11/-14.37	-9.27/-10.87	-19.93/-6.92	-9.56/-11.71	-9.36/-10.51	-11.09/-14.36	-19.15/-6.23	-2.77/-4.44	-4.25/-3.28	-2.45/-6.8	-4.11/-5.7	-3.77/-11.5	-9.46/-8.43	-7.2/-10.41
Θ(140°)	-10.41/-13.85	-20.23/-17.45	-12.98/-14.5	-18.74/-7.41	-7.91/-12.38	-8.14/-10.46	-8.43/-9.11	-14/-12	-8.43/-8.75	-12.29/-11.69	-9.41/-7.51	-6.47/-2.93	-2.18/-2.67	-3.97/-4.12	-5.13/-6.65	-2.06/-1.69	-11.81/-12.49	-7.53/-6.5
Θ(150°)	-13.2/-15.74	-12.97/-10.97	-12.06/-8.78	-6.09/-6.1	-8.95/-19.87	-10.58/-7.71	-8.6/-14.66	-19.25/-15.06	-17.32/-19.8	-15.99/-17.25	-15.79/-11.51	-6.75/-5.01	-5.45/-6.11	-6.73/-5.66	-7.77/-3.78	-3.58/-6.25	-6.69/-7.16	-6.52/-12.89
Θ(160°)	-5.94/-8.44	-12.12/-18.47	-14.99/-7.62	-4.5/-5.12	-7.99/-12.86	-16.61/-15.39	-15.17/-12.86	-10.57/-9.86	-10.68/-13.45	-15.82/-16.2	-13.01/-11.69	-9.84/-11.92	-8.43/-10.45	-12.29/-10.13	-8.3/-9.18	-9.18/-7.06	-5.57/-5.27	-5.67/-5.27
Θ(170°)	-14.13/-19.33	-14.89/-9.65	-7.53/-7.26	-9.24/-17.08	-19.09/-9.53	-6.97/-5.47	-14.46/-16.25	-8.33/-11.36	-13.62/-14.11	-14.27/-14.16	-14.46/-14.65	-15.16/-16.32	-13.85/-11.91	-9.4/-7.31	-7.48/-7.56	-6.69/-6.13	-6.07/-6.45	-6.68/-9.23
Θ(180°)	-19.37/-20.18	-19.32/-15.71	-12.43/-11.12	-9.47/-8.12	-7.62/-7.25	-6.77/-5.93	-4.88/-4.71	-4.78/-5.57	-6.46/-8.17	-11.22/-16.65	-18.89/-16.71	-11.81/-8.61	-6.51/-4.77	-3.3/-2.57	-2.55/-2.95	-3.69/-4.44	-4.9/-6.59	-8.51/-12.61
Freq(Hz)	5.3GPol.	Theta/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ(0°)	-6.94/-6.34	-7.55/-8.98	-10/-10.37	-12.24/-16.46	-19.92/-19.3	-19.5/-19.54	-14.68/-10.61	-7.73/-7.33	-6.99/-7.01	-7.02/-7.16	-6.95/-6.85	-7.59/-9.01	-11.04/-14.05	-20.63/-19.29	-18.9/-14.43	-11.38/-10.34	-9.02/-8.17	-7.59/-7.17
Θ(10°)	-1.13/-1.39	-2.45/-3.41	-4.48/-5.45	-8.08/-11.52	-17.84/-19.04	-16.02/-12.63	-9.92/-7.98	-7.78/-4.59	-4.58/-5.6	-6.93/-7.6	-8.04/-8.76	-9.99/-11.65	-13.6/-16.52	-18.52/-14.48	-10.61/-6.82	-4.54/-3.37	-2.69/-2.3	-1.66/-1.35
Θ(20°)	0.89/0.61	-0.26/-0.97	-1.81/-2.39	-4.49/-6.57	-9.93/-11.93	-13.25/-13.46	-11.36/-9.17	-8.34/-8.76	-9.76/-9.97	-10.88/-15.58	-18.48/-19.1	-19.07/-18.4	-19.67/-20.03	-13.49/-10.4	-6.92/-3.53	-1.3/-0.55	-0.23/0.2	0.56/0.55
Θ(30°)	0.29/-0.28	-1.94/-3.54	-3.18/-2.87	-4.63/-7.32	-9.03/-8.14	-8.24/-9.21	-10.7/-12.29	-15.26/-14.28	-11.54/-10.98	-11.24/-11.89	-12.3/-12.46	-14.39/-16.47	-18.04/-17.92	-11.08/-5.01	-1.95/-0.6	0.64/0.92	0.14/-0.71	-1.02/-0.51
Θ(40°)	-0.18/0.19	-0.85/-2.09	-2.77/-3.93	-7.76/-9.09	-8.54/-9.13	-10.14/-11.81	-12.23/-9.15	-7.34/-8.68	-14.02/-16.21	-12.95/-12.64	-12.89/-11.59	-11.8/-13.97	-15.66/-11.72	-8.05/-5.22	-2.12/0.45	0.87/0.98	1.05/1.76	1.15/-0.04
Θ(50°)	-0.32/-1.61	-2.35/-3.03	-4.63/-7.94	-10.15/-8.64	-6.9/-5.76	-7.39/-10.84	-7.96/-5.99	-6.37/-11.72	-20.2/-20.02	-15.21/-13.89	-16.03/-18.05	-9.54/-9.64	-10.28/-9.88	-9.22/-5.35	-2.18/-0.83	0.11/0.12	1.24/2.44	1.89/0.52
Θ(60°)	-0.73/-0.44	-2.2/-3.76	-4.89/-7.03	-9.36/-6.05	-4.88/-5.52	-9.22/-16.49	-6.38/-4.58	-6.06/-11.33	-8.24/-8.3	-9.4/-6.13	-6.24/-12.59	-15.93/-9.93	-8.48/-10.8	-11.69/-6.38	-3.56/-2.16	-1.47/-0.72	0.22/1.16	0.5/-1.09
Θ(70°)	-0.75/-0.89	-1.78/-1.24	-2.16/-6.96	-7.85/-6.45	-4.7/-6.74	-11.95/-8.02	-4.64/-4.24	-5.84/-5.68	-1.84/-3.31	-5.77/-7.68	-4.73/-5.74	-12.46/-10.94	-4.88/-4.36	-4.41/-3.66	-3.57/-2.39	-1.57/0.19	-0.04/0.36	0.49/-0.18
Θ(80°)	-2.41/-3.11	-2.59/-2.7	-5.63/-12.78	-14.41/-8.43	-4.24/-3.54	-7.46/-6.41	-6.23/-7	-5.22/-5.47	-1.02/-0.93	-0.59/-7.26	-6.89/-3.2	-5.83/-9.23	-3.29/-2.2	-1.44/-1	-1.16/-0.65	-2.1/-0.7	-1.09/-0.02	0.98/-0.75
Θ(90°)	-4.99/-1.03	-3.04/-4.63	-8.67/-9.93	-12.34/-7.32	-5.37/-7.73	-6.65/-6.91	-5.35/-1.36	-2.15/-6.39	-0.15/-1	0.53/-4.26	-6.78/-6.08	-3.41/-2.59	-3.73/-3.21	-1.61/-0.43	-1.11/-1.46	-2.54/-1.58	-1.77/-1.54	-0.4/-2.38
Θ(100°)	-5.04/-6.19	-9.74/-8.74	-6.86/-16.51	-14.5/-10.42	-10.78/-8.87	-4.88/-7.4	-4.22/0.07	-1.67/-13.19	-1.18/-0.48	0.84/-1.71	-0.32/-1.44	-5.8/-4.8	-0.68/-2.6	-2.95/-0.71	-0.97/-5.78	-2.41/0.17	-0.72/-1.41	-2.84/-4.01
Θ(110°)	-7.7/-6.75	-6.25/-9.01	-7.11/-9.41	-11.91/-11.02	-12.77/-14.04	-6.11/-7.91	-8.77/-5.16	-3.93/-13.75	-2.72/-3.62	-0.32/-1.35	-3.28/-0.7	-1.39/-2.69	-5.4/-1.46	-3.1/-0.73	-2.64/-2.87	-7.53/-1.69	-0.51/-3.6	-4.23/-5.44
Θ(120°)	-3.57/-5.39	-8.86/-10.81	-9.06/-13.32	-16.77/-19.49	-14.7/-13.03	-10.52/-19.05	-5.41/-5.6	-13.35/-3.82	-1.57/-3.95	0.23/0.54	-6.27/-4.07	-1.31/0.78	-1.52/-4.65	-3.98/-7.89	-1.87/-9.34	-6.06/-3.53	-2.66/-3.15	-4.53/-1.54
Θ(130°)	-3.93/-7	-9.87/-8.83	-13.18/-15.82	-19.94/-20.13	-16.89/-10.65	-19.51/-9.85	-5.68/-3.81	-18.94/-4.06	-6.11/-2.34	-5.01/-4.18	-4.06/-2.78	-2.93/-2.13	-4.66/-8.46	-4.43/-13.58	-7.87/-6.33	-14.8/-14.71	-3.95/-3.93	-3.51/-4.64
Θ(140°)	-7.57/-4.38	-7.63/-14.76	-16.8/-11.07	-12.79/-19.11	-12.24/-16.02	-18.83/-12.8	-7.59/-11.3	-11/-10.36	-4.43/0.63	-0.83/-2.26	-4.81/-0.34	-2.74/-5.19	-2.35/-3.69	-4.55/-11.04	-16.35/-7.43	-10.59/-12.26	-17.92/-13.26	-10.42/-11.69
Θ(150°)	-12.34/-20.18	-13.76/-12.03	-14.1/-16.26	-15.06/-12.91	-13.18/-17.29	-15.41/-13.13	-12.72/-14.4	-12.06/-6.51	-3.24/-2.97	-6.24/-6.03	-3.1/-3.97	-6.68/-4.44	-3.79/-3.71	-7.04/-15.07	-15.06/-11.37	-11.08/-13.38	-12.34/-16.3	-13.01/-8.88
Θ(160°)	-6.94/-4.23	-5.1/-6.87	-6.29/-6.89	-9.04/-12.56	-14.87/-12.97	-11.49/-12.85	-17.65/-18.76	-13.11/-7.22	-3.93/-2.99	-4.16/-6.49	-7.75/-9.12	-11.3/-9.96	-8.2/-8.24	-10.51/-13.95	-12.71/-9.78	-9.55/-10.32	-8.33/-5.92	-7.15/-8.99
Θ(170°)	-3.09/-5.16	-7.29/-8.8	-11.74/-16.59	-19.3/-14.31	-12.92/-13.38	-14.54/-15.31	-12.96/-11.68	-10.37/-10.71	-12.59/-13.72	-11.67/-10.5	-10.25/-10.17	-10.17/-10.02	-10.83/-12.89	-15.37/-18.41	-20.07/-15.24	-12.11/-8.92	-6.14/-4.47	-2.9



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Freq(Hz)	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	1.43	2.08	2.5
Ant. 2 Max Gain (dBi)	1.66	1.91	2.89
Ant. 3 Max Gain (dBi)	2.8	3.51	3.79
Ant. 4 Max Gain (dBi)	2.55	3.36	3.65
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/120/180	Theta/70/0	Theta/80/0
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/50/180	Theta/50/190	Theta/50/190
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/90/0	Theta/90/0	Theta/90/0
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/90/280	Theta/90/180	Theta/90/180
Max Gain (dBi)	2.8	3.51	3.79
DG [1SS] (dBi)	6.13	7.23	6.76
DG [2SS] (dBi)	3.13	4.23	3.79
DG [4SS] (dBi)	2.8	3.51	3.79



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

DG 1SS Result

Freq(Hz)	5.6GPol.	Phi-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Phi(0°)/Phi(10°)	Phi(20°)/Phi(30°)	Phi(40°)/Phi(50°)	Phi(60°)/Phi(70°)	Phi(80°)/Phi(90°)	Phi(100°)/Phi(110°)	Phi(120°)/Phi(130°)	Phi(140°)/Phi(150°)	Phi(160°)/Phi(170°)	Phi(180°)/Phi(190°)	Phi(200°)/Phi(210°)	Phi(220°)/Phi(230°)	Phi(240°)/Phi(250°)	Phi(260°)/Phi(270°)	Phi(280°)/Phi(290°)	Phi(300°)/Phi(310°)	Phi(320°)/Phi(330°)	Phi(340°)/
Theta(0°)	-10.44/-9.16	-6.71/-4.63	-3.56/-2.26	-0.86/-0.08	-0.05/-0.13	-0.36/-0.91	-1.57/-2.83	-4.4/-5.88	-8.4/-10.89	-12.46/-10.42	-7.39/-4.73	-2.96/-1.78	-1.23/-0.71	-0.07/-0.21	-0.66/-1.52	-2.36/-2.92	-5.86/-6.68	-10.02/-10.02
Theta(10°)	-8.66/-9.15	-8.98/-6.04	-4.36/-3.1	-2.55/-1.59	-0.320	-0.04/-0.57	-1.51/-2.48	-3.73/-4.88	-5.9/-7.6	-9.82/-9.23	-6.5/-4.42	-1.91/-0.61	-0.08/-0.26	-0.41/-0.75	-1.27/-1.52	-2.05/-3.57	-5/-6.18	-7.54/-8.2
Theta(20°)	-8.34/-9.83	-9.57/-7	-4.73/-4.24	-4.05/-2.23	-1.31/-0.95	-1.13/-1.7	-1.93/-2.31	-3.05/-4.01	-5.33/-7.3	-7.67/-8.05	-7.42/-6.84	-6.44/-6.4	-6.01/-5.51	-4.44/-4.15	-5.25/-5.3	-5.36/-5.22	-5.12/-5.73	-6.5/-6.58
Theta(30°)	-7.93/-8.48	-9.47/-10.26	-7.5/-4.62	-2.88/-1.69	-1.31/-1.19	-1.165/-2.01	-2.36/-3.33	-4.68/-8.6	-10.6/-11.45	-5.02/-9.32	-8.71/-8.2	-7.51/-8.38	-9.9/-7.23	-5.02/-3.81	-6.26/-3.73	-4.8/-5.91	-7.27/-7.67	
Theta(40°)	-8.98/-8.09	-10.13/-10.51	-7.32/-4.66	-3.47/-3.25	-2.52/-2.24	-2/-2.69	-2.47/-2.97	-4.87/-7.89	-9.21/-10.05	-10.26/-10.55	-9.79/-8.43	-6.42/-4.18	-2.85/-2.78	-1.32/-0.48	-2.31/-3.36	-2.96/-4.59	-6.33/-8.66	-9.8/-10.17
Theta(50°)	-11.88/-9.04	-8.18/-7.59	-5.61/-4.41	-3.89/-3.45	-2.28/-2.02	-3.44/-4.53	-5.12/-6.26	-6.12/-6.27	-5.89/-7.53	-9.54/-10.15	-9.8/-7.76	-4.69/-2.01	-0.61/-0.79	-0.74/-0.69	-2.27/-1.73	-1.56/-3.05	-4.66/-8.17	-11.48/-12.18
Theta(60°)	-6.85/-6.8	-7.06/-7.64	-7.17/-6.5	-5.44/-3.93	-3.45/-2.89	-4.12/-5.3	-4.74/-5.87	-4.12/-5.3	-7/-8.07	-8.55/-7.38	-4.12/-2.61	-2.05/-2.09	-1/-1.29	-3.45/-3.98	-3.11/-3.69	-4.69/-4.39	-5.7/-5.98	
Theta(70°)	-5.76/-7.31	-6.56/-7.41	-6.79/-5.61	-3.81/-3.42	-3.91/-2.97	-3.85/-3.34	-3.09/-3.89	-6.75/-8.42	-6.09/-5.48	-7.48/-7.26	-6.11/-3.55	-3.82/-5.13	-3.58/-3.85	-3.58/-4.4	-4.28/-3.41	-3.69/-5.54	-3.38/-1.47	-2.58/-2.88
Theta(80°)	-7/-6.8	-6.46/-6.47	-6.37/-5.42	-3.46/-2.86	-4.03/-2.42	-2.81/-2.06	-1.87/-4.3	-6.96/-8.66	-8.51/-9.5	-12.78/-8.77	-5.59/-3.61	-2.49/-3.96	-3.21/-3.92	-5.92/-6.19	-4.3/-2.55	-4.48/-5.29	-2.11/-0.89	-2.57/-3.05
Theta(90°)	-6.45/-6.51	-6.09/-5.94	-6.17/-6.59	-3.66/-1.88	-3.95/-2.09	-2.82/-3	-0.84/-4.61	-8.52/-9.09	-10.38/-8.42	-7.09/-5.84	-7.24/-5.5	-3.79/-4.82	-4.62/-4.56	-5.54/-7.14	-4.55/-3.79	-5.5/-4.84	-2.42/-3.53	-6.11/-3.35
Theta(100°)	-6.81/-6.59	-9.15/-8.5	-7.8/-4.6	-0.48/-0.82	-4.36/-6.63	-5.87/-3.81	-2.62/-5.84	-6.58/-7.47	-7.2/-5.32	-4.65/-5.67	-7.5/-8.93	-8.82/-8.28	-8.49/-9.61	-8.65/-6.2	-4.97/-6.03	-4.15/-4.62	-6.89/-8.21	-7.35/-7.66
Theta(110°)	-6.43/-6.66	-7.05/-9.61	-7.48/-2.47	-1.02/-1.51	-3.63/-4.52	-3.5/-2.96	-3.32/-4.47	-7.54/-7.54	-5.43/-5.93	-5.01/-9.06	-9.44/-10.07	-10.53/-8.35	-9.24/-6.92	-8.7/-5.11	-7.93/-7.08	-4.93/-8.1	-10.94/-7.2	-5.91/-5.87
Theta(120°)	-6.66/-4.79	-8.94/-11.17	-8.81/-2.93	-0.740.1	-2.65/-4.01	-3.63/-2.13	-2.9/-5.55	-8.53/-8.73	-8.59/-2.75	-2.86/-5.61	-7.66/-6.12	-8.46/-6.1	-9.28/-6.46	-7.17/-10.77	-6.48/-5.29	-7.02/-3.84	-5.14/-7.23	-6.57/-6.77
Theta(130°)	-6.9/-5.53	-8.43/-6.66	-5.72/-4.01	-1.59/-1.39	-3.82/-3.61	-1.78/-0.95	-2.51/-4.78	-3.03/-3.53	-4.49/-6.13	-8.62/-6.93	-8.66/-11.47	-8.78/-8.71	-4.8/-2.5	-5.1/-5.22	-4.54/-5.55	-4.21/-5.24	-8.2/-6.94	-9.73/-10.12
Theta(140°)	-7.57/-8.06	-5.79/-5.69	-6.14/-5.58	-6.63/-4.27	-3.6/-1.94	-1.21/-1.88	-3.69/-6.35	-6.07/-3.23	-4.77/-7.13	-7.32/-6.5	-8.46/-6.58	-6.4/-6.12	-5.92/-7.42	-11.93/-9.22	-7.13/-6.28	-6.27/-7.62	-5.14/-9.62	-7/-7.1
Theta(150°)	-7.95/-7.83	-8.04/-6.72	-6.71/-4.4	-3.27/-2.8	-2.06/-1.89	-3.12/-2.97	-2.78/-3.72	-8.06/-8.51	-6.52/-8.79	-5.83/-6.35	-5.85/-7.62	-7.59/-7.57	-9.64/-8.09	-5.8/-4.2	-9.34/-5.7	-6.36/-5.67	-5.82/-6.35	
Theta(160°)	-10.64/-10.15	-8.2/-7.45	-5.25/-2.77	-1.59/-1.67	-2.56/-3.29	-2.78/-1.91	-2.06/-2.11	-2.31/-4	-6.09/-7.32	-11.01/-10.28	-7.56/-4.88	-3.91/-4.13	-5.85/-6.81	-7.32/-6.46	-5.32/-7.69	-7.17/-5.2	-4.73/-5.41	-6.9/-7.05
Theta(170°)	-10.87/-10.83	-9.01/-6.6	-5.65/-5.01	-3.22/-1.95	-1.94/-2.19	-2.03/-1.96	-2.27/-2.9	-4.74/-7.98	-9.62/-9.9	-8.84/-8.68	-8.53/-7.77	-8.37/-9.3	-6.55/-5.98	-4.96/-3.95	-4.11/-4.72	-4.54/-4.02	-3.78/-4.22	-7.07/-7.3
Theta(180°)	-11/-10.03	-8.91/-6.78	-5.96/-5.28	-4.29/-3.34	-3.44/-4.54	-5.94/-6.64	-6.32/-5.92	-6.67/-8.5	-9.16/-9.92	-10.94/-11.95	-10.72/-8.79	-7.35/-6.23	-6.02/-5.87	-6.65/-6.47	-7.69/-7.52	-7.59/-7.53	-8.41/-10.93	-10.6/-10.65
Freq(Hz)	5.6GPol.	Theta-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Phi(0°)/Phi(10°)	Phi(20°)/Phi(30°)	Phi(40°)/Phi(50°)	Phi(60°)/Phi(70°)	Phi(80°)/Phi(90°)	Phi(100°)/Phi(110°)	Phi(120°)/Phi(130°)	Phi(140°)/Phi(150°)	Phi(160°)/Phi(170°)	Phi(180°)/Phi(190°)	Phi(200°)/Phi(210°)	Phi(220°)/Phi(230°)	Phi(240°)/Phi(250°)	Phi(260°)/Phi(270°)	Phi(280°)/Phi(290°)	Phi(300°)/Phi(310°)	Phi(320°)/Phi(330°)	Phi(340°)/
Theta(0°)	-0.06/-0.12	-0.77/-1.63	-2.96/-4.41	-1.9/-1.21	-0.40/-0.67	-1.08/-6.77	-1.77/-3.12	-0.07/-0.46	-0.88/-1.99	-0.83/-2.67	-3.18/-4.59	-6.74/-8.91	-1.68/-0.54	-0.39/-0.52	-1.10/-11.4	-8.39/-8.52	-4.33/-2.67	-0.39/-0.52
Theta(10°)	-1.13/-1.76	-2.34/-3.09	-3.52/-4.38	-5.89/-6.33	-6.21/-6.71	-6.36/-5.83	-4.16/-3.24	-0.580.8	0.520.19	-0.53/-1.62	-2.6/-4.11	-5.91/-7.25	-6.26/-4.9	-3.49/-2.34	-1.94/-1.34	-0.91/-1		
Theta(20°)	-0.96/-1.42	-1.7/-2.11	-2.33/-3.2	-4.25/-4.15	-4/-4.09	-4.71/-6.1	-3.46/-2.28	0.04/-0.05	0.04/-0.05	-1.11/-1.77	-1.82/-1.63	-1.37/-1.57	-2.09/-3.29	-3.64/-4.29	-4.38/-3.58	-2.37/-1.57	-1.44/-1.71	
Theta(30°)	1.30/67	-1/-1.27	-1.67/-5.24	-3.36/-3.12	-3.5/-4.48	-5.36/-2.87	-0.81/-0.29	-0.15/-0.36	-1.14/-1.22	-0.95/-0.19	0.090.13	0.43/-0.06	-1.13/-1.78	-0.86/-0.32	-0.73/-1.76	-1.64/-0.08	1.01/-8.1	2.052.01
Theta(40°)	2.080.7	-0.250.42	0.09/-1.37	-2.48/-3.08	-4.04/-5.39	-3.9/-2.15	-0.440.57	-0.04/-1.08	-0.23/-1.95	1.972.21	0.2031.5	0.960.46	0.48/-0.17	-0.310.17	0.291.17	2.032.79	2.382.16	
Theta(50°)	2.331.42	-1.220.23	0.98/-0.37	-1.99/-0.56	-1.03/-3.32	-1.20.4	0.39/-1.17	0.85/-0.26	1.023.38	3.784.25	3.982.68	1.79/-1.12	1.1/-4.21	-1.56/-0.75	0.020.35	0.52/-1.79	2.763.17	2.822.65
Theta(60°)	3.212.83	0.180.76	1.880.47	0.150.76	0.71/-1.28	0.371.5	1.190.84	1.29/-1.1	1.543.05	3.573.77	3.312.7	2.571.98	1.36/-0.04	0.280.03	0.32/-0.04	1.183.07	3.433.52	2.582.4
Theta(70°)	3.732.94	0.731.97	2.731.05	1.041.95	2.370.62	1.462.51	1.261.39	1.423	3.963.48	2.712.07	3.112.53	2.492.73	3.694.01	1.941.01	2.522.07	3.694.01	3.523.32	3.133.04
Theta(80°)	5.313.6	2.183.64	3.441.44	3.153.77	3.13.84	2.212.58	1.780.59	2.333.74	5.3/-6.16	4.283.49	1.862.95	4.333.02	2.382.46	3.863.01	4.554.16	3.053.54	4.264.02	
Theta(90°)	6.132.87	2.273.73	21.41	2.913.67	2.413.65	1.022.87	0.781.3	1.914.55	3.093.65	4.934.96	5.134.24	1.733.2	5.273.35	3.13.1	4.012.61	5.533.6	3.575.93	6.158.85
Theta(100°)	5.532.41	2.394.2	1.261.54	3.223.53	1.932.8	1.522.47	0.932.16	5.963.91	2.242.15	3.593.79	4.981.6	2.522.7	4.981.6	4.471.27	5.325.5	5.064.95		
Theta(110°)	4.222.49	2.132.72	2.222.17	2.684.07	2.144.39	1.872.41	1.462.84	3.613.82	22.41	3.011.55	1.870.92	1.2/-1.33	2.970.99	1.660.36	3.691.27	2.070.02	3.983.28	3.353.08
Theta(120°)	3.251.87	0.540.74	0.02/-0.84	1.64/-1.72	-0.56/-1.22	-0.32/-0.52	-0.140.8	2.291.28	0.942.19	2.671.61	-0.14/-0.12	1.96/-0.29	0.451.15	0.02/-0.46	0.360.38	2.16/-0.85	1.371.92	1.120.89
Theta(130°)	2.470.29	0.12/-1.19	0.08/-0.06	0.29/-1.19	-2.93/-1.93	-1.98/-1.02	-0.38/-0.94	-0.031.51	-1.98/-1.02	0.261.63	0.921.34	-1.74/-1.71	-1.99/-0.64	0.460.61	0.29/-3.72	0.582.16	0.520.95	
Theta(140°)	-0.442.34	0.950.52	-0.74/-1.93	-1.03/-3.34	-5.83/-3.48	-3.21/-2.91	-1.69/-3.1	-4.06/-3.12	-1.730.5	-1/-3.01	-0.74/-4.33	-5.05/-1.72	-1.86/-3.28	-3.73/-4.69	-2.1/-1.26	-1.84/-3.56	-7.42/-3.22	-2.46/-2.49
Theta(150°)	-2.17/-0.06	-0.2/-1.31	-0.68/-1.1	-2.13/-3.88	-5.9/-5.78	-7.04/-7.93	-4.6/-4.06	-3.86/-2.02	-1.09/-2.67	-3.6/-0.16	0.21/-2.56	-3.68/-2.25	-2.6/-2.12	-5.25/-7.25	-3.06/-1.54	-1.43/-2.37	-6/-3.07	-1.71/-1.92
Theta(160°)	-1.02/-1.66	-2.18/-3.26	-4.28/-5.52	-6.28/-6.89	-7.69/-6.44	-6.12/-7.07	-8.31/-7.21	-1.55/-0.52	-0.49/-0.46	-1.75/-10.5	-8.47/-6.4	-2.72/-5.97	-8.02/-10.24	-4.56/-4.21	-5.56/-4.1	-2.64/-1.68	-0.92/-1.09	
Theta(170°)	-1.29/-2.43	-3.08/-3.16	-3.61/-5.17	-6.71/-7.48	-7.9/-8.76	-9.18/-8.14	-7.07/-6.1	-5.19/-3.93	-3.44/-2.77	-2.46/-2.9	-3.3/-3.61	-3.98/-5.31	-6.59/-8.29	-9.05/-8.76	-7.58/-5.87	-4.95/-4.37	-3.27/-2.48	-1.1/-1.27
Theta(180°)	-3.14/-3.49	-4.23/-5.16	-6.28/-7.18	-8.79/-10.54	-11.07/-12.22	-11.66/-10.69	-10.15/-9.81	-8.15/-6.32	-5.22/-4.8	-4.54/-4.01	-4.11/-4.67	-5.71/-7.45	-9.52/-10.79	-10.8/-11.77	-11.39/-9.69	-7.95/-7.58	-6.89/-6.15	-5.07/-5.2
Freq(Hz)	5.785GPol.	Phi-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Phi(0°)/Phi(10°)	Phi(20°)/Phi(30°)	Phi(40°)/Phi(50°)	Phi(60°)/Phi(70°)	Phi(80°)/Phi(90°)	Phi(100°)/Phi(110°)	Phi(120°)/Phi(130°)	Phi(140°)/Phi(150°)	Phi(160°)/Phi(170°)	Phi(180°)/Phi(190°)	Phi(200°)/Phi(210°)	Phi(220°)/Phi(230°)	Phi(240°)/Phi(250°)	Phi(260°)/Phi(270°)	Phi(280°)/Phi(290°)	Phi(300°)/Phi(310°)	Phi(320°)/Phi(330°)	Phi(340°)/
Theta(0°)	-10.71/-9.08	-6.91/-6.45	-2.96/-1.83	-0.26/-0.22	0.750.94	0.66/-0.06	-0.51/-1.81	-3.59/-5.81	-8.31/-10.93	-11.06/-8.87	-6.45/-4.71	-2.71/-1.22	-0.30.16	0.450.58	0.580.11	-0.38/-1.77	-4.02/-6.6	-8.59/-8.83
Theta(10°)	-11.1/-10.1	-7.94/-5.61	-4.19/-3.29	-1.79/-0.63	-0.130.24	-0.33/-0.25	-0.97/-1.78	-2.94/-3.9	-5.83/-3.51	-9.40/-7.18	-6.83/-3.51	-2.01/-0.65	-0.110.13	0.450.37	-0.69/-3.27	-4.75/-6.99	-10.66/-10.83	
Theta(20°)	-9.19/-9.05	-8.18/-6.35	-4.59/-3.75	-3.78/-2.83	-1.48/-0.57	-0.370.18	-0.03/-1.26	-2.36/-3.36	-4.47/-5.88	-8.12/-8.67	-7.04/-5	-4.28/-3.75	-2.7/-1.91	-1.97/-2.57	-3.69/-4.27	-5.08/-6.1	-6.29/-7	-8.74/-9.07
Theta(30°)	-9.14/-10.8	-10.14/-9.27	-7.93/-6.22	-4.42/-2.28	-1.48/-1.68	-1.18/-0.32	-1.09/-3.2	-5.09/-5.88	-6.12/-7.75	-8.91/-9.05	-8.35/-7.82	-7.11/-6.64	-6.45/-5.98	-5.35/-5.44	-5.86/-4.29	-3.03/-3.81	-4.64/-6.7	-7.06/-7.36
Theta(40°)	-9.33/-10.14	-9.58/-9.47	-8.12/-6.78	-5.13/-3.57	-3.34/-3.61	-5.04/-4												



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

Θ (60°)	3.95/3.19	2.08/3.38	2.45/0.75	0.57/1.33	2.54/2.99	1.74/0.92	2.34/2.81	2.81/1	0.81/3.65	3.69/4.43	3.83/2.99	1.05/2.2	1.77/0.9	0.73/1.89	0.32/0.9	-0.47/1.18	2.45/2.5	3.42/2.92
Θ (70°)	4.41/3.41	2.33/3.28	1.93/0.22	2.28/1.45	2.22/3.01	2.44/1.71	2.89/1.83	1.78/0.31	0.54/3.36	3.76/3.74	4.13/3.92	1.89/3.24	3.87/2.19	3.35/3.63	1.32/2.56	2.41/3.06	3.28/3.63	5.24/5.03
Θ (80°)	5.01/3.2	2.84/4.31	2.96/1.42	3.92/2.62	3.86/3.41	4.6/2.59	3.56/1.58	1.25/2.33	3.02/4.07	5.43/4.68	4.71/4.19	2.04/4.25	5.89/3.81	3.26/3.44	3.36/4.25	4.1/3.88	3.47/4.41	5.32/5.08
Θ (90°)	4.99/2.63	3.32/5.17	2.33/1.71	3.97/2.21	3.06/3.42	3.03/2.94	3.58/3.71	1.57/3.98	2.47/4.17	6.17/4.86	6.09/6.35	3.75/3.49	6.46/4.2	3.55/2.79	2.55/4.22	5.49/3.01	4.05/6.76	6.23/4.7
Θ (100°)	4.75/2.34	2.07/3.64	0.9/1.44	3.56/3.56	4.07/4.19	3.63/3.69	3.77/2.69	-0.69/2.91	2.61/2.99	5.49/2.44	4.5/5.28	3.28/1	5.98/3.95	3.52/1.52	2.72/4.07	4.19/0.79	4.19/6.56	5.82/5.63
Θ (110°)	4.37/3.1	3.22/4.65	3.11/2.99	2.99/3.52	3.77/3.98	2.83/3.96	3.48/3.07	2.68/3.35	1.58/2.18	3.13/2.26	3.36/3.22	3.08/-0.21	2.99/0.82	1.67/-0.29	2.74/2.44	0.28/0.04	2.67/3.74	1.9/1.85
Θ (120°)	4.18/4.48	3.25/1.69	1.01/0.01	0.35/0.62	0.91/0.33	0.21/1.87	2.15/2.14	2.56/3.96	2.49/2.61	3.51/3.08	1.83/1.98	1.66/0.86	2.33/1.88	-3.06/-0.83	0.39/1.86	0.82/1.74	2.83/2.05	1.49/1.16
Θ (130°)	4.32/2.35	2.74/2.3	0.12/0.29	0.69/0.9	1.4/-0.34	-0/-0.71	-0.96/-0.36	-0.61/2.58	2.79/1.42	2.77/2.12	2.56/1.57	-0.05/-0.69	0.65/3.04	1.04/-0.63	0.58/3.05	0.79/-1.98	0.46/2.6	2.42/2.05
Θ (140°)	2.99/3.74	2.53/2.15	1.82/0.87	-0.14/-1.5	-1.03/-2.47	-2.23/-1.7	-2.5/-0.86	-2.05/-2.68	-0.93/1.55	0.98/-1.26	-0.37/-2.11	-4.57/-1.19	-1.34/-3.78	-3.45/-7.97	-3.96/0.16	-3.96/-5.91	-4.46/-0.4	0.87/0.7
Θ (150°)	-1.1/-0.3	-1.7/1.36	-1.07/-1.19	-2.66/-3.46	-4.91/6.91	-3.82/-2.12	-2.33/-1.67	-2.08/2.18	-2.63/-3.72	-3.55/-0.79	-0.34/-2.95	-4.01/-0.01	0.04/-3.56	-5.88/-7.56	-4.41/-1.82	-1.67/-7.35	-6.61/-0.89	0.31/-0.06
Θ (160°)	-0.66/-0.75	-0.95/-2.29	-4/-4.1	-3.81/-4.9	-5.58/-5.54	-5.12/-3.82	-4.11/-4	-3.47/-1.69	-0.37/-0.98	-1.61/-0.97	0.42/0.71	-0.18/-1.85	-3.87/-6.09	-7.05/-7.99	-7.03/-4.15	-2.17/-1.07	-0.37/0.15	0.65/0.33
Θ (170°)	-0.55/-1.05	-1.02/-1.17	-1.69/-3.06	-4.49/-5.09	-6.03/-7.11	-8.14/-7.67	-6.26/-5.43	-4.36/-2.65	-1.33/-0.81	-0.98/-1.95	-3.21/4.58	-5.24/-4.95	-5.66/-6.95	-8.07/-7.89	-6.39/-5.86	-4.95/-3.92	-3.49/-2.5	-0.95/-1.62
Θ (180°)	-2.93/-2.67	-2.38/-2.86	-4.52/-4.83	-5.38/-6.94	-9.6/-11.04	-12.42/-11.5	-11.3/-9.68	-7.69/-5.89	-4.76/-3.62	-2.79/-2.3	-2.24/-2.6	-3.03/-3.88	-5.43/-7.14	-9.17/-9.77	-10.27/-12.52	-11.77/-9.96	-8.8/-6.02	-4.47/-4.94



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

Gain Result

Freq(Hz)	5.6G/Pol.	Phi/Ant.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-14.65/-13.9	-12.89/-11.66	-11.24/-9.57	-8.6/-7.69	-7.84/-8.72	-9.79/-9.77	-9.92/-10.94	-12.38/-14.3	-17.18/-18.52	-18.96/-17.27	-14.43/-11.65	-9.38/-8.6	-8.47/-9.1	-8.89/-9.37	-10.28/-10.66	-10.28/-10.91	-13.58/-14.08	-17.19/-17.15
Θ(10°)	-13.42/-13.15	-13.77/-12.86	-11.92/-10.26	-9.37/-7.76	-6.98/-7.26	-7.62/-8.23	-8.53/-9.19	-9.51/-10.07	-11.23/-13.92	-19.48/-18.82	-12.65/-9.01	-6.88/-6.56	-7.66/-7.37	-7.93/-8.36	-8.56/-7.92	-7.94/-7.71	-7.86/-8.36	-9.53/-9.56
Θ(20°)	-9.81/-12.63	-14.45/-12.51	-10.33/-8.86	-8.27/-8.16	-7.25/-6.94	-7.06/-7.35	-7.2/-7.18	-8.21/-9.97	-13.32/-16.74	-17.88/-17.61	-17.35/-15.74	-14.8/-15.77	-16.36/-16.03	-18.23/-18.55	-19.08/-13.52	-9.14/-6.72	-5.1/-4.92	-5.58/-5.56
Θ(30°)	-12.26/-13.79	-17.23/-18.7	-13.14/-9.48	-6.78/-5.26	-4.98/-5.2	-5.86/-5.95	-6.38/-6.54	-7.94/-10.45	-13.8/-17.05	-17.17/-16.88	-18.95/-18.83	-18.01/-17.62	-17.9/-18.11	-14.82/-9.79	-5.95/-5.54	-5.65/-5.51	-7.18/-10.1	-12.06/-12.08
Θ(40°)	-11.03/-8.37	-11.21/-19.62	-16.82/-11.15	-7.77/-4.86	-3.6/-4.02	-5.28/-6.03	-5.83/-6.07	-7.14/-7.88	-9.26/-11.49	-14.74/-18.94	-18.21/-17.8	-14.43/-7.88	-4.54/-4.24	-4.26/-2.66	-2.66/-3.84	-4.4/-6.51	-7.95/-11.68	-17.77/-17.82
Θ(50°)	-15.19/-12.61	-15.83/-18.88	-17.02/-15.47	-10.71/-5.06	-4.2/-6.06	-11.47/-15.61	-13.13/-8.69	-6.63/-6.66	-8.73/-12.24	-15.53/-18.67	-17.38/-18.08	-11.3/-5.3	-3.45/-4.2	-5.44/-4.05	-2.87/-2.11	-3.32/-4.81	-6.94/-12.14	-19.51/-19.55
Θ(60°)	-16.13/-14.58	-13.92/-18.68	-13.12/-16.2	-13.03/-5.13	-4.74/-7.69	-13.34/-14.7	-9.64/-6.12	-4.81/-4.71	-6.71/-11.2	-17.28/-18.01	-19.14/-18.92	-12.58/-6.38	-4.25/-4.94	-5.89/-4.37	-3.99/-5.01	-6.56/-4.34	-8.94/-8.21	-12.57/-12.56
Θ(70°)	-10.8/-14.03	-15.39/-18.26	-14.83/-13.5	-11.57/-7.73	-6.85/-7.49	-9.5/-8.71	-6.15/-4.74	-6.31/-8.6	-9.84/-11.08	-18.18/-18.77	-16.4/-10.76	-9.7/-7.43	-4.85/-5.39	-8.13/-9.2	-6.51/-6.88	-11.64/-11.61	-5.84/-4.35	-8.3/-8.15
Θ(80°)	-9.36/-11.02	-11.76/-11.09	-11.86/-11.91	-7.91/-6.39	-8.17/-7.53	-5.81/-4.92	-4.78/-5.7	-6.85/-9.5	-12.66/-16.33	-19.47/-13.77	-12.1/-9.04	-8.02/-9.59	-5.62/-4.87	-9.32/-8.57	-5.48/-6.92	-10.18/-6.18	-3.05/-3.45	-5.67/-5.69
Θ(90°)	-9.2/-10.1	-9.62/-9.64	-10.22/-10.29	-5.47/-3.65	-5.88/-6.18	-5.01/-3.43	-4.02/-7.03	-9.44/-12.23	-15.68/-12.28	-9.28/-7.33	-11.39/-15.82	-7.34/-4.99	-8.51/-7.95	-11.59/-11.04	-5.61/-5.77	-3.21/-3.71	-7.65/-9.69	
Θ(100°)	-16.7/-13.69	-17.55/-15.31	-18/-11.46	-2.94/-1.83	-4.36/-5.06	-4.38/-3.09	-3.48/-4.75	-8.41/-10.46	-10.39/-8.18	-7.62/-7.12	-9.39/-12.02	-17.67/-17.86	-11.76/-11.26	-14.98/-8.8	-6.48/-16.98	-11.69/-8.78	-11.18/-15.19	-17.3/-17.55
Θ(110°)	-11.68/-11.28	-15.7/-18.23	-18.33/-7.49	-2.13/-2.2	-4.41/-7.06	-4.68/-4.81	-4.77/-5.36	-9.15/-12.8	-7.91/-5.9	-6.08/-10.36	-12.12/-13.13	-16.75/-16.07	-12.51/-11.4	-16.58/-9.73	-10.55/-9.9	-8.71/-15.82	-19.16/-17.31	-16.16/-16.23
Θ(120°)	-6.11/-6.79	-14.58/-18.25	-16.97/-5.39	-1.79/-2.65	-5.79/-6.35	-4.66/-3.36	-3.82/-8.32	-16.99/-15.2	-8.66/-5.93	-6.61/-13.25	-15.34/-15.52	-18.6/-18.47	-11.55/-14.17	-17.18/-14.07	-14.37/-13.57	-12.68/-9.26	-10.86/-7.06	-6.97/-6.89
Θ(130°)	-10.77/-8.83	-13.1/-14.58	-18.46/-8.89	-4.84/-3.8	-4.18/-4.85	-5/-2.81	-3.03/-4.03	-5.19/-5.78	-7.12/-11.19	-15.97/-15.29	-12.45/-16.49	-19.29/-18.99	-12.58/-6.85	-7.77/-10.68	-10.35/-8.35	-9.18/-10.71	-11.62/-9.63	-16.04/-16.12
Θ(140°)	-8.51/-12.93	-12.68/-12.21	-11.41/-16.69	-13.79/-7.54	-5.47/-5.8	-5.91/-7.33	-10.24/-11.09	-10.57/-6.33	-6.33/-9.36	-13.05/-17	-15.29/-11.89	-8.44/-10.83	-13.42/-16.42	-17.04/-16.36	-17.44/-12.2	-13.16/-13.07	-13.26/-17.03	-15.26/-15.35
Θ(150°)	-7.18/-9.94	-12.96/-14.84	-11.47/-9.94	-11.92/-7.17	-14.18/-8.84	-6.86/-5.68	-13.87/-12.22	-18.07/-19.1	-13.89/-17.88	-6.04/-8.7	-11.81/-9.92	-14.28/-16.28	-18.18/-11.25	-6.99/-7.65	-6.82/-6.86			
Θ(160°)	-12.82/-11.58	-12.08/-13.74	-11.3/-7.32	-6.66/-7.11	-7.92/-7.88	-6.73/-5.56	-5.51/-5.37	-5.56/-7.03	-10.16/-13.19	-18.65/-15.29	-9.06/-5.91	-3.73/-3.62	-6.31/-8.87	-12.5/-14.44	-14.69/-18.88	-13.12/-9.01	-6.77/-7.33	-10.58/-10.68
Θ(170°)	-16.99/-13.55	-11.65/-11.43	-10.45/-9.43	-8.5/-8.19	-8.37/-8.54	-9.09/-8.78	-8.83/-9.58	-10.99/-15.53	-18.08/-17.57	-11.82/-9.04	-8.82/-9.88	-14.15/-16.68	-14.89/-14.29	-14.99/-13.91	-13.52/-14.26	-15.28/-13.58	-11.77/-12.65	-18.42/-18.55
Θ(180°)	-15.83/-16.26	-16.58/-14.99	-13.88/-14.22	-13.68/-14.2	-15.25/-16.44	-19.2/-17.37	-17.56/-17.79	-17.62/-18.07	-18.73/-18.69	-19.09/-18.17	-19.02/-17.18	-14.87/-13.4	-15.22/-18.69	-18.04/-18.37	-18.99/-17.98	-17.99/-19.43	-17.73/-18.65	-16.83/-16.83
Freq(Hz)	5.6G/Pol.	Theta/Ant.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-9.06/-9.14	-9.61/-10.07	-10.7/-12.7	-14.31/-16.05	-10.33/-10.929	-10.73/-12.77	-10.23/-10.65	-12.78/-12.77	-14.15/-11.49	-12.64/-8.98	-8.48/-4.94	-11.1/-12.42	-12.64/-13.36	-14.15/-13	-12.43/-14.33	-12.43/-14.33	-12.43/-14.33	-8.26/-8.28
Θ(10°)	-5.33/-5.7	-6.2/-6.97	-7.34/-7.9	-10.17/-11.16	-12.23/-13.48	-13.78/-12.92	-12.72/-12.48	-11.41/-10.64	-9.53/-8.82	-8.52/-7.98	-8.73/-10.63	-14.22/-18.39	-18.79/-17.7	-15.42/-12.58	-10.9/-9.4	-7.92/-6.56	-5.73/-4.97	-5.02/-5.08
Θ(20°)	-3.36/-3.58	-3.24/-3.34	-4.27/-3.65	-8.93/-11.87	-18.94/-14.81	-14.11/-13.88	-14.84/-14.79	-14.1/-16.02	-10.44/-14.96	-12.74/-13.67	-18.07/-18.31	-18.29/-18.33	-15.1/-13.75	-11.14/-9.49	-8.52/-8.85	-9.27/-8.29	-5.74/-3.51	-2.75/-2.76
Θ(30°)	-0.61/-1.84	-2.89/-2.71	-3.65/-4.96	-6.11/-8.13	-11.45/-13.1	-14.36/-12.29	-9.72/-10.01	-10.5/-10.34	-12.35/-15.35	-12.94/-16.08	-16.04/-14.63	-11.98/-12.21	-15.64/-14.81	-10.13/-8.76	-12.13/-15.22	-8.69/-3.41	-0.92/-0.16	-0.22/-0.25
Θ(40°)	0.3/-1.83	-3.16/-1.78	-2.2/-2.83	-4.96/-10.32	-18.49/-13.1	-9.92/-8.3	-6.99/-7.2	-8.8/-11.64	-14.46/-15.06	-15.84/-14.53	-17.25/-16	-12.64/-15.59	-18.36/-18.66	-12.87/-13.63	-11.6/-6.57	-4.3/-3.49	-1.780/-1.1	0.910/8.6
Θ(50°)	0.79/-1.04	-5.05/-2.85	-1.27/-2.41	-5.88/-10.33	-18.79/-12.67	-8.3/-5.75	-5.79/-7.97	-8.73/-9.89	-13.91/-12.87	-10.01/-8.51	-10.11/-18.26	-17.87/-16.34	-16.49/-14.8	-11.19/-9.42	-6.72/-9.34	-2.27/-1.79	-0.44/-0.45	
Θ(60°)	-0.06/-0.65	-5.9/-4.19	-1.23/-3.65	-6.29/-6.9	-14.9/-12.69	-5.58/-3.95	-3.28/-3.67	-6.07/-11.65	-10.73/-7.66	-4.93/-5.24	-11.89/-14.87	-6.14/-5.84	-6.4/-4.51	-3.19/-1.85	-2.58/-2.52	-2.27/-1.74	-0.39/-3.1	
Θ(70°)	-0.75/-1	-5.24/-3.89	0.09/-3.17	-4.39/-3.2	-7.01/-8.64	-5.09/-4.49	-5.59/-4.62	-2.38/-3.37	-5.14/-7.19	-6.99/-4.29	-4.86/-6.68	-7.09/-3.51	-9.01/-10.43	-7.5/-5.86	-4.12/-2.27	-1.58/-2.14	-1.71/-0.45	-1.23/-1.25
Θ(80°)	0.13/-0.07	-5.38/-4.57	-0.28/-4.41	-1.19/-0.77	-3.17/-2.62	-3.91/-7.04	-6.23/-4	-0.95/-0.75	-1.09/-2.23	-5.04/-3.49	-5.22/-7.59	-6.95/-2.62	-4.8/-15.34	-10.34/-6.2	-3.71/-2.69	-0.38/-2.65	-1.41/-0.19	-0.01/-0.1
Θ(90°)	-1.42/-3.23	-8.38/-6.53	-2.93/-7.88	-1.12/-2.23	-4.77/-2.91	-5.4/-6.23	-5.15/-4.17	-0.84/-0.33	-1.47/-3.09	-3.92/-3.5	-3.25/-4.72	-7.72/-1.57	-2.02/-11.69	-10.51/-5.64	-7.52/-6.36	-2.16/-5.98	-0.610/8.9	0.84/-1.34
Θ(100°)	-2.71/-2.45	-4.46/-5.55	-5.04/-13.67	-2.45/-2.32	-3.34/-3	-6.57/-10.22	-7.06/-3.5	-0.32/-0.4	-1.89/-4.39	-6.88/-2.66	-5.87/-3.41	-4.61/-2.98	-1.51/-19.56	-6.88/-12.95	-6.52/-8.51	-4.49/-7.59	-1.7/-0.77	-0.72/-0.85
Θ(110°)	-4.49/-3.21	-4.61/-2.75	-2.99/-7.2	-1.94/-0.99	-2.3/-0.31	-2.34/-4.95	-3.7/-1.12	0.640/-7	-0.39/-1.3	-1.14/-2.57	-4.65/-4.4	-5.43/-10.15	-5.21/-12.93	-5.95/-18.12	-9.79/-7.58	-8.62/-11.1	-4.74/-7.48	-2.7/-2.8
Θ(120°)	-10.47/-6.67	-8.36/-6.08	-6.24/-12.98	-5.67/-4.47	-6.98/-6.42	-4.92/-4.49	-4.8/-2.52	-0.96/-1.23	-1.790/-3.4	-1.830/-2.4	-1.43/-7.19	-9.6/-17.84	-6.2/-11.98	-11.1/-10.46	-9.94/-17.95	-11.99/-13.66	-13.53/-13.64	
Θ(130°)	-16.43/-13.11	-9.51/-9.42	-12.34/-18.58	-12.69/-7.61	-7.83/-12.01	-10.33/-6.77	-4.4/-3.25	-3.07/-4.15	-2.34/-1.83	-3.4/-2	-2.56/-18.09	-12.09/-13.68	-17.69/-16.52	-10.55/-16.97	-11.1/-13.57	-14.49/-14.64		
Θ(140°)	-13.91/-8.88	-10.01/-10.6	-11.42/-14.87	-16.13/-17.88	-16.79/-14.38	-18.97/-8.36	-3.72/-3.42	-4.66/-3.38	-2.82/-1.08	-2.48/-7.11	-9.36/-13.55	-7.81/-12.19	-15.24/-13.17	-18.61/-14.55	-12.46/-12.05	-17.56/-13.72	-17.06/-17.89	-15.33/-15.46
Θ(150°)	-15.5/-7.4	-5.82/-7.41	-7.61/-11.12	-16.06/-13.49	-12.09/-13.19	-18.28/-15.65	-7.17/-3.87	-2.4/-2.09	-3.25/-5.79	-9.08/-5.13	-3.45/-4.94	-5.3/-5.96	-10.35/-10.11	-14.35/-18.06	-13.58/-13.62	-13.46/-12.11	-18.26/-18.85	-14.87/-14.89
Θ(160°)	-10.88/-12.59	-12.57/-12.31	-13.89/-16.77	-9.35/-13.88	-9.23/-10.9	-10.29/-9.15	-6.72/-5.84	-0.29/-0.91	-18.58/-15.08	-10.91/-0.05	-16.26/-18.44	-17.31/-19.31	-15.26/-18.44	-18.38/-15.08	-17.31/-19.31	-10.73/-8.73	-7.88/-8.15	
Θ(170°)	-12.29/-17.66	-17.58/-15.49	-16.1/-18.54	-17.44/-13.42	-11.16/-10.27	-11.35/-11.85	-10.65/-8.86	-7.34/-6.13	-6.18/-6.35	-7.33/-9.47	-10.97/-8.71	-6.65/-6.99	-9.33/-12.84	-15.98/-17.71	-17.85/-18.43	-18.1/-17.1	-12.75/-10.89	-9.16/-9.25
Θ(180°)	-18.46/-17.77	-18.11/-19.21	-18.07/-17.91	-19.07/-17.37	-17.49/-18.19	-18.31/-18.53	-18.72/-19.28	-19.43/-18.14	-17.39/-16.53	-15.58/-13.29	-12.04/-12.01	-14.5/-18.4	-17.78/-17.81	-18.72/-18.38	-18.39/-18.29	-15.85/-15	-16.76/-17.78	-16.45/-16.84
Freq(Hz)	5.785G/Pol.	Phi/Ant.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-18.93/-18.03	-15.81/-12.28	-9.34/-7.47	-5.66/-4.78	-4.27/-3.52	-3.16/-3.26	-3.52/-4.83	-6.68/-9.81	-13.76/-19.07	-18.35/-18.75	-15.92/-11.29	-8.67/-6.38	-5.33/-4.48	-3.42/-3.16	-2.68/-2.84	-3.52/-4.71	-6.87/-10.46	-11.51/-11.52
Θ(10°)	-19.11/-17.12	-12.41/-9.21	-7.61/-7.03	-5.52/-4.38	-3.82/-3.43	-3.66/-4.41	-6.42/-6.13	-17.12/-8										



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

θ(60°)	0.53/-1.66	-5/-1.64	-0.64/-3.34	-2.79/-7.56	-6.39/-3.55	-3.85/-4.97	-7.01/-5.53	-5.3/-7.92	-8.72/-9.64	-10.26/-8.86	-10/-17.22	-17.83/-8.11	-11.14/-13.68	-7.49/-3.93	-6.55/-5.64	-2.64/-1.58	-1.27/0.02	-0.54/-0.55
θ(70°)	1.59/0	-4.6/-2.46	-1.36/-4.85	-0.82/-3.73	-6.31/-2.08	-2.77/-4.47	-4.54/-4.91	-5.13/-6.26	-6.61/-8.62	-10.17/-6.82	-7.13/-9.86	-16.74/-4.9	-6.4/-9.26	-6.36/-3.75	-5.39/-3.07	-0.37/-1.52	-2.45/-0.41	0.15/0.16
θ(80°)	2.51/-35	-1.88/-0.7	-1.2/-2.87	0.97/1	-2.2/-2.15	-2.4/-2.14	-4.91/-8.73	-8.17/-5.82	-3.76/-5.6	-7.15/-4.93	-4.91/-6.08	-9.98/-5.02	-2.61/-3.42	-0.27/-3.02	-2.61/-1.44	-1.28/-0.55	-2.54/-0.59	0.31/0.18
θ(90°)	-0.07/-0.35	-3.52/-2.01	-4.69/-2.12	1.04/-2.44	-1.13/-2.97	-3.41/-1.6	-3.59/-4.69	-3.84/-1.54	-1.1/-1.7	-2.84/-3.41	-3.91/-2.7	-5.19/-5.67	-1.56/-6.02	-19.12/-6.25	-3.85/-2.48	1.36/-3.52	0.83/2.17	1.17/-0.32
θ(100°)	-1.46/-2.32	-6.68/-6.23	-11.55/-3.43	0.45/-1.12	0.29/-0.8	-3.62/-1.19	-2.48/-4.44	-4.24/-1.03	0.20/6	-1.23/-2.98	-2.79/-1.65	-4.44/-8.28	-0.85/-4.03	-8.96/-10.44	-5.17/-5.31	-2.24/-9.8	-2.45/-0.48	-0.59/-0.64
θ(110°)	-2.58/-0.89	-3.01/-1.9	-4.84/-7.78	-1.53/-1.26	1.52/-0.24	-1.63/-1.08	-1.02/-2.85	-2.91/-2.29	-0.85/-0.06	-1.59/-2.51	-2.01/-1.73	-1.4/-5.14	-3.26/-17.46	-1.02/-9.96	-8.28/-7.05	-3.16/-3.18	-2.86/-2.94	
θ(120°)	-6.8/-3.08	-6.28/-6.16	-6.16/-6.22	-4.04/-4.51	-3.77/-5.36	-5.21/-1.42	0.41/-0.39	0.11/0.58	0.71/1.08	-0.31/-1.2	-2.52/-5.33	-1.92/-3.82	-5.36/-11.97	-6.19/-13.41	-9.65/-11.43	-8.53/-17.29	-8.44/-13.6	-16.78/-17.64
θ(130°)	-10/-6.69	-6.19/-7.97	-14.99/-13.66	-8.64/-3.71	-3.41/-5.17	-7.21/-8.89	-8.58/-5.05	-2.65/-0.58	-0.06/-0.75	-0.72/-0.83	-1.4/-2.58	-1.71/-16.25	-10.2/-7.75	-5.75/-13.65	-10.42/-10.19	-9.53/-17.27	-18.69/-17.18	-15.83/-15.94
θ(140°)	-11.19/-8.76	-8.5/-8.13	-13.28/-17.29	-17.65/-13.55	-10.07/-7.81	-6.35/-5	-4.6/-5.25	-5.07/-4.6	-3.01/-2.05	-2.77/-2.69	-16.29/-13.26	-11.95/-15.55	-12.02/-17.85	-16.29/-13.26	-13.04/-10.81	-13.96/-17.36	-11.24/-11.34	
θ(150°)	-15.68/-8.8	-10.02/-12.41	-18.28/-17.98	-16.08/-18.22	-18.61/-11.91	-5.25/-2.73	-1.98/-1.7	-2.25/-2.61	-3.34/-4.55	-5.87/-8.99	-7.03/-5.04	-5.96/-4.95	-9.16/-18.3	-10.99/-16.11	-19.16/-18.96	-18.93/-18.66	-16.87/-10.17	-6.9/-7.5
θ(160°)	-18.47/-16.36	-15.15/-18.25	-18.36/-16.27	-11.55/-8.71	-8.3/-10.38	-12.69/-9.17	-6.29/-5	-4.85/-3.87	-2.64/-1.95	-1.42/-1.13	-0.14/0.3	-0.9/-4.12	-9.86/-14.49	-15.85/-13.53	-14.55/-18.64	-17.74/-11	-9.41/-10.95	-10.67/-10.54
θ(170°)	-14/-11.1	-9.25/-10.33	-13.07/-15.29	-16.52/-15.14	-14.62/-12.51	-11.3/-10.14	-7.36/-6.69	-5.31/-4.21	-3.73/-5.75	-17.04/-18.39	-10.05/9.52	-11.72/-17.09	-18.25/-18.61	-18.04/-18.39	-19.1/-18.33	-17.99/-15.26	-12.29/-13.11	
θ(180°)	-18.91/-18.1	-19.04/-18.5	-17.55/-16.52	-14.91/-14.35	-14.01/-16.09	-17.89/-18.49	-19.1/-18.75	-18.94/-18.71	-18/-15.48	-12.52/-11.22	-10.99/-11.09	-11.32/-12.11	-13.7/-15.28	-18.88/-18.88	-17.76/-19.03	-19.32/-19.05	-18.92/-18.48	-18.61/-18.64
Freq(Hz)	5.6GPol.	PhiAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
θ(0°)	-15.56/-12.25	-8.98/-6.44	-4.74/-3.11	-1.92/-1.33	-1.52/-1.58	-1.38/-1.73	-2.45/-3.69	-5.51/-7.5	-10.37/-13.53	-17.74/-14.11	-8.79/-6.32	-4.78/-3.67	-2.71/-2.07	-1.79/-1.95	-2.24/-2.65	-3.65/-4.86	-6.34/-8.43	-13.39/-13.75
θ(10°)	-12.94/-12.93	-10.67/-7.2	-5.21/-4.64	-4.56/-3.46	-1.91/-0.88	-0.63/-1.13	-1.98/-3.02	-4.49/-6.25	-8.44/-10.44	-11.89/-10.79	-7.93/-5.14	-3.2/-2.18	-1.12/-0.71	-0.77/-1.17	-1.39/-3.04	-4.39/-6.45	-8.52/-11.31	-14.64/-15.54
θ(20°)	-17.58/-17.78	-14.73/-11.59	-8.42/-6.35	-5.06/-3.82	-3.38/-2.56	-1.52/-1.89	-2.7/-3.59	-4.82/-7.57	-9.85/-11.23	-10.34/-8.77	-6.65/-5.62	-5.55/-6.7	-6.9/-5.77	-4.78/-4.79	-6.17/-7.2	-7.85/-8.26	-9.83/-13.21	-15.32/-15.64
θ(30°)	-14.43/-14.79	-14.46/-12.71	-9.42/-7.71	-5.13/-3.38	-2.31/-2.31	-2.63/-1.91	-2.41/-4.61	-7.59/-15.4	-18.52/-18.72	-18.07/-12.04	-9.86/-8.04	-7.61/-10.43	-11.63/-8.7	-6.72/-7.2	-8.89/-9.07	-8.65/-8.93	-9.67/-10.76	-13.1/-13.56
θ(40°)	-19.36/-18.12	-19.01/-15.74	-11/-8.27	-6.38/-6.73	-6.31/-5.24	-3.92/-3.22	-2.88/-4.26	-8.52/-15.04	-18.7/-19.01	-18.41/-19.01	-12.36/-10.72	-7.39/-5.43	-5.62/-6.57	-6.73/-6.56	-7.19/-7.34	-7.67/-8.65	-12.29/-16.46	-15.64/-15.54
θ(50°)	-19.86/-14.86	-11.01/9.37	-10.11/-12.05	-5.49/-4.3	-3.9/-4.78	-18.87/-16.75	-12.52/-7.5	-4.98/-3.4	-16.14/-18.79	-12.87/-16.75	-2.26/-2.68	-4.46/-3.6	-2.71/-3.79	-7.46/-6.41	-4.46/-5.43	-7.4/-10.48	-14.46/-15.52	
θ(60°)	-17.69/-14.4	-11.58/-10.03	-10.29/-11.75	-13.81/-12.08	-6.83/-3.74	-3.09/-4.1	-6.67/-10.77	-13.31/-16.2	-14.05/-15	-14.97/-17.65	-11.59/-8.5	-4.68/-5.29	-4.45/-3.85	-2.6/-5.04	-10.89/-6.68	-3.55/-4.1	-5.96/-8.3	-11.24/-12.35
θ(70°)	-17.94/-13.22	-10.45/-8.87	-7.21/-5.95	-6.33/-6.68	-5.91/-4.6	-1.35/-3.21	-5.43/-10.94	-17.9/-17.19	-15.08/-12.39	-12.57/-14.05	-7.29/-4.03	-5.17/-8.13	-8.05/-7.25	-5.5/-5.01	-6.72/-4.42	-3.93/-5.59	-6.19/-7.32	-9.62/-9.85
θ(80°)	-18.73/-17.96	-12.52/-8.18	-6.45/-4.47	-6.05/-5.43	-4.02/-3.64	-4.69/-3.04	-4.77/-10.44	-15.04/-15.55	-16.9/-18.34	-18.88/-17.67	-8.45/-4.16	-3.07/-4.66	-6.82/-7.64	-7.33/-4.11	-4.31/-9.28	-9.41/-7.95	-8.78/-9.12	
θ(90°)	-9.83/-11.72	-9.83/-1.67	-7.2/-8.8	-7.15/-3.99	-3.19/-5.49	-7.02/-4.14	-3.99/-9.55	-18.11/-14.35	-13.33/-18.73	-18.19/-17.15	-13.38/-7.2	-3.3/-5.57	-8.79/-8.71	-7.45/-12.61	-6.68/-4.77	-6.52/-17.75	-11.69/-12.65	-10.86/-10.92
θ(100°)	-9.13/-8.87	-12.31/-10.41	-6.98/-5.61	-3.89/-4.01	-8.11/-17.68	-14.94/-10.08	-9.61/-18.87	-12.56/-10.43	-11.18/-12.55	-13.17/-11.52	-13.12/-14.98	-13.55/-13.11	-16.24/-16.34	-13.93/-15.3	-11.62/-7.88	-12.67/-18	-16.28/-12.45	-9.58/-9.82
θ(110°)	-9.58/-7.97	-12.14/-12.49	-6.54/-3.29	-2.5/-4.35	-7.01/-7.21	-5.69/-4.72	-5.87/-8.6	-11.87/-9.94	-13.05/-18.39	-15.13/-16.32	-18.7/-19.5	-18.82/-18.23	-16.34/-10.56	-16.48/-11.32	-15.82/-14.4	-17.18/-19.07	-18.01/-11.99	-11.71/-11.52
θ(120°)	-17.59/-14.27	-18.05/-19.34	-14.99/-7.17	-3.13/-1.3	-4.38/-6.63	-6.21/-5.17	-6.5/-11	-18.34/-15.13	-17.1/-11.13	-9.32/-4.72	-13.38/-10.62	-9.57/-8.52	-6.59/-17.68	-15.23/-8.1	-15.42/-11.91	-11.34/-19.12	-18.35/-19.15	
θ(130°)	-18.01/-17.68	-11.31/-9.12	-9.05/-8.2	-5.41/-5.11	-9.78/-8.04	-2.96/-3.54	-8.43/-18.14	-11.55/-7.47	-8.79/-8.08	-11.45/-8.46	-17.29/-18.85	-19.48/-8.38	-9.32/-4.85	-9.47/-9.98	-13.03/-9.71	-10.6/-12.92	-14.15/-17.77	-12.87/-13.25
θ(140°)	-13.65/-12.52	-8.26/-7.08	-7.93/-9.33	-13.71/-13.17	-7.8/-3.01	-1.87/-3.14	-4.51/-10.56	-9.48/-7.66	-7.62/-14.21	-9.89/-6.96	-9.58/-19.29	-18.31/-14.85	-7.76/-14.69	-18.02/-11.12	-10.24/-14.05	-16.59/-15.48	-19.25/-17.29	-11.49/-11.52
θ(150°)	-18.65/-13.7	-10.79/-8.07	-8.2/-7.02	-3.7/-2.27	-1.85/-1.91	-3.84/-8.09	-6.5/-7.35	-8.75/-10.44	-13.6/-10.06	-9.62/-8.81	-13.16/-18.17	-16.55/-13.96	-9.94/-10.86	-15.21/-11.94	-14.48/-14.93	-19.18/-19.82		
θ(160°)	-18.24/-18.25	-14.01/-9.86	-6/-4.92	-4.72/-5.21	-6.02/-6.44	-6.02/-5.66	-6.28/-7.03	-7.79/-11.05	-16.39/-18.17	-19.17/-18.56	-16.71/-11.04	-9.79/-9.8	-11.59/-12.33	-10.68/-8.34	-0.08/-7.09	-7.56/-5.59	-6.63/-7.71	-9.22/-9.18
θ(170°)	-16.05/-18.31	-17.81/-12.01	-8.97/-7.03	-5.97/-4.55	-3.28/-2.71	-2.64/-3.12	-3.96/-5.21	-7.58/-11.46	-16.84/-18.91	-17.99/-18.81	-17.99/-14.72	-13.29/-12.83	-12.66/-10.92	-7.67/-6.12	-4.46/-7.56	-7.44/-6.92	-6.83/-7.04	-7.42/-7.52
θ(180°)	-18.38/-18.24	-18.56/-13.26	-10.98/-10.43	-9.23/-7.57	-6.86/-7.5	-9.7/-13.81	-17.1/-19.01	-18.53/-18.31	-17.18/-17.63	-17.32/-14.84	-14.53/-16.58	-16.41/-14.37	-13.52/-12.03	-12.78/-12.49	-12.71/-16.21	-12.03/-14.37	-18.46/-18.52	
Freq(Hz)	5.6GPol.	ThetaAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
θ(0°)	-1.15/-1.26	-1.78/-1.73	-3.91/-5.26	-7.63/-10.44	-15.88/-16.45	-11.89/-8.37	-5.87/-4.19	-2.97/-2.25	-1.27/-1.77	-2.47/-3.33	-4.56/-6.3	-9.67/-14.71	-18.06/-18.09	-11.43/-7.57	-5.29/-3.65	-2.8/-2.03	-1.69/-1.72	
θ(10°)	-3.11/-4.2	-5.31/-4.22	-6.89/-8.46	-11.22/-13.78	-15.17/-14.85	-11.35/-8.61	-5.54/-3.89	-3.43/-2.36	-1.12/-0.16	0.13/0.18	-1.43/-2.52	-4.59/-8.46	-15.13/-18.74	-12.71/-9.28	-7.25/-5.6	-4.6/-3.94	-3.39/-3.52	
θ(20°)	-7.09/-8.32	-10.51/-11.72	-10.71/-10.85	-12/-10.96	-13.63/-17.93	-16.09/-9.82	-5.76/-3.76	-2.89/-2.53	-3.18/-3.78	-3.23/-3.14	-6.69/-6.75	-7.03/-9.07	-13/-18.91	-18.9/-18.67	-15.1/-11.11	-9.23/-8.15	-8.11/-8.52	
θ(30°)	-12.26/-11.69	-16.71/-17.76	-17.91/-18.84	-18.51/-13.5	-19.15/-22	-16.78/-18	-3.95/-4.27	-5.17/-3.67	-2.56/-2.82	-3.59/-4.3	-11.71/-7.78	-13.95/-15.76	-9/-7.49	-18.32/-12.92	-9.59/-8.41	-10.46/-10.52		
θ(40°)	-17.4/-14.94	-13.09/-16.86	-16.28/-12.93	-11.17/-9.81	-10.63/-12.85	-14.04/-8.24	-3.75/-2.66	-4.36/-6.84	-7.52/-1.28	0.21/1.19	1.14/-8.02	-3.74/-5.04	-6.46/-10.13	-14.33/-9.77	-8.13/-10.22	-13.17/-13.33	-16.62/-14.43	-17.71/-17.82
θ(50°)	-17.09/-18.18	-18.65/-18.97	-16.11/-9.73	-8.05/-7.74	-9.43/-14.62	-14.4/-7.12	-3.57/-1.84	-4.37/-9.18	-5.22/0.25	1.68/-1.58	-0.01/-1.78	-1.71/-1.93	-3/-7.91	-13.43/-9.01	-7.8/-9.28	-10.4/-15.49	-16.46/-18.31	-17.32/-17.54
θ(60°)	-6.61/-6.23	-5.88/-6.29	-5.91/-7.09	-6.58/-6.14	-6.89/-8.2	-9.12/-4.54	-3.43/-3.94	-3.9/-6.87	-3.80/-6.4	-1.43/-0.2	-2.49/-3.71	-8.88/-8.43	-8.17/-7.37	-7.38/-10.66	-18/-18.12			
θ(70°)	-4.42/-3.81	-2.79/-1.98	-2.03/-4.6	-7.63/-8.81	-6.61/-6.51	-5.19/-2.38	-2.05/-5.6	-3.9/-5.05	-1.36/-1.58	0.99/-0.29	-1.32/-3.26	-3.29/-1.53	-0.72/-4.52	-10.43/-8.8	-8.82/-8.36	-5.06/-3.34	-6.07/-8.61	-10.63/-10.88
θ(80°)	-2.89/-4.22	-2.98/-0.7	-0.65/-3.01	-5.01/-6.99	-5.26/-2.75	-3.8/-2.79	-3.62/-3.54	-3.20/5.1	0.11/-2.31	-0.5/-2.43	-5.65/-3.68	0.74/-3.71	-6.3/-6.07	-9.29/-9.12	-5.27/-4.49	-7.12/-6.99	-4.48/-4.85	
θ(90°)	-1.98/-4.44	-3.66/-1.99	-1.53/-3.73	-2.84/-2.81	-2.03/-2.22	-4.31/-3.13	-0.46/-5.22	-5.28/-5	-2.76/-3.04	-0.65/-0.32	-3.76/-6.45	-0.18/-5.48	-6.98/-13.34	-1.47/-3.4	-6.34/-2.84	-1.59/-1.85		
θ(100°)	-1.49/-2.85	-2.88/-2.13																



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

Θ(160°)	-18.84/-13.9	-9.73/-6.18	-4.02/-2.53	-1.76/-2.19	-3.09/-3.3	-2.98/-3.47	-3.71/-4.64	-5.32/-6.39	-10.73/-18.85	-13.68/-12.01	-11.59/-9.71	-6.72/-6.37	-8.96/-10.83	-9.96/-6.82	-5.11/-5.03	-4.08/-4.25	-4.51/-4.23	-6.18/-6.82
Θ(170°)	-11.74/-19.36	-18.56/-13.62	-12/-9.8	-7.31/-4.82	-3.48/-3.27	-3.62/-4.39	-6.84/-10.65	-14.22/-18.99	-18.5/-19.03	-18.07/-18.39	-16.29/-14.86	-16.49/-16.36	-13.89/-10.22	-7.34/-5.25	-3.68/-3.05	-2.76/-2.59	-2.48/-2.63	-4.26/-5.66
Θ(180°)	-18.01/-18.88	-19.42/-17.93	-15.39/-13.98	-17.98/-19	-17.45/-17.8	-11.86/-15.94	-17.73/-18.35	-17.98/-19	-19.06/-17.35	-17.32/-18.98	-19.07/-18.45	-16.79/-18.36	-19.06/-18.39	-8.53/-8.46	-8.53/-8.46	-8.53/-8.46	-8.53/-8.46	-11.89/-11.92
Freq(Hz)	5.885GPol.	ThetaAnt. 2	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-1.88/-1.85	-2.87/-4.54	-5.55/-7.37	-9.58/-12.67	-13.88/-13.68	-12.35/-9.95	-8.11/-6.64	-5.32/-4.47	-3.88/-3.16	-2.59/-2.75	-3.43/-4.63	-5.73/-7.05	-4.59/-13.53	-12.32/-9.49	-7.46/-5.94	-4.46/-3.16	-2.68/-2.68	
Θ(10°)	-5.95/-6.38	-8.01/-10.71	-11.93/-11.21	-12.43/-18.6	-19.08/-19.24	-16.96/-13.71	-10.29/-7	-4.3/-2.71	-1.69/-1.04	-1.15/-1.31	-1.3/-1.99	-3.42/-5.87	-9.06/-13.48	-16.25/-14	-9.91/-7.9	-6.19/-5.21	-4.41/-4.09	-4.52/-4.85
Θ(20°)	-9.59/-11.95	-14.99/-17.47	-19.02/-14.82	-15.44/-16.63	-13.34/-10.8	-10.07/-9.37	-7.68/-4.69	-3.19/-1.83	-0.97/-1.08	-1.65/-1.71	-1.63/-1.91	-3.08/-5.33	-8.05/-10.78	-16.33/-18.28	-13.91/-9.47	-8.22/-7.94	-8.49/-8.82	-6.86/-8.69
Θ(30°)	-17.44/-18.87	-18.22/-16.48	-14.64/-15.92	-17.14/-13.16	-8.79/-7.08	-5.8/-4.27	-2.87/-2.04	-2.58/-3.46	-4.98/-8.88	-6.49/-5.18	-4.94/-3.86	-4.81/-6.51	-7.58/-8.74	-8.55/-8.59	-10.42/-14.74	-14.82/-10.31	-9.68/-11.25	-13.03/-13.55
Θ(40°)	-10.04/-9.62	-14.55/-17.87	-17.98/-14.16	-12.22/-10.51	-10.67/-10.94	-6.7/-2.85	-1.49/-0.83	-0.61/-2.84	-6.34/-4.26	-0.490/63	0.87/-0.68	-3.59/-5.83	-7.96/-8.98	-5.33/-3.16	-4.12/-8.48	-12.53/-13.28	-13.28/-12.2	-14.3/-14.68
Θ(50°)	-10.56/-7.2	-7.27/-7.78	-10.05/-13.68	-9.88/-9.55	-8.19/-6.71	-6.42/-3.69	-2.68/-2.21	-0.28/-3.88	-6.520/86	2.412/89	0.3/-1.67	-1.31/-0.98	-2.64/-7.46	-6.62/-3.43	-5.21/-9.71	-17.5/-19.1	-18.65/-18	-15.47/-15.65
Θ(60°)	-5.16/-5.01	-3.63/-3.23	-4.82/-8.65	-10.44/-7.8	-5.18/-4.45	-6.66/-5.41	-3.32/-2.27	-0.41/-4.23	-5.69/-1.08	1.90/52	-1.48/-0.71	-1.87/-2.14	-2.62/-6.17	-12.77/-3.81	-4.8/-11.75	-15.82/-10.64	-9.3/-13.94	-7.49/-8.66
Θ(70°)	-5.79/-5.08	-2.38/-1.86	-3.42/-8.35	-10.66/-8.99	-4.95/-3.03	-4.94/-3.4	-2.03/-2.73	-1.57/-5.1	-3.98/-1.11	1.5/-0.88	-0.35/-0.4	-1.89/-1.87	-1.28/-4.72	-10.21/-5.78	-7.63/-8.48	-8.52/-6.98	-6.73/-6.57	-4.42/-4.56
Θ(80°)	-8.37/-5.52	-2.02/-1.64	-3.5/-6.45	-10.71/-9.39	-4.92/-1.93	-1.38/-2.12	-2.91/-1.75	-2.150/76	1.67/-1.96	-1.17/-1.26	-1.93/-0.91	0.9/-3.76	-6.89/-7.7	-9.94/-7.03	-6.79/-4.23	-6.62/-5.97	-5.27/-5.85	
Θ(90°)	-12.62/-6.52	-1.73/-6.68	-2.69/-6.27	-9.29/-7.65	-1.99/-0.09	1.07/0.71	-1.44/-4.1	-0.12/-4.4	-0.230/57	-3.16/-10.4	-2.21/-3.67	0.96/-5.38	-6.4/-6.11	-4.85/-1.69	-4.59/-10.85			
Θ(100°)	-6.69/-4.8	-2.85/-1.7	-3.57/-6.48	-4.48/-0.55	1.37/-0.1	-1.14/-0.59	1.24/-0.91	-15.31/-10.32	-11.76/-4.47	-3.1/-15.06	-2.36/-1.22	-3.12/-5.53	-1.22/-8.29	-3.75/-12.97	-7.09/-6.81	-5.04/-5.94	-3.50/0.2	-2.59/-2.88
Θ(110°)	-3.52/-0.71	-0.19/-0.26	0.770/54	-0.09/-0.37	0.58/-0.47	-1.49/-1.95	0.23/-1.1	-2.9/-1.68	-6.27/-7.2	-7/-12.75	-4.27/-4.93	-5.32/-13.22	-6.38/-17.02	-6.13/-10.78	-4.07/-10.29	-4.07/-2.32	-4.21/-6.45	
Θ(120°)	0.38/-1.89	0.86/-0.48	-1.13/-5.67	-6.24/-2.01	-0.98/-2.79	-5.47/-6.96	-0.77/-1.01	-2.55/-2.34	-5.47/-6.79	-18.82/-13.75	-13.27/-16.79	-18.82/-17.87	-13.27/-16.79	-18.82/-17.87	-13.27/-16.79	-18.82/-17.87	-13.27/-16.79	-18.82/-17.87
Θ(130°)	2.55/2.08	2.11/-1.25	-0.190/15	1.41/-1.91	0.05/-3.46	-4.47/-1.58	-1.96/-5.16	-9.68/-11.66	-10.64/-14.7	-18.18/-16.01	-10.79/-18.7	-10.5/-9.84	-7.35/-8.87	-8.24/-11.62	-12.99/-11.07	-9.31/-6.15	-1.61/-1.81	0.720/24
Θ(140°)	0.220/37	0.871/32	1.89/2.16	1.820/67	2.1/-8.35	-19.12/-11.89	-10.98/-10.75	-12.12/-14.4	-15.26/-14.23	-15.99/-18.01	-11.82/-16.64	-10.02/-6.98	-18.69/-18.87	-13.61/-18.84	-17.95/-8.88	-15.37/-10.1	-8.87/-7.36	-3.26/-3.52
Θ(150°)	-1.44/-1.01	-0.18/-0.18	0.410/88	-0.07/-2.07	-6.08/-13.43	-18.2/-16.11	-11.61/-13.3	-18.26/-13.78	-16.16/-11.77	-14.51/-16.28	-6.16/-11.77	-12.42/-10.96	-11.87/-16.96	-12.92/-8.96	-6.65/-15.79	-9.58/-7.6	-5.7/-9.86	
Θ(160°)	0.33/-1.12	-1.97/-2.73	-4.72/-6.17	-6.97/-9.5	-10.69/-8.11	-5.85/-5.75	-9.06/-14.18	-17.28/-11.52	-8.76/-10.47	-15.48/-13.66	-9.74/-7.98	-9.33/-15.78	-19.15/-17.58	-14.31/-18.18	-17.77/-11	-5.79/-3.31	-2.01/-0.45	0.840/78
Θ(170°)	-2.44/-3.65	-4.47/-5.23	-4.96/-5.93	-6.07/-5.45	-6.27/-8.94	-12.87/-15.61	-15.64/-18.88	-18.31/-18.62	-18.76/-18.69	-18.87/-18.09	-15.41/-13.35	-13.01/-12.4	-11.66/-11.79	-14.66/-16.99	-12.37/-9.86	-9.06/-8.2	-7.34/-5.91	-3.69/-3.99
Θ(180°)	-8/-7.22	-7.15/-7.92	-9.88/-10.07	-11.16/-14.36	-17.28/-18.96	-18.83/-17.7	-19.98/-18.5	-18.88/-18.03	-19.88/-18.56	-18.61/-17.92	-18.66/-18.78	-16.31/-14.41	-13.76/-12.69	-13.02/-13.45	-14.05/-17.69	-19.08/-19	-17.52/-13.12	-10.66/-11.12
Freq(Hz)	5.6GPol.	PhiAnt. 3	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-17.95/-18.3	-18.63/-13.09	-12.41/-11.42	-6.83/-7.59	-6.88/-6.96	-5.67/-7.81	-8.04/-8.89	-9.84/-11.35	-13.66/-18.4	-8.64/-8.33	-16.63/-13.08	-10.98/-10.38	-9.81/-8.33	-6.69/-6.2	-6.31/-7.97	-9.44/-12.47	-9.44/-12.47	-9.44/-12.47
Θ(10°)	-18.2/-18.12	-19.35/-18.78	-17.48/-13.08	-11.2/-10.74	-9.64/-8.74	-9.63/-10.01	-11.8/-12.78	-12.77/-13.02	-12.19/-13.23	-18.1/-18.21	-17.71/-19.12	-11.26/-7.49	-7.36/-8.28	-7.62/-6.75	-7.06/-7.56	-8.59/-10.86	-12.7/-13.8	-14.41/-15.85
Θ(20°)	-16.07/-18.77	-16.81/-13.42	-10.16/-13.63	-17.75/-12.17	-10.42/-11.27	-15.73/-15.47	-12.29/-12.11	-11.27/-9.56	-9.24/-9.82	-11.3/-15.36	-18.29/-19.24	-17.87/-15.25	-12.07/-10.85	-8.73/-8.09	-8.74/-9.8	-13.87/-18.46	-18.99/-18.74	-17.92/-17.7
Θ(30°)	-14.71/-17.91	-16.47/-17.28	-17.17/-18.09	-18.66/-16.79	-15.7/-17.09	-19.01/-18.19	-16.94/-14.36	-13.49/-16.28	-18.1/-17.49	-15.26/-16.12	-15.09/-16.14	-15.52/-16.6	-12.71/-10.81	-8.27/-10.23	-15.53/-14.91	-13.45/-12.38	-13.67/-13.67	
Θ(40°)	-14.09/-15.81	-18.18/-19.18	-18.83/-15.64	-13.09/-12.89	-15.33/-16.31	-12.35/-18.89	-18.96/-18.73	-18.62/-19.05	-18.37/-18.93	-17.73/-18	-17.57/-14.58	-15.72/-18.98	-17.89/-16.64	-10.25/-9.35	-12.1/-17.39	-18.36/-18.24	-15.81/-13.84	-12.39/-13.08
Θ(50°)	-18.93/-18.96	-18.46/-17.16	-12.85/-8.13	-17.1/-9.55	-11.77/-13.45	-19.25/-16.46	-19.33/-17.95	-14.64/-15.36	-15.01/-19.27	-17.87/-18.78	-17.91/-18.5	-16.09/-14.4	-16.18/-13.09	-11/-9.51	-11.41/-17.2	-18.26/-18.25	-17.74/-18.48	-19.78/-19.92
Θ(60°)	-7.4/-7.98	-11.56/-15.13	-12.6/-7.6	-5.88/-9.35	-14.93/-12.96	-17.87/-17.82	-16.2/-18.25	-18.56/-15.34	-16.74/-18.88	-16.7/-16.94	-18.18/-19.21	-11.07/-7.84	-10.17/-18.84	-18.18/-19.15	-14.88/-10.33	-8.09/-6.25		
Θ(70°)	-7.25/-10.06	-9.38/-12.5	-14.94/-15.01	-9.6/-8.83	-14.17/-11.12	-17.61/-18.74	-14.07/-15.05	-19.01/-17.9	-18.83/-18.35	-18.39/-15.87	-16.69/-18.04	-18.3/-18.76	-12.51/-19	-13.92/-14.76	-15.63/-15.07	-13.32/-16.09	-12.71/-7.08	-5.6/-5.79
Θ(80°)	-10.01/-10.15	-9.61/-16.12	-18.73/-18.58	-13.55/-10.2	-18.87/-10.91	-13.2/-18.55	-14.62/-15.4	-18.35/-18.3	-19.2/-18.13	-19.28/-14.74	-15.2/-17.74	-18.24/-16.27	-11.04/-17.76	-14.06/-17.19	-17.52/-10.23	-15.99/-18.53	-9.95/-6.2	-7.19/-8.08
Θ(90°)	-15.97/-11.57	-13.6/-18.26	-17.92/-15.45	-13.52/-18.87	-18.27/-12.06	-16.35/-16.09	-12.22/-15.03	-18.52/-18.59	-19.1/-18.95	-15.52/-17.29	-14.48/-18.82	-16.73/-15.82	-15.41/-18.45	-17.23/-18.26	-14.15/-10.34	-14.47/-8.73	-8.23/-10.43	-15.46/-3.99
Θ(100°)	-16.21/-14.2	-16.31/-17.54	-17.48/-14.93	-11.32/-13.72	-15.55/-19.02	-18.67/-19.06	-13.2/-14.27	-18.16/-18.52	-15.48/-14.08	-18.44/-19.04	-16.57/-15.34	-18.96/-18.5	-14.49/-18.53	-17.94/-11.77	-11.55/-11.55	-6.99/-6.94	-9.91/-18.08	-17.51/-18.08
Θ(110°)	-19.18/-15.47	-11.27/-14.32	-17.93/-17.11	-18.92/-18	-16.66/-18.18	-18.17/-17.08	-15.71/-15.87	-18.94/-17.93	-14.66/-13.85	-19.21/-18.26	-14.24/-17.94	-14.14/-11.14	-15.49/-18.33	-15.91/-10.72	-12.47/-13.38	-8.22/-10.4	-15.23/-17.82	-18.3/-18.1
Θ(120°)	-16.84/-9.58	-13.26/-14.06	-11.14/-14.15	-13.73/-10.64	-18.77/-18.08	-18.32/-13.54	-14.5/-14.77	-18.78/-16.12	-18.89/-11.49	-18.16/-18.43	-15.17/-18.35	-14.67/-11.05	-13.52/-16.22	-18.1/-17.61	-11.09/-6.99	-10.98/-16.37	-17.13/-18.08	
Θ(130°)	-17.32/-12.41	-16.15/-13.25	-8.05/-10.7	-13.07/-8.05	-14.84/-17.97	-18.13/-18.07	-19.01/-18.05	-16.4/-17.22	-17.93/-19	-19.09/-16.95	-10.74/-17.44	-8.45/-18.27	-19.5/-15.35	-7.13/-13.11	-12.51/-7.37	-13.74/-12.74	-19/-19.12	
Θ(140°)	-18.14/-13.38	-13.05/-17.55	-18.99/-12.61	-13.76/-12.54	-18.38/-12.73	-9.99/-14.15	-17.63/-19.41	-18.39/-18.38	-17.31/-16.48	-15.7/-15.64	-18.48/-11.06	-15.19/-10.59	-17.92/-14.26	-18.28/-17.39	-10.04/-9.36	-8.65/-16.28	-5.25/-15.33	-9.64/-9.85
Θ(150°)	-17.69/-17.79	-17.83/-14.86	-17.38/-12.59	-11.03/-11.35	-14.07/-18.2	-17.6/-12.81	-10.71/-13.15	-15.58/-16.63	-17.46/-17.03	-16.61/-17.06	-18.9/-19.2	-16.59/-14.34	-13.46/-14.52	-14.69/-18.92	-10.19/-6.16	-19.1/-12.16	-18.98/-10.59	-12.25/-13.85
Θ(160°)	-18.73/-18.8	-18.19/-16.41	-18.53/-17.56	-17.13/-17.85	-18.55/-13.5	-9.75/-12.89	-7.67/-7.62	-8.22/-8.23	-8.42/-9.55	-13.46/-17.79	-18.78/-17.65	-16.93/-14.61	-15.61/-18.67	-18.08/-19.28	-17.87/-18.36	-17.26/-18.15		
Θ(170°)	-17.31/-18.93	-14.53/-12.18	-13.25/-16.6	-11.29/-8.57	-8.33/-9.84	-8.9/-8.1	-7.88/-8.26	-10.11/-11.71	-11.62/-11.54	-13.84/-17.71	-18.14/-18.18	-14.77/-10.18	-8.05/-7.72	-8.51/-9.1	-9.03/-9.23	-9.05/-8.3	-8.27/-8.41	-13.23/-13.85
Θ(180°)	-18.6/-19.06	-15.2/-13.33	-17.07/-16.05	-12.93/-10.95	-10.18/-11.18	-9.62/-7.87	-6.99/-6.71	-7.5/-8.63	-10.1/-11.03	-13.43/-18.06	-17.87/-18.03	-17.34/-13.83	-12					



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

Θ(50°)	-14.06/-9.31	-16.46/-16.25	-11.97/-8.21	-8.78/-15.63	-11.43/-11.63	-18.08/-15.84	-12.81/-18.01	-18.17/-19.41	-16.35/-17.4	-16.65/-15.58	-18.06/-18.33	-19.04/-17.73	-14.82/-18.64	-19.18/-13.88	-10.71/-15.26	-19.01/-17.03	-16.2/-18.28	-16.08/-16.25
Θ(60°)	-10.26/-9.31	-10.53/-13.66	-12.52/-6.68	-5.91/-12.61	-12.09/-9.26	-14.76/-17.35	-18.41/-18.02	-17.73/-14.9	-15.52/-17.19	-17.44/-18.08	-18.88/-19.14	-18.38/-18.41	-18.53/-18.6	-18.55/-13.91	-11.71/-16.51	-18.65/-17.16	-19.05/-18.12	-14.37/-14.85
Θ(70°)	-6.94/-5.57	-7.03/-12.06	-15.12/-15.58	-13.61/-11.32	-12.9/-18.94	-18.3/-18.94	-17.93/-18.61	-15.45/-12.4	-13.32/-18.33	-17.93/-17.43	-16.83/-18.06	-18.92/-18.09	-17.16/-18.98	-18.86/-19.55	-13.81/-14.73	-11.08/-13.72	-19.45/-18.62	-16.47/-16.76
Θ(80°)	-8.99/-6.9	-6.99/-14.85	-12.14/-13.41	-14.35/-18.07	-15.9/-17.72	-18.58/-15.55	-18.96/-19.54	-18.08/-14.57	-13.82/-17.76	-19.36/-17.76	-14.99/-14.61	-14.77/-18.95	-13.83/-15.68	-19.2/-15.47	-13.84/-12.38	-9.33/-15.55	-18.58/-13.83	-11.42/-12.85
Θ(90°)	-18.1/-17.3	-19.06/-13.97	-11.2/-11.54	-17.44/-18.6	-17.18/-18.32	-19.71/-16.46	-18.02/-18.57	-18.31/-15.66	-13.46/-19.12	-19.19/-17.41	-18.72/-14.9	-13.32/-17.83	-19.42/-17.04	-15.37/-12.75	-18.58/-10.72	-8.42/-8.66	-11.08/-13.91	-17.04/-3.12
Θ(100°)	-15.24/-17.79	-13.22/-17.06	-19.28/-14.3	-14.14/-12.49	-19.23/-19.06	-17.25/-19.33	-19.23/-18.61	-18.04/-14	-12.41/-14.24	-17.66/-19.49	-14.65/-16.74	-17.16/-15.39	-19.26/-17.51	-10.79/-9.75	-17.25/-18.12	-11.75/-19.06	-17.68/-18.12	
Θ(110°)	-11.29/-10.91	-13.39/-13.54	-16.41/-11	-12.21/-18	-19.28/-17.9	-12.42/-14.22	-17.57/-18.32	-19.41/-15.64	-17.83/-17.22	-17.38/-12.8	-9.7/-18.5	-16.79/-15.04	-18.17/-19.06	-19.48/-13.22	-12.86/-12.86	-18.32/-14.23	-19.41/-18.15	-17.06/-18.12
Θ(120°)	-12.96/-9.75	-15.58/-17.71	-13.22/-18.27	-16.72/-12.07	-18.12/-18.55	-13.69/-10.7	-16.24/-19.05	-18.43/-17.55	-17.68/-17.74	-18.22/-19.21	-13.6/-18.8	-12.61/-17.39	-18.74/-10.31	-18.28/-14.14	-9.05/-17.95	-16.31/-8.39	-12.82/-11.56	-13.53/-14.85
Θ(130°)	-15.36/-18.79	-15.52/-11.19	-7.02/-12.08	-11.83/-10.44	-12.23/-15.54	-17.64/-18.52	-18.88/-14.21	-17.98/-15.48	-19.28/-14.07	-18.61/-18.46	-12.34/-18.7	-14.45/-18.35	-7.9/-18.63	-18.47/-17.37	-8.92/-15.65	-15.88/-8.58	-9.81/-11.28	-19.02/-19.54
Θ(140°)	-13.96/-10.98	-18.66/-18.98	-16.38/-7.61	-14.23/-13.14	-11.43/-11	-11.94/-18.29	-10.01/-10.11	-9.42/-15.28	-19.2/-15.43	-19.05/-17.77	-16.37/-11.82	-12.22/-13.24	-16.3/-16.25	-15.69/-14.24	-17.56/-8.31	-11.45/-15.77	-4.92/-13.39	-7.97/-8.11
Θ(150°)	-16.92/-12.54	-18.8/-17.55	-18.16/-15.16	-11.1/-8.11	-10.47/-13.42	-18.93/-18.46	-18.28/-17.89	-19.09/-16.46	-19.06/-17.44	-17/-15.32	-18.7/-19.13	-16.2/-12.46	-10.94/-19.1	-16.92/-18.17	-15.12/-7.33	-17.61/-10.99	-15.76/-14.78	-16.97/-15.87
Θ(160°)	-19.32/-18.16	-17.45/-18.33	-17.65/-17.82	-18.38/-19.15	-14.74/-13.83	-11.54/-8.18	-7.78/-39	-8.66/-8.59	-9.05/-11.9	-17.36/-17.8	-18.06/-17.84	-17.48/-17.28	-11.95/-10.23	-9.94/-11.63	-17.8/-18.9	-16.9/-17.66	-17.57/-13.47	-15.95/-16.85
Θ(170°)	-17.11/-16.78	-13.59/-18.01	-19.05/-17.9	-13.42/-11.84	-10.71/-8.98	-8.56/-8.03	-7.58/-8.23	-9.28/-8.88	-9.58/-12.78	-15.31/-18.87	-18.57/-14.68	-10.98/-8.34	-6.47/-5.87	-6.4/-8.13	-9.6/-10.01	-9.79/-9.53	-10.44/-11.76	-17.44/-18.64
Θ(180°)	-18.28/-19.06	-17.8/-14.44	-13.54/-15	-12.08/-10.1	-8.92/-9.34	-7.56/-6.2	-5.44/-6.19	-6.97/-8.16	-9.71/-12.11	-15.17/-19.09	-18/-17.37	-15.64/-12.1	-11.36/-13.22	-15.95/-18.11	-15.32/-13.52	-11.88/-10.42	-10.53/-13.4	-14.4/-15.85
Freq(Hz)	5.885G/Pol.	Theta/Ant. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-14.51/-13.16	-12.81/-14.16	-13.77/-13.5	-13.17/-13.9	-15.44/-17.82	-18.24/-18.15	-18.38/-16.23	-15.79/-15.55	-15.1/-15.11	-13.53/-13.8	-12.86/-14.04	-15.26/-16.09	-16.24/-16.2	-16.71/-18.47	-19.17/-17.72	-19.18/-18.01	-14.94/-14.22	-13.62/-13.85
Θ(10°)	-18.07/-17.94	-18.74/-17.1	-17.85/-18.17	-18.09/-17.5	-17.68/-18	-16.9/-12.66	-10.92/-9.16	-7.97/-7.85	-8.02/-7.53	-7.89/-7.27	-6.39/-6.91	-17.1/-7.24	-7.54/-9.59	-11.13/-12.38	-15.99/-17.18	-19.1/-18.21	-16.93/-15.47	-17.84/-18.12
Θ(20°)	-14.38/-15.88	-14/-13.44	-12.54/-10.4	-9.97/-10.01	-9.79/-10.03	-8.9/-7.62	-5.24/-3.45	-3/-3.33	-3.77/-4.41	-4.87/-5.73	-6.32/-7.2	-6.99/-5.3	-4.9/-5.49	-7.41/-9.24	-9.16/-7.77	-7.03/-7.22	-7.97/-8.26	-10.86/-11.52
Θ(30°)	-11.11/-12.44	-14.53/-15.1	-11.07/-9.16	-8.79/-9	-6.24/-3.5	-3.51/-4.04	-2.5/-1.66	-2.32/-3.66	-4.17/-3.6	-3.24/-4.59	-6.44/-7	-7.25/-6.1	-2.82/-0.51	-0.94/-4.22	-6.57/-6.4	-5.16/-4.7	-5.55/-6.64	-7.54/-8.52
Θ(40°)	-4.87/-8.46	-17.81/-18.86	-18.18/-12.53	-10.31/-11.51	-7.36/-3.78	-3.11/-2.91	-2.49/-2.48	-1.71/-1.46	-1.11/-1.94	-1.29/-1.71	-3.2/-3.03	-2.86/-0.68	-0.72/-2.41	-3.96/-2.72	-2.57/-2.85	-4.24/-4.95	-3.96/-4.85	
Θ(50°)	-4.61/-6.35	-7.86/-6.55	-12.57/-16.1	-8.01/-5.08	-8/-6.83	-3.3/-3.95	-1.42/-1.44	-1.27/-0.23	0.71/-0.37	-1.7/-2.54	-2.79/-1.83	-2.12/-3.63	-5.07/-1.21	-0.11/-3.17	-4.44/-2.02	-2.79/-3.42	-2.03/-0.28	-0.39/-0.85
Θ(60°)	-5.37/-6.66	-14.6/-9.77	-10.16/-9.28	-8.56/-2.95	-3.71/-3.51	-2.23/-3.39	-0.91/-0.65	-0.47/-0.74	0.87/-0.24	-0.97/-0.76	-4.88/-3.94	-2.74/-2.51	-2.42/-2.47	-2.35/-3.95	-2.14/-1.89	-2.14/-1.89	-1.28/-2.31	
Θ(70°)	-2.08/-9.96	-18.54/-12.49	-13.37/-7.31	-6.49/-4.16	-2.34/-7.02	-2.34/-7.27	-2.04/-1.18	-0.93/-0.86	-0.86/-0.2	-2.54/-1.65	-0.94/-1.14	0.82/-2.29	0.23/-1.02	-4.06/-5.18	-6.88/-2.56	-1.47/-2.11	-0.32/-0.65	
Θ(80°)	1.44/-14.5	-11.26/-5.21	-9.73/-12.35	-3.97/-3.67	-2.14/-1.38	-0.57/-4.48	-0.14/-0.02	0.21/-1.02	-1.65/-1.35	-0.52/-0.81	-2.8/-1.43	1.18/-0.61	-1.92/-2.06	-4.88/-0.62	-1.73/-1.41		0.57/-0.37	
Θ(90°)	3.79/-3.9	-4.58/-2.84	-10.73/-15.85	-6.51/-4.31	-4.79/-2.71	-3.41/-4.78	-1.93/-0.69	0.04/-0.3	-0.12/-0.35	-1.53/-1.03	0.91/-0.78	-0.24/-0.24	2.13/-2.38	1.58/-0.2	-1.93/-1.2	-0.54/-0.98	-3.64/-0.1	0.982/86
Θ(100°)	2.71/-7.06	-6.03/-0.75	-10/-12.3	-8.06/-4.16	-7.93/-1.8	-2.67/-2.63	-2.64/-2.71	-1.15/-0.03	-0.56/-0.9	-1.35/-1.53	1.28/-0.49	-2.34/-2.17	1.98/-1.75	0.41/-1.64	-0.97/-0.65	-1.29/-4.97	-1.49/-1.7	-0.76/-1.23
Θ(110°)	0.45/-19.17	-10.95/-5.13	-10.79/-9.38	-13.93/-5.95	-12.02/-4.59	-5.13/-1.27	-1.81/-0.11	-1.72/-1.35	-2.39/-1.88	-2.32/-0.19	-1.68/-2.66	-0.93/-0.72	-2.32/-0.56	-10.24/-2.91	-7.93/-6.1		-17.68/-18.25	
Θ(120°)	-3.93/-10.61	-8.47/-15.08	-14.84/-19.02	-10.89/-10.82	-10.63/-6.36	-8.86/-5.77	-6.65/-4.1	-3.58/-0.61	-2/-0.4	-0.25/-1.41	1.91/-5	-3.33/-2.92	0.88/-0.92	-6.55/-4.42	-5.31/-0.12	-5.27/-0.73	-6.13/-6.79	-19.07/-19.12
Θ(130°)	-1.94/-10.73	-12.52/-6.85	-11.98/-18.09	-15.84/-18.97	-6.72/-7.07	-9.49/-8	-9.2/-6.99	-6.46/-2.56	-1.09/-2.34	-1.11/-2.1	1.45/-0.1	-5.19/-2.1	2.30/-2.1	0.54/-5.67	-1.472/-3	-4/-4.66	-6.07/-7.63	-10.95/-10.98
Θ(140°)	-6.24/-4.12	-4.4/-5.79	-10.35/-15.87	-8.63/-8.56	-8.79/-6.69	-9.23/-6.43	-6.22/-5.1	-5.04/-1.25	-1.17/-2.88	-0.69/-2.5	-2.44/-13.1	-3.77/-3.9	-2.44/-13.1	-4.99/-11.35	-14.81/-6.7		-13.63/-13.08	
Θ(150°)	-9.53/-8.82	-17.22/-15.91	-18.89/-18.84	-19.19/-17.63	-10.74/-12.59	-13.32/-10.7	-9.26/-7.56	-6.52/-7.56	-6.92/-8.83	-12.38/-6.54	-4.2/-6.24	-5.61/-6.01	-5.01/-4.62	-7.87/-12.78	-7.11/-4.09	-3.63/-9.44	-17.88/-8.28	-7.82/-8.08
Θ(160°)	-18.77/-19.17	-17.9/-18.08	-18.28/-17.42	-18.68/-16.97	-13.55/-14.14	-13.99/-12.19	-11.29/-8.35	-5.69/-4.22	-4.24/-5.07	-5.59/-5.86	-6.24/-6.27	-6.13/-5.84	-6.15/-7.65	-11.29/-17.04	-13.79/-8.54	-8.81/-13.32	-13.21/-12.52	-13.78/-15.08
Θ(170°)	-13.67/-18.34	-18.87/-14.04	-14.38/-14.65	-15.37/-16.95	-18.12/-18.76	-17.16/-13.2	-10.58/-8.28	-7.23/-5.86	-5.46/-5.28	-5.42/-6.06	-7.53/-8.58	-8.82/-8.67	-9.51/-10.26	-12.11/-13.47	-14.62/-16.12	-15.41/-13.48	-14.05/-13.44	-11.76/-12.56
Θ(180°)	-11.2/-10.04	-8.57/-9	-10/-9.77	-9.67/-10.43	-13.28/-15.66	-19/-17.25	-18.56/-18.34	-13.4/-11.16	-9.37/-7.36	-6.81/-6.77	-6.39/-5.92	-6.87/-8.11	-9.25/-10.87	-12.33/-13.82	-15.42/-19.31	-19.18/-17.67	-18.11/-13.11	-13.73/-14.85
Freq(Hz)	5.6G/Pol.	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-18.23/-17.8	-12.99/-13.4	-12.63/-12.31	-11.18/-10.66	-10.72/-11.32	-11.11/-12.05	-14.03/-16.71	-18.94/-17.68	-19.07/-18.32	-18.32/-16.97	-16.28/-14.24	-12.99/-10.8	-10.33/-9.85	-9.18/-9.83	-10.68/-13.05	-14.72/-14.2	-13.98/-18.84	-17.84/-16.98
Θ(10°)	-14.29/-17.89	-19.49/-13.19	-11.24/-10.9	-10.94/-10.64	-9.15/-10.53	-10.05/-10.7	-11.96/-16.17	-17.06/-16.89	-18.76/-18.91	-15.87/-15.64	-14.83/-14.73	-14.58/-14.28	-13.56/-13.73	-15.13/-18.49	-19.09/-16.27	-13.8/-16.7	-18.9/-18.12	-17.69/-18.65
Θ(20°)	-16.3/-15.54	-16.82/-14.91	-15.62/-14.01	-14.83/-11.48	-13.97/-10.94	-10.18/-12.3	-17.48/-14.64	-15.3/-14.31	-13.97/-18.42	-17.43/-16.4	-18.73/-15.96	-16.61/-17.45	-17.43/-16.4	-18.77/-18.46	-16.61/-17.77	-18.56/-17.56	-18.25/-18.65	
Θ(30°)	-14.67/-12.4	-13.48/-17.76	-16.68/-10.37	-10.26/-11.09	-12.94/-10.79	-11.86/-16.08	-17.89/-19.32	-17.22/-18.45	-16.89/-16.68	-16.44/-17.45	-18.69/-19.07	-17.53/-14.83	-17.59/-17.36	-17.39/-15.6	-13.19/-18.95	-17.63/-17.36	-15.29/-15.41	-14.59/-15.85
Θ(40°)	-18.04/-18.39	-18.96/-13.21	-9.87/-9.32	-12.71/-18.68	-14.85/-13.35	-15.57/-15.66	-15.72/-14.16	-13.56/-18.84	-19.05/-17.25	-14.85/-12.29	-16.37/-17.93	-15.19/-14.68	-14.1/-13.1	-9.44/-9.23	-19.05/-16.44	-10.91/-13.56	-15.96/-18.1	-18.95/-19.14
Θ(50°)	-18.36/-14.97	-14.24/-12.32	-7.8/-8.09	-13.33/-18.51	-17.57/-11.55	-9.96/-10.61	-9.73/-17.75	-19.04/-18.12	-11.01/-8.59	-11.76/-12.23	-16.88/-16.28	-15.26/-14.35	-11.48/-11.9	-17.74/-12.43	-11.41/-15.14	-15.73/-18.78	-11.73/-18.52	
Θ(60°)	-14.18/-17.22	-16/-13.04	-14.23/-18.7	-17.5/-17.81	-17.7/-16.74	-15.6/-15.34	-13.43/-14.94	-12.23/-15.98	-6.82/-9.53	-6.75/-8.82	-12.85/-11.97	-11.06/-10.05	-11.95/-11.86	-11.87/-16.28	-18.64/-18.05	-17.08/-14.35	-18.14/-17.8	-17.45/-16.98
Θ(70°)	-14.86/-17.67	-17.74/-17.52	-18.54/-16.15	-13.45/-18.96	-18.55/-17.56	-18.36/-14.48	-15.08/-12.47	-14.15/-18.29	-8.41/-7.45	-8.72/-								



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 1

Appendix B

Θ(150°)	-10.79/-10.54	-10.62/-8.63	-6.85/-10.9	-12.78/-11.63	-17.26/-10.57	-6.56/-8.72	-18.78/-17.8	-15.44/-18.41	-18.16/-12.26	-7.46/-5.41	-7.53/-18.1	-17.93/-5.29	-2.51/-6.31	-10.81/-8.14	-6.34/-5.38	-6.1/-10.49	-11.53/-5.11	-4.48/-4.85
Θ(160°)	-3.89/-3.81	-4.53/-5.47	-7.5/-7.34	-7.42/-11.21	-15.89/-18.09	-19.02/-16.1	-16.68/-18.73	-18.05/-18.82	-17.61/-16.09	-18.77/-17.02	-12.05/-12.38	-13.61/-11.84	-10.79/-12.58	-11.48/-9.85	-9.1/-7.81	-6.13/-5.37	-4.97/-4.76	-5.27/-5.25
Θ(170°)	-4.79/-3.91	-3.38/-3.5	-4.14/-5.88	-8.53/-10.45	-11.91/-14.07	-16.47/-18.91	-17.22/-18.4	-14.41/-11.66	-9.57/-7.59	-6.85/-7.49	-8.03/-10.19	-14.29/-17.47	-18.67/-17.49	-13.51/-10.1	-9.39/-8.88	-8.18/-6.6	-6.22/-5.91	-5/-5.65
Θ(180°)	-3.8/-4.93	-6.41/-6.47	-7.98/-9.43	-12.48/-16.73	-18.63/-18.6	-18.78/-14.61	-11.94/-9.68	-7.36/-6.1	-5.23/-4.02	-3.6/-3.56	-4.21/-5.23	-6.34/-8.74	-13.1/-19.02	-17.2/-18.24	-16.37/-12.89	-10.74/-9.8	-7.59/-6.31	-5.8/-5.95
Freq(Hz)	5.885G/Pol.	Phi/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-18.72/-14.11	-12.32/-11.85	-10.56/-9.54	-8.96/-8.65	-9.23/-10.36	-11.83/-14.98	-17.42/-18.42	-17.69/-18.18	-19.75/-18.24	-14.3/-13.2	-12.72/-11.9	-10.83/-10.57	-10.53/-9.67	-10.85/-10.97	-12.6/-13.15	-15.26/-17.51	-17.38/-19.31	-18.34/-19.24
Θ(10°)	-14.27/-13.69	-15.18/-12.49	-9.41/-8.3	-7.46/-7.92	-7.12/-7.2	-7.58/-8.81	-11.63/-14.98	-18.26/-18.46	-16.45/-11.82	-9.41/-8.57	-9.56/-9.48	-10.69/-13.01	-14.43/-14.54	-14.6/-14.48	-15.57/-19.16	-19.92/-18.19	-17.99/-17.73	-17.26/-18.65
Θ(20°)	-14.8/-12.14	-10.22/-9.99	-9.26/-9.73	-8.22/-7.68	-6.57/-6.23	-7.69/-10.81	-12.21/-14.63	-15.91/-14.95	-18.86/-17.99	-17.71/-12.8	-11.94/-10.96	-11.79/-16.35	-18.86/-17.99	-17.31/-13.33	-12.36/-16.02	-18.81/-18.57	-18.37/-16.63	-12.72/-12.85
Θ(30°)	-16.43/-18.41	-18.08/-19.19	-15.3/-13.89	-13.33/-11.62	-9.78/-10.97	-12.17/-12.49	-14.61/-15.59	-12.31/-14.53	-17.83/-19.01	-18.55/-17.97	-18.29/-19.5	-15.81/-18.39	-18.08/-15.43	-14.29/-15.05	-16.71/-14.15	-12.24/-12.59	-15.79/-14.9	-18.71/-19.53
Θ(40°)	-18.98/-18.31	-18.16/-18.72	-19.27/-18.8	-18.88/-18.85	-18.72/-19.12	-14.81/-17.86	-17.51/-18.33	-18.12/-18.18	-17.92/-12	-11.3/-15.17	-19.12/-17.81	-17.04/-15.4	-16.72/-13.83	-11.76/-14.68	-17.93/-10.21	-6.73/-8.53	-14.83/-18.56	-14.89/-15.88
Θ(50°)	-18.29/-19.07	-16.8/-12.94	-16.44/-18.15	-16.97/-18.92	-18.38/-10.72	-11.3/-13.91	-12.75/-19.04	-17.99/-15.07	-11.25/-9.67	-8.73/-16.36	-18.35/-19.31	-18.59/-17.73	-12.16/-13.53	-14.14/-17.11	-18.37/-12.71	-11.02/-14.91	-19/-17.35	-13.42/-15.42
Θ(60°)	-17.48/-16.13	-17.71/-15.3	-11.6/-18.57	-19.06/-17.88	-18.49/-11.44	-14.57/-13.85	-11.21/-12	-17.22/-12.26	-5.09/-3.76	-6.69/-11.87	-11.26/-9.45	-9.85/-15.6	-17.28/-15.5	-14.99/-16.89	-14.28/-14.62	-19.16/-17.66	-19.26/-15.19	-14.51/-15.68
Θ(70°)	-10.28/-10.22	-17.88/-16.94	-15.67/-16.62	-17.09/-16.5	-19.28/-10.72	-18.23/-10.21	-8.73/-9.42	-15.51/-15.72	-7.73/-7.81	-6.2/-14.41	-13.15/-12.47	-16.38/-17.39	-16.83/-18.01	-16.07/-19	-16.94/-17.5	-15.12/-17.89	-12.95/-12.92	-17.93/-18.33
Θ(80°)	-11.49/-12.14	-16.2/-18.13	-18.68/-18.26	-11.85/-12.79	-18.47/-18.55	-13.4/-9.07	-6.4/-10	-11.62/-18.09	-11.76/-14	-15.32/-18.06	-16.37/-11.98	-17.74/-18.53	-18.48/-17.66	-17.58/-17.98	-16.12/-11.02	-18.92/-16.98	-17.41/-18.82	-18.56/-19.52
Θ(90°)	-15.02/-13.82	-17.17/-13.33	-15.36/-18.8	-19.12/-17.4	-16.85/-12.46	-10.31/-8.67	-10.34/-9.06	-8.81/-12.71	-15.16/-14.15	-16.34/-8.59	-13.31/-18.06	-8.81/-10.44	-17.97/-18.26	-17.3/-15.75	-11.13/-11.65	-11.38/-11.53	-18.66/-14.5	-13.09/-16.12
Θ(100°)	-18.98/-18.48	-18.74/-17.33	-18.06/-19.01	-15.21/-19.12	-15.21/-16.09	-16.65/-13.6	-9.17/-9.57	-13.01/-10.3	-7.31/-5.63	-5.81/-8.44	-18.53/-19.26	-12.36/-13.68	-17.1/-17.98	-15.16/-18.2	-11.96/-9.57	-8.48/-8.9	-12.28/-16.72	-17.95/-19.12
Θ(110°)	-16.17/-18.77	-12.18/-18.63	-17.84/-17.98	-13.01/-10.25	-8.91/-8.33	-12.71/-16	-11.94/-10.58	-10.26/-11.1	-7.3/-10.43	-10.58/-17.84	-19.43/-18.55	-18.4/-15.84	-15.05/-7.92	-12.24/-18.66	-13.63/-7.86	-10.4/-10.23	-9.62/-16.44	-11.42/-11.55
Θ(120°)	-12.76/-18.46	-18.18/-18.3	-18.7/-18.06	-14.67/-12.18	-13.24/-11.17	-10.77/-18.37	-17.21/-17.43	-12.61/-18.73	-13.71/-5.89	-9.23/-9.58	-18.08/-18.98	-11.31/-13.45	-11.82/-15.75	-17.6/-16.24	-16.56/-6.98	-11.39/-16.62	-11.37/-13.26	-17/-17.11
Θ(130°)	-13.38/-9.94	-14.85/-10.54	-18.91/-13.2	-7.45/-8.56	-13.78/-13.06	-18.93/-10.61	-8.55/-9.45	-5.32/-9.95	-10.57/-18.38	-18.49/-15.08	-11.27/-17.51	-11.15/-17.24	-7.42/-7.25	-12.88/-16.69	-11.35/-9.65	-8.86/-11.02	-17.71/-14.53	-16.12/-16.84
Θ(140°)	-12.5/-18.67	-11.88/-18.96	-12.07/-8.27	-3.57/-3.23	-7.69/-10.88	-17.88/-14.22	-9.51/-13.01	-15.92/-7.99	-13.68/-9.73	-9.29/-18.08	-18.56/-8.95	-8.61/-19.01	-9.11/-13.33	-11.63/-18.1	-14.69/-18.17	-13.45/-12.55	-11.75/-12.84	-12.65/-14.15
Θ(150°)	-18.01/-16.93	-19.1/-14.55	-13.87/-8.69	-11.8/-18.54	-9.03/-6.53	-8.26/-6.26	-4.04/-5.96	-12.68/-18.27	-14.93/-10.39	-12.32/-18.57	-18.3/-17.09	-14.4/-9.85	-15.23/-14.91	-15.41/-15.14	-12.03/-14.47	-14.6/-17.17	-12.43/-13.6	-12.92/-12.87
Θ(160°)	-17.33/-11.14	-9.08/-6.92	-6.18/-5.06	-3.76/-4.06	-6.09/-8.52	-12.49/-17.37	-15.65/-14.08	-12.13/-13.4	-17.64/-14.66	-10.28/-9.97	-9.96/-9.96	-12.1/-14.61	-14.63/-15.17	-13.23/-11.04	-11.45/-14.51	-16.65/-19	-19.03/-18.28	-16.61/-16.85
Θ(170°)	-13.63/-15.77	-17.16/-10.07	-7.21/-7.51	-17.78/-11.3	-14.68/-17.34	-18.18/-18.62	-17.96/-17.95	-13.88/-11.79	-10.28/-10.64	-14.96/-13.23	-12.54/-14.84	-19.28/-19.05	-18.23/-14.36	-14.81/-13.73	-13.57/-12.46	-13.14/-16.9	-17.57/-14.64	-15.54/-15.67
Θ(180°)	-15.25/-15.18	-10.64/-10.01	-8.61/-8.04	-7.58/-6.82	-6.01/-6.71	-8.64/-10.75	-11.22/-8.31	-6.77/-9.52	-13.68/-14.47	-19.2/-17.85	-18.61/-13.64	-9.87/-7.63	-6.8/-6.49	-6/-6.44	-6.49/-7.18	-7.38/-7.96	-8.39/-10.3	-12.02/-13.45
Freq(Hz)	5.885G/Pol.	Theta/Ant. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-11.36/-12.87	-14.47/-17.07	-18.39/-17.76	-18.04/-19.53	-14.42/-14.72	-15/-13.53	-10.95/-10.31	-11.45/-11	-9.45/-9.65	-10.91/-12.29	-14.98/-17.13	-18.17/-17.88	-18.42/-18.01	-15.98/-12.96	-11.58/-11.01	-10.14/-9.92	-10.3/-10.6	-11.29/-11.85
Θ(10°)	-12.05/-10.37	-11.14/-12.42	-12.34/-14.19	-16.91/-18.93	-17.05/-17.54	-19.31/-17.53	-14.32/-13.45	-11.86/-12.96	-15.22/-19.06	-17.89/-17.84	-15.13/-13.14	-11.31/-11.33	-12.55/-15.19	-14.62/-13	-13.66/-15.93	-16.32/-14.44	-14.48/-13.35	-12.71/-12.85
Θ(20°)	-3.97/-2.26	-1.91/-2.77	-3.42/-5.5	-9.33/-15.46	-16.96/-13.9	-11.81/-9.75	-9.3/-11.73	-16.06/-18.07	-18.01/-18.78	-19.57/-14.86	-10.96/-7.47	-5.23/-4.31	-5.15/-7.06	-8.83/-10.34	-10.92/-11.63	-9.18/-8.8	-8.72/-8.05	-7.15/-7.56
Θ(30°)	-2.48/-2.57	-1.39/-1.05	-1.3/-2.35	-4.24/-7.71	-8.73/-5.15	-3.46/-3.5	-6.63/-15.02	-19.18/-18	-13.52/-10.04	-8.68/-7.98	-8.06/-6.52	-4.37/-2.98	-1.27/-1.19	-2.44/-4.31	-5.68/-4.7	-3.4/-2.28	-2.68/-4.18	-3.47/-3.52
Θ(40°)	0.46/-1.4	-0.23/-2.22	-1.97/-3.3	-6.08/-9.68	-5.26/-3.03	-2.92/-7.63	-16.91/-15.99	-11.55/-8.18	-9.16/-7.34	-5.7/-6.34	-4.52/-2.05	-0.12/-0.74	-1.78/-0.33	0.5/-1.12	-2.41/-0.6	-0.72/-0.51	-1.53/-0.21	1.06/0.95
Θ(50°)	-0.01/0.19	0.84/-1.29	-3.81/-3.72	-5.98/-6.73	-1.29/-2.03	-7.71/-9.52	-10.78/-9.58	-7.67/-8.87	-9.58/-5.18	-4.62/-3.3	-2.65/-2.91	-1.35/-1.07	-3.38/-2.04	-1.31/-4	-2.69/-2.16	-3.44/-2.46	-2.29/-2.92	-2.26/-2.65
Θ(60°)	-0.02/0.3	1.09/0.31	-1.53/-2.09	-2.67/-2.01	-0.03/-1.01	-4.97/-7.01	-4.58/-5.42	-9.95/-17.16	-13.76/-5.11	-4.25/-0.07	0.74/-1.25	-4.55/-3.68	-3.37/-2.3	-2.39/-4.87	-6.75/-1.96	-4.69/-3.89	-3.57/-3.6	-2.62/-2.85
Θ(70°)	-1.7/0.73	1.19/0.97	-2.46/-3.53	-0.69/-2.36	-1.77/-3.01	-4.57/-2.75	-4.21/-10.52	-15.5/-18.05	-18.29/-6.73	-1.54/-1.02	-0.74/-0.11	-1.13/-3.48	-3.33/-1.12	1.02/-0.12	-2.5/0.46	-1.37/-1.81	-1.34/-1.61	0.61/0.26
Θ(80°)	-3.52/0.05	-0.9/-0.12	-0.49/-0.72	0.8/-1.74	-0.04/-5.58	-1.41/-5.45	-3.91/-15.78	-13.13/-10.79	-8.47/-6.82	2/1.64	0.48/-0.29	-3.24/-0.42	-0.35/-0.44	-0.19/0.39	0.71/-44	0.18/-2.04	-0.45/0.3	0.33/0.12
Θ(90°)	-2.17/-0.76	-1.35/-1.48	0.08/0.05	1.7/-1.94	-4.5/-5.45	-3.35/-2.08	-7.37/-6.5	-17.92/-3.53	-7.42/-4.46	3.65/2.56	2.37/3.18	-2.13/-2.12	-0.19/-1.02	0.03/-0.16	1.11/2.24	1.4/-2.25	-1.34/-1.03	1.91/-1.98
Θ(100°)	-2.16/-1.59	-1.37/-1.81	-0.22/0.31	-0.28/-4.78	-4.62/-5.57	-2.33/-5.81	-7.08/-6.12	-14.61/-4.46	-6.34/-12.02	2.55/-0.68	-2.98/0.29	-1.36/-5.17	-0.44/-0.76	-0.5/0.24	-1.45/2.06	0.39/-1.99	-0.23/0.76	2.38/2.34
Θ(110°)	-1.46/-0.7	-0.65/0.74	-0.86/0.09	-2.01/-3.45	-4.8/-3.72	-5.28/-4.3	-7.16/-6.52	-5.55/-9.71	-14.23/-17.12	-2.31/-7.02	-8.83/-6.95	-3.94/-7.03	-5.33/0.02	-3.4/-3.24	0.32/0.19	-2.54/-5.29	-0.03/1	0.19/0.46
Θ(120°)	0.74/0.92	-0.54/-1.78	-3.14/-1.1	-3.32/-6.53	-8.29/-9.59	-5.4/-7.89	-17.43/-18.53	-11.55/-8.14	-11.94/-18.72	-3.45/-4.45	-8.86/-3.7	-2.85/-3.23	-5/0.52	-14.11/-2.67	-0.56/-1.37	-0.77/-2.27	-0.31/7.3	2.39/1.89
Θ(130°)	-1.61/-4.46	-2.63/-4.47	-4.32/-2.87	-6.77/-13.71	-13.66/-11.83	-4.01/-11.95	-11.23/-8.87	-9.81/-2.51	-4.62/-6.19	-1.65/-3.11	-8.79/-5.59	-9.92/-4.64	-3.75/0.38	-10.83/-1.21	-2.28/-0.45	-1.07/-8.44	-3.56/2.49	0.92/0.52
Θ(140°)	0.29/0.38	-4.55/-6.18	-3.08/-4.01	-9.86/-11.01	-10.28/-9.3	-4.56/-8.75	-10.98/-5.34	-10.91/-17.45	-8.96/-5.34	-6.41/-16.36	-15.57/-10.47	-13.93/-4.11	-3.14/-8.52	-17.68/-9.48	-5.45/-6.04	-10.13/-16.97	-6.86/-1.07	0.13/0.08
Θ(150°)	-7.6/-10.01	-13.5/-9.6	-6.28/-8.01	-13.39/-10.44	-12.7/-13.91	-7.89/-8.22	-17.35/-16.8	-13.65/-14.3	-17.83/-13.72	-8.15/-5.78	-8.67/-18.46	-17.12/-3.77	-1.47/-6.26	-13.59/-10.45	-7.4/-5.53	-7.66/-12.33	-9.6/-3.2	-3.14/-3.52
Θ(160°)	-4.71/-3.19	-3.17/-5.05	-7.15/-6.6	-6.73/-10.61	-15.62/-15.65	-15.52/-14.93	-17.3/-18.3	-18.9/-18.06	-14/-17.71	-18.54/-14.21	-10.44/-12.04	-13.09/-9.85	-8.97/-11.8	-11.65/-9.82	-8.66/-6.6	-5.15/-4.63	-4.95/-4.94	-5.1/-5.85
Θ(170°)	-2.9/-2.91	-2.84/-3.12	-3.51/-5.28	-8.49/-11.65	-13.86/-15.25	-												



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Freq(Hz)	5.6G	5.785G	5.885G
Ant. 1 Max Gain (dBi)	1.43	2.08	2.5
Ant. 2 Max Gain (dBi)	1.66	1.91	2.89
Ant. 3 Max Gain (dBi)	2.8	3.51	3.79
Ant. 5 Max Gain (dBi)	3.64	3.64	3.29
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/120/180	Theta/70/0	Theta/80/0
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/50/180	Theta/50/190	Theta/50/190
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/90/0	Theta/90/0	Theta/90/0
Ant. 5 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/20/20	Theta/0/180	Phi/80/290
Max Gain (dBi)	3.64	3.64	3.79
DG [1SS] (dBi)	4.83	5.25	4.95
DG [2SS] (dBi)	3.64	3.64	3.79
DG [4SS] (dBi)	3.64	3.64	3.79



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

DG 1SS Result

Freq(Hz)	5.6GPol.	PhiH-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Phi(0°)Phi(10°)	Phi(20°)Phi(30°)	Phi(40°)Phi(50°)	Phi(60°)Phi(70°)	Phi(80°)Phi(90°)	Phi(100°)Phi(110°)	Phi(120°)Phi(130°)	Phi(140°)Phi(150°)	Phi(160°)Phi(170°)	Phi(180°)Phi(190°)	Phi(200°)Phi(210°)	Phi(220°)Phi(230°)	Phi(240°)Phi(250°)	Phi(260°)Phi(270°)	Phi(280°)Phi(290°)	Phi(300°)Phi(310°)	Phi(320°)Phi(330°)	Phi(340°)
Theta(°)	-10.56/-7.99	-5.1/-2.13	-1.79/-1.01	2.14/3	3.22/3.27	3/2.46	1.79/0.71	-5.57/-10	-12.48/-8.83	4.56/-1.77	2.05/2.6	3.13/3.15	0.08/1.26	2.05/2.6	3.13/3.15	1.81/0.9	-0.38/-2.87	-6.73/-6.9
Theta(10°)	-8.5/-7.28	-5.2/-2.59	-0.73/0.81	1.59/2.54	3.34/3.72	3.53/3.14	2.38/1.39	0.12/-1.54	-3.56/-6.92	-10.19/-7.76	-4.34/-2.1	0.31/5.5	2.17/2.13	2.22/2.05	1.79/1.33	0.61/0.54	-1.72/-3.23	-4.92/-5.35
Theta(20°)	-8.12/-9.23	-6.07/-2.76	-0.17/0.84	1.57/2.56	2.96/3.09	2.89/2.42	2.04/1.14	-0.08/-1.9	-4.55/-7.21	-7.6/-7.53	-6.11/-4.33	-3.16/-2.6	-1.89/-1.27	-0.59/-0.54	-1.3/-1.73	-2.15/-2.49	-3.05/-4.01	-4.64/-4.77
Theta(30°)	-7.46/-9.07	-7.17/-4.33	-1.42/0.33	1.71/2.25	2.26/1.91	1.58/1.84	1.63/0.56	-1.59/-5.44	-9.33/-11.91	-12.06/-9.45	-7.18/-6.33	-6.25/-7.54	-7.58/-5.56	-4.06/-3.35	-2.79/-3.47	-4.53/-4.46	-4.44/-4.73	-6.22/-6.44
Theta(40°)	-7.43/-7.07	-8.49/-6.96	-2.82/0.02	1.22/1.39	1.49/1.4	1.71/1.01	0.66/0.3	-2.46/-5.34	-7.75/-9.03	-11.03/-12.36	-10.15/-7.04	-4.58/-2.38	-1.05/-1.07	-0.30/4.4	-0.26/-1.06	-1.35/-3.05	-5.49/-8.85	-9.31/-9.87
Theta(50°)	-10.39/-7.75	-8.22/-7.61	-4.34/-1.54	0.31/1.55	1.98/1.63	0.78/0.18	-1.12/-2.28	-3.15/-3.73	-4.3/-6.59	-9.57/-11.99	-8.52/-4.88	-1.62/-0.92	1.76/1.75	1.01/0.92	0.43/0.34	0.47/-0.27	-2.04/-5.84	-11.23/-11.74
Theta(60°)	-7.48/-4.7	-4.37/-5.93	-7.42/-4.34	-1.02/1.07	1.72/1.88	1.09/0.69	-4.66/-2.73	-2.71/-2.58	-2.7/-5.35	-11.02/-9.65	-4.66/-2.73	-0.20/4.3	1.19/1.08	1.43/1.26	0.15/0.11	0.71/1.38	-0.81/-1.88	-3.79/-4.08
Theta(70°)	-5.43/-4.32	-2.73/-2.84	-3.69/-4.53	-1.36/0.6	0.61/5	1.28/1.51	1.13/-1.31	-3.77/-3.37	-3.44/-4.32	-9.07/-7.85	-2.89/0.04	-0.32/-0.75	0.91/0.75	0.43/0.11	0.47/1.58	0.97/1.28	0.06/0.23	-1.61/-1.83
Theta(80°)	-6.77/-5.24	-3.45/-2.34	-1.99/-2.68	-0.89/0.69	0.18/1.57	1.56/2.13	1.86/-0.57	-3.02/-4.35	-5.94/-7.1	-10.92/-8.93	-3.27/-0.38	-0.08/-0.2	1.34/1.19	0.23/0.22	0.97/2.6	0.94/-1.33	-0.24/0.11	-1.29/-1.64
Theta(90°)	-5.03/-4.55	-3.62/-2.27	-1.65/-1.85	0.12/1.42	1.54/1.56	0.74/1.75	1.94/-0.94	-4.76/-6.2	-7.78/-8.44	-8.26/-7.07	-5.33/-3.41	-2.63/-2.24	-0.31/0.72	0.24/0.07	0.91/0.5	-0.71/-1.69	-0.59/-1.11	-3.31/-1.84
Theta(100°)	-5.98/-5.07	-7.18/-4.36	-3.01/-1.28	1.8/2.29	0.67/0.15	-0.38/0.39	0.84/-2.14	-4.32/-5.28	-6.43/-6.48	-7.25/-6.44	-6.92/-8.54	-10.19/-5.96	-2.92/-3.2	-2.92/0.12	0.74/1.65	-2.44/-2.33	-3.28/-5.82	-5.7/-6.26
Theta(110°)	-6/-5.26	-6.92/-6.36	-4.01/-2.33	1.11/-0.28	-2.77/-3.37	-1.08/0.67	1.11/-0.1	-3.11/-4.86	-5.99/-6.12	-6.66/-9.02	-8.28/-10.83	-9.76/-6.25	-6.17/-5.88	-5.44/-0.65	-3.21/-5.36	-4.58/-5.73	-6.63/-7.16	-7.3/-7.27
Theta(120°)	-6.28/-4.84	-9.73/-8.97	-6.01/-6.32	2.23/2.38	-1.03/-2.38	-1.02/0.93	0.41/-2.16	-6.01/-6.56	-7.52/-4.25	-4.89/-7.41	-7.91/-6.07	-8.68/-5.73	-5.57/-5.51	-5.57/5.49	-6.65/-2.55	-4.26/-7.41	-4.75/-3.83	-3.49/-3.93
Theta(130°)	-8.07/-7.4	-8.18/-6.92	-4.06/-1.62	0.33/1.36	-0.96/-0.97	0.43/0.59	-1.82/-3.58	-3.88/-4.47	-5.71/-6.71	-9.38/-7.94	-9.45/-11.42	-7.71/-7.32	-2.61/-1.61	-3.13/-2.99	-2.64/-2.56	-3.04/-5.23	-7.72/-7.98	-7.94/-8.53
Theta(140°)	-5.5/-6.14	-5.57/-5.37	-5.71/-5.2	-5.49/-3.99	-3.24/-1.2	-0.6/-2.88	-4.57/-6.52	-5.89/-4.96	-4.64/-7.04	-6.66/-6.24	-7.85/-8.45	-7.64/-6.04	-6.9/-6.98	-9.81/-9.38	-5.88/-6.4	-5.61/-3.4	-5.48/-8.95	-5.59/-5.8
Theta(150°)	-4.96/-5.63	-5.84/-5.47	-5.65/-4.27	-4.64/-6.05	-2.13/-2.54	-2.68/-1.85	-7.42/-8.49	-4.64/-6.55	-7.42/-8.49	-7.49/-8.04	-6.62/-5.44	-5.96/-7.71	-7.77/-5.43	-6.55/-6.72	-4.29/-4.71	-4.75/-3.83	-3.49/-3.93	
Theta(160°)	-10.58/-8.95	-8.27/-7.2	-5.28/-3.51	-3/-3.18	-3.2/-2.67	-1.35/-0.34	-0.64/-1.34	-1.88/-3.17	-5.32/-7.15	-10.48/-10.19	-6.33/-3.5	-2.81/-3.42	-5.42/-5.86	-6.6/-6.66	-5.02/-5.84	-5.03/-3.25	-2.42/-3.02	-4.83/-5.09
Theta(170°)	-11.15/-10.09	-7.96/-6.35	-5.66/-5.36	-3.61/-2.26	-1.69/-1.82	-1.85/-1.96	-2.39/-3.13	-5/-7.79	-9.71/-9.61	-8.35/-7.91	-7.32/-6.65	-6.57/-5.72	-4.96/-4.76	-4.29/-3.7	-3.64/-4.1	-4.37/-3.85	-3.74/-4.48	-7.01/-7.27
Theta(180°)	-11.54/-11.89	-11.04/-8.65	-6.5/-8.17	-7.07/-5.65	-5.46/-6.17	-6.63/-6.7	-6.76/-6.89	-9.44/-9.95	-10.83/-11.95	-12.28/-10.66	-9.16/-8.05	-7.97/-8.45	-9.14/-8.57	-8.87/-8.22	-7.79/-8.09	-8.35/-9.95	-9.82/-9.92	
Freq(Hz)	5.6GPol.	ThetaH-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Phi(0°)Phi(10°)	Phi(20°)Phi(30°)	Phi(40°)Phi(50°)	Phi(60°)Phi(70°)	Phi(80°)Phi(90°)	Phi(100°)Phi(110°)	Phi(120°)Phi(130°)	Phi(140°)Phi(150°)	Phi(160°)Phi(170°)	Phi(180°)Phi(190°)	Phi(200°)Phi(210°)	Phi(220°)Phi(230°)	Phi(240°)Phi(250°)	Phi(260°)Phi(270°)	Phi(280°)Phi(290°)	Phi(300°)Phi(310°)	Phi(320°)Phi(330°)	Phi(340°)
Theta(°)	3.48/3.36	2.94/2.07	0.85/-0.63	1.03/1.9	-9.65/-10.99	-7.51/-4.4	2.68/3.17	3.19/2.94	-10.28/-11.33	-7.59/-2.89	3.12/-6.22	1.63/-3.21	2.69/1.85	1.73/2.69	1.73/2.69	1.64/0.3	1.73/2.69	3.12/3.03
Theta(10°)	2.71/2.53	2.01/1.43	0.85/-0.32	-2.23/-3.59	-4.91/-7.38	-6.38/-3.55	-1.09/0.59	1.52/2.42	3.4/3.91	4.04/3.86	3.34/2.48	1.34/-0.33	-2.27/-4.96	-7.93/-9.17	-7.06/-4.55	-2.75/-1.06	0.13/1.21	1.77/1.67
Theta(20°)	2/2.3	2.36/1.78	1.34/0.54	-1.01/-2.53	-4.06/-6.42	-6.59/-4.02	-1.71/-0.88	1.25/2.09	2.39/2.56	2.65/2.19	1.18/0.45	-0.33/-1.4	-2.56/-3.91	-4.82/-5.56	-5.15/-4.99	-4.43/-3.27	-1.55/-0.31	0.1/-0.12
Theta(30°)	1.52/1.46	0.75/0.43	-0.33/-1.32	-2.06/-2.78	-3.85/-5.31	0.62/0.55	0.05/1.19	1.75/1.28	0.09/-0.42	-3.46/-4.37	-3.43/-2.66	-3.15/-4.81	-5.05/-2.87	-9.80/-2.7	-0.72/0.69			
Theta(40°)	1.15/0.89	0.85/0.82	0.05/-1.6	-3.31/-3.29	-5.57/-6.53	-4.9/-3.71	-1.34/0.94	1.19/0.74	0.98/2.07	1.74/1.87	1.19/-0.07	-0.35/-1.3	-1.73/-2.8	-3.49/-3.48	-3.1/-2.37	-2.32/-1.84	-0.62/0.89	0.97/0.78
Theta(50°)	-0.01/-0.96	-2.8/-2.1	-0.65/-2.28	-4.21/-3.12	-3.72/-6.19	-4.27/-1.48	-1.08/0.98	1.41/0.9	2.08/3.59	3.5/2.91	1.51/-0.14	0.13/0.27	-0.29/-2.38	-4.06/-3.23	-1.89/-1.92	-2.11/-1.05	0.27/0.96	1.04/0.81
Theta(60°)	0.5/-0.56	-3.44/-1.88	-0.47/-2.03	-2.62/-3.01	-2.78/-4.25	-1.72/0.68	0.05/0.33	2.32/2.42	3.29/3.74	3.61/2.4	0.82/-0.2	0.21/0.87	2.33/-2.64	-2.03/-3.39	-1.49/0.91	1.39/1.16	0.14/-0.03	
Theta(70°)	1.80/4.1	-1.23/0.06	0.63/-1.75	-0.93/-1.16	-0.58/-1.43	-0.24/1.85	0.29/0	1.44/1.44	2.63/5.59	3.03/2.54	1.72/0.92	-0.84/-1.53	0.66/-0.28	-0.35/-2.48	-0.40/-0.83	1.26/1.77	1.08/0.55	0.65/0.58
Theta(80°)	3.88/1.22	0.28/2.33	1.62/-2.1	0.23/0.79	0.81/5.6	0.72/1.53	1.61/1.35	2.53/3.18	3.34/4.33	3.67/2.8	2.81/2.05	0.14/1.2	2.4/-0.07	0.24/-0.78	0.97/0.13	1.39/1.47	0.91/1.83	3.01/2.8
Theta(90°)	4.81/1.17	0.62/8.2	1.09/-2.34	0.03/1.18	0.24/1.54	-0.09/0.99	1.43/0.93	1.72/8.1	2.923/1.7	2.532/0.5	3.01/1.8	-0.51/1.46	3.13/0.25	0.92/-0.66	1.01/-0.58	2.58/0.37	1.94/5.5	4.83/4.05
Theta(100°)	3.79/0.75	0.82/2.52	-0.7/-2.41	0.57/1.97	1.02/2.85	1.45/0.61	2.53/1.78	1.46/1.95	2.53/2.6	2.21/1.35	1.34/-0.03	0.29/0.83	3.04/-2.3	2.01/-3.61	1.34/-0.95	1.82/-1.2	2.82/2.33	3.42/3.17
Theta(110°)	1.77/-0.65	-0.22/2.33	1.34/0.13	1.63/4.02	0.57/1.98	1.02/0.31	1.02/2.88	2.54/3.6	2.83/2.39	1.26/1.53	1.28/0.03	-1.24/-3.14	0.98/-3.88	0.08/-4.35	1.15/-1.86	-1.12/-2.72	2.38/1.53	0.7/0.4
Theta(120°)	-0.04/-2.08	-1.71/-1.1	-1.92/-3.18	-0.35/0.58	-1.33/-0.43	-1.53/-1.32	-1.21/0.5	1.67/1.49	1.66/2.62	1.62/1.17	0.19/-1.09	-0.52/-3.08	-2.72/-2.62	-0.96/-5.92	-2.2/-2.95	-1.51/-3.33	-0.44/-1.87	-3.79/-3.93
Theta(130°)	-0.24/-2.36	-2.38/-0.81	-1.46/-1.92	-0.48/-0.59	-2.19/-3.27	-4.16/-1.32	-1.13/-2.09	-0.95/0.06	0.32/-0.79	-0.89/-0.58	-0.32/-0.79	-2.75/-1.47	-1.89/-2.13	-0.31/-6.56	-1.14/-4.87	-2.22/-1.37	-3.26/-3.32	
Theta(140°)	-3.22/0.58	0.26/-0.26	-1.85/-2.29	-0.66/-2.77	-5.59/-6.08	-6.23/-3.51	-2.91/3.86	-2.67/-2.12	-2.46/-4.84	-2.57/-3.79	-1.51/-4.95	-4.62/-1.8	-5.49/-5.32	-4.08/-7.66	-5.79/-5.53	-4.5/-4.58	-7.45/-8.25	-6.8/-7.06
Theta(150°)	-2.19/-0.86	-0.59/-1.97	-1.39/-2.02	-3.54/-5.07	-7.06/-9.32	-10.82/-8.26	-4.57/-3.26	-2.7/-0.81	0.38/-1.56	-4.12/-1.48	-1.11/-2.57	-3.86/-2.95	-4.83/-4.2	-6.49/-9.4	-6.17/-3.56	-1.89/-2.88	-7.89/-5.87	-3.71/-3.83
Theta(160°)	-2.68/-3.85	-4.04/-5.32	-6.66/-7.53	-8.01/-7.71	-7.57/-6.05	-5.63/-6.7	-0.78/-7.29	-2.15/-1.92	-1.38/-0.05	-9.84/-10.7	-3.61/-6.62	-7.66/-8.19	-9.84/-10.7	-6.17/-5.69	-3.86/-3.22	-2.33/-2.53		
Theta(170°)	-2.94/-4.5	-6.01/-5.88	-5.98/-6.6	-7.41/-7.82	-8/-8.7	-9.17/-8.01	-7.14/-6.17	-5.05/-3.68	-3.18/-2.66	-2.59/-2.87	-3.54/-3.73	-3.83/-4.83	-6.61/-8.33	-9.76/-10.35	-8.3/-7.03	-6.57/-6.12	-4.78/-3.61	-2.26/-2.48
Theta(180°)	-6.41/-6.29	-6.92/-7.5	-7.94/-7.9	-9.37/-10.66	-10.83/-12.46	-12.53/-12.38	-12.23/-11.57	-9.88/-8.21	-6.91/-6.56	-6.46/-5.82	-5.79/-6.28	-6.99/-8.51	-10.16/-10.87	-11.18/-11.79	-12.19/-12.22	-10.96/-10.82	-10.64/-10.34	-8.47/-8.77
Freq(Hz)	5.785GPol.	PhiH-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dBi)	Phi(0°)Phi(10°)	Phi(20°)Phi(30°)	Phi(40°)Phi(50°)	Phi(60°)Phi(70°)	Phi(80°)Phi(90°)	Phi(100°)Phi(110°)	Phi(120°)Phi(130°)	Phi(140°)Phi(150°)	Phi(160°)Phi(170°)	Phi(180°)Phi(190°)	Phi(200°)Phi(210°)	Phi(220°)Phi(230°)	Phi(240°)Phi(250°)	Phi(260°)Phi(270°)	Phi(280°)Phi(290°)	Phi(300°)Phi(310°)	Phi(320°)Phi(330°)	Phi(340°)
Theta(°)	-11.48/-9.56	-5.61/-2.54	-0.28/1.15	2.69/3.4	3.92/4.24	4.15/3.76	3.36/2.24	0.75/-1.62	-4.71/-8.41	-10.98/-8.44	-5.15/-2.36	-0.13/1.77	2.98/3.65	4.01/4.18	4.27/4.2	3.31/2.17	0.53/-1.96	-4.7/-5.02
Theta(10°)	-12.13/-10.2	-6.16/-3.23	-1.15/0.21	1.56/2.55	3/3.4	-1.19/8.47	3.4/3.1	-1.19/8.47	-5.15/-2.05	2.48/2.98	3.26/3.14	1.17/0.07	-1.19/-3.13	-6.32/-6.51				
Theta(20°)	-10.38/-8.83	-5.42/-2.91	-1.06/0.27	0.98/1.77	2.59/3.16	3.24/3.36	3/1.93	0.92/-0.31	-1.86/-4.15	-8.31/-8.76	-7.41/-4.6	-2.68/-0.88	0.43/1.18	1.14/0.4	-0.48/-1.19	-1.8/-2.54	-3.4/-1.4	-6.05/-6.29
Theta(30°)	-8.22/-10.72	-7.33/-4.85	-2/-0.05	0.51/1.1	1.45/1.39	1.73/2.52	2.36/0.91	-0.94/-2.24	-3.7/-6.81	-9.52/-10.6	-8.62/-7.4	-6.4/-5						



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

Θ (70°)	2.98/0.89	-0.51/0.81	0.14/-2.44	-0.37/-1.05	-0.53/1	0.72/-0.29	2.37/1.98	2.12/1.49	2.34/3.42	2.66/1.86	1.94/1.41	-1.28/1.96	2.5/-0.31	0.25/0.86	-1.24/-1.1	0.1/1.71	2.54/2.83	3.59/3.25
Θ (80°)	3.73/0.71	0.88/2.02	0.41/-2.13	0.97/0.1	1.76/2.33	2.49/1.13	2.62/1.9	1.31/2.32	2.93/3.79	3.52/2.52	2.88/2.33	0.2/2.4	4.07/1.28	0.54/0.29	0.57/0.84	1.63/2.57	1.46/2.28	3.21/2.95
Θ (90°)	3.92/0.33	1.69/3.17	0.61/-1.35	0.42/-0.48	2.34/2.4	1.46/0.67	3.53/3.38	2.22/3.08	2.18/3.28	3.38/1.82	3.5/3.57	2.26/1.62	4.73/2.34	1.19/-0.44	-0.4/0.31	3.67/1.95	2.45/4.85	3.91/3.06
Θ (100°)	3.44/0.43	0.59/2.24	-2.56/-1.8	1.11/2.53	3.14/3.04	2.11/2.5	3.53/1.97	-0.93/1.29	1.34/2.63	2.75/-0.46	2.91/2.93	1.44/0.53	4.39/1.42	1/-2.64	0.94/0.74	2.34/-1.12	2.54/4.95	3.26/2.96
Θ (110°)	2.8/0.54	0.86/2.61	1.68/1.55	2.19/2.95	2.73/2.45	1.88/2.52	3.14/2.82	2.16/3.45	2.25/2.27	0.95/1.18	2.64/2.19	2.56/-0.46	1.94/-3.68	-0.62/-3.33	0.1/-0.71	-2.1/-1.15	-0.57/0.49	-1.77/-2.06
Θ (120°)	1.71/1.43	0.41/-0.25	0.26/-1.2	-0.02/0.36	0.36/-0.59	-1.74/0.8	2.59/3.14	3.01/3.89	2.62/2.8	1.75/1.76	0.92/-0.08	-0.05/-0.64	0.79/-2.12	-3.54/-4.48	-3.84/-1.1	-2.54/-0.36	-0.1/-2.9	-4.64/-4.83
Θ (130°)	2.5/0.95	0.49/1	-1.69/-1.81	0.29/1.68	1.96/-0.93	-2.41/-0.83	-1.7/-1.47	-1.54/0.21	1.2/-0.1	0.26/0.54	1.71/-0.05	-0.67/-2.45	-1.58/-0.37	1.07/-4.67	-1.75/0.72	-2.03/-2.93	-1.72/-1.92	-1.63/-2.03
Θ (140°)	-0.21/1.12	1.28/1.49	0.92/0.38	0.7/-1.28	-1.91/-3.64	-3.85/-2.18	-2.18/-1.72	-1.93/-2.01	-2.06/0.1	-0.21/-1.39	-0.23/-3.06	-4.47/-4.09	-4.86/-4.43	-3.09/-9.55	-4.74/-1.49	-5.35/-5.2	-7.24/-4.64	-3.53/-3.89
Θ (150°)	-2.55/-1.08	-2.22/-2.27	-2.58/-2.71	-3.23/-4.79	-5.87/-7.29	-4.51/-2.37	-2.03/-1.59	-1.41/-1.28	-1.13/-2.59	-4.51/-2.2	-1.12/-2.64	-4.21/-1.15	-2.55/-6.26	-6.64/-9.57	-5.97/-4.33	-2.83/-8.23	-8.76/-4.16	-1.49/-1.82
Θ (160°)	-3.18/-3.02	-3/-3.83	-4.49/-4.99	-4.99/-5.77	-5.86/-5.3	-4.39/-3.41	-4.12/-4.07	-2.94/-1.52	-0.66/-1.07	-1.58/-1.31	-0.31/0.34	-0.66/-3.03	-4.81/-5.23	-6.73/-10.3	-9.77/-7.11	-4.2/-2.52	-2.16/-1.83	-0.99/-1.21
Θ (170°)	-3.22/-3.23	-2.7/-2.48	-3.2/-3.8	-4.55/-4.92	-6.45/-7.67	-8.3/-7.77	-6.1/-4.57	-3.48/-2.48	-2/-1.79	-2.16/-3.24	-4.29/-5.25	-5.27/-4.86	-5.69/-7.43	-9.48/-10.7	-8.9/-8.52	-8.52/-7.54	-7.28/-5.81	-3.9/-4.4
Θ (180°)	-6.93/-6	-5.58/-5.93	-7.12/-6.8	-6.89/-7.49	-8.24/-10.14	-11.79/-11.54	-12.75/-11.72	-10.31/-9.44	-8.24/-6.89	-5.79/-5.37	-5.2/-5.17	-5.49/-5.96	-6.88/-7.86	-9.27/-9.6	-10.14/-12.57	-13.18/-12.56	-12.07/-9.3	-8.76/-9.32



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

Gain Result

Freq(Hz)	5.6GPol.	PhiAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)
Θ(0°)	-14.65/-13.9	-12.89/-11.66	-11.92/-9.57	-8.67/-7.69	-7.84/-6.92	-11.24/-9.57	-9.92/-10.94	-12.38/-14.3	-17.18/-18.52	-18.96/-17.27	-14.43/-11.65	-9.38/-8.6	-8.47/-9.1	-8.89/-9.37	-10.29/-10.66	-10.28/-10.91	-13.58/-14.08	-17.19/-17.15
Θ(10°)	-13.42/-13.15	-13.77/-12.86	-11.92/-10.26	-9.37/-7.76	-6.98/-7.26	-7.62/-8.23	-8.52/-9.19	-9.51/-10.07	-11.23/-13.92	-19.48/-18.82	-12.65/-9.01	-6.88/-6.56	-6.66/-7.37	-7.93/-8.36	-8.56/-7.92	-7.94/-7.71	-7.88/-8.36	-9.53/-9.56
Θ(20°)	-9.81/-12.63	-14.45/-12.51	-10.33/-8.86	-8.27/-8.16	-7.25/-6.94	-7.06/-7.35	-7.2/-7.18	-8.21/-9.97	-13.32/-16.74	-17.88/-17.61	-17.35/-15.74	-14.8/-15.77	-16.36/-18.03	-18.23/-18.55	-19.08/-13.52	-9.14/-6.72	-5.1/-4.92	-5.58/-5.56
Θ(30°)	-12.26/-13.79	-17.23/-18.7	-13.14/-9.48	-6.78/-5.26	-4.98/-5.2	-5.86/-5.95	-5.86/-5.95	-17.81/-17.05	-9.94/-10.45	-13.8/-17.05	-17.17/-16.88	-18.95/-18.83	-18.01/-17.62	-17.9/-18.11	-14.82/-9.79	-5.65/-5.54	-5.65/-5.51	-12.06/-12.08
Θ(40°)	-11.03/-8.37	-11.21/-19.62	-16.82/-11.15	-7.77/-4.86	-3.6/-4.02	-5.28/-6.03	-5.83/-6.07	-7.14/-7.88	-9.26/-11.49	-14.74/-18.94	-18.21/-17.8	-14.43/-7.88	-4.54/-4.24	-4.26/-2.66	-2.66/-3.84	-4.4/-6.51	-7.95/-11.68	-17.77/-17.82
Θ(50°)	-15.19/-12.61	-15.83/-18.88	-17.02/-15.06	-10.71/-5.06	-4.2/-6.06	-11.47/-15.61	-13.13/-8.69	-6.63/-6.66	-8.73/-12.24	-15.53/-18.67	-17.38/-18.08	-11.3/-5.3	-3.45/-4.2	-5.44/-4.05	-2.87/-2.11	-3.32/-4.81	-6.94/-12.14	-19.51/-19.55
Θ(60°)	-16.13/-14.58	-13.92/-18.68	-13.12/-16.2	-13.03/-5.13	-4.74/-7.69	-13.12/-16.2	-13.03/-5.13	-9.64/-6.12	-4.81/-4.71	-17.28/-18.01	-19.14/-18.92	-12.58/-6.38	-4.25/-4.94	-5.89/-4.37	-3.99/-5.01	-6.56/-8.34	-8.94/-8.21	-12.57/-12.56
Θ(70°)	-10.8/-14.03	-15.39/-18.26	-14.83/-13.5	-11.57/-7.73	-6.85/-7.49	-9.5/-8.71	-6.15/-4.74	-6.31/-8.6	-9.84/-11.08	-18.18/-18.77	-16.4/-10.76	-9.7/-7.43	-4.85/-5.39	-8.13/-9.2	-6.51/-6.88	-11.64/-11.61	-5.84/-4.35	-8.3/-8.15
Θ(80°)	-9.36/-11.02	-11.76/-11.09	-11.86/-11.91	-7.91/-6.39	-8.17/-7.53	-5.81/-4.92	-4.78/-5.7	-6.85/-9.5	-12.26/-16.33	-19.47/-13.77	-12.1/-9.04	-8.02/-9.59	-5.62/-4.87	-9.32/-8.57	-5.48/-6.92	-10.18/-6.18	-3.05/-3.45	-5.67/-5.69
Θ(90°)	-9.2/-10.1	-9.62/-9.64	-10.22/-10.29	-5.47/-3.65	-5.88/-6.18	-5.01/-3.43	-4.02/-7.03	-9.44/-12.23	-15.68/-12.28	-9.28/-7.33	-9.7/-9.33	-11.39/-15.82	-7.34/-4.99	-8.51/-7.95	-5.56/-11.04	-11.59/-5.77	-3.21/-3.71	-7.65/-9.69
Θ(100°)	-16.7/-13.69	-17.55/-15.31	-18/-11.46	-2.94/-1.83	-4.36/-5.06	-4.38/-3.09	-3.48/-4.75	-8.41/-10.46	-10.39/-8.18	-7.62/-7.12	-9.39/-12.02	-17.67/-17.86	-11.76/-11.26	-14.98/-8.8	-6.48/-16.98	-11.69/-8.78	-11.18/-15.19	-17.3/-17.55
Θ(110°)	-11.68/-11.28	-15.7/-18.23	-18.33/-7.49	-2.13/-2.2	-4.41/-7.06	-4.68/-4.81	-4.77/-5.36	-9.15/-12.8	-7.91/-5.9	-6.08/-10.36	-12.12/-13.13	-16.75/-16.07	-12.51/-11.4	-16.58/-9.73	-10.55/-9.9	-8.71/-15.82	-19.16/-17.31	-16.16/-16.23
Θ(120°)	-6.11/-6.79	-14.58/-18.25	-16.97/-5.39	-1.79/-2.65	-5.79/-6.35	-4.66/-3.36	-3.62/-8.32	-16.99/-15.2	-8.66/-5.93	-17.18/-14.07	-15.34/-15.52	-14.37/-13.57	-11.55/-14.17	-16.8/-18.47	-10.86/-9.26	-10.86/-7.06	-6.97/-6.89	
Θ(130°)	-10.77/-8.83	-13.1/-14.58	-18.46/-8.89	-4.84/-3.8	-4.18/-4.85	-5/-2.81	-3.03/-4.03	-5.19/-5.78	-7.12/-11.19	-15.97/-15.29	-12.45/-16.49	-19.29/-18.99	-12.58/-6.85	-7.77/-10.68	-10.35/-8.35	-9.18/-10.71	-11.62/-9.63	-16.04/-16.12
Θ(140°)	-8.51/-12.61	-10.98/-12.21	-11.41/-16.69	-13.79/-7.54	-5.47/-5.8	-5.91/-7.33	-10.24/-11.09	-10.57/-6.33	-6.33/-9.36	-13.05/-17	-15.29/-11.89	-8.44/-10.83	-13.42/-16.42	-17.04/-16.36	-17.44/-12.2	-13.16/-13.07	-13.26/-17.31	-15.26/-15.35
Θ(150°)	-7.18/-9.94	-12.16/-14.84	-12.16/-14.84	-11.47/-9.94	-6.86/-5.68	-4.53/-6.19	-9.47/-13.22	-18.07/-19.1	-13.89/-17.88	-13.88/-8.6	-8.04/-8.7	-11.81/-9.92	-14.28/-10.79	-15.64/-16.28	-18.18/-11.25	-6.82/-6.95		
Θ(160°)	-12.82/-11.58	-12.08/-13.74	-11.3/-7.32	-6.66/-7.11	-7.92/-7.88	-6.73/-5.56	-5.51/-5.37	-5.56/-7.03	-10.16/-13.19	-18.65/-15.29	-9.06/-5.91	-3.73/-3.62	-6.31/-8.87	-12.5/-14.44	-14.69/-18.88	-13.12/-9.01	-6.77/-7.33	-10.58/-10.68
Θ(170°)	-16.99/-13.55	-11.65/-11.43	-10.45/-9.43	-8.5/-8.19	-8.37/-5.84	-9.09/-8.78	-8.83/-9.58	-10.99/-15.53	-18.08/-17.57	-11.82/-9.04	-8.82/-9.88	-14.15/-16.68	-14.89/-14.29	-14.99/-13.91	-13.52/-14.26	-15.28/-13.58	-11.77/-12.65	-18.42/-18.55
Θ(180°)	-15.83/-16.26	-16.58/-14.99	-13.88/-14.02	-13.68/-14.2	-15.25/-16.44	-19.2/-17.37	-17.56/-17.79	-17.62/-18.07	-18.73/-18.69	-19.09/-18.17	-19.02/-17.18	-14.87/-13.4	-15.22/-18.69	-18.04/-18.37	-18.98/-17.98	-17.99/-19.43	-17.73/-18.75	-16.83/-16.83
Freq(Hz)	5.6GPol.	ThetaAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)
Θ(0°)	-9.06/-9.14	-9.61/-10.07	-10.17/-10.37	-10.13/-16.05	-10.71/-12.9	-10.71/-12.9	-10.23/-8.98	-13.78/-12.42	-14.15/-15.13	-8.88/-8.69	-8.49/-9.44	-14.15/-13.42	-15.13/-14.62	-9.71/-8.42	-8.26/-8.28			
Θ(10°)	-5.33/-5.7	-6.2/-6.97	-7.34/-7.9	-10.17/-11.16	-12.23/-13.48	-13.78/-12.92	-12.72/-12.48	-11.41/-10.64	-9.53/-8.82	-8.52/-7.98	-8.73/-10.63	-14.22/-18.39	-18.79/-17.7	-15.42/-12.58	-10.9/-9.4	-7.92/-6.56	-5.73/-4.97	-5.02/-5.08
Θ(20°)	-3.36/-3.58	-3.24/-3.34	-4.27/-6.35	-8.93/-11.87	-14.24/-14.81	-14.11/-13.88	-14.84/-14.79	-14.1/-16.102	-18.94/-14.96	-12.74/-13.67	-18.29/-18.31	-18.29/-18.33	-15.1/-13.75	-11.14/-9.49	-8.52/-8.85	-9.27/-8.29	-5.74/-3.51	-2.75/-2.76
Θ(30°)	-0.61/-8.4	-2.89/-2.71	-3.65/-4.96	-6.11/-8.13	-11.45/-13.1	-14.36/-12.29	-11.98/-10.34	-12.35/-15.35	-10.73/-16.08	-16.04/-14.63	-10.13/-8.76	-15.64/-14.81	-12.13/-15.22	-8.69/-3.4	-0.92/-0.25			
Θ(40°)	0.3/-1.83	-3.16/-1.78	-2.2/-2.83	-4.96/-10.32	-18.49/-13.1	-9.92/-8.3	-6.99/-7.2	-8.8/-11.64	-14.46/-15.06	-15.84/-14.53	-17.25/-16	-12.64/-15.59	-18.36/-18.66	-12.87/-13.63	-11.6/-6.57	-4.3/-3.49	-1.780/-11	0.910/86
Θ(50°)	0.79/-1.04	-5.05/-2.85	-1.27/-2.41	-5.88/-10.33	-18.79/-12.17	-8.3/-5.75	-5.78/-7.97	-8.73/-9.89	-13.91/-12.87	-10.01/-8.51	-10.11/-18.26	-17.87/-16.34	-16.49/-14.8	-11.19/-9.42	-6.72/-3.94	-2.27/-1.79	-2.27/-1.79	-0.44/-0.45
Θ(60°)	-0.06/-0.65	-5.94/-1.9	-1.23/-3.65	-6.29/-6.6	-14.9/-12.69	-5.58/-3.95	-4.26/-5.48	-3.28/-3.67	-6.07/-11.65	-10.73/-7.66	-9.83/-10.72	-7.03/-5.24	-11.89/-14.87	-6.4/-4.51	-3.19/-1.85	-2.58/-2.54	-3.09/-3.11	
Θ(70°)	-0.75/-1	-5.24/-3.89	0.09/-3.17	-4.39/-3.2	-7.01/-8.64	-5.09/-4.49	-5.59/-4.62	-2.38/-3.37	-5.14/-7.19	-6.99/-4.29	-4.86/-6.68	-4.99/-3.51	-9.01/-10.43	-7.5/-5.86	-4.12/-2.27	-1.58/-2.14	-1.71/-0.45	-1.23/-1.25
Θ(80°)	0.13/-0.07	-5.38/-4.57	-0.28/-4.41	-1.19/-0.77	-3.17/-2.62	-3.91/-7.04	-6.23/-4	-0.95/-0.75	-1.09/-2.23	-5.04/-4.39	-5.22/-5.79	-6.95/-2.62	-4.8/-3.4	-10.34/-6.2	-3.71/-2.69	-0.38/-2.65	-1.41/-0.19	-0.01/-0.11
Θ(90°)	-1.42/-3.23	-8.38/-6.53	-2.93/-7.88	-1.12/-2.23	-4.77/-2.91	-5.4/-6.13	-0.84/-0.37	-1.47/-3.09	-3.92/-3.5	-3.25/-4.72	-7.72/-7.17	-2.02/-11.69	-10.51/-5.64	-7.52/-3.66	-2.16/-5.98	-0.610/89	0.84/-1.34	
Θ(100°)	-2.71/-2.45	-4.46/-5.55	-5.04/-13.67	-2.45/-2.32	-3.74/-3	-6.57/-10.22	-7.06/-3.5	-0.32/-0.4	-1.89/-4.39	-4.98/-2.66	-5.87/-3.41	-4.81/-2.98	-1.51/-19.56	-6.88/-12.95	-6.52/-8.51	-4.49/-7.59	-1.7/-0.77	-0.72/-0.85
Θ(110°)	-4.49/-3.21	-4.61/-2.75	-2.99/-7.2	-1.94/-0.99	-2.30/-3.1	-2.34/-4.95	-3.78/-1.12	0.640/-7	-0.39/-1.3	-1.14/-2.57	-4.65/-4.44	-5.43/-10.15	-5.21/-12.93	-5.95/-18.12	-9.79/-7.58	-8.62/-11.11	-4.74/-7.6	-2.7/-2.8
Θ(120°)	-10.47/-6.67	-8.36/-6.08	-6.24/-12.98	-5.67/-4.47	-6.98/-6.42	-4.92/-4.49	-4.8/-5.2	-0.96/-1.23	-1.790/-34	-1.83/-3.56	-1.43/-7.19	-9.6/-17.84	-6.2/-11.98	-11.1/-10.46	-9.94/-17.97	-11.99/-13.66	-13.53/-13.64	
Θ(130°)	-16.43/-13.11	-9.51/-9.42	-12.34/-18.58	-12.69/-7.61	-7.83/-12.01	-10.33/-6.77	-4.4/-3.25	-3.07/-4.15	-2.34/-1.33	-0.18/-1.83	-3.4/-2	-12.08/-13.68	-17.69/-16.52	-10.55/-16.97	-11.1/-13.57	-14.49/-14.64		
Θ(140°)	-13.91/-9.88	-10.01/-10.6	-11.42/-14.87	-16.13/-17.88	-16.79/-14.38	-18.97/-8.36	-3.72/-3.42	-4.66/-3.38	-2.82/-1.08	-2.48/-7.11	-9.36/-13.55	-7.81/-12.19	-15.24/-13.17	-18.61/-14.55	-12.46/-12.05	-17.56/-13.72	-17.06/-17.89	-15.33/-15.46
Θ(150°)	-15.5/-7.4	-5.82/-4.71	-7.61/-11.12	-16.06/-13.49	-12.09/-13.19	-18.28/-15.65	-7.17/-3.87	-2.4/-2.09	-3.25/-5.79	-9.08/-5.13	-3.45/-4.94	-5.3/-5.96	-10.35/-10.11	-14.35/-18.06	-13.58/-13.62	-13.46/-12.71	-18.26/-18.85	-14.87/-14.89
Θ(160°)	-10.88/-12.59	-12.57/-12.31	-13.89/-16.74	-9.35/-8.14	-9.32/-10.9	-18.96/-13.88	-6.07/-4.44	-18.96/-13.88	-6.07/-4.44	-18.96/-13.88	-6.07/-4.44	-18.96/-13.88	-6.07/-4.44	-18.96/-13.88	-6.07/-4.44	-18.96/-13.88	-6.07/-4.44	-18.96/-13.88
Θ(170°)	-12.29/-17.66	-17.58/-15.49	-16.1/-18.54	-17.44/-13.42	-11.16/-10.27	-11.35/-11.85	-10.65/-8.86	-7.34/-6.13	-6.18/-6.35	-17.33/-9.47	-10.97/-8.71	-6.65/-6.99	-9.33/-12.84	-15.98/-17.71	-17.85/-18.43	-18.1/-17.1	-12.75/-10.89	-9.16/-9.25
Θ(180°)	-18.46/-17.77	-18.21/-19.21	-18.07/-17.91	-19.07/-17.37	-17.49/-18.19	-18.31/-18.53	-18.72/-19.28	-19.43/-18.14	-17.39/-16.53	-15.58/-13.29	-12.04/-12.01	-14.5/-18.4	-17.78/-17.81	-18.72/-18.38	-18.39/-18.29	-15.85/-15	-16.76/-17.78	-16.45/-16.84
Freq(Hz)	5.785GPol.	PhiAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)
Θ(0°)	-18.93/-18.03	-15.81/-12.28	-9.34/-7.47	-5.66/-4.78	-4.27/-3.52	-3.16/-3.26	-3.52/-4.83	-6.68/-9.81	-13.76/-19.07	-18.35/-18.75	-15.92/-11.29	-8.67/-6.38	-5.33/-4.48	-3.42/-3.16	-2.68/-2.81	-3.52/-4.71	-6.87/-10.04	-11.51/-11.52
Θ(10°)	-19.11/-17.12	-12.4/-9.21	-7.41/-7.03	-5.52/-4.38	-3.86/-4.41	-3.66/-4.4	-5.25/-6.13	-7.12/-8.14	-4.25/-4.03	-7.47/-5.21	-4.53/-6.83	-6.68/-7.81						



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

θ(60°)	0.53/-1.66	-5/-1.64	-0.64/-3.34	-2.79/-7.56	-6.39/-3.05	-3.85/-4.97	-7.01/-5.53	-5.3/-7.92	-8.72/-9.64	-10.26/-8.86	-10/-17.22	-17.83/-8.11	-11.14/-13.68	-7.49/-3.93	-6.55/-5.64	-2.64/-1.58	-1.27/0.02	-0.54/-0.55
θ(70°)	1.59/0	-4.6/-2.46	-1.36/-4.85	-0.82/-3.73	-6.31/-2.08	-2.77/-4.47	-4.54/-4.91	-5.13/-6.26	-6.61/-8.62	-10.17/-6.82	-7.13/-9.86	-16.74/-4.9	-6.4/-9.26	-6.36/-3.75	-5.39/-3.07	-0.37/-1.52	-2.45/-0.41	0.15/0.16
θ(80°)	2.51/35	-1.88/-0.7	-1.2/-2.87	0.97/-1	-2.12/-2.15	-2.62/-1.4	-4.91/-5.82	-8.17/-5.82	-3.76/-5.6	-1.15/-4.93	-2.61/-4.94	-9.98/-5.02	-2.81/-4.91	-0.27/-3.02	-1.93/-0.04	1.28/-2.05	-2.54/-0.59	0.31/0.18
θ(90°)	-0.07/-0.35	-3.52/-2.01	-4.69/-2.12	1.04/-2.44	-1.13/-2.97	-3.41/-1.6	-3.59/-4.69	-3.84/-1.54	-1.1/-1.7	-2.84/-3.41	-3.91/-2.7	-5.19/-5.67	-1.56/-6.02	-19.12/-6.25	-3.85/-2.48	1.36/-3.52	0.832/-17	1.17/-0.32
θ(100°)	-1.46/-2.32	-6.68/-6.23	-11.55/-4.33	0.45/-1.12	0.29/-0.8	-3.62/-1.19	-2.48/-4.44	-4.24/-1.03	0.2/0.6	-1.23/-2.98	-2.79/-1.65	-4.44/-8.28	-0.85/-4.03	-8.96/-10.48	-5.17/-5.31	-2.24/-9.8	-2.45/-0.48	-0.59/-0.64
θ(110°)	-2.58/-0.89	-3.01/-1.9	-4.84/-7.78	-1.53/-1.26	1.52/-0.24	-1.63/-1.08	-1.02/-2.85	-2.91/-2.29	-0.85/0.06	-1.59/-2.29	-2.01/-1.67	-3.26/-17.46	-8.16/-18.93	-0.27/-9.96	-8.28/-7.05	-3.16/-3.18	-2.86/-2.94	
θ(120°)	-6.8/-3.08	-6.28/-6.16	-6.16/-6.22	-4.04/-4.51	-3.77/-5.36	-5.21/-1.42	0.41/-0.39	0.11/0.58	0.71/1.08	-0.31/-1.2	-2.52/-5.33	-1.92/-3.62	-5.36/-11.97	-6.19/-13.41	-9.65/-11.43	-8.53/-17.29	-8.44/-13.6	-16.78/-17.64
θ(130°)	-10/-6.69	-6.19/-7.97	-14.49/-13.66	-8.64/-3.71	-3.41/-5.17	-7.21/-8.89	-8.58/-5.05	-2.65/-0.58	-0.06/-0.75	-0.72/-0.83	-1.4/-2.58	-1.71/-16.25	-10.2/-7.75	-5.75/-13.65	-10.42/-10.19	-9.53/-17.27	-18.69/-17.18	-15.83/-15.94
θ(140°)	-11.19/-8.76	-8.5/-8.13	-13.28/-17.29	-17.65/-13.55	-10.07/-7.81	-6.35/-	-4.6/-5.25	-5.07/-4.6	-3.01/-2.05	-2.77/-2.69	-16.29/-13.26	-13.04/-10.81	-11.95/-15.55	-12.02/-17.85	-16.29/-13.26	-13.04/-10.81	-13.96/-17.36	-11.24/-11.34
θ(150°)	-15.68/-8.8	-10.02/-12.41	-18.28/-17.98	-16.08/-18.22	-18.61/-11.91	-5.25/-2.73	-1.98/-1.7	-2.25/-2.61	-3.34/-4.55	-6.87/-8.99	-7.03/-5.04	-5.96/-4.95	-9.16/-18.3	-10.99/-16.11	-19.16/-18.96	-18.93/-18.66	-16.87/-10.17	-6.9/-7.5
θ(160°)	-18.47/-16.36	-15.15/-18.25	-18.36/-16.27	-11.55/-8.71	-8.3/-10.38	-12.69/-9.17	-6.29/-5	-4.85/-3.87	-2.64/-1.95	-1.42/-1.13	-0.14/0.3	-9.86/-14.49	-15.85/-13.53	-14.55/-18.64	-17.74/-11	-9.41/-10.95	-10.67/-10.54	
θ(170°)	-14/-11.1	-9.25/-10.33	-13.07/-15.29	-16.52/-15.14	-13.10/-12.51	-17.3/-10.14	-3.76/-6.69	-5.31/-4.21	-3.39/-3.1	-3.73/-5.75	-7.36/-9.92	-10.05/-9.52	-11.72/-17.09	-18.25/-18.61	-18.04/-18.39	-17.99/-15.26	-12.46/-13.11	
θ(180°)	-18.91/-18.1	-19.04/-18.5	-17.55/-16.52	-14.91/-14.35	-14.01/-16.09	-17.89/-18.49	-19.1/-18.75	-18.94/-18.71	-18/-15.48	-12.52/-11.22	-10.99/-11.09	-11.32/-12.11	-13.7/-15.28	-18.88/-18.88	-17.76/-19.03	-19.32/-19.05	-18.92/-18.48	-18.61/-18.64
Freq(Hz)	5.6GPol.	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
θ(0°)	-15.56/-12.25	-8.98/-6.44	-4.74/-3.11	-1.92/-1.33	-1.52/-1.58	-1.38/-1.73	-2.45/-3.69	-5.51/-7.5	-10.37/-13.53	-17.74/-14.11	-8.79/-6.32	-4.78/-3.67	-2.71/-2.07	-1.79/-1.95	-2.24/-2.65	-3.65/-4.86	-6.34/-8.43	-13.39/-13.75
θ(10°)	-12.94/-12.93	-10.67/-7.2	-5.21/-4.64	-4.56/-3.46	-1.91/-0.88	-0.63/-1.13	-1.91/-3.02	-4.49/-6.25	-8.44/-10.44	-11.89/-10.79	-7.93/-5.14	-3.2/-2.18	-1.12/-0.7	-0.77/-1.17	-1.93/-0.34	-4.39/-6.45	-8.52/-11.31	-14.64/-15.54
θ(20°)	-17.58/-17.78	-14.73/-11.59	-8.42/-6.35	-5.06/-3.82	-1.52/-1.69	-1.52/-1.89	-2.78/-5.59	-4.82/-7.57	-9.85/-11.23	-10.54/-8.77	-6.65/-5.62	-5.55/-6.77	-4.78/-4.79	-6/-7.27	-7.85/-8.26	-9.83/-13.21	-15.32/-15.64	
θ(30°)	-14.43/-14.79	-14.46/-12.71	-9.42/-7.71	-5.13/-3.38	-2.31/-2.31	-2.63/-1.91	-2.41/-4.61	-7.59/-15.4	-18.52/-18.72	-18.07/-12.04	-9.66/-8.04	-7.61/-10.43	-11.63/-8.7	-6.72/-7.2	-8.89/-9.07	-8.65/-8.93	-9.67/-10.76	-13.1/-13.56
θ(40°)	-19.36/-18.12	-19.01/-15.74	-11.8/-27	-6.38/-6.73	-6.31/-5.24	-3.92/-3.22	-2.88/-4.26	-8.52/-15.04	-18.7/-19.01	-18.41/-19.01	-12.36/-10.02	-7.39/-4.63	-5.62/-6.57	-6.73/-6.56	-7.19/-7.34	-7.67/-8.65	-12.29/-16.46	-15.64/-15.92
θ(50°)	-19.86/-14.86	-11.91/-9.37	-10.11/-12.05	-12.34/-9.53	-5.49/-4.3	-3.94/-7.8	-12.96/-13.44	-16.14/-18.79	-18.87/-16.75	-12.52/-7.5	-4.98/-3.6	-2.26/-2.68	-2.71/-3.79	-7.46/-6.41	-4.46/-5.43	-7.4/-10.48	-14.46/-15.58	
θ(60°)	-17.69/-14.4	-11.58/-10.03	-10.29/-11.75	-13.81/-12.08	-6.83/-3.74	-3.09/-4.1	-6.67/-10.77	-13.31/-16.2	-14.05/-15	-14.97/-17.65	-11.59/-8.5	-4.68/-5.29	-4.45/-3.85	-2.6/-5.04	-10.89/-6.68	-3.55/-4.1	-5.96/-8.3	-11.24/-12.35
θ(70°)	-17.94/-13.22	-10.45/-8.87	-7.21/-5.95	-6.33/-6.68	-5.91/-4.6	-3.15/-3.21	-5.43/-10.94	-17.19/-17.19	-15.08/-12.39	-12.57/-12.45	-7.28/-0.43	-5.17/-8.13	-8.05/-7.25	-5.5/-5.01	-6.72/-4.42	-3.93/-5.59	-6.19/-7.32	-6.62/-8.95
θ(80°)	-18.73/-17.96	-12.52/-8.18	-6.45/-4.47	-6.05/-5.43	-4.02/-3.64	-4.69/-3.04	-15.04/-15.55	-16.9/-13.94	-8.82/-7.64	-8.45/-4.16	-3.07/-4.66	-8.92/-8.89	-7.33/-4.11	-4.31/-9.28	-9.41/-7.95	-8.78/-9.12		
θ(90°)	-9.83/-11.72	-9.83/-7.67	-7.2/-8.8	-7.15/-3.59	-3.19/-5.49	-7.02/-4.14	-3.99/-9.55	-16.11/-14.35	-13.33/-18.73	-18.19/-17.15	-13.38/-7.2	-5.3/-5.57	-8.79/-8.71	-7.45/-12.61	-9.68/-4.77	-6.52/-12.75	-11.65/-12.65	-10.86/-10.92
θ(100°)	-9.13/-8.87	-12.31/-10.41	-6.98/-5.61	-3.89/-4.01	-9.11/-17.68	-14.94/-10.08	-9.61/-18.87	-12.56/-10.43	-11.18/-12.55	-13.17/-11.52	-13.12/-14.98	-13.55/-13.11	-16.24/-16.34	-13.93/-15.3	-11.62/-7.88	-12.67/-18	-18.28/-12.45	-9.58/-9.82
θ(110°)	-9.58/-7.97	-12.14/-12.49	-6.54/-3.29	-2.5/-4.35	-4.701/-7.61	-5.69/-4.72	-5.67/-8.6	-11.87/-9.94	-13.05/-18.39	-15.13/-16.32	-18.7/-19.5	-18.82/-18.23	-16.34/-10.56	-16.48/-11.32	-15.82/-14.4	-17.18/-19.07	-18.01/-11.99	-11.71/-11.52
θ(120°)	-17.59/-14.27	-18.05/-19.34	-14.99/-7.17	-3.13/-1.3	-4.38/-6.63	-6.21/-5.17	-6.5/-11	-18.34/-15.13	-17.1/-11.13	-7.5/-9.36	-9.32/-4.72	-13.38/-10.62	-9.57/-8.52	-6.59/-17.68	-15.42/-11.91	-11.34/-19.12	-18.35/-19.15	
θ(130°)	-18.01/-17.68	-11.31/-9.12	-9.05/-8.2	-5.41/-5.11	-9.78/-4.04	-2.96/-3.54	-9.43/-18.14	-11.55/-7.47	-8.79/-8.08	-11.45/-8.46	-17.29/-18.85	-19.48/-8.38	-9.32/-4.85	-9.47/-7.98	-13.03/-9.71	-10.6/-12.92	-14.15/-17.77	-12.87/-13.25
θ(140°)	-13.65/-12.52	-8.26/-7.08	-7.93/-9.33	-13.71/-13.17	-7.8/-3.01	-1.87/-3.14	-4.51/-10.56	-9.48/-7.66	-7.62/-14.21	-8.89/-6.96	-9.58/-19.23	-18.31/-14.85	-7.76/-14.69	-18.02/-11.12	-10.24/-14.05	-16.59/-15.48	-19.25/-17.27	-11.49/-11.52
θ(150°)	-18.65/-13.7	-10.79/-8.07	-8.2/-7.02	-3.7/-2.27	-1.85/-1.91	-3.84/-8.09	-13.6/-10.06	-6.5/-7.35	-3.7/-10.44	-9.62/-8.81	-13.16/-18.17	-18.33/-17.54	-16.55/-13.96	-9.94/-10.86	-15.2/-11.94	-14.48/-14.93	-19.18/-19.82	
θ(160°)	-18.24/-18.25	-14.01/-9.86	-6.4/-9.2	-4.72/-5.21	-6.02/-4.44	-6.02/-5.66	-6.28/-7.03	-7.79/-11.05	-16.39/-18.17	-19.17/-18.56	-16.71/-11.04	-9.79/-9.8	-11.59/-12.33	-10.68/-8.34	-6.08/-7.09	-7.56/-5.59	-6.63/-7.71	-9.22/-9.18
θ(170°)	-16.05/-18.31	-17.81/-12.01	-8.97/-7.03	-5.97/-4.55	-3.28/-2.71	-2.64/-3.12	-3.96/-5.21	-7.58/-11.67	-16.84/-18.91	-17.99/-18.81	-17.99/-14.74	-12.66/-10.92	-7.67/-6.12	-6.46/-7.56	-7.44/-6.92	-6.83/-7.04	-7.42/-7.52	
θ(180°)	-18.38/-18.24	-18.56/-13.26	-10.98/-10.43	-9.23/-7.57	-18.36/-8.75	-9.7/-13.81	-17.31/-18.61	-18.53/-18.31	-17.1/-19.01	-17.84/-17.63	-12.78/-14.84	-14.53/-16.58	-16.41/-14.37	-13.52/-12.03	-12.78/-12.49	-12.03/-14.37	-16.46/-18.52	
Freq(Hz)	5.6GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
θ(0°)	-1.15/-1.26	-1.78/-2.73	-3.91/-5.26	-7.63/-10.44	-15.88/-16.45	-11.89/-8.37	-5.85/-4.19	-2.97/-2.25	-1.37/-1.17	-1.27/-1.77	-2.47/-3.33	-4.56/-6.3	-9.67/-14.71	-18.06/-18.09	-11.43/-7.57	-5.29/-3.65	-2.8/-2.03	-1.69/-1.72
θ(10°)	-3.11/-4.2	-5.31/-6.22	-6.89/-8.46	-11.22/-13.78	-15.17/-14.85	-11.35/-8.61	-5.64/-3.89	-3.43/-2.36	-1.12/-0.16	0.13/0.18	-0.17/-0.78	-1.43/-2.52	-4.59/-8.46	-15.13/-18.74	-12.71/-9.28	-7.25/-5.6	-4.6/-3.94	-3.39/-3.52
θ(20°)	-7.09/-8.32	-10.51/-11.72	-10.71/-10.86	-12/-10.96	-13.63/-17.93	-16.09/-9.82	-5.76/-3.76	-2.89/-2.53	-3.18/-3.78	-3.23/-3.14	-4.34/-6.21	-6.69/-6.75	-7.03/-9.07	-13/-18.91	-18.9/-16.67	-15.11/-11.11	-9.23/-8.15	-8.11/-8.82
θ(30°)	-12.26/-11.69	-16.71/-17.76	-17.91/-18.84	-18.51/-13.15	-5.17/-3.67	-3.97/-3.49	-2.56/-2.82	-3.59/-4.3	-3.57/-3.67	-2.56/-2.82	-3.59/-4.3	-5.17/-7.78	-9.35/-15.76	-18.32/-12.92	-9.59/-8.41	-13.22/-12.92	-9.59/-8.41	-10.46/-10.52
θ(40°)	-17.4/-14.94	-13.09/-16.86	-16.28/-12.09	-11.17/-9.81	-10.63/-12.85	-14.04/-8.24	-3.75/-2.66	-4.36/-6.84	-7.52/-1.28	0.21/1.19	1.1/-0.82	-3.74/-5.04	-6.46/-10.13	-14.33/-9.77	-8.13/-10.22	-13.17/-13.33	-16.62/-14.31	-17.71/-17.82
θ(50°)	-17.09/-18.18	-18.65/-18.97	-16.11/-9.73	-8.05/-7.74	-9.43/-14.62	-14.4/-7.12	-3.57/-1.84	-4.37/-9.18	-5.22/0.25	-0.01/-1.78	-1.71/-1.93	-3/-7.91	-13.43/-9.01	-7.8/-9.28	-10.4/-15.49	-16.46/-16.31	-17.32/-17.54	
θ(60°)	-6.61/-6.23	-5.98/-6.29	-5.91/-7.09	-6.58/-6.14	-3.89/-8.2	-9.12/-4.54	-3.42/-3.94	-3.39/-6.87	-4.24/-5.82	-1.43/-0.2	-2.49/-3.71	-2.89/-3.23	-4.44/-5.26	-8.88/-8.43	-8.17/-7.37	-7.38/-10.66	-18.1/-18.12	
θ(70°)	-4.42/-3.81	-2.79/-1.98	-2.03/-4.6	-7.63/-8.81	-6.61/-6.51	-5.19/-2.38	-2.05/-5.6	-3.9/-5.05	-1.36/-1.58	0.99/-0.29	-1.32/-3.26	-3.29/-1.53	-0.72/-4.52	-10.43/-8.8	-8.82/-8.36	-5.06/-3.34	-6.07/-8.61	-10.63/-10.88
θ(80°)	-2.89/-4.22	-2.98/-0.7	-0.65/-3.01	-5.01/-6.99	-5.26/-7.25	-3.8/-2.79	-0.49/-4.99	-3.62/-3.54	-3.2/0.51	0.11/-2.43	-0.5/-2.43	-5.65/-3.68	0.74/-3.71	-6.3/-6.07	-9.29/-9.12	-5.27/-4.49	-7.12/-6.99	-4.48/-4.85
θ(90°)	-1.98/-4.44	-3.56/-1.99	-1.53/-3.73	-2.84/-2.81	-5.56/-2.22	-4.31/-3.13	-0.46/-5.22	-5.28/-5	-0.46/-5.22	-5.81/-6.83	-6.76/-4.65	-6.98/-13.34	-1.47/-3.4	-5.81/-6.76	-9.98/-13.34	-		



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

Θ(160°)	-18.84/-13.9	-9.73/-6.18	-4.02/-2.53	-1.76/-2.19	-3.09/-3.37	-2.98/-3.47	-3.71/-4.64	-5.32/-6.39	-10.73/-18.85	-13.68/-12.01	-11.59/-9.71	-6.72/-6.37	-8.96/-10.83	-9.96/-6.82	-5.11/-5.03	-4.08/-4.25	-4.51/-4.23	-6.18/-6.82
Θ(170°)	-11.74/-19.36	-18.56/-13.62	-12/-9.8	-7.31/-4.82	-3.48/-3.27	-3.62/-4.39	-6.84/-10.05	-14.22/-18.99	-18.5/-19.03	-18.07/-18.39	-16.29/-14.86	-16.49/-16.36	-13.89/-10.22	-7.34/-5.25	-3.68/-3.05	-2.76/-2.59	-2.48/-2.63	-4.26/-5.6
Θ(180°)	-18.01/-18.88	-19.42/-17.93	-15.39/-13.19	-10.68/-8.41	-7.61/-8.84	-11.86/-15.94	-17.73/-18.35	-17.98/-19	-17.45/-17.35	-17.32/-18.98	-19.70/-18.45	-16.79/-18.36	-19.06/-13.19	-10.34/-8.97	-8.53/-8.46	-8.5/-8.32	-8.92/-10.47	-11.89/-11.92
Freq(Hz)	5.885GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-1.88/-1.85	-2.87/-1.454	-5.55/-7.37	-9.58/-12.67	-12.35/-15.68	-12.35/-9.95	-8.11/-6.64	-5.32/-4.47	-3.88/-3.16	-2.59/-2.75	-3.43/-4.63	-5.73/-7.05	-9.19/-13.53	-18.09/-17.03	-12.32/-9.49	-7.46/-5.94	-4.46/-3.16	-2.68/-2.68
Θ(10°)	-5.95/-6.38	-8.01/-10.71	-11.93/-11.21	-12.43/-16.6	-19.08/-19.24	-16.96/-13.71	-10.29/-7	-4.3/-2.71	-1.69/-1.04	-1.15/-1.31	-1.3/-1.99	-3.42/-8.87	-9.06/-13.48	-16.25/-14	-9.91/-7.9	-6.19/-5.21	-4.41/-4.09	-4.52/-4.85
Θ(20°)	-9.59/-11.95	-14.99/-17.47	-19.02/-14.82	-15.44/-16.63	-13.34/-10.8	-10.07/-9.37	-7.68/-4.69	-3.19/-1.83	-0.97/-1.08	-1.65/-1.71	-1.63/-1.91	-3.08/-5.33	-8.05/-10.78	-16.33/-18.28	-13.91/-9.47	-8.22/-7.94	-8.49/-8.82	-8.68/-8.69
Θ(30°)	-17.44/-18.87	-18.22/-16.48	-14.64/-15.92	-17.14/-13.16	-8.79/-7.08	-5.8/-4.27	-2.87/-2.04	-2.58/-3.46	-4.98/-8.88	-6.49/-5.18	-4.94/-3.86	-4.81/-6.51	-7.58/-8.74	-8.55/-8.59	-10.42/-14.74	-14.82/-10.31	-9.68/-11.25	-13.03/-13.55
Θ(40°)	-10.04/-9.62	-14.55/-17.87	-17.98/-14.16	-12.22/-10.51	-10.67/-10.94	-6.7/-2.85	-1.49/-0.83	-0.61/-2.84	-6.34/-4.26	-0.490.63	0.87/0.68	-3.59/-5.83	-7.96/-8.98	-5.33/-3.16	-4.12/-8.48	-12.53/-13.28	-13.28/-12.2	-14.3/-14.68
Θ(50°)	-10.56/-7.2	-7.77/-7.78	-10.05/-13.58	-8.88/-9.55	-8.19/-6.71	-6.42/-3.69	-2.68/-2.21	-0.28/-3.88	-6.52/0.86	2.41/2.89	0.3/-1.67	-1.31/-0.98	-2.64/-7.46	-6.62/-3.43	-5.21/-9.71	-17.5/-19.1	-18.65/-18	-15.47/-15.65
Θ(60°)	-5.16/-5.01	-3.63/-3.23	-4.82/-8.65	-10.44/-7.8	-5.18/-4.45	-6.66/-5.41	-0.41/-4.23	-0.93/-2.27	-1.48/-0.71	-1.87/-2.14	-1.90/5.2	-1.87/-2.14	-2.62/-6.17	-12.77/-3.81	-4.8/-11.75	-15.82/-10.64	-9.3/-13.94	-7.49/-8.66
Θ(70°)	-5.79/-5.08	-2.38/-1.86	-3.42/-8.35	-10.66/-8.99	-4.95/-3.03	-4.94/-3.4	-2.03/-2.73	-1.57/-5.1	-3.98/-1.11	1.5/-0.88	-0.35/-0.4	-1.89/-1.87	-1.28/-4.72	-10.21/-5.78	-7.63/-8.48	-8.52/-6.98	-6.73/-6.57	-4.42/-4.56
Θ(80°)	-8.75/-5.52	-2.02/-1.64	-3.5/-6.45	-10.71/-9.39	-4.92/-1.93	-1.38/-2.12	-0.2/-1.6	-2.91/-1.75	-2.15/0.76	1.67/-1.96	-1.17/-1.26	-1.93/-0.91	0.9/-3.76	-6.89/-7.7	-9.94/-7.03	-6.79/-4.23	-6.62/-5.97	-5.27/-5.85
Θ(90°)	-12.62/-6.52	-1.73/-0.68	-2.69/-6.27	-9.29/-7.65	-1.99/-0.09	-1.88/-4.31	1.070.71	-8.72/-2.27	-0.12/-4.52	-0.23/0.57	-2.21/-3.67	0.96/-5.38	-3.16/-10.14	-19.74/-9.53	-6.4/-6.11	-4.85/-1.69	-4.59/-10.85	
Θ(100°)	-6.69/-4.8	-2.85/-1.7	-3.57/-6.48	-4.48/-0.55	1.37/-0.1	-1.14/-0.59	1.24/-0.91	-15.31/-10.32	-11.76/-4.47	-3.1/-15.06	-2.36/-1.22	-3.12/-5.53	-1.22/-8.29	-3.75/-12.97	-7.09/-6.81	-5.04/-5.94	-3.50/0.2	-2.59/-2.88
Θ(110°)	-3.52/-0.71	-0.19/-0.26	0.770.54	-0.09/-0.37	0.67/-2.72	-1.49/-1.95	-2.9/-1.68	-4.27/-7.2	-7/-12.75	-4.82/-13.75	-18.27/-17.87	-12.12/-11.46	-10.97/-8.64	-8.77/-11.34	-0.61/-3.38	-1.92/-1.93		
Θ(120°)	0.38/-1.89	0.86/-0.48	-1.13/-5.67	-6.24/-2.01	-0.98/-0.29	-4.41/-2.93	-0.77/-1.1	-13.27/-16.79	-8.22/-13.75	-12.12/-11.46	-10.97/-8.64	-8.77/-11.34	-0.61/-3.38	-1.92/-1.93				
Θ(130°)	2.55/2.08	2.11/-1.25	-0.190.15	1.41/-1.91	0.05/-3.46	4.47/-1.58	-1.96/-5.16	-9.68/-11.66	-10.64/-14.7	-18.18/-16.01	-10.79/-18.7	-10.5/-9.84	-7.35/-8.87	-8.24/-11.62	-12.99/-11.07	-9.31/-6.15	-1.61/-1.81	0.72/0.24
Θ(140°)	0.22/0.37	0.87/-1.32	1.892/-1.6	1.82/0.67	-2.1/-8.35	-19.12/-11.89	-10.99/-10.75	-12.12/-14.4	-15.26/-14.23	-15.99/-18.01	-11.82/-16.64	-10.02/-6.98	-18.69/-18.87	-13.61/-18.84	-17.95/-8.88	-15.37/-10.1	-8.87/-7.36	-3.26/-3.52
Θ(150°)	-1.44/-1.01	-0.18/-0.18	0.40/8.8	-0.07/-2.07	-6.08/-13.43	-14.51/-6.11	-11.93/-12.38	-18.26/-13.78	-14.51/-6.28	-6.16/-11.77	-16.42/-10.96	-11.87/-17.57	-18.35/-16.43	-12.92/-8.96	-6.65/-15.79	-9.58/-7.6		
Θ(160°)	0.33/-1.12	-1.97/-2.73	-4.72/-6.17	-6.97/-9.5	-10.69/-8.11	-8.85/-5.75	-9.06/-14.18	-17.28/-11.52	-8.76/-10.47	-15.48/-13.66	-9.74/-7.98	-9.33/-15.78	-19.15/-17.58	-14.31/-18.18	-17.77/-11	-5.79/-3.31	-2.01/-0.45	0.84/0.78
Θ(170°)	-2.43/-5.65	-4.47/-2.33	-4.96/-5.93	-6.07/-4.55	-6.27/-9.64	-12.87/-15.61	-15.64/-18.88	-18.31/-18.62	-18.76/-18.69	-18.87/-18.09	-15.41/-13.35	-13.01/-12.4	-11.66/-11.79	-14.66/-16.99	-12.37/-9.86	-9.06/-8.2	-7.34/-5.91	-3.69/-3.99
Θ(180°)	-8/-7.22	-7.15/-7.92	-9.88/-10.07	-11.16/-14.38	-17.28/-18.96	-18.83/-17.7	-19.98/-18.5	-18.88/-18.03	-19.88/-18.56	-18.61/-17.92	-18.66/-18.78	-16.31/-14.41	-13.76/-12.69	-13.02/-13.45	-14.05/-17.69	-19.08/-19	-17.52/-13.12	-10.66/-11.12
Freq(Hz)	5.6GPol.	PhiAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-17.95/-18.3	-18.63/-13.09	-12.41/-8.44	-6.83/-7.88	-6.88/-6.06	-6.67/-7.81	-8.04/-8.89	-13.66/-18.4	-18.95/-17.92	-16.63/-13.08	-6.69/-6.2	-6.31/-7.49	-8.47/-8.73	-16.43/-12.54				
Θ(10°)	-18.2/-18.12	-19.35/-18.78	-17.48/-13.08	-11.2/-10.74	-9.64/-8.74	-9.63/-10.01	-11.8/-12.78	-12.77/-13.02	-12.19/-13.23	-18.1/-18.21	-17.7/-19.12	-11.26/-7.49	-7.36/-8.28	-7.62/-6.75	-7.06/-7.56	-8.59/-10.86	-12.7/-13.8	-14.41/-15.85
Θ(20°)	-16.07/-18.77	-16.81/-13.42	-10.16/-13.63	-17.75/-12.17	-10.42/-11.27	-15.73/-15.47	-12.29/-12.11	-11.27/-9.56	-9.24/-9.82	-11.3/-15.36	-18.29/-19.24	-17.87/-15.25	-12.07/-10.85	-8.73/-8.09	-8.74/-8.8	-13.87/-18.46	-18.99/-18.74	-17.92/-17.81
Θ(30°)	-14.71/-17.91	-17.49/-17.28	-17.17/-18.09	-18.66/-16.79	-15.71/-17.09	-19.01/-18.19	-16.04/-14.36	-13.49/-16.28	-15.12/-16.12	-15.52/-16.6	-18.55/-12.29	-9.27/-8.81	-15.53/-14.91	-13.61/-13.67				
Θ(40°)	-14.09/-15.81	-18.18/-19.18	-18.83/-15.64	-13.09/-12.89	-15.33/-16.31	-12.35/-18.89	-18.96/-18.73	-18.62/-19.05	-18.37/-18.93	-17.73/-18	-17.57/-14.58	-15.72/-18.98	-17.89/-16.64	-10.25/-9.35	-12.1/-17.39	-18.36/-18.24	-15.81/-13.84	-12.39/-13.08
Θ(50°)	-18.93/-18.96	-18.46/-17.16	-12.85/-8.13	-7.11/-9.55	-11.77/-13.45	-18.25/-16.46	-19.33/-17.95	-14.64/-15.36	-15.01/-19.27	-17.87/-18.78	-17.91/-18.5	-16.09/-14.4	-11.9/-51	-11.41/-17.2	-18.26/-18.25	-17.74/-18.48	-19.78/-19.92	
Θ(60°)	-7.4/-7.98	-14.58/-15.13	-16.2/-7.6	-5.88/-9.35	-14.93/-12.96	-17.91/-16.71	-16.34/-17.63	-16.56/-15.34	-18.81/-19.21	-11.07/-7.84	-18.18/-19.21	-17.61/-16.94	-18.18/-19.15	-14.88/-10.33	-8.09/-8.25			
Θ(70°)	-7.25/-10.06	-9.38/-12.5	-14.94/-15.01	-9.6/-8.83	-14.17/-11.12	-17.61/-18.74	-14.07/-15.05	-19.01/-17.9	-18.63/-18.35	-18.39/-15.87	-16.69/-18.04	-18.3/-18.76	-12.51/-19	-13.92/-14.76	-15.63/-15.07	-13.32/-16.09	-12.71/-7.08	-5.6/-5.79
Θ(80°)	-10.01/-10.15	-9.61/-16.12	-18.73/-18.58	-13.55/-10.2	-18.87/-10.91	-13.2/-18.55	-14.62/-15.4	-18.35/-18.3	-19.2/-18.13	-19.28/-14.29	-15.2/-17.4	-18.24/-16.27	-11.04/-17.76	-14.06/-17.7	-17.52/-10.23	-15.99/-18.53	-9.95/-6.2	-7.19/-8.08
Θ(90°)	-15.97/-11.57	-13.6/-18.26	-17.92/-15.45	-13.52/-18.87	-18.27/-12.06	-16.35/-16.09	-18.52/-18.59	-19.1/-18.95	-15.52/-17.29	-14.48/-18.82	-16.73/-15.82	-15.41/-18.45	-17.23/-18.26	-14.15/-10.34	-14.47/-8.73	-8.23/-10.43	-15.49/-3.99	
Θ(100°)	-16.21/-14.2	-18.3/-17.54	-14.8/-14.93	-11.32/-13.72	-18.16/-19.06	-13.22/-14.27	-18.16/-18.52	-15.08/-14.08	-16.44/-19.04	-16.57/-15.34	-18.96/-18.5	-14.49/-18.53	-11.55/-11.55	-6.99/-6.94	-9.91/-18.08	-17.51/-18.08		
Θ(110°)	-19.18/-15.47	-11.27/-14.32	-17.93/-17.1	-18.92/-18	-18.53/-18.17	-18.17/-17.08	-15.71/-15.87	-18.94/-17.93	-14.66/-13.85	-18.21/-18.26	-14.24/-17.94	-14.14/-11.14	-15.49/-18.33	-15.91/-10.72	-12.47/-13.38	-8.22/-10.04	-15.23/-17.82	-18.3/-18.1
Θ(120°)	-16.84/-9.58	-13.26/-14.06	-11.14/-14.15	-13.73/-10.64	-18.77/-18.08	-18.32/-13.54	-14.5/-14.77	-18.78/-16.12	-18.89/-11.49	-18.16/-18.43	-15.17/-18.35	-14.87/-11.05	-13.52/-12.67	-18.1/-17.61	-7.71/-14.3	-11.09/-6.99	-10.98/-16.37	-17.13/-18.08
Θ(130°)	-12.72/-12.41	-16.15/-13.25	-8.05/-10.7	-13.07/-8.05	-18.86/-17.97	-18.13/-18.07	-19.01/-18.05	-16.41/-17.22	-18.86/-18.71	-17.93/-19	-19.09/-16.95	-17.13/-17.44	-19.5/-15.35	-8.45/-12.06	-12.51/-7.37	-13.74/-12.74	-19.19/-19.12	
Θ(140°)	-18.14/-13.38	-13.05/-17.55	-18.99/-12.61	-13.76/-12.54	-18.38/-12.73	-9.99/-14.15	-17.63/-18.91	-18.39/-18.38	-17.31/-16.48	-15.7/-15.64	-18.48/-11.06	-15.19/-10.59	-17.92/-14.26	-18.28/-17.39	-10.04/-9.36	-8.65/-16.28	-5.25/-15.33	-9.64/-9.85
Θ(150°)	-17.69/-17.79	-17.83/-14.86	-17.38/-12.59	-11.03/-11.85	-14.07/-18.12	-9.78/-12.81	-10.71/-13.15	-15.58/-16.63	-17.46/-17.03	-16.61/-17.06	-18.9/-18.92	-16.59/-14.34	-13.46/-14.52	-14.69/-18.92	-10.19/-9.66	-19.1/-12.16	-18.98/-10.59	-12.25/-13.85
Θ(160°)	-18.73/-18.8	-18.19/-16.41	-18.53/-17.56	-17.13/-17.85	-18.85/-13.5	-9.45/-12.81	-7.05/-7.62	-8.22/-9.55	-18.64/-18.79	-18.78/-17.65	-18.17/-17.33	-16.93/-14.61	-15.61/-18.67	-16.74/-18.8	-18.08/-19.28	-17.87/-18.36	-17.26/-18.15	
Θ(170°)	-17.31/-18.93	-14.53/-12.18	-13.25/-16.6	-11.29/-8.57	-8.33/-9.84	-8.9/-8.1	-7.88/-8.26	-10.11/-11.71	-11.62/-11.54	-13.84/-17.71	-18.14/-18.18	-14.77/-10.18	-8.05/-7.72	-8.51/-9.1	-9.03/-9.23	-9.05/-8.3	-8.27/-8.41	-13.23/-13.85
Θ(180°)	-18.6/-19.06	-15.2/-13.33	-17.07/-16.05	-12.93/-10.95	-10.18/-11.84	-9.62/-7.87	-6.99/-6.71	-7.5/-8.63	-10.1/-11.03	-13.43/-18.06	-17.87/-18.03	-17.34/-13.83	-12.81/-14.19	-19.23/-18.12	-18.42/-15.49	-13.11/-13.32	-14.62/-16.59	-13.87/-13.98
Freq(Hz)	5.6GPol.	ThetaAnt. 3	-	-	-	-												



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

Θ(50°)	-14.06/-9	-16.46/-16.25	-11.97/-8.21	-8.78/-15.63	-11.43/-11.63	-18.08/-15.84	-12.81/-18.01	-18.17/-19.41	-16.35/-17.4	-16.65/-15.58	-18.06/-18.33	-19.04/-17.73	-14.82/-18.64	-19.18/-13.88	-10.71/-15.26	-19.01/-17.03	-16.2/-18.28	-16.08/-16.25
Θ(60°)	-10.26/-9.31	-10.53/-13.66	-12.52/-6.68	-5.91/-12.61	-12.09/-9.26	-14.76/-17.35	-18.41/-18.02	-17.73/-14.9	-15.52/-17.19	-17.44/-18.08	-18.88/-19.14	-18.38/-18.41	-18.53/-18.6	-18.55/-13.91	-11.71/-16.51	-18.65/-17.16	-19.05/-18.12	-14.37/-14.85
Θ(70°)	-6.94/-5.57	-7.03/-12.06	-15.12/-15.58	-8.61/-13.2	-18.37/-11.8	-12.28/-18.94	-18.65/-16.1	-18.92/-15.24	-13.93/-18.33	-17.93/-17.43	-18.86/-18.06	-19.26/-18.09	-17.16/-18.98	-16.86/-19.55	-13.81/-14.73	-11.08/-13.72	-19.45/-18.62	-16.47/-16.76
Θ(80°)	-8.99/-6.9	-6.99/-14.85	-12.14/-13.41	-14.35/-18.07	-15.9/-17.72	-18.58/-15.55	-18.96/-19.57	-18.08/-14.57	-13.82/-17.76	-19.36/-17.76	-14.99/-14.61	-14.77/-18.95	-13.83/-15.68	-19.2/-15.47	-13.84/-12.38	-9.33/-15.55	-16.58/-13.83	-11.42/-12.85
Θ(90°)	-18.1/-17.3	-19.06/-13.97	-11.2/-11.54	-17.44/-18.6	-17.18/-18.32	-19.71/-16.46	-18.02/-18.54	-18.31/-15.66	-13.46/-19.12	-19.19/-17.41	-18.72/-14.49	-13.32/-17.83	-19.42/-17.04	-15.37/-12.75	-18.58/-10.72	-8.42/-8.66	-11.08/-13.91	-17.04/-3.12
Θ(100°)	-15.24/-17.79	-13.22/-12.07	-19.29/-14.33	-14.14/-12.49	-19.23/-19.06	-17.25/-19.33	-19.09/-18.61	-18.04/-14	-12.41/-14.24	-17.66/-19.49	-14.65/-16.74	-17.16/-15.39	-19.26/-17.51	-16.71/-15.59	-11.37/-15.59	-10.7/-9.75	-11.75/-19.06	-17.25/-12.56
Θ(110°)	-11.29/-10.91	-13.39/-13.54	-16.41/-11	-12.21/-18	-19.28/-17.9	-12.42/-14.22	-17.57/-18.32	-19.41/-15.64	-17.83/-17.22	-17.38/-12.8	-9.7/-18.5	-16.79/-15.04	-18.17/-19.06	-19.48/-13.22	-12.86/-12.86	-18.32/-14.23	-19.41/-18.15	-17.06/-18.12
Θ(120°)	-12.96/-9.75	-15.58/-17.71	-13.22/-18.27	-16.72/-12.07	-18.12/-18.55	-13.69/-10.7	-16.24/-19.05	-18.43/-17.55	-17.68/-17.74	-18.22/-19.21	-13.6/-18.8	-12.61/-17.39	-18.74/-10.31	-18.28/-14.14	-9.05/-17.95	-16.31/-8.39	-12.82/-11.56	-13.53/-14.85
Θ(130°)	-15.36/-18.79	-15.52/-11.19	-7.02/-12.08	-11.83/-10.44	-12.23/-15.54	-17.64/-18.52	-18.88/-14.21	-17.98/-15.48	-19.28/-14.07	-18.61/-18.46	-8.92/-15.65	-14.45/-18.35	-7.9/-18.63	-18.47/-17.37	-8.92/-15.65	-15.88/-8.58	-8.81/-11.28	-19.02/-19.54
Θ(140°)	-13.96/-10.98	-18.66/-18.98	-16.38/-7.61	-14.23/-13.14	-11.43/-11	-11.94/-18.29	-10.01/-10.11	-9.42/-15.28	-19.2/-15.43	-19.05/-17.77	-16.37/-11.82	-12.22/-13.24	-16.3/-16.25	-15.69/-14.24	-17.56/-8.31	-11.45/-15.77	-4.92/-13.39	-7.97/-8.11
Θ(150°)	-16.92/-12.54	-18.8/-17.55	-18.6/-15.16	-11/-11.81	-10.47/-13.42	-18.93/-18.46	-18.28/-17.89	-19.09/-16.46	-19.06/-17.44	-17/-15.32	-18.7/-19.13	-16.2/-12.46	-10.94/-19.1	-16.92/-18.17	-15.12/-7.33	-17.61/-10.99	-15.76/-14.78	-16.97/-15.87
Θ(160°)	-19.32/-18.16	-17.45/-18.33	-17.65/-17.82	-18.38/-19.15	-14.74/-13.83	-11.54/-8.18	-7.78/-8.39	-8.66/-8.59	-9.05/-11.9	-17.36/-17.8	-18.06/-17.84	-11.95/-10.23	-9.94/-11.63	-17.8/-18.9	-16.9/-17.66	-15.93/-15.47	-17.57/-13.47	-15.95/-16.85
Θ(170°)	-17.11/-16.78	-13.59/-18.01	-19.05/-17.9	-13.42/-11.84	-10.71/-8.98	-8.56/-8.03	-7.58/-8.23	-9.28/-8.88	-9.58/-12.78	-15.31/-18.87	-18.57/-14.68	-10.98/-8.34	-6.47/-5.87	-6.4/-8.13	-9.6/-10.01	-9.79/-9.53	-10.44/-11.76	-17.44/-18.64
Θ(180°)	-18.28/-19.06	-17.8/-14.44	-13.54/-15	-12.08/-10.1	-8.92/-9.34	-7.56/-6.2	-5.44/-6.19	-6.97/-8.16	-9.71/-12.11	-15.17/-19.09	-18/-17.37	-15.64/-12.1	-11.36/-13.22	-15.96/-18.11	-15.32/-13.52	-11.88/-10.42	-10.53/-13.4	-14.4/-15.85
Freq(Hz)	5.885GPol.	ThetaAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-14.51/-13.16	-12.81/-14.16	-13.77/-13.9	-13.17/-13.9	-15.44/-17.82	-18.24/-18.15	-18.38/-18.16	-15.79/-15.55	-15.1/-15.11	-12.86/-14.04	-15.26/-16.09	-16.24/-16.2	-16.7/-18.47	-19.17/-17.72	-18.9/-18.09	-14.94/-14.22	-13.62/-13.85	
Θ(10°)	-18.07/-17.94	-18.74/-17.9	-17.85/-18.17	-18.09/-17.5	-17.68/-18	-16.9/-12.66	-10.92/-9.16	-7.97/-7.28	-8.02/-7.53	-11.13/-12.38	-13.99/-17.18	-19/-18.21	-7.1/-7.24	-7.54/-9.59	-19.13/-12.38	-16.93/-15.47	-17.84/-18.12	
Θ(20°)	-14.38/-15.88	-14/-13.44	-12.54/-10.4	-9.97/-10.01	-9.79/-10.03	-8.9/-7.62	-5.24/-3.45	-3/-3.33	-3.77/-4.41	-4.87/-5.73	-6.32/-7.2	-6.99/-5.3	-4.9/-5.49	-7.41/-9.24	-9.16/-7.77	-7.03/-7.22	-7.97/-8.26	-10.86/-11.52
Θ(30°)	-11.11/-14.24	-14.53/-15.1	-11.07/-9.16	-8.79/-9	-6.24/-3.5	-3.51/-4.04	-2.5/-1.66	-2.32/-3.66	-4.17/-3.6	-3.24/-4.59	-6.44/-7	-7.25/-6.5	-2.82/-0.51	-0.94/-4.22	-6.57/-6.41	-5.16/-4.7	-5.55/-6.54	-7.54/-8.52
Θ(40°)	-4.87/-8.46	-17.81/-18.86	-18.18/-12.53	-10.3/-11.51	-7.36/-3.78	-3.11/-2.93	-2.49/-2.48	-1.41/-1.94	-2.96/-1.67	-1.41/-1.94	-2.96/-1.67	-3.23/-0.91	-2.72/-2.41	-3.96/-2.68	-2.57/-2.72	-4.24/-4.95	-3.96/-4.85	
Θ(50°)	-4.61/-6.35	-7.86/-8.55	-12.57/-16.1	-8.01/-5.08	-6/-6.83	-3.3/-3.95	-1.42/-1.44	-1.270.23	0.71/-0.37	-1.7/-2.54	-2.79/-1.83	-2.12/-3.63	-5.07/-1.21	-0.11/-3.17	-4.44/-2.02	-2.79/-3.42	-2.03/-0.28	-0.39/-0.85
Θ(60°)	-5.37/-6.66	-14.6/-9.77	-10.16/-9.28	-8.56/-2.95	-3.71/-3.51	-2.23/-3.39	-0.91/-0.65	-0.470.74	0.870.24	-0.97/-0.76	-1.31/-0.94	-2.74/-2.54	-2.42/-2.47	-2.35/-3.95	-4.88/-3.87	-7.7/-5.61	-2.14/-1.89	-1.28/-2.31
Θ(70°)	-2.08/-9.96	-18.54/-12.49	-13.37/-7.31	-6.49/-4.51	-2.87/-4.02	-2.34/-7.27	-2.04/-1.18	-0.93/-0.86	-0.86/-0.2	-1.54/-1.65	-0.94/-1.14	-3.62/-1.31	0.82/-2.29	0.23/-1.02	-4.06/-5.18	-6.88/-2.56	-1.47/-2.1	-0.32/-0.65
Θ(80°)	1.44/-14.5	-11.26/-5.21	-9.73/-12.35	-3.97/-3.67	-2.14/-1.38	-0.57/-4.48	-1.64/-0.06	-0.14/-0.02	0.21/-1.02	-1.69/-1.35	-0.52/-0.81	-2.8/-1.43	1.18/-0.61	0.79/-1.87	-1.92/-2.06	-4.88/-0.62	-1.73/-1.41	0.570.37
Θ(90°)	3.79/-4.9	-4.58/-2.84	-10.73/-15.85	-6.51/-4.31	-4.79/-2.71	-3.41/-4.76	-1.93/-0.69	0.040.3	-0.120.35	-1.53/-1.03	0.9/-0.78	-0.240.24	2.132.38	1.58/-0.2	-1.93/-1.2	-0.54/-0.98	-3.64/-1.01	0.982.86
Θ(100°)	2.71/-7.06	-6.03/-0.75	-10/-12.3	-8.06/-4.16	-7.93/-1.8	-2.67/-2.63	-2.84/-2.71	-1.150.03	-0.56/-0.9	-1.35/-1.53	1.280.49	-2.34/-2.17	1.981.75	0.41/-1.64	-0.97/-0.65	-1.29/-4.92	-1.49/-1.7	-0.76/-1.23
Θ(110°)	0.45/-19.17	-10.95/-5.13	-10.79/-9.38	-13.93/-5.95	-5.13/-1.27	-2.330.19	-3.99/-1.88	-2.330.19	-1.81/-0.11	-1.72/-1.35	-1.28/-0.56	-1.68/-2.66	-0.93/-0.72	-2.320.16	-1.024/-2.91	-7.93/-6.1	-17.68/-18.25	
Θ(120°)	-3.93/-10.61	-8.47/-15.08	-14.84/-19.02	-10.89/-10.82	-10.63/-6.36	-8.86/-5.77	-6.65/-4.51	-3.58/-0.61	-2/-0.04	-0.25/-1.41	1.91.5	-3.33/-2.92	0.88/-0.92	-6.55/-4.42	-5.31/-0.12	-5.27/-0.73	-6.13/-6.79	-19.07/-19.12
Θ(130°)	-1.94/-10.73	-12.52/-6.85	-11.98/-18.09	-15.84/-18.97	-6.72/-7.07	-9.49/-8	-9.2/-6.99	-6.46/-2.56	-1.09/-2.34	-1.11/-2.1	1.450.1	-5.19/-2.1	-2.30.21	0.54/-5.67	-1.472.3	-4/-4.66	-6.07/-7.63	-10.95/-10.98
Θ(140°)	-6.24/-4.12	-4.4/-5.79	-10.35/-15.87	-10.95/-19.05	-8.63/-8.56	-8.79/-6.69	-0.69/-2.43	-6.22/-5.1	-5.04/-1.25	-1.17/-2.88	-0.86/-2.5	-1.12/-8.67	-3.77/-3.9	-6.86/-0.34	-4.99/-11.35	-14.81/-6.7	-12.63/-13.08	
Θ(150°)	-9.53/-8.82	-17.22/-15.91	-18.89/-18.84	-19.19/-17.63	-10.74/-12.59	-13.32/-10.7	-9.26/-0.78	-6.52/-7.56	-6.92/-8.83	-12.38/-6.54	-4.2/-6.24	-6.61/-6.01	-5.01/-4.62	-7.87/-12.78	-7.11/-4.09	-3.63/-9.44	-17.88/-8.28	-7.82/-8.08
Θ(160°)	-18.77/-19.17	-17.9/-18.08	-18.28/-17.42	-18.68/-16.97	-13.55/-14.14	-13.99/-12.19	-11.29/-8.35	-5.69/-4.22	-4.24/-5.07	-5.59/-5.86	-6.24/-6.27	-6.13/-5.84	-6.15/-7.66	-11.29/-17.04	-13.79/-8.54	-8.81/-13.32	-13.21/-15.08	-13.78/-15.08
Θ(170°)	-13.67/-18.34	-18.87/-14.04	-14.38/-14.65	-16.37/-16.95	-17.23/-8.56	-17.16/-13.2	-5.46/-5.28	-7.53/-8.58	-8.82/-8.67	-5.42/-6.06	-7.53/-8.58	-14.62/-6.12	-9.51/-10.26	-12.11/-13.47	-15.41/-13.48	-14.05/-13.44	-11.76/-12.56	
Θ(180°)	-11.2/-10.04	-8.57/-9	-10/-9.77	-8.67/-10.43	-13.28/-15.66	-19/-17.25	-18.56/-18.34	-13.4/-11.16	-9.37/-7.36	-8.81/-6.77	-6.39/-5.92	-6.87/-8.11	-9.25/-10.87	-12.33/-13.82	-15.42/-19.31	-19.18/-17.67	-18.11/-13.11	-13.73/-14.85
Freq(Hz)	5.6GPol.	PhiAnt. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-18.82/-12.77	-7.71/-3.5	-2.24/-0.72	0.21/-1.12	1.57/-1.7	1.470.85	-0.11/-1.18	-2.52/-4.52	-7.86/-14.76	-18.41/-11.62	-6.33/-3.55	-1.72/-0.25	0.83/-1.4	1.82/-1.9	1.93/-1.62	1.01/-0.13	-1.61/-4.09	-7.57/-7.65
Θ(10°)	-14.43/-10.6	-6.12/-3.04	-0.880.68	1.542.34	2.862.72	2.462.21	1.560.55	-1.23/-3.72	-7.37/-14.82	-17.47/-10.68	-6.95/-5.16	-3.71/-2.84	-1.99/-1.74	-1.47/-1.76	-1.52/-1.88	-2.3/-3.02	-4.03/-5.67	-7.42/-7.54
Θ(20°)	-15.24/-13.42	-6.43/-2.6	-2.571.88	2.922.85	2.571.88	0.960.59	0.564/-5.38	-10.42/-17.75	-17.71/-15.2	-11.46/-7.55	-5.15/-3.29	-2.56/-3.46	-4.38/-5.44	-1.91/-2.04	-2.56/-3.46	-7.6/-8.9	-9.17/-9.52	
Θ(30°)	-12.77/-14.43	-7.63/-2.73	0.011.63	2.331.76	0.830.31	0.320.35	0.15/-1.08	-3.94/-7.03	-12.55/-18.48	-17.93/-18.11	-11.79/-10.5	-11.57/-11.72	-9.67/-9.9	-11.48/-12.5	-13.96/-16.33	-17.8/-17.75	-13.09/-9.95	-10.53/-10.85
Θ(40°)	-11.55/-13.21	-12.32/-5.69	-0.87/-1.41	1.520.73	0.490.18	0.12/-0.51	-1.75/-3.01	-4.81/-8.19	-12.46/-13.34	-17.84/-17.66	-18.02/-11.76	-7.96/-6.49	-5.54/-5.4	-5.18/-5.07	-5.67/-4.99	-4.81/-7.06	-11.79/-13.93	-16.48/-17.12
Θ(50°)	-13.3/-10.69	-13.4/-12.4	-5.48/-1.27	-0.811.33	0.870.78	1.57/-6.87	-5.68/-6.59	-12.01/-6.47	-3.29/-2.16	-11.86/-17.98	-12.01/-6.47	-3.32/-1.62	-1.39/-1.17	-3.13/-4.22	-3.22/-3.66	-2.99/-3.02	-4.81/-8.98	-16.41/-16.85
Θ(60°)	-17.55/-8.21	-6.37/-7.89	-15.42/-8.33	-1.490.98	1.761.55	1.751.67	0.21/-2.93	-5.2/-4.04	-3.37/-6.04	-17.79/-12.75	-3.74/-1.34	-0.08/-0.58	-0.29/-0.48	-1.61/-2.59	-1.85/-1.04	-0.79/-1.97	-2.15/-5.47	-8.18/-8.25
Θ(70°)	-13.1/-6.29	-3.74/-2.82	-5.82/-10.61	-3.98/-0.85	-0.110.73	1.261.62	0.45/-3.34	-4.84/-2.86	-2.7/-4.8	-12.94/-10.6	-3.05/-0.3	-0.65/-0.9	0.120.8	-0.2/-0.6	0.11/-36	1.01/-2.15	-2.15/-4.8	-7.45/-8.12
Θ(80°)	-16.74/-8.51	-5.71/-3.07	-2.57/-4.21	-3.1														



Radiated Composite Gain Data of 5GHz UNII 2C~4 Mode 2

Appendix C

Θ(150°)	-15.94/-17.56	-16.82/-16.74	-13.17/-17.13	-18.78/-17.11	-19/-19.12	-14.22/-11.6	-16.59/-17.17	-11.69/-12.6	-12.51/-15.54	-19.03/-15.95	-18.05/-17.28	-16.78/-8.05	-11.7/-14.61	-14.64/-18.81	-15.52/-16.81	-13.09/-15.94	-17.99/-18.26	-12.01/-12.12
Θ(160°)	-17.82/-16.46	-11.52/-12.07	-10.14/-9.01	-10.26/-14.28	-19.26/-15.05	-12.64/-12.11	-15.76/-14.72	-13.2/-14.11	-17.13/-18.11	-17.88/-18.32	-16.59/-18.74	-18.04/-17.92	-10.8/-8.05	-9.67/-15.82	-17.79/-18.49	-14.2/-11.69	-13.29/-14.3	-12.99/-13.12
Θ(170°)	-19.08/-12.86	-9.13/-9.15	-8.98/-8.03	-9.3/-12.1	-17.85/-17.45	-19.23/-18.28	-17.77/-13.89	-12.65/-11.47	-10.43/-10.33	-10.19/-11.41	-13.04/-15.64	-16.6/-15.97	-15.57/-15.64	-17.98/-18.95	-14.54/-14.67	-17.67/-18.6	-18.69/-16.97	-18.95/-19.12
Θ(180°)	-18.07/-18.25	-19.31/-19.09	-18.83/-18.26	-19.03/-19.12	-15.53/-16.2	-18.05/-17.96	-16.15/-14.22	-14.03/-15.92	-15.12/-16.56	-18.16/-18.18	-18.91/-19.26	-18.84/-19.06	-18.74/-18.34	-18.34/-18.98	-18.1/-19.23	-17.26/-18.02	-18.98/-18.12	-18.63/-18.65
Freq(Hz)	5.885G/Pol.	Phi/Ant. 5	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-19.12/-15.59	-8.26/-3.88	-1.68/0.11	1.3/2.12	2.69/2.71	2.88/2.7	2.24/1.45	0.38/-1.23	-3.82/-7.63	-15.58/-15.45	-7.45/-3.4	-1.05/0.53	1.59/2.39	2.94/3.1	3.06/2.72	2.07/1.08	-0.4/-2.3	-5.06/-5.78
Θ(10°)	-15.7/-13.66	-6.94/-3.4	-1.46/0.33	1.18/1.94	2.27/2.19	2.35/2.22	1.96/1.25	0.11/-1.75	-4.19/-7.74	-14.06/-17.65	-9.7/-5.15	-2.94/-1.41	-0.56/0.07	0.37/0.44	0.30/1.1	-0.45/-1.13	-2.38/-3.71	-5.6/-5.75
Θ(20°)	-13.72/-14.91	-8.48/-3.93	-1.4/0.46	1.57/2.03	2.38/2.79	2.96/2.72	2.37/1.49	0.52/-0.77	-2.72/-7.16	-14.02/-15.21	-14.43/-11.76	-8.49/-6.2	-3.91/-2.08	-1.05/-1.27	-2.14/-3.68	-4.52/-5.49	-7.19/-8.93	-8.87/-8.98
Θ(30°)	-12.91/-17.59	-9.29/-3.43	-0.48/0.75	0.74/0.33	0.21/0.47	1/1.49	1.71/23	0.17/-2.03	-4.96/-8.91	-11.36/-12.45	-18.52/-17.29	-12.64/-10.68	-10.27/-8.97	-7.52/-6.61	-7.92/-9.98	-9.84/-7.32	-6.51/-6.85	-8.25/-8.64
Θ(40°)	-8.54/-7.98	-7.65/-4.13	-0.87/0.02	-0.01/-0.82	-1.51/-0.67	0.64/1.45	0.83/-0.95	-3.87/-8.42	-11.69/-12.84	-16.36/-18.35	-17.45/-19.72	-10.34/-6.98	-6.85/-6.52	-3.48/-2.39	-3.02/-3.8	-4.91/-8.24	-12.22/-9.57	-8.11/-9.12
Θ(50°)	-7.18/-4.83	-7.03/-6.1	-2.93/-0.36	1.22/1.4	0.92/0.35	1.56/2.36	1.14/-2.3	-7.66/-11.05	-8.01/-8.85	-14.08/-19.23	-9.39/-3.89	-0.9/-13.47	-3.74/-2.83	-0.99/-0.46	-0.9/-2.16	-3.67/-7.93	-13.96/-14.52	
Θ(60°)	-7.38/-5.37	-6.38/-7.62	-8.82/-4.33	0.05/1.65	0.94/-0.35	-0.06/1.42	1.55/-1.48	-5.09/-4.69	-3.64/-4.36	-10.44/-18.96	-4.14/-0.78	0.02/-0.89	-2.07/-2.82	-2.72/-1.53	-0.03/-0.05	-0.38/-0.8	-1.37/-3.04	-9.01/-10.12
Θ(70°)	-11.7/-7.65	-7.32/-7.23	-8.67/-6.88	-1.25/0.4	-0.42/-1.2	-1.46/-0.45	0.11/-1.26	-2.43/-1.94	-3.23/-4.65	-12.59/-11.75	-1.48/0.19	1.02/0.75	0.65/0.68	-0.18/1.31	2.37/2.99	2.05/-0.4	-0.19/-2.52	-5.48/-5.97
Θ(80°)	-19.46/-17.42	-10.04/-5.76	-4.51/-3.62	-1.39/-1.08	-0.36/-0.26	-0.72/-1.07	-1.01/-1.39	-2/-2.69	-5.45/-7.6	-14.2/-13.04	-2.82/-0.92	-0.38/0.22	0.73/0.91	1.62/2.91	2.99/3.29	2.14/-1.78	-2.02/-3.52	-2.97/-3.15
Θ(90°)	-11.29/-13.27	-11.08/-6.86	-3.47/-1.31	0.95/0.65	1.27/0.13	-2.97/-5.05	-3.14/-1.61	-2.35/-4.91	-8.42/-10.04	-15.29/-18.89	-6.94/-5.69	-4.38/-2.66	-0.92/-0.2	1.07/2.38	2.19/2.37	1.1/-2.74	-5.13/-7.2	-4.86/-7.68
Θ(100°)	-11.59/-14.53	-12.8/-7.9	-3.21/-0.59	1.75/0.75	1.07/-1.04	-1.84/-2.94	-2.95/-3.61	-3.9/-6.2	-8.28/-14.27	-19.17/-18.65	-17.91/-18.73	-9.53/-5.24	-2.49/-1.4	-0.91/0.51	-0.3/-1.21	-3.07/-5.44	-4.8/-7.45	-5.62/-6.84
Θ(110°)	-9.19/-7.55	-10.86/-6.82	-2.33/-1.02	-1.59/-7.59	-11.21/-10.14	-6.89/-3.13	0.01/-2.44	-6.16/-16.17	-18.38/-17.61	-18.94/-19.02	-18.14/-7.75	-5.27/-6.92	-4.67/-0.49	-3.68/-6.07	-7.1/-6.66	-7.38/-12.11	-12.99/-13.54	
Θ(120°)	-10.64/-11.58	-13.68/-7.82	-4.31/-1.47	-0.61/-2.22	-5.88/-8.41	-7.92/-4.74	-3.46/-4.01	-6.24/-8.63	-13.18/-19.01	-18.83/-18.11	-14.87/-17.61	-11.4/-11.27	-11.22/-11.5	-9.24/-4.88	-14.16/-11.72	-8.27/-6.01	-12.24/-12.61	-12.21/-12.84
Θ(130°)	-18/-17.74	-16.74/-17.58	-7.61/-3.12	-0.37/-0.26	-3.4/-7.07	-6.89/-6.52	-6.04/-6.77	-9.96/-18.61	-9.81/-11.23	-9.57/-18.04	-10.97/-17.48	-9.2/-12.15	-4.14/-6.74	-4.67/-5.23	-6.63/-3.23	-5.4/-11.69	-14.69/-18.29	-8.13/-8.45
Θ(140°)	-13.76/-17.61	-15.39/-17.67	-14.39/-7	-5.4/-7.83	-12.63/-14.5	-14.52/-17.68	-18.79/-15.52	-12.76/-17.47	-15.98/-14.9	-12.67/-13.1	-18.91/-10.17	-8.04/-13.56	-12.5/-17.85	-8.81/-13.45	-6.75/-11.21	-14.17/-16.71	-12.62/-13.45	
Θ(150°)	-12.62/-12.29	-10.65/-9.58	-9.63/-11.26	-15.55/-17.46	-16.04/-14.02	-12.76/-12.45	-12.67/-15.29	-16.37/-14.61	-10.9/-9.89	-12.36/-14.57	-8.33/-9.74	-11.51/-11.8	-13.53/-6.87	-5.66/-7.05	-7.39/-10.19	-10.22/-5.94	-6.24/-6.84	-6.67/-7.54
Θ(160°)	-15.02/-10.95	-12.27/-13.74	-15.37/-17.64	-15.48/-12.29	-11.21/-10.51	-9.67/-8.43	-8.14/-9.05	-9.98/-10.14	-9.83/-9.35	-11.29/-16.77	-17.41/-13.01	-11.87/-13.97	-14.78/-10.67	-8.77/-8.52	-8.84/-9.44	-9.43/-6.93	-4.86/-5.02	-7.55/-8.11
Θ(170°)	-11.78/-13.14	-18.96/-18.67	-15.53/-13.87	-11.61/-9.76	-9.31/-8.94	-8.82/-9.3	-10.66/-13.76	-16.76/-18.3	-18.39/-17.56	-17.08/-15.52	-13.56/-12.54	-11.85/-11.39	-10.65/-10.19	-9.78/-9.77	-11.2/-13.69	-17.3/-18.79	-18.52/-18.99	-18.67/-19.12
Θ(180°)	-18.38/-18.44	-17.64/-18.85	-18.33/-18.75	-18.66/-18.66	-17.99/-18.4	-18.33/-19.08	-18.4/-15.24	-14.51/-14.1	-15.9/-18.54	-18.83/-19.07	-18.51/-18.7	-18.75/-18.21	-17.25/-18.7	-17.49/-18.88	-19.47/-19.12	-19.11/-18.21	-17.42/-18.75	-18.33/-18.53
Freq(Hz)	5.885G/Pol.	Theta/Ant. 5	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	2.87/2.75	2.36/1.72	0.78/-0.87	-2.92/-5.55	-9.16/-16.81	-14.12/-7.29	-3.61/-1.44	0.37/1.38	2.24/2.7	2.95/2.75	2.3/1.55	0.55/-0.87	-2.96/-5.85	-10.68/-17.73	-11.57/-6.49	-3.12/-0.86	0.79/1.91	2.68/2.45
Θ(10°)	2.24/2.29	1.65/0.88	-0.21/-1.76	-3.81/-6.64	-11.97/-19.37	-12.29/-7.11	-3.88/-1.45	0.35/1.36	2/2.62	2.84/2.71	2.25/1.57	0.51/-0.74	-2.66/-5.32	-9.17/-14.92	-17.31/-10.74	-6.44/-3.89	-1.46/0.05	1.17/1.08
Θ(20°)	2.14/2.87	2.76/1.83	1.09/0.39	-1.1/-4.34	-8.91/-18.13	-15/-6.84	-2.96/-0.67	0.56/1.13	1.83/2.27	1.77/0.28	-0.75/-1.14	-1.55/-2.2	-2.94/-4.24	-7.15/-11.76	-17.06/-18.46	-13.63/-9.29	-6.37/-4.57	-2.7/-2.98
Θ(30°)	0.21/2.29	2.28/1.93	1.73/-0.25	-3.11/-5.74	-9.51/-18	-17.23/-9.3	-5.51/-2.74	-2.18/-3.47	-3.1/-2.82	-5.78/-9.12	-7.85/-6.36	-6.43/-6.88	-6.68/-6.36	-6.91/-10.05	-15.76/-18.77	-15.31/-9.21	-6.1/-4.69	-4.09/-4.52
Θ(40°)	-3.08/-1.07	-0.87/-1.97	-1.94/-4.9	-5.56/-5.44	-7.11/-9.95	-14.72/-11.97	-8.54/-6.83	-3.62/-3.82	-3.62/-6.42	-10.06/-7.91	-8.26/-8.28	-7.86/-8.87	-10.08/-11.4	-9.33/-8.79	-11.99/-17.72	-17.34/-18.48	-14/-8.96	-5.76/-5.86
Θ(50°)	-3.79/-3.54	-3.33/-6.71	-9.67/-13.68	-6.55/-5.59	-7.19/-11.83	-17.67/-11.5	-5.95/-5.97	-3.05/-2.51	-2.03/-4.33	-5.35/-8.68	-9.84/-8.43	-6.44/-6.76	-9.88/-15.12	-14.42/-11.9	-14.75/-18.63	-15.38/-8.69	-4.68/-3.77	-3.99/-4.12
Θ(60°)	-5.05/-4.87	-5.41/-10.26	-13.38/-14.16	-9.62/-9.77	-12.31/-18.7	-18.83/-14.58	-7.69/-6.35	-5.49/-2.92	-1.62/-3.18	-5.13/-10.79	-11.99/-14.7	-9.12/-8.21	-9.02/-14.18	-13.91/-14.5	-13.45/-16.45	-16.55/-10.77	-4.92/-3.82	-4.67/-5.55
Θ(70°)	-9.98/-9.35	-7.58/-7.99	-10.81/-18.06	-12.4/-15.3	-18.88/-18.35	-18.8/-12.85	-6.87/-9.36	-11.51/-7.41	-4.27/-6.34	-6.55/-10.74	-13.88/-13.97	-18.61/-11.34	-12.86/-12.55	-12.33/-16.22	-16.27/-17.51	-12.47/-7.86	-4.16/-4.99	-7.12/-8.65
Θ(80°)	-15.05/-10.96	-9.3/-12.96	-12.68/-17.78	-14.26/-17.24	-9.77/-14.88	-18.8/-18.69	-9.61/-11.94	-12.51/-10.93	-9.13/-9.01	-5.63/-6.92	-7.93/-9.33	-13.79/-9.74	-13.3/-15.42	-14.17/-16.86	-11.18/-18.24	-12.96/-9.01	-9.52/-10.07	-12.2/-12.65
Θ(90°)	-8.66/-10.88	-9.01/-7.1	-5.36/-10.98	-16.12/-18.84	-8.63/-13.79	-13.54/-16.84	-7.76/-8.91	-10.05/-9.03	-9.44/-10.88	-7.81/-10.23	-11.35/-10.44	-10.6/-13.73	-13.33/-11.58	-10.77/-18.04	-8.77/-18.62	-6.67/-6.97	-9.83/-11.55	-10.9/-13.85
Θ(100°)	-10.57/-9.96	-6.81/-8.82	-12.17/-10.41	-12.86/-12.44	-11.52/-18.02	-11.12/-18.37	-8.85/-11.17	-17.41/-18.21	-18.74/-17.37	-9.91/-15.24	-16.51/-15.81	-10.51/-7.28	-10.91/-18.48	-14.4/-18.18	-9.32/-12.05	-7.46/-8.82	-7.93/-8.63	-9.98/-10.52
Θ(110°)	-10.49/-14.22	-12.42/-8.6	-6.51/-4.74	-5.27/-6.35	-12.81/-16.87	-11.8/-17.92	-9.81/-8.15	-8.65/-8.89	-8.23/-15.62	-17.63/-16.81	-17.91/-17.97	-6.57/-8.21	-13.18/-18.88	-18.95/-18.69	-9.96/-13.25	-12.01/-10.84	-16.41/-15.8	-15.67/-16.12
Θ(120°)	-10.98/-18.61	-17.66/-9.65	-5.86/-4.13	-4.52/-7.79	-12.07/-18.23	-18.03/-18.7	-11.48/-7.33	-7.82/-8.79	-10.71/-15.17	-18.36/-14.17	-18.61/-17.07	-10.77/-9.4	-17.33/-16.77	-18.28/-19.04	-17.72/-17.17	-13.63/-12.27	-15.27/-18.4	-18.8/-19.65
Θ(130°)	-13.55/-13.71	-18.91/-12.52	-12.82/-11.25	-8.85/-7.65	-8.76/-17.68	-16.7/-12.88	-17.9/-17.75	-17.4/-19.28	-17.85/-19	-17.25/-11.22	-18.9/-18.63	-14.78/-12.12	-15.8/-18.2	-10.58/-15.03	-11.51/-11.02	-11.16/-13.43	-14.14/-12.47	-17.94/-18.98
Θ(140°)	-15.72/-12.21	-12.63/-10.3	-6.73/-5.86	-5.68/-9.81	-17.28/-16.33	-9.67/-11.15	-9.38/-9.7	-10.23/-11.97	-17.17/-15.22	-14.34/-17.96	-14.07/-17.28	-13.34/-17.86	-18.02/-10.99	-14.58/-13.88	-7.42/-16.76	-18.14/-12.84	-17.95/-16.7	-17.29/-18.52
Θ(150°)	-16.68/-16.44	-18.68/-15.9	-13.87/-18.59	-18.36/-19.13	-18.91/-15.77	-10.33/-9.29	-14.42/-15.92	-9.54/-8.82	-7.81/-8.24	-11.95/-12.39	-13.78/-15.35	-19.14/-7.92	-9.72/-17.59	-18.1/-17.9	-12.81/-18.34	-13.65/-15.95	-17.96/-17.98	-10.26/-10.35
Θ(160°)	-18.85/-11.32	-9.99/-10.2	-8.65/-9.21	-10.55/-14.64	-17.56/-14.24	-11.52/-12.35	-17.43/-19.08	-14.12/-15.99	-17.19/-18.95	-18.11/-18.06	-17.57/-15.95	-18.61/-18.78	-12.95/-8.86	-10.59/-17.31	-17.81/-19.26	-12.85/-10.01	-13.62/-16.46	-14.58/-15.21
Θ(170°)	-13.18/-9.83	-7.75/-6.9	-7.85/-7.36	-8.69/-10.92	-16.13/-18.59	-17.67/-18.3	-16.55/-13.19	-12.35/-11.68	-11.6/-11.48	-11.74/-12.43								



Antenna Pattern of 2.4GHz and 5GHz UNII 1, 2A

Appendix D

Total Gain Data

Freq(Hz)	2.45GPol.	TotalAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-9.06/-9.49	-9.72/-9.23	-8.69/-7.97	-7.71/-7.77	-7.92/-3.99	-8.11/-2.07	-7.71/-7.04	-6.12/-5.50	-5.11/-5.05	-5.29/-5.81	-7.71/-7.04	-7.45/-7.68	-7.71/-7.59	-8.24/-8.56	-8.40/-8.23	-7.71/-7.59	-7.79/-8.20	
Θ(10°)	-5.24/-4.84	-4.47/-3.87	-3.46/-3.11	-3.07/-3.12	-3.41/-3.70	-4.28/-4.52	-4.78/-4.94	-4.90/-5.01	-5.34/-5.95	-6.97/-8.46	-10.07/-11.80	-13.41/-15.25	-16.86/-16.11	-16.92/-15.20	-13.96/-11.78	-10.04/-8.47	-7.19/-6.36	-5.94/-5.56
Θ(20°)	-2.65/-2.04	-1.47/-0.97	-0.48/-0.13	0.07/-0.07	-0.50/-1.19	-1.84/-2.32	-3.01/-3.41	-3.89/-4.26	-4.84/-5.67	-6.72/-8.04	-9.49/-11.28	-12.99/-13.45	-13.31/-13.83	-13.25/-11.88	-9.89/-8.32	-6.95/-6.78	-4.94/-4.11	-3.60/-3.13
Θ(30°)	-3.58/-2.72	-1.77/-0.92	-0.09/0.51	0.89/0.88	0.53/-0.12	-0.95/-1.57	-2.17/-2.70	-3.10/-3.55	-4.31/-5.18	-6.12/-7.13	-8.12/-9.08	-9.32/-9.25	-9.08/-8.23	-7.00/-6.09	-5.33/-4.79	-4.57/-4.59	-4.68/-4.56	-4.36/-4.05
Θ(40°)	-3.01/-2.48	-1.72/-0.80	0.10/0.92	1.43/1.65	1.51/1.06	0.29/-0.43	-0.95/-1.23	-1.55/-1.93	-2.81/-3.85	-4.73/-5.29	-5.70/-5.69	-5.36/-5.19	-4.91/-4.45	-4.19/-4.01	-3.89/-3.74	-3.70/-3.79	-3.95/-4.03	-3.73/-3.38
Θ(50°)	-3.15/-2.68	-1.48/0.08	1.41/1.17	2.62/2.89	2.91/2.67	2.15/1.70	1.59/1.69	1.73/1.36	0.47/-0.64	-1.35/-1.71	-1.73/-1.71	-1.77/-1.98	-2.50/-3.60	-4.62/-4.38	-3.77/-3.37	-3.26/-3.26	-3.29/-3.32	-3.27/-3.42
Θ(60°)	-6.77/-6.91	-6.81/-4.37	-1.29/0.70	1.87/2.62	2.80/2.46	1.96/1.48	1.37/1.35	1.08/0.44	-0.75/-1.92	-2.35/-2.51	-2.58/-2.85	-3.12/-3.62	-4.74/-6.11	-5.78/-4.10	-2.90/-2.70	-3.51/-5.20	-6.97/-8.25	-8.36/-7.29
Θ(70°)	-1.12/-1.05	-2.06/-2.60	-1.49/-0.02	1.46/2.71	2.97/2.71	2.64/2.80	3.08/3.15	2.34/0.38	-2.11/-3.03	-2.92/-3.05	-2.64/-1.65	-1.25/-0.84	-1.17/-1.56	-1.42/-0.90	-0.84/-1.23	-2.10/-4.07	-6.01/-5.68	-3.94/-2.12
Θ(80°)	0.71/0.87	0.24/0.12	0.96/0.79	1.09/2.03	1.92/0.80	0.56/1.40	2.26/2.97	2.92/1.75	0.14/-0.66	-0.45/-0.32	0.00/0.43	0.79/1.17	0.84/-0.30	-1.03/-0.86	-0.59/-0.66	-1.47/-2.79	-3.69/-2.90	-1.16/0.10
Θ(90°)	0.08/-0.16	-1.33/-1.61	0.29/0.70	0.94/2.09	2.13/1.06	0.99/2.14	3.38/4.28	4.18/2.83	0.92/0.30	-0.08/-0.85	-1.41/-0.88	0.42/1.34	1.37/-0.31	-1.57/-0.87	0.10/0.10	-0.97/-2.78	-3.28/-2.03	-1.59/-0.43
Θ(100°)	-3.57/-4.43	-5.45/-3.23	-0.68/0.19	0.69/1.49	1.07/0.86	-2.84/-2.28	-0.19/1.33	1.44/-0.31	-2.36/-2.32	-2.65/-3.75	-3.37/-1.45	-0.40/0.22	-0.70/-3.89	-4.10/-0.93	0.57/0.04	-2.33/-5.29	-5.12/-4.19	-4.15/-3.92
Θ(110°)	-1.64/-2.52	-0.82/-8.56	-5.11/-4.57	-5.18/-3.75	-3.60/-5.74	-7.05/-5.67	-2.99/-0.84	-0.41/-1.28	-1.52/-1.14	-1.25/-1.13	-0.74/-0.94	-1.28/-1.68	-4.00/-4.45	-1.44/-0.46	0.64/-0.15	-1.02/-0.69	-0.05/-0.61	-1.60/-1.49
Θ(120°)	-4.86/-3.37	-3.75/-5.90	-5.72/-4.30	-4.19/-3.28	-2.46/-2.90	-3.75/-4.17	-3.25/-1.87	-0.38/-0.23	0.44/1.22	1.41/0.65	-0.97/-2.51	-2.28/-1.94	-2.16/-0.94	-0.72/-2.24	-3.35/-2.92	-2.10/-2.78	-4.83/-6.24	
Θ(130°)	-2.20/-0.90	-1.57/-5.36	-9.03/-5.34	-3.91/-4.75	-5.85/-6.48	-6.94/-7.59	-7.63/-6.62	-3.85/-2.79	-1.17/0.08	-0.12/-1.76	-3.48/-3.31	-2.80/-3.16	-2.92/-2.11	-1.69/-1.35	-1.27/-1.98	-2.50/-2.04	-1.82/-2.69	-4.31/-4.32
Θ(140°)	-12.44/-13.80	-12.50/-11.26	-8.39/-5.18	-3.56/-3.13	-3.23/-3.30	-3.11/-2.88	-2.98/-2.95	-2.81/-1.91	-0.71/0.24	0.33/-0.23	-0.84/-1.63	-3.04/-4.84	-5.87/-6.90	-8.29/-8.61	-5.40/-5.71	-6.96/-8.48	-7.89/-8.37	-8.00/-8.99
Θ(150°)	-5.52/-4.67	-5.71/-6.82	-8.79/-12.48	-14.05/-13.74	-14.49/-13.06	-5.87/-6.86	-8.04/-7.14	-7.47/-7.44	-6.81/-5.97	-6.47/-6.71	-6.22/-5.23	-4.05/-2.89	-1.59/-0.47	-0.00/-0.41	-1.32/-2.53	-3.44/-4.18	-8.37/-8.23	
Θ(160°)	-6.79/-6.31	-6.35/-6.89	-7.72/-8.25	-8.31/-8.67	-8.82/-9.99	-10.76/-10.24	-8.86/-7.56	-6.19/-4.87	-4.03/-3.40	-2.81/-2.41	-2.39/-2.69	-3.24/-3.96	-4.96/-5.18	-5.00/-4.65	-4.53/-4.89	-6.05/-7.31	-8.21/-8.75	-8.58/-7.84
Θ(170°)	-9.21/-7.89	-7.31/-6.95	-6.93/-6.95	-6.81/-6.91	-7.08/-7.82	-8.73/-9.78	-10.40/-10.50	-9.90/-8.81	-8.01/-7.65	-7.54/-7.86	-8.85/-9.94	-11.74/-13.68	-14.46/-14.05	-14.03/-15.29	-15.61/-16.31	-15.71/-16.49	-16.20/-15.96	-13.81/-11.49
Θ(180°)	-8.66/-7.69	-7.10/-6.82	-6.61/-6.21	-6.19/-6.53	-6.85/-7.49	-8.40/-9.92	-12.10/-14.14	-15.95/-16.84	-16.91/-16.18	-15.53/-14.19	-12.35/-11.11	-10.30/-9.54	-9.23/-9.46	-10.33/-11.14	-12.20/-13.12	-14.29/-14.14	-13.84/-12.83	-11.45/-10.03
Freq(Hz)	5.2GPol.	TotalAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-10.03/-10.73	-9.75/-9.34	-8.31/-7.75	-7.05/-7.07	-6.92/-6.78	-9.37/-9.00	-9.86/-9.78	-9.37/-9.00	-9.86/-9.78	-7.07/-7.73	-10.27/-8.90	-9.78/-7.04	-6.52/-6.61	-8.95/-8.76				
Θ(10°)	-9.30/-7.96	-7.16/-6.49	-6.40/-6.89	-7.19/-7.88	-7.53/-7.45	-6.83/-6.19	-5.94/-5.36	-4.97/-5.22	-5.83/-5.86	-6.05/-6.07	-5.86/-5.30	-4.30/-3.50	-3.37/-3.81	-4.98/-6.13	-6.59/-6.65	-7.22/-8.70	-10.59/-11.62	-10.54/-10.00
Θ(20°)	-11.42/-9.95	-8.16/-6.77	-5.07/-2.59	-6.11/-6.73	-8.44/-8.79	-6.85/-5.14	-4.41/-4.38	-4.96/-5.57	-6.38/-6.26	-6.01/-5.73	-4.71/-3.47	-2.79/-2.22	-2.72/-3.64	-5.07/-6.66	-5.17/-4.56	-4.57/-5.52	-6.80/-8.04	-9.05/-11.52
Θ(30°)	-9.31/-8.77	-8.00/-9.31	-11.58/-11.42	-10.42/-8.98	-9.89/-8.94	-8.10/-7.14	-5.48/-6.15	-5.30/-4.72	-5.48/-6.65	-7.51/-8.00	-7.05/-5.09	-6.03/-5.62	-4.35/-4.89	-6.03/-5.02	-5.53/-5.86	-6.76/-7.42	-8.76/-10.51	-9.34/-9.54
Θ(40°)	-3.18/-3.58	-3.66/-5.25	-7.08/-10.77	-9.52/-6.61	-5.05/-5.75	-5.94/-4.98	-4.54/-3.34	-2.63/-2.40	-2.62/-2.68	-3.06/-4.18	-5.60/-6.94	-5.45/-4.20	-4.71/-6.36	-8.10/-9.25	-9.72/-10.16	-12.89/-14.81	-10.06/-5.81	-3.24/-2.57
Θ(50°)	0.27/0.86	0.77/-1.74	-3.93/-6.43	-11.02/-6.11	-1.28/-1.19	-1.68/-0.38	0.40/0.07	0.11/0.09	0.46/0.38	-0.26/-0.40	-2.40/-5.63	-6.30/-5.46	-3.84/-3.80	-5.69/-6.80	-9.19/-7.38	-6.37/-5.37	-5.08/-6.62	-5.82/-2.12
Θ(60°)	-3.04/-1.19	0.25/0.36	-0.95/-0.83	-3.39/-3.84	2.38/2.75	2.92/1.11	1.71/1.65	1.54/1.64	2.38/2.75	2.92/1.11	0.13/-2.73	-5.52/-6.73	-6.85/-8.54	-10.55/-16.18	-8.12/-8.05	-5.93/-5.65	-8.04/-6.53	
Θ(70°)	-10.29/-6.09	-1.12/1.27	0.84/1.45	0.43/-0.79	1.71/1.92	2.37/1.67	1.13/1.28	2.53/3.12	3.52/3.27	2.72/2.06	0.96/-1.85	-3.97/-3.28	-6.01/-4.51	-3.88/-9.02	-5.27/-2.77	-3.91/-5.69	-7.41/-9.30	
Θ(80°)	-6.63/-7.22	-2.02/2.44	1.50/0.99	0.97/-1.35	3.19/3.08	3.50/3.40	1.60/1.31	1.86/1.40	1.93/2.65	2.82/2.53	2.60/2.33	0.17/-0.92	-1.33/-1.13	-0.51/0.57	-1.49/-5.23	-5.44/-7.46	-1.50/0.02	0.00/-0.36
Θ(90°)	-2.62/-9.04	-4.53/2.85	0.78/-1.48	1.47/-2.70	-0.22/1.10	1.33/-0.34	-0.05/-0.14	-0.50/-0.51	0.21/0.66	2.08/1.36	-1.99/0.29	-1.28/-5.44	1.49/3.55	2.50/0.79	-1.28/-5.44	-5.43/-0.86	0.24/-0.79	-3.15/-1.06
Θ(100°)	-0.49/-4.25	-2.59/3.35	-0.23/-6.98	0.27/-2.48	-3.56/-3.38	-1.55/-2.98	-2.40/-4.38	-0.63/-0.51	-2.80/-6.15	-3.56/-3.50	0.85/-0.51	-2.84/0.63	0.44/2.26	-1.99/1.08	-2.04/3.65	-1.99/1.08	1.86/-0.85	-2.64/0.35
Θ(110°)	1.40/-4.41	-5.07/0.34	-3.41/-13.64	-1.12/-4.17	-6.21/-7.43	-5.42/-5.57	-6.71/-3.33	-3.55/-3.00	-2.31/-5.06	-4.89/-8.55	-5.42/-5.27	-3.41/-3.84	-0.05/-3.66	-2.34/-0.92	-0.94/-3.53	-1.94/-4.17	-6.28/-9.45	-8.79/-1.53
Θ(120°)	-0.86/-4.03	-8.89/-8.35	-7.26/-14.33	-4.63/-4.19	-8.46/-16.41	-16.08/-11.94	-9.70/-5.69	-3.47/-3.35	-8.11/-9.38	-10.81/-11.49	-8.71/-3.95	-2.77/-5.72	-5.00/-3.56	-4.24/-7.05	-12.41/-8.80	-8.09/-8.52	-4.36/-2.87	-11.05/-6.17
Θ(130°)	-4.75/-7.01	-11.40/-10.51	-13.03/-14.93	-8.78/-8.94	-8.60/-9.12	-13.26/-6.89	-5.48/-7.09	-9.60/-13.20	-10.77/-13.13	-7.76/-7.26	-9.84/-8.25	-6.82/-4.15	-5.32/-9.09	-5.75/-13.58	-2.90/-3.68	-5.75/-6.12	-3.51/-5.17	
Θ(140°)	-7.54/-7.38	-6.10/-7.41	-10.97/-12.84	-14.40/-11.61	-7.30/-7.47	-5.75/-5.73	-3.62/-3.34	-4.16/-6.42	-10.09/-11.71	-14.59/-11.98	-14.62/-12.58	-12.08/-8.62	-4.83/-2.34	-4.91/-11.22	-9.64/-10.14	-8.90/-3.83	-6.62/-5.28	-5.30/-5.93
Θ(150°)	-8.02/-11.35	-17.03/-12.12	-10.65/-8.29	-7.50/-9.68	-7.31/-4.69	-4.70/-5.29	-6.49/-5.68	-4.56/-5.36	-5.88/-5.64	-6.54/-7.55	-8.21/-8.36	-9.45/-11.68	-10.30/-9.17	-5.46/-5.07	-4.77/-7.23	-13.91/-16.55	-9.79/-7.53	
Θ(160°)	-8.00/-7.95	-9.21/-9.94	-8.48/-7.87	-9.04/-9.79	-8.68/-7.00	-6.43/-6.84	-4.31/-2.97	-1.37/-1.44	-1.04/-1.59	-0.59/-3.98	-3.04/-4.51	-6.97/-11.61	-11.14/-9.08	-6.97/-8.58	-7.53/-6.17	-8.67/-8.59	-10.27/-8.45	
Θ(170°)	-10.66/-12.95	-11.50/-9.38	-7.02/-6.62	-5.21/-5.50	-6.49/-7.17	-6.24/-7.49	-3.41/-2.77	-2.27/-1.74	-1.71/-2.12	-2.63/-3.39	-3.38/-2.66	-2.20/-2.09	-2.89/-4.28	-5.68/-6.32	-6.24/-5.09	-4.51/-4.28	-5.02/-7.10	-8.31/-9.23
Θ(180°)	-11.37/-11.31	-10.28/-9.95	-9.72/-9.80	-10.04/-10.21	-9.73/-9.74	-9.66/-9.59	-9.74/-10.66	-11.55/-11.72	-12.09/-12.31	-12.05/-12.21	-12.05/-13.88	-13.77/-14.13	-15.38/-15.73	-14.90/-13.93	-14.31/-15.25	-14.54/-13.00	-12.07/-11.92	-12.39/-12.95
Freq(Hz)	5.3GPol.	TotalAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(10°)	Φ(20°)Φ(30°)	Φ(40°)Φ(50°)	Φ(60°)Φ(70°)	Φ(80°)Φ(90°)	Φ(100°)Φ(110°)	Φ(120°)Φ(130°)	Φ(140°)Φ(150°)	Φ(160°)Φ(170°)	Φ(180°)Φ(190°)	Φ(200°)Φ(210°)	Φ(220°)Φ(230°)	Φ(240°)Φ(250°)	Φ(260°)Φ(270°)	Φ(280°)Φ(290°)	Φ(300°)Φ(310°)	Φ(320°)Φ(330°)	Φ(340°)Φ(350°)
Θ(0°)	-7.99/-7.91	-7.36/-5.72	-4.67/-4.28	-4.52/-5.20	-6.24/-6.60	-6.15/-5.90	-6.44/-7.68	-9.19/-10.74	-10.54/-10.21	-9.36/-8.41	-7.06/-6.10	-5.31/-5.02	-4.79/-5.00	-5.23/-5.70	-6.26/-6.16	-6.61/-8.48	-10.81/-11.94	-10.03/-8.40
Θ(10°)	-12.10/-11.45	-10.90/-10.28	-9.26/-8.51	-8.66/-7.78	-7.85/-8.78	-7.16/-6.65	-6.22/-8.28	-4.62/-3.85	-4.27/-3.85	-7.33/-7.93	-6.30/-6.87	-5.77/-6.07	-4.18/-4.80	-6.30/-6.87	-8.77/-10.05	-8.92/-8.07	-12.92/-13.05	
Θ(20°)	-12.39/-11.36	-8.86/-6.76	-5.75/-5.60	-6.60/-8.33	-9.17/-8.08	-7.67/-7.54	-8.24/-9.98	-9.32/-9.63	-9.53/-9.41	-9.43/-8.49	-6.75/-5.54	-4.66/-4.06	-4.16/-4.51</					



Antenna Pattern of 2.4GHz and 5GHz UNII 1, 2A

Appendix D

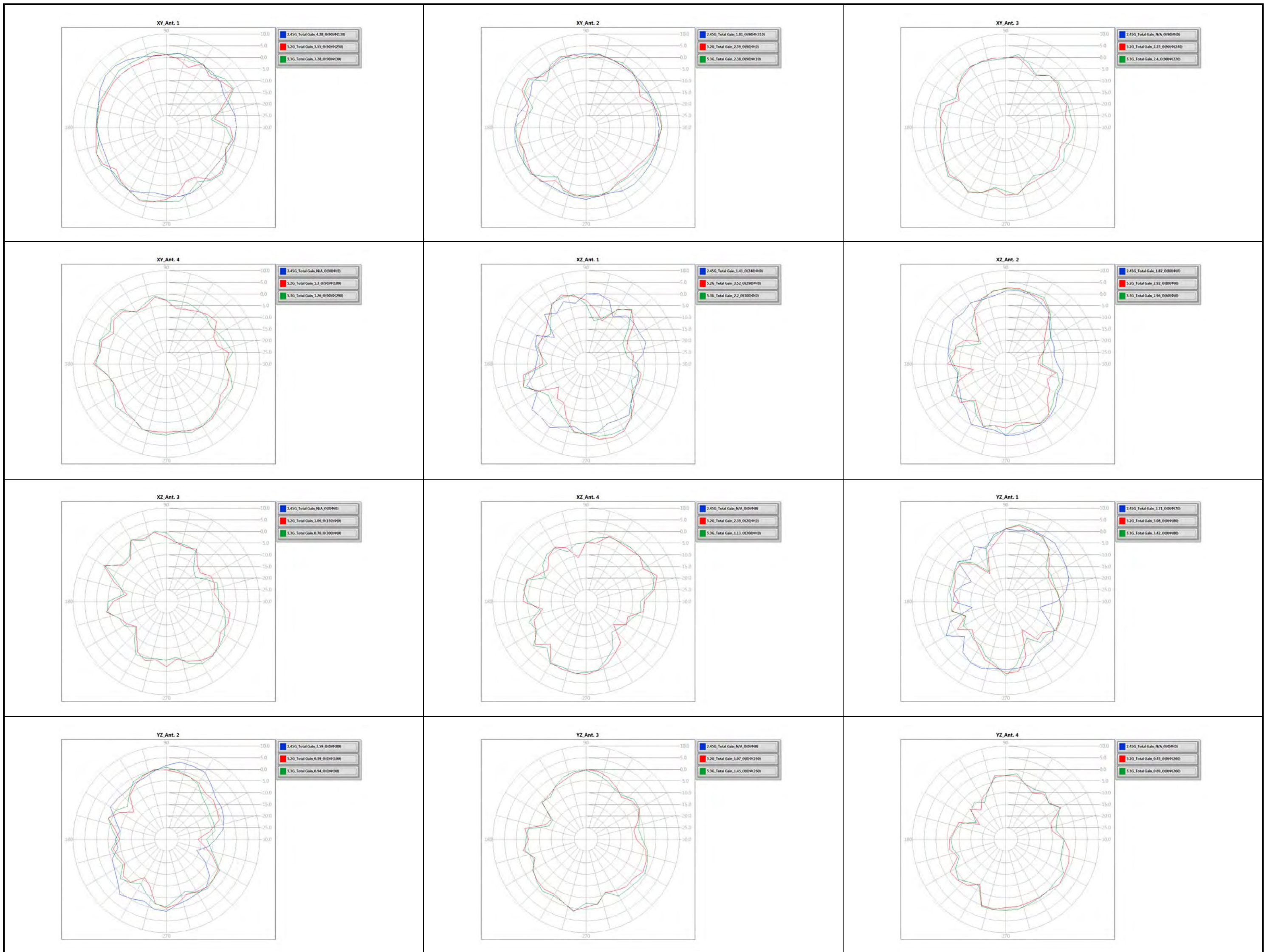
Θ (60°)	2.96/2.90	1.89/0.32	-2.11/-1.66	-0.73/-3.14	-5.90/-2.91	-3.72/-3.39	-4.55/-2.28	1.45/2.40	0.40/-0.75	-0.73/-0.58	1.30/1.42	-0.62/-2.59	-2.83/-4.97	-6.24/-3.52	-3.37/-1.73	-0.51/-2.55	-4.11/-2.39	-0.18/-1.66
Θ (70°)	2.41/2.72	2.16/0.41	-2.02/-3.76	-1.91/-2.44	-1.16/-1.40	-1.28/0.06	-3.47/-0.23	2.41/0.94	-4.08/-3.02	-2.21/-0.80	0.17/1.07	0.36/-1.58	-3.87/-4.21	-6.55/-6.33	-4.05/-2.71	-0.54/-2.43	-2.96/-1.36	0.26/-1.53
Θ (80°)	2.30/2.51	2.69/1.40	-2.45/-1.94	0.94/0.69	0.05/0.30	0.53/0.55	-0.46/-1.55	4.45/3.69	-1.16/-2.35	-3.24/-1.45	-0.17/0.18	-1.29/-2.01	-3.43/-2.55	-2.45/-4.25	-1.32/-0.39	-0.39/-0.97	-0.40/0.35	1.25/2.12
Θ (90°)	2.34/2.38	1.67/1.05	-0.92/1.06	1.84/0.97	1.93/0.94	-0.01/2.37	0.81/-4.01	1.72/0.69	-5.76/-3.89	0.54/-0.00	-1.60/0.75	1.08/-2.45	-5.61/-1.19	-0.54/-1.09	-0.35/-0.80	-2.28/-1.98	-1.39/0.17	0.95/-1.62
Θ (100°)	1.81/-0.32	-0.69/-2.17	0.15/0.36	-0.36/0.26	1.66/0.04	0.73/0.30	-1.74/-4.81	2.55/-1.63	-8.71/-8.92	-3.14/-0.09	-1.97/-3.29	-1.89/-2.83	-6.05/-1.11	-0.40/-1.97	0.84/0.49	-4.48/-4.04	-4.58/-1.22	0.78/-1.23
Θ (110°)	-0.74/-5.04	-2.65/-2.86	-0.79/-1.17	-1.03/-0.72	-0.64/-0.67	-1.78/-5.32	-2.02/-7.63	0.58/0.27	-6.58/-2.91	-3.64/-5.12	-5.66/-5.30	-3.63/-7.25	-1.18/-0.06	-6.25/-5.15	-1.18/-0.06	-8.25/-8.48	-7.01/-4.51	-2.99/-2.04
Θ (120°)	-3.63/-7.34	-5.17/-8.22	-4.69/-2.94	-3.13/-3.02	-2.15/-1.49	-2.99/-2.01	0.89/-3.45	-5.94/-3.90	-6.56/-5.06	-4.68/-10.18	-12.25/-7.22	-16.50/-8.96	-12.81/-8.90	-16.25/-8.10	-1.60/-5.48	-12.27/-5.20	-9.52/-16.53	-5.82/-3.17
Θ (130°)	-7.33/-6.08	-7.18/-8.11	-8.42/-4.88	-2.81/-2.28	-2.83/-5.18	-6.30/-2.49	0.09/-0.54	-4.72/-8.18	-6.75/-8.00	-8.89/-11.23	-10.27/-16.61	-13.65/-9.97	-6.57/-11.91	-12.27/-5.84	-3.43/-3.77	-8.94/-15.12	-11.43/-11.51	-12.56/-8.10
Θ (140°)	-16.21/-12.86	-6.32/-4.29	-3.36/-3.15	-2.97/-2.81	-4.95/-8.18	-11.39/-9.63	-5.12/-5.49	-6.61/-10.80	-14.28/-10.68	-6.49/-9.78	-14.29/-15.89	-6.81/-2.62	-6.54/-12.36	-9.80/-3.98	-3.16/-5.43	-8.34/-9.47	-12.04/-12.18	
Θ (150°)	-13.57/-11.17	-8.43/-5.98	-6.48/-7.03	-8.18/-9.00	-6.58/-5.10	-4.77/-4.97	-5.70/-8.00	-8.85/-7.16	-7.69/-6.59	-3.11/-4.21	-9.48/-11.03	-10.52/-10.51	-13.50/-9.37	-7.49/-8.46	-10.78/-12.33	-8.81/-4.93	-5.23/-5.07	-7.03/-11.21
Θ (160°)	-8.14/-7.15	-7.83/-9.70	-8.98/-8.21	-7.46/-6.02	-4.97/-3.48	-2.27/-1.72	-3.13/-5.36	-8.41/-10.95	-10.32/-8.76	-7.66/-9.82	-16.28/-16.87	-16.63/-14.38	-12.20/-9.12	-7.16/-7.08	-7.26/-7.81	-7.62/-6.19	-5.67/-6.83	-7.74/-8.47
Θ (170°)	-5.62/-4.70	-4.02/-3.81	-3.61/-3.85	-4.33/-5.36	-5.84/-6.32	-7.02/-7.50	-7.78/-8.82	-10.66/-12.73	-12.04/-10.91	-9.94/-8.82	-7.32/-9.87	-6.22/-5.92	-5.58/-6.05	-6.47/-7.47	-8.42/-10.29	-12.99/-13.20	-10.52/-7.92	
Θ (180°)	-7.62/-6.66	-6.92/-6.22	-6.51/-6.99	-7.67/-8.23	-8.33/-8.98	-8.99/-8.98	-8.35/-8.78	-10.14/-10.41	-10.14/-9.41	-9.15/-8.62	-7.81/-7.69	-8.26/-8.67	-8.43/-8.05	-8.35/-8.65	-9.60/-9.68	-9.37/-8.91	-8.25/-8.17	-9.27/-8.92
Freq(Hz)	2.45G/Pol.	TotalAnt. 3	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ (0°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (10°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (20°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (30°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (40°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (50°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (60°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (70°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (80°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (90°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (100°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (110°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (120°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (130°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (140°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (150°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (160°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (170°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Θ (180°)	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf	-inf/-inf
Freq(Hz)	5.2G/Pol.	TotalAnt. 3	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ (0°)	-7.16/-7.17	-8.88/-9.12	-8.04/-7.57	-7.66/-8.27	-7.97/-8.33	-7.57/-7.60	-7.49/-7.20	-7.18/-7.20	-7.62/-8.29	-8.75/-8.77	-9.14/-9.24	-8.71/-7.87	-8.19/-9.17	-9.35/-8.88	-7.78/-8.24	-8.11/-7.19	-7.15/-7.51	-7.47/-7.45
Θ (10°)	-9.30/-9.53	-9.73/-9.16	-9.47/-9.53	-10.12/-10.69	-9.40/-9.18	-8.23/-6.50	-4.39/-3.45	-3.19/-3.00	-2.29/-1.40	-0.87/-0.87	-0.99/-1.26	-1.77/-2.57	-3.45/-3.97	-4.75/-5.31	-6.26/-7.29	-8.74/-9.13	-8.61/-10.04	
Θ (20°)	-8.00/-7.68	-9.18/-9.18	-6.84/-4.75	-4.84/-5.68	-6.62/-6.11	-5.76/-4.81	-3.42/-3.18	-2.61/-2.22	-1.90/-1.40	-1.26/-1.01	-0.37/0.13	0.20/-0.48	-1.38/-2.62	-4.20/-5.78	-5.39/-5.32	-7.19/-7.15	-7.64/-8.33	
Θ (30°)	-8.01/-6.64	-6.09/-6.76	-7.75/-6.21	-4.62/-3.81	-3.72/-3.85	-4.41/-5.37	-2.66/-2.68	-5.58/-3.80	-3.22/-3.53	-3.89/-4.12	-5.08/-0.71	0.52/-1.92	-4.42/-5.35	-5.58/-5.88	-6.15/-6.82	-5.25/-6.82	-7.95/-8.80	
Θ (40°)	-11.11/-10.51	-8.78/-7.61	-6.90/-7.42	-9.70/-9.13	-6.30/-4.37	-4.08/-5.07	-5.94/-3.88	-1.31/-0.70	-0.43/-0.12	-0.78/-1.23	-0.91/-1.24	0.91/1.61	-0.32/-3.75	-4.92/-3.54	-3.81/-5.91	-8.44/-14.01	-15.59/-14.26	
Θ (50°)	-9.38/-7.08	-5.38/-7.14	-7.55/-8.54	-10.37/-14.03	-8.36/-6.36	-5.25/-5.72	-8.44/-3.42	0.23/0.80	1.64/-1.71	0.62/0.94	-0.36/-2.19	-0.77/0.69	-0.40/-3.41	-4.39/-3.47	-3.92/-6.00	-6.25/-4.87	-6.06/-9.11	
Θ (60°)	-4.16/-4.17	-4.82/-3.72	-2.67/-3.15	-4.31/-6.52	-0.39/-0.75	-1.52/-0.81	-2.35/-2.98	0.50/0.88	-0.81/-1.45	-0.81/-1.45	3.12/2.34	-0.07/-2.06	-1.24/-4.68	-5.65/-7.64	-5.04/-3.49	-2.88/-3.53		
Θ (70°)	-5.38/-6.48	-5.08/-3.22	-2.39/-3.69	-4.60/-3.09	-1.84/-1.95	-0.17/-1.27	-0.24/-2.52	-2.69/-1.68	-1.49/-2.76	-2.68/0.48	2.30/2.00	0.90/-1.25	-3.70/-1.78	-3.11/-5.76	-3.79/-5.21	-5.83/-3.01	-2.26/-1.30	-0.66/-2.18
Θ (80°)	-4.49/-3.09	-1.85/-1.82	-0.57/-2.24	-3.23/-1.46	-0.35/-0.36	0.51/0.02	1.07/0.00	-3.41/-3.52	-1.30/-2.18	-4.84/-0.98	1.88/2.66	2.31/-0.46	-2.48/-0.61	-1.83/-1.99	-1.01/-1.96	-3.02/-2.15	-0.75/-0.07	-1.17/-3.75
Θ (90°)	-2.45/-4.11	-2.22/-3.14	-1.04/-0.92	-4.27/-2.44	0.73/-0.20	-1.04/0.06	-2.79/-6.95	-0.87/-1.69	-2.06/-1.55	-5.19/-1.82	-0.92/-0.11	1.51/0.18	2.25/-0.22	-3.83/-3.77	-5.82/-2.80	-3.04/-3.51	-5.25/-2.93	
Θ (100°)	0.16/-0.58	-1.20/-5.13	-1.62/0.83	-1.59/-5.06	-0.17/-1.28	-2.36/-1.42	-1.00/-2.85	-2.81/-7.00	-3.76/-3.10	-4.59/-1.17	-2.04/-2.37	0.19/-1.97	2.15/-1.11	-0.36/-1.07	0.48/-0.91	-2.38/-2.89	-1.31/-0.73	-0.69/-1.27
Θ (110°)	-1.45/-3.36	-3.33/-4.67	-2.59/-2.46	-2.61/-3.03	-1.11/-2.90	-8.66/-3.36	-2.99/-5.22	-4.13/-7.41	-4.97/-4.46	-3.09/-2.39	-2.07/-1.32	-0.24/-1.02	1.36/-1.50	-0.38/-1.22	1.74/-3.46	-1.34/-4.16	-2.73/-1.11	-1.87/-0.57
Θ (120°)	0.40/-0.45	-0.21/-0.50	-8.24/-1.20	-3.02/-9.93	-4.99/-3.91	-9.89/-14.23	-7.87/-6.62	-1.90/-5.28	-7.87/-6.62	-1.96/-2.38	-1.68/-4.50	-1.62/-0.85	-0.25/-2.15	-1.96/-2.91	1.68/-4.50	-1.13/-1.76	-2.90/-4.49	
Θ (130°)	-6.14/-0.57	-3.97/-3.35	-10.50/-2.04	-2.85/-16.04	-7.84/-5.35	-5.44/-9.78	-13.69/-10.74	-16.39/-14.74	-8.96/-9.98	-10.15/-2.65	-2.52/-4.96	-8.38/-3.64	-10.06/-0.72	-4.16/-2.14	-2.01/-4.34	-0.53/-0.43	0.02/-0.35	-3.71/-4.65
Θ (140°)	-6.21/-0.83	-1.06/-7.24	-8.01/-6.68	-5.38/-6.28	-6.81/-5.58	-6.26/-11.11	-16.17/-13.52	-11.99/-12.43	-11.72/-15.32	-13.27/-6.23	-2.96/-7.20	-8.95/-6.38	-0.42/-0.85	-3.05/-2.56	-2.61/-0.99	0.25/-1.14	0.27/0.46	-4.57/-3.45
Θ (150°)	1.06/-0.67	-3.21/-4.65	-4.09/-5.58	-7.67/-11.60	-10.50/-12.99	-14.47/-11.02	-10.63/-8.46	-9.06/-10.92	-11.62/-15.97	-10.65/-9.11	-3.21/-1.97	-10.63/-8.46	-8.59/-3.55	-4.11/-3.53	-3.21/-1.97	-1.93/-2.66	-3.48/-1.08	0.20/0.38
Θ (160°)	-6.21/-4.34	-2.51/-2.70	-4.46/-6.94	-10.20/-12.67	-12.98/-11.58	-13.49/-11.05	-11.19/-11.33	-12.04/-12.05	-11.50/-12.55	-8.76/-5.86	-5.08/-6.25	-7.50/-6.75	-8.04/-11.31	-9.31/-6.69	-3.61/-1.99	-2.72/-5.86	-8.83/-9.44	-7.89/-6.93
Θ (170°)	-12.90/-10.77	-7.74/-6.43	-7.04/-7.56	-5.99/-4.41	-3.73/-3.33	-4.39/-5.52	-5.06/-6.09	-6.71/-5.98	-5.11/-4.26	-3.86/-4.18	-4.35/-4.18	-4.43/-4.38	-3.95/-3.54	-3.16/-2.70	-2.31/-2.49	-2.92/-3.36	-4.60/-5.94	-8.54/-14.68
Θ (180°)	-7.20/-7.52	-8.63/-9.92	-8.22/-6.72	-														



Antenna Pattern of 2.4GHz and 5GHz UNII 1, 2A

Appendix D

Θ (160°)	-2.93/-3.43	-4.08/-3.69	-2.28/-0.81	-0.41/-1.66	-4.93/-8.70	-11.60/-13.30	-14.80/-14.11	-9.44/-7.26	-6.43/-6.25	-6.37/-6.87	-7.88/-9.29	-11.02/-8.65	-6.88/-5.90	-7.00/-8.07	-9.18/-8.10	-6.07/-6.01	-5.56/-3.97	-4.01/-3.45
Θ (170°)	-3.14/-4.68	-4.36/-5.09	-6.26/-6.51	-8.67/-12.48	-11.20/-7.79	-5.77/-5.21	-4.87/-5.24	-6.36/-8.53	-10.91/-11.77	-11.11/-9.65	-9.17/-8.81	-9.94/-10.06	-8.40/-7.01	-5.73/-5.62	-6.29/-6.59	-5.51/-3.64	-2.17/-1.67	-1.56/-2.09
Θ (180°)	-3.00/-1.75	-2.23/-2.97	-3.19/-3.97	-4.34/-4.32	-4.98/-5.90	-5.99/-5.03	-3.95/-2.97	-2.70/-2.85	-2.77/-2.73	-2.56/-2.37	-2.06/-1.95	-2.20/-2.07	-2.14/-1.93	-1.81/-2.14	-2.26/-2.30	-2.50/-3.20	-3.94/-4.86	-4.68/-3.99
Freq(Hz)	5.3G/Pol	TotalAnt. 4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/Φ(350°)
Θ (0°)	-6.73/-6.18	-6.90/-7.70	-7.06/-5.91	-6.09/-6.44	-5.25/-4.91	-6.55/-7.95	-8.45/-7.45	-5.66/-5.71	-6.07/-6.61	-6.77/-6.94	-6.51/-5.91	-5.71/-5.83	-6.33/-7.06	-7.13/-6.64	-6.33/-5.76	-5.66/-6.47	-6.56/-6.46	-6.73/-6.81
Θ (10°)	-1.06/-1.32	-2.28/-2.87	-3.22/-3.15	-4.60/-5.49	-6.82/-8.06	-7.95/-7.39	-6.30/-6.08	-4.87/-4.16	-4.46/-5.41	-6.09/-5.94	-5.63/-5.45	-5.44/-5.67	-6.06/-5.99	-5.62/-5.43	-4.16/-3.02	-2.05/-1.45	-1.44/-1.48	-1.23/-1.16
Θ (20°)	1.01/0.70	-0.13/-0.68	-1.11/-1.10	-2.28/-3.68	-6.72/-6.77	-5.80/-5.41	-5.08/-5.41	-6.16/-7.62	-9.12/-8.91	-8.87/-10.66	-11.80/-12.46	-11.49/-9.56	-7.99/-6.70	-5.07/-5.02	-3.98/-2.00	-0.32/0.28	0.33/0.56	0.83/0.71
Θ (30°)	0.52/-0.04	-1.85/-3.42	-2.91/-2.32	-3.95/-5.37	-4.67/-3.16	-3.30/-3.32	-4.01/-6.04	-7.83/-8.60	-9.35/-10.48	-10.57/-11.25	-11.41/-11.75	-11.83/-6.90	-3.34/-2.30	-2.89/-1.37	0.34/1.00	1.62/1.52	0.47/-0.46	-0.81/-0.30
Θ (40°)	-0.10/0.23	-0.79/-1.86	-1.99/-2.54	-5.52/-6.24	-6.00/-5.86	-5.51/-5.29	-4.57/-2.94	-2.39/-3.89	-7.66/-12.69	-11.99/-10.26	-8.53/-7.75	-10.21/-7.16	-2.04/-0.42	-0.95/-2.01	-0.06/2.13	2.22/1.88	1.72/2.21	1.49/0.18
Θ (50°)	-0.00/-1.27	-1.76/-2.04	-3.20/-6.86	-7.55/-6.14	-4.97/-3.79	-5.71/-8.58	-5.18/-2.88	-3.25/-7.24	-7.97/-8.94	-12.82/-10.39	-6.72/-6.22	-6.18/-5.91	-3.40/-1.35	-1.50/-1.36	0.51/1.45	1.66/1.02	1.60/2.66	2.20/0.89
Θ (60°)	-0.67/-0.39	-1.86/-2.71	-3.19/-4.94	-5.34/-2.98	-3.63/-5.35	-8.51/-13.54	-5.84/-3.67	-4.87/-6.92	-4.10/-4.74	-6.80/-4.74	-5.23/-7.48	-7.30/-5.59	-3.31/-1.60	-1.82/-1.12	0.21/0.77	0.50/0.30	0.64/1.33	0.78/-0.77
Θ (70°)	-0.68/-0.77	-1.63/-0.70	-0.84/-3.27	-2.19/-1.27	-1.65/-5.07	-3.57/-3.64	-4.15/-3.83	-2.18/-1.16	0.20/-1.35	-3.89/-5.31	-4.09/-4.95	-6.78/-2.98	-1.25/-0.09	0.09/-0.49	-0.14/0.75	0.13/0.83	0.33/0.56	0.71/0.00
Θ (80°)	-2.29/-3.01	-2.50/-2.26	-3.10/-4.58	-2.03/-0.77	-1.73/-1.50	-1.43/-3.11	-5.32/-3.90	-0.42/-0.14	0.91/0.05	-0.29/-6.69	-5.59/-2.59	-5.19/-4.71	0.32/1.55	1.17/0.48	0.55/1.42	-0.56/-0.21	-0.74/0.45	1.41/-0.48
Θ (90°)	-4.85/-0.97	-2.86/-4.08	-5.20/-3.43	-3.20/-2.27	-2.53/-2.53	-0.39/-2.61	-4.41/0.49	0.79/-2.06	0.34/-0.95	0.62/-4.14	-5.88/-4.09	-1.67/-2.46	-2.27/-0.36	0.40/0.41	-0.45/1.26	0.72/-0.26	-1.39/-1.10	0.20/-2.15
Θ (100°)	-4.91/-6.02	-8.57/-8.02	-5.03/-7.47	-7.68/-5.15	-4.92/-3.18	-1.36/-4.22	-3.13/1.33	0.36/-5.43	-0.69/-0.29	1.13/-1.40	-0.27/-0.98	-2.61/-3.63	-0.10/-0.83	-1.06/0.69	0.15/-2.38	1.21/1.27	-0.50/-1.30	-2.17/-3.44
Θ (110°)	-7.38/-6.55	-6.07/-8.59	-6.65/-7.21	-7.54/-7.24	-8.95/-7.60	-2.40/-3.20	-2.69/-4.01	-3.27/-9.87	-2.25/-3.50	-0.14/-0.76	-2.38/-0.43	-0.52/-1.57	-5.24/0.34	-1.34/0.50	-0.32/0.91	-2.06/-0.06	0.01/-2.38	-2.66/-4.93
Θ (120°)	-3.46/-4.87	-8.45/-9.32	-8.45/-10.64	-10.43/-16.85	-13.00/-11.88	-6.12/-12.13	-3.99/-4.94	-12.47/-2.96	-1.10/-3.03	0.72/0.87	-5.98/-3.62	-0.28/2.11	-0.42/-3.01	-1.76/-7.21	-0.35/-2.15	-1.98/-1.01	-1.82/-2.45	-2.98/-1.30
Θ (130°)	-3.74/-6.75	-9.28/-7.56	-10.86/-11.41	-16.67/-10.17	-9.28/-9.11	-8.88/-7.32	-5.52/-2.08	-9.09/-3.37	-4.43/-1.72	-4.05/-3.78	-3.93/-1.16	0.16/-0.12	-1.44/-2.13	-0.32/-5.97	-2.58/-2.99	-3.44/-9.80	-2.87/-2.61	-1.96/-3.14
Θ (140°)	-5.75/-3.92	-7.40/-12.89	-11.47/-9.44	-11.81/-7.13	-6.55/-10.82	-7.78/-8.46	-6.44/-7.06	-9.24/-8.09	-2.97/1.10	-0.53/-1.79	-3.52/0.42	-1.21/-0.90	0.75/-0.14	-1.24/-3.32	-4.81/0.18	-1.49/-1.32	-10.86/-9.85	-5.73/-5.35
Θ (150°)	-9.74/-14.41	-10.34/-8.46	-9.95/-8.07	-5.57/-5.28	-7.56/-15.38	-9.35/-6.61	-7.18/-11.52	-11.30/-5.94	-3.07/-2.88	-5.80/-5.71	-2.87/-3.27	-3.70/-1.71	-1.53/-1.74	-3.87/-5.19	-7.03/-3.08	-2.87/-5.48	-5.64/-6.66	-5.64/-7.43
Θ (160°)	-3.40/-2.83	-4.31/-6.58	-5.74/-4.23	-3.19/-4.40	-7.18/-9.90	-10.33/-10.93	-13.23/-11.87	-8.65/-5.33	-3.10/-2.62	-3.87/-6.05	-7.12/-7.99	-9.06/-7.73	-5.93/-5.17	-6.34/-8.85	-9.48/-6.94	-5.87/-6.70	-5.72/-3.44	-3.28/-3.73
Θ (170°)	-2.76/-5.00	-6.59/-6.19	-6.13/-6.78	-8.83/-12.47	-11.98/-8.03	-6.27/-5.04	-4.68/-5.16	-6.22/-8.01	-10.06/-10.90	-9.77/-8.95	-8.85/-8.85	-8.97/-9.11	-9.07/-9.36	-8.42/-6.99	-7.25/-6.88	-5.59/-4.29	-3.09/-2.34	-1.40/-1.49
Θ (180°)	-4.87/-2.68	-2.55/-3.16	-3.62/-4.77	-5.58/-5.68	-6.43/-6.51	-6.17/-5.58	-4.74/-4.52	-4.25/-4.31	-4.18/-3.76	-3.47/-3.61	-3.82/-3.88	-3.48/-3.13	-3.05/-2.85	-2.17/-1.99	-2.36/-2.85	-3.56/-4.31	-4.58/-5.85	-6.25/-6.45

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



Antenna Pattern of 5GHz UNII 2C~4

Appendix E

Total Gain Data

Freq(Hz)	5.6GPol.	TotalAnt. 1	-/-	-/+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	
Gain	Φ(0°)Ψ(10°)	Φ(20°)Ψ(30°)	Φ(40°)Ψ(50°)	Φ(60°)Ψ(70°)	Φ(80°)Ψ(90°)	Φ(100°)Ψ(110°)	Φ(120°)Ψ(130°)	Φ(140°)Ψ(150°)	Φ(160°)Ψ(170°)	Φ(180°)Ψ(190°)	Φ(200°)Ψ(210°)	Φ(220°)Ψ(230°)	Φ(240°)Ψ(250°)	Φ(260°)Ψ(270°)	Φ(280°)Ψ(290°)	Φ(300°)Ψ(310°)	Φ(320°)Ψ(330°)	Φ(340°)Ψ
Θ(0°)	-8.00/-8.89	-7.94/-7.78	-7.95/-7.85	-7.57/-7.10	-7.34/-7.86	-8.33/-8.01	-7.76/-8.20	-8.22/-9.09	-9.43/-8.52	-8.47/-8.13	-7.50/-7.40	-7.15/-7.09	-7.06/-9.11	-7.72/-8.35	-9.06/-9.11	-8.21/-7.98	-7.53/-7.78	-7.74/-7.75
Θ(10°)	-4.70/-4.98	-5.50/-5.97	-6.04/-5.91	-6.74/-6.13	-5.85/-6.33	-6.88/-6.96	-7.12/-7.52	-7.35/-7.34	-7.29/-7.65	-8.19/-7.64	-7.25/-6.73	-6.14/-6.28	-6.40/-6.99	-7.22/-6.97	-6.56/-5.59	-4.92/-4.09	-3.66/-3.33	-3.70/-3.76
Θ(20°)	-2.47/-3.07	-2.92/-2.84	-3.31/-4.42	-5.58/-6.62	-6.46/-6.28	-6.28/-6.48	-6.51/-6.49	-7.21/-9.01	-12.27/-12.75	-11.58/-12.20	-14.68/-13.83	-13.19/-13.85	-12.67/-12.37	-10.36/-8.98	-8.15/-5.78	-6.19/-4.42	-2.40/-1.15	-0.93/-0.93
Θ(30°)	-0.31/-1.57	-2.73/-2.60	-3.19/-3.65	-3.42/-3.45	-4.10/-4.55	-5.29/-5.04	-6.02/-7.38	-10.00/-13.11	-14.23/-13.45	-14.25/-13.23	-11.01/-11.11	-13.61/-13.14	-8.86/-6.23	-5.01/-5.10	-3.90/-1.32	0.00/-0.26	0.06/-0.03	
Θ(40°)	0.61/-0.96	-2.53/-1.71	-2.05/-2.23	-3.13/-3.77	-3.46/-3.51	-4.00/-4.01	-3.36/-3.59	-4.88/-6.35	-8.11/-9.91	-12.24/-13.19	-14.89/-13.80	-10.43/-7.20	-4.38/-4.09	-3.70/-2.33	-2.14/-1.98	-1.34/-1.73	-0.84/-0.39	0.97/-0.92
Θ(50°)	0.90/-0.75	-4.70/-2.74	-1.16/-2.20	-4.65/-3.93	-4.05/-5.11	-6.59/-5.32	-5.05/-5.30	-4.54/-4.97	-7.58/-9.53	-8.94/-8.11	-9.36/-15.16	-10.44/-4.97	-3.24/-3.84	-4.42/-2.94	-1.37/-0.08	0.25/-0.10	-1.00/-1.41	-0.39/-0.40
Θ(60°)	0.05/-0.48	-5.26/-4.04	-0.96/-3.42	-5.46/-2.92	-4.34/-6.50	-4.91/-3.60	-3.15/-2.78	-0.97/-1.15	-3.37/-8.41	-9.86/-7.28	-9.35/-10.11	-5.96/-2.76	-3.56/-4.52	-3.00/-2.03	-2.02/-1.74	-1.55/-0.97	-1.68/-1.50	-2.63/-2.64
Θ(70°)	-0.34/-0.79	-4.84/-3.73	0.23/-2.79	-3.63/-1.89	-3.92/-5.02	-3.75/-3.10	-2.85/-1.67	-0.90/-2.23	-3.87/-5.70	-6.67/-4.14	-4.57/-5.25	-3.73/-2.03	-3.44/-4.21	-4.79/-4.21	-2.14/-0.98	-1.17/-1.68	-0.29/-1.03	-0.45/-0.44
Θ(80°)	0.59/-0.27	-4.48/-3.70	0.01/-3.70	-0.30/-0.28	-1.98/-1.40	-1.75/-2.84	-2.43/-1.76	0.04/-0.21	-0.77/-2.06	-4.89/-3.92	-4.41/-4.11	-4.44/-1.82	-2.18/-4.50	-6.79/-4.21	-1.50/-1.30	0.05/-1.06	0.86/-1.49	1.03/-0.95
Θ(90°)	-0.75/-2.42	-5.95/-4.80	-2.19/-5.91	0.24/-0.13	-2.28/-1.23	-2.19/-1.60	-1.54/-2.36	-0.28/-0.06	-1.31/-2.60	-2.81/-2.00	-2.36/-3.43	-6.17/-1.41	-0.90/-4.15	-6.39/-3.63	-3.42/-2.93	-1.69/-2.87	1.29/-2.18	1.42/-0.75
Θ(100°)	-2.54/-2.14	-4.25/-5.11	-4.83/-9.42	0.32/-0.94	-0.81/-0.90	-2.33/-2.32	-1.90/-1.07	0.31/-0.01	-1.32/-2.87	-3.09/-1.33	-4.27/-2.85	-4.40/-2.84	-1.12/-10.66	-6.25/-7.39	-3.49/-7.93	-3.73/-5.13	-1.24/-0.62	-0.63/-0.76
Θ(110°)	-3.73/-2.58	-4.28/-2.63	-2.86/-4.33	0.98/-1.46	-0.22/-0.52	-0.34/-1.87	-1.24/-0.27	1.07/-0.89	0.32/-0.01	0.07/-1.90	-3.93/-3.89	-5.12/-9.16	-4.47/-9.09	-5.59/-9.14	-7.14/-5.58	-5.65/-9.85	-4.59/-4.54	-2.51/-2.61
Θ(120°)	-4.75/-3.72	-7.43/-5.82	-5.89/-4.69	-0.30/-0.46	-3.33/-3.37	-1.78/-0.88	-1.16/-1.51	-0.85/-1.06	-0.98/-1.26	2.06/-0.43	-1.64/-3.29	-1.35/-6.88	-7.46/-12.62	-9.42/-8.73	-8.09/-8.71	-6.80/-9.79	-8.34/-8.16	-12.19/-12.31
Θ(130°)	-9.73/-7.45	-7.93/-8.26	-11.39/-8.45	-4.18/-2.29	-2.62/-4.09	-3.88/-1.34	-0.65/-0.61	-0.99/-1.88	-1.09/-0.90	-0.07/-1.64	-2.89/-1.85	-2.07/-15.51	-9.32/-6.03	-4.72/-9.67	-8.16/-6.20	-6.80/-9.79	-8.34/-8.16	-12.19/-12.31
Θ(140°)	-7.41/-8.13	-8.24/-8.32	-8.40/-12.68	-11.79/-7.16	-5.16/-2.54	-5.70/-4.80	-2.85/-2.73	-3.67/-1.60	-1.22/-0.48	-2.11/-6.69	-8.37/-9.63	-5.10/-8.45	-11.23/-11.49	-14.74/-12.35	-11.81/-10.37	-11.75/-14.43	-12.28/-12.39	
Θ(150°)	-6.58/-5.48	-4.91/-6.69	-6.11/-7.48	-10.50/-11.89	-10.16/-7.48	-6.56/-5.26	-2.64/-1.87	-1.62/-1.77	-3.11/-5.59	-7.84/-4.91	-3.07/-3.39	-3.45/-4.11	-8.01/-7.00	-11.30/-10.04	-9.97/-11.74	-12.20/-8.65	-6.68/-7.36	-6.19/-6.30
Θ(160°)	-8.73/-9.05	-9.31/-9.96	-9.39/-6.86	-6.41/-6.28	-5.67/-4.95	-4.82/-4.45	-4.41/-3.85	-3.30/-3.38	-4.64/-3.90	-1.60/-0.08	0.77/-0.28	-0.76/-2.79	-5.79/-8.42	-11.54/-11.74	-12.80/-16.08	-5.78/-7.76	-5.30/-4.96	-6.01/-6.22
Θ(170°)	-11.02/-12.13	-10.66/-9.99	-9.40/-8.93	-7.98/-7.05	-6.53/-6.31	-7.06/-7.04	-6.64/-6.19	-5.78/-5.66	-5.91/-6.03	-6.01/-6.24	-6.75/-6.25	-5.94/-6.55	-8.26/-10.49	-12.45/-12.40	-12.16/-12.85	-13.45/-11.98	-9.22/-8.67	-8.67/-8.77
Θ(180°)	-13.94/-13.94	-14.31/-13.60	-12.48/-12.53	-12.58/-12.49	-13.22/-14.22	-15.72/-14.90	-15.09/-15.46	-15.42/-15.09	-15.00/-14.47	-13.98/-12.07	-11.25/-10.86	-11.67/-12.21	-13.30/-15.22	-15.36/-15.36	-15.66/-15.12	-13.78/-13.66	-14.21/-15.23	-13.63/-13.82
Freq(Hz)	5.785GPol.	TotalAnt. 1	-/-	-/+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Gain	Φ(0°)Ψ(10°)	Φ(20°)Ψ(30°)	Φ(40°)Ψ(50°)	Φ(60°)Ψ(70°)	Φ(80°)Ψ(90°)	Φ(100°)Ψ(110°)	Φ(120°)Ψ(130°)	Φ(140°)Ψ(150°)	Φ(160°)Ψ(170°)	Φ(180°)Ψ(190°)	Φ(200°)Ψ(210°)	Φ(220°)Ψ(230°)	Φ(240°)Ψ(250°)	Φ(260°)Ψ(270°)	Φ(280°)Ψ(290°)	Φ(300°)Ψ(310°)	Φ(320°)Ψ(330°)	Φ(340°)Ψ
Θ(0°)	-3.38/-3.09	-3.29/-3.52	-3.63/-3.59	-3.58/-3.92	-4.08/-3.37	-3.05/-2.82	-2.45/-2.57	-2.84/-3.56	-3.81/-3.47	-3.35/-3.42	-3.63/-3.71	-3.90/-3.87	-2.28/-2.64	-3.27/-3.28	-3.25/-3.05	-2.49/-2.24	-3.06/-3.40	-3.27/-3.28
Θ(10°)	-3.99/-3.43	-2.80/-2.92	-2.75/-3.06	-3.07/-3.31	-3.42/-3.25	-3.50/-4.20	-5.08/-5.46	-5.52/-5.54	-5.92/-6.31	-6.26/-5.80	-5.66/-5.17	-4.62/-4.30	-4.01/-3.87	-3.48/-3.71	-4.07/-4.61	-4.51/-4.41	-3.91/-3.60	-3.83/-3.88
Θ(20°)	-1.92/-2.00	-2.32/-2.86	-3.58/-3.83	-3.72/-3.29	-3.02/-3.00	-3.66/-4.56	-5.69/-6.60	-7.06/-7.90	-8.93/-10.23	-12.53/-11.85	-11.51/-10.65	-9.13/-7.43	-6.57/-7.31	-8.08/-8.85	-8.69/-7.47	-5.45/-3.97	-2.40/-1.57	-1.13/-1.14
Θ(30°)	-2.04/-3.83	-3.74/-3.41	-3.66/-2.16	-2.11/-2.30	-2.42/-2.57	-2.95/-3.67	-4.25/-5.17	-6.51/-7.34	-7.98/-10.40	-14.18/-15.55	-15.53/-13.86	-9.78/-8.35	-8.78/-10.34	-11.50/-10.04	-8.18/-5.48	-1.59/-0.93	-1.22/-1.14	-1.26/-1.30
Θ(40°)	-0.25/-1.14	-3.16/-3.00	-2.88/-2.65	-2.91/-2.14	-1.21/-2.89	-3.95/-3.64	-3.91/-6.21	-11.92/-8.13	-14.31/-12.96	-14.31/-12.96	-9.88/-9.21	-5.15/-6.01	-6.33/-4.88	-2.73/-1.54	-2.88/-2.47	-1.52/-0.24	0.56/-0.54	
Θ(50°)	0.77/-0.38	-3.17/-1.14	-0.61/-1.77	-2.61/-3.19	-3.78/-3.27	-3.65/-4.09	-5.40/-5.71	-5.53/-5.84	-8.13/-9.73	-11.34/-10.48	-11.01/-13.21	-14.09/-8.48	-5.46/-4.94	-4.97/-1.72	-0.97/-0.60	-0.59/-0.02	-0.76/-0.93	0.71/-0.51
Θ(60°)	1.80/-0.31	-5.70/-2.66	-0.82/-3.08	-2.23/-4.25	-4.69/-3.34	-3.91/-4.24	-4.28/-2.71	-0.68/-1.45	-3.41/-6.96	-12.15/-10.46	-11.37/-11.18	-6.63/-3.69	-3.09/-3.81	-4.72/-2.31	-2.84/-1.58	-0.08/-0.47	-0.40/-0.23	-1.50/-1.51
Θ(70°)	2.65/-1.13	-3.11/-1.71	-0.40/-4.47	-1.61/-3.47	-3.57/-6.18	-1.90/-2.47	-1.39/-1.25	-1.06/-2.02	-8.17/-3.38	-9.10/-8.38	-4.71/-1.38	-4.24/-3.68	-4.78/-3.74	-2.80/-0.49	0.89/-0.47	-0.41/-0.63	-0.17/-0.22	
Θ(80°)	1.86/-0.52	-2.24/-0.41	-0.48/-2.44	1.61/-0.30	-1.97/-0.21	-1.28/-0.81	-0.95/-2.64	-2.77/-2.40	-2.93/-5.05	-7.00/-4.16	-3.89/-4.76	-5.92/-2.09	-0.54/-1.76	-5.14/-3.44	-1.61/-0.90	1.41/-0.34	1.20/-0.24	1.58/-1.23
Θ(90°)	-0.05/-1.57	-5.56/-1.71	-2.80/-1.51	2.89/-0.13	-0.28/-0.18	-2.08/-0.74	-0.16/-1.52	-2.07/-0.90	0.23/-1.11	-3.63/-4.00	-2.02/-1.91	-4.61/-3.09	-1.49/-3.68	-5.47/-4.41	-1.54/-0.81	1.53/-1.46	1.65/-2.01	2.26/-0.12
Θ(100°)	-0.90/-2.63	-5.97/-4.41	-8.20/-3.04	-3.04/-1.72	0.16/-0.50	-1.91/-1.33	-0.56/-2.09	-3.04/-1.26	-0.56/-2.09	-2.71/-1.93	-1.04/-0.76	-4.97/-8.03	-1.24/-7.55	-5.30/-8.79	-3.03/-5.41	-2.07/-8.50	-1.79/-0.33	-0.01/-0.15
Θ(110°)	-3.32/-1.09	-2.20/-1.44	-3.10/-2.26	1.47/-1.23	1.61/-1.03	0.09/-0.63	-0.55/-0.01	1.16/-1.29	0.69/-0.22	-1.24/-0.74	-0.54/-1.23	-1.96/-9.42	-4.01/-8.07	-4.34/-12.16	-5.51/-8.76	-6.23/-8.02	-3.11/-2.54	-2.11/-2.39
Θ(120°)	-3.40/-1.94	-4.48/-4.41	-4.30/-1.41	0.18/-0.99	-1.79/-1.89	-1.65/-0.38	0.68/-0.48	0.45/-1.78	1.19/-1.10	0.44/-0.87	-2.36/-4.38	-1.95/-4.04	-4.70/-8.32	-5.27/-10.37	-8.52/-9.96	-6.70/-9.30	-6.39/-5.46	-5.94/-6.17
Θ(130°)	-7.29/-5.69	-6.18/-7.65	-1.18/-1.73	-3.61/-2.38	-1.86/-2.00	-1.17/-0.49	-1.27/-1.73	-1.87/-1.06	-0.06/-1.39	-0.38/-1.81	-3.66/-4.10	-1.94/-14.51	-8.83/-4.21	-6.80/-4.98	-6.61/-9.94	-10.49/-9.49	-13.37/-13.36	
Θ(140°)	-6.33/-5.79	-7.06/-7.11	-9.27/-15.09	-8.22/-3.48	-2.99/-2.91	-2.46/-2.11	-1.55/-1.57	-1.86/-1.59	-1.54/-1.70	-2.19/-2.53	-4.56/-8.16	-5.08/-7.94	-6.63/-10.73	-13.66/-14.10	-12.68/-11.03	-9.11/-8.58	-11.06/-15.10	-7.26/-7.31
Θ(150°)	-6.70/-5.63	-5.94/-7.03	-7.51/-15.11	-15.53/-12.42	-7.26/-4.37	-2.64/-1.70	-0.81/-0.77	-1.41/-1.87	-2.92/-3.36	-5.96/-9.76	-7.31/-4.82	-4.78/-2.91	-7.42/-6.23	-7.01/-9.84	-10.51/-11.58	-15.72/-9.13	-5.04/-4.75	-4.95/-5.17
Θ(160°)	-10.77/-10.95	-11.78/-9.28	-7.62/-9.88	-8.49/-6.95	-5.19/-4.31	-3.77/-3.07	-2.29/-2.22	-2.16/-2.40	-2.25/-1.35	-1.84/-15.48	-8.82/-9.65	0.22/-1.14	-4.89/-5.66	-10.49/-6.21	-4.89/-5.56	-7.20/-7.29		
Θ(170°)	-12.77/-11.35	-8.90/-7.58	-8.19/-8.48	-7.74/-6.70	-5.93/-5.08	-5.12/-5.19	-4.95/-4.37	-3.93/-3.85	-4.19/-4.33	-4.49/-4.99	-6.16/-6.85	-5.93/-5.88	-7.88/-12.93	-14.40/-16.22	-14.96/-13.93	-13.19/-14.15	-12.52/-12.42	-13.25/-13.38
Θ(180°)	-15.63/-15.42	-15.41/-15.41	-15.35/-15.84	-15.30/-15.16	-15.43/-15.43	-15.34/-15.43	-14.95/-14.73	-14.04/-12.98	-12.25/-10.67	-9.73/-9.71	-8.30/-7.70	-8.49/-9.93	-13.35/-15.43	-15.61/-15.20	-15.30/-14.26	-15.01/-15.20	-15.22/-16.07	-13.99/-14.16
Freq(Hz)	5.885GPol.	TotalAnt. 1	-/-	-/+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Gain	Φ(0°)Ψ(10°)	Φ(20°)Ψ(30°)	Φ(40°)Ψ(50°)	Φ(60°)Ψ(70°)	Φ(80°)Ψ(90°)	Φ(100°)Ψ(110°)	Φ(120°)Ψ(130°)	Φ(140°)Ψ(150°)	Φ(160°)Ψ(170°)	Φ(180°)Ψ(190°)	Φ(200°)Ψ(210°)	Φ(220°)Ψ(230°)	Φ(240°)Ψ(250°)	Φ(260°)Ψ(270°)	Φ(280°)Ψ(290°)	Φ(300°)Ψ(310°)	Φ(320°)Ψ(330°)	Φ(340°)Ψ
Θ(0°)	-2.73/-3.02	-3.30/-3.19	-3.03/-2.96	-2.90/-3.09	-3.05/-3.10	-2.97/-3.35	-3.03/-3.08	-3.30/-3.32	-2.69/-2.82	-2.91/-2.62	-3.35/-3.82	-3.61/-3.60	-3.03/-2.83	-2.80/-3.08	-3.35/-3.69	-4.02/-3.79	-3.17/-2.76	-2.66/-2.69
Θ(10°)	-2.70/-2.78	-3.12/-3.25	-3.51/-3.54	-4.22/-4.61	-4.75/-4.83	-5.44/-4.44	-4.87/-5.45	-6.40/-7.59	-7.98/-7.68	-6.84/-6.09	-5.40/-5.19	-4.73/-4.40	-3.77/-3.21	-3.21/-2.86	-3.00/-3.09	-3.32/-3.31	-3.55/-3.56	-3.35/-3.37
Θ(20°)	-2.18/-2.																	



Antenna Pattern of 5GHz UNII 2C~4

Appendix E

Θ(60°)	-4.99/4.44	-2.55/-1.77	-3.02/-5.07	-5.40/4.88	-3.29/-1.47	-2.44/-2.76	-1.48/-0.81	0.18/-3.77	-4.89/1.45	2.14/0.80	-1.29/0.13	-0.76/-0.10	-0.27/-1.60	-2.59/-1.19	-2.11/-3.34	-3.47/-4.52	-5.81/-10.27	-7.21/-8.27
Θ(70°)	-5.43/4.64	-1.38/-0.43	-1.10/-2.95	-3.35/-3.91	-2.15/-0.65	-2.63/-2.62	-0.57/-1.06	-0.77/-4.34	-2.88/1.64	1.98/-0.69	0.20/0.90	-0.33/-0.96	-0.47/-2.18	-4.27/-2.70	-2.07/-1.51	-2.86/-4.55	-5.02/-4.94	-3.89/-4.12
Θ(80°)	-6.73/-5.31	-1.42/-0.73	-1.37/-1.88	-1.75/-2.01	-1.37/-1.88	-1.82/-1.70	1.43/-0.71	-2.71/-1.53	-1.92/0.44	-1.82/-1.77	-0.48/-0.39	-1.22/0.57	-1.17/-1.92	-2.40/-3.09	-3.33/-3.53	-3.91/-3.64	-3.43/-4.12	
Θ(90°)	-8.16/-6.00	-1.29/0.24	-0.37/-1.35	-0.82/-1.37	0.70/0.88	-1.62/-1.83	2.54/-1.23	-3.62/-3.54	-8.19/-2.18	-0.06/-4.16	0.35/-1.68	1.04/-0.33	1.14/-4.32	-2.40/-8.40	-2.70/-1.98	-4.28/-5.44	-2.49/-0.44	-2.61/-7.97
Θ(100°)	-3.71/-3.62	-2.36/-0.62	-1.05/-2.38	-1.16/-0.33	1.86/0.03	-0.86/0.07	1.78/-0.62	-13.82/-7.99	-7.87/-3.48	-2.20/-6.62	-1.75/-1.06	-2.79/-4.38	-1.08/-7.69	-3.31/-11.91	-3.73/-4.08	-4.28/-5.57	-2.43/0.23	-2.32/-2.66
Θ(110°)	-1.81/0.31	0.25/0.35	2.04/2.92	2.70/1.73	1.39/0.21	-0.13/0.18	0.96/-0.70	-5.57/-9.32	-5.54/-6.46	-5.57/-9.32	-6.18/-6.75	-5.11/-12.15	-6.18/-6.75	-5.84/-9.89	-3.91/-9.65	-2.76/-1.60	-4.06/-4.49	
Θ(120°)	0.86/2.18	0.97/-0.24	0.03/-1.38	-0.21/-1.57	1.28/-0.95	-0.74/0.53	1.03/0.28	-1.78/-2.20	-5.21/-5.96	-6.18/-8.67	-11.92/-6.17	-12.09/-9.88	-4.67/-7.37	-5.57/-10.54	-7.85/-6.72	-7.65/-2.81	-0.54/-3.62	-1.80/-1.83
Θ(130°)	2.59/2.11	2.25/-1.33	-0.12/0.70	2.87/3.88	1.98/-2.04	0.21/-2.23	-6.68/-10.07	-9.34/-11.03	-14.75/-9.63	-10.16/-15.40	-8.86/-8.17	-3.63/-3.35	-5.43/-7.42	-6.76/-5.19	-7.12/-5.16	-1.48/-1.55	0.98/0.52	
Θ(140°)	0.62/0.74	1.34/-1.86	2.41/2.52	2.22/-1.07	-1.74/-3.27	-2.15/-0.88	-2.37/-5.10	-13.24/-10.41	-7.32/-14.43	-9.49/-5.89	-8.74/-15.42	-9.79/-11.41	-9.48/-8.39	-8.74/-15.42	-12.71/-7.06	-8.13/-5.14	-1.57/-1.89	
Θ(150°)	-0.84/-0.65	0.43/0.96	1.51/-1.76	0.87/0.10	0.07/0.10	-0.51/-2.70	-6.96/-10.85	-10.54/-8.82	-10.37/-12.29	-10.14/-5.69	-5.55/-6.03	-9.31/-10.36	-9.52/-10.69	-13.70/-13.69	-8.90/-8.02	-5.78/-12.88	-8.00/-7.24	-4.56/-4.84
Θ(160°)	0.38/-0.90	-1.30/-1.11	-1.35/-0.97	-0.62/-1.45	-2.39/-2.06	-1.17/-1.45	-2.60/-4.18	-5.05/-5.23	-6.62/-9.88	-11.48/-9.75	-7.56/-5.75	-4.82/-5.90	-8.56/-10.00	-8.60/-6.51	-4.88/-4.05	-1.84/-0.74	-0.07/-1.07	1.63/-1.48
Θ(170°)	-1.96/-3.53	-4.30/-4.64	-4.18/-4.44	-3.64/-2.11	-4.18/-4.44	-3.64/-2.11	-4.18/-4.44	-6.30/-9.52	-15.62/-15.85	-15.44/-15.23	-12.82/-11.03	-11.40/-10.93	-9.62/-7.92	-6.60/-4.97	-3.13/-2.23	-1.85/-1.54	-1.25/-0.96	-0.96/-1.73
Θ(180°)	-7.59/-6.93	-6.90/-7.51	-8.80/-8.35	-7.90/-7.43	-7.17/-8.44	-11.06/-13.72	-15.70/-15.41	-15.40/-15.48	-15.49/-14.90	-14.91/-15.41	-15.85/-15.60	-13.53/-12.94	-12.64/-9.92	-8.47/-7.65	-7.38/-7.97	-8.14/-7.96	-8.36/-8.59	-8.22/-8.49
Freq(Pol)	5.6G/Pol	TotalAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-6.40/-6.45	-7.03/-7.03	-8.12/-7.86	-7.06/-6.37	-6.23/-5.86	-6.37/-7.47	-7.30/-7.43	-7.51/-7.28	-7.14/-6.94	-6.89/-7.29	-6.99/-6.86	-6.72/-6.95	-7.78/-7.25	-6.36/-5.95	-6.02/-7.06	-7.68/-6.88	-6.48/-6.96	-7.52/-7.59
Θ(10°)	-14.73/-14.92	-15.62/-15.93	-14.59/-11.85	-10.38/-9.11	-6.84/-6.05	-6.73/-7.05	-7.18/-6.99	-7.21/-6.64	-5.16/-4.30	-3.94/-3.67	-3.44/-3.44	-3.23/-3.00	-3.56/-4.74	-5.40/-5.94	-6.71/-7.21	-8.20/-10.23	-11.64/-12.72	-13.09/-14.17
Θ(20°)	-14.27/-15.98	-14.60/-12.21	-8.77/-10.08	-11.06/-8.72	-5.89/-5.41	-6.74/-7.24	-6.21/-5.37	-3.65/-2.17	-1.52/-1.19	-1.25/-1.57	-1.95/-2.10	-2.31/-2.77	-3.41/-3.88	-4.74/-5.02	-9.93/-12.32	-13.24/-14.70	-15.43/-15.80	
Θ(30°)	-7.70/-12.23	-14.99/-15.09	-14.68/-12.53	-9.13/-7.43	-6.71/-7.42	-6.36/-4.39	-3.92/-2.75	-1.27/-1.02	-1.35/-2.20	-3.08/-2.15	-2.20/-2.68	-2.08/-1.61	-1.18/-2.18	-3.83/-4.64	-3.78/-3.57	-5.66/-6.85	-8.01/-7.37	-6.12/-6.03
Θ(40°)	-4.54/-5.84	-7.87/-8.76	-9.34/-12.77	-10.72/-7.23	-9.04/-10.74	-6.00/-7.38	-5.77/-3.07	-1.86/-1.39	-0.70/-0.15	-1.06/-1.92	-2.56/-3.10	-2.70/-2.93	-1.38/-0.85	-1.46/-2.98	-4.12/-4.12	-5.25/-4.84	-3.41/-2.71	-3.59/-3.95
Θ(50°)	-7.72/-7.64	-10.50/-8.09	-6.58/-5.89	-6.87/-6.61	-1.25/-1.01	-5.50/-4.04	-6.41/-2.65	-1.96/-1.07	-1.11/-1.93	-2.58/-2.85	-3.07/-3.74	-3.36/-3.04	-2.29/-4.10	-2.28/-2.57				
Θ(60°)	-3.81/-5.61	-10.56/-10.95	-10.26/-5.04	-3.72/-6.23	-3.05/-6.18	-4.68/-3.08	-6.51/-3.22	-1.22/-0.75	-0.23/0.15	-0.68/-0.72	-0.69/-1.54	-2.51/-3.32	-2.84/-3.28	-2.33/-3.80	-3.22/-10.91	-6.17/-1.47	-0.41/-0.02	-1.03/-1.07
Θ(70°)	-1.97/-6.93	-8.84/-9.59	-13.29/-10.82	-4.78/-4.54	-1.35/-2.07	-3.10/-1.37	-6.18/-3.47	-1.88/-1.16	-1.50/-0.21	-1.26/-0.93	-2.24/-2.43	-2.41/-2.56	-2.52/-0.92	0.41/-5.30	-2.68/-4.96	-2.21/-1.05	-1.45/-1.70	-0.43/-0.56
Θ(80°)	0.65/-6.07	-7.21/-5.01	-15.76/-15.41	-5.36/-2.96	-2.72/-1.40	-1.91/-0.39	-4.35/-1.86	-0.17/0.29	-0.27/0.61	-0.29/0.61	-0.73/-1.45	-2.01/-1.89	-1.24/-0.11	-0.58/-1.91	-1.23/-0.81	-1.23/-0.81	-0.56/-0.92	
Θ(90°)	2.86/-3.90	-7.02/-2.71	-14.87/-10.64	-10.17/-3.37	-5.59/-1.66	-2.80/-1.02	-5.54/-2.25	-1.24/0.66	0.45/0.03	-0.23/-1.08	-0.83/-3.47	-4.51/-0.75	-0.02/0.78	1.00/-3.81	-0.14/-2.63	-0.34/-1.63	-1.74/-1.03	0.45/2.88
Θ(100°)	1.60/-7.75	-8.25/-0.75	-14.46/-10.88	-9.70/-2.48	-6.69/-2.37	-3.30/-3.05	-5.12/-4.08	-2.51/0.35	-0.42/-1.10	-0.71/-0.30	-0.10/-4.65	-4.78/-0.67	-0.27/-1.86	1.08/-2.08	-1.15/-0.13	-0.62/-3.58	0.38/-0.18	-4.73/-4.77
Θ(110°)	-1.06/-11.59	-8.71/-3.69	-4.59/-6.18	-1.99/-11.01	-10.06/-3.35	-5.14/-3.27	-0.85/-0.61	-0.49/0.81	-0.50/0.45	-1.98/-0.11	-6.57/-2.47	-0.17/-2.14	-1.66/-1.34	-1.40/-0.30	-3.62/-4.21	-1.78/-0.74	-15.42/-15.57	
Θ(120°)	-3.58/-9.13	-10.31/-11.46	-10.47/-12.57	-10.84/-7.28	-11.15/-3.69	-7.41/-6.33	-5.58/-3.16	-2.38/-2.93	-1.49/0.32	-1.98/-1.01	-1.56/-1.40	-3.62/-3.67	-4.04/-0.97	-1.47/-7.24	-2.23/-1.32	-1.81/-3.02	-3.58/-5.56	-14.65/-15.62
Θ(130°)	-3.28/-9.16	-13.96/-5.04	-6.13/-8.42	-6.77/-6.50	-10.51/-6.29	-7.76/-5.84	-7.61/-5.73	-3.99/-4.43	-2.50/-0.78	-2.16/-3.52	-0.80/-1.32	-6.59/-3.34	-0.31/-0.63	0.34/-7.72	-1.07/0.12	-1.29/-4.64	-6.44/-3.03	-10.03/-10.07
Θ(140°)	-6.43/-2.90	-3.69/-5.97	-12.17/-10.30	-5.00/-8.88	-13.78/-7.67	-7.01/-7.13	-8.60/-12.49	-8.12/-8.03	-8.76/-5.01	-6.30/-4.20	-0.69/-3.90	-8.56/-5.78	-3.94/-3.63	-1.96/-8.46	-5.68/-2.66	-3.16/-5.63	-5.07/-9.39	-8.22/-8.39
Θ(150°)	-7.02/-6.21	-9.41/-13.31	-10.53/-9.25	-9.15/-10.52	-12.69/-12.01	-9.89/-7.31	-13.15/-10.40	-7.31/-8.12	-9.69/-7.31	-8.69/-5.69	-7.89/-3.51	-2.32/-3.37	-5.55/-6.42	-5.55/-4.80	-7.16/-14.53	-7.89/-3.83	-5.98/-6.39	-13.38/-6.83
Θ(160°)	-15.34/-15.84	-14.13/-14.41	-15.80/-15.36	-14.94/-14.78	-13.89/-12.27	-9.20/-6.86	-6.24/-5.86	-5.07/-4.23	-3.53/-3.71	-4.61/-6.45	-7.21/-7.77	-8.41/-9.20	-10.96/-10.77	-12.65/-13.74	-10.23/-8.04	-10.12/-15.76	-14.81/-15.19	-12.75/-13.18
Θ(170°)	-8.75/-11.71	-13.26/-11.35	-11.85/-14.34	-10.55/-8.09	-7.89/-9.29	-8.49/-7.63	-7.15/-6.73	-7.27/-7.27	-6.69/-6.13	-5.64/-5.77	-5.10/-5.33	-6.08/-5.95	-5.57/-5.70	-6.77/-7.40	-7.71/-7.89	-7.43/-6.75	-6.24/-6.01	-6.35/-6.72
Θ(180°)	-8.82/-8.01	-7.69/-8.04	-9.85/-9.87	-6.82/-6.48	-8.97/-8.77	-8.89/-9.29	-9.21/-7.52	-6.63/-6.48	-6.91/-6.53	-7.05/-7.66	-12.86/-17.54	-11.29/-11.56	-13.16/-14.53	-14.80/-13.16	-11.29/-11.56	-13.16/-14.53	-11.19/-11.50	
Freq(Hz)	5.785G/Pol	TotalAnt. 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-8.39/-9.53	-9.73/-8.68	-10.30/-10.54	-8.90/-8.97	-9.02/-8.66	-8.94/-9.63	-9.10/-9.40	-8.74/-9.26	-9.01/-8.70	-8.90/-8.78	-9.21/-9.30	-10.14/-10.65	-10.14/-10.24	-10.27/-9.35	-8.45/-8.12	-8.53/-9.78	-10.41/-9.96	-9.16/-10.33
Θ(10°)	-14.54/-15.22	-14.42/-15.93	-14.91/-12.81	-10.74/-10.13	-10.26/-9.79	-9.53/-9.81	-8.45/-7.22	-6.58/-6.47	-5.99/-5.24	-5.53/-5.62	-5.82/-5.84	-6.30/-7.00	-7.18/-7.68	-7.45/-7.25	-7.24/-7.45	-8.73/-10.26	-10.42/-11.91	-15.42/-15.47
Θ(20°)	-10.83/-12.72	-15.35/-14.42	-13.89/-12.06	-10.59/-8.70	-7.60/-7.58	-7.86/-5.66	-4.05/-2.90	-2.28/-2.49	-2.03/-1.73	-2.09/-3.15	-4.00/-3.67	-3.33/-3.11	-3.45/-3.94	-4.93/-6.40	-7.40/-8.31	-8.33/-8.66	-10.18/-10.72	-9.70/-10.53
Θ(30°)	-11.62/-14.75	-11.84/-14.38	-13.01/-10.49	-7.95/-5.74	-4.84/-5.26	-5.20/-3.54	-2.80/-1.52	-1.49/-3.21	-4.76/-5.77	-3.15/-3.72	-4.76/-5.77	-2.77/-2.05	-4.07/-1.03	-1.70/-1.84	-2.57/-2.83	-3.73/-5.81	-6.64/-6.56	-6.61/-7.03
Θ(40°)	-4.62/-5.74	-9.99/-11.74	-15.49/-13.34	-9.17/-9.00	-10.06/-5.70	-4.85/-4.39	-2.97/-2.24	-1.75/-2.78	-2.34/-1.03	-0.56/-1.76	-2.46/-2.46	-2.00/-2.66	-2.09/1.04	0.92/-1.90	-4.27/-2.57	-1.86/-3.28	-2.90/-3.67	-4.84/-5.03
Θ(50°)	-5.95/-8.13	-9.09/-6.92	-7.48/-6.64	-5.68/-4.03	-5.05/-8.03	-2.82/-4.84	-2.16/-1.96	-1.75/-0.59	0.12/0.35	0.25/-0.07	-0.69/-2.03	-1.66/-1.92	-2.73/-1.50	-1.44/-2.16	-2.59/-2.70	-4.05/-3.14	-1.49/-0.34	-1.04/-1.14
Θ(60°)	-3.82/-4.70	-9.13/-8.55	-8.35/-4.77	-4.72/-3.39	-6.74/-5.94	-2.02/-4.41	-1.94/-0.60	-1.76/-0.41	-0.67/0.45	-0.28/-0.52	-0.69/-1.04	-2.38/-1.42	-1.68/-3.50	-3.19/-4.92	-1.04/-4.54	-1.83/-1.33	-0.29/-0.46	
Θ(70°)	-1.34/-4.11	-6.23/-6.82	-1.75/-6.83	-4.04/-3.47	-1.37/-4.64	-1.47/-4.38	-3.94/-1.20	-1.67/-0.15	-0.33/0.53	-1.43/-1.05	-2.11/-1.48	-2.30/-0.38	0.34/-2.43	0.57/-3.06	-2.97/-4.64	-4.81/-0.79	-1.05/-1.31	0.05/0.02
Θ(80°)	1.13/-5.67	-5.57/-4.87	-6.89/-12.82	-5.08/-3.99	-0.96/-1.69	-0.73/-1.50	-3.11/-0.73	-0.42/0.01	0.51/1.89	0.11/-0.28	-0.81/-1.31	-2.38/0.00	1.28/-1.37	0.36/-2.11	-1.99/-1.74	-1.79/-0.13	-2.26/-1.54	-0.30/-0.45
Θ(90°)	3.54/-8.42	-6.77/-2.33	-10.42/-12.27	-7.81/-3.14	-7.67/-3.02	-2.44/-3.53	-2.78/-0.89	-1.60/-0.93	-0.16/0.93	-0.18/-0.28	-1.51/0.33	-0.60/0.06	-1.89/-2.52	0.62/-0.39	-1.43/2.53	1.40/3.10		
Θ(100°)	2.47/-6.03	-7.18/-0.76	-11.53/-6.35	-8.90/-3.80	-8.65/-2.43	-2.87/-1.89	-3.48/-1.85											



Antenna Pattern of 5GHz UNII 2C~4

Appendix E

Θ(160°)	-3.72/-3.09	-3.35/-4.13	-5.18/-3.86	-2.71/-3.82	-5.79/-8.04	-12.01/-12.47	-11.32/-11.83	-12.02/-13.49	-15.36/-14.01	-11.89/-9.53	-8.29/-9.63	-11.07/-10.95	-9.68/-10.21	-8.29/-6.90	-7.21/-6.76	-5.61/-4.97	-4.77/-4.59	-4.94/-4.94
Θ(170°)	-4.41/-3.74	-3.13/-3.04	-3.12/-3.96	-5.18/-7.19	-9.25/-11.61	-14.76/-15.94	-14.60/-16.00	-11.39/-8.19	-7.25/-6.20	-5.76/-7.01	-7.45/-9.04	-12.36/-14.97	-15.11/-13.69	-9.18/-7.53	-8.01/-7.88	-7.13/-5.78	-5.70/-5.68	-4.82/-5.44
Θ(180°)	-3.56/-4.42	-5.22/-4.49	-4.74/-5.23	-7.14/-7.81	-7.97/-8.36	-9.90/-9.35	-7.94/-6.60	-5.32/-5.13	-4.74/-3.86	-3.47/-3.43	-3.90/-4.27	-4.32/-4.93	-5.37/-5.45	-5.78/-5.52	-6.75/-6.70	-6.58/-6.23	-5.43/-5.16	-4.96/-5.09
Freq(Hz)	5.885GPol	TotalAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	-10.63/-10.44	-10.25/-10.71	-9.90/-8.93	-8.45/-8.31	-8.08/-9.00	-10.12/-11.18	-10.07/-9.69	-10.52/-10.24	-9.06/-9.09	-9.27/-9.71	-10.69/-10.76	-10.09/-9.83	-9.88/-9.08	-9.69/-8.84	-9.05/-8.94	-8.98/-9.22	-9.52/-10.05	-10.51/-11.12
Θ(10°)	-10.01/-8.71	-9.70/-9.44	-7.62/-7.36	-6.99/-7.59	-6.70/-6.82	-7.30/-8.26	-9.76/-11.14	-10.96/-11.88	-12.78/-11.07	-8.83/-8.08	-8.50/-7.93	-7.98/-9.08	-10.38/-11.84	-11.60/-10.67	-11.50/-14.24	-14.75/-12.91	-12.88/-12.00	-11.40/-11.84
Θ(20°)	-3.63/-1.84	-1.31/-2.02	-2.41/-4.11	-5.73/-7.01	-6.19/-5.54	-6.27/-7.24	-7.51/-9.93	-12.97/-13.23	-13.51/-15.92	-15.53/-10.70	-8.41/-5.86	-4.36/-4.05	-4.97/-6.72	-8.25/-8.57	-8.57/-10.28	-8.73/-8.36	-8.27/-7.49	-6.09/-6.43
Θ(30°)	-2.31/-2.46	-1.30/-0.98	-1.13/-2.06	-3.74/-6.23	-6.21/-4.14	-2.91/-2.98	-5.99/-12.29	-11.50/-12.92	-12.15/-9.52	-8.25/-7.57	-7.67/-6.31	-4.07/-2.86	-1.18/-1.03	-2.17/-3.96	-5.35/-4.23	-2.87/-1.89	-2.47/-3.83	-3.34/-3.41
Θ(40°)	0.51/-1.45	-0.16/-2.12	-1.89/-3.18	-5.86/-9.18	-5.07/-2.92	-2.65/-7.24	-14.19/-13.99	-10.69/-7.77	-8.62/-6.06	-4.64/-5.81	-4.37/-1.94	-0.03/-0.59	-1.64/-0.14	0.75/-0.93	-2.29/-0.15	0.25/0.13	-1.33/-0.15	1.17/-1.04
Θ(50°)	0.05/0.24	0.91/-1.00	-3.58/-3.57	-5.65/-6.48	-1.21/-1.48	-6.13/-8.17	-8.64/-9.11	-7.28/-7.94	-7.32/-3.86	-3.20/-3.09	-2.53/-2.81	-1.27/-0.98	-2.84/-1.74	-1.09/-3.79	-2.57/-1.79	-2.74/-2.22	-2.20/-2.77	-1.94/-2.43
Θ(60°)	0.06/0.40	1.15/-1.01	-1.12/-1.99	-2.57/-1.99	0.03/-0.63	-4.52/-6.19	-3.73/-4.56	-9.20/-11.04	-4.54/-1.37	-2.29/0.21	1.01/-0.64	-3.43/-3.41	-3.20/-2.10	-2.16/-4.61	-6.04/-1.73	-4.54/-3.71	-3.45/-3.31	-2.35/-2.63
Θ(70°)	-1.14/-1.07	1.24/-1.04	-2.28/-3.32	-0.59/-2.20	-1.69/-2.33	-4.39/-2.03	-2.90/-6.92	-12.49/-13.72	-7.36/-4.23	-0.26/-0.83	-0.50/0.14	-1.00/-3.31	-3.14/-1.03	1.10/-0.06	-2.35/0.53	-1.19/-1.70	-1.05/-1.30	0.67/0.32
Θ(80°)	-2.88/0.30	-0.77/-0.05	-0.42/-0.64	1.03/-1.41	0.02/-5.37	-1.14/-3.88	-1.97/-8.98	-9.30/-10.05	-6.80/-6.06	2.08/-1.69	0.57/-0.01	-3.09/-0.35	-0.28/-0.36	-0.11/0.45	0.79/-1.68	0.23/-1.90	-0.36/0.35	0.39/0.17
Θ(90°)	-1.95/-0.55	-1.24/-1.62	0.20/0.11	1.74/-1.82	-4.25/-4.66	-2.55/-1.22	-5.60/-4.58	-8.31/-3.03	-6.74/-4.02	3.69/-2.88	2.49/3.21	-1.29/-1.52	-0.12/-0.94	1.36/2.41	1.62/-1.77	-1.26/-1.15	2.05/-1.82	
Θ(100°)	-2.07/-1.50	-1.29/-1.69	-0.15/0.36	-0.14/-4.62	-4.26/-5.20	-2.17/-5.14	-4.99/-4.50	-10.73/-3.45	-3.79/-4.73	3.14/-0.01	-2.86/0.34	-1.03/-4.60	-0.35/-0.68	-0.35/0.30	-1.08/2.35	0.92/-1.18	0.03/0.84	2.42/2.37
Θ(110°)	-1.32/-0.63	-0.35/0.79	-0.77/0.16	-1.68/-2.63	-3.38/-2.43	-4.56/-4.02	-5.91/-5.08	-4.29/-7.34	-6.50/-9.59	-1.71/-6.67	-8.47/-6.66	-3.79/-6.49	-4.89/0.67	-2.87/-3.12	0.49/0.82	-1.88/-4.08	0.42/-1.08	0.48/0.73
Θ(120°)	0.93/0.97	-0.47/-1.68	-3.02/-1.01	-3.01/-5.48	-7.08/-7.30	-9.04/-7.78	-14.31/-14.93	-9.04/-7.78	-9.73/-5.67	-2.43/-3.29	-8.37/-5.67	-2.27/-2.84	-4.18/0.62	-12.50/-2.48	-0.45/-0.32	-0.41/-2.11	0.03/-1.87	2.44/-1.94
Θ(130°)	-1.33/-3.38	-2.38/-3.51	-4.17/-2.49	-4.09/-7.40	-10.71/-9.39	-3.87/-8.22	-6.68/-6.14	-4.00/-1.79	-3.64/-5.94	-1.56/-2.84	-6.85/-5.32	-7.48/-4.41	-2.20/-1.07	-8.72/-1.09	-1.77/0.04	-0.40/-6.53	-3.40/2.58	1.01/0.60
Θ(140°)	0.51/0.43	-3.81/-5.96	-2.56/-2.63	-2.65/-2.56	-5.78/-7.01	-4.36/-7.67	-7.17/-4.65	-9.72/-7.52	-7.70/-3.99	-4.61/-14.13	-13.80/-6.63	-7.49/-3.97	-2.16/-7.28	-10.67/-8.92	-4.96/-5.78	-8.47/-11.21	-5.64/-0.79	0.35/0.24
Θ(150°)	-7.22/-9.21	-12.44/-8.39	-5.58/-5.33	-10.13/-14.93	-9.51/-9.81	-7.48/-5.80	-5.56/-4.12	-8.22/-14.71	-6.74/-5.56	-12.54/-8.70	-11.40/-9.18	-6.11/-5.01	-7.78/-2.80	-6.86/-11.10	-7.78/-2.80	-2.71/-3.04		
Θ(160°)	-4.48/-2.54	-2.18/-2.87	-3.63/-2.75	-1.99/-3.19	-5.63/-7.75	-10.74/-12.97	-13.39/-12.69	-11.30/-12.12	-12.44/-12.91	-9.68/-8.58	-7.18/-7.87	-9.56/-8.60	-7.93/-10.16	-9.36/-7.38	-6.82/-5.95	-4.85/-4.47	-4.78/-4.74	-4.80/-5.52
Θ(170°)	-2.55/-2.69	-2.68/-2.32	-1.97/-3.24	-5.11/-8.46	-11.24/-13.16	-14.41/-15.10	-14.80/-15.59	-12.72/-9.21	-6.08/-5.24	-5.70/-5.88	-7.27/-9.67	-13.07/-13.17	-12.99/-11.28	-10.55/-8.09	-6.79/-6.32	-5.27/-4.90	-4.44/-3.94	-6.34/-5.40
Θ(180°)	-3.56/-4.13	-3.54/-3.80	-5.04/-5.44	-5.86/-5.95	-5.81/-6.39	-8.17/-9.77	-9.14/-6.23	-4.46/-4.46	-4.09/-3.98	-3.74/-3.27	-3.38/-4.18	-4.12/-4.27	-5.12/-5.85	-5.77/-6.17	-6.24/-6.85	-6.62/-6.22	-5.66/-5.44	-4.00/-4.49
Freq(Hz)	5.6GPol	TotalAnt. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)	Φ(160°)/Φ(170°)	Φ(180°)/Φ(190°)	Φ(200°)/Φ(210°)	Φ(220°)/Φ(230°)	Φ(240°)/Φ(250°)	Φ(260°)/Φ(270°)	Φ(280°)/Φ(290°)	Φ(300°)/Φ(310°)	Φ(320°)/Φ(330°)	Φ(340°)/
Θ(0°)	2.72/-2.21	2.27/0.23	1.85/-1.63	1.73/1.60	1.87/-1.86	1.67/-1.59	1.52/-1.60	1.87/-1.81	1.80/-1.86	2.08/2.01	1.94/-1.89	1.91/-1.82	1.94/-1.89	1.91/-1.82	2.45/2.44	2.57/-2.46	2.57/-2.46	2.48/2.31
Θ(10°)	2.73/3.18	3.23/3.45	3.50/3.44	3.27/3.28	3.03/2.76	2.52/2.65	2.68/2.81	2.78/2.58	2.43/-1.86	1.44/0.79	0.28/-0.32	-0.66/-1.19	-1.30/-1.51	-1.39/-1.64	-1.17/-1.00	-0.73/-0.29	0.17/0.87	1.44/-1.35
Θ(20°)	2.25/-3.37	4.05/3.97	3.93/-4.16	4.14/3.88	3.33/2.93	2.63/2.18	1.82/-1.24	0.77/0.65	0.86/0.49	-0.18/-1.20	-1.77/-1.61	-1.89/-1.93	-2.01/-1.79	-1.81/-1.82	-2.10/-2.46	-2.57/-2.72	-2.50/-1.82	-1.27/-1.39
Θ(30°)	-1.22/0.85	2.07/2.58	3.10/3.34	3.25/2.31	1.52/0.63	0.40/0.50	0.88/0.59	-0.67/-1.50	-1.52/-2.66	-4.59/-6.00	-9.72/-11.92	-8.03/-9.18	-4.60/-9.71	-9.19/-9.28	-10.11/-6.53	-14.59/-15.10	-10.11/-6.53	-5.36/-5.59
Θ(40°)	-4.22/-2.22	-0.58/-0.03	1.45/2.22	1.85/-1.21	0.89/0.43	0.26/-0.44	-1.67/-1.99	-2.16/-2.76	-2.47/-4.98	-7.91/-8.45	-10.02/-9.05	-5.78/-5.10	-4.96/-5.17	-4.94/-4.62	-5.21/-4.74	-4.45/-6.44	-9.00/-9.66	-7.77/-8.30
Θ(50°)	-7.42/-6.39	-5.29/-4.57	-3.20/-1.04	0.91/-1.52	1.05/0.87	1.35/-1.25	-0.15/-2.40	-2.60/-1.79	-0.73/-1.75	-5.42/-9.41	-9.93/-5.48	-2.44/-0.65	-0.90/-1.10	-3.00/-4.03	-3.10/-3.17	-2.88/-2.88	-4.39/-6.77	-7.29/-7.92
Θ(60°)	-13.16/-7.83	-5.67/-6.13	-10.26/-7.94	-1.41/-1.03	1.82/-1.64	1.86/-1.85	0.49/-2.49	-1.67/-7.73	0.40/-1.07	-1.52/-2.46	-1.74/-0.96	0.02/-0.32	-0.06/-0.41	-1.76/-3.31	-1.71/-1.83	-1.76/-3.31	-4.96/-5.39	
Θ(70°)	-9.09/-5.35	-2.69/-1.92	-5.05/-9.89	-3.06/-0.59	-0.04/0.78	1.33/-1.84	0.80/-2.83	-4.49/-2.34	-1.28/-2.94	-6.59/-8.71	-2.53/0.18	-0.58/-0.79	0.24/0.88	-0.07/-0.53	0.16/-1.41	1.11/-2.05	-2.03/-4.63	-6.57/-7.09
Θ(80°)	-8.14/-6.30	-2.56/-0.93	-1.47/-3.99	-3.04/-1.29	-0.56/0.34	0.71/-1.54	1.61/-0.55	-3.33/-3.73	-3.04/-3.74	-5.85/-8.34	-3.33/-0.77	-1.84/-0.99	0.70/-1.52	1.47/-1.52	1.46/-2.49	1.26/-2.23	-4.45/-5.39	-4.89/-5.11
Θ(90°)	-6.48/-5.29	-1.51/0.25	-0.19/-1.80	-1.26/-0.61	0.67/-1.03	0.23/0.10	0.56/-0.97	-4.60/-6.81	-6.01/-6.04	-8.42/-9.41	-6.38/-5.62	-4.78/-2.95	-0.22/-1.13	1.27/-2.16	1.87/-1.16	-0.66/-3.64	-3.93/-2.66	-2.93/-6.58
Θ(100°)	-6.33/-6.12	-4.07/-2.43	-2.44/-2.33	-1.44/-0.03	0.85/-1.38	0.27/-0.22	0.08/-3.02	-6.12/-7.05	-7.91/-9.10	-10.42/-13.44	-12.11/-11.81	-10.67/-5.19	-1.53/-1.07	0.09/-1.87	1.89/-1.41	-4.45/-3.74	-2.02/-3.40	-3.44/-4.24
Θ(110°)	-9.68/-9.79	-7.07/-4.26	-2.63/-1.77	-2.18/-3.75	-7.05/-8.46	-5.01/-1.19	0.45/-0.26	-3.05/-4.66	-6.88/-11.29	-14.47/-12.41	-12.34/-15.40	-10.96/-6.61	-7.06/-8.62	-3.95/-0.21	-2.58/-8.43	-10.16/-5.67	-3.57/-5.83	-6.57/-6.72
Θ(120°)	-12.82/-13.87	-11.71/-6.90	-3.98/-1.78	-0.78/-2.29	4.79/-6.27	-4.51/-1.98	-3.86/-5.79	-6.46/-9.86	-15.52/-9.94	-12.63/-15.27	-11.95/-7.66	-11.40/-8.86	-9.18/-4.21	-10.34/-10.44	-11.17/-6.29	-7.19/-11.53	-13.37/-13.89	
Θ(130°)	-15.06/-15.55	-15.29/-10.86	-6.34/-3.39	-1.87/-1.25	-1.95/-2.50	-6.89/-13.43	-13.80/-14.59	-12.95/-11.18	-13.30/-15.18	-9.40/-11.56	-5.10/-4.87	-5.02/-8.94	-4.91/-5.44	-5.10/-4.87	-5.02/-8.94	-14.27/-15.78	-9.47/-10.48	
Θ(140°)	-8.57/-7.60	-7.35/-7.02	-6.76/-5.41	-4.61/-5.25	-6.47/-8.70	-11.48/-15.10	-11.01/-8.45	-7.41/-8.78	-9.69/-9.48	-11.08/-11.96	-11.87/-11.94	-12.55/-11.40	-13.63/-8.33	-9.99/-14.92	-8.70/-13.30	-9.44/-8.73	-10.77/-10.76	-9.03/-9.48
Θ(150°)	-6.03/-7.69	-7.31/-9.22	-10.69/-11.22	-10.34/-9.50	-8.67/-9.07	-8.89/-8.33	-8.40/-9.16	-8.84/-7.91	-6.17/-7.31	-9.95/-11.33	-10.22/-11.50	-11.27/-8.05	-8.75/-6.96	-7.27/-9.20	-8.45/-8.85	-7.61/-6.26	-7.13/-7.29	-4.57/-4.75
Θ(160°)	-13.83/-11.85	-11.63/-12.53	-12.87/-11.56	-10.52/-9.89	-9.00/-7.43	-13.67/-6.48	-7.59/-9.60	-10.17/-9.37	-8.95/-10.48	-8.53/-10.27	-6.01/-6.36	-8.53/-10.27	-9.48/-7.97	-9.14/-11.46	-9.99/-8.65	-8.51/-7.18	-5.84/-6.27	-7.64/-8.05
Θ(170°)	-15.25/-13.12	-12.02/-12.17	-12.15/-10.86	-10.61/-11.09	-12.25/-12.76	-13.55/-14.08	-15.75/-15.22	-14.24/-12.05	-11.10/-9.55	-8.88/-8.31	-8.09/-7.73	-7.62/-8.17	-9.26/-10.77	-11.15/-11.02	-9.70/-9.19	-10.43/-11.35	-12.66/-13.33	-13.87/-14.24
Θ(180°)	-13.26/-13.44	-15.19/-14.69	-14.32/-13.10	-14.86/-15.58	-14.81/-15.07	-13.61/-13.24	-12.77/-10.99	-10.46/-10.64	-10.23/-10.13	-10.21/-10.07	-10.62/-11.07	-10.65/-10.64	-11.07/-11.20	-11.15/-11.27	-10.84/-11.40	-11.57/-11.87	-12.63/-13.41	-13.00/-13.36
Freq(Hz)	5.785GPol	TotalAnt. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(10°)	Φ(20°)/Φ(30°)	Φ(40°)/Φ(50°)	Φ(60°)/Φ(70°)	Φ(80°)/Φ(90°)	Φ(100°)/Φ(110°)	Φ(120°)/Φ(130°)	Φ(140°)/Φ(150°)</										

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

