



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

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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		
<input checked="" type="checkbox"/>	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

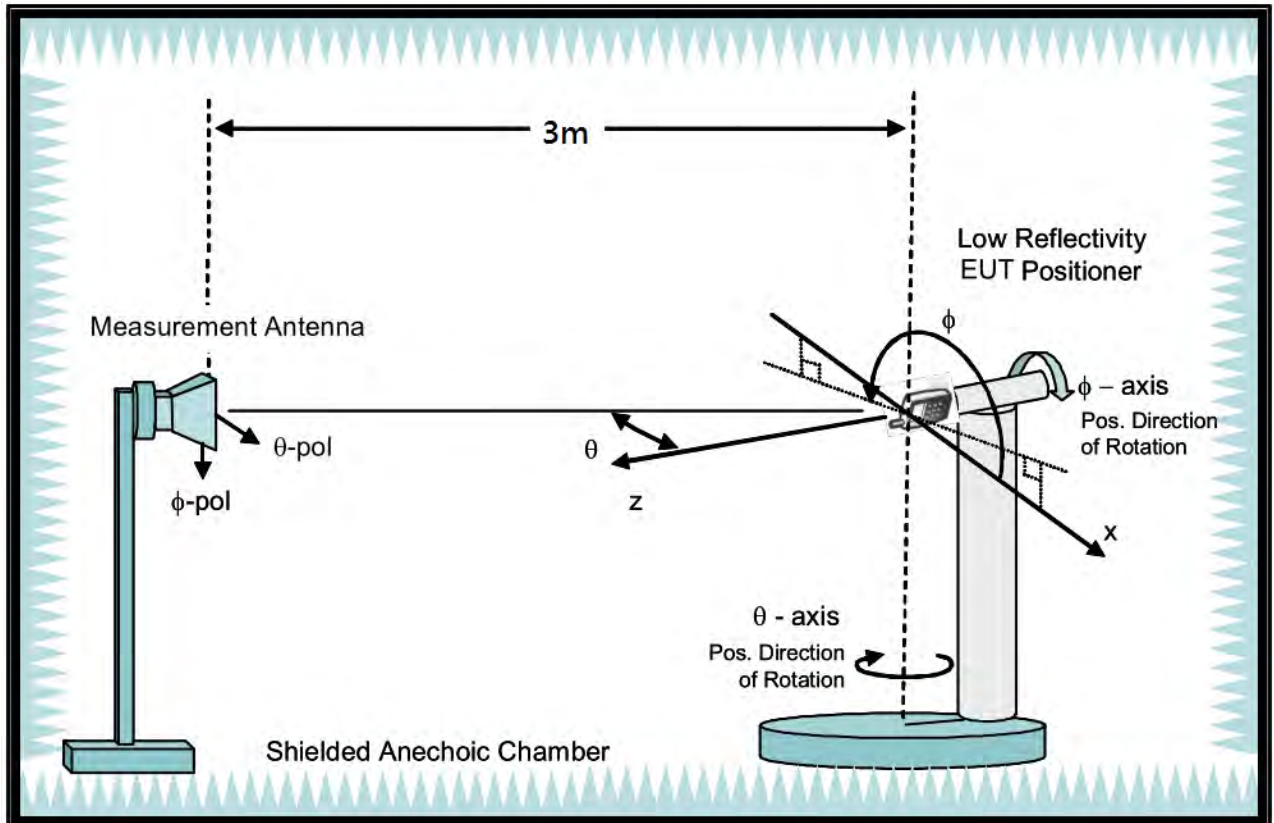
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

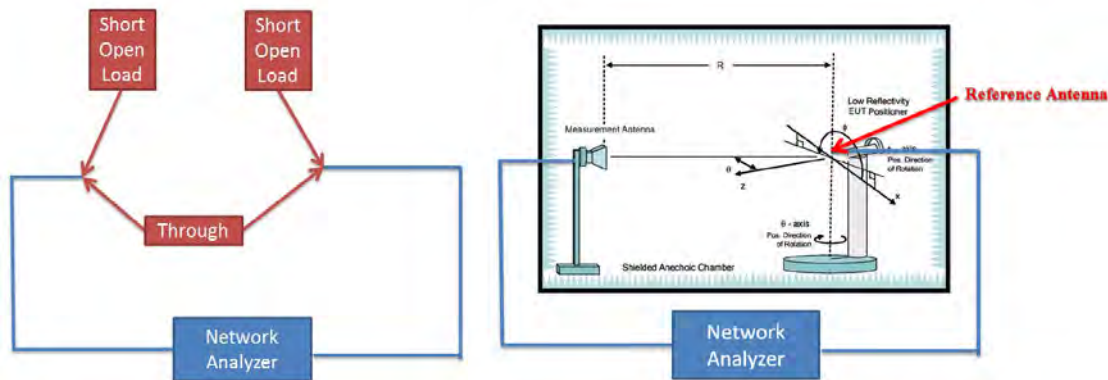
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



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:

$$G \text{ reading (dB)} = 20 \cdot \log(V2/V1) = 10 \cdot \log(P2/P1)$$

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
Θ (°)	70	60	80
Φ (°)	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).

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



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
Θ (°)	90	90	90
Φ (°)	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 [$10 \cdot \log(Amax^2/Nant)$]	6.13	7.23	6.76

Note:

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

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



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
Θ (°)	90	90	100
Φ (°)	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).

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



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

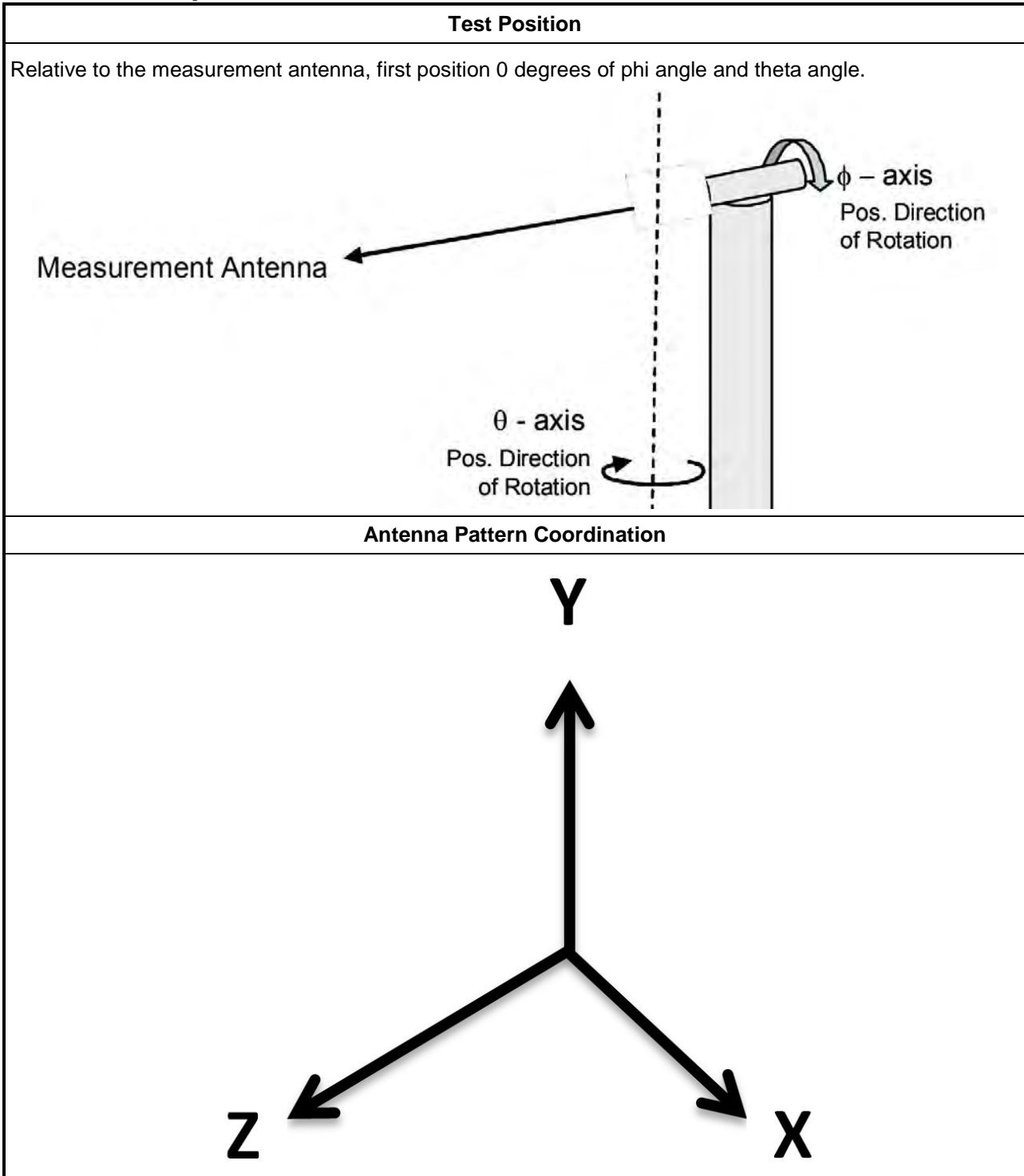
Mode 2: 5GH5.9G Ant.1~3 + 5GH5.9G Ant.5

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

Appendix B – Radiated Composite Gain of 5GHz UNII 2C~4 Mode 1.....Page 26

Appendix C – Radiated Composite Gain of 5GHz UNII 2C~4 Mode 2.....Page 34

Appendix D – Antenna Pattern of 2.4GHz and 5GHz UNII 1, 2A.....Page 42

Appendix E – Antenna Pattern of 5GHz UNII 2C~4.....Page 46

Appendix F – Test Photos.....Page 50

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/ θ (°)/ Φ (°)	Theta/90/130	Theta/90/250	Theta/80/80
Ant. 2 Polarization/ θ (°)/ Φ (°)	Theta/80/90	Theta/70/140	Theta/80/140
Ant. 3 Polarization/ θ (°)/ Φ (°)		Theta/60/200	Theta/50/200
Ant. 4 Polarization/ θ (°)/ Φ (°)		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)	2.4GPol.	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°)Phi(350°)
Theta(0°)	-8.91-8.81	-8.88-9.17	-9.76-9.76	-9.65-9.43	-9.47-9.79	-10.15-10.29	-10.31-9.48	-8.18-6.73	-5.61-4.98	-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
Theta(10°)	-7.51-7.73	-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
Theta(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	-10.71-11.59	-13.32-16.02	-14.16-12.51	-10.42-8.86	-7.88-7.23	-7.26-7.42
Theta(30°)	-12.05-12.43	-12.73-14.2	-15.55-15.2	-10.86-8.8	-7.99-6.88	-6.71-7.12	-10.99-10.99	-9.65-8.84	-6.71-7.12	-8.81-9.28	-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	-11.48-11.66
Theta(40°)	-14.51-14.88	-14.64-13.9	-15.13-16.44	-16.56-14.43	-11.51-8.55	-7.26-6.97	-7.17-7.03	-6.51-6.18	-6.08-6.39	-6.77-7.61	-8.88-10.43	-11.31-12.51	-14.64-16.68	-16.48-15.81	-14.23-11.85	-10.97-10.47	-10.61-11.53	-13.06-13.24
Theta(50°)	-13.97-12.64	-11.25-9.99	-9.78-10.97	-13.23-16.97	-15.94-14.96	-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	-8.81-9.14	-9.61-10.79	-11.82-13.67
Theta(60°)	-7.09-6.4	-5.9-6.6	-7.71-8.47	-11.44-10.68	-8.94-10.68	-12.66-11.89	-10.96-11.72	-13.91-14.01	-11.81-13.12	-9.23-10.19	-10.35-11.41	-13.31-12.7	-12.73-10.98	-9.17-8.21	-8.44-9.35	-10.73-10.52	-9.59-8.36	-9.59-8.36
Theta(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
Theta(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	-10.21-10.96	-11.67-10.73	-9.83-8.22	-9.83-8.22
Theta(90°)	-11.24-9.64	-8.23-7.86	-7.88-8.81	-9.81-10.19	-9.09-7.68	-6.12-6.77	-10.39-9.89	-8.86-9.9	-9.1-8.71	-11.71-12.23	-6.95-7.72	-8.72-9.95	-5.72-6.87	-8.88-11.93	-13.94-14.58	-13.51-12.86	-13.51-12.86	-13.51-12.86
Theta(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	-10.61-9.3	-7.47-7.21	-7.99-9.1	-10.17-10.7	-12.41-15.31	-15.1-14.31	-12.71-12.6
Theta(110°)	-16.04-12.98	-9.54-8.42	-8.41-7.53	-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
Theta(120°)	-14.12-9.66	-6.76-5.95	-7.13-7.82	-8.02-8.62	-8.69-8.53	-6.63-8.82	-8.85-9.7	-9.36-12.68	-6.26-6.99	-9.36-12.68	-15.31-11.41	-8.18-5.66	-5.61-7.68	-12.66-14.96	-15.94-14.17	-14.56-16.92	-16.51-16.42	-16.51-16.42
Theta(130°)	-16.71-16.33	-11.11-9.86	-10.72-9.59	-8.61-9.07	-10.55-12.74	-13.57-12.04	-10.51-9.41	-8.87-9.1	-8.52-8.02	-9.88-11.39	-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
Theta(140°)	-10.08-10.77	-11.67-13.26	-11.67-13.26	-10.61-9.23	-9.99-8.17	-9.62-8.99	-6.56-6.47	-6.99-8.17	-7.7-8.66	-10.13-14.26	-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
Theta(150°)	-8.65-9.13	-10.08-12.74	-15.29-15.77	-13.41-12.64	-12.94-12.99	-12.05-10.88	-10.13-9.89	-9.61-9.67	-8.34-7.09	-6.13-5.17	-4.38-3.82	-3.65-3.96	-4.81-5.68	-6.32-6.7	-6.61-6.4	-6.14-5.84	-5.31-5.36	-6.31-7.8
Theta(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	-11.23-7.74	-5.56-4.13	-3.41-3.1	-3.44-4.19	-5.71-7.16	-8.22-8.34	-8.33-8.38	-7.92-7.61	-7.51-7.39	-7.51-7.39
Theta(170°)	-6.43-6.15	-6.36-7.04	-8.53-10.73	-13.69-15.8	-16.61-14.81	-13.07-12.38	-11.76-11.63	-11.61-11.08	-9.81-8.78	-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	-12.31-10.83	-8.99-5.73
Theta(180°)	-6.41-6.72	-7.35-8.23	-9.66-11.53	-13.49-15.87	-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.	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°)Phi(350°)
Theta(0°)	-8.01-9.3	-10.73-11.34	-10.58-9.85	-9.45-9.1	-6.96-7.98	-8.49-9.72	-10.11-10.04	-6.86-6.54	-6.86-6.54	-8.49-9.72	-10.11-10.04	-6.86-6.54	-6.86-6.54	-8.49-9.72	-10.11-10.04	-6.86-6.54	-6.86-6.54	-8.49-9.72
Theta(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
Theta(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	-10.61-11.44	-12.17-12.34	-11.21-10.4	-9.34-8.19	-6.78-5.54	-4.67-4.01
Theta(30°)	-3.06-2.34	-1.47-1.01	-0.70-0.37	0.62-0.79	0.97-1.04	0.83-0.51	0.60-0.49	-0.95-1.23	-1.61-2.13	-3.14-3.35	-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
Theta(40°)	-1.35-0.98	-0.3-0.5	1.12-1.51	1.69-1.93	2.19-2.17	1.51-1.6	0.52-0.44	0.23-0.9	0.57-0.44	-0.23-0.9	-1.45-1.79	-2.32-2.81	-2.15-2.07	-2.02-2.02	-2.21-2.39	-2.22-1.86	-1.57-1.42	-1.57-1.42
Theta(50°)	0.69-0.6	1.11-1.99	2.54-2.61	2.74-3.38	4.08-4.4	4.25-3.7	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	-1.0-7.9	-0.54-0.3	0.09-0.6	1.03-0.92
Theta(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	4.24-3.7	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	-0.17-0.06
Theta(70°)	3.15-2.73	2.2-2.33	2.77-3.14	3.97-5.21	5.93-6.01	5.85-5	5.12-6.13	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5	4.91-5.5
Theta(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
Theta(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	5.28-3.41	2.16-2.8	3.09-2.77	2.47-2.69	3.33-4.7	3.26-2.44	1.97-2.42	2.42-2.41	3.2-3.7	2.43-2.72	3.12-3.47
Theta(100°)	0.92-0.66	-1.75-0.34	2.62-3.29	3.22-3.24	2.63-3.24	2.02-0.71	-1.0-7.8	0.88-0.07	0.20-0.71	1.01-0.22	0.82-0.6	1.61-3.8	0.82-0.6	0.74-0.13	2.87-2.76	2.66-2.32	2.1-3.1	1.1-3.4
Theta(110°)	1.81-0.97	-1.26-2	0.62-0.69	-0.69-1.14	-1.35-1.92	-2.21-2.11	-1.2-7.1	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	3.3-2.7	1.55-1.52
Theta(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	3.34-7.5	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
Theta(130°)	1.41-1.64	0.68-1.89	-3.61-2.03	-1.33-1.59	-2.11-2.01	0.15-1.03	0.64-0.22	-0.97-1.27	2.82-2.6	1.78-0.25	1.41-1.08	0.49-2.12	1.78-0.25	-1.91-0.53	-0.07-1.1	-1.44-0.36	-0.07-1.1	-1.44-0.36
Theta(140°)	-2.64-3.08	-4.21-4.78	-4.31-3.02	-1.95-1.32	-0.97-0.6	-0.16-0.26	0.11-0.6	-1.61-1.35	-0.22-0.58	0.68-0.38	-0.25-1.54	-3.21-3.87	-2.93-2.04	-2.13-2.27	-2.52-3.34	-4.11-3.22	-2.14-2.05	-2.57-2.53
Theta(150°)	-2.14-2.92	-3.88-4.76	-5.21-5.85	-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	-0.64-1.3	-2.83-3.09	-2.47-1.82	-1.62-1.63
Theta(160°)	-4.31-4.35	-4.07-3.87	-3.97-4.1	-4.35-4.69	-5.4-5.68	-5.45-5.77	-4.56-5.38	-5.35-5.23	-4.5-5.43	-5.82-5.57	-4.76-4.52	-4.75-5.01	-3.47-3.96	-2.93-3.02	-3.47-3.96	-4.75-5.31	-5.51-4.72	-4.91-4.57
Theta(170°)	-7.31-6.55	-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
Theta(180°)	-9.31-8.85	-8.26-7.6	-6.65-6.79	-5.31-5.12	-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	-9.51-8.88	-8.25-7.73	-7.81-7.91	-8.17-8.31	-8.97-9.19	-9.51-9.71	-9.67-9.34
Freq(Hz)	5.2GPol.	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°)Phi(350°)
Theta(0°)	-8.41-10.09	-10.71-10.11	-8.32-7.09	-5.71-4.73	-4.58-3.59	-2.93-2.97	-3.22-3.66	-4.31-4.8	-5.57-7.74	-10.26-12.1	-10.81-9.27	-8.08-6.59	-5.36-4.83	-4.19-3.72	-3.11-3.38	-3.96-3.95	-4.09-4.86	-6.56-8.96
Theta(10°)	-8.71-8.66	-7.91-9.91	-5.85-5.33	-5.69-6.43	-4.11-5.17	-5.92-6.68	-7.21-6.55	-5.23-6.21	-4.11-5.17	-5.92-6.6								



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	4.14/9	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	-2.50/5.5	-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	-2.29/-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	-4.6/-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	-10.03	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	-13.34/-13.73	-14.54/-14.16	-13.86/-13.39	-12.97/-12.29	-11.47/-11.02	-6.58/-6.6	-7.89/-7.05	-6.58/-6.6	-7.89/-7.05	-9.18/-10.7	-12.51/-14.34	-16.36/-18.31	-17.89/-15.31	-13.49/-12.61	-11.09/-10.48	-10.12/-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/-9.93	-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	-11.03/-10.47	-10.11/-10.11	-10.39/-10.67	-10.11/-10.1	-10.51/-11.37	-12.52/-14.29	-19.39/-19.26	-19.58/-19.26	-19.58/-19.26	-19.58/-19.26	-18.98/-20.06	-19.97/-19.68	-19.28/-19.73	-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	-7.87/-7.23	-6.6/-6.39	-6.86/-6.03	-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	-19.8/-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	-15.1/-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/-11.16	-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	-12.64/-14.15	-15.72/-14.67	-11.63/-9.14	-7.74/-7.77	-10.17/-9.09	-18.66/-18.67	-18.72/-20.12	-16.93/-15.18	-18.92/-15.8	-13.08/-10.87	-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	-10.24/-9	-13.67/-10.83	-8.65/-12.93	-9.21/-8.87	-9.41/-10.07	-17.85/-17.72	-17.17/-19.72	-10.12/-15.84	-11.02/-15.84	-10.88/-19.76	-18.76/-15.82	-17.81/-19.41	-18.43/-19.84	-18.77/-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	-8.81/-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°)	-14.35/-15.05	-13.27/-14.23	-19.51/-19.14	-16.19/-14.89	-16.12/-16.62	-16.84/-17.36	-17.87/-19.82	-19.81/-15.07	-11.68/-11.12	-12.57/-14.8	-16.34/-16.47	-6.11/-7.23	-18.54/-19.82	-16.56/-11.09	-8.41/-7.99	-8.94/-10.56	-9.54/-9.95	-9.73/-11.36	
θ(150°)	-11.46/-11.57	-12.29/-15.32	-18.93/-19.45	-15.34/-15.04	-16.99/-19.25	-18.14/-19.08	-18.24/-19.4	-18.98/-17.69	-8.16/-7.26	-6.79/-7.09	-8.02/-10.05	-12.76/-13.3	-10.73/-9.99	-6.24/-5.65	-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	-16.12/-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	-16.02/-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/-19.79	-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	-12.91/-11.13	-10.9/-16	-10.52/-10.28	-10.16/-11.39	-11.76/-11.57	-10.88/-10.73	-9.77/-10.28	-8.74/-9.18	-9.79/-9.48	-11.76/-12.16	-11.55/-10.98	-10.49/-11.24	-11.76/-12.16	-11.55/-10.98	-10.49/-11.24	-11.76/-12.16	-11.55/-10.98	
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°)	-3.44/-2.58	-1.83/-1.18	-0.6/-2.48	-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/-9.57	-11.05/-12.44	-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/-3.1	
θ(30°)	-3.69/-2.83	-1.89/-1.03	-1.07/-0.44	0.75/0.67	1.74/2.5	5.5/-6.37	-7.25/-6.06	-8.78/-9.58	-9.77/-9.71	-12.88/-9.58	-14.88/-8.58	-17.91/-9.71	-18.48/-8.58	-17.91/-9.71	-18.48/-8.58	-17.91/-9.71	-18.48/-8.58	-17.91/-9.71	
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/-0.33	1.27/2.06	2.56/2.87	2.89/2.62	1.99/1.41	1.10/0.93	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/-4.53	-3.88/-3.47	-3.36/-3.35	-3.4/-3.41	-3.4/-3.53	
θ(60°)	-9.19/-9.65	-8.96/-9.45	-1.45/0.6	0.95/0.23	1.74/2.5	2.72/2.37	1.86/1.38	1.31/1.29	2.69/-2.93	-3.31/-3.11	-6.59/-4.64	-3.31/-3.11	-3.93/-5.76	-7.71/-9.03	-9.33/-7.06	-9.49/-8.97			
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	0.331/2.99	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	0.85/2.4	0.22/2.54	0.36/1.66	0.53/-0.09	-0.22/-1.06	-1.54/-0.95	0.37/1.26	1.21/1.07	-2.32/-1.51	-0.27/-0.09	-1.08/-2.88	-3.41/-2.89	-4.17/-5.55			
θ(100°)	-3.81/-4.95	-6.32/-3.76	-0.93/0.03	0.57/1.36	0.84/-1.56	-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	-0.27/0.01	-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/-4.14	-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/-4.79	-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/-4.7	
θ(130°)	-2.28/-0.97	-1.84/-5.92	-9.44/-5.62	-4.26/-5.03	-6.06/-6.69	-7.47/-8.42	-8.23/-9.47	-4.23/-3.48	-0.84/-2.26	-3.63/-3.91	-1.76/-4.43	-1.42/-2.05	-1.76/-1.43	-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/-13.47	-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/-14.75	-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	-8.95/-9.17	-9.07/-9.15	-4.33/-10.45	-11.36/-10.87	-4.86/-5.44	-6.41/-5.03	-4.43/-4.24	-4.74/-3.99	-5.57/-5.44	-5.71/-6.42	-4.78/-9.28	-10.71/-12.25	-7.84/-9.28	-12.43/-11.41			
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	-9.4/-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°)	-13.1/-11.02	-9.28/-8.21	-7.37/-6.63	-6.44/-6.73															



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

Appendix A

θ (°)	-5.11/3.48	-3.36/1.97	-2.13/-1.73	-3.95/-2.61	1.51/3.98	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/-8.32	-6.98/-10.87	-10.58/-15.6	-15.11/6.05	-6.21/-7.38	-5.33/-6.18	-11.18/-11.65	
φ (0°)	-12.54/-6.25	-2.23/-2.22	1.46/1.84	0.83/0.59	2.59/2.94	2.92/12	1.86/2.36	2.99/9.26	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	
φ (10°)	-11.99/-9.56	-2.33/1.73	1.65/1.9	2.26/1.98	3.81/3.22	2.95/2.04	1.70/2.11	2.63/2.04	2.43/3.04	1.33/0.43	1.67/0.07	-3.96/-0.43	-6.68/-8.4	-2.67/3.05	-3.96/-5.37	-3.96/-3.65	-6.68/-8.4	-5.27/-4.43	
φ (20°)	-4.57/-11.21	-3.17/3.01	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	
φ (30°)	-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	-6.9/-7.45	-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/-1.39	1.65/-1.53	-3.25/0.75	
φ (40°)	0.09/-8.56	-1.15/-0.49	-8.04/-6.69	-0.18/-4.84	-3.28/-6.16	-2.99/-2.47	-5.42/-9.22	-6.44/-11.63	-5.6/-5.49	-2.43/-4.04	-8.81/-1.14	-7.89/-2.24	-3.56/-1.9	-4.44/-2.24	-5.69/-2.59	-7.89/-2.24	-3.56/-1.9	-7.72/-2.23	
φ (50°)	-0.75/-4.83	-9.68/-9.38	-11.22/-14.97	-4.48/-5.99	-10.72/-17.78	-19.9/-2.25	-10.47/-8.27	-6.79/-6.76	-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	
φ (60°)	-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	
φ (70°)	-10.72/-10.17	-9.63/-12.25	-15.47/-16.64	-17.18/-9.92	-6.01/-5.43	-5.17/-3.96	-3/-4.18	-8.21/-14.81	-18.92/-19.63	-9.57/-11.67	-16.12/-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	
φ (80°)	-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	
φ (90°)	-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	
φ (100°)	-17.55/-18.27	-17.06/-12.66	-9.4/-8.06	-7.09/-7	-6.59/-6.68	-6.54/-5.66	-4.23/-4.46	-2.93/-3.03	-4.47/-4.38	-5.24/-5.12	-4.47/-4.38	-3.84/-3.32	-4.17/-3.98	-6.23/-4.9	-4.72/-3.98	-5.12/-6.57	-8.03/-10.94	-8.03/-10.94	
φ (110°)	-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	-12.41/-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	-18.62/-18.35
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°)	
φ (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/-18.63	-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	
φ (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	
φ (20°)	-10.38/-11.46	-13.41/-16.82	-18.79/-15.29	-11.51/-9.33	-8.56/-8.5	-9.01/-10.37	-17.72/-11.72	-10.91/-10.37	-7.17/-7.28	-9.12/-7.42	-7.17/-7.28	-9.81/-11.39	-14.31/-20.12	-14.27/-12.3	-10.76/-9.88	-9.72/-9.92	-10.76/-9.88	-9.72/-9.92	
φ (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	
φ (40°)	-20.34/-18.29	-15.36/-14.93	-17.19/-18.66	-19.7/-17.72	-17.32/-14.3	-12.6/-12.65	-13.67/-14.22	-13.91/-13.34	-12.1/-11.02	-9.93/-9.27	-9.44/-9.88	-11.09/-13.05	-16.57/-19.65	-19.38/-18.51	-15.99/-12.25	-10.75/-10.02	-10.74/-13.39	-18.62/-19.17	
φ (50°)	-14.99/-12.89	-11.14/-10.78	-11.49/-14.24	-17.19/-19.19	-18.42/-19.13	-15.19/-14.26	-11.92/-11.26	-10.66/-16.72	-8.98/-8.5	-7.88/-7.28	-11.33/-12.91	-16.57/-19.62	-10.42/-8.59	-9.11/-10.19	-12.21/-14.49	-12.21/-14.49	-12.21/-14.49	-12.21/-14.49	
φ (60°)	-9.74/-8.67	-7.29/-6.97	-7.54/-8.7	-10.62/-14.3	-17.09/-15.22	-13.61/-14.39	-16.35/-16.87	-14.71/-12.31	-10.12/-9.15	-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	
φ (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	-18.41/-17.78	-14.49/-11.74	-9.79/-8.81	-7.95/-6.96	-6.3/-6.39	-8.46/-13.34	-18.89/-16.98	-13.72/-12.03	-7.94/-7.21	-7.54/-8.44	-11.49/-20.19	-19.02/-19.69	
φ (80°)	-11.38/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	-10.33/-10.41	
φ (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	-15.71/-15.5	
φ (100°)	-13.21/-11.45	-10.33/-9.69	-8.44/-6.94	-6.59/-7.5	-8.93/-10.33	-12.54/-15.33	-17.86/-19.46	-20.12/-18.98	-19.88/-19.88	-19.61/-14.31	-10.62/-10.24	-11.91/-12.68	-11.59/-11.26	-11.5/-10.58	-9.69/-10.27	-12.69/-17.78	-20.05/-20.24	-15.39/-13.77	
φ (110°)	-18.41/-19.95	-14.92/-11.61	-9.44/-7.33	-5.97/-5.68	-6.44/-7.8	-10.07/-12.9	-14.36/-14.62	-15.01/-12.66	-19.64/-16.99	-15.91/-12.49	-17.19/-18.33	-17.67/-18.4	-16.71/-16.94	-14.11/-10.44	-17.61/-18.5	-19.91/-20.06	-18.47/-19.35	-18.47/-19.35	
φ (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	
φ (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/-12.3	-18.22/-19.55	-18.67/-18.98	-12.02/-6.61	-4.8/-7.7	-7.94/-5.55	-8.13/-12.02	-15.58/-15.85	-20.52/-19.79	-15.15/-13.2	-15.65/-14.91	
φ (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	-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/-14.54	-14.36/-13.62	-12.28/-11.92	-12.84/-12.84	-12.84/-12.84	
φ (150°)	-11.87/-12.76	-13.97/-16.2	-17.72/-18.15	-17.63/-16.3	-15.03/-13.63	-12.28/-10.67	-9.95/-9.22	-8.99/-9.52	-10.25/-10.55	-8.03/-6.57	-4.88/-4.7	-4.88/-4.7	-4.88/-4.7	-4.88/-4.7	-4.88/-4.7	-4.88/-4.7	-4.88/-4.7	-4.88/-4.7	
φ (160°)	-10.89/-10.62	-10.12/-10.39	-11.76/-14.55	-19.28/-19.23	-18.88/-18.83	-16.13/-15.2	-15.79/-14.74	-19.31/-19.98	-13.89/-10.53	-8.64/-7.51	-6.85/-6.25	-6.03/-6.24	-6.78/-7.83	-9.1/-10.52	-11.72/-12.13	-11.83/-11.1	-10.15/-9.88	-10.17/-10.45	
φ (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/-12.17	-11.13/-10.19	-9.33/-9.46	-11.91/-9.78	-10.29/-11.05	-11.52/-12.1	-12.18/-12.12	-12.25/-12.65	-13.05/-13.02	-12.71/-10.87	-9.4/-8.46	
φ (180°)	-8.31/-9.1	-9.65/-10.19	-11.13/-12.89	-14.71/-15.67	-11.76/-15.2	-14.85/-14.16	-12.35/-12.75	-12.59/-11.93	-11.76/-12.15	-12.11/-12.54	-12.56/-12.58	-11.86/-12.35	-9.76/-11.62	-12.77/-12.56	-12.55/-12.26	-10.73/-10.73	-7.93/-8	-7.93/-8	
Freq(Hz)	2.45GPol.	ThetaAnt. 2	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	
Gain	φ(0°)φ(10°)	φ(20°)φ(30°)	φ(40°)φ(50°)	φ(60°)φ(70°)	φ(80°)φ(90°)	φ(100°)φ(110°)	φ(120°)φ(130°)	φ(140°)φ(150°)	φ(160°)φ(170°)	φ(180°)φ(190°)	φ(200°)φ(210°)	φ(220°)φ(230°)	φ(240°)φ(250°)	φ(260°)φ(270°)	φ(280°)φ(290°)	φ(300°)φ(310°)	φ(320°)φ(330°)	φ(340°)φ(350°)	
φ (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	
φ (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/-9.99	-12.29/-14.88	-16.72/-18	-18.61/-19.47	-17.76/-15.89	-15.22/-15.27	-16.47/-18.26	-19.36/-18.63	-17.24/-14.93	
φ (20°)	-11.41/-10.51	-9.91/-9.72	-9.88/-10.26	-10.43/-9.31	-7.44/-5.6	-4.41/-3.85	-3.38/-3.88	-4.16/-4.52	-4.79/-5.2	-9.11/-11.89	-12.59/-18.66	-15.81/-18.43	-12.59/-19.43	-10.13/-13.03	-15.81/-18.43	-18.92/-18.66	-20.13/-19.06	-12.73/-11.92	
φ (30°)	-9.37/-8.91	-8.18/-7.63	-7.49/-7.46	-7.35/-6.57	-5.1/-3.69	-2.99/-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	-10.98/-11.37	-11.72/-12.49	-12.68/-12.09	-10.17/-9.61	-9.17/-9.14	
φ (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	
φ (50°)	-1.49/-2.07	-2.26/-2.14	-2.65/-3.84	-4.47/-3.16	-1.24/0.04	0.42/0.28	0.23/0.5												

Theta	Gain	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°)	
Theta(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	-4.71/-4.99	-8.74/-16.99	-18.74/-11.84	-10.19/-10.65	-7.67/-9.1	-8.13/-6.79			
Theta(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/-19.93	-10.51/-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			
Theta(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	-10.71/-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			
Theta(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	-5.51/-4.26			
Freq(Hz)	5.3GPol.	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	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°)Phi(350°)			
Theta(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			
Theta(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	-6.91/-6.9	-5.85/-6.01	-5.28/-5.37	-5.65/-5.91	-7.45/-9.14	-11.51/-14.96			
Theta(20°)	-14.59/-16.4	-15.49/-12.56	-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	-8.31/-6.91	-5.74/-6.51	-7.07/-7.26	-7.29/-7.32	-8.84/-10.48	-11.33/-13.8			
Theta(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	-3.61/-3.83	-3.54/-4.12	-5.34/-7.35	-10.85/-12.93	-14.08/-13.54			
Theta(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			
Theta(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	-8.43/-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			
Theta(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	-15.21/-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			
Theta(70°)	-18.87/-16.38	-16.32/-10.03	-6.65/-5.69	-3.56/-2.84	-4.63/-10.63	-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			
Theta(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	-2.16/-1.64	-3.55/-6.9	-12.02/-15.83	-11.47/-11.44	-13.81/-6.6	-2.17/-0.82	-4.31/-2.78	-6.82/-9.9	-4.31/-2.78	-5.82/-9.9	-11.83/-9.46	-8.81/-12.72			
Theta(90°)	-19.75/-19.4	-16.87/-13.31	-7.8/-4.53	-3.77/-3.9	-5.72/-4.09	-1.56/-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			
Theta(100°)	-20.18/-20.21	-14.82/-16.2	-9.67/-8.05	-8.69/-6.68	-6.22/-4.54	-3.91/-7.06	-9.66/-4.55	-3.91/-6.23	-10.45/-13.86	-10.75/-13.04	-20.04/-10.99	-5.45/-9.91	-9.1/-5.59	-5.99/-4.9	-6.28/-5.33	-1.27/-5.23	-13.57/-17.36	-10.64/-12.53			
Theta(110°)	-18.85/-19.91	-19.87/-18.98	-16.67/-11.22	-9.52/-9.59	-11.27/-8.72	-18.85/-11.71	-9.27/-10.87	-19.93/-6.92	-9.56/-11.71	-9.36/-10.51	-11.09/-14.36	-14.12/-9.75	-9.68/-12.65	-19.71/-4.34	-6.11/-5.56	-4.15/-1.44	-3.51/-5.11	-9.49/-8.48	-7.85/-14.52		
Theta(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			
Theta(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	-7.21/-10.41			
Theta(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	-19.93/-9.11	-14/-12	-8.43/-8.75	-12.29/-11.69	-9.41/-7.51	-6.47/-2.93	-2.18/-2.67	-5.13/-0.65	-2.06/-1.69	-11.81/-12.49	-7.53/-6.5				
Theta(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			
Theta(160°)	-5.94/-8.44	-12.12/-18.47	-14.95/-7.62	-4.51/-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	-15.82/-14.4	-13.01/-11.69	-9.84/-8.12	-8.43/-10.45	-12.29/-10.13	-8.31/-9.18	-9.81/-7.06	-5.57/-5.27			
Theta(170°)	-14.13/-19.33	-14.89/-9.65	-7.53/-7.26	-9.24/-17.08	-19.09/-9.53	-6.67/-5.47	-14.46/-16.25	-8.33/-11.36	-14.27/-14.11	-14.46/-14.65	-15.16/-16.32	-13.85/-11.91	-9.4/-7.41	-7.48/-4.56	-6.69/-6.13	-6.07/-6.45	-6.68/-9.23	-7.53/-6.5			
Theta(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	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°)Phi(350°)			
Theta(0°)	-6.94/-6.34	-7.55/-8.98	-10/-10.37	-12.24/-16.46	-19.92/-19.3	-19.51/-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	-18.91/-14.43	-11.38/-10.34	-9.02/-8.17	-7.59/-7.17			
Theta(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	-5.78/-4.59	-4.58/-5.6	-6.93/-7.6	-8.04/-8.76	-9.99/-11.65	-13.61/-16.52	-18.52/-14.48	-10.61/-6.82	-4.54/-3.37	-2.69/-2.3	-1.66/-1.35			
Theta(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	-1.31/-0.55	-0.23/0.2	0.56/0.55			
Theta(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	-10.71/-12.29	-15.26/-14.28	-11.54/-10.98	-11.24/-11.89	-12.31/-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			
Theta(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	-11.81/-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			
Theta(50°)	-0.32/-1.61	-2.35/-3.03	-4.63/-7.94	-10.15/-8.64	-6.91/-5.76	-7.39/-10.84	-7.96/-5.99	-6.37/-11.72	-20.21/-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			
Theta(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	0.51/-1.09			
Theta(70°)	-0.75/-0.89	-1.78/-1.24	-2.16/-6.96	-7.85/-6.45	-4.71/-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			
Theta(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/-0.22	0.98/-0.75			
Theta(90°)	-4.99/-1.03	-3.04/-4.63	-6.67/-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			
Theta(100°)	-5.04/-6.19	-9.74/-8.74	-6.86/-16.51	-14.51/-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	-5.81/-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			
Theta(110°)	-7.71/-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	-5.41/-1.46	-3.1/-0.73	-2.64/-2.87	-7.53/-1.69	-0.51/-3.6	-4.23/-6.44			
Theta(120°)	-3.57/-5.39	-8.86/-10.81	-9.06/-13.32	-16.77/-19.49	-14.71/-13.03	-10.52/-19.05	-5.41/-5.6	-13.35/-3.82													



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-	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	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	-0.26/-0.91	-1.57/-2.83	-4.41/-5.88	-8.41/-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	-3.86/-6.68	-10.02/-10.02	
Theta(10°)	-8.46/-9.15	-8.98/-6.04	-4.36/-3.1	-2.55/-1.59	-0.20	-0.04/-0.57	-1.51/-2.48	-3.73/-4.88	-5.91/-7.6	-9.82/-9.23	-6.51/-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	-7.51/-6.62	-2.88/-1.69	-1.31/-1.19	-1.165/-2.01	-2.36/-3.33	-4.68/-8.6	-10.61/-11.45	-11.65/-9.32	-8.71/-8.2	-7.51/-8.38	-9.91/-7.23	-5.02/-3.81	-4.51/-4.41	-4.81/-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	-9.81/-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	-9.81/-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	-4.37/-5	-4.74/-5.87	-4.12/-5.3	-4.57/-5.7	-8.55/-7.38	-4.12/-2.61	-2.05/-2.09	-1.11/-2.9	-3.45/-3.98	-3.11/-3.69	-4.69/-4.39	-5.71/-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/-6.42	-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	-4.31/-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/-6.39	-3.66/-1.88	-2.82/-3	-3.95/-2.09	-0.84/-4.61	-8.52/-9.09	-10.38/-8.42	-6.23/-5.92	-7.09/-5.84	-4.62/-4.56	-5.54/-7.14	-4.55/-3.79	-5.45/-4.84	-4.24/-3.53	-6.11/-3.35		
Theta(100°)	-6.81/-6.59	-9.15/-8.5	-7.81/-4.6	-0.48/-0.82	-4.36/-6.63	-5.87/-3.81	-2.62/-5.84	-6.58/-7.47	-7.21/-5.32	-4.65/-5.67	-7.51/-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	-8.71/-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	-0.74/-0.1	-8.59/-4.01	-2.86/-2.13	-2.9/-5.55	-8.53/-8.73	-8.59/-2.75	-7.66/-6.12	-7.17/-10.77	-8.46/-6.1	-4.98/-6.46	-7.17/-10.77	-6.48/-5.29	-7.02/-3.64	-5.14/-2.93	-6.57/-6.77	
Theta(130°)	-6.91/-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	-4.81/-2.5	-5.11/-5.22	-4.54/-5.55	-4.21/-5.24	-8.21/-6.94	-9.73/-10.12	
Theta(140°)	-7.57/-8.06	-5.79/-5.69	-6.14/-5.58	-6.63/-4.27	-3.31/-1.94	-1.21/-1.88	-3.69/-6.35	-6.07/-3.23	-4.77/-7.13	-7.23/-6.5	-8.46/-6.58	-6.41/-6.2	-5.92/-7.42	-1.93/-9.22	-7.13/-6.28	-6.27/-7.62	-5.14/-6.92	-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	-8.06/-8.51	-5.28/-6.37	-4.82/-7.19	-6.32/-6.35	-5.85/-7.62	-7.59/-7.57	-9.64/-8.09	-5.81/-5.42	-9.34/-5.72	-6.36/-5.81	-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	-6.91/-7.05	
Theta(170°)	-10.87/-10.83	-9.01/-6.66	-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	-8.31/-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°)	-11.11/-10.3	-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/-8.77	-7.35/-6.23	-6.02/-5.67	-6.65/-6.47	-7.69/-7.52	-7.59/-7.53	-8.41/-10.93	-10.61/-10.55	
Freq(Hz)	5.6GPol.	Theta-	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	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°)	-0.26/-0.12	-0.77/-1.63	-2.96/-4.41	-6.09/-7.78	-10.32/-11.19	-8.08/-6.77	-4.77/-3.12	-0.07/-0.46	-0.88/-1.99	-1.11/-11.4	-3.18/-4.59	-6.74/-8.91	-11.01/-11.4	-8.39/-6.52	-4.33/-2.67	-1.68/-0.64	-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	-2.84/-2.01	-0.83/-0.16	0.58/-0.8	0.52/-0.19	-0.53/-1.62	-2.61/-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	-1.71/-2.11	-2.33/-3.2	-4.25/-4.15	-4/-4.09	-4.71/-4.61	-3.46/-2.28	-1.46/-1.28	-1.39/-0.85	0.04/-0.05	-1.11/-1.77	-1.82/-1.63	-1.37/-1.57	-2.09/-3.29	-3.64/-4.29	-3.83/-3.58	-2.37/-1.57	-1.44/-1.71	
Theta(30°)	1.30/67	-1.11/-27	-1.67/-2.54	-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	0.09/-0.13	0.43/-0.06	-1.13/-1.78	-0.86/-0.32	-0.73/-1.76	-1.64/-0.08	1.01/-1.81	2.05/-2.1	
Theta(40°)	2.08/07	-0.25/-0.42	0.09/-1.37	-2.48/-3.08	-4.04/-5.39	-3.9/-2.15	-0.44/-0.57	-0.04/-1.08	1.97/-2.21	2.03/-1.5	0.96/-0.46	0.48/-0.28	-0.31/-0.17	0.29/-1.15	2.03/-7.9	2.03/-7.9	2.03/-7.9	2.03/-7.9	
Theta(50°)	2.33/-42	-1.22/-23	0.98/-37	-1.99/-0.56	-1.03/-3.32	-1.2/-0.4	0.39/-1.17	0.85/-0.26	1.02/-3.38	3.78/-4.25	3.98/-2.68	1.79/-1.12	1.1/-1.21	-1.56/-0.75	0.02/-0.35	0.52/-1.79	2.76/-3.17	2.82/-2.65	
Theta(60°)	3.21/283	0.18/0.76	1.88/0.47	0.15/0.76	0.71/-28	0.37/1.5	1.19/0.84	1.29/-1.1	1.54/0.35	3.57/3.77	3.31/2.7	2.57/1.98	1.36/-0.04	0.28/0.03	0.32/-0.04	1.18/0.37	3.43/3.52	2.58/2.4	
Theta(70°)	3.73/294	0.73/1.97	2.73/1.05	1.04/1.95	2.37/0.62	1.46/2.51	1.26/1.39	1.42/3	3.96/4.38	3.11/2.53	2.49/2.73	3.69/4.11	2.71/2.07	1.94/1.01	2.72/2.07	3.69/4.01	3.52/3.22	3.13/3.04	
Theta(80°)	5.31/3.6	2.18/3.64	3.44/1.44	3.15/3.77	3.13/3.84	2.21/2.58	1.78/0.59	2.33/3.74	3.07/4.08	5.36/-1.6	4.28/3.49	1.86/2.95	4.33/3.02	2.36/2.46	3.86/3.01	4.55/4.16	3.05/3.54	4.26/4.02	
Theta(90°)	6.13/2.87	2.27/3.73	2.1/4.1	2.91/3.67	2.41/3.65	1.02/2.87	0.78/1.3	1.91/4.55	3.09/3.65	4.93/4.96	5.13/4.24	1.73/3.2	5.27/3.35	3.1/3.1	4.01/2.61	5.53/3.6	3.57/3.93	6.15/8.5	
Theta(100°)	5.33/2.41	2.39/4.2	1.26/1.54	0.96/3.91	3.22/3.53	1.93/2.8	1.52/2.47	0.93/2.16	3.59/3.79	3.46/3.31	2.52/2.7	4.98/1.6	3.45/1.1	4.47/1.27	3.52/5.5	5.06/4.95			
Theta(110°)	4.22/4.9	2.13/2.7	2.22/2.17	2.68/4.07	2.14/4.39	1.87/2.41	1.46/2.84	3.61/3.82	2/2.41	3.01/1.55	1.87/0.92	1.21/-1.33	2.97/0.99	1.66/0.36	3.69/1.27	2.07/0.02	3.98/3.28	3.35/3.08	
Theta(120°)	3.25/1.87	0.54/0.74	0.02/-0.84	1.64/1.72	-0.56/-1.22	-0.32/-0.52	-0.14/0.8	2.29/1.28	2.67/1.61	-0.14/-0.12	1.96/-0.29	0.45/1.15	0.02/-0.46	0.36/0.38	2.16/-0.85	1.37/1.92	1.12/0.89		
Theta(130°)	2.47/0.29	0.12/-1.19	0.08/-0.06	0.29/-1.19	-2.93/-1.93	-1.98/-1.02	-0.38/-0.94	-1.65/-0.18	-0.03/0.51	0.26/1.63	0.74/-1.71	-1.99/-0.64	0.46/0.61	0.29/3.72	0.58/2.16	0.52/0.95			
Theta(140°)	-0.44/2.34	0.95/0.52	-0.74/-1.93	-1.03/-3.34	-5.83/-3.48	-3.21/-2.91	-1.69/-3.1	-4.06/-3.12	-1.73/0.5	-1/3.01	-0.74/-4.33	-5.05/-1.72	-1.86/-3.28	-3.73/-4.69	-2.11/-1.26	-1.84/-3.56	-7.42/-3.22	-2.46/-2.49	
Theta(150°)	-2.17/-0.06	-0.21/-1.31	-0.68/-1.1	-2.13/-3.88	-5.91/-5.78	-7.04/-7.93	-4.61/-4.06	-3.86/-2.02	-1.09/-2.67	-3.6/-0.16	0.21/-2.56	-3.68/-2.25	-2.61/-2.2	-5.25/-7.25	-3.06/-1.54	-1.43/-2.37	-61/3.07	-1.71/-1.92	
Theta(160°)	-1.02/-1.66	-2.18/-3.26	-4.28/-5.62	-6.28/-6.89	-7.69/-6.44	-6.12/-7.07	-3.15/-5.02	-4.98/-4.66	-1.75/-5.1	-0.49/-0.46	-2.72/-5.97	-8.47/-6.4	-2.72/-5.97	-10.02/-10.24	-5.66/-4.21	-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	-7.91/-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	-1.11/-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	-10.81/-11.77	-11.39/-9.69	-7.95/-7.58	-6.89/-6.15	-5.07/-5.2	
Freq(Hz)	5.785GPol.	Theta-	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	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°)				



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	4.62/2.59	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	0.91/4.4	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	-2.5/0.66	-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

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/-22.22	-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/-9.68	-16.74/-4.9	-6.4/-2.9	-6.36/-3.75	-5.39/-3.07	-0.37/-1.52	-2.45/-0.41	0.15/0.16
θ(80°)	2.51/3.5	-1.88/-0.7	-1.2/-2.87	0.97/1	-1.53/-2.16	-2.4/-2.14	-1.88/-7.73	-2.1/-5.82	-3.76/-5.6	-7.15/-4.93	-2.61/-4.98	-2.88/-5.02	-2.81/-4.91	-0.27/-3.02	-2.61/-1.44	1.28/-0.52	-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/-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/-10.44	-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	-1.59/-1.08	-1.02/-2.85	-2.91/-2.29	-0.85/0.06	-2.12/-2.51	-2.01/-1.73	-1.4/-5.14	-3.26/-1.46	-8.28/-1.93	-7.02/-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/-3.62	-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/-17.7	-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	-4.88/-8.59	-8.59/-10.31	-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	-5.29/-2.73	-1.98/-1.7	-2.25/-2.61	-3.34/-4.55	-5.87/-9.99	-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/-5.15	-18.04/-10.4	-7.36/-9.92	-11.72/-17.09	-18.25/-18.61	-19.1/-18.33	-17.99/-15.26	-12.29/-13.11	-12.29/-13.11	-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°)/Φ(350°)
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	-3.85/-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	-1.12/0.7	-0.77/-1.17	-1.93/-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	-4.82/-7.57	-9.85/-11.23	-10.34/-8.77	-4.78/-4.76	-6.65/-6.2	-5.55/-6.7	-6.9/-7.27	-7.85/-8.26	-9.83/-13.21	-15.32/-15.64	-15.32/-15.64	-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/-7.63	-6.31/-5.24	-3.92/-3.22	-2.88/-4.26	-8.52/-10.54	-18.7/-19.01	-18.41/-19.01	-12.36/-10.02	-7.39/-5.43	-6.62/-6.57	-6.73/-6.56	-7.19/-7.34	-7.67/-8.65	-12.29/-16.49	-15.64/-15.52
θ(50°)	-19.86/-14.86	-11.01/-9.37	-10.11/-12.05	-12.34/-9.53	-5.49/-4.3	-4.77/-10.94	-12.95/-13.44	-18.87/-16.75	-12.52/-7.5	-4.98/-3.78	-15.04/-15.55	-16.9/-18.34	-8.92/-8.89	-4.31/-2.98	-7.33/-4.11	-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/-6.4	-3.15/-3.21	-5.43/-10.94	-17.9/-17.19	-15.08/-12.39	-12.77/-12.45	-7.29/-4.03	-5.17/-1.83	-0.85/-2.75	-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/-4.3	-4.02/-3.64	-4.77/-10.94	-15.04/-15.55	-16.9/-18.34	-8.92/-8.89	-4.54/-1.6	-3.07/-4.66	-6.82/-7.64	-9.41/-9.26	-7.33/-4.11	-4.46/-5.43	-7.4/-10.48	-14.46/-15.52	-14.46/-15.52
θ(90°)	-9.83/-11.72	-9.83/-6.67	-7.2/-8.8	-7.15/-3.59	-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	-5.3/-5.57	-8.79/-8.71	-7.45/-12.61	-6.52/-7.75	-11.65/-12.65	-10.86/-10.92	-10.86/-10.92
θ(100°)	-9.13/-8.87	-12.31/-10.41	-6.98/-6.61	-3.89/-4.01	-9.11/-17.68	-14.94/-10.08	-9.67/-8.67	-12.56/-10.43	-11.18/-12.55	-13.17/-11.52	-13.12/-14.88	-13.55/-13.11	-16.24/-13.4	-13.93/-15.3	-11.62/-7.88	-12.67/-11.8	-18.28/-12.45	-9.58/-9.82
θ(110°)	-9.58/-9.77	-12.14/-12.49	-6.54/-3.29	-2.54/-3.5	-7.01/-7.12	-5.69/-4.72	-5.81/-8.6	-11.87/-9.94	-13.05/-18.39	-15.3/-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/-11.82
θ(120°)	-17.59/-14.27	-18.05/-19.34	-14.99/-7.17	-13.1/-13.4	-4.38/-6.63	-6.21/-5.17	-6.5/-11	-18.34/-15.13	-17.11/-11.13	-17.5/-16.36	-15.32/-4.72	-13.38/-10.62	-9.57/-8.52	-6.59/-7.68	-12.42/-11.91	-11.34/-19.12	-18.35/-19.15	-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	-9.43/-14.16	-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/-17.27	-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/-19.23	-18.31/-14.85	-7.76/-14.69	-18.02/-11.12	-10.24/-14.05	-16.59/-15.48	-19.25/-17.79	-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	-1.35/-10.06	-6.5/-7.35	-8.75/-10.44	-6.52/-9.15	-13.16/-18.17	-16.55/-13.96	-9.94/-10.86	-15.2/-11.94	-14.48/-14.93	-19.18/-19.82	-19.18/-19.82	-19.18/-19.82
θ(160°)	-18.24/-18.25	-14.01/-9.86	-6/-9.42	-4.72/-5.21	-6.02/-6.44	-6.02/-6.66	-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/-9.16
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/-14.74	-13.29/-12.83	-12.66/-10.92	-7.67/-6.12	-4.64/-7.56	-7.44/-6.92	-6.83/-7.4	-7.42/-7.52
θ(180°)	-18.38/-18.24	-18.56/-13.26	-10.98/-10.43	-9.23/-7.57	-18.13/-18.65	-9.7/-13.81	-17.1/-19.01	-18.53/-18.31	-17.1/-19.01	-18.53/-18.31	-17.32/-14.84	-14.53/-16.58	-16.41/-14.37	-12.78/-12.49	-12.71/-12.1	-12.03/-14.37	-18.46/-18.52	-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°)/Φ(350°)
θ(0°)	-1.15/-1.26	-1.78/-2.73	-3.91/-5.26	-7.63/-10.44	-13.71/-11.7	-15.88/-16.45	-11.89/-8.37	-2.97/-2.25	-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	-0.17/-0.78	-1.43/-2.52	-4.59/-8.46	-15.13/-18.74	-7.25/-6.2	-4.6/-3.94	-3.39/-3.52	-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/-3.78	-2.89/-2.53	-3.18/-3.14	-3.23/-3.14	-4.34/-6.21	-6.69/-6.75	-7.03/-9.07	-13.18/-9.1	-18.9/-18.57	-15.11/-11.1	-9.23/-8.15	-8.11/-8.82
θ(30°)	-12.26/-11.69	-17.11/-17.76	-17.91/-18.84	-15.11/-13.5	-15.17/-15.22	-16.76/-18.18	-9.35/-4.27	-5.17/-3.67	-2.56/-2.82	-3.59/-4.3	-5.11/-7.78	-13.95/-15.76	-9.7/-9.49	-8.69/-14.65	-18.32/-12.92	-9.59/-8.41	-10.46/-10.52	-10.46/-10.52
θ(40°)	-17.41/-14.94	-13.09/-16.86	-16.28/-12.09	-11.17/-9.81	-10.63/-12.85	-14.04/-8.24	-3.75/-2.64	-4.36/-6.84	-7.52/-1.28	0.21/1.19	1.14/0.82	-3.74/-5.04	-6.46/-10.13	-14.33/-9.77	-8.13/-10.22	-13.17/-13.33	-16.62/-14.43	-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/-3.71	-13.43/-9.01	-7.8/-8.28	-10.41/-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	-6.89/-8.2	-3.42/-3.94	-3.9/-6.87	-3.91/-6.87	-2.48/-3.71	-1.43/-0.2	-2.44/-5.26	-2.88/-4.83	-8.17/-3.7	-8.88/-8.43	-8.17/-7.47	-7.38/-10.66	-18.18/-18.12	-18.18/-18.12
θ(70°)	-4.42/-3.81	-2.79/-1.98	-2.03/-4.6	-7.63/-8.81	-6.61/-6.15	-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/-5.42	-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/-2.78	-0.49/-4.99	-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				



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

Appendix B

Theta	Gain	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(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																					
Theta(170°)	-11.74/-19.36	-18.56/-13.62	-12.9/-8.9	-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/-3.03	-2.76/-2.59	-2.48/-2.63	-4.26/-6.52																					
Theta(180°)	-18.01/-18.88	-19.42/-17.93	-15.39/-13.19	-17.18/-19.9	-7.61/-8.84	-11.86/-15.94	-19.42/-18.35	-16.79/-18.36	-17.32/-18.98	-19.07/-18.45	-16.79/-18.36	-13.89/-10.22	-8.43/-8.97	-8.53/-8.22	-8.43/-8.46	-8.53/-8.22	-8.43/-8.46	-8.53/-8.22	-11.89/-11.92																				
Theta(190°)	-5.85/-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	-1.61/-1.31	-1.31/-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																						
Theta(200°)	-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/-6.69																					
Theta(210°)	-17.44/-18.87	-18.22/-16.48	-14.64/-15.92	-17.14/-13.16	-8.79/-7.08	-6.49/-5.18	-5.84/-4.27	-2.87/-2.04	-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																					
Theta(220°)	-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	0.877/0.68	-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																					
Theta(230°)	-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	-6.52/0.86	2.412/2.89	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																					
Theta(240°)	-5.16/-5.01	-3.63/-3.23	-4.82/-6.65	-10.44/-7.8	-5.14/-4.45	-6.66/-5.41	-0.41/-4.23	1.90/-2.27	2.912/2.89	1.48/-0.71	-1.87/-2.14	-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																					
Theta(250°)	-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																					
Theta(260°)	-8.37/-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/-1.26	-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																					
Theta(270°)	-12.62/-6.52	-1.73/-6.68	-2.69/-6.27	-9.29/-7.65	-1.99/-0.09	-1.88/-4.31	1.07/0.71	-1.44/-4.1	-0.12/-4.52	-0.23/0.57	-2.21/-3.67	-0.96/-5.38	-6.4/-6.14	-8.55/-1.69	-4.85/-1.59	-5.59/-0.85	-4.57/-5.85	-4.57/-5.85																					
Theta(280°)	-6.89/-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																					
Theta(290°)	-3.52/-0.71	-0.19/-0.26	0.77/0.54	-0.09/-0.37	0.58/-0.47	-1.49/-1.95	-0.23/-1.41	-2.9/-1.68	-6.27/-7.2	-7/-12.75	-4.27/-4.93	-5.32/-13.22	-6.38/-17.02	-4.6/-14.16	-6.13/-10.74	-4.07/-10.29	-4.07/-2.32	-4.21/-6.45																					
Theta(300°)	0.38/-1.89	0.86/-0.48	-1.13/-5.67	-6.24/-2.01	-0.82/-2.79	-4.71/-2.93	-0.77/-1.01	-13.27/-13.75	-18.82/-17.87	-13.27/-13.75	-18.82/-17.87	-13.27/-13.75	-18.82/-17.87	-13.27/-13.75	-18.82/-17.87	-13.27/-13.75	-18.82/-17.87	-13.27/-13.75	-18.82/-17.87																				
Theta(310°)	2.55/2.08	2.11/-1.25	-0.19/0.15	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																					
Theta(320°)	0.22/0.37	0.87/-1.32	1.89/-1.26	1.82/0.67	-2.18/-35	-19.12/-11.89	-10.99/-10.78	-12.12/-14.4	-15.26/-14.23	-15.99/-18.01	-11.82/-16.64	-10.02/-6.98	-16.69/-18.87	-13.61/-18.84	-17.95/-8.88	-15.37/-10.1	-8.87/-7.36	-3.26/-3.52																					
Theta(330°)	-1.44/-1.01	-0.18/-0.18	0.40/0.88	-0.07/-2.07	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43	-18.2/-16.11	-13.28/-13.43																				
Theta(340°)	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	0.84/0.78																					
Theta(170°)	-2.44/-3.65	-4.47/-5.23	-4.96/-5.93	-6.07/-5.45	-6.27/-9.84	-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																					
Theta(180°)	-8/-7.22	-7.15/-7.92	-9.88/-10.47	-11.16/-14.36	-17.28/-18.96	-18.83/-17.7	-19.86/-18.55	-18.88/-18.03	-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																						
Theta(190°)	-17.95/-18.3	-18.63/-13.09	-12.41/-11.42	-8.83/-7.59	-6.88/-6.06	-9.84/-11.35	-13.66/-18.4	-6.69/-6.37	-6.31/-3.98	-8.47/-8.1	-6.31/-3.98	-8.47/-8.1	-6.31/-3.98	-8.47/-8.1	-6.31/-3.98	-8.47/-8.1	-6.31/-3.98	-8.47/-8.1																					
Theta(200°)	-18.2/-18.12	-19.35/-18.78	-17.48/-13.08	-11.21/-10.74	-9.64/-8.74	-9.63/-10.01	-11.81/-12.78	-12.77/-13.02	-12.19/-13.23	-18.1/-18.21	-17.71/-19.12	-11.28/-7.49	-7.36/-8.28	-7.62/-6.75	-7.06/-7.56	-8.59/-10.86	-12.71/-13.8	-14.41/-15.85																					
Theta(210°)	-16.07/-18.77	-16.81/-13.42	-10.16/-13.63	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17	-17.17/-12.17																				
Theta(220°)	-14.71/-17.91	-17.49/-17.28	-17.17/-18.09	-18.66/-16.79	-15.71/-17.09	-19.01/-18.19	-18.04/-14.36	-13.49/-16.28	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12	-15.09/-16.12																				
Theta(230°)	-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	-12.11/-17.39	-18.36/-18.24	-15.81/-13.84	-12.39/-13.08																					
Theta(240°)	-18.93/-18.96	-18.46/-17.16	-12.85/-8.13	-11.71/-9.55	-17.15/-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/-9.51	-11.41/-17.2	-18.26/-19.25	-17.74/-18.48	-15.81/-13.84	-12.39/-13.08																					
Theta(250°)	-7.47/-9.98	-11.58/-15.13	-16.21/-13.6	-5.88/-9.35	-18.71/-16.71	-18.34/-17.63	-16.21/-13.6	-5.88/-9.35	-18.71/-16.71	-18.34/-17.63	-16.21/-13.6	-5.88/-9.35	-18.71/-16.71	-18.34/-17.63	-16.21/-13.6	-5.88/-9.35	-18.71/-16.71	-18.34/-17.63	-16.21/-13.6																				
Theta(260°)	-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																					
Theta(270°)	-10.01/-10.15	-9.61/-16.12	-18.73/-18.58	-13.55/-10.2																																			

Theta (°)	-10.79/-10.54	-10.62/-8.63	-6.85/-10.9	-12.79/-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
Theta (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/-12.56	-11.48/-9.85	-9.1/-7.81	-6.13/-5.37	-4.97/-4.76	-5.27/-5.25
Theta (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
Theta (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	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°)	-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
Theta (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
Theta (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	-8.22/-7.68	-15.41/-19.09	-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	-12.72/-12.85
Theta (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
Theta (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
Theta (50°)	-18.29/-19.07	-16.8/-12.94	-16.44/-18.15	-16.97/-18.92	-13.88/-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/-17.3	-12.16/-13.53	-14.14/-17.11	-18.37/-12.71	-11.02/-14.91	-19/-17.35	-13.42/-15.42
Theta (60°)	-17.48/-16.13	-17.71/-15.3	-11.6/-16.57	-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
Theta (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/-18.1	-16.07/-19	-16.94/-17.5	-15.12/-17.89	-12.95/-12.92	-17.93/-18.33
Theta (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	-16.12/-11.02	-18.37/-12.71	-18.92/-16.98	-17.41/-18.82	-18.56/-19.52
Theta (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
Theta (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
Theta (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/-11.11	-7.3/-10.43	-10.58/-17.84	-19.43/-18.55	-18.4/-15.84	-15.05/-7.92	-12.24/-18.66	-10.4/-10.23	-9.62/-16.44	-11.42/-11.55	-
Theta (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
Theta (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	-7.42/-7.25	-12.88/-16.69	-11.35/-9.65	-8.86/-11.02	-17.71/-14.53	-16.12/-16.85	-16.12/-16.85
Theta (140°)	-12.57/-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/-9.99	-13.68/-9.73	-9.29/-18.08	-14.69/-18.08	-8.61/-19.01	-9.11/-13.33	-13.45/-12.55	-13.45/-12.55	-11.75/-12.84	-12.65/-14.15	-
Theta (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
Theta (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	-11.45/-14.51	-16.65/-19	-19.03/-18.28	-16.61/-16.85	-16.61/-16.85
Theta (170°)	-13.63/-15.77	-17.16/-10.07	-7.21/-7.51	-7.78/-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	-15.71/-14.64	-15.54/-15.67
Theta (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	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°)	-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
Theta (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
Theta (20°)	-3.97/-2.26	-1.91/-2.77	-3.42/-5.5	-9.33/-15.46	-16.98/-13.59	-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
Theta (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
Theta (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
Theta (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
Theta (60°)	-0.02/0.3	1.09/0.91	-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
Theta (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	-2.50/46	-1.37/-1.81	-1.34/-1.61	0.61/0.26
Theta (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	21.64	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
Theta (90°)	-2.17/-0.76	-1.35/-1.48	0.08/0.05	1.71/1.94	-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
Theta (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	-0.50/24	-1.45/2.06	0.39/-1.99	-0.23/0.76	2.38/2.34
Theta (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
Theta (120°)	0.74/0.92	-0.54/-1.78	-3.14/-1.1	-3.32/-6.53	-11.94/-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
Theta (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
Theta (140°)	0.29/0.38	-4																



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

Appendix C

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.	Phi-	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	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)	-10.56/7.99	-5.12/3.13	-1.42/0.81	2.14/3	3.22/3.27	3.2/3.46	4.56/1.77	5.57/1.10	12.48/8.83	2.96/2.64	0.08/1.26	0.38/2.15	3.13/3.15	1.81/0.9	-0.38/2.87	1.81/0.9	-0.38/2.87	-6.73/6.9
Theta(10)	-8.57/7.28	-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	0.31/55	2.17/2.13	2.22/0.5	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	-4.55/2.71	-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	-12.06/9.45	-9.33/11.91	-4.06/9.45	-7.18/6.33	-6.25/7.54	-7.58/5.56	-4.06/3.35	-2.79/3.47	-4.44/4.73	-4.44/4.73	-6.22/6.44	-9.31/9.87
Theta(40)	-7.43/7.07	-8.49/6.56	-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	-0.30/44	-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	-0.27/1.78	-2.71/2.58	-2.7/5.35	-11.02/9.65	-4.66/2.73	-0.20/43	1.43/1.26	1.19/1.08	0.71/0.38	-0.81/1.88	-3.79/4.08	-9.31/9.87
Theta(70)	-5.43/4.32	-2.73/2.84	-3.69/4.53	-1.36/0.6	0.61/1.5	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	0.90/0.75	0.43/0.11	0.47/1.58	0.97/1.28	0.06/0.23	-1.6/1.83
Theta(80)	-6.77/5.24	-3.45/2.34	-1.99/2.38	-0.89/0.69	0.18/1.57	1.56/1.13	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	-2.78/7.07	-4.78/8.44	-5.33/3.41	-2.63/2.42	-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	-4.01/2.23	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	-6.01/2.38	2.23/2.38	-0.12/0.93	-0.20/2.38	-4.89/7.41	-7.52/4.25	-5.55/5.49	-5.91/6.07	-5.55/5.49	-5.91/6.07	-4.26/7.76	-4.26/7.76	-4.26/7.76	-4.26/7.76	-4.26/7.76	-4.26/7.76
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	-5.71/5.52	-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	-7.84/6.04	-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	-2.71/2.49	-6.44/6.05	-2.13/2.49	-7.42/8.49	-6.62/5.24	-7.49/8.04	-6.62/5.24	-7.49/8.04	-5.96/7.71	-7.77/5.43	-4.29/4.32	-4.79/4.71	-4.75/3.83	-3.49/3.93	-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	-9.7/9.61	-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	-8.5/8.17	-7.07/6.85	-5.46/6.17	-6.63/6.7	-6.76/6.89	-7.34/8.24	-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.	Theta-	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	Theta+	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)	3.48/3.36	2.94/2.07	0.85/0.33	1.03/1.9	9.65/10.99	1.03/1.9	2.68/3.17	3.19/2.94	1.91/0.28	1.03/1.9	1.03/1.9	1.03/1.9	1.03/1.9	1.03/1.9	1.03/1.9	1.03/1.9	1.03/1.9	1.03/1.9
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	-4.06/4.62	-6.59/4.02	-1.7/0.08	1.25/2.09	2.39/2.56	2.65/2.19	1.18/0.45	-0.33/1.4	-4.82/5.56	-5.15/4.99	-4.43/3.27	-1.55/1.31	0.1/1.02	1.0/1.02
Theta(30)	1.52/1.46	0.75/0.43	-0.33/1.32	-2.06/2.78	-1.75/1.28	0.62/0.5	0.09/1.19	1.69/1.96	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19	0.09/1.19
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	0.98/0.27	1.74/1.87	1.19/0.07	-0.35/1.3	-1.73/2.8	-3.49/3.48	-3.1/2.37	-0.62/0.89	0.97/0.78	0.97/0.78
Theta(50)	0.01/0.96	-2.8/1.2	-0.65/2.28	-4.21/3.12	-3.72/6.19	-4.27/1.48	-1.08/0.98	1.4/0.9	2.08/3.59	3.5/2.91	1.51/1.14	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	-0.47/2.02	-2.62/3.01	-2.78/4.25	-3.29/3.74	0.05/0.33	2.32/2.42	3.29/3.74	3.61/2.4	0.82/0.22	0.23/2.37	-2.03/3.69	-1.49/0.91	1.39/1.16	1.39/1.16	0.14/0.03	0.14/0.03
Theta(70)	1.8/0.41	-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	2.63/59	3.03/2.54	1.72/0.92	0.48/1.53	0.66/0.28	-0.35/2.48	-0.84/0.83	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	0.81/1.56	0.72/1.53	1.61/3.5	2.53/1.8	3.34/4.33	3.67/2.8	2.81/2.05	0.14/1.2	2.4/0.78	0.97/0.13	1.39/1.47	0.91/1.83	3.01/2.8	3.01/2.8
Theta(90)	4.61/1.17	0.62/2.82	1.09/2.34	0.03/1.18	0.24/1.54	1.43/0.93	1.72/8.1	2.92/3.17	2.53/2.05	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	4.83/4.05
Theta(100)	3.79/0.75	0.82/2.52	-0.7/2.41	1.02/2.85	0.57/1.97	-0.11/0.74	0.50/6.1	5.31/7.78	2.53/2.6	4.61/9.5	2.21/1.35	0.29/0.83	3.04/2.3	1.82/1.2	2.82/4.23	3.42/3.17	3.42/3.17	3.42/3.17
Theta(110)	1.77/0.65	-0.22/2.33	1.34/0.13	1.63/3.42	0.57/1.98	1.02/0.31	1.02/2.88	2.54/3.6	2.83/3.39	1.26/1.53	1.28/0.03	-1.24/3.14	0.98/3.88	0.08/4.35	-1.12/2.72	2.38/1.53	0.7/0.4	0.7/0.4
Theta(120)	-0.04/2.08	-1.7/1.1	-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	-1.13/2.37	-4.16/1.32	-1.44/1.19	-0.89/0.58	0.32/0.79	-1.33/2.09	-0.89/0.58	-3.42/4.01	-1.1/4.87	-2.22/1.37	-3.26/3.32	-3.26/3.32	-3.26/3.32	-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	-6.23/5.51	-2.91/3.86	-2.67/2.12	-2.46/4.84	-2.57/3.79	-1.51/4.95	-4.62/5.18	-5.49/5.32	-4.08/7.66	-5.79/5.53	-4.5/8.25	-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	-2.7/8.1	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)	-2.88/3.85	-4.04/5.32	-6.66/7.53	-8.01/7.71	-7.15/7.65	-5.63/6.7	-8.01/7.71	-1.57/1.92	-1.38/0.05	0.76/0.77	-1.6/5.87	-3.61/6.62	-6.86/8.19	-9.84/10.7	-7.16/5.69	-3.86/3.22	-2.33/2.53	-2.33/2.53
Theta(170)	-2.94/4.5	-6.01/5.88	-5.98/6.46	-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.	Phi-	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	Phi+	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

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°)	2.80/5.4	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°)	2.50/9.5	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	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°)	-14.65/-13.9	-12.89/-11.66	-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	-7.86/-8.36	-9.53/-9.56			
Theta(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			
Theta(30°)	-12.26/-13.79	-17.23/-18.7	-13.14/-9.48	-6.78/-5.26	-4.98/-5.2	-7.94/-10.45	-13.8/-17.05	-17.17/-16.88	-18.95/-18.63	-18.01/-17.62	-17.9/-18.11	-14.82/-9.79	-5.65/-5.54	-2.18/-10.1	-12.06/-12.08						
Theta(40°)	-11.03/-8.37	-11.21/-19.62	-16.82/-11.15	-7.77/-4.86	-3.61/-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			
Theta(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			
Theta(60°)	-16.13/-14.58	-13.92/-18.68	-13.12/-16.2	-13.03/-5.13	-4.74/-7.69	-13.14/-14.7	-9.64/-6.12	-4.81/-4.71	-17.28/-18.01	-5.89/-4.37	-3.99/-5.01	-12.58/-6.38	-4.25/-4.94	-5.89/-4.37	-6.56/-8.34	-8.94/-8.21	-12.57/-12.56				
Theta(70°)	-10.8/-14.03	-15.39/-18.26	-14.83/-13.5	-11.57/-7.73	-6.85/-7.49	-9.54/-8.71	-6.15/-4.74	-6.31/-8.6	-9.84/-11.08	-18.18/-18.77	-16.4/-10.76	-9.77/-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			
Theta(80°)	-9.36/-11.02	-11.76/-11.09	-11.86/-11.91	-7.91/-6.39	-8.17/-5.33	-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			
Theta(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	-11.59/-5.77	-5.56/-11.04	-11.59/-5.77	-3.21/-3.71	-7.65/-9.69				
Theta(100°)	-16.71/-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			
Theta(110°)	-11.68/-11.23	-15.77/-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			
Theta(120°)	-6.11/-6.79	-14.58/-18.25	-16.97/-10.29	-1.79/-2.65	-5.79/-6.35	-4.66/-3.36	-3.62/-3.82	-6.61/-5.93	-8.66/-5.22	-17.18/-14.07	-15.34/-15.52	-14.37/-15.52	-11.55/-14.17	-17.18/-14.07	-12.68/-9.26	-10.86/-7.06	-6.97/-6.89				
Theta(130°)	-10.77/-8.83	-13.11/-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			
Theta(140°)	-8.51/-11.02	-12.98/-12.21	-11.41/-16.69	-10.57/-6.33	-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/-16.79	-17.44/-12.2	-13.16/-13.07	-13.26/-13.71	-15.26/-15.35		
Theta(150°)	-7.18/-9.94	-12.16/-14.84	-12.16/-14.84	-11.47/-9.94	-11.92/-17	-14.07/-18.61	-11.92/-17	-14.07/-18.61	-11.92/-17	-14.07/-18.61	-11.92/-17	-14.07/-18.61	-11.92/-17	-14.07/-18.61	-11.92/-17	-14.07/-18.61	-11.92/-17	-14.07/-18.61	-11.92/-17		
Theta(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	-12.51/-14.44	-14.69/-18.88	-13.12/-9.01	-6.77/-7.33	-10.58/-10.68			
Theta(170°)	-16.99/-13.55	-11.65/-11.43	-10.45/-9.43	-8.5/-8.19	-8.37/-5.44	-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			
Theta(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/-17.37	-18.98/-17.98	-17.99/-19.43	-17.73/-18.75	-16.83/-16.83			
Freq(Hz)	5.6GPol.	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	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°)	-9.06/-9.14	-9.51/-10.07	-10.17/-10.37	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89	-10.23/-9.89		
Theta(20°)	-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			
Theta(30°)	-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	-14.11/-16.02	-18.94/-14.96	-12.74/-13.67	-18.07/-18.31	-18.29/-13.33	-15.11/-13.75	-11.14/-9.49	-8.52/-8.85	-9.27/-8.29	-5.74/-3.51	-2.75/-2.76			
Theta(40°)	-0.61/-0.84	-2.89/-2.71	-3.65/-4.96	-6.11/-8.13	-11.45/-13.1	-17.36/-12.29	-9.42/-10.91	-12.35/-15.35	-14.74/-10.71	-13.26/-16.08	-16.04/-14.63	-15.88/-12.21	-15.64/-14.81	-12.13/-15.22	-8.69/-3.4	-9.22/-6.25					
Theta(50°)	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			
Theta(60°)	0.76/-1.04	-5.05/-2.85	-1.27/-2.41	-5.88/-10.33	-18.79/-12.67	-8.3/-5.75	-5.78/-7.97	-8.73/-9.89	-13.91/-12.87	-10.01/-8.51	-10.11/-16.26	-16.49/-14.8	-11.19/-9.42	-6.72/-3.94	-2.27/-1.59	-2.27/-1.79	-0.44/-4.05				
Theta(70°)	-0.06/-0.65	-5.94/-1.19	-1.23/-3.65	-6.29/-6.49	-6.07/-11.69	-5.58/-3.95	-4.26/-5.48	-3.28/-3.67	-9.83/-11.65	-6.44/-5.84	-11.89/-14.87	-7.03/-5.24	-6.4/-5.51	-3.19/-1.85	-2.58/-2.54	-3.09/-3.11					
Theta(80°)	-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			
Theta(90°)	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/-7.99	-6.95/-2.62	-4.8/-3.54	-10.34/-6.2	-3.71/-2.69	-0.38/-2.65	-1.41/-0.19	-0.01/-0.11			
Theta(100°)	-1.42/-3.23	-8.38/-6.53	-2.93/-7.88	-0.84/-3.47	-2.77/-2.91	-5.4/-6.13	-5.15/-4.17	-0.84/-0.53	-3.92/-3.25	-3.25/-4.72	-7.72/-7.57	-2.02/-11.69	-10.51/-6.64	-7.52/-6.66	-2.16/-5.99	-0.610/89	0.84/-1.34				
Theta(110°)	-2.71/-2.45	-4.46/-5.55	-5.04/-13.67	-2.45/-2.32	-3.74/-3.3	-4.33/-3.3	-7.06/-3.5	-0.32/-0.4	-1.89/-4.39	-4.98/-2.66	-5.87/-3.41	-4.61/-2.98	-1.51/-19.56	-6.88/-12.95	-6.52/-8.51	-4.49/-7.58	-1.77/-0.77	-0.72/-0.85			
Theta(120°)	-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	-6.45/-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			
Theta(130°)	-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/-5.22	-0.98/-1.23	-1.790/-34	1.430/24	-1.83/-3.56	-1.43/-19.7	-9.6/-11.04	-6.2/-11.98	-11.1/-10.46	-9.94/-17.95	-11.99/-13.66	-13.53/-13.64			
Theta(140°)	-16.43/-13.11	-9.51/-9.42	-12.34/-18.58	-12.69/-7.61	-2.34/-13.01	-4.4/-3.25	-0.37/-4.15	-2.34/-1.33	-0.18/-1.83	-3.4/-2	-7.69/-16.52	-12.18/-13.68	-10.55/-16.09	-11.1/-13.57	-10.55/-16.97	-11.91/-13.57	-14.49/-14.64				
Theta(150°)	-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	-12.66/-12.05	-17.56/-13.72	-17.06/-17.89	-15.33/-15.46			
Theta(160°)	-15.5/-7.4	-5.27/-7.1	-7.61/-11.12	-16.06/-13.49	-12.09/-13.19	-18.28/-15.65	-7.17/-3.87	-2.4/-2.09	-1.69/-0.84	-9.32/-10.9	-8.27/-4.44	-18.58/-15.08	-17.31/-19.31	-15.26/-18.44	-9.47/-6.53	-14.35/-18.06	-13.58/-13.62	-13.46/-11.21	-18.26/-18.85	-14.87/-14.89	
Theta(170°)	-10.88/-12.59	-10.77/-12.31	-7.89/-12.59	-16.22/-8.84	-6.07/-4.14	-9.32/-10.9	-10.91/-9.15	-1.82/-5.84	-1.51/-8.88	-0.29/-0.91	-10.29/-10.37	-15.26/-18.44	-9.47/-6.53	-14.35/-18.06	-13.58/-13.62	-13.46/-11.21	-18.26/-18.85	-14.87/-14.89			
Theta(180°)	-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			
Theta(190°)	-18.46/-17.77	-18.21/-19.21	-18.07/-17.91	-19.07/-17.97	-17.49/-18.19	-18.31/-18.53	-18.72/-19.28	-1													



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

Appendix C

θ(60°)	0.531-1.66	-5.1-6.4	-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	-6.41-9.26	-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	-1.2-2.14	-0.81-1.3	-1.5-4.93	-4.91-5.82	-8.77-5.82	-2.61-1.44	-2.81-4.91	-9.98-5.02	-2.54-0.59	-3.16-3.18	-2.54-0.59	0.31-0.18		
θ(90°)	-0.07-0.35	-3.52-0.21	-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	0.83-1.7	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	-0.85-0.43	-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	-1.53-1.08	-1.02-2.85	-2.91-2.29	-1.59-2.51	-2.01-1.67	-1.45-1.4	-3.26-17.46	-8.16-18.93	-9.28-7.05	-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	-14.93-13.66	-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	-16.89-17.18	-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	-4.61-5.25	-5.07-4.6	-3.01-2.05	-2.77-2.69	-12.02-17.85	-16.29-13.26	-13.04-10.81	-11.95-15.55	-16.29-13.26	-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	-14.62-10.51	-11.3-10.14	-8.37-6.69	-5.31-4.21	-3.39-3.1	-7.36-9.92	-10.04-5.52	-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	-5.21-6.64	-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	-1.12-0.7	-0.77-1.17	-1.93-3.04	-4.39-6.45	-8.52-11.31	-14.64-15.54
θ(20°)	-17.58-17.78	-14.73-11.59	-8.42-7.35	-5.06-3.82	-3.38-2.56	-1.52-1.89	-9.85-11.23	-10.54-12.89	-9.85-11.23	-4.78-4.79	-6.7-7.7	-5.55-6.7	-6.91-5.77	-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	-6.38-7.63	-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	-7.39-6.43	-5.62-6.57	-6.73-6.56	-7.19-7.34	-7.67-8.65	-12.29-16.49	-15.64-15.92
θ(50°)	-19.86-14.86	-11.05-9.37	-10.11-12.05	-12.34-9.53	-5.49-4.3	-3.94-7.8	-12.96-13.44	-16.14-18.79	-12.52-7.5	-4.98-3.6	-2.71-13.44	-4.46-5.4	-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	-2.6-5.04	-10.89-6.68	-3.55-4.1	-5.96-8.3	-11.24-12.35	
θ(70°)	-14.71-13.22	-10.45-8.7	-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	-7.28-0.33	-5.17-13.3	-8.05-7.25	-5.5-5.01	-6.72-4.42	-3.93-5.59	-6.19-3.72	-9.62-8.95
θ(80°)	-18.73-17.96	-12.52-8.18	-6.45-4.47	-6.05-5.43	-4.02-3.64	-4.77-10.04	-15.04-15.55	-16.9-18.34	-6.82-7.64	-8.45-4.16	-3.07-4.66	-9.41-7.95	-9.41-7.95	-9.41-7.95	-9.41-7.95	-9.41-7.95	-9.41-7.95	-9.41-7.95
θ(90°)	-9.83-11.72	-9.83-7.67	-7.2-8.8	-7.15-3.59	-4.19-5.49	-7.02-4.14	-3.99-9.55	-18.11-14.35	-13.33-18.73	-18.19-17.15	-13.38-7.2	-5.3-5.57	-8.79-8.71	-7.45-12.61	-9.68-4.77	-6.52-17.28	-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	-13.17-1.21	-12.56-10.43	-11.18-12.55	-13.17-11.52	-13.12-14.98	-13.55-13.11	-16.24-16.34	-16.48-11.32	-11.62-7.88	-12.67-18	-18.26-14.25	-9.58-9.82	
θ(110°)	-9.58-7.97	-12.14-12.49	-6.54-3.29	-2.54-3.45	-7.01-7.68	-6.69-4.72	-11.87-9.4	-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	-17.18-17.99	-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	-6.21-6.63	-6.21-5.17	-5.5-11	-18.34-15.13	-17.1-11.13	-7.5-9.36	-9.32-4.72	-13.38-10.62	-9.57-8.52	-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	-9.78-0.04	-2.96-3.54	-9.43-18.14	-11.55-7.47	-8.79-0.08	-11.45-8.46	-17.29-18.85	-19.48-8.38	-9.32-4.85	-9.47-7.98	-13.03-7.71	-10.61-12.92	-14.15-17.27	-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	-10.24-14.65	-16.59-15.48	-19.25-17.79	-11.49-11.52
θ(150°)	-18.65-13.7	-10.79-8.07	-8.2-7.02	-6.51-7.35	-8.75-1.91	-3.84-8.09	-13.61-10.06	-6.5-7.48	-10.5-10.44	-8.32-9.15	-9.94-8.81	-13.16-18.17	-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	-6-4.92	-4.72-5.21	-6.02-4.64	-6.02-5.66	-6.28-7.03	-7.79-11.05	-16.39-18.47	-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	-7.58-11.46	-16.84-18.91	-17.99-18.81	-17.99-14.74	-13.29-12.83	-12.66-10.92	-7.67-6.12	-7.44-6.56	-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	-18.13-18.65	-9.24-7.57	-17.1-19.01	-18.53-18.65	-17.8-17.63	-13.52-12.03	-17.32-14.84	-14.53-16.58	-16.41-14.37	-13.52-12.03	-12.78-12.49	-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	-1.78-2.73	-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	-1.86-18.09	-1.43-7.57	-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	-5.54-3.89	-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	-4.61-3.94	-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	-18.9-18.67	-15.11-11.1	-9.23-8.15	-8.11-8.2
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	-3.95-4.27	-1.67-8.18	-3.97-3.49	-2.56-2.82	-3.59-4.3	-4.59-4.3	-5.17-7.78	-13.95-15.76	-9.7-49	-18.32-12.92	-9.59-8.41	-10.46-10.52
θ(40°)	-17.41-14.94	-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	0.21-1.9	1.1-0.82	-3.74-5.04	-6.46-10.13	-14.33-9.77	-8.13-10.22	-13.71-13.33	-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	1.66-1.58	-0.01-1.78	-1.71-1.93	-3-7.91	-13.43-9.01	-7.8-9.28	-10.41-15.49	-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	-3.69-8.2	-9.12-4.54	-3.42-3.94	-6.89-8.2	1.43-0.2	-2.44-3.71	-2.89-2.33	-2.44-5.26	-8.88-8.43	-8.07-8.11	-13.71-10.01	-10.47-4.49	-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	-5.01-6.96	-5.26-2.73	-3.81-2.79	-0.49-4.99	-3.62-3.54	-3.2-0.51	0.11-2.3	-0.5-2.42	-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	-2.28-4.81	-5.03-2.22	-4.31-3.13	-0.46-5.22	-2.76-3.04	-6.5-2.85	-5.81-6.83	-6.98-13.34	-1.47-3.4	-6.34-2.84	-1.59-1.85				



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

Appendix C

Theta	Phi	Gain	Phi(0°)	Phi(30°)	Phi(45°)	Phi(60°)	Phi(75°)	Phi(90°)	Phi(105°)	Phi(120°)	Phi(135°)	Phi(150°)	Phi(165°)	Phi(180°)	Phi(195°)	Phi(210°)	Phi(225°)	Phi(240°)	Phi(255°)	Phi(270°)	Phi(285°)	Phi(300°)	Phi(315°)	Phi(330°)	Phi(345°)	
Theta(160°)	Phi(0°)	-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/-21.01	-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							
Theta(170°)	Phi(0°)	-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	-18.51/-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/-6.52							
Theta(180°)	Phi(0°)	-18.01/-18.88	-19.42/-17.93	-15.39/-13.19	-10.68/-8.41	-7.61/-8.84	-11.86/-15.94	-17.45/-17.35	-17.98/-19	-17.45/-17.35	-17.32/-18.98	-16.43/-18.36	-19.06/-13.19	-10.34/-8.97	-8.43/-8.46	-5.81/-8.32	-8.92/-10.47	-11.89/-11.92								
Theta(190°)	Phi(0°)	-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/-8.57	-9.06/-13.48	-16.25/-14	-9.91/-9.79	-6.19/-5.21	-4.41/-4.09	-4.52/-4.85							
Theta(200°)	Phi(0°)	-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/-1.0	-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	-6.88/-6.69							
Theta(210°)	Phi(0°)	-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	-8.51/-6.51	-10.42/-10.31	-9.68/-11.25	-14.82/-10.31	-9.68/-11.25	-13.03/-13.55								
Theta(220°)	Phi(0°)	-10.04/-9.62	-14.55/-17.87	-17.98/-14.16	-12.22/-10.51	-10.67/-10.94	-6.71/2.85	-1.49/0.83	-0.61/2.84	-6.34/-4.26	-0.49/0.63	0.87/0.68	-3.59/-5.83	-7.96/-8.98	-5.33/-3.16	-4.12/-4.48	-12.53/-13.28	-13.28/-12.2	-14.3/-14.68							
Theta(230°)	Phi(0°)	-10.56/-7.2	-7.27/-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	-6.52/8.66	2.41/2.89	0.31/-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							
Theta(240°)	Phi(0°)	-5.16/-5.01	-3.63/-3.23	-4.82/-6.45	-10.44/-7.8	-5.69/-1.08	-6.66/-5.41	-4.33/-2.27	-1.00/5.2	-1.87/4.1	-1.48/0.71	1.90/5.2	-1.67/-2.14	-4.8/-11.75	-15.82/-10.64	-9.31/-13.94	-7.49/-8.66									
Theta(250°)	Phi(0°)	-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	-7.83/-8.48	-8.52/-6.98	-6.73/-6.57	-4.42/-4.56							
Theta(260°)	Phi(0°)	-8.37/-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							
Theta(270°)	Phi(0°)	-12.62/-6.52	-1.73/-6.68	-2.69/-6.27	-4.14/-4.1	-1.99/-0.09	-1.89/-4.31	1.07/0.71	-0.12/-4.52	-0.87/2.27	-0.23/0.52	-0.23/0.52	0.96/-3.38	-3.16/-10.14	-19.74/-9.53	-6.4/-6.11	-4.85/-1.69	-4.59/-10.85								
Theta(280°)	Phi(0°)	-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							
Theta(290°)	Phi(0°)	-3.52/0.71	-0.19/-0.26	0.77/0.54	-0.09/-0.37	0.58/0.47	-1.49/-1.95	-4.27/-1.41	-2.9/-1.68	-6.27/-7.2	-7/-12.75	-6.38/-17.02	-4.6/-14.16	-6.13/-10.78	-4.07/-10.29	-4.77/-2.32	-4.21/-4.65									
Theta(300°)	Phi(0°)	0.38/1.89	0.86/0.48	-1.13/-5.67	-6.24/-2.01	-0.98/-2.79	-4.21/2.93	-0.77/-1.01	-13.27/-13.75	-8.22/-17.11	-12.12/-11.46	-10.97/-8.64	-8.77/-11.34	-10.72/-16.79												
Theta(310°)	Phi(0°)	2.55/2.08	2.11/1.25	-0.19/0.15	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/-8.7	-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							
Theta(320°)	Phi(0°)	0.22/0.37	0.87/1.32	1.89/2.16	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							
Theta(330°)	Phi(0°)	-1.44/-1.01	-0.18/-0.18	0.40/0.8	-10.77/-2.07	-13.28/-16.23	-14.51/-16.11	-8.13/-12.38	-18.26/-11.77	-16.42/-10.96	-11.87/-17.57	-16.42/-10.96	-9.87/-11.77	-16.42/-10.96	-11.87/-17.57	-16.42/-10.96	-6.55/-15.79	-9.58/-7.9	-5.75/-9.8							
Theta(340°)	Phi(0°)	0.33/-1.12	-1.97/-2.73	-4.72/-6.17	-6.97/-9.5	-10.69/-8.11	-8.55/-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							
Theta(350°)	Phi(0°)	-2.4/-3.65	-4.47/-5.23	-4.96/-5.93	-6.07/-5.45	-6.27/-9.34	-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/-9.51	-3.69/-3.99							
Theta(160°)	Phi(0°)	-8.7/-2.2	-7.15/-7.92	-9.88/-10.07	-11.16/-14.36	-17.28/-18.96	-18.83/-17.7	-19.98/-18.56	-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							
Theta(170°)	Phi(0°)	-17.95/-18.3	-18.63/-13.09	-14.42/-11.84	-9.88/-6.06	-6.67/1.81	-8.04/8.89	-13.66/-18.4	-6.99/6.2	-18.95/-17.92	-16.63/12.08	-10.98/10.68	-6.31/7.39	-8.47/8.47	-9.44/12.54	-16.43/16.75										
Theta(180°)	Phi(0°)	-18.2/-18.12	-19.35/-18.78	-17.48/-13.08	-11.21/-10.74	-9.64/-8.74	-9.63/-10.01	-11.81/-12.78	-12.77/-13.02	-12.19/-13.23	-18.11/-18.21	-17.71/-19.12	-11.26/-7.49	-7.36/-8.28	-7.62/-6.75	-7.06/-5.56	-8.59/-10.86	-12.71/-13.8	-14.41/-15.85							
Theta(190°)	Phi(0°)	-16.07/-18.77	-16.81/-13.42	-10.16/-14.63	-17.75/-12.17	-10.42/-11.27	-16.73/-15.47	-12.29/-12.11	-12.21/-9.56	-9.24/-9.82	-1.34/-15.36	-18.29/-19.24	-17.87/-15.25	-12.07/-10.85	-8.73/-8.09	-8.74/-8.8	-13.87/-18.25	-18.99/-18.78	-17.92/-19.92							
Theta(200°)	Phi(0°)	-14.71/-17.91	-17.49/-17.28	-17.17/-18.09	-18.65/-16.79	-15.17/-17.09	-19.26/-16.19	-16.04/-14.36	-13.49/-16.28	-15.17/-17.09	-19.26/-16.12	-15.09/-16.14	-15.52/-16.61	-18.55/-12.29	-15.53/-14.91	-13.45/-13.78	-15.61/-13.67									
Theta(210°)	Phi(0°)	-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/-16.84	-10.25/-9.35	-12.11/-17.39	-18.36/-18.24	-15.81/-13.84	-12.39/-13.08							
Theta(220°)	Phi(0°)	-18.93/-18.96	-18.46/-17.16	-12.85/-8.13	-7.11/-9.55	-11.77/-13.45	-18.25/-16.46	-15.01/-19.27	-17.87/-18.78	-17.91/-18.5	-16.09/-14.4	-16.18/-13.09	-11.91/5.1	-11.41/-17.2	-18.26/-18.25	-17.74/-18.4	-14.88/-10.33	-8.09/-8.25								
Theta(230°)	Phi(0°)	-7.4/-7.98	-11.58/-15.13	-16.21/-6	-5.88/-9.35	-17.87/-17.82	-18.56/-15.34	-16.74/-18.88	-18.81/-17.82	-18.56/-15.34	-16.74/-18.88	-18.81/-17.82	-18.56/-15.34	-16.74/-18.88	-18.81/-17.82	-18.56/-15.34	-16.74/-18.88	-18.81/-17.82	-18.56/-15.34							
Theta(240°)	Phi(0°)	-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/-16.04	-18.31/-18.76	-12.51/-19	-13.92/-14.76	-15.63/-15.07	-13.32/-16.09	-12.71/-7.08	-5.61/-5.79							
Theta(250°)	Phi(0°)	-10.01/-11.15	-9.61/-16.12	-18.73/-18.58	-13.55/-10.2	-18.87/-19.1	-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/-17.19	-17.52/-10.23	-15.99/-18.73	-9.95/-6.2	-7.19/-8.08							
Theta(260°)	Phi(0°)	-15.97/-11.57	-13.61/-18.26	-17.92/-15.45	-13.52/-18.87	-18.27/-12.06	-16.35/-16.09	-12.22/-15.03	-18.11/-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	-15.11/-18.08							
Theta(270°)	Phi(0°)	-16.21/-14.2	-18.31/-17.54	-17.48/-14.93	-11.32/-13.72	-17.55/-19.02	-18.67/-19.06	-13.21/-14.27	-18.16/-18.52	-15.08/-14.08	-18.44/-19.04	-16.71/-15.34	-18.96/-18.5	-9.91/-14.83	-11.55/-15.5	-6.99/-6.94	-9.91/-18.08	-15.11/-18.08	-15.11/-18.08							
Theta(280°)	Phi(0°)	-19.18/-15.47	-17.27/-14.32	-17.93/-17.11	-18.92/-18	-18.53/-18.17	-18.17/-17.08	-15.71/-15.87	-18.94/-17.93	-14.66/-13.85	-19.21/-18.26	-14.24/-11.74	-15.49/-18.33	-15.91/-10.72	-12.47/-13.38	-8.22/-10.44	-15.23/-17.82	-18.31/-8.1	-18.31/-8.1							
Theta(290°)	Phi(0°)	-16.84/-9.58	-13.26/-14.06	-11.14/-14.15	-13.73/-10.64	-18.77/-18.08	-18.32/-13.54	-14.51/-14.77	-18.78/-16.12	-18.89/-11.49	-18.16/-18.43	-15.17/-18.35	-14.87/-11.05	-8.52/-12.06	-18.11/-17.61	-11.09/-6.99	-10.98/-16.77	-17.13/-16.08								
Theta(300°)	Phi(0°)	-17.37/-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	-17.13/-17.44	-19.51/-15.3													



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

Appendix C

Theta	Phi	Gain	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°)			
0(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	-16.21/-18.28	-16.08/-16.25																					
0(60°)	-10.26/-9.31	-10.53/-13.66	-12.52/-6.88	-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	-18.86/-18.14	-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																					
0(70°)	-6.94/-5.57	-7.03/-12.06	-15.24/-12.06	-15.45/-12.06	-15.45/-12.06	-18.37/-9.18	-17.93/-18.94	-15.21/-12.4	-16.31/-18.33	-18.86/-19.06	-18.86/-18.06	-18.92/-18.09	-19.16/-18.98	-18.58/-19.55	-13.81/-14.73	-19.45/-18.62	-16.47/-16.76																						
0(80°)	-8.99/-6.9	-6.99/-14.85	-12.14/-13.41	-14.35/-18.07	-15.91/-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	-19.21/-15.47	-13.84/-12.38	-9.33/-15.55	-18.58/-13.83	-11.42/-12.85																					
0(90°)	-18.1/-17.3	-19.06/-13.71	-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/-11.31	-17.04/-13.12																					
0(100°)	-15.24/-17.9	-13.22/-17.06	-19.23/-14.33	-14.14/-12.49	-19.23/-19.06	-17.25/-13.33	-19.09/-18.61	-18.04/-14	-12.41/-14.24	-17.66/-19.49	-14.65/-16.74	-17.16/-15.39	-14.87/-15.59	-17.72/-9.51	-14.87/-15.59	-10.71/-9.75	-11.75/-19.06	-17.25/-12.85																					
0(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	-9.71/-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																					
0(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																					
0(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	-12.34/-15.54	-17.98/-15.48	-19.28/-14.07	-18.61/-18.46	-12.34/-18.7	-14.45/-18.35	-9.82/-15.65	-18.47/-17.37	-15.88/-8.58	-9.81/-11.28	-19.02/-19.54																						
0(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	-19.21/-15.43	-19.05/-17.77	-16.37/-11.82	-12.22/-13.24	-16.31/-16.25	-15.69/-14.24	-17.56/-8.31	-11.45/-15.77	-4.92/-13.39	-7.97/-8.11																					
0(150°)	-16.92/-12.54	-18.81/-17.5	-18.16/-15.16	-11.1/-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	-18.71/-19.13	-16.21/-12.46	-10.94/-19.1	-16.92/-18.17	-15.12/-7.33	-17.61/-10.98	-15.76/-14.77	-16.97/-15.87																					
0(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	-18.66/-17.8	-11.95/-10.23	-9.94/-11.63	-16.91/-18.9	-16.92/-18.17	-17.81/-8.63	-17.57/-17.66	-15.74/-13.47	-15.95/-16.85																					
0(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	-9.61/-10.01	-9.79/-9.53	-10.44/-11.76	-17.44/-18.64																					
0(180°)	-18.28/-19.06	-17.81/-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	-14.41/-15.85																					
Freq(Hz)	5.885GPol	ThetaAnt. 5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Gain	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°)																					
0(0°)	-14.51/-13.16	-12.81/-14.17	-13.77/-13.5	-13.17/-13.9	-15.44/-17.82	-18.24/-18.15	-18.38/-18.23	-15.79/-15.55	-15.11/-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	-18.91/-18.09	-14.94/-14.27	-13.62/-13.85																					
0(10°)	-18.07/-17.94	-18.74/-17.9	-17.85/-18.17	-18.09/-17.5	-17.68/-18	-17.89/-18.66	-17.89/-18.66	-17.97/-8.85	-8.02/-7.53	-11.13/-12.61	-9.71/-7.24	-13.99/-17.18	-19.18/-21	-16.93/-12.38	-19.17/-18.12	-16.93/-12.38	-17.84/-18.12																						
0(20°)	-14.38/-15.88	-14/-13.44	-12.54/-10.4	-9.97/-10.01	-9.79/-10.03	-8.91/-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	-4.91/-5.49	-7.41/-9.24	-9.16/-7.77	-7.03/-7.22	-7.97/-8.26	-10.86/-11.52																					
0(30°)	-11.11/-12.44	-14.53/-15.1	-11.07/-9.16	-8.79/-9	-6.24/-3.5	-3.51/-4.04	-2.51/-1.66	-2.32/-3.66	-4.17/-3.6	-3.24/-5.49	-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																					
0(40°)	-4.87/-4.86	-17.81/-18.86	-18.18/-12.53	-10.31/-11.51	-1.71/-1.46	-2.26/-1.67	-1.41/-1.94	-2.49/-2.48	-3.91/-2.41	-1.41/-1.94	-2.91/-1.71	-3.23/-0.68	-0.72/-2.41	-2.72/-2.41	-2.57/-2.85	-4.24/-4.95	-3.96/-4.85																						
0(50°)	-4.61/-6.35	-7.86/-8.55	-12.57/-16.1	-8.01/-5.08	-6/-6.83	-3.31/-3.95	-1.42/-1.44	-1.27/0.23	0.71/-0.37	-1.71/-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																					
0(60°)	-5.76/-6.66	-14.61/-12.77	-10.16/-9.28	-8.56/-9.25	-3.71/-3.51	-0.87/0.24	-2.23/-3.39	-0.91/-0.65	-0.47/0.74	-0.97/-0.76	-1.31/-0.94	-2.42/-2.54	-2.42/-2.47	-2.35/-3.95	-4.88/-3.87	-7.71/-5.61	-2.14/-1.89	-1.28/-2.31																					
0(70°)	-2.08/-9.96	-18.54/-12.99	-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	-2.54/-1.65	-0.94/-1.14	-3.62/-1.31	-0.23/-1.02	-4.06/-5.18	-6.88/-2.56	-1.47/-2.11	-0.32/-0.65																						
0(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	0.21/0.02	-1.65/-1.35	-0.52/-0.81	-2.81/-1.43	1.18/-0.61	0.79/-1.87	-1.92/-2.06	-4.88/-0.62	-1.73/-1.41	0.57/0.37																					
0(90°)	3.79/-8.9	-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	-3.64/0.11	0.98/2.86																					
0(100°)	2.71/-7.06	-6.03/-0.75	-10.12/-3	-8.06/-4.16	-7.93/-2.18	-2.64/-2.73	-1.15/0.03	-0.56/-0.9	-1.35/-1.53	-1.09/-0.49	-2.34/-2.17	1.98/1.75	0.41/-1.64	-0.97/-0.65	-1.29/-4.92	-1.49/1.7	-0.76/-1.23																						
0(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	-2.33/0.19	-1.81/-0.11	-1.72/1.35	1.42/0.52	-1.68/-2.66	-0.93/-0.72	-2.32/0.16	-10.24/-2.91	-7.93/-6.1	-14.81/-8.25	-17.68/-18.25																						
0(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																					
0(130°)	-1.94/-10.73	-12.52/-6.85	-11.98/-18.09	-15.84/-18.97	-6.72/-7.07	-9.49/-8	-9.21/6.99	-6.48/-2.56	-1.09/-2.24	1.45/0.1	-5.19/-2.1	-2.30/2.1	0.54/-6.57	-1.47/2.3	-4.14/6.6	-6.07/-7.63	-10.																						

Theta	Phi	Gain	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(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																				
Theta(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																				
Theta(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																				
Theta(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	PhiAnt. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Gain	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°)	-19.12/-15.59	-8.26/-3.88	-1.680.11	1.32/1.2	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																				
Theta(10°)	-15.7/-13.66	-6.94/-3.4	-1.46/0.33	1.18/1.94	2.27/1.2	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																				
Theta(20°)	-13.72/-14.91	-8.48/-3.93	-1.40/0.46	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																				
Theta(30°)	-12.91/-17.59	-9.29/-3.43	-0.48/0.75	0.74/0.33	0.21/0.47	1/1.49	1.71/2.3	0.17/-2.03	-4.96/-8.91	-11.36/-12.45	-18.52/-17.79	-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																				
Theta(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/-19.22	-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																				
Theta(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/-2.39	-2.85/-3.47	-3.74/-2.83	-0.99/-0.46	-0.9/-2.16	-3.67/-7.93	-13.96/-14.52																				
Theta(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																				
Theta(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/-2.78	-5.48/-5.97																				
Theta(80°)	-19.24/-17.42	-10.04/-5.76	-4.51/-3.62	-1.39/-1.08	-0.96/-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																				
Theta(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																				
Theta(100°)	-11.98/-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	-6.62/-6.84																				
Theta(110°)	-9.19/-7.55	-10.86/-6.82	-2.33/-1.02	-1.59/-1.59	-11.21/-10.14	-6.89/-3.13	0.01/-2.44	-6.16/-16.17	-18.38/-17.61	-18.94/-19.02	-14.84/-19.19	-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																				
Theta(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	-11.41/-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																				
Theta(130°)	-18.1/-17.4	-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																				
Theta(140°)	-13.76/-17.61	-15.99/-17.67	-14.39/-7	-5.4/-7.83	-12.63/-14.5	-14.52/-17.68	-12.76/-17.47	-18.79/-15.52	-15.98/-14.9	-18.77/-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																					
Theta(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/-8.87	-5.66/-7.05	-7.39/-10.19	-10.22/-5.94	-6.24/-6.84	-6.67/-7.54																				
Theta(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																				
Theta(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	-11.21/-13.69	-17.31/-18.79	-18.52/-18.99	-18.67/-19.12																				
Theta(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	-18.41/-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	ThetaAnt. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Gain	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°)	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	2.31/5.5	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																				
Theta(10°)	2.24/2.29	1.65/8.88	-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																				
Theta(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	-2.71/2.98																				
Theta(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																															



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

Appendix D

Total Gain Data

Freq(Hz)	2.4GPol.	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/-9.97	-7.71/-7.77	-7.92/-7.99	-8.12/-8.07	-7.71/-7.04	-6.12/-5.50	-7.73/-7.17	-5.11/-5.05	-6.46/-7.04	-7.45/-7.68	-7.73/-7.91	-8.24/-8.56	-8.73/-8.64	-8.40/-8.23	-7.77/-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/-5.78	-4.94/-4.11	-3.60/-3.42
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	-9.32/-9.08	-9.08/-8.23	-4.57/-4.59	-5.33/-4.79	-7.00/-6.09	-5.33/-4.79	-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	1.97/1.48	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	1.92/2.80	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	1.82/2.83	0.08/0.85	0.92/0.30	-1.41/-0.88	0.42/1.34	1.37/0.31	1.00/0.10	-0.97/-2.78	-3.28/-2.80	-1.57/0.43	-1.59/0.43	-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	-8.52/-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/-1.89
θ(120°)	-4.86/-3.37	-3.75/-5.90	-5.72/-4.30	-4.19/-3.28	-2.46/-2.90	1.41/0.65	0.44/1.22	-0.37/-0.23	-3.25/-4.17	-3.95/-5.17	-4.77/-2.51	-0.20/2.24	-3.35/-2.92	-0.72/-2.24	-4.83/-6.24	-4.83/-6.24	-4.83/-6.24	-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°)	-12.24/-13.80	-12.50/-11.26	-8.39/-5.18	-3.56/-3.10	-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/-6.81	-5.40/-5.71	-6.96/-8.48	-8.79/-8.37	-8.00/-9.99
θ(150°)	-5.52/-5.47	-5.71/-6.78	-8.79/-12.49	-14.05/-13.74	-14.49/-13.06	-10.75/-8.86	-6.47/-6.71	-7.47/-7.44	-8.11/-8.86	-8.77/-6.17	-1.32/-5.23	-1.32/-5.23	-1.32/-5.23	-1.32/-5.23	-1.32/-5.23	-1.32/-5.23	-1.32/-5.23	-1.32/-5.23
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/-16.64	-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



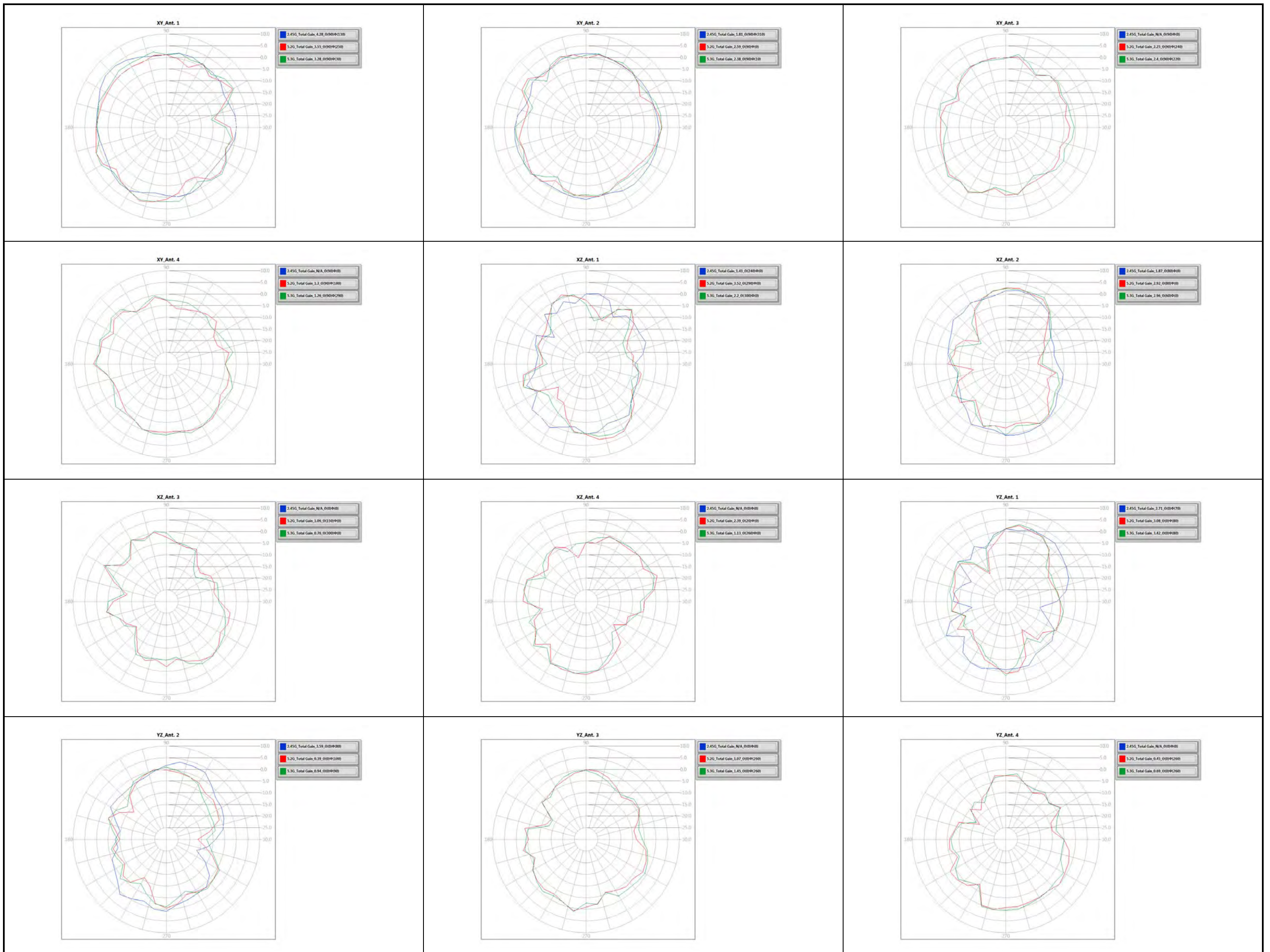
Antenna Pattern of 2.4GHz and 5GHz UNII 1, 2A

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	-3.24/-1.45	-0.64/-1.55	4.45/3.69	-1.16/-2.35	-2.45/-1.45	-0.17/0.18	-1.29/-2.01	-3.43/-2.55	-1.32/0.39	-0.39/-0.97	-0.40/0.35	1.25/2.19	
θ (90°)	2.34/2.38	1.67/0.05	-0.92/0.16	1.84/0.97	1.93/0.94	-0.01/2.37	0.81/-0.41	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/-2.39	-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	-1.58/-3.21	-2.02/-7.63	0.58/0.27	-5.58/-2.91	-6.66/-3.04	-1.78/-5.12	-1.18/-0.06	-6.06/-3.04	-4.73/-5.15	-1.01/-0.06	-8.25/-8.48	-4.58/-1.22	-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	-12.61/-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	-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	-14.29/-15.89	-8.81/-9.78	-3.16/-5.43	-6.54/-12.36	-8.99/-3.98	-3.16/-5.43	-8.89/-12.06	-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/-2.17	-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	-9.60/-9.50	-7.78/-8.82	-10.66/-12.73	-12.04/-10.91	-9.94/-8.82	-7.32/-6.83	-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	-5.56/-5.00	-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/-2.79	-8.74/-9.13	-8.61/-10.04
θ (20°)	-8.00/-7.68	-9.18/-9.18	-8.84/-7.45	-8.84/-5.80	-6.62/-6.11	-1.90/-1.40	-1.26/-1.11	-4.01/-3.47	-3.42/-3.18	-2.61/-2.22	-1.38/-2.02	-1.38/-2.62	-4.20/-5.78	-7.39/-7.32	-7.19/-7.15	-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	-5.58/-3.80	-2.66/-2.68	-2.58/-2.88	-3.22/-3.53	-3.89/-4.12	-3.08/-0.71	0.84/1.50	0.52/-1.92	-4.42/-5.35	-5.58/-5.58	-6.15/-6.82	-7.99/-6.80
θ (40°)	-11.11/-10.51	-8.78/-7.61	-6.90/-7.42	-9.70/-9.13	-6.30/-3.47	-4.08/-5.07	-5.94/-3.88	-1.31/-0.70	-0.43/-0.12	-0.78/-1.23	-0.76/-1.74	-3.01/-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	0.23/0.80	1.64/1.71	0.62/0.94	1.85/1.34	0.06/2.94	-0.36/-2.19	-0.77/0.69	-0.40/-3.41	-4.39/-3.47	-3.92/-6.60	-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/-5.76	-6.65/-4.10	0.50/0.88	-0.39/-0.75	-0.81/-1.45	-1.52/-0.81	-2.35/-2.98	0.50/0.88	-0.42/3.42	-5.65/-7.64	-6.42/3.42	-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	-2.69/-1.68	-1.49/-2.76	-2.68/0.46	2.30/2.00	0.90/-1.25	-3.70/-1.78	-3.11/-5.76	-3.79/-5.21	-5.83/-3.04	-2.26/-1.30	-0.66/-1.18	
θ (80°)	-4.49/-3.09	-1.85/-1.82	-0.57/-2.42	-3.23/-1.46	-0.35/-0.36	0.51/0.62	-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	-3.02/-2.15	-1.01/-1.96	-3.02/-2.15	-0.75/-0.07	-1.17/-3.75
θ (90°)	-2.45/-3.11	-2.22/-3.14	-1.04/-0.92	-4.27/-2.44	0.73/-0.20	0.14/0.06	-2.79/-6.95	-2.82/-1.80	-2.06/-1.55	-0.92/-0.11	1.51/0.18	2.25/0.22	-3.44/-0.97	-0.95/-3.43	-3.83/-3.77	-3.83/-3.77	-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/-6.47	-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/-1.12	-0.38/-1.22	1.74/-3.46	-1.34/-1.46	-2.73/-1.11	-1.97/-5.07
θ (120°)	0.40/-0.45	-0.21/-0.50	-8.24/-1.20	-3.02/-9.93	-8.82/-8.62	-4.99/-3.91	-9.89/-14.23	-7.87/-6.62	-5.19/-3.38	-1.90/-5.92	-1.68/-4.50	1.41/1.89	-1.31/-1.76	2.80/4.50	1.41/1.89	-1.31/-1.76	2.80/4.50	
θ (130°)	-6.14/-0.57	-3.97/-3.35	-10.50/-2.04	-2.85/-16.04	-7.84/-5.35	-5.49/-7.78	-13.69/-10.74	-16.39/-14.74	-9.96/-9.98	-10.15/-2.65	-2.52/-4.96	-3.38/-3.64	-10.06/-0.72	-4.16/-2.14	-2.01/-4.34	-0.53/-0.43	0.02/-0.35	-4.71/-4.65
θ (140°)	-6.21/-0.83	-1.06/-7.24	-8.01/-6.62	-5.38/-6.28	-6.81/-5.88	-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/-6.33	-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/-12.89	-14.47/-11.02	-10.63/-15.97	-8.06/-10.92	-1.67/-11.02	-10.65/-9.11	-3.21/-1.97	-1.93/-8.46	-8.59/-3.55	-4.41/-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/-5.66	-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/-6.43
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/-6.69	-6.71/-5.98	-5.11/-4.26	-3.86/-4.11	-4.35/-4.18	-4.43/-4.38	-3.95/-3.54	-3.16/-2.70				

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/-6.07	-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	Total/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°)	-6.73/-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	-0.74/0.45	1.41/-0.48	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°)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°)	-8.00/-8.89	-7.94/-7.78	-7.95/-7.85	-7.94/-7.78	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	-7.94/-7.85	
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	-3.68/-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	-4.73/-4.93	-3.19/-3.38	-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	
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	-0.35/0.28	-1.98/-1.40	-1.75/-2.84	-2.43/-1.76	0.04/-0.21	-1.20/-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	-0.28/-0.60	-1.31/-2.23	-2.19/-1.60	-1.54/-2.36	-0.28/-0.60	-1.17/-2.26	-2.36/-3.43	-2.36/-3.43	-6.17/-1.41	-0.90/-4.15	-1.69/-2.87	-3.42/-2.93	-1.29/-2.18	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/-6.23	-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	-8.09/-8.71	-7.46/-12.62	-9.42/-9.89	-9.42/-8.73	-8.38/-6.20	-6.10/-6.06		
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	-2.47/-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/-1.83	-8.24/-3.32	-8.40/-12.68	-11.79/-7.16	-5.16/-5.24	-5.70/-4.80	-2.85/-2.73	-3.67/-1.60	-1.22/-0.48	-2.11/-6.89	-8.37/-6.63	-5.10/-8.45	-11.23/-11.49	-14.74/-12.35	-11.71/-11.43	-11.81/-10.43	-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	-0.70/-7.28	-3.45/-4.11	-8.01/-7.00	-11.30/-10.04	-9.97/-11.74	-12.20/-8.65	-6.68/-7.33	-6.19/-6.33	
θ(160°)	-8.73/-9.05	-9.31/-9.96	-9.39/-6.86	-6.41/-6.28	-5.71/-4.95	-4.82/-4.45	-4.41/-3.85	-4.64/-3.90	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08	-1.60/0.08
θ(170°)	-11.02/-12.13	-10.66/-9.99	-9.40/-8.93	-7.98/-5.06	-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/-5.25	-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°)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°)	-3.38/-3.09	-3.29/-3.52	-2.84/-3.92	-3.63/-3.70	-4.08/-3.37	-3.05/-2.82	-2.45/-2.57	-3.81/-3.47	-3.35/-3.42	-3.63/-3.71	-3.06/-3.47	-3.25/-3.05	-2.91/-2.24	-3.06/-3.40	-3.27/-3.28				
θ(10°)	-3.98/-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	-3.22/-2.86	-3.58/-3.83	-3.72/-3.29	-3.02/-3.00	-3.64/-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	-6.51/-7.34	-7.98/-10.40	-14.18/-15.55	-15.53/-13.96	-9.78/-8.35	-8.78/-10.37	-11.50/-10.04	-8.18/-4.58	-1.59/-3.93	-1.22/-1.14	-1.26/-1.30	-1.26/-1.30	
θ(40°)	-0.25/-1.14	-3.16/-3.00	-2.88/-2.65	-2.91/-2.14	-1.11/-2.89	-3.95/-3.64	-3.91/-6.21	-11.92/-8.13	-14.31/-12.86	-9.80/-7.19	-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°)	0.73/-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	-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	-0.66/-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	-5.54/-2.14	-1.90/-2.47	-1.39/-1.25	-1.06/-2.48	-8.19/-6.18	-4.71/-3.88	-8.81/-7.64	-4.71/-1.38	-2.24/-3.68	-0.89/-0.47	-0.17/0.47	-0.41/0.63	-0.17/-0.22		
θ(80°)	1.86/0.50	-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/-0.94	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/-3.90	-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/-3.08	-2.19/0.34	0.16/0.50	-1.91/-1.33	-0.56/-2.09	-3.04/-1.26	0.20/-0.88	-2.71/-1.93	-1.04/-0.76	-4.97/-8.03	-1.24/-7.55	-3.03/-5.41	-2.07/-8.50	-1.79/-0.33	-0.01/-0.15		
θ(110°)	-3.32/-0.99	-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/-7.66	-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/-0.78	-2.36/-4.38	-1.95/-4.04	-4.70/-8.32	-5.27/-10.97	-8.52/-9.96	-6.70/-9.30	-6.39/-5.94	-5.94/-6.17	
θ(130°)	-7.29/-5.69	-6.18/-7.65	-1.87/-7.93	-3.61/-2.38	-1.86/-2.00	-1.17/-0.49	-1.27/-1.73	-1.87/-1.06	-0.06/-1.39	-1.81/-1.40	-1.81/-1.40	-1.94/-14.51	-8.83/-4.21	-6.80/-4.98	-6.61/-10.94	-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/-1.92	-2.46/-2.11	-1.55/-1.57	-1.86/-1.59	-1.54/-1.70	-2.19/-2.53	-4.56/-6.16	-5.08/-7.94	-6.53/-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/-9.14	-5.04/-4.75	-4.95/-5.17	
θ(160°)	-10.77/-10.95	-11.78/-9.28	-7.62/-7.98	-8.49/-6.95	-5.71/-4.31	-3.77/-3.07	-2.25/-2.22	-1.87/-2.40	-2.31/-1.35	-0.02/0.54	-0.22/-1.14	-4.89/-5.68	-8.82/-9.28	-10.49/-6.21	-4.89/-5.62	-4.89/-5.62	-4.89/-5.62	-4.89/-5.62	
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/-6.65	-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°)Φ(10°)	Φ(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/-1.79	-2.11/-3.34	-3.47/-4.55	-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/-1.20	-2.07/-1.51	-2.86/-4.52	-5.02/-9.44	-3.89/-4.12
θ(80°)	-6.73/-5.31	-1.42/-0.73	-1.37/-1.88	-1.75/-2.01	-0.94/-0.44	-1.82/-1.70	-1.73/-1.53	-1.92/0.71	-1.37/-1.53	-1.92/0.71	-1.37/-1.53	-1.92/0.71	-1.37/-1.53	-1.92/0.71	-1.37/-1.53	-1.92/0.71	-1.37/-1.53	-1.92/0.71
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	2.30/1.73	1.39/0.21	-0.13/0.18	-5.54/-6.46	-5.57/9.32	-3.96/-0.70	-5.54/-6.46	-5.57/9.32	-3.96/-0.70	-5.54/-6.46	-5.57/9.32	-3.96/-0.70	-5.54/-6.46	-5.57/9.32	-3.96/-0.70
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	-2.04/0.54	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/-2.27	-2.15/-0.88	-2.37/1.50	-13.24/-10.41	-12.51/-11.99	-13.24/-10.41	-12.51/-11.99	-13.24/-10.41	-12.51/-11.99	-13.24/-10.41	-12.51/-11.99	-13.24/-10.41	-12.51/-11.99	-13.24/-10.41
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/-0.74	-1.84/-0.74	-0.07/0.17	1.63/1.48
θ(170°)	-1.96/-3.53	-4.30/-4.64	-4.18/-4.44	-12.79/-15.79	-3.64/-2.11	-1.64/-2.23	-6.30/-9.52	-12.79/-15.79	-15.62/-15.85	-15.44/-15.23	-12.82/-11.03	-11.40/-10.93	-9.62/-9.92	-3.13/-2.23	-1.85/-1.54	-1.25/-0.96	-0.66/-0.97	-1.63/-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(Hz)	5.6GPol.	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/-11.81	-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/-12.42	-13.09/-14.17
θ(20°)	-14.27/-15.98	-14.60/-12.21	-8.77/-12.52	-11.06/-8.72	-5.89/-5.41	-1.52/-1.19	-3.65/-2.17	-1.25/-1.57	-1.95/-2.19	-1.52/-1.57	-1.95/-2.19	-1.52/-1.57	-1.95/-2.19	-1.52/-1.57	-1.95/-2.19	-1.52/-1.57	-1.95/-2.19	-1.52/-1.57
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/-8.84	-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	-4.12/-1.42	-1.46/-2.98	-3.41/-2.71	-3.59/-3.95	-3.59/-3.95
θ(50°)	-7.72/-7.64	-10.50/-8.09	-6.87/-6.11	-1.25/-1.01	0.42/0.85	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10	-5.50/-4.10
θ(60°)	-3.81/-5.61	-10.56/-10.95	-10.26/-5.04	-3.72/-6.23	-3.05/-6.18	-4.88/-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/-3.60	-3.22/-10.91	-6.17/-1.47	-0.41/-0.02	-1.03/-1.07
θ(70°)	-1.97/-9.83	-8.84/-9.59	-13.29/-10.82	-4.78/-4.54	-1.35/-0.27	-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/-6.01	-15.76/-15.41	-4.35/-2.96	-2.72/-1.40	-1.91/-0.39	-4.35/-1.86	-0.70/-2.40	0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61	-0.29/0.61
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/-10.68	-9.70/-4.28	-6.69/-3.27	-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/-1.03	-0.62/-3.58	0.38/-1.48	-4.73/-4.74
θ(110°)	-1.06/-11.59	-8.71/-3.69	-8.59/-8.15	-14.97/-3.97	-10.06/-3.35	-5.14/-3.27	-4.76/-0.59	-0.90/0.45	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11	-1.99/0.11
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/-2.99	-7.61/-5.73	-3.99/-4.43	-2.50/-0.78	-2.16/-3.52	-0.80/-1.32	-6.59/-3.44	-0.31/-0.63	0.34/-1.87	-1.07/0.12	-1.29/-4.64	-6.44/-3.03	-10.03/-10.77	-8.22/-8.39
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	-8.76/-5.01	-6.30/-4.20	-0.99/-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	-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	-13.15/-10.40	-8.71/-8.12	-9.69/-7.31	-4.69/-5.69	-8.99/-3.51	-2.92/-3.37	-5.55/-6.42	-8.55/-4.80	-7.16/-14.53	-7.89/-3.83	-5.98/-6.39	-13.38/-6.83	-5.16/-5.49
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/-5.17	-5.10/-5.33	-6.08/-5.95	-5.57/-5.70	-6.77/-7.40	-7.43/-6.75	-6.24/-6.01	-6.35/-6.72	-6.35/-6.72
θ(180°)	-8.82/-8.01	-7.69/-8.04	-9.85/-9.84	-8.85/-8.77	-8.89/-10.27	-9.21/-7.52	-6.82/-6.48	-8.97/-8.67	-7.05/-6.53	-7.05/-6.53	-7.17/-8.54	-8.39/-8.48	-11.29/-11.96	-13.16/-14.53	-11.19/-11.50	-11.19/-11.50	-11.19/-11.50	-11.19/-11.50
Freq(Hz)	5.785GPol.	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/-9.68	-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/-4.45	-8.73/-10.26	-10.42/-11.91	-15.42/-15.43
θ(20°)	-10.83/-12.72	-15.35/-14.42	-13.89/-12.06	-10.59/-8.70	-7.60/-7.57	-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/-8.61	-10.18/-10.72	-9.70/-10.53
θ(30°)	-11.62/-14.75	-11.84/-14.38	-13.01/-10.00	-7.95/-5.24	-4.84/-5.26	-5.20/-3.54	-1.49/-1.52	-3.15/-3.21	-4.76/-5.77	-4.27/-2.05	-4.76/-5.77	-4.27/-2.05	-4.76/-5.77	-4.27/-2.05	-4.76/-5.77	-4.27/-2.05	-4.76/-5.77	-4.27/-2.05
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	-1.72/-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	-6.70/-4.54	-2.02/-4.41	-1.94/-0.60	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	-0.43/-0.46	-0.43/-0.46
θ(70°)	-1.34/-4.11	-6.23/-6.82	-1.75/-6.83	-4.04/-3.47	-1.37/-1.64	-1.47/-1.38	-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/-12.27	-5.08/-3.99	-0.96/-1.69	-0.73/-1.50	-3.11/-0.73	-0.42/0.01	0.11/-0.28	-0.81/-1.31	-2.38/0.00	1.28/-1.37	0.36/-1.21	-1.99/-1.74	-1.79/-0.14	-2.26/-1.54	-0.30/-0.45	-0.30/-0.45
θ(90°)	3.54/-8.42	-6.77/-2.33	-10.42/-12.27	-7.81/-3.14	-1.60/-9.37	-2.44/-3.53	-0.78/-0.89	-0.27/-3.02	-1.89/-0.28	-1.89/-0.28	-1.89/-0.28							

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°)
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(0°)	2.772/2.21	2.272/2.03	1.851/1.63	1.461/1.60	1.871/1.75	1.801/1.66	1.521/1.60	1.871/1.81	1.891/1.94	2.122/2.30	2.082/2.01	1.941/1.89	2.572/2.46	2.572/2.46	2.452/2.44	2.452/2.44	2.452/2.44	2.452/2.44
Φ(10°)	2.733/1.8	3.233/4.5	3.503/4.4	3.273/2.8	3.032/2.6	2.522/2.5	2.682/2.8	2.431/2.8	1.440/7.9	0.281/0.32	-0.661/1.9	-1.301/1.51	-1.391/1.64	-1.171/1.00	-0.731/0.29	0.170/0.87	1.441/3.5	1.441/3.5
Φ(20°)	2.253/3.7	4.053/9.7	3.934/17	4.143/8.8	3.332/6.3	2.632/1.8	1.821/2.2	0.860/4.9	-0.181/1.20	-1.771/1.61	-1.891/1.93	-2.011/1.79	-1.811/1.82	-2.101/2.46	-2.571/2.72	-2.501/1.82	-1.271/1.39	-1.271/1.39
Φ(30°)	-1.220/8.5	2.072/5.8	3.103/3.4	3.252/3.1	3.272/6.3	4.030/5.0	-5.761/1.5	-1.521/2.66	-4.591/6.00	-9.721/16.13	-8.031/9.80	-1.991/9.28	-10.461/9.71	-14.591/15.10	-14.591/15.10	-14.591/15.10	-14.591/15.10	-14.591/15.10
Φ(40°)	-4.221/2.2	-0.581/0.03	1.452/2.2	1.851/2.1	0.890/4.3	0.261/0.44	-1.671/1.99	-2.161/2.76	-2.471/4.98	-7.911/8.45	-10.021/9.05	-5.781/5.10	-4.961/5.17	-4.941/4.62	-5.211/4.74	-4.451/6.44	-9.001/9.66	-7.771/8.30
Φ(50°)	-7.421/6.39	-5.291/5.7	-3.201/1.04	0.911/5.2	1.050/8.7	1.351/2.5	-0.151/2.40	-0.731/1.75	-5.421/9.41	-9.931/5.48	-2.441/0.65	-0.901/1.10	-3.001/4.03	-3.101/3.17	-2.881/2.88	-4.391/6.77	-7.291/9.92	-7.291/9.92
Φ(60°)	-13.161/7.83	-5.671/6.13	-10.261/9.98	-1.411/1.03	0.401/1.07	1.861/1.85	0.491/2.49	-3.611/1.04	-1.521/2.66	-1.741/0.30	-0.061/0.41	-1.521/2.66	-1.741/0.30	-0.061/0.41	-1.761/1.83	-1.761/1.83	-1.761/1.83	-1.761/1.83
Φ(70°)	-9.091/5.35	-2.691/1.92	-5.051/9.89	-3.061/0.59	-0.040/7.8	1.331/1.84	0.801/2.83	-4.491/2.34	-1.281/2.94	-6.591/8.71	-2.530/1.8	-0.581/0.79	0.240/0.88	-0.071/0.53	0.161/1.41	1.111/2.05	-2.031/4.63	-6.571/7.09
Φ(80°)	-8.141/6.30	-2.561/0.93	-1.471/3.99	-3.041/1.29	-0.560/3.4	0.711/1.54	1.611/0.55	-3.331/3.73	-3.041/3.74	-6.851/8.34	-3.331/0.77	-1.841/0.99	0.701/1.52	1.471/1.52	1.462/4.9	1.261/2.34	-4.651/5.39	-4.891/5.11
Φ(90°)	-6.481/5.29	-1.510/2.5	-0.191/1.80	-1.261/0.61	0.671/1.03	0.230/1.0	1.601/0.97	-6.011/6.81	-8.421/9.41	-6.381/6.62	-4.781/2.95	-0.221/1.13	1.2721/1.6	1.871/1.6	-0.661/3.64	-3.931/2.66	-2.931/6.58	-2.931/6.58
Φ(100°)	-6.331/6.12	-4.071/2.43	-2.441/2.33	-1.441/0.03	0.851/1.38	0.271/0.22	0.061/0.32	-6.121/7.05	-7.911/9.10	-10.421/13.44	-12.111/11.81	-10.671/5.19	-1.531/1.07	0.091/1.87	1.891/1.41	-4.451/3.74	-2.021/3.40	-3.441/4.24
Φ(110°)	-9.681/9.79	-7.071/2.46	-2.631/1.77	-2.181/3.75	-7.051/4.66	-5.011/1.19	0.451/2.06	-3.051/4.66	-6.881/11.29	-14.471/12.41	-12.341/15.40	-10.961/6.61	-7.061/8.62	-3.951/4.21	-2.581/4.43	-0.161/5.67	-3.571/5.83	-6.571/6.72
Φ(120°)	-11.521/13.87	-11.711/6.90	-3.981/1.78	-0.781/2.29	4.791/6.27	-4.511/1.98	-8.861/5.79	-6.461/9.86	-15.521/9.94	-12.631/15.27	-11.951/7.66	-11.401/8.86	-9.181/4.21	-10.341/10.44	-11.171/6.29	-7.191/15.13	-13.371/13.89	-13.371/13.89
Φ(130°)	-15.061/15.55	-15.291/10.86	-6.341/3.39	-1.871/1.25	-1.951/2.50	-2.941/3.02	-5.261/5.51	-6.891/13.43	-13.801/14.59	-12.951/11.18	-6.011/6.36	-8.531/10.27	-9.411/11.56	-5.101/4.87	-5.021/8.94	-14.271/15.78	-9.471/10.48	-9.471/10.48
Φ(140°)	-8.571/6.60	-7.351/7.02	-6.761/5.41	-4.611/5.25	-6.471/7.80	-11.461/15.10	-11.011/8.45	-7.411/8.78	-9.691/9.48	-11.081/11.96	-11.871/14.94	-12.551/11.40	-13.631/8.33	-9.991/14.92	-8.701/13.30	-9.441/8.73	-10.771/10.76	-9.031/9.48
Φ(150°)	-6.031/7.69	-7.311/9.22	-10.691/11.22	-10.341/9.50	-8.671/9.07	-8.891/8.33	-8.401/9.16	-8.841/7.91	-6.171/7.31	-9.951/11.33	-10.221/11.50	-11.271/8.05	-8.751/6.96	-7.271/9.20	-8.451/8.85	-7.611/6.26	-7.131/7.29	-4.571/4.75
Φ(160°)	-13.831/11.85	-11.631/12.53	-12.871/11.56	-10.521/9.89	-9.001/7.43	-6.471/6.48	-7.591/9.60	-8.951/10.48	-13.321/9.75	-8.951/10.48	-9.141/11.46	-9.911/8.65	-8.511/7.18	-5.841/6.27	-7.641/8.05	-7.641/8.05	-7.641/8.05	-7.641/8.05
Φ(170°)	-15.251/13.12	-12.021/12.17	-12.151/10.86	-10.611/11.09	-12.251/12.76	-13.551/14.08	-15.751/15.22	-14.241/12.05	-11.101/9.55	-8.881/8.31	-8.091/7.73	-7.621/8.17	-9.261/10.77	-11.151/11.02	-9.701/9.19	-10.431/11.35	-12.661/13.33	-13.871/14.24
Φ(180°)	-13.261/13.44	-15.191/14.69	-14.321/13.10	-14.861/15.58	-14.811/15.07	-13.611/13.24	-12.771/10.99	-10.461/10.64	-10.231/10.13	-10.211/10.07	-10.621/11.07	-10.651/10.64	-11.071/11.20	-11.151/11.27	-10.841/11.40	-11.571/11.87	-12.631/13.41	-13.001/13.36
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°)
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(0°)	3.683/3.67	3.473/3.8	3.273/3.9	3.103/3.1	3.073/2.3	3.313/3.4	3.413/4.3	3.473/4.9	3.393/5.3	3.673/6.0	3.553/4.3	3.273/3.5	3.393/3.9	3.373/3.7	3.383/3.0	3.343/4.7	3.553/4.7	3.533/4.3
Φ(10°)	2.412/7.1	2.983/0.5	2.832/6.9	2.452/2.8	2.322/6.3	2.422/5.1	2.482/6.5	2.422/6.5	3.423/2.9	2.942/6.4	-0.061/0.28	-0.100/2.5	0.571/1.0	1.881/7.8	1.881/7.8	1.881/7.8	1.881/7.8	1.881/7.8
Φ(20°)	1.882/9.5	3.343/4.8	3.403/4.7	3.263/1.2	2.872/6.1	2.562/5.1	2.312/1.9	2.322/2.6	1.480/4.7	-0.251/0.59	-0.691/0.40	-0.241/0.38	-1.221/2.00	-2.321/2.57	-2.731/2.89	-2.991/3.03	-2.051/2.31	-2.051/2.31
Φ(30°)	-0.521/1.75	2.612/6.8	3.463/8.2	2.751/1.1	0.431/0.14	0.101/0.80	1.381/1.61	1.030/2.0	0.321/0.88	-3.791/4.84	-4.701/4.78	-5.161/5.43	-5.881/5.75	-4.831/4.86	-4.971/7.5	-10.511/9.51	-6.791/4.78	-4.081/4.70
Φ(40°)	-2.741/0.47	0.760/9.5	1.741/3.3	0.790/9.5	0.421/0.03	1.090/8.0	0.741/0.71	0.5481/3.64	-5.481/6.66	-2.611/0.90	-4.261/4.22	-5.181/5.66	-14.651/9.39	-4.341/4.67	-4.341/4.67	-4.341/4.67	-4.341/4.67	-4.341/4.67
Φ(50°)	-2.441/2.79	-2.101/2.84	-1.971/1.09	0.761/0.97	0.700/3.5	0.761/1.40	1.231/1.03	-0.521/0.00	0.181/1.09	-3.431/7.55	-7.131/2.88	-0.651/0.25	-1.841/3.01	-2.831/1.71	-0.661/0.89	-1.711/2.62	-2.921/4.51	-4.531/4.95
Φ(60°)	-3.771/3.30	-2.921/4.68	-6.701/4.28	0.512/2.6	1.981/1.9	0.551/1.0	0.581/1.83	-1.051/0.9	1.800/3.6	-2.671/7.53	-3.371/1.08	0.901/0.03	-0.421/2.42	-2.111/1.55	-0.741/0.93	-1.321/1.64	-5.171/1.39	-3.811/4.49
Φ(70°)	-9.311/5.17	-4.051/3.34	-5.381/5.68	-0.621/0.1	0.763/0.29	0.763/0.29	-0.261/1.36	0.761/0.88	-3.391/8.76	-2.160/3.4	0.800/6.8	-0.290/9.7	2.102/5.4	1.511/1.02	0.061/2.02	-3.791/4.84	-3.791/4.84	-3.791/4.84
Φ(80°)	-15.751/8.02	-4.071/2.25	-2.321/3.83	-1.431/1.09	0.111/0.30	-1.081/1.97	-0.881/1.41	-1.741/2.11	-2.781/3.66	-4.781/8.29	-3.481/1.30	-1.080/3.7	0.851/3.0	1.262/4.9	2.692/7.9	1.481/2.43	-3.501/5.20	-4.021/4.48
Φ(90°)	-11.581/5.55	-3.661/1.18	-0.631/1.28	0.670/8.0	1.430/8.6	-0.621/4.3	-0.031/0.14	-1.171/3.55	-5.651/6.65	-8.811/12.58	-6.561/4.05	-3.011/1.72	0.331/1.32	1.582/7.1	3.152/1.3	0.661/3.0	-5.931/6.52	-4.801/11.47
Φ(100°)	-9.011/6.92	-4.301/3.20	-1.591/0.29	1.270/0.3	1.060/8.7	-0.941/1.5	-0.081/2.00	-10.341/15.23	-1.241/11.49	-1.821/3.85	-1.691/1.17	-1.711/3.52	-1.341/4.75	-2.311/3.58	-2.311/3.58	-2.311/3.58	-2.311/3.58	-2.311/3.58
Φ(110°)	-11.041/8.06	-7.061/4.25	-1.761/0.02	0.121/1.69	-3.941/4.91	-4.571/1.64	0.551/0.89	-4.131/6.63	-6.581/11.63	-12.441/14.86	-9.321/12.16	-6.651/5.20	-5.751/7.88	-4.881/0.28	-2.081/5.34	-7.161/6.01	-5.431/10.39	-9.531/10.24
Φ(120°)	-10.971/10.47	-8.991/4.49	-1.940/3.3	1.041/1.20	-4.691/3.8	-6.941/3.2	-2.941/2.95	-5.011/8.78	-9.491/11.68	-12.851/13.50	-14.871/14.47	-8.901/7.49	-10.841/10.25	-9.371/5.15	-7.011/5.24	-8.921/13.27	-11.651/12.42	-11.651/12.42
Φ(130°)	-15.161/14.70	-11.131/7.21	-4.311/1.32	0.180/3.8	-9.511/10.68	-6.001/3.91	-4.631/4.82	-8.711/15.85	-9.431/12.32	-12.861/14.06	-7.581/7.51	-4.891/3.27	-4.181/10.23	-9.771/10.94	-8.461/8.66	-8.461/8.66	-8.461/8.66	-8.461/8.66
Φ(140°)	-9.281/8.35	-9.091/7.15	-4.871/2.44	-1.251/3.54	-7.781/13.49	-11.921/10.65	-9.021/10.48	-10.991/12.09	-12.171/10.83	-13.691/11.14	-11.181/14.29	-10.731/9.13	-11.151/9.21	-10.361/14.15	-5.641/12.60	-5.851/7.30	-11.421/11.24	-9.341/9.89
Φ(150°)	-8.801/9.99	-10.121/10.15	-9.471/11.05	-11.961/13.20	-15.801/14.23	-10.881/8.28	-9.521/11.48	-10.881/9.90	-8.811/9.10	-13.461/13.43	-8.541/10.83	-10.621/7.02	-8.901/5.48	-5.631/7.50	-7.391/8.59	-8.171/5.28	-5.391/5.19	-4.131/4.33
Φ(160°)	-15.																	

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

