



Antenna Composite Gain Test Report

FCC ID	LDK-9160S2579
Equipment	Catalyst Wireless 9166D1 Series Wi-Fi 6E Access Point
Brand Name	CISCO
Model Name	CW9166D1-B, CW9166D1-MR
Applicant	Cisco Systems Inc 125 West Tasman Drive San Jose California United States 95134-1706
Manufacturer	Cisco Systems Inc 125 West Tasman Drive San Jose California United States 95134-1706
Sample Received	Jan. 17, 2023
Start Test Date	Jan. 17, 2023
Final Test Date	Jan. 18, 2023

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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



Table of Contents

History of this test report.....	3
1. Operation Mode and Antenna Information	4
2. Test Frequency	5
3. Testing Location.....	5
4. Test Facility and Configuration.....	6
5. Reference Calibration	7
6. Test Method	8
7. Measured Values and Calculation of Maximum Gain Positions.....	9
8. Summary of Test Result	13
9. Test Setup	15
10. Test Equipment and Calibration Data	16
11. Test Results	17

1. Operation Mode and Antenna Information

Antenna Position	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
2G5G Ant1	CISCO	95XEAM15.G04 WIFI 2/5G_4	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
2G5G Ant2	CISCO	95XEAM15.G03 WIFI 2/5G_3	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
2G5G Ant3	CISCO	95XEAM15.G02 WIFI 2/5G_2	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
2G5G Ant4	CISCO	95XEAM15.G01 WIFI 2/5G_1	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
5GH6G Ant1	CISCO	95XEAM15.G05 WIFI 5/6G_1	Dipole	I-PEX	5GHz UNII 2C~3, 6GHz
5GH6G Ant2	CISCO	95XEAM15.G06 WIFI 5/6G_2	Dipole	I-PEX	5GHz UNII 2C~3, 6GHz
5GH6G Ant3	CISCO	95XEAM15.G07 WIFI 5/6G_3	Dipole	I-PEX	5GHz UNII 2C~3, 6GHz
5GH6G Ant4	CISCO	95XEAM15.G08 WIFI 5/6G_4	Dipole	I-PEX	5GHz UNII 2C~3, 6GHz

Note1:

Antenna Position	Port								
	R1: WLAN 2.4GHz			R1: WLAN 5GHz UNII 1~3			R2: WLAN 5GHz UNII 2C~3/ WLAN 6GHz		
	1TX	2TX	4TX	1TX	2TX	4TX	1TX	2TX	4TX
2G5G Ant1	-	-	3	-	-	3	-	-	-
2G5G Ant2	-	2	2	-	2	2	-	-	-
2G5G Ant3	1	1	1	1	1	1	-	-	-
2G5G Ant4	-	-	4	-	-	4	-	-	-
5GH6G Ant1	-	-	-	-	-	-	-	2	2
5GH6G Ant2	-	-	-	-	-	-	1	1	1
5GH6G Ant3	-	-	-	-	-	-	-	-	3
5GH6G Ant4	-	-	-	-	-	-	-	-	4

Note2: R means Radio.

2.4GHz and 5GHz Operation Mode (1TX, 2TX, 4TX/4RX)

For 1TX

Only 2G5G Ant3 can be use as transmitting antenna.

For 2TX

Only 2G5G Ant2 and 2G5G Ant3 can be use as transmitting antenna.

2G5G Ant2 and 2G5G Ant3 could transmit simultaneously.

For 4TX

2G5G Ant1~4 can be used as transmitting/receiving antenna.

2G5G Ant1~4 could transmit/receive simultaneously.

5GHz UNII 2C~3 and 6GHz Operation Mode (1TX, 2TX, 4TX/4RX)

For 1TX

Only 5GH6G Ant2 can be use as transmitting antenna.

For 2TX

Only 5GH6G Ant1 and 5GH6G Ant2 can be use as transmitting antenna.

5GH6G Ant1 and 5GH6G Ant2 could transmit simultaneously.

For 4TX

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

5GH6G Ant1~4 could transmit/receive simultaneously.



2. Test Frequency

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

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

3. Testing Location

Testing Location		
Sporton International Inc. Hsinhua Laboratory		
<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	23-24 / 50-55	Jan. 17, 2023 ~ Jan. 18, 2023

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

4. Test Facility and Configuration

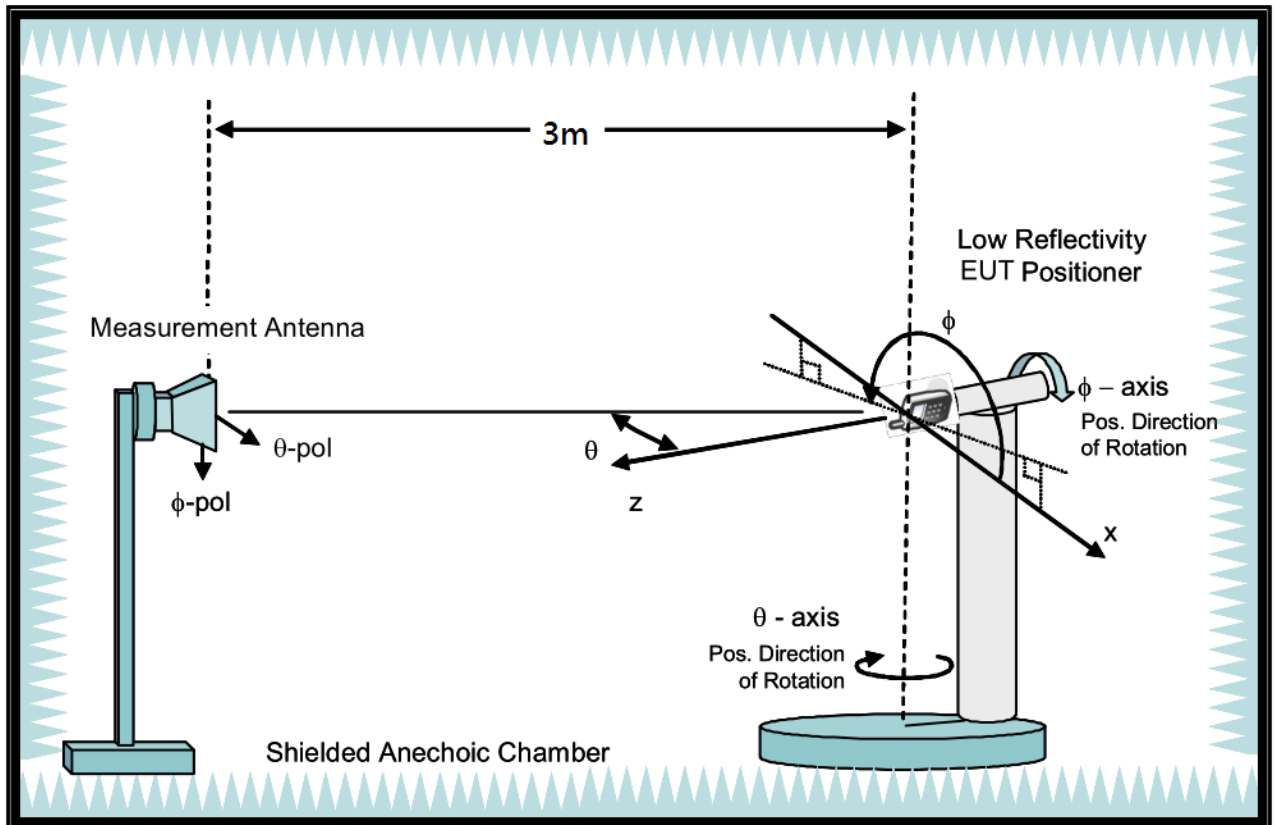
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

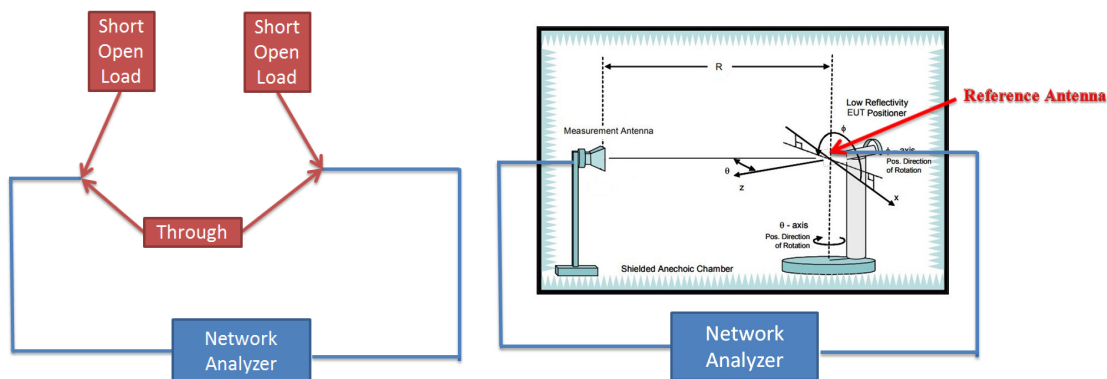
#Reference to CTIA “ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1”



5. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7200
G(theta) reading (dB)	-33.55	-33.27	-32.92	-32.91	-32.73	-32.02	-32.67	-32.82	-32.98	-33.18	-32.8	-33.92	-34.62	-35.57
G(phi) reading (dB)	-33.15	-32.7	-32.41	-32.61	-32.43	-31.72	-32.37	-32.51	-32.52	-32.66	-32.5	-33.62	-34.32	-35.48
Reference gain (dBi)	10.1	10.4	10.7	12.5	12.7	13.5	13.4	13.3	13.3	13.2	13.4	12.5	12.1	11.4
Factor(theta) (dB)	43.65	43.67	43.62	45.41	45.43	45.52	46.07	46.12	46.28	46.38	46.2	46.42	46.72	46.97
Factor(phi) (dB)	43.25	43.1	43.11	45.11	45.13	45.22	45.77	45.81	45.82	45.86	45.9	46.12	46.42	46.88

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.

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



6. Test Method

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

DG steps:

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

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



7. Measured Values and Calculation of Maximum Gain Positions

For 2G5G Ant1~4:

For 2TX

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 2 (dBi)	0.63	1.99	2.05	2	1.93
Ant. 3 (dBi)	4	2.03	0.61	-0.05	0.99
DG [1SS] (dBi)	5.49	5.02	4.37	4.05	4.48
Polarization	Phi	Phi	Phi	Theta	Theta
θ (°)	0	30	30	0	0
Φ (°)	270	270	262.5	172.5	180

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

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 2 [10^(G/20)]	10^(0.63/20)	10^(1.99/20)	10^(2.05/20)	10^(2/20)	10^(1.93/20)
Ant. 3 [10^(G/20)]	10^(4/20)	10^(2.03/20)	10^(0.61/20)	10^(-0.05/20)	10^(0.99/20)
Ant. 2 [10^(G/20)] value	1.075	1.257	1.266	1.259	1.249
Ant. 3 [10^(G/20)] value	1.585	1.263	1.073	0.994	1.121
Sum All Antenna [Amax]	2.66	2.521	2.339	2.253	2.37
DG [10*log(Amax^2/Nant)]	5.49	5.02	4.37	4.05	4.48

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 4TX

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	4.53	1.99	2.16	-0.66	1.74
Ant. 2 (dBi)	0.99	2.24	1.91	2	1.93
Ant. 3 (dBi)	1.57	0.61	0.4	-0.05	0.99
Ant. 4 (dBi)	3.2	2.99	1.21	1.93	1.25
DG [1SS] (dBi)	8.71	8.02	7.47	6.91	7.51
Polarization	Phi	Phi	Phi	Theta	Theta
$\Theta(^{\circ})$	0	37.5	30	0	0
$\Phi(^{\circ})$	172.5	7.5	90	172.5	180

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

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [10 ^{^(G/20)}]	10 ^{^(4.53/20)}	10 ^{^(1.99/20)}	10 ^{^(2.16/20)}	10 ^{^(-0.66/20)}	10 ^{^(1.74/20)}
Ant. 2 [10 ^{^(G/20)}]	10 ^{^(0.99/20)}	10 ^{^(2.24/20)}	10 ^{^(1.91/20)}	10 ^{^(2/20)}	10 ^{^(1.93/20)}
Ant. 3 [10 ^{^(G/20)}]	10 ^{^(1.57/20)}	10 ^{^(0.61/20)}	10 ^{^(0.4/20)}	10 ^{^(-0.05/20)}	10 ^{^(0.99/20)}
Ant. 4 [10 ^{^(G/20)}]	10 ^{^(3.2/20)}	10 ^{^(2.99/20)}	10 ^{^(1.21/20)}	10 ^{^(1.93/20)}	10 ^{^(1.25/20)}
Ant. 1 [10 ^{^(G/20)}] value	1.685	1.257	1.282	0.927	1.222
Ant. 2 [10 ^{^(G/20)}] value	1.121	1.294	1.246	1.259	1.249
Ant. 3 [10 ^{^(G/20)}] value	1.198	1.073	1.047	0.994	1.121
Ant. 4 [10 ^{^(G/20)}] value	1.445	1.411	1.149	1.249	1.155
Sum All Antenna [Amax]	5.449	5.035	4.725	4.429	4.746
DG [10*log(Amax ² /Nant)]	8.71	8.02	7.47	6.91	7.51

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 5GH6G Ant1~4:

For 2TX

DG_1SS max value position

Frequency (Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	4.57	3.63	3.29	4.07	5.83	4.46
Ant. 2 (dBi)	4.72	6.36	3.7	2.3	3.31	6.2
DG [1SS] (dBi)	7.66	8.11	6.51	6.24	7.67	8.38
Polarization	Phi	Theta	Theta	Phi	Phi	Phi
$\Theta(^{\circ})$	15	7.5	15	0	7.5	7.5
$\Phi(^{\circ})$	270	187.5	180	180	82.5	90

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

DG_1SS max value position calculation

Frequency (Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(4.57/20)}$	$10^{(3.63/20)}$	$10^{(3.29/20)}$	$10^{(4.07/20)}$	$10^{(5.83/20)}$	$10^{(4.46/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(4.72/20)}$	$10^{(6.36/20)}$	$10^{(3.7/20)}$	$10^{(2.3/20)}$	$10^{(3.31/20)}$	$10^{(6.2/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.692	1.519	1.46	1.598	1.957	1.671
Ant. 2 [$10^{(G/20)}$] value	1.722	2.08	1.531	1.303	1.464	2.042
Sum All Antenna [Amax]	3.414	3.598	2.992	2.901	3.42	3.713
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	7.66	8.11	6.51	6.24	7.67	8.38

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 4TX

DG_1SS max value position

Frequency (Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	4.57	3.63	4.18	3.34	5.69	4.49
Ant. 2 (dBi)	4.72	6.36	0.16	3.04	2.91	4.69
Ant. 3 (dBi)	2.13	2.79	4.04	-0.15	4.93	4.82
Ant. 4 (dBi)	3.91	4.34	3.78	5.02	3.36	4.77
DG [1SS] (dBi)	9.91	10.4	9.21	9.03	10.32	10.71
Polarization	Phi	Theta	Theta	Phi	Theta	Phi
$\Theta(^{\circ})$	15	7.5	22.5	0	7.5	0
$\Phi(^{\circ})$	270	187.5	97.5	352.5	97.5	0

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

DG_1SS max value position calculation

Frequency (Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 [10 ^{^(G/20)}]	10 ^{^(4.57/20)}	10 ^{^(3.63/20)}	10 ^{^(4.18/20)}	10 ^{^(3.34/20)}	10 ^{^(5.69/20)}	10 ^{^(4.49/20)}
Ant. 2 [10 ^{^(G/20)}]	10 ^{^(4.72/20)}	10 ^{^(6.36/20)}	10 ^{^(0.16/20)}	10 ^{^(3.04/20)}	10 ^{^(2.91/20)}	10 ^{^(4.69/20)}
Ant. 3 [10 ^{^(G/20)}]	10 ^{^(2.13/20)}	10 ^{^(2.79/20)}	10 ^{^(4.04/20)}	10 ^{^(-0.15/20)}	10 ^{^(4.93/20)}	10 ^{^(4.82/20)}
Ant. 4 [10 ^{^(G/20)}]	10 ^{^(3.91/20)}	10 ^{^(4.34/20)}	10 ^{^(3.78/20)}	10 ^{^(5.02/20)}	10 ^{^(3.36/20)}	10 ^{^(4.77/20)}
Ant. 1 [10 ^{^(G/20)}] value	1.692	1.519	1.618	1.469	1.925	1.677
Ant. 2 [10 ^{^(G/20)}] value	1.722	2.08	1.019	1.419	1.398	1.716
Ant. 3 [10 ^{^(G/20)}] value	1.278	1.379	1.592	0.983	1.764	1.742
Ant. 4 [10 ^{^(G/20)}] value	1.569	1.648	1.545	1.782	1.472	1.732
Sum All Antenna [Amax]	6.261	6.625	5.774	5.653	6.56	6.866
DG [10*log(Amax ² /Nant)]	9.91	10.4	9.21	9.03	10.32	10.71

Note:

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

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



8. Summary of Test Result

For 2G5G Ant1~4:

For 2TX

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 2 Max Gain (dBi)	4.11	4.59	4.32	4.02	4.45
Ant. 3 Max Gain (dBi)	5.46	4.55	3.8	3.49	3.89
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/0/225	Phi/30/45	Phi/22.5/52.5	Theta/7.5/135	Phi/37.5/45
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/0/300	Phi/37.5/142.5	Phi/30/127.5	Theta/7.5/225	Phi/37.5/315
Max Gain (dBi)	5.46	4.59	4.32	4.02	4.45
DG [1SS] (dBi)	5.49	5.02	4.37	4.05	4.48
DG [2SS] (dBi)	5.46	4.59	4.32	4.02	4.45

For 4TX

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	6.57	5.21	4.46	4.78	5.2
Ant. 2 Max Gain (dBi)	4.11	4.59	4.32	4.02	4.45
Ant. 3 Max Gain (dBi)	5.46	4.55	3.8	3.49	3.89
Ant. 4 Max Gain (dBi)	6.55	4.84	4.48	3.62	5.02
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/7.5/322.5	Phi/30/142.5	Phi/22.5/135	Theta/0/232.5	Phi/37.5/127.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/0/225	Phi/30/45	Phi/22.5/52.5	Theta/7.5/135	Phi/37.5/45
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/0/300	Phi/37.5/142.5	Phi/30/127.5	Theta/7.5/225	Phi/37.5/315
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/0/45	Phi/30/52.5	Phi/30/45	Phi/37.5/45	Phi/37.5/225
Max Gain (dBi)	6.57	5.21	4.48	4.78	5.2
DG [1SS] (dBi)	8.71	8.02	7.47	6.91	7.51
DG [2SS] (dBi)	6.57	5.21	4.48	4.78	5.2
DG [4SS] (dBi)	6.57	5.21	4.48	4.78	5.2

Note:

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



For 5GH6G Ant1~4:

For 2TX

Freq(Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	7.48	6.28	6.49	5.9	7.49	7.42
Ant. 2 Max Gain (dBi)	7.11	8.01	6	4.87	7.65	8.32
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/15/315	Theta/15/315	Theta/22.5/315	Phi/7.5/217.5	Theta/7.5/135	Theta/15/135
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/7.5/217.5	Theta/15/225	Phi/7.5/315	Theta/22.5/217.5	Theta/7.5/45	Theta/0/45
Max Gain (dBi)	7.48	8.01	6.49	5.9	7.65	8.32
DG [1SS] (dBi)	7.66	8.11	6.51	6.24	7.67	8.38
DG [2SS] (dBi)	7.48	8.01	6.49	5.9	7.65	8.32

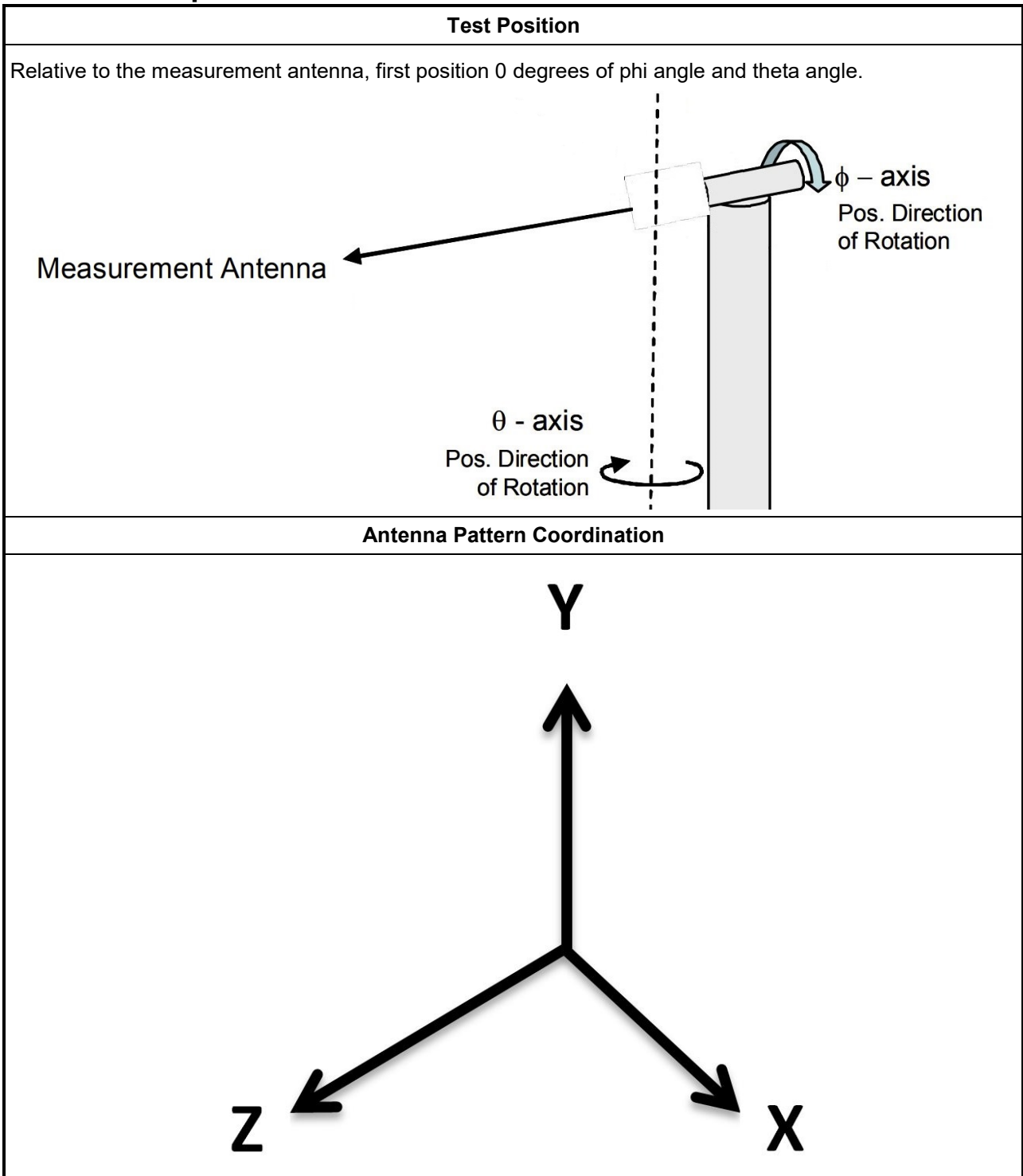
For 4TX

Freq(Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	7.48	6.28	6.49	5.9	7.49	7.42
Ant. 2 Max Gain (dBi)	7.11	8.01	6	4.87	7.65	8.32
Ant. 3 Max Gain (dBi)	7.24	6.68	5.88	4.86	7.37	7.26
Ant. 4 Max Gain (dBi)	6.57	7.32	6.34	7.31	6.46	6.82
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/15/315	Theta/15/315	Theta/22.5/315	Phi/7.5/217.5	Theta/7.5/135	Theta/15/135
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/7.5/217.5	Theta/15/225	Phi/7.5/315	Theta/22.5/217.5	Theta/7.5/45	Theta/0/45
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/22.5/135	Theta/30/142.5	Theta/15/315	Phi/7.5/52.5	Phi/7.5/37.5	Theta/15/127.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/22.5/45	Theta/15/45	Phi/0/315	Phi/0/307.5	Theta/30/60	Phi/0/142.5
Max Gain (dBi)	7.48	8.01	6.49	7.31	7.65	8.32
DG [1SS] (dBi)	9.91	10.4	9.21	9.03	10.32	10.71
DG [2SS] (dBi)	7.48	8.01	6.49	7.31	7.65	8.32
DG [4SS] (dBi)	7.48	8.01	6.49	7.31	7.65	8.32

Note:

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

9. Test Setup



Note:

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



10. Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1543	1GHz~18GHz	May 31, 2022	May 30, 2023
Dual Polarization Horn Antenna	Sporton	S0209DP	S0209DP-001	2GHz~9GHz	N.C.R.	N.C.R.
ENA Series Network Analyzer	AGILENT	E5071C	MY46419201	100kHz~8.5GHz	Feb. 21, 2022	Feb. 20, 2023
VNA Calibration Kit	TS RF	TS85033E-F	-	DC~9GHz	N.C.R.	N.C.R.
Multi-axis positioner	Sporton	MAPS01	MAPS01-001	Theta / Phi axis	N.C.R.	N.C.R.
Test Software	SPORTON	SENSE-RDG	V1.0.8	-	N.C.R.	N.C.R.

Note: Calibration Interval of instruments listed above is one year.
NCR means Non-Calibration required.



11. Test Results

Please refer to the appendix.

Appendix A – Radiated Composite Gain of 2.4GHz, 5GHz UNII-1~UNII-3-2TX(Radio 1).....	Page 18
Appendix B – Radiated Composite Gain of 2.4GHz, 5GHz UNII-1~UNII-3-4TX(Radio 1).....	Page 22
Appendix C – Radiated Composite Gain of 5GHz U-NII 2C~3 and 6GHz-2TX(Radio 2).....	Page 36
Appendix D – Radiated Composite Gain of 5GHz U-NII 2C~3 and 6GHz-4TX(Radio 2).....	Page 40
Appendix E – Antenna Pattern of 2.4GHz, 5GHz UNII-1~UNII-3(Radio 1).....	Page 56
Appendix F – Antenna Pattern of 5GHz U-NII 2C~3 and 6GHz(Radio 2).....	Page 63
Appendix G – Test Photos.....	Page 71

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 2 Max Gain (dBi)	4.11	4.59	4.32	4.02	4.45
Ant. 3 Max Gain (dBi)	5.46	4.55	3.8	3.49	3.89
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Phi/0/225	Phi/30/45	Phi/22.5/52.5	Theta/7.5/135	Phi/37.5/45
Ant. 3 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Phi/0/300	Phi/37.5/142.5	Phi/30/127.5	Theta/7.5/225	Phi/37.5/315
Max Gain (dBi)	5.46	4.59	4.32	4.02	4.45
DG [1SS] (dBi)	5.49	5.02	4.37	4.05	4.48
DG [2SS] (dBi)	5.46	4.59	4.32	4.02	4.45



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-2TX(Radio 1)

Appendix A

Theta (°)	3.78373	3.33277	2.1417	1.92278	3.15322	3.37363	3.43301	2.51194	1.14021	0.05053	1.21212	2.72289	2.82263	2.68295	3.03245	1.12096	1.9267	3.43365	3.71347	3.46338	3.235	1.3067	1.79269	3.3757
Theta (30°)	4.014	3.7231	2.0415	2.21294	3.03299	3.48408	4.2368	3.12555	1.53143	1.86148	1.11153	2.18256	2.66262	2.7279	2.79219	1.33094	2.13321	4.03437	3.95346	3.01272	2.36192	0.91001	0.78208	3.08375
Theta (45°)	2.97288	2.94251	1.45065	1.6222	1.92193	2.95368	4.03425	3.44255	1.34129	2.11188	1.79205	2.45299	3.20326	2.45154	1.48161	1.28127	2.23036	3.67383	3.27237	1.84175	1.44142	0.79019	0.07107	2.2286
Theta (60°)	2.52249	2.5321	1.72102	1.24167	1.11138	2.16276	3.01299	2.7119	0.47054	1.15135	1.45179	2.19288	3.23286	1.82114	1.39095	0.06004	1.07195	2.64333	3.29223	1.29099	0.72039	0.29012	0.28102	2.15273
Theta (75°)	2.35232	2.19168	1.39118	0.92076	0.64093	1.23189	2.24169	0.98071	-0.18163	-0.97112	-0.49038	1.15166	1.68133	0.84006	-0.97222	-2.58137	0.09128	2.15279	2.72198	1.28111	0.70333	0.05007	0.56093	1.8826
Theta (90°)	1.86145	1.20178	0.84049	0.270	0.22041	0.49181	2.11154	0.94016	-2.23139	-5.15438	-2.19005	1.22122	0.69096	0.83063	-3.33468	-5.87431	-2.15001	1.02154	1.62113	0.7043	0.21044	-0.9024	0.36016	1.29192
Theta (105°)	0.42018	0.39015	-0.17085	-1.19126	-0.53027	-0.44135	1.54154	1.46009	-2.8493	-4.89392	-0.8162	2.23129	0.68102	0.67097	-3.6347	-4.33327	-1.83032	1.02103	0.07037	-0.08045	-1.04186	-2.04148	-0.61042	-0.56038
Theta (120°)	-1.7234	-1.18091	-1.43246	-2.93294	-1.61121	-1.95063	0.14108	0.59056	-2.38386	-3.85143	-1.21108	1.54055	-1.03007	-0.2121	-3.64467	-4.22265	-1.03039	0.53031	-1.4118	-0.9111	-2.85131	-4.12334	-2.08119	-2.3717
Theta (135°)	-3.31414	-2.68242	-3.09445	-5.09149	-3.33287	-3.43195	-1.30209	-0.96208	-4.2851	-5.48557	-3.09092	-0.36183	-2.03237	-2.97404	-5.55633	-6.98386	-1.52075	-1.38159	-2.97128	-2.02158	-4.68156	-6.13153	-4.33392	-4.98376
Theta (150°)	-5.61607	-4.27142	-4.851602	-6.841671	-5.34487	-5.661512	-3.981279	-3.321433	-6.161704	-8.031877	-6.321391	-3.031453	-4.371568	-4.751619	-8.141887	-8.481673	-3.161235	-3.611416	-5.321495	-4.02145	-7.341811	-8.241763	-6.511586	-7.391588
Theta (165°)	-7.77803	-6.431626	-7.221738	-7.891679	-6.951685	-6.251763	-6.671055	-6.041622	-9.12195	-10.641076	-8.761789	-6.511793	-6.191696	-7.131934	-10.871111	-11.811887	-6.52174	-7.421704	-7.551776	-6.181743	-9.341697	-9.921899	-8.49173	-9.321843
Theta (180°)	-10.021937	-7.59157	-9.53191	-9.56154	-8.61097	-8.71974	-7.381791	-7.371873	-11.511218	-12.521194	-10.731109	-8.381894	-9.281238	-12.551313	-14.581084	-12.621215	-13.911217	-11.781972	-9.021919	-10.691138	-10.591492	-9.471002	-11.14198	
Theta (202.5°)	-13.291035	-10.310905	-10.491107	-10.981043	-9.731047	-11.861218	-10.161063	-8.951057	-13.021469	-12.591227	-13.171305	-12.741266	-10.310936	-10.171442	-14.091481	-13.161087	-14.391519	-14.311354	-11.21978	-9.7319	-10.461116	-12.021023	-9.341131	-11.121249
Theta (225°)	-13.371222	-12.051151	-10.751089	-11.411029	-9.911018	-11.8911521	-13.431121	-10.651305	-15.061626	-12.891219	-14.261142	-13.141349	-12.071264	-12.411607	-13.631339	-10.631036	-13.611053	-10.161071	-10.631036	-12.331487	-13.711166	-10.521254	-14.251246	
Theta (247.5°)	-15.051386	-13.041261	-12.961367	-13.751212	-11.621273	-13.181446	-14.511358	-12.191257	-15.091465	-13.631484	-15.091443	-12.921361	-14.141152	-12.221542	-14.271531	-13.341177	-11.731393	-10.571132	-15.251431	-12.731367	-15.631546	-14.421234	-12.151537	
Theta (270°)	-15.211475	-13.041328	-13.21297	-12.791287	-13.811424	-15.15109	-15.131531	-14.031572	-15.911445	-13.331394	-14.291501	-13.721318	-14.121608	-15.131512	-15.271562	-14.971527	-15.821547	-15.951511	-16.151373	-12.41323	-13.851556	-13.231265	-11.851364	-15.221419
Theta (300°)	-16.861552	-15.411519	-14.721149	-12.951293	-14.141524	-14.731499	-14.681493	-15.931497	-14.981332	-16.231566	-15.481141	-16.071575	-16.021521	-15.041518	-15.421571	-13.341423	-15.231546	-15.241333	-13.911545	-12.631255	-13.191519	-16.191494	-13.371364	-15.131518
Theta (322.5°)	-18.231579	-15.461515	-12.881315	-14.461459	-13.851352	-15.931584	-15.341512	-16.291466	-16.051152	-14.881493	-15.531573	-15.051496	-16.051498	-15.441559	-14.771551	-15.531472	-16.121552	-15.081354	-15.161484	-12.561543	-15.371576	-15.591492	-15.291665	-14.961479
Theta (345°)	-15.481583	-15.571471	-15.691465	-14.791562	-15.191508	-15.341419	-14.04152	-14.571485	-15.23156	-14.781529	-15.67144	-14.681508	-15.091539	-14.681497	-15.251514	-15.791562	-16.081509	-15.481614	-15.21469	-14.961576	-151486	-13.811297	-14.771487	-14.781534
Theta (360°)	-15.361563	-15.541562	-16.061572	-15.621552	-14.871534	-15.571519	-15.811538	-15.371482	-14.611543	-15.451511	-15.261442	-15.911582	-15.411566	-15.091565	-16.061554	-15.231531	-15.161527	-15.03157	-14.691556	-14.711535	-16.281588	-15.981494	-15.331557	-15.311487
Theta (375°)	-15.591537	-14.84155	-15.371472	-15.291498	-16.061588	-16.14156	-14.481448	-15.261582	-15.471471	-15.071577	-14.881562	-15.091549	-14.941569	-15.311593	-15.371557	-15.051604	-15.461474	-15.441545	-15.551622	-15.431489	-13.961366	-14.211429	-14.461517	-14.931522
Theta (405°)	-15.041617	-15.11568	-15.14481	-14.971518	-15.271511	-15.481616	-15.691515	-15.141541	-15.671601	-15.291622	-15.811491	-14.781566	-15.631483	-14.861538	-15.511512	-15.221503	-15.251534	-15.361486	-14.811505	-14.981543	-14.911586	-15.171513	-15.451516	
Theta (450°)	5.36Pol	Theta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Theta (495°)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta (510°)	2.6252	2.47132	1.97141	0.91097	1.55194	2.24249	2.56247	2.41212	1.66086	0.17036	1.23189	2.46297	3.28335	3.17278	2.29161	0.93116	1.66216	2.64302	3.15305	2.58195	1.29054	0.19031	1.24195	2.39257
Theta (525°)	3.55323	2.95267	2.22116	0.61014	0.48114	1.48197	2.33236	2.15194	1.7313	0.6807	1.15144	1.83237	2.83308	3.08279	2.31186	1.64171	1.99222	2.51228	2.88271	2.34189	1.35076	0.2604	1.43245	3.27359
Theta (540°)	3.81303	2.79229	1.64085	-0.23111	-0.58021	1.27161	1.75196	1.93178	1.65145	1.05073	0.74079	0.89108	1.06158	1.0117	0.7308	1.19148	1.67179	2.04248	2.76262	1.96119	0.67028	-0.08028	1.39249	3.37394
Theta (555°)	3.48329	2.78188	0.77009	-0.85132	-1.02121	1.29163	1.59115	1.5416	1.46096	-0.03054	0.12094	1.66218	1.97102	0.25039	0.75087	0.7707	1.01161	2.33292	3.21308	2.45122	0.12034	-0.13037	0.8815	2.41324
Theta (570°)	2.66268	2.11112	0.05043	-1.02177	-2.04059	1.04164	1.20192	1.15135	1.01015	-1.3712	-0.41019	1.77259	2.4214	0.71036	0.14019	0.62108	1.4518	2.21253	2.69262	2.09115	-0.01048	-0.710	0.3704	1.06203
Theta (585°)	1.42161	1.04001	-0.67055	-0.7412	-2.39048	1.13145	0.58102	0.44102	0.62135	-2.53146	-0.46023	0.87171	1.94158	0.59131	-1.71065	-0.43009	0.43069	0.7709	1.17127	0.68028	-1.251189	-1.52069	-0.43074	-0.65039
Theta (600°)	-0.10128	-0.29096	-1.31104	-1.551326	-2.59039	0.43041	-0.14098	-0.37041	-0.46198	-3.431264	-1.15062	-0.34044	0.93121	0.8114	-3.58134	-2.67188	-1.21122	-1.38095	-0.47096	-0.89127	-2.331341	-4.01039	-2.19209	-1.6105
Theta (615°)	-1.43169	-2.11264	-3.108	-3.891455	-2.78119	-1.06181	-1.17173	-0.97164	-1.37165	-5.34123	-1.47136	-1.5313	-1.53113	-0.92171	-6.02158	-4.35135	-2.61253	-3.33194	-3.71348	-2.86172	-3.71495	-6.171523	-4.221302	-2.38188
Theta (630°)	-3.421366	-4.51157	-5.111545	-6.761651	-4.351343	-3.431258	-3.011329	-2.33121	-3.511469	-7.381628	-3.76147	-5.1408	-3.281559	-8.391877	-7.1159	-4.661439	-5.431718	-7.091602	-4.621452	-6.451474	-8.61177	-6.521477	-4.561442	
Theta (645°)	-6.65164	-7.231771	-7.24181	-8.941766	-5.821583	-5.4117	-4.4134	-4.481393	-5.811716	-6.461577	-3.471405	-5.931761	-6.761463	-4.691799	-10.35199	-6.471741	-6.47125	-7.881942	-10.641806	-6.881778	-10.111073	-11.171145	-8.741676	-7.241769
Theta (660°)	-9.2219	-9.81126	-9.861506	-10.461948	-7.51177	-6.09159	-6.121565	-5.891589	-7.481289	-8.611714	-4.11194	-7.14191	-8.381588	-5.461938	-13.41174	-11.79199	-8.08115	-10.691167	-12.55107	-9.641144	-14.521343	-14.151266	-10.231391	-11.011115
Theta (675°)	-10.571139	-12.781484	-10.231116	-11.61102	-8.1109	-7.15175	-7.89172	-7.																



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-2TX(Radio 1)

Appendix A

Theta	-3.68/-3.25	-3.68/-3.4	-3.21/-3.52	-2.91/-2.79	-2.81/-1.01	-2/2.04	-4.7/-3.04	-2.63/-0.88	-2.47/-3.5	-4.91/4	-2.03/-0.37	0.14/-1.26	-1.54/-0.8	-0.27/-1.95	-4.19/-6.3	-6.67/-4.07	-3.03/-2.2	-2.81/-4.23	-1.77/-0.32	-1/-3.64	-3.07/-3.02	-3.39/-3.19	-3.02/-3.03	-3.56/-4.2
Theta(82.5°)	-5.02/-4.57	-4.96/-4.43	-4.07/-3.45	-2.85/-3.27	-3.31/-2.16	-3.77/-3.43	-5.32/-4.53	-4.66/-1.9	-4.2/-4.89	-5.17/-4.21	-3.16/-1.91	-1.38/-3.36	-2.72/-2.24	-2.44/-4.3	-5.83/-8.1	-8.55/-4.63	-2.58/-1.95	-4.37/-5.52	-2.95/-0.17	-1.85/-4.09	-3.54/-3.93	-4.09/-4.3	-4.35/-4.69	-5.15/-5.16
Theta(90°)	-5.6/-5.72	-6.51/-5.49	-5.75/-4.25	-3.93/-4.51	-4.79/-4.23	-5.83/-4.72	-6.54/-5.95	-6.67/-4.65	-5.87/-6.13	-6.75/-5.91	-5.21/-4.64	-3.66/-5.07	-4.95/-4.96	-4.39/-7.11	-8.03/-9.51	-10.57/-6.97	-3.59/-3.88	-5.97/-8.18	-3.8/-2.11	-3.27/-5.26	-4.78/-4.82	-5.61/-5.66	-5.4/-6.48	-7.25/-6.04
Theta(97.5°)	-6.65/-7.45	-7.53/-7.27	-6.92/-5.22	-4.91/-5.83	-6.07/-5.84	-7.98/-6.76	-8/-7.73	-6.99/-8.07	-8.18/-6.58	-8.31/-8.41	-7.77/-7.57	-6.72/-7.75	-8.22/-7.1	-6.36/-9.72	-10.39/-10.26	-9.92/-8.85	-6.6/-7	-9.61/-11.55	-6.53/-5.6	-5.78/-6.72	-6.5/-6.84	-7.28/-6.83	-6.86/-7.97	-8.85/-7.16
Theta(105°)	-7.63/-8.47	-9.46/-9.49	-8.4/-6.42	-6.36/-6.64	-6.52/-7.29	-7.84/-9.5	-10.93/-11.03	-9.5/-10.43	-10.62/-11.14	-10.78/-10.64	-9.75/-10.45	-10.8/-11.96	-12.93/-9.36	-8.67/-12.3	-11.63/-11.05	-10.4/-9.92	-12.65/-11.6	-13.07/-14.98	-11.04/-8.95	-8.39/-8.29	-8.43/-7.36	-8.09/-7.79	-8.37/-8.76	-9.27/-8.86
Theta(112.5°)	-11.18/-11.64	-11.48/-9.74	-8.81/-7.91	-8.82/-9.05	-8.84/-8.48	-8.87/-11.93	-10.63/-12.16	-10.14/-12.28	-12.82/-12.92	-12.14/-12.87	-12.67/-12.7	-12.86/-12.63	-14.33/-13.18	-10.51/-14.59	-13.57/-14.61	-9.14/-10.11	-15.02/-12.98	-14.25/-14.95	-9.96/-9.05	-9.22/-8.96	-9.25/-9.07	-9.39/-8.62	-8.77/-9.59	-10.69/-11.83
Theta(120°)	-14.37/-13.99	-12.3/-10.05	-9.8/-9.5	-9.42/-10.44	-10.64/-10	-12.27/-11.8	-10.98/-14.3	-11.11/-12.95	-14.21/-14.81	-13.71/-13.67	-15.12/-13.45	-12.87/-14.33	-15.33/-15.67	-12.86/-16.17	-15.57/-15.02	-12.04/-9.14	-9.21/-13.49	-11.15/-14.05	-9.05/-10.63	-9.86/-9.97	-10.02/-10.94	-10.47/-10.15	-10.67/-12.11	-11.72/-14.45
Theta(127.5°)	-12.05/-10.1	-11.49/-11.74	-11.38/-13.25	-11.76/-10.5	-10.76/-12.49	-13.73/-11.09	-14.57/-14.64	-16.02/-15.23	-15.45/-15.04	-14.85/-14	-14.71/-15.45	-14.95/-15.22	-15.31/-15.07	-13.15/-15.36	-15.3/-14.56	-15.23/-13.97	-12.56/-15.62	-12.89/-15.18	-12.39/-13.5	-10.59/-11.53	-13.42/-13.92	-11.43/-10.34	-11.09/-13.41	-15/-14.47
Theta(135°)	-15.52/-14.38	-12.09/-12.83	-12.8/-11.37	-10.96/-11.83	-13.47/-14.66	-15.43/-15.53	-14.74/-12.3	-15.65/-15.74	-15.53/-15.64	-15/-13.72	-15.19/-15.75	-15.36/-14.08	-14.81/-15.2	-12.4/-12.36	-12.85/-15.09	-15.06/-15.3	-13.18/-15.07	-15.1/-15.61	-11.97/-10.77	-10.83/-11.47	-12.95/-13.38	-13.81/-11.24	-10.13/-12.53	-14.94/-15.44
Theta(142.5°)	-13.43/-15.52	-15.56/-16.24	-15.79/-15.02	-13.39/-11.77	-11.64/-12.73	-15.38/-14.78	-13.31/-15.35	-15.38/-15.56	-16.12/-15.71	-14.14/-15.53	-15.25/-15.31	-15.81/-15.92	-14.91/-15.68	-14.36/-15.67	-14.99/-14.62	-13.58/-13.99	-12.83/-12.5	-14.59/-15.24	-12.38/-12.45	-13.15/-14.26	-15.02/-12.54	-14.09/-12.44	-11.91/-14.33	-14.48/-13.05
Theta(150°)	-14.96/-14.77	-15.04/-14.88	-13.26/-12.68	-12.56/-13.59	-15.42/-16.11	-14.94/-14.83	-15.78/-15.63	-14.76/-15.63	-15.36/-15.64	-14.83/-14.7	-14.84/-15.51	-15.83/-15.09	-14.74/-14.1	-13.12/-15.7	-15.37/-14.85	-15.65/-14.65	-15.53/-14.37	-14.99/-15.56	-15.54/-15.11	-12.72/-12.28	-13.58/-13.23	-13.28/-14.39	-16.24/-15.56	-16.03/-15
Theta(157.5°)	-14.61/-15.53	-15.15/-15.81	-15.14/-14.55	-15.51/-15.53	-14.61/-15.05	-14.76/-15.38	-15.13/-14.98	-15.78/-15.2	-15.34/-14.91	-15.06/-15.37	-15.96/-15.52	-15.12/-15.22	-15.41/-15.66	-15.53/-15.41	-15.43/-14.94	-15.09/-15.2	-15.25/-14.66	-13.98/-14.77	-15.59/-14.94	-12.81/-12.96	-15.16/-14.88	-13.85/-13.73	-14.21/-15	-14.97/-15.29
Theta(165°)	-13.77/-13.5	-13.66/-13.76	-13.18/-13.98	-15.37/-14.65	-15.38/-15.54	-15.42/-13.97	-13.64/-13.14	-13.65/-14.17	-15.38/-15.58	-15.45/-14.39	-14.9/-15.59	-15.24/-15.09	-15.76/-16.05	-14.67/-14.89	-13.62/-14.27	-15.37/-14.12	-12.49/-13.55	-15.43/-15.29	-15.35/-15.55	-14.23/-13.46	-12.87/-13.7	-15.22/-14.9	-15.45/-15.39	-15.35/-15.43
Theta(172.5°)	-15.4/-15.21	-14.87/-15.61	-15.1/-15.52	-15.51/-15.53	-15.24/-15.93	-15.02/-14.44	-14.91/-14.35	-13.83/-13.89	-14.89/-14.83	-15.57/-16.37	-14.63/-15.08	-15.64/-15.61	-15.79/-15.32	-14.65/-14.74	-14.14/-13.99	-14.77/-15.87	-14.49/-15.11	-15.22/-15.19	-15.02/-15.82	-15.26/-15.47	-15.3/-15.06	-14.88/-14.23	-13.3/-14.07	-16.24/-15.73
Theta(180°)	-14.96/-15.05	-14.98/-15.44	-15.34/-14.74	-14.9/-15.12	-15.4/-15.01	-15.01/-14.94	-15.14/-15.27	-15.39/-16.13	-15.23/-14.79	-15.35/-15.55	-15.44/-15.35	-15.72/-15.07	-15.28/-15.45	-15.59/-15.29	-15.47/-15.85	-15.11/-14.87	-14.92/-15.01	-15.31/-14.75	-15.49/-14.8	-15.31/-14.73	-15.16/-15.41	-15.56/-15.34	-14.65/-15.59	-15.91/-15.58
Freq(Hz)	5.785GPol.	Theta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta(0°)	3.783/3.73	3.563/3.1	2.882/2.23	1.361/1.4	1.722/2.7	2.642/2.91	3.153/1.1	2.912/2.68	2.261/5.3	1.291/7.9	2.543/1.8	3.684	4.484/0.7	3.855/4	2.621/7.4	0.830/7	1.532/11	2.632/9.3	3.053/0.8	2.842/4	1.861/2.3	1.221/7.8	2.453/0.4	3.5/3.73
Theta(7.5°)	3.513/4.2	3.162/8.8	2.391/8.3	1.091/0.7	1.762/4.1	2.72/9.4	3.183/2.2	2.822/4	2/1.5	0.891/1.6	1.92/5.6	3/3.36	3.6/3.68	3.61/3.23	2.641/9.8	1.231/2.7	1.92/3.3	2.693/0.6	3.193/1.3	2.92/4.5	2.011/5	1.682/3.8	2.943/2.9	3.5/3.61
Theta(15°)	3.383/2.6	2.912/4.7	1.981/4.4	0.730/7.4	1.271/7.7	1.972/1.7	2.552/8.3	2.772/2.27	1.761/2.6	0.851/1.9	2.032/6.6	2.983/0.3	3.123/1.4	3.122/9.5	2.51/8.2	1.110/8.9	1.341/6.7	1.831/9.1	1.91/8.4	1.871/7.2	1.370/8.1	0.760/9.3	1.72/3.2	2.753/1.9
Theta(22.5°)	2.42/6.2	2.862/6.6	2.121/2.6	0.320/3.7	0.781/0.2	0.961/5.6	2.493/0.9	3.052/3.8	1.30/3.9	0.240/6.3	0.651/0.4	1.621/5.9	1.591/8.5	1.731/0.1	0.50/3.3	0.040/0.4	0.61/1.9	1.561/4.3	1.050/6.6	0.70/8.7	0.690/1.6	-0.450/5.5	1.872/4.3	2.412/3.5
Theta(30°)	0.91/1.1	1.13/1	0.870/1.6	-0.82/-1.55	-0.090/8.2	1.22/2	2.522/6.5	2.381/2.4	-0.19/-0.94	-1.59/-1.44	-1.590/8.8	2.472/5.9	2.130/8.4	-0.020/3.2	0.360/3.5	-0.52/-0.27	0.130/9.9	1.631/6.9	0.871/0.26	-0.58/-0.14	-0.57/-1.63	-10/1.9	0.50/0.1	-0.30/4.5
Theta(37.5°)	0.11/-0.84	-0.96/-0.39	-0.871/-1.92	-2.55/-1.86	-1.15/-0.23	1.192/1.1	2.151/8.8	1.090/3.2	-0.26/-0.68	-1.73/-2.92	-1.90/7.9	1.831/9.4	1.30/1	-0.63/-1.03	-1.44/-1.24	-0.44/-0.75	-1.38/-0.75	0.340/7.7	0.46/-0.39	-1.48/-1.88	-2.39/-3.94	-3.14/-2.08	-2.52/-1.87	-0.140/5.9
Theta(45°)	-3.43/-3.6	-2.37/-1.7	-2.91/-3.6	-2.87/-2.7	-2.55/-1.31	0.741/8.7	1.930/8.3	-0.5/-0.63	-0.41/-0.46	-1.94/-3.44	-1.560/2.4	0.711/8.7	2.240/9	-0.69/-1.98	-2.23/-2.2	-2.1/-1.81	-1.94/-2.54	-2.271/5	-1.471/-1.35	-1.8/-4.92	-5.93/-7.04	-6.88/-5.78	-4.06/-1.6	-0.87/-2
Theta(52.5°)	-7.07/-5.62	-4.81/-3.95	-5.17/-5.57	-4.69/-4.32	-2.49/-0.88	-0.080/8.3	0.75/-1.24	-1.29/-0.18	-0.94/-0.21	-3.54/-5.29	-2.13/-1.25	-0.361/4	0.84/-0.98	-1.53/-3	-5.21/-6.23	-5.22/-4.13	-4.08/-4.31	-5.12/-5.48	-5.01/-3.19	-3.09/-7.86	-11.29/-12.28	-10.36/-8.66	-5.49/-4.52	-5.03/-7.9
Theta(60°)	-10.32/-8.81	-7.6/-6.43	-7.09/-7.75	-6.75/-6.71	-3.77/-1.78	-1.73/-2.37	-1.86/-3.14	-1.87/-0.59	-2.26/-2.01	-5.04/-5.33	-3.68/-3.06	-3.04/-2.27	-3.19/-2.97	-2.64/-3.7	-6.36/-8.7	-8.4/-7.12	-7.08/-6.91	-7.37/-9.13	-8.61/-6.39	-6.36/-12.99	-14.02/-15.13	-15.43/-12.88	-10.07/-7.81	-8.31/-10.65
Theta(67.5°)	-12.46/-11.01	-10.02/-8.9	-8.97/-10.96	-8.82/-6.81	-5.72/-3.78	-3.11/-5.21	-5.27/-5.34	-3.76/-2.16	-4.88/-4.98	-7.24/-4.42	-6.3/-5.24	-5.91/-7.73	-7.67/-5.11	-5.6/-6.7	-8.66/-10.77	-10.72/-7.96	-8.99/-8.98	-8.33/-12.52	-12.42/-10.69	-11.8/-13.73	-14.33/-14.98	-15.15/-14.28	-15.55/-13.31	-10.77/-11.6
Theta(75°)	-13.95/-13.02	-11.42/-9.2	-11.04/-14.73	-11.09/-8.63	-8.51/-6.27	-4.82/-6.93	-8.87/-7.81	-4.72/-4.78	-7.66/-6.97	-7.9/-5.47	-9.1/-6.69	-7.52/-9.91	-10.71/-10.16	-9.3/-9.79	-11.67/-10.87	-14.74/-11.24	-10.44/-11.32	-8.69/-11.74	-13.6/-12.78	-14.86/-10.65	-13.35/-15.67	-15.91/-14.09	-12.99/-15.25	-13.11/-12.05
Theta(82.5°)	-14.82/-13.3	-10.04/-9.22	-12.78/-15.11	-13.62/-10.89	-10.84/-8.01	-6.52/-7.58	-11.14/-8.75	-6.8/-6.74	-10.08/-9.32	-8.92/-7.33	-10.3/-8.31	-9.7/-11.13	-14.07/-13.58	-9.88/-10.94	-14.48/-14.48	-13.63/-12.55	-15.27/-11.15	-9.34/-12.06	-15.26/-13.54	-12.77/-10.17	-15.69/-15.12	-13.85/-13.32	-13/-15.46	-12.08/-14.12
Theta(90°)	-15.62/-13.22	-9.39/-10.93	-15.59/-14.62	-15.02/-12.55	-11.99/-11.71	-9.42/-8.84	-13.42/-9.25	-9.14/-8.97	-11.03/-12.76	-9.95/-9.38	-10.91/-10.85	-11.69/-12	-15.09/-14.2	-9.34/-9.89	-15.94/-16.05	-15.06/-12.46	-14.5/-13.69	-10.31/-12.03	-15.23/-13.15	-12.84/-9.69	-15.63/-14.25	-13.4/-15.58	-12.07/-15.67	-13.27/-14.84
Theta(97.5°)	-11.94/-13.99	-11.91/-13.3	-15.14/-14.77	-15.66/-12.92	-11.16/-14.56	-11.61/-11.24	-14.2/-9.39	-11.51/-11.61	-14.16/-13.85	-12.42/-13.65	-10.68/-14.11	-14.46/-11.7	-14.26/-14.42	-10.75/-11.49	-12.93/-14.93	-15.61/-13.73	-14.34/-16.13	-12.95/-15.98	-14.81/-12.61	-14.18/-11.34	-15.07/-12.04	-14.29/-15.34	-12.85/-14.28	-15.51/-14.34
Theta(105°)	-14.55/-13.06	-12.06/-15.58	-15.23/-15.51	-15.05/-1																				

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	6.57	5.21	4.46	4.78	5.2
Ant. 2 Max Gain (dBi)	4.11	4.59	4.32	4.02	4.45
Ant. 3 Max Gain (dBi)	5.46	4.55	3.8	3.49	3.89
Ant. 4 Max Gain (dBi)	6.55	4.84	4.48	3.62	5.02
Ant. 1 Polarization/ θ (°)/ Φ (°)	Phi/7.5/322.5	Phi/30/142.5	Phi/22.5/135	Theta/0/232.5	Phi/37.5/127.5
Ant. 2 Polarization/ θ (°)/ Φ (°)	Phi/0/225	Phi/30/45	Phi/22.5/52.5	Theta/7.5/135	Phi/37.5/45
Ant. 3 Polarization/ θ (°)/ Φ (°)	Phi/0/300	Phi/37.5/142.5	Phi/30/127.5	Theta/7.5/225	Phi/37.5/315
Ant. 4 Polarization/ θ (°)/ Φ (°)	Phi/0/45	Phi/30/52.5	Phi/30/45	Phi/37.5/45	Phi/37.5/225
Max Gain (dBi)	6.57	5.21	4.48	4.78	5.2
DG [1SS] (dBi)	8.71	8.02	7.47	6.91	7.51
DG [2SS] (dBi)	6.57	5.21	4.48	4.78	5.2
DG [4SS] (dBi)	6.57	5.21	4.48	4.78	5.2



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

DG 1SS Result

Freq(Hz)	2.45GPol.	PhiH	Phi(0°)	Phi(15°)	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°)					
DG(dB)	Phi(0°)	Phi(15°)	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°)	Phi(300°)	Phi(315°)	Phi(330°)	Phi(345°)			
Theta(7.5°)	8.56/48.2	8.09/7.62	6.93/6.55	6.46/6.7	7.31/7.75	8.05/8.22	8.27/8.14	7.87/7.51	7.08/6.68	6.84/7.46	8.04	8.63/8.71	8.62/8.39	8.7/49	6.89/6.71	6.68/6.98	7.54/7.96	8.25/8.4	8.42/8.28	8/7.59	7.06/6.56	6.79/7.38	7.87/8.21	8.44/8.56	8.62/8.69	8.62/8.69	8.62/8.69	8.62/8.69	8.62/8.69		
Theta(15°)	8.147/9.3	7.54/6.98	6.21/6.53	5.44/5.45	6.05/6.57	6.97/7.26	7.46/7.48	7.33/7.08	6.53/5.81	5.38/5.1	6.41/6.85	7.15/7.27	7.21/7.04	6.69/6.21	5.56/5.14	5.24/5.74	6.31/6.71	6.97/7.09	7.06/6.93	6.66/6.26	5.83/5.8	6.47/7.17	7.69/7.99	8.14/8.21	8.14/8.21	8.14/8.21	8.14/8.21	8.14/8.21	8.14/8.21		
Theta(30°)	5.73/5.64	5.69/5.68	5.43/5.02	4.86/4.96	5.56/5.08	6.2/6.2	6.18/6.21	6.24/6.22	5.78/5.06	4.41/4.6	5.16/5.38	5.42/5.38	5.49/5.7	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	5.34/5.9	
Theta(45°)	4.85/5.09	5.46/5.76	5.77/5.62	5.55/5.58	6.18/6.46	6.41/6.27	6.14/6.11	6.05/5.8	5.31/4.67	4.46/4.67	4.87/4.66	4.38/4.32	4.68/5.28	5.75/5.88	5.65/5.34	5.66/6.19	6.4/6.25	6.03/5.49	5.29/5.23	5.26/5.29	5.14/5.08	5.49/5.96	6.09/5.79	5.35/4.96	5.35/4.96	5.35/4.96	5.35/4.96	5.35/4.96	5.35/4.96		
Theta(60°)	3.73/4.18	4.77/5.16	5.17/5	5.04/5.36	5.97/6.16	6.39/6.72	6.89/6.79	6.43/6.87	5.46/5.18	5.01/5.09	4.98/4.5	4.14/4.2	4.75/5.25	5.69/5.76	5.41/5.06	5.44/6.09	6.32/6.1	5.64/5.33	5.25/5.03	4.83/4.72	4.59/4.57	5.13/5.94	6.14/5.61	4.73/5.1	4.73/5.1	4.73/5.1	4.73/5.1	4.73/5.1	4.73/5.1	4.73/5.1	
Theta(75°)	2.88/2.98	3.4/3.56	3.36/3.15	3.46/3.79	4.46/4.9	5.44/6.06	6.28/6.28	5.99/5.53	5.24/4.94	4.54/4.45	4.39/3.89	3.3/3.29	3.96/4.7	4.87/4.8	4.77/4.35	4.93/5.51	5.56/5.09	4.52/4.36	4.37/4.15	3.94/3.93	3.97/4.02	4.79/6.82	6.25/6.76	4.65/4.9	4.65/4.9	4.65/4.9	4.65/4.9	4.65/4.9	4.65/4.9	4.65/4.9	
Theta(90°)	3.13/3.34	3.55/3.34	3.01/3.14	3.56/3.84	4.12/3.65	3.43/3.84	4.05/3.94	3.83/6.4	3.43/3.59	3.66/3.18	1.97/1.49	2.97/3.9	3.53/4.9	3.15/3.03	3.62/4.35	4.43/3.67	2.35/1.58	1.79/2.05	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	2.32/2.84	
Theta(105°)	1.08/1.31	1.97/2.25	2.65/3.04	3.35/3.62	3.63/3.11	2.84/3.46	3.62/3.29	2.78/2.48	2.46/2.85	3.27/3.52	3.46/2.65	1.66/1.9	2.38/2.58	2.24/1.54	1.18/1.45	2.23/2.07	3.22/2.41	1.01/0.69	1.45/2.01	2.05/1.75	1.31/1.44	2.21/2.94	3.02/2.42	1.56/1.21	1.56/1.21	1.56/1.21	1.56/1.21	1.56/1.21	1.56/1.21	1.56/1.21	
Theta(120°)	-0.04/-0.65	-0.86/-0.64	-0.20/2.5	0.50/7.1	0.66/0.2	-0.03/0.47	0.79/0.81	0.56/0.46	0.82/0.84	0.78/1.02	1.19/0.85	0.31/0.55	0.93/1.13	0.88/-0.05	-0.61/0.42	0.31/1.3	1.75/1.15	0.11/0.05	0.78/1.2	0.77/0.14	-0.15/0.3	1.1/1.62	1.85/1.41	0.89/0.34	0.89/0.34	0.89/0.34	0.89/0.34	0.89/0.34	0.89/0.34	0.89/0.34	
Theta(135°)	-1.27/-1.59	-2.11/-2.18	-1.46/-0.92	-0.74/-0.37	-0.22/0.26	-0.6/-0.84	-1.14/-1.68	-1.42/-0.99	-0.79/-0.6	-0.97/-0.74	-1.37/-1.31	-1.01/-0.63	-0.88/-1.95	-2.39/-2.21	-1.18/-0.5	0.35/-0.63	-0.49/-0.52	-1.14/-1.72	-1.41/-1.07	-1.02/-0.72	-0.6/-0.57	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	-0.86/-1.26	
Theta(150°)	-3.83/-4.49	-4.52/-4.24	-2.98/-2.23	-2.07/-2.25	-2.62/-2.78	-2.28/-1.89	-2.22/-2.91	-3.21/-2.93	-2.15/-2.26	-2.9/-3.34	-3.3/-2.85	-3.2/-3.29	-2.43/-2.69	-2.89/-2.77	-2.3/-2.53	-2.6/-1.78	-1.05/-1.3	-1.69/-1.75	-2.5/-3.62	-3.28/-2.98	-2.92/-3.17	-2.94/-2.88	-2.83/-2.75	-2.79/-3.18	-2.79/-3.18	-2.79/-3.18	-2.79/-3.18	-2.79/-3.18	-2.79/-3.18	-2.79/-3.18	
Theta(165°)	-5.3/-5.94	-6.67/-6.47	-5.43/-4.43	-4.38/-4.89	-5.47/-5.64	-5.31/-4.68	-4.04/-4.19	-3.84/-3.32	-2.58/-2.79	-4.24/-5.68	-5.37/-5.13	-4.93/-4.46	-5.2/-5.4	-4.87/-3.38	-3.36/-4.13	-4.51/4.37	-4.08/-4.44	-4.59/-4.8	-4.75/-3.63	-2.71/-2.93	-3.95/-4.69	-4.25/-4.13	-4.35/-4.68	-4.37/-4.29	-4.37/-4.29	-4.37/-4.29	-4.37/-4.29	-4.37/-4.29	-4.37/-4.29	-4.37/-4.29	
Theta(180°)	-6.9/-6.75	-6.6/-6.58	-6.09/5.51	-5.58/-6.46	-7.69/-7.9	-7.79/-7.27	-6.74/-6.64	-6.91/-6.13	-4.45/-4.22	-5.34/-5.96	-5.62/-5.61	-5.45/-5.28	-6.06/-6.36	-4.98/-4.17	-3.87/4.05	-4.11/-4.42	-4.81/4.58	-4.73/-5.72	-4.79/-6.4	-4.78/-4.47	-4.99/-4.61	-4.17/-4.51	-5.07/-5.64	-6.12/-6.28	-6.12/-6.28	-6.12/-6.28	-6.12/-6.28	-6.12/-6.28	-6.12/-6.28	-6.12/-6.28	
Theta(195°)	-8.35/-8.66	-8.84/-8.9	-8.29/-8.62	-6.19/-8.58	-5.8/-5.32	-4.58/-3.83	-3.45/-4	-5.32/-1.67	-5.85/-6.17	-7.38/-7.06	-6.86/-7.18	-6.67/-6.19	-7.01/-8.32	-7.36/-6.37	-5.41/-6.1	-7.26/-7.25	-6.68/-6.62	-6.62/-6.78	-7.54/-7.25	-5.92/-5.21	-5.53/-5.45	-4.96/-5.67	-6.42/-6.8	-6.42/-6.8	-6.42/-6.8	-6.42/-6.8	-6.42/-6.8	-6.42/-6.8	-6.42/-6.8	-6.42/-6.8	
Theta(210°)	-4.95/-5.14	-6.08/-7.4	-7.56/-6.44	-5.43/-4.78	-4.66/-4.73	-5.11/-5.23	-5.35/-5.24	-5.49/-4.51	-3.69/-4.06	-4.85/-5.37	-6.11/-7.28	-6.89/-8.36	-8.13/-7.96	-8.18/-6.62	-5.19/-5.22	-4.95/-6.37	-2.68/-2.72	-4.11/-7.33	-1.79/-9.95	-6.85/-6.19	-6.61/-7.85	-8.13/-9	-8.42/-7.09	-5.58/-4.83	-5.58/-4.83	-5.58/-4.83	-5.58/-4.83	-5.58/-4.83	-5.58/-4.83	-5.58/-4.83	
Theta(225°)	-3.5/-3.31	-3.55/-3.56	-4.51/-6.32	-8.18/-9.15	-8.74/-8.76	-7.79/-6.81	-6.93/-6.53	-6.66/-7.53	-4.95/-4.22	-7.39/-6.81	-7.98/-6.55	-7.21/-7.77	-7.78/-8.38	-9.29/-7.95	-7.32/8.29	-6.58/-6.33	-5.01/5.08	-5.98/9.15	-1.11/10.56	-7.94/-7.47	-6.94/7.55	-8.47/7.38	-6.65/-5.99	-4.73/-3.84	-4.73/-3.84	-4.73/-3.84	-4.73/-3.84	-4.73/-3.84	-4.73/-3.84	-4.73/-3.84	
Theta(240°)	-9.25/-8.39	-5.88/-3.99	-3.29/-3.6	-4.55/-5.15	-6.03/-6.44	-6.88/-6.76	-5.88/-5.21	-3.66/-2.59	-2.48/-3.33	-4.82/-6.36	-7.79/-9.73	-10.68/-10.7	-9.87/-9.76	-9.24/-8.08	-7.23/-7.09	-7.29/6	-5.2/5.61	-7.81/-11.04	-1.16/-7.77	-4.66/-2.81	-2.22/-2.75	-4.14/-6.39	-8.77/-10.92	-12.09/-10.4	-12.09/-10.4	-12.09/-10.4	-12.09/-10.4	-12.09/-10.4	-12.09/-10.4	-12.09/-10.4	
Theta(255°)	-11.52/-11.01	-8.63/-7.14	-5.94/-6.53	-6.23/-7.49	-9.17/-10.75	-11.06/-11.25	-8.26/-5.21	-3.18/-3.21	-2.42/-4.34	-5.44/-8.08	-10.09/-10.57	-8.88/-7.77	-7.79/-8.66	-9.17/-9.16	-8.59/-7.68	-6.31/-9.42	-4.07/-4.22	-4.96/-4.7	-7.51/-5.73	-3.31/-1.82	-1.25/-1.48	-2.43/-3.99	-6.06/-8.44	-10.23/-11.84	-10.23/-11.84	-10.23/-11.84	-10.23/-11.84	-10.23/-11.84	-10.23/-11.84	-10.23/-11.84	
Theta(270°)	-7.86/-7.61	-7.74/-7.69	-8.32/9.55	-10.62/-11.75	-11.71/10.96	-9.38/-8.02	-6.53/-5.54	-4.81/-4.8	-5.6/-7.18	-9.51/-10.01	-8.58/-6.28	-5.22/-4.97	-6.59/-6.69	-7.72/-7.58	-6.64/-5.56	-4.5/-3.68	-3.23/-3.17	-3.73/-5.05	-6.98/-7.95	-3.07/-6.12	-5.62/-5.67	-6.19/-6.99	-7.37/-8.88	-8.55/-8.27	-8.55/-8.27	-8.55/-8.27	-8.55/-8.27	-8.55/-8.27	-8.55/-8.27	-8.55/-8.27	
Theta(285°)	-5.58/-6.08	-6.74/-7.62	-8.36/-10.09	-11.49/-11.03	-10.31/9.42	-8.18/-9.67	-6.39/-6	-6.41/-7.31	-9.09/-10.64	-10.66/-9.29	-7.88/-7.47	-7.43/-7.72	-7.84/-7.57	-6.84/-6.32	-5.52/-5.21	-5.15/5.24	-5.81/6.38	-7.33/8.53	-9.48/9.37	-9.59/9.62	-10.10/10.17	-9.77/8.75	-8.23/-7.03	-6.15/5.58	-6.15/5.58	-6.15/5.58	-6.15/5.58	-6.15/5.58	-6.15/5.58	-6.15/5.58	
Theta(300°)	-5.82/-5.79	-6.26/-6.8	-7.54/-7.92	-8.45/-8.68	-8.64/-8.49	-8.33/-8.68	-9.08/-9.04	-9.47/-10.4	-9.73/-9.85	-7.68/7	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69	-7.17/69
Theta(315°)	-5.71/-6.87	-6.51/-6.38	-6.34/6.63	-6.16/-6.25	-6.69/-7.09	-8.78/-8.77	-9.62/9.93	-9.47/-10.54	-8.47/-7.78	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77	-7.16/7.77
Theta(330°)	-10.67/-9.32	-8.25/-7.4	-6.65/-5.91	-5.14/-4.62	-4.47/4.74	-5.08/-5.36	-5.53/-5.73	-6.07/6.39	-6.64/-6.81	-7.79/-9.15	-10.79/-11.78	-12.3/-12.11	-10.27/7.82	-6.12/5.11	-4.34/3.84	-3.42/3.15	-2.87/2.66	-2.54/2.66	-3.06/3.61	-4.05/4.94	-5.74/6.68	-7.64/9.19	-10.27/-11.63	-12.01/-11.47	-12.01/-11.47	-12.01/-11.47	-12.01/-11.47	-12.01/-11.47	-12.01/-11.47	-12.01/-11.47	



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta	6.656.5	6.055.5	4.944.5	4.234.66	5.265.72	6.156.6	6.726.64	6.496.29	5.825.09	4.344.34	5.195.97	6.456.62	6.516.26	5.995.65	5.124.85	4.564.64	5.195.83	6.486.82	6.696.49	6.35.9	5.35.13	5.095.08	5.525.78	6.166.49
Theta(22.5°)	6.656.5	6.055.5	4.944.5	4.234.66	5.265.72	6.156.6	6.726.64	6.496.29	5.825.09	4.344.34	5.195.97	6.456.62	6.516.26	5.995.65	5.124.85	4.564.64	5.195.83	6.486.82	6.696.49	6.35.9	5.35.13	5.095.08	5.525.78	6.166.49
Theta(30°)	6.926.9	6.55.96	5.425.28	5.515.55	5.726.11	6.797.47	7.476.87	6.316.11	5.785.53	5.144.53	5.135.81	6.36.51	6.56.29	5.975.63	5.134.7	4.534.36	5.136.04	6.737.22	7.26.98	6.485.71	4.764.63	4.724.72	5.075.41	5.946.54
Theta(42.5°)	6.456.36	6.075.52	5.46.6	4.814.73	5.015.65	6.567.07	7.076.85	6.225.5	4.954.79	4.664.58	5.095.68	5.996.12	6.196.15	5.664.92	4.614.61	4.544.54	5.054.5	6.116.46	6.426.09	5.785.31	4.544.5	4.444.02	4.094.83	5.686.19
Theta(45°)	6.136.13	5.795.33	4.974.63	4.314.47	4.695.43	6.066.29	6.055.9	5.725.08	4.164.01	4.024.16	4.655.24	5.585.87	6.095.85	5.174.57	4.464.05	3.413.18	3.684.38	5.035.58	5.915.6	4.994.45	3.763.45	3.543.4	3.334.11	5.245.91
Theta(52.5°)	5.695.45	4.924.39	3.973.36	3.053.3	3.74.11	4.925.67	6.065.83	5.174.43	3.573.31	2.872.57	3.344.24	4.975.5	5.424.81	4.384.18	3.742.65	2.432.85	3.464.39	4.895.33	5.154.75	4.213.55	2.952.32	2.122.16	3.123.89	4.795.48
Theta(60°)	5.385.09	4.263.47	2.691.62	1.561.87	2.383.74	4.715.58	5.695.35	4.893.89	2.481.8	1.111.26	2.573.77	4.424.77	4.64.51	4.453.88	2.721.42	0.911.43	2.593.37	4.044.11	3.312.67	1.680.34	0.211.21	2.674.13	4.885.15	
Theta(67.5°)	4.284	3.853.27	1.980.42	0.720.82	1.833.56	4.55.23	4.894.54	4.073.02	1.50.6	0.40.85	2.874.24	4.614.46	4.013.44	3.252.92	1.790.48	0.391.03	2.523.68	4.13.48	2.842.94	3.052.32	1.290.11	-0.030.89	2.493.59	3.84.06
Theta(75°)	2.622.1	2.392.26	0.68-0.35	-0.26-0.52	1.323.15	3.453.42	2.782.83	2.521.86	0.81-0.15	-0.39-0.14	1.723.15	3.362.92	2.672.32	2.081.58	0.93-0.52	-0.61-0.14	1.793.3	3.382.43	1.851.89	2.742.5	0.63-0.77	-1.87-0.69	1.172.09	2.612.46
Theta(82.5°)	0.35-0.26	0.570.5	-1.01-1.85	-2.2-1.11	0.071.47	1.64-1.27	0.53-1.12	1.260.87	-0.77-1.28	-1.74-1.39	0.26-1.21	0.930.82	1.01-0.02	-0.14-0.71	-1.05-1.23	-2.52-1.52	0.56-1.85	1.871.23	1.481.12	1.421.2	-0.34-1.91	-3.66-2.75	-0.40-22	0.320.12
Theta(90°)	-2.07-2.7	-1.42-1.58	-2.88-3.14	-4.08-4.37	-2.25-1.25	-1.44-2.29	-2.43-1.07	-0.54-1.01	-2.18-2.81	-3.6-3.88	-2.54-1.29	-1.06-1.84	-1.38-1.69	-2.11-2.82	-3.31-4.18	-4.44-4.35	-1.93-0.5	-1.13-0.77	-0.59-0.59	-0.45-0.57	-2.88-4.34	-5.93-5.43	-3.14-2.57	-2.18-2.5
Theta(97.5°)	-4.71-5.24	-3.59-4.75	-5.34-5.3	-7.14-6.44	-4.26-3.87	-3.15-4.41	-3.5-2.81	-2.32-1.93	-3.85-4.88	-5.97-5.85	-4.87-4.61	-4.09-4.56	-3.27-3.74	-3.86-4.84	-6.18-5.86	-4.26-3.89	-5.64-4.7	-2.77-2.99	-3.1-3.66	-5.42-6.7	-8.5-7.46	-6.22-4.7	-5.08-5.52	
Theta(105°)	-9.55-6.71	-5.04-6.63	-8.09-7.1	-8.46-7.58	-6.56-6.36	-6.31-6.2	-5.11-4.85	-3.74-4.32	-6.03-7.38	-7.72-7.21	-6.52-5.64	-5.65-7.09	-6.03-5.1	-5.77-6.56	-7.71-8.82	-8.26-6.89	-6.76-7.08	-9.95-9.79	-9.08-7.28	-7.2-6.22	-8.67-9.87	-9.49-7.31	-8.95-7.74	-8.05-6.93
Theta(112.5°)	-9.18-9.4	-7.49-8.39	-9.37-9.75	-8.03-7.86	-7.88-8.39	-8.35-7.39	-6.49-6.8	-5.86-6.32	-7.69-9.31	-8.33-8	-8.22-8.53	-8.51-8.52	-7.83-6.83	-6.62-8.4	-9.06-10.75	-9.6-7.44	-8.19-8.63	-8.91-9.86	-8.94-7.85	-8.23-6.6	-7.63-7.62	-9.12-8.54	-8.28-10.05	-8.44-8.56
Theta(120°)	-9.69-9.34	-8.68-9.46	-9.83-9.68	-8.97-8.96	-8.88-8.79	-9.25-10.42	-10.39-9.81	-9.31-9.97	-10.01-10.51	-9.65-10.11	-9.79-9.43	-9.28-9.31	-9.76-9.01	-8.35	-8.58-10.46	-11.54-11.14	-10.89-9.99	-8.22-6.99	-7.71-9.11	-9.08-8.99	-10.05-10.39	-9.58-10.48	-8.85-10.45	-9.13-8.61
Theta(127.5°)	-9.58-8.49	-8.55-9.91	-11.11-11.48	-11.65-10.57	-10.01-11.06	-10.31-11.22	-12.02-10.92	-10.21-9.92	-10.73-10.17	-10.23-10.56	-10.09-9.85	-9.15-9.53	-8.84-11.41	-9.44-8.24	-6.19-9.39	-9.10-23	-9.73-9.05	-9.56-10.74	-12.25-10.41	-9.86-9.95	-9.35-10.71	-11.6-10.7	-10.53-12.52	-10.95-10.91
Theta(135°)	-11.67-11.5	-11.18-11.31	-11.38-10.61	-9.68-9.83	-11.62-11.66	-11.05-11.86	-12.17-12.18	-11.29-11.31	-10.94-10.32	-10.7-10.69	-10.94-12.04	-10.85-9.86	-9.85-12.54	-12.04-12.06	-10.62-9.86	-9.64-8.37	-9.32-10.54	-9.5-10.65	-12.74-11.63	-10.8-11.05	-9.22-9.58	-9.67-9.49	-10.46-11.55	-12.1-11.9
Theta(142.5°)	-12.59-11.05	-10.92-12.1	-12.25-11.4	-11.04-11.79	-11.77-10.95	-10.62-11.81	-12.47-11.94	-11.32-11.99	-11.32-9.94	-10.51-10.61	-10.78-10.39	-9.79-10.5	-12.17-12.31	-12.09-11.86	-10.52-10.65	-10.07-10.97	-10.91-9.23	-9.65-9.81	-9.32-12.57	-10.83-10.72	-10.95-12.39	-11.07-9.24	-9.71-9.74	-11.84-12.38
Theta(150°)	-12.69-11.3	-10.85-11.58	-11.29-11.07	-12.11-12.05	-11.48-11.26	-12.15-11.16	-10.70-11.49	-11.12-10.67	-10.67-11.37	-12.04-12.09	-12.33-11.55	-11.82-11.65	-12.37-12.56	-12.32-10.93	-10.22-10.91	-11.31-10.89	-11.09-10.74	-11.33-11.35	-12.02-12.12	-11.56-11.61	-11.27-12.24	-12.28-12.46	-12.14-11.79	
Theta(157.5°)	-12.67-12.38	-11.81-10.62	-10.75-10.18	-10.03-10.84	-12.11-12.02	-12.32-11.84	-11.8-11.48	-11.46-11.47	-11.8-11.83	-11.5-11.5	-10.97-10.51	-11.68-11.39	-10.95-11.22	-10.83-11.84	-12.53-12.21	-11.02-9.76	-9.45-9.54	-10.95-12.27	-12.5-11.95	-12.18-12.75	-12.39-12.01	-11.69-10.72	-12.37-12.22	-12.42-12.39
Theta(165°)	-12.09-12.18	-12.71-12.87	-12.12-12.56	-11.53-11.51	-11.92-12.15	-12.33-12.54	-12.4-12.41	-12.78-11.76	-11.9-12.62	-12.47-12.42	-12.15-11.51	-11.11-11.06	-10.71-10.29	-10.04-9.7	-9.69-9.81	-10.15-11.04	-12.03-12.08	-12.41-11.7	-11.42-11.71	-11.57-12.38	-12.9-12.67	-12.35-11.84	-12.27-11.87	-12.5-12.43
Theta(172.5°)	-12.37-12.58	-12.1-12.66	-12.48-12.51	-12.45-12.12	-12.26-12.32	-12.32-12.42	-11.74-11.9	-12.1-12.34	-12.49-11.88	-12.3-12.61	-11.82-12.76	-12.27-12.23	-11.78-11.34	-11.11-11.31	-11.19-11.02	-11.22-12.14	-11.99-11.59	-11.59-11.56	-12.22-12.07	-11.54-10.65	-11.13-11.69	-12.14-12.34	-12.17-12.39	
Theta(180°)	-12.2-12.14	-11.59-11.83	-11.19-10.45	-10.23-10.1	-10.11-9.77	-8.61-9.92	-9.93-10.05	-10.49-11.15	-11.55-12.06	-12.11-12.51	-12.46-12.3	-12.09-12.35	-12.7-12.25	-11.94-10.04	-8.45-7.5	-11.79-6.92	-6.79-6.68	-6.94-7.42	-8.03-8.18	-8.42-8.91	-9.05-9.48	-9.69-10.53	-10.97-11.14	-11.23-11.52
Freq(Hz)	5.36Pol.	Theta	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
DG(dB)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta(0°)	5.785.78	5.755.57	5.194.57	3.913.93	4.625.22	5.625.97	6.166.07	5.815.48	5.074.45	3.643.55	4.194.89	5.455.88	6.096.06	5.915.62	5.234.52	3.854.21	4.815.34	5.786.05	6.166.02	5.755.32	4.724.01	3.413.37	4.194.87	5.375.65
Theta(7.5°)	6.166.07	5.895.6	5.134.57	3.793.64	4.285	5.335.65	5.855.8	5.545.2	4.924.51	3.813.84	4.495.18	5.86.29	6.536.61	6.476.15	5.64.9	4.144.16	4.775.25	5.716.01	6.045.82	5.495.08	4.543.84	3.435.55	4.405.08	5.716.06
Theta(15°)	6.215.97	5.65.12	4.453.68	2.772.46	3.324.36	5.035.43	5.595.61	4.954.19	4.984.71	3.715.44	4.163.72	4.44.56	5.135.61	5.715.17	4.493.8	3.493.64	4.552.88	5.935.6	4.984.27	3.653.07	2.993.53	4.395.19	5.866.26	
Theta(22.5°)	6.095.81	5.284.38	3.292.72	2.532.63	3.08.9	4.915.56	5.85.69	5.355.04	4.794.42	3.673.08	3.734.74	5.626.22	6.195.37	4.494.06	3.863.46	2.933.07	4.45	5.766.21	6.235.8	5.074.13	3.443.17	3.133.15	3.273.85	5.045.95
Theta(30°)	5.985.54	4.703.64	2.62.69	2.692.34	2.463.3	4.535.42	4.714.16	3.943.65	3.062.33	3.164.34	5.326.06	5.894.95	4.033.49	3.23.02	2.722.71	3.574.59	5.265.52	5.475.2	4.84.31	3.582.9	2.642.86	3.163.68	4.725.74	
Theta(37.5°)	4.344.32	4.043.57	2.712.21	2.032	2.063.19	4.234.84	4.864.66	4.413.89	3.272.35	1.641.77	2.843.66	4.34.73	4.754.28	3.442.27	1.882.09	1.591.57	2.493.35	3.693.92	3.993.79	3.512.92	2.128	1.511.86	2.172.71	3.143.79
Theta(45°)	2.923.08	3.073.08	2.451.16	1.051.11	1.993.02	3.313.72	3.533.63	2.51.23	-2.03.31	4.12.09	2.613.16	3.463.61	3.291.93	0.17-0.12	-0.35-0.06	1.091.62	1.82.18	2.442.11	2.011.58	0.39-0.62	-0.46-0.31	1.482.39	2.612.88	
Theta(52.5°)	0.510.96	1.311.37	0.58-1.06	-0.95-0.42	0.81-7.9	1.81.74	1.631.62	2.412.64	1.49-6.69	-2.1-1.34	0.380.67	1.021.44	1.141.6	1.750.55	-1.77-1.92	-1.59-1.41	-0.49-0.18	-0.38-0.01	0.43-0.03	-0.17-0.57	-1.74-2.27	-2.54-1.26	0.11-1.2	0.890.26
Theta(60°)	-2.45-1.42	-1.19-1.39	-1.91-3.37	-3.58-2.42	-1.23-0.																			



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta (°)	2.49/2.24	1.74/1.31	0.43/-1.34	-1.07/0.17	0.96/2.34	2.34/2.15	0.59/1.94	1.92/1.51	0.49/0.37	-0.1/0	0.62/27	2.52/1.32	0.06/1.86	2.52/1.03	-0.8/0.76	-0.78/-1.62	-0.29/1.29	2.09/1.13	0.43/0.61	1.34/-0.11	-0.24/-1.67	-1.07/0.05	2.12/3.21	3.02/2.55
Theta (75°)	1.44/1.56	0.96/0.28	-0.03/-1.07	-1.19/-0.4	0.61/2.23	1.41/0.69	-0.92/0.63	0.74/1.35	0.79/0.65	0.51/0.08	0.37/1.61	2.64/1.67	0.62/1.08	1.76/0.54	-1.01/-1.26	-0.99/-0.2	-0.23/0.91	1.24/0.64	0.46/1.59	1.72/0.65	0.03/-1.13	-1.2/-0.06	1.32/1.6	1.97/1.43
Theta (82.5°)	0.06/0.02	-0.37/-0.97	-1.25/-1.52	-1.88/-1.12	0.26/0.78	-0.3/-0.81	-1.7/0.4	-0.86/0.45	0.29/0.16	-0.04/-0.54	-0.55/0.02	0.53/0.02	-0.47/-0.55	-0.42/-0.95	-1.93/-2.95	-2.51/-0.92	-0.17/0.8	0.47/-0.52	0.02/1.19	0.86/0.42	0.15/-1.49	-2.24/-1.4	-0.23/0.2	0.12/0.13
Theta (90°)	-1.74/-1.5	-2.32/-2.75	-3.21/2.69	-2.78/-2.43	-1.64/-1.81	-2.16/-2.64	-3.21/-1.68	-1.95/-1.45	-0.55/-0.86	-1.45/-1.74	-2.04/-1.87	-1.53/-1.25	-1.9/-2.55	-2.86/-3.58	-2.97/-4.8	-5.01/-2.49	-0.76/0.66	-1.43/-2.95	-1.66/-0.61	-0.65/-1.22	-1.62/-2.52	-4.03/-3.07	-2.15/-2.14	-1.95/-1.51
Theta (97.5°)	-4.07/-3.52	-3.75/-4.35	-4.7/-3.76	-3.5/-4.3	-3.12/-4.67	-4.55/-4.47	-4.01/-3.07	-2.85/-3.52	-2.11/-2.63	-3.01/-3.98	-4.02/-3.6	-4.09/-3.96	-5.03/-4.13	-4.61/-5.08	-3.71/-4.55	-5.99/-5.49	-3.74/-3.34	-4.06/-6.88	-4.79/-4.41	-2.96/-3.15	-3.5/-4.57	-6.09/-4.73	-4.21/-4.69	-5.24/-4.28
Theta (105°)	-6.5/-4.81	-5.08/-6.07	-6.43/-5.45	-4.86/-5.22	-5.5/-7.1	-5.93/-6.27	-6.02/-6.08	-5.65/-5.1	-3.76/-4.41	-4.67/-5.26	-5.51/-5.6	-6.16/-7.38	-7.51/-5.37	-6.48/-9.06	-5.47/-5.39	-6.89/-6.22	-7.91/-6.15	-6.62/-8.97	-9.53/-7.65	-7.09/-6.12	-6.71/-5.43	-7.38/-6.17	-5.87/-5.74	-7.06/-7.21
Theta (112.5°)	-8.84/-8.06	-9.65/-7.41	-7.99/-7.74	-6.99/-8.12	-7.58/-7.44	-7.5/-7.97	-7.56/-6.95	-6.15/-6.4	-5.95/-6.19	-6.06/-6.81	-8.01/-8.29	-8.4/-8.43	-9.17/-7.73	-7.58/-11.93	-8.34/-6.74	-6.62/-7.25	-9.61/-7.66	-7.46/-8.96	-8.3/-8.35	-8.74/-7.85	-6.43/-7.32	-8.14/-7.77	-6.95/-7.37	-7.98/-8.93
Theta (120°)	-10.98/-10.69	-10.56/-8.2	-9.26/-8.8	-8.36/-8.55	-9.34/-9.02	-9.38/-7.86	-7.97/-8.57	-7.36/-7.24	-7.12/-6.71	-6.62/-7.75	-8.59/-8.91	-8.19/-10.05	-10.85/-10.24	-7.98/-10.71	-12.69/-9.07	-7.68/-5.86	-6.33/-7.79	-7.14/-9.57	-7.77/-9.39	-7.87/-7.96	-7.56/-8.93	-9.72/-8.93	-8.51/-8.3	-8.09/-9.22
Theta (127.5°)	-9.61/-8.02	-9.11/-10.5	-9.62/-9.65	-9.76/-8.81	-8.76/-10.39	-11.52/-9.65	-10.83/-10.31	-10.82/-8.83	-8.26/-7.5	-8.25/-9.31	-10.03/-10	-9.86/-11.21	-11.3/-10.53	-8.35/-10.23	-12.25/-10.62	-9.09/-11.03	-8.16/-8.91	-8.34/-11.32	-10.82/-10.99	-9.6/-9.33	-9.66/-10.64	-10.15/-9.03	-8.38/-9.98	-12.29/-11.2
Theta (135°)	-12.01/-12.03	-10.6/-10.98	-11.12/-10.2	-9.94/-10.57	-11.66/-11.98	-12.54/-12.14	-11.55/-10.15	-9.45/-8.34	-8.78/-8.71	-8.8/-9.17	-9.2/-10.09	-10.6/-10.55	-11.58/-11.92	-8.49/-6.5	-5.97/-8.98	-12.46/-12.23	-10.73/-9.56	-9.05/-10.2	-10.72/-9.4	-9.41/-10.07	-9.75/-9.54	-11.02/-8.77	-8.22/-10.45	-12.08/-10.43
Theta (142.5°)	-11.13/-12.49	-12.79/-12.45	-11.21/-11.36	-10.44/-9.72	-9.28/-10.7	-12.43/-12.12	-9.91/-9.3	-9.81/-10.73	-9.85/-8.5	-8.4/-10.43	-10.89/-11.31	-10.27/-9.84	-11.02/-12.44	-11.76/-10.53	-8.93/-8.34	-9.19/-11.29	-9.73/-9.25	-10.84/-10.44	-10.15/-10.67	-11.11/-11.9	-12.08/-10.85	-11.94/-10.42	-9.8/-11.54	-11.64/-11.21
Theta (150°)	-11.57/-11.9	-12.22/-12.37	-10.26/-10.64	-10.49/-11.33	-11.41/-10.92	-10.21/-10.65	-12.01/-12.09	-11.09/-10.04	-8.89/-8.47	-8.69/-8.82	-11.15/-12.02	-10.59/-9.91	-10.99/-11.49	-10.97/-11.08	-10.14/-10.33	-10.83/-10.57	-12.23/-11.68	-12.35/-12.41	-12.23/-12.37	-11.13/-10.18	-10.54/-10.3	-9.86/-10.6	-12.62/-12.51	-12.87/-12.13
Theta (157.5°)	-11.74/-12.82	-12.55/-12.19	-11.59/-10.12	-9.9/-10.72	-11.15/-11.87	-11.58/-10.77	-9.72/-9.5	-9.88/-9.42	-9.36/-9.79	-11.25/-11.92	-11.64/-10.53	-11.04/-11.47	-11.73/-12.65	-12.24/-12.57	-12.49/-11.6	-10.47/-11.03	-9.79/-8.71	-8.54/-9.53	-10.18/-10.04	-9.23/-10.37	-12.15/-11.65	-11.69/-11.36	-11.85/-12.08	-12.38/-12.36
Theta (165°)	-10.74/-10.28	-9.66/-9.59	-9.28/-9.4	-10.38/-10.51	-11.32/-11.74	-11.77/-11.65	-11.44/-10.29	-9.76/-9.69	-10.34/-10.66	-10.97/-10.86	-11.72/-12.21	-12.21/-12.17	-12.33/-12.61	-12.03/-12.17	-11.22/-11.05	-11.07/-9.91	-8.82/-9.55	-10.46/-10.59	-10.56/-11.24	-10.86/-11.67	-10.87/-11.52	-12.09/-12.32	-12.3/-12.46	-12.56/-11.81
Theta (172.5°)	-11.54/-11.5	-11.48/-12.24	-12.41/-12.15	-12.73/-12.26	-11.48/-11.94	-11.83/-11.11	-10.93/-10.55	-10.32/-10.06	-11.16/-11.76	-12.12/-12.38	-11.3/-10.7	-10.35/-10.03	-9.91/-9.45	-8.49/-8.26	-8.68/-8.9	-10.11/0.7	-11.33/-10.98	-10.43/-10.31	-10.36/-10.98	-11.22/-12.11	-12.5/-12.08	-11.25/-10.86	-10.63/-10.57	-11.54/-11.68
Theta (180°)	-10.93/-10.69	-10.88/-11.6	-12.07/-11.85	-12.57/-12.28	-12.1/-12.33	-12.06/-12.34	-12.34/-12.31	-11.98/-11.97	-11.89/-11.62	-12.17/-11.83	-11.1/0.3	-10.31/-9.99	-10.45/-10.55	-10.49/-10.11	-9.87/-9.71	-9.58/-9.46	-9.84/-9.61	-9.71/-9.34	-9.91/-9.5	-10.62/-11.06	-11.55/-10.98	-10.47/-10.51	-10.06/-10.1	-10.21/-10.79
Freq(Hz)	5.785GPol.	Theta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phi(dB)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Phi(0°)	6.91/6.95	6.96/6.6	6.24/5.68	5.4/8.7	5.45/6.06	6.54/6.77	6.83/6.67	6.44/6.11	5.64/8.6	4.24/5.8	5.44/6.2	6.77/7.12	7.51/7.37	7.22/6.87	6.29/5.64	4.94/4.81	5.48/6.03	6.56/7.6	6.85/6.78	6.51/6.07	5.54/4.81	4.24/4.51	5.36/6.05	6.54/6.85
Phi(7.5°)	7.17/0.8	6.95/6.71	6.23/5.68	5.05/4.76	5.25/5.82	6.33/6.74	6.96/8.1	6.45/6.13	5.69/5.05	4.25/4.19	4.93/5.75	6.25/6.54	6.73/6.85	6.84/6.52	5.91/5.2	4.63/4.69	5.33/5.83	6.23/6.52	6.59/6.5	6.19/5.78	5.35/4.81	4.62/5.23	5.92/6.48	6.87/0.9
Phi(15°)	5.94/5.94	5.93/5.87	5.68/5.3	4.65/4.44	4.77/5.3	5.66/5.92	6.26/2.6	6.11/5.78	5.84/6.09	4.11/4.01	4.65/5.44	5.98/5.19	6.23/6.23	6.26/6.13	5.74/9.2	4.08/3.75	4.17/4.55	4.99/5.45	5.73/5.8	5.69/5.28	4.71/3.95	3.67/4.1	4.83/5.35	5.56/5.83
Phi(22.5°)	5.66/5.9	5.79/5.57	5.23/4.43	3.64/3.78	4.62/5.27	5.46/5.66	5.67/5.52	5.42/5.26	4.74/3.89	3.07/3.21	3.65/4.14	4.69/4.8	4.84/8.2	4.49/3.8	3.13/2.9	2.72/2.8	3.01/3.66	4.65/5.33	5.54/5.35	5.07/4.62	3.95/3.05	2.8/3.57	4.63/5.24	5.38/5.44
Phi(30°)	5.25/5.22	4.91/4.44	4.24/3.5	3.13/2.86	3.76/4.71	5.13/5.47	5.45/5.02	4.44/3.93	3.32/2.45	1.19/1.5	2.48/3.88	4.84/5.06	4.83/8.3	3.1/3.19	3.15/2.33	1.9/2.1	2.52/3.66	4.77/5.6	5.53/4.86	4.37/4.44	4.05/3.07	2.67/3.38	3.63/3.59	3.95/4.93
Phi(37.5°)	5.16/4.26	3.58/3.3	2.79/2.12	1.95/2.6	3.12/3.44	4.15/4.74	4.73/4.17	3.29/2.69	2.32/1.8	0.32/0.11	1.71/3.35	3.87/4.29	3.92/2.96	2.27/2.11	1.81/0.4	1.23/1.78	2.15/3.08	4.29/5.09	5.03/4.4	3.75/3.55	3.08/1.54	1.39/2.22	1.79/2.27	4.11/5.3
Phi(45°)	3.24/2.67	2.53/2.43	1.04/0.49	0.88/1.43	1.25/1.66	2.77/3.65	3.94/2.94	1.57/1.54	1.07/0.51	-1.01/-1.9	0.79/2.28	2.26/3.1	3.8/2.97	1.36/0.37	-0.22/0.77	1.85/2.18	2.17/2.92	3.28/3.22	3.07/1.65	0.68/0.32	-0.35/0.45	1.09/2.48	3.67/3.86	
Phi(52.5°)	0.87/0.76	0.99/1.19	-1.27/-2.44	-1.35/-1.16	-0.05/1.15	1.18/1.84	2.1/0.76	-0.23/0.76	0.01/0.35	-3.41/-4.85	-0.45/0.35	-0.23/1.38	2.18/1.14	0.51/-1.07	-2.27/3.28	-2.96/-0.87	0.74/1.29	0.59/0.17	1.69/0.12	-1.89/-3.3	-3.09/-2.26	-0.60/4.6	0.83/0.58	
Phi(60°)	-3.1/-3.06	-1.5/-0.93	-3.56/-4.99	-4.34/-4.38	-1.81/-0.29	-0.58/-1.89	-1.82/-2.05	-1.89/-1.09	-2.51/2.95	-5.85/-5.36	-2.91/1.95	-1.82/-1.65	-2.24/-1.16	-0.51/-1.74	-2.37/4.55	-4.53/-2.8	-1.74/-0.78	-0.98/-2.62	-2.1/-0.88	0.14/-1.91	-4.71/-5.5	-5.56/-4.66	-2.21/-1.47	-2.55/-2.93
Phi(67.5°)	-6.58/-5.34	-3.47/-2.77	-5.2/-7.97	-7.31/-6.49	-4.14/-1.86	-1.74/-4.57	-5.64/-4.97	-4.21/-2.74	-4.98/-5.7	-7.19/-4.41	-5.84/-4.06	-3.17/-4.26	-4.78/-3.23	-2.18/-2.22	-3.41/-5.18	-6/-4.87	-4.09/-2.58	-2.1/-4.02	-5.02/-3.59	-2.56/-3.49	-6.61/-6.54	-5.96/-5.99	-4.79/-4.54	-3.41/-4.04
Phi(75°)	-8.63/-6.25	-4.28/-3.15	-6.86/-11.57	-9.83/-6.95	-6.95/-3.7	-3.04/-5.09	-6.78/-5.82	-4.33/-4.16	-7.05/-7.11	-6.52/-4.99	-8.62/-6.44	-3.92/-3.6	-5.03/-6.14	-5.41/-3.61	-3.67/-4.98	-7.26/-6.59	-4.94/-4.29	-2.97/-4.36	-5.48/-4.92	-3.68/-3.17	-8/-7.08	-5.27/-5.65	-5.31/-6.86	-5.74/-4.74
Phi(82.5°)	-9.66/-6.38	-5.8/-4.27	-9.4/-12.22	-10.28/-8.42	-8.79/-4.96	-3.8/-5.12	-8.01/-6.75	-5.37/-4.57	-6.31/-6.73	-7.11/-7.3	-8.99/-7.09	-5.69/-4.94	-6.43/-6.98	-7.11/-7.52	-7.07/-7.6	-6.42/-6.3	-7.16/-4.04	-3.08/-5.33	-7.34/-5.84	-3.29/-3.48	-9.67/-7.58	-5.26/-5.74	-6.43/-9.3	-7.43/-6.69
Phi(90°)	-11.94/-9.84	-8.15/-6.54	-10.9/-11.68	-10.97/-9.35	-8.9/-6.91	-6.22/-6.52	-9.54/-6.85	-6.12/-5.19	-5.93/-8.04	-7.05/-7.56	-8.58/-7.85	-9.48/-6.21	-7.77/-7.03	-7.85/-8.48	-8.3/-9.45	-8.28/-7.7	-10.02/-6.19	-4.02/-5	-7.81/-7.51	-5.49/-5.21	-11.24/-9.85	-7.03/-8.66	-7.76/-10.78	-7.82/-8.63
Phi(97.5°)	-9.85/-11.15	-9.35/-7.96	-11.67/-10.93	-10.75/-10.45	-8.61/-8.8	-7.77/-8.13	-9.95/-7.2	-6.62/-6.57	-7.94/-9.75	-8.17/-9.22	-7.48/-9.02	-11.06/-8.4	-7.82/-6.52	-8/-10.43	-8.18/-9.57	-10.14/-9.22	-10.59/-9.62	-7.42/-6.64	-9.26/-10.47	-9.95/-7.81	-11.17/-10.23	-11.63/-11.76	-8.98/-10.08	-8.71/-9.93
Phi(105°)	-11.49/-8.65	-7.																						



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Gain Result

Freq(Hz)	2.45GPol.	PhiAnt.1	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Gain	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta(°)	3.212/0.09	0.64/-1.19	-3.84/-1.76	-11.73/-17.65	-20.04/-5.51	-28.35/-13.52	-36.66/-18.69	-44.97/-23.86	-53.28/-29.03	-61.59/-34.20	-69.90/-39.37	-78.21/-44.54	-86.52/-49.71	-94.83/-54.88	-103.14/-60.05	-111.45/-65.22	-119.76/-70.39	-128.07/-75.56	-136.38/-80.73	-144.69/-85.90	-153.00/-91.07	-161.31/-96.24	-169.62/-101.41	-177.93/-106.68
Theta(7.5°)	4.253/17	1.820/07	-2.39/-12	-12.92/-18.87	-22.74/-4.48	-31.55/-19.66	-40.36/-24.83	-49.17/-29.99	-57.98/-35.16	-66.79/-40.33	-75.60/-45.50	-84.41/-50.67	-93.22/-55.84	-102.03/-61.01	-110.84/-66.18	-119.65/-71.35	-128.46/-76.52	-137.27/-81.69	-146.08/-86.96	-154.89/-92.33	-163.70/-97.60	-172.51/-102.87	-181.32/-108.14	-190.13/-113.41
Theta(15°)	4.283/34	2.080/46	-1.86/-53	-11.29/-18.86	-21.10/-5.11	-30.91/-20.90	-40.72/-26.07	-50.53/-31.24	-60.34/-36.41	-70.15/-41.58	-79.96/-46.95	-89.77/-52.32	-99.58/-57.69	-109.39/-62.96	-119.20/-68.13	-129.01/-73.30	-138.82/-78.47	-148.63/-83.74	-158.44/-89.01	-168.25/-94.28	-178.06/-99.55	-187.87/-104.82	-197.68/-110.29	-207.49/-115.86
Theta(22.5°)	3.352/56	1.560/13	-2.04/-55	-11.73/-17.65	-20.04/-5.51	-28.35/-13.52	-36.66/-18.69	-44.97/-23.86	-53.28/-29.03	-61.59/-34.20	-69.90/-39.37	-78.21/-44.54	-86.52/-49.71	-94.83/-54.88	-103.14/-60.05	-111.45/-65.22	-119.76/-70.39	-128.07/-75.56	-136.38/-80.73	-144.69/-85.90	-153.00/-91.07	-161.31/-96.24	-169.62/-101.41	-177.93/-106.68
Theta(30°)	1.661/15	0.43/0.75	-2.81/-6.26	-12.73/-19.3	-10.84/-5.27	-2.14/0	1.49/2.58	3.43/9.3	4.26/4.37	4.34/0.8	3.77/2.27	2.61/1.74	0.66/0.75	-2.71/-5.61	-10.46/-18.59	-17.52/-10.46	-7.46/-5.84	-4.53/-2.95	-1.11/0.73	2.33/4.5	4.18/4.53	4.56/4.33	3.96/3.55	3.05/2.39
Theta(37.5°)	-0.6/0.75	-0.95/-1.72	-3.5/-7.71	-12.44/-19.59	-9.64/-4.43	-1.46/0.48	1.91/3.01	3.87/4.47	4.84/4.95	4.84/4.52	4.03/3.33	2.47/1.38	-3.74/-7.07	-13.08/-17.37	-22.91/-8.55	-6.68/-6.12	-5.72/-3.48	-2.14/0.08	1.85/3.15	4.45	4.47/4.04	3.19/2.11	1.92/1.01	1.00/1
Theta(45°)	-4.78/-4.49	-3.63/-3.53	-4.66/-7.13	-11.31/-13.82	-7.77/-3.35	-0.80/0.91	4.12/4.66	4.99/5.11	5.14/9.1	4.56/9.97	3.16/2.06	0.71/-1.01	-3.21/-6.35	-11.58/-17.68	-14.57/-19.43	-7.35/-7.26	-7.89/-6.42	-3.23/-0.46	1.56/2.95	3.91/4.53	4.73/4.5	3.54/3.93	-0.31/2.91	10.01
Theta(52.5°)	-7.35/-9.9	-8.43/-7.46	-8.03/-10.17	-13.86/-15.02	-8.51/-4.16	-1.49/0.48	2.03/2.28	4.09/4.52	4.71/4.76	4.79/4.75	4.46/3.76	2.66/1.23	-0.31/-2.36	-5.07/-8.7	-14.83/-18.49	-13.67/-9.42	-7.76/-6.32	-9.91/8.47	-4.66/-1.6	0.66/2.31	3.47/4.24	4.57/4.43	3.72/2.31	-0.05/-3.28
Theta(60°)	-7.86/-10.53	-8.79/-9.68	-11.79/-13.6	-18.48/-14.62	-9.41/-5.9	-3.22/-0.96	0.82/0.6	2.79/3.08	3.11/3.12	3.23/3.43	3.51/3.26	2.61/1.55	-1.31/-1.83	-4.32/-7.51	-13.48/-18.83	-16.87/-10.5	-8.4/-2.4	-13.15/-13.37	-7.25/-3.18	-0.49/1.33	2.59/3.37	3.63/3.31	2.51/1.11	-1.21/-4.9
Theta(67.5°)	-13.1/-17.61	-10.55/-8.42	-10.59/-10.61	-11.65/-9.97	-7.47/-5.09	-2.93/-1.11	0.31/3.17	1.97/1.25	2.14/2.16	2.37/2.69	2.84/2.63	1.74/0.28	-1.53/-4.04	-7.21/-11.62	-17.12/-12.22	-10.44/-12.29	-18.61/-13.33	-6.6/-2.87	-0.66/0.79	1.77/2.38	2.56/2.21	1.33/-0.05	-2.36/-6.06	10.01
Theta(75°)	-10.63/-17.51	-18.64/-13.76	-12.41/-12.94	-13.35/-11.82	-9.19/-6.39	-4.05/-2.31	-0.95/0.15	0.85/1.1	1.14/1.17	1.31/1.49	1.57/1.29	0.53/0.59	-2.07/-4.06	-6.91/-11.52	-18.23/-19.23	-18.84/-14.48	-12.26/-14.32	-17.81/-13.53	-7.62/-4.57	-2.71/-1.44	-0.53/-0.09	-0.13/-0.49	-1.19/-2.2	-3.84/-6.46
Theta(82.5°)	-14.06/-18.39	-19.01/-15.64	-13.73/-13.54	-13.11/-11.58	-9.44/-7.06	-5.48/-4.69	-3.89/-2.88	-1.99/-1.55	-1.35/-1.14	-0.81/-0.45	-0.23/-0.41	-1.2/-2.38	-4.05/-6.92	-11.46/-18.34	-18.22/-18.87	-17.48/-17.73	-17.72/-18.65	-17.92/-13.2	-8.86/-6.69	-4.72/-2.94	-1.69/-1.16	-1.51/-2.58	-3.87/-5.15	-6.89/-9.53
Theta(90°)	-14.58/-19.34	-19.02/-19.42	-15.47/-14.22	-13.87/-12.69	-9.83/-6.88	-5.19/-4.62	-4.61/-3.33	-3.74/-3.24	-2.84/-2.52	-2.1/-1.68	-1.28/-1.4	-2.23/-3.68	-6.03/-9.69	-13.91/-16	-14.63/-15.86	-12.71/-17.5	-14.75/-15.67	-16.78/-17.53	-17.82/-13.06	-8.35/-5.46	-3.89/-3.31	-3.61/-4.91	-6.87/-7.9	-8.91/-10.49
Theta(97.5°)	-17.44/-18.55	-18.4/-17.56	-18.01/-16.24	-17.01/-19.46	-16.25/-11.49	-8.96/-7.9	-7.5/-6.9	-5.92/-5.09	-4.46/-4.01	-3.61/-3.31	-3.25/-3.94	-5.29/-6.81	-8.95/-11.93	-14.83/-15.99	-16.94/-18.86	-18.15/-18.24	-18.55/-19.31	-18.13/-17.34	-16.55/-11.27	-8.14/-6.46	-5.89/-6.07	-6.78/-8.16	-10.14/-11.7	-12.35/-12.98
Theta(105°)	-19.53/-16.87	-18.23/-18.76	-18.23/-18.76	-16.83/-16.86	-14.81/-16.49	-13.27/-11.34	-10.12/-8.82	-7.3/-6.08	-5.26/-4.88	-4.67/-6.61	-5.03/-6.12	-4.75/-5.8	-10.41/-11.25	-12.13/-14.9	-15.88/-16.05	-16.14/-17.04	-16.81/-18.91	-18.41/-18.22	-19.36/-13.73	-10.54/0.03	-8.61/9.33	-11.21/-13.33	-14.69/-15.25	-14.88/-14.25
Theta(112.5°)	-18.93/-19.29	-19.26/-17.23	-16.51/-13.65	-12.23/-12.96	-14.58/-14.73	-12.93/-11.31	-10.88/-10.56	-9.87/-8.52	-7.35/-6.75	-6.5/-6.66	-7.38/-8.22	-8.64/-9.23	-10.41/-11.84	-12.12/-9.95	-16.78/-17.5	-18.14/-14.2	-18.61/-18.98	-18.74/-14.2	-11.05/-9.79	-9.39/-9.61	-10.94/-12.75	-13.61/-13.32	-13.23/-13.74	10.01
Theta(120°)	-16.26/-14.17	-14.74/-18.75	-18.37/-18.08	-17.53/-16.37	-16.23/-15.35	-12.94/-10.3	-8.71/-8.1	-7.68/-7.13	-6.59/-6.48	-6.92/-7.89	-9.02/-10.2	-12.07/-14.64	-15.67/-15.91	-16.18/-16.55	-15.63/-15.66	-16.19/-16.59	-16.17/-14.78	-14.51/-19.93	-18.39/-17.75	-13.1/-12.3	-13.02/-13.9	-15.17/-17.46	-17.57/-18.57	-18.24/-17.51
Theta(127.5°)	-16.4/-12.56	-10.84/-10.48	-11.47/-13.54	-16.53/-18.61	-18.48/-19.09	-17.47/-12.82	-10.08/-8.77	-8.34/-8.13	-8.21/-8.59	-9.45/-10.23	-10.45/-10.71	-11.09/-11.58	-12.43/-14.57	-17.43/-17.96	-17.75/-17.9	-18.46/-18.44	-18.55/-18.74	-17.99/-18.99	-18.25/-15.23	-12.85/-12.58	-13.12/-13.26	-12.87/-12.3	-12.19/-13.13	-15.71/-19.21
Theta(135°)	-16.3/-16.55	-14.07/-11.99	-10.85/-10.74	-13.51/-13.07	-14.56/-14.79	-13.14/-10.34	-8.14/-6.65	-5.75/-5.36	-5.39/-5.77	-6.86/-7.24	-8.55/-10.94	-13.95/-18.14	-18.28/-18.01	-18.31/-18.87	-18.26/-17.99	-18.37/-18.63	-15.45/-17.17	-17.87/-18.63	-15.05/-17.17	-18.31/-18.63	-18.35/-18.91	-18.35/-17.2	-18.28/-17.92	-17.69/-18.34
Theta(142.5°)	-18.37/-18.65	-18.01/-18.4	-15.86/-14.51	-14.25/-15.04	-16.73/-19.34	-16.16/-19.2	-15.73/-13.44	-12.11/-23	-11.27/-11.82	-12.74/-13.87	-16.63/-16.93	-16.11/-15.16	-14.96/-14.63	-14.62/-15.24	-15.66/-14.99	-13.86/-13.08	-13.08/-13.9	-15.45/-17.51	-17.87/-18.68	-17.21/-15.29	-13.84/-13.21	-13.48/-14.69	-16.81/-19.98	-18.77/-17.27
Theta(150°)	-18.38/-17.29	-18.33/-18.07	-18.54/-18.37	-17.07/-16.63	-17.23/-18.46	-16.02/-18.94	-18.75/-18.97	-18.49/-16.11	-13.95/-12.21	-11.1/-10.25	-10.09/-10.54	-11.49/-13.18	-15.27/-17.13	-16.62/-15.84	-15.35/-15.69	-16.78/-17.05	-17.85/-18.01	-17.78/-17.58	-17.14/-18.09	-14.69/-13.53	-13.07/-13.37	-14.47/-16.1	-18.36/-18.69	10.01
Theta(157.5°)	-17.12/-18.06	-17.84/-18.35	-17.87/-18.64	-17.55/-16.99	-16.65/-16.17	-15.61/-14.57	-13.42/-12.5	-12.63/-13.11	-13.54/-14.25	-12.66/-12.92	-12.63/-13.11	-14.74/-15.18	-16.46/-18.47	-18.51/-18.52	-17.36/-18.66	-17.39/-18.1	-18.64/-17.2	-18.23/-18.99	-18.58/-17.69	-19.12/-18.71	-17.22/-18.52	-18.93/-18.12	-18.48/-19.02	-18.53/-17.62
Theta(165°)	-18.88/-17.84	-18.24/-18.11	-18.53/-18.36	-18.66/-18.85	-18.61/-18.7	-17.96/-17.82	-15.28/-13.31	-12.08/-11.75	-11.91/-12.36	-12.96/-13.54	-14.04/-14.59	-15.32/-16.22	-16.16/-16.91	-17.11/-18.3	-18.28/-18.72	-19.69/-19.05	-16.43/-19.05	-18.22/-17.9	-16.33/-15.5	-14.4/-13.48	-13.21/-13.09	-13.77/-15.32	-17.96/-17.5	-18.98/-18.6
Theta(172.5°)	-18.68/-17.82	-18.65/-16.09	-16.11/-16.5	-16.99/-17.73	-19.24/-18.52	-17.84/-18.7	-19.05/-18.65	-17.53/-19.65	-18.06/-17.09	-15.7/-15.03	-14.98/-14.95	-15.72/-17.01	-17.96/-18.51	-18.38/-18.31	-18.33/-18.21	-17.9/-17.21	-16.28/-15.41	-14.73/-14.55	-14.8/-14.93	-14.71/-14.1	-13.72/-13.79	-14.39/-15.74	-18.2/-17.91	-17.76/-17.73
Theta(180°)	-16.06/-14.78	-13.93/-13.46	-13.35/-13.34	-13.24/-13.15	-13.21/-13.52	-13.92/-14.34	-14.77/-15.54	-16.88/-18.37	-19.56/-18.23	-19.38/-18.41	-18.02/-18.35	-17.61/-18.61	-17.24/-15.72	-14.87/-14.43	-13.76/-13.55	-13.35/-13.83	-14.12/-14.6	-15.08/-16.02	-17.41/-18.93	-17.66/-18.93	-18.89/-18.92	-17.3/-18.08	-17.31/-19.33	-19.08/-18
Theta(187.5°)	1.24/2.4	3.31/3.96	4.47/4.8	5.01/5.09	4.99/4.65	4.08/3.25	2.13/0.8	-0.78/-2.55	-4.82/-8.1	-14.81/-8.9	-10.77/-5.6	-2.55/-0.4	1.17/2.35	3.28/3.96	4.44/4.78	4.96/5.01	4.87/4.58	4.09/3.38	2.42/1.2	-0.43/-2.52	-5.29/9.41	-17.46/-16.69	-10.17/5.42	-2.45/-0.3
Theta(195°)	1.893/0.6	3.94/4.57	5.03/5.32	5.47/5.47	5.34/8.8	4.2/3.3	2.1/0.63	-1.12/-3.19	-5.84/-9.74	-18.21/-18.47	-10.11/-5.73	-2.99/-1.05	0.39/1.51	2.44/3.13	3.66/4.03	4.29/4.42	4.43/4.26	3.9/3.3	2.42/1.25	-0.32/-2.37	-5/-8.93	-15.49/-18.28	-9.04/-4.71	-1.75/0.3
Theta(202.5°)	2.17/2.32	4.03/4.61	5.03/5.26	5.38/5.63	5.09/4.65	4.02/3.15	2.03/0.56	-1.23/-3.3	-5.99/-9.67	-16.61/-17.7	-11.44/6.79	-4.03/-2.05	-0.56/0.6	1.53/2.27	2.85/2.26	3.								



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta (°)	0.871-0.94	-3.491-5.87	-7.821-10.18	-16.361-17.81	-10.951-6.2	-2.871-0.46	1.251-2.52	3.391-9.33	4.241-4.45	4.461-3.1	4.131-7.4	2.961-9.5	0.611-1.4	-4.121-8.57	-18.051-17.05	-10.61-8.93	-8.571-6.27	-3.361-1.07	0.411-6	2.591-24	3.631-78	3.641-32	2.911-48	2.151-68	
Theta (30°)	1.181-0.2	-2.591-5.87	-6.911-8.21	-11.321-17.81	-12.021-5.18	-1.241-0.3	2.161-2.62	2.931-9.29	3.641-8.7	4.021-9.3	3.771-38	2.751-9	0.811-1.05	-3.911-7.87	-14.381-16.9	-12.261-12.02	-10.081-6.27	-3.911-1.19	0.641-9.6	2.931-24	3.331-47	3.631-86	3.671-87	2.131-65	
Theta (45°)	1.481-0.7	-2.211-4.73	-8.421-9.9	-16.141-18.29	-11.041-4.71	-1.881-0.4	0.321-2.1	2.221-9.3	3.331-42	3.171-48	1.811-34	0.991-18	-0.621-2.04	-4.181-7.47	-12.961-17.85	-18.441-19.16	-12.691-6.92	-3.331-1.14	0.591-6	1.941-27	2.521-72	2.921-77	2.011-18	1.291-45	
Theta (60°)	1.221-0.54	-3.031-5.1	-8.671-13.92	-18.441-15.9	-9.991-5.94	-2.081-0.53	0.671-1.7	1.861-39	3.181-46	2.931-11	1.331-68	0.411-19	-0.921-3.66	-6.191-6.75	-8.741-12.8	-13.461-13.45	-11.571-6.72	-4.521-2.74	-1.281-0.24	0.791-1.48	1.171-21	1.041-0.3	0.251-0.18	0.071-0.73	
Theta (75°)	-0.771-2.87	-5.191-7.75	-12.131-19.74	-17.491-16.04	-11.131-5.24	-2.641-2.18	-1.671-1.47	-0.721-0.84	1.751-6.9	1.291-1.3	0.691-0.77	-2.311-1.84	-2.191-4.41	-6.231-7.41	-9.451-15.34	-12.481-13.51	-8.281-5.67	-4.511-5.77	-3.971-2	-1.241-1.64	-2.771-3.41	-3.251-2.23	-0.341-1.34	1.121-0.1	
Theta (90°)	-2.91-5.63	-6.511-8.1	-14.251-19.07	-18.641-16.77	-10.581-6.21	-4.611-3.93	-3.911-3.74	-2.511-0.83	0.041-0.42	-1.061-0.86	-0.921-1.79	-3.811-4.57	-4.341-4.46	-6.431-8.85	-10.841-17.75	-12.571-14.51	-10.361-6.96	-4.611-6.78	-3.231-1.67	-0.261-0.67	-2.221-2.59	-4.231-3.19	-1.081-0.08	-0.091-1.98	
Theta (105°)	-15.761-16.12	-12.241-15.3	-18.411-15.61	-18.941-18.26	-18.661-19.28	-14.161-12.75	-12.111-9.45	-9.431-7.53	-8.041-9.51	-8.681-17	-8.211-0.1	-9.611-10.3	-12.481-10.3	-11.791-12.17	-17.941-17.75	-18.991-17.93	-18.961-16.7	-15.551-11.4	-6.671-6.41	-1.111-1.48	-2.011-2.96	-6.121-5.76	-2.921-2.45	-2.581-4.08	
Theta (120°)	-14.381-18.33	-12.761-19.38	-17.921-18.1	-18.211-17.76	-18.931-15.82	-13.941-14.38	-13.731-12.47	-11.211-9.7	-10.111-10.8	-10.291-9.86	-10.141-11.56	-14.461-12.41	-11.611-12.87	-14.461-15.81	-17.521-18.1	-19.121-18.17	-19.261-18.19	-18.571-18.19	-15.391-12.29	-16.391-15.75	-15.771-14.62	-12.731-13.92	-15.221-17.27	-13.911-14.48	
Theta (135°)	-12.611-15.83	-15.241-17.28	-19.081-17.72	-17.591-17.17	-17.141-16.88	-16.631-15.98	-15.091-13.69	-12.841-11.93	-12.791-13.72	-12.261-10.93	-12.381-13.95	-15.781-15.15	-16.621-17.88	-18.761-18.25	-18.461-18.17	-18.761-18.25	-16.511-16.3	-16.541-14.53	-15.991-12.85	-11.871-10.78	-18.251-17.07	-19.251-17.07	-10.951-11.74	-10.951-11.74	
Theta (150°)	-15.761-16.76	-16.641-19.39	-18.671-18.96	-18.921-18	-17.461-17.83	-18.971-18.66	-19.661-18.89	-16.341-14.5	-12.941-13.47	-13.921-13.56	-11.871-11.87	-13.451-14.59	-15.371-18.84	-18.021-14.22	-15.511-14.7	-17.241-18.53	-18.931-17.99	-17.941-18.81	-18.341-17.46	-15.111-11.5	-12.371-12.7	-15.471-17.88	-18.931-18.83	-15.841-17.75	
Theta (165°)	-18.721-18.85	-19.011-18.71	-18.441-18.12	-17.761-17.97	-18.311-18.79	-18.351-18.99	-18.311-18.61	-16.541-14.22	-12.971-13.69	-15.451-15.59	-15.741-18.78	-18.321-16.25	-15.391-17.82	-18.231-17.35	-17.741-18.47	-18.151-18.42	-18.341-18.05	-17.191-18.74	-18.881-18.98	-18.891-17.86	-15.081-11.83	-12.381-15.5	-18.871-18.1	-17.911-18.56	
Theta (180°)	-18.261-18.96	-16.521-17.81	-18.831-17.86	-18.171-17.42	-18.611-18.82	-18.081-19.08	-19.351-16.76	-17.951-17.01	-15.311-13.33	-12.591-13.26	-13.461-14.5	-13.531-17.29	-18.951-18.2	-18.591-18.22	-18.311-18.31	-18.131-17.38	-18.591-18.94	-17.911-18.86	-18.051-18.05	-18.711-17.75	-18.811-18.56	-19.481-17.31	-18.291-19.32	-18.291-19.32	
Theta (210°)	-17.621-18.84	-17.651-18.78	-19.051-17.96	-18.571-18.5	-18.681-18.14	-19.041-19.98	-18.941-17	-17.511-17.21	-17.281-18.76	-18.511-18.75	-18.471-17.2	-18.681-17.53	-18.811-17.7	-17.781-17.1	-18.691-18.51	-17.291-18.63	-19.351-19.02	-17.871-18.88	-18.351-18.99	-18.061-18.65	-15.271-15.28	-18.891-18.04	-18.321-18.01	-18.611-17.83	
Theta (225°)	-19.131-18.47	-18.381-18.48	-18.961-19.65	-18.421-17.69	-19.191-17.21	-17.711-18.92	-19.311-17.17	-18.331-17.55	-18.611-17.43	-16.391-15.24	-13.771-14.67	-18.151-17.44	-16.461-14.51	-14.251-17.39	-18.971-18.91	-18.381-18.45	-17.941-17.97	-18.021-17.67	-19.051-18.66	-17.571-18.4	-18.811-18.09	-18.471-17.25	-19.281-19.2	-19.011-17.78	
Theta (240°)	-17.971-18.11	-18.731-17.81	-17.951-17.62	-16.361-17.22	-18.881-17.88	-17.811-18.97	-18.181-18.3	-19.171-17.39	-17.841-18.06	-18.261-19.3	-18.271-19.09	-18.151-18.4	-17.611-17.03	-18.791-17.21	-17.211-16.47	-17.371-18.99	-19.091-18.76	-18.521-17.74	-18.891-18.69	-18.461-16.16	-18.761-17.81	-18.611-18.59	-17.921-17.2	-19.351-18.93	
Theta (255°)	-17.371-19.61	-18.471-19.73	-18.561-19.13	-18.361-18.22	-17.911-18.75	-17.781-17.99	-18.211-18.69	-17.981-18.83	-17.911-17.78	-17.901-18.44	-17.381-18.67	-19.021-18.72	-18.631-17.94	-18.671-17.5	-17.221-15.77	-17.131-18.26	-18.061-18.03	-17.641-17.4	-17.851-18.36	-18.311-18.1	-19.041-18.09	-18.911-19.24	-18.851-18.16	-18.121-18.26	
Theta (270°)	-17.811-16.54	-15.611-15.91	-16.711-17.27	-18.011-18.54	-18.691-18.66	-17.921-18.68	-18.431-18.11	-18.131-18.45	-17.571-17.53	-18.741-18.1	-17.671-18.73	-18.841-18.87	-18.831-18.39	-18.821-14.46	-11.931-11.45	-12.441-12.98	-13.021-12.56	-12.891-13.99	-15.621-15.82	-15.971-17.3	-18.421-19.19	-18.911-18.02	-17.711-17.48	-16.991-16.79	
Theta (300°)	5.31-0.6	ThetaAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gain	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)	
Theta (0°)	-0.521-0.54	1.541-2.22	2.751-3.05	3.231-2.3	3.191-2.9	2.531-2.1	1.641-0.59	-1.361-3.48	-5.481-8.37	-14.851-18.1	-13.591-8.5	-5.391-2.74	-0.781-0.58	1.591-2.3	2.721-9.1	3.091-3.24	3.231-0.5	2.651-1.91	0.781-0.48	-1.771-3.44	-6.021-9.98	-17.371-19.22	-11.151-6.44	-3.571-7.1	
Theta (7.5°)	-0.771-0.38	1.191-1.79	2.261-2.64	2.891-3.1	3.311-3.1	2.761-2.08	1.371-0.38	-1.231-3.52	-6.11-9.48	-17.331-13.12	-11.121-6.14	-3.381-1.68	-0.231-2.13	2.211-8.5	3.061-0.5	2.951-2.9	2.751-4.9	2.011-2.9	0.111-1.51	-3.291-5.56	-8.751-14.1	-18.881-16.67	-10.361-6.82	-4.251-2.24	
Theta (15°)	-1.071-0.22	1.031-1.4	1.661-1.86	2.051-2.27	2.531-2.4	2.131-1.76	1.241-0.45	-0.671-2.14	-4.051-6.63	-11.551-18.57	-6.421-8.3	-2.521-2.93	1.091-4.2	1.471-9.7	2.071-8.6	2.961-8.9	2.611-2.9	2.191-6.2	0.461-2.3	-3.521-6.61	-10.821-17.82	-16.751-10.31	-6.421-4.05	-2.711-7.5	
Theta (22.5°)	-1.541-0.62	0.471-0.83	0.861-1.47	2.121-2.4	2.181-1.84	1.911-2.07	1.871-1.7	-0.131-1.9	-4.181-7.05	-11.761-19.1	-13.651-18.18	-5.151-2.8	-1.241-0.34	0.321-0.9	1.541-5.4	1.071-4.8	1.661-4.8	2.591-2.05	0.821-1.19	-3.971-7	-9.741-12.01	-12.441-10.88	-8.511-5.93	-3.571-2.13	
Theta (30°)	-0.991-0.37	0.511-0.47	-0.281-0.71	1.321-1.45	1.541-1.52	1.851-2.01	1.421-0.06	-2.361-4.42	-5.941-7.68	-10.831-16.98	-15.551-10.04	-6.131-3.1	-1.481-0.61	0.081-0.4	1.341-1.22	0.231-0.33	0.761-1.91	2.111-3.7	-0.151-2.27	-4.111-5.52	-7.371-10.16	-11.381-9.3	-6.891-6.43	-3.991-1.87	
Theta (45°)	-2.091-2.03	0.211-0.11	0.011-2.48	-0.261-1.1	-0.541-0.8	-0.931-1.06	-2.021-3.81	-5.581-6.63	-7.891-10.24	-11.281-18.81	-14.121-18.81	-17.711-18.81	-18.081-5.53	-6.421-2.35	-1.891-1.55	-2.091-1.6	-2.311-2.73	-1.681-2.48	-2.551-3.94	-6.321-9.39	-13.981-16.72	-13.851-10.62	-7.621-6.13	-11.511-5.04	
Theta (60°)	-6.71-3.9	-2.081-0.9	-1.441-3.69	-3.421-2.91	-3.041-3.09	-2.371-2.43	-3.681-5.1	-7.541-8.21	-9.781-14.41	-18.511-17.03	-15.911-12.61	-8.721-5.61	-4.661-3.97	-4.121-3.99	-4.431-2.98	-3.311-4.21	-3.081-3.66	-4.941-0.53	-4.711-5.74	-7.111-10.5	-16.571-19.42	-16.421-10.1	-6.111-5.22	-7.471-9.1	
Theta (75°)	-10.141-7.21	-5.761-3.91	-4.231-6.19	-6.111-5.37	-6.731-5.38	-5.411-5.41	-6.621-8.05	-9.631-10.47	-11.611-15.24	-18.851-15	-11.751-11.68	-12.971-9.95	-6.631-5.66	-6.311-6.7	-6.931-4.96	-3.911-5.97	-5.731-6.66	-7.931-7.64	-7.711-8.43	-10.041-13.98	-18.511-18.1	-16.721-9.97	-6.771-7.3	-10.251-12.4	
Theta (90°)	-15.941-10.2	-8.571-8.14	-8.951-9.9	-8.781-9.9	-10.541-8.97	-8.031-8.75	-10.021-10.57	-12.011-12.68	-14.121-18.81	-17.711-18.81	-17.431-13.15	-11.761-10.53	-12.011-10.86	-8.111-9.48	-8.791-7.42	-6.081-7.21	-6.671-7.76	-8.011-9.1	-9.261-9.04	-8.291-9.48	-11.341-16.46	-18.731-18.11	-15.341-8.03	-6.431-7.9	-13.621-18.16
Theta (105°)	-19.491-12.72	-13.471-14.78	-17.331-13.16	-12.061-17.97	-15.151-12.41	-11.541-12.27	-14.991-14.76	-17.271-18.43	-19.621-19.95	-18.461-15.22	-13.961-12.32	-13.591-11.54	-9.891-11.01	-9.871-11.02	-8.181-6.66	-8.891-9.87	-9.031-10.23	-11.011-9.78	-7.311-7.29	-10.021-10.07	-18.621-19.08	-17.781-17.93	-6.851-9.5	-15.911-18.45	
Theta (120°)	-18.051-16.59	-17.851-18.51	-17.341-17.35	-18.041-19.4	-17.451-16.49	-17.371-17.83	-18.771-18.89	-18.531-18.36	-17.																



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta (°)	Phi (°)	Phi(15°)	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 (75°)	-1.54/-2.91	-4.89/-8.12	-10.93/-17.36	-18.51/-13.72	-9.35/-8.3	-6.55/-5.14	-4.2/-0.94	0.51/-0.29	-1.22/-0.11	0.5/-0.41	-0.84/-0.86	-2.13/-4.76	-11.07/9.82	-8.71/-10.85	-12.73/-14.85	-14.66/-18.74	-10.74/-7.61	-6.23/-5.06	-8.6/-6.95	-4.53/-3.41	-3.33/-4.94	-3.24/-1.21	0.27/0.98	0.02/-1.21
Theta (75°)	-3.07/-4.01	-6.24/-9.43	-10.57/-17.36	-18.63/-14.37	-11.65/-9.43	-8.19/-6.52	-4.44/-1.57	-0.63/-1.01	-0.89/0.57	1.05/-0.05	-1.5/-1.61	-1.52/-3.29	-8.52/-15.19	-11.08/-12.88	-14.3/-14.57	-18.06/-17.56	-15.25/-9.54	-7.19/-5.64	-6.99/-4.6	-3.34/-2.11	-2.56/-3.89	-3.77/-1.32	-0.05/0.97	0.04/-2.03
Theta (75°)	-4.98/-6.96	-10.74/-10.82	-12.37/-17.6	-18.02/-16.5	-12.93/-11.8	-10.89/-9.22	-4.92/-2.1	-1.97/-2.42	-1.11/0.4	0.66/-0.91	-2.31/-2.58	-3.68/-5.17	-10.56/-15.81	-12.69/-15.47	-17.72/-17.9	-18.72/-18.07	-19.34/-10.54	-7.11/-7.07	-5.42/-4.77	-3.23/-2.12	-2.67/-3.71	-5.28/-2.83	-1.06/-0.82	-1.56/-3.7
Theta (90°)	-8.33/-9.07	-10.01/-12.78	-13.84/-18.89	-18.73/-16.81	-15.11/-14.82	-11.52/-9.62	-6.4/-3.46	-3.12/-3.48	-1.79/-0.93	-0.71/-1.99	-3.15/-3.91	-4.3/-5.01	-9.74/-16.69	-16.26/-16.14	-16.88/-16.47	-18.36/-18.51	-18.89/-15.66	-11.12/-9.35	-7.07/-5.85	-4.62/-3.57	-3.91/-5.01	-8.16/-4.03	-3.75/-3.87	-3.56/-6.07
Theta (97.5°)	-10.37/-10.43	-13.39/-14.93	-15.3/-18.32	-17.48/-18.96	-17.36/-19.17	-11.4/-10.64	-7.68/-5.36	-4.88/-4.82	-3.16/-2.49	-2.61/-4.26	-6.46/-7.14	-15.71/-17.87	-17.18/-15.71	-19.02/-18.05	-18.35/-19.17	-15.14/-13.5	-9.23/-8.98	-7.2/-6.41	-6.67/-3.5	-4.62/-3.57	-3.91/-5.01	-8.16/-4.03	-3.75/-3.87	-3.56/-6.07
Theta (105°)	-15.02/-13.05	-14.24/-16.33	-16.16/-18.93	-18.26/-17.6	-18.32/-18.58	-14.61/-13.03	-9.85/-8	-6.81/-6.59	-5.3/-4.54	-3.98/-4.97	-6.72/-7.25	-6.95/-6.65	-12.6/-15.27	-17.74/-18.52	-16.49/-18.39	-18.15/-18.51	-19.75/-18.41	-18.74/-17.53	-16.81/-15.39	-13.21/-11.57	-11.39/-10.83	-14.7/-10.73	-9.14/-8.42	-10.95/-12.16
Theta (112.5°)	-15.17/-13.69	-19.15/-18.63	-19.74/-19.23	-18.17/-18.27	-17.82/-18.36	-17.82/-15.79	-12.91/-9.52	-8.36/-8.48	-7.18/-6.38	-6.27/-7.16	-8.86/-9.75	-9.91/-10.36	-15.4/-18.56	-18.23/-17.58	-17.76/-18.04	-18.75/-18.12	-18.77/-18.82	-17.95/-17.69	-17.79/-16.99	-19.08/-17.02	-15.6/-12.73	-14.09/-15.04	-11.71/-11.11	-12.84/-13.1
Theta (120°)	-15.85/-15.27	-17.64/-18.43	-18.94/-18.77	-18.77/-18.3	-17.93/-18.88	-18.61/-15.14	-13.74/-11.83	-10.37/-9.66	-8.42/-7.3	-7.23/-7.96	-8.86/-10.4	-10.7/-12.42	-13.62/-17.82	-18.92/-17.42	-18.71/-17.75	-18.97/-17.79	-18.35/-18.21	-17.5/-18.62	-18.73/-19.14	-17.51/-15.55	-13.77/-14.65	-18.85/-16.49	-13.18/-12.08	-14.45/-12.81
Theta (127.5°)	-18.48/-17.88	-19.05/-19.47	-18.31/-18.17	-17.42/-18.68	-18.2/-19.09	-19.23/-16.9	-14.62/-13.11	-12.48/-12.78	-12.17/-10.01	-9.89/-11.2	-12.04/-11.33	-13.02/-14.88	-14.68/-18.06	-18.83/-18.3	-17.69/-18.52	-17.44/-17.54	-18.11/-18.24	-17.83/-17.59	-18.99/-17.75	-15.15/-15.85	-16.19/-15.02	-18.65/-16.6	-14.15/-13.45	-18.25/-17.96
Theta (135°)	-18.9/-19.33	-18.32/-18.88	-19.1/-19.07	-19.16/-18.9	-19.08/-18.17	-18.89/-17.84	-17.07/-16.91	-14.22/-11.75	-11.61/-11.09	-10.38/-11.2	-10.77/-11.05	-14.01/-14.81	-17.65/-16.96	-18.05/-18.59	-18.39/-19	-18.65/-18.09	-18.76/-18.81	-18.37/-18.73	-18.85/-18.14	-17.9/-18.82	-17.78/-17.56	-16.01/-13.39	-14.98/-17.85	-18.69/-17.88
Theta (142.5°)	-18.86/-18.66	-19/-18.3	-17.52/-18.51	-18.63/-18.99	-17.74/-18.52	-18.81/-19.11	-14.68/-13.14	-14.82/-14.66	-13.34/-12.85	-13.25/-13.02	-14.07/-14.63	-14.85/-16.52	-18.72/-19.03	-17.55/-19.1	-18.72/-18.28	-18.84/-19.25	-17.81/-17.54	-18.64/-18.29	-17.72/-18.46	-17.58/-18.6	-18.33/-18.81	-17.79/-18.54	-18.12/-18.55	-18.39/-19.32
Theta (150°)	-18.88/-17.65	-19.02/-18.62	-18.33/-17.42	-17.58/-19.28	-17.92/-18.56	-18.61/-18.31	-17.33/-16.92	-16.4/-17.1	-18.13/-17.55	-15.88/-14.54	-14.64/-15.98	-16.16/-16.99	-18.25/-19.04	-17.39/-18.34	-17.47/-18.68	-18.68/-18.55	-17.15/-18.54	-18.18/-18.12	-17.89/-18.01	-15.71/-15.36	-18.29/-18.01	-15.71/-15.36	-18.29/-18.01	-15.71/-15.36
Theta (157.5°)	-17.34/-19.26	-19.39/-18.37	-18.14/-17.98	-18.91/-18.47	-18.14/-17.39	-18.55/-18.7	-17.6/-18.19	-18.89/-17.38	-16.09/-15.59	-15.94/-16.41	-16.71/-16.73	-17.58/-18.48	-17.98/-18.68	-17.64/-18.4	-17.85/-18.57	-17.15/-19.28	-18.3/-18.33	-17.48/-17.67	-18.34/-18.33	-17.81/-18.22	-17.91/-17.69	-19.06/-18.86	-17.97/-17.89	-18.75/-18.56
Theta (165°)	-18.35/-18.96	-17.74/-18.29	-18.71/-18.06	-19.23/-18.22	-18.48/-18.92	-17.89/-18.82	-19.58/-18.23	-17.8/-17.82	-17.98/-17.87	-16.97/-16.23	-16.15/-16.14	-18.17/-17.8	-19.22/-17.86	-17.96/-19.04	-19.15/-18.52	-17.61/-18.84	-17.93/-17.54	-17.58/-18.6	-18.33/-18.81	-17.79/-18.54	-18.12/-18.55	-18.39/-19.32	-19.27/-17.54	-18.44/-18.84
Theta (172.5°)	-17.65/-17.35	-18.26/-18.44	-18.75/-17.67	-18.71/-18.27	-17.2/-17.62	-18.69/-18.71	-18.51/-19.35	-19.29/-17.63	-18.17/-17.34	-17.27/-17.73	-18.39/-19.18	-18.91/-18.56	-18.42/-19.37	-18.41/-18.01	-19.02/-17.22	-18.96/-18.55	-19.09/-18.01	-17.93/-17.68	-17.88/-18.95	-18.77/-18.59	-18.55/-19.18	-17.85/-18.11	-19.05/-17.41	-18.09/-19.21
Theta (180°)	-18.95/-17.54	-18.06/-18.6	-19.04/-18.64	-19.25/-19	-17.56/-18.95	-17.81/-18.86	-18.19/-18.87	-17.57/-16.31	-16.18/-16.76	-17.64/-18.4	-18.49/-17.87	-18.26/-18.46	-19.13/-17.86	-18.25/-18.59	-18.12/-17.33	-18.47/-18.1	-19.11/-18.42	-19.25/-18.25	-18.99/-17.2	-18.41/-18.32	-19.26/-18.5	-17.87/-18.62	-18.48/-18.44	-18.18/-18.38
Theta (180°)	5.785/Phi(7.5°)	Theta/Ant. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Phi(0°)	Phi(15°)	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 (0°)	1.062/1.9	3.173/3.83	4.274/6.2	4.884/8.7	4.774/6.5	4.423/8	2.781/5	-0.03/-2.12	-5.11/9.23	-1.91/-5.37	-8.13/-4.03	-1.420/2.9	1.742/9.5	3.744/19	4.454/7.1	4.955/0.5	5/8	4.413/7.7	2.861/5.6	-0.15/-2.12	4.8/-2.7	19.25/-17.82	-8.87/-4.76	-1.95/-0.04
Theta (7.5°)	1.642/68	3.554/12	4.534/78	4.974/85	4.564/2	4.093/8	3.071/77	0.28/-1.06	-3.2/-6.75	-1.289/-1.73	-11.44/-5.81	-2.43/-4.04	0.822/0.7	3.193/81	4.24/41	4.444/25	3.953/64	3.222/46	1.410/16	-1.6/-3.8	-6.47/-11.11	-18.04/-12.63	-7.11/-4.39	-1.20/5.4
Theta (15°)	0.221/15	2.103/9	3.059/32	4.54/4	4.083/77	3.53/16	2.671/51	-0.22/-2.02	-4.26/-7.54	-1.26/-18.28	-13.93/-7.4	-3.31/-9	0.321/29	2.43/24	3.693/67	3.352/82	2.121/33	0.770/51	0.15/-0.43	-1.72/-12.49	-6.97/-12.44	-18.89/-12.64	-7.85/-4.54	-2.45/0.8
Theta (22.5°)	-0.020/95	1.161/87	3.013/33	3.273/39	3.643/78	3.523/03	2.020/49	-1.38/-3.3	-5.74/-9.65	-17.74/-18.13	-11.71/-7.43	-3.81/-1.37	0.221/17	1.41/47	1.531/58	1.570/96	-0.27/-0.73	0.171/15	1.08/-0.29	-2.8/-6.57	-11.86/-18.54	-18.3/-12.23	-7.58/-4.08	-1.99/-1.03
Theta (30°)	0.280/67	0.770/78	1.862/19	2.812/95	3.053/15	2.491/38	0.11/-0.98	-1.87/-3	-5.08/-8.84	-17.99/-16.23	-9.44/-6.7	-4.84/-2.47	-0.79/-0.05	0.110/32	0.680/6	0.27/-0.77	-1.94/-1.08	0.731/47	0.71/-1.17	-3.52/-5.85	-8.38/-11.88	-17.61/-18.73	-7.67/-4.64	-1.86/-0.11
Theta (37.5°)	0.150/59	0.422/0.1	-0.80/89	1.921/97	1.991/51	0.76/-0.26	-1.25/-2.22	-3.66/-5.3	-7.18/-10.47	-19.01/-12.2	-7.15/-3.6	-4.43/-2.47	-0.12/-0.99	-0.921/64	-0.571/-3.27	-3.39/-1	0.440/35	-0.96/-2.96	-4.54/-5.75	-8.24/-11.06	-16.74/-9.44	-8.63/-4.82	-2.92/-0.91	
Theta (45°)	-1.220/0.1	0.1/-1.44	-3.26/-1.27	-0.18/-0.25	-0.520/0.7	-0.64/-1.77	-2.65/-4.22	-5.44/-6.15	-8.2/-12.25	-18.42/-13.9	-8.52/-6.21	-5.54/-4.83	-2.27/-1.17	-2.04/-2.41	-2.12/-2.08	-3.22/-5.16	-4.29/-2.17	-0.63/-1.06	-2.92/-4.84	-6.04/-7.67	-11.26/-17.67	-13.68/-9.11	-8.93/-8.68	-5.74/-2.48
Theta (52.5°)	-3.35/-2.2	-1.87/-2.57	-5.22/-3.34	-2.97/-3.54	-2.1/-1.31	-2.27/-4.08	-6.1/-7.63	-7.48/-9.72	-11.37/-10.08	-18.69/-13.58	-7.77/-13.3	-8.66/-9.33	-3.53/-3.24	-3.12/-3.79	-3.95/-4.77	-5.73/-9.57	-4.79/-2.35	-2.4/-2.94	-5.01/-7.63	-6.38/-3.82	-12.75/-11.88	-15.68/-12.62	-10.06/-10.96	-10.05/-3.4
Theta (60°)	-8.82/-6.73	-5.25/-9.53	-8.41/-7.8	-2.97/-4.3	-5.13/-3.61	-5.25/-8.56	-10.72/-9.66	-9.82/-11.99	-18.11/-18.25	-19.74/-14.2	-9.89/-12.47	-8.01/-4.74	-4.49/-5.51	-5.94/-7.68	-7.5/-6.1	-5.34/-2.17	-5.57/-7.17	-8.99/-9.39	-7.4/-9	-14.82/-18.77	-13.71/-11.67	-9.55/-12	-17.04/-11.15	
Theta (67.5°)	-16.73/-12.47	-10.92/-12.65	-12.38/-11.45	-12.61/-16.24	-9.09/-7.85	-9.34/-13.83	-15.82/-12.17	-14.54/-18.7	-17.93/-18.26	-17.19/-16.74	-13.13/-8.9	-9/-11.27	-8.52/-6.81	-7/-8.06	-9.01/-8.25	-6.9/-6.6	-6.89/-6.21	-7.93/-10.18	-13.64/-11.08	-9.36/-13.98	-17.51/-18.9	-17.88/-13.38	-13.14/-18.69	-18.02/-18.91
Theta (75°)	-18.19/-16.78	-14.62/-18.22	-19.08/-16.41	-18.37/-17.67	-15.08/-13.56	-13.18/-18.28	-17.75/-14.15	-15.39/-15.74	-18.09/-17.34	-17.94/-18.39	-18.34/-16.86	-11.41/-11.21	-10.66/-8.95	-8.34/-9.12	-9.55/-12.44	-8.05/-7.41	-8.92/-0.04	-9.62/-10.71	-12.52/-10.91	-8.99/-14.3	-18.86/-18.94	-17.45/-18.02	-19.17/-18.26	-18.62/-17.32
Theta (82.5°)	-17.97/-18.26	-17.76/-17.9	-19.14/-18.13	-17.92/-18.59	-18.27/-18.49	-18.38/-17.83	-18.11/-17.09	-16.83/-17.29	-18.32/-16.76	-18.99/-18.64	-17.55/-16.29	-12.88/-12.7	-11.23/-10.51	-10.43/-14.01	-13.44/-12.27	-8.87/-10.12	-11.77/-11.66	-10.61/-11.9	-12.52/-10.35	-8.14/-13.31	-18.17/-18.38	-18.88/-18.26	-18.75/-17.92	-18.81/-19.03
Theta (90°)	-17.68/-18.96	-17.82/-18.84	-18.26/-19.25	-19.41/-16.89	-17.99/-18.9	-18.11/-17.81	-18.96/-17.79	-17.17/-16.22	-15.81/-19.1	-18.93/-18.9	-17.74/-17.23	-15.81/-12.09	-12.82/-12.59	-13.73/-14.99	-13.44/-18.92	-11.77/-11.57	-12.09/-12.							



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta (112.5°)	-13.55/-12.73	-11.39/-8.64	-8.17/-10.54	-9.87/-8.78	-8.84/-11.32	-11.27/-9.78	-9.49/-11.74	-13.72/-15.05	-15.63/-18.87	-18.08/-18.11	-17.95/-19.11	-16.74/-17.55	-17.98/-13.7	-13.47/-17.58	-18.75/-18.2	-13.14/-10.45	-17.77/-18.92	-18.23/-15.79	-13.41/-13.71	-14.44/-17.67	-16.99/-14.77	-17.62/-18.43	-18.13/-18.67	-16.67/-16.34
Theta (120°)	-19.51/-15.72	-14.75/-11.44	-10.72/-10.66	-11.3/-9.2	-9.7/-11.16	-13.02/-14.26	-14.55/-11.37	-12.49/-18.38	-14.37/-16.62	-17.81/-18.12	-16.64/-19.11	-18.66/-18.2	-15.91/-16.34	-13.56/-18.65	-17.47/-19.19	-18.46/-18.34	-13.21/-18.92	-17.48/-19.10	-10.53/-13.21	-16.41/-17.77	-18.45/-14.78	-17.39/-18.25	-17.97/-19.1	-15.74/-17.64
Theta (127.5°)	-13.63/-14.96	-12.33/-14.77	-12.66/-12.96	-12.34/-12.33	-13.02/-15.47	-15.13/-15.36	-17.19/-14.4	-14.51/-18.08	-18.71/-19.04	-18.55/-18.66	-18.81/-18.26	-18.65/-18.6	-18.66/-18.18	-14.09/-18.34	-16.23/-17.92	-13.35/-13.22	-12.22/-13.63	-14.93/-14.5	-17.61/-18.67	-18.71/-18.7	-17.19/-18.6	-18.76/-19.15	-17.37/-19.2	-17.41/-15
Theta (135°)	-19.39/-17.32	-13.41/-12.94	-14.31/-13.08	-11.87/-11.99	-14.44/-13.96	-12.13/-14.77	-17.48/-18.47	-17.36/-17.74	-18.3/-19.01	-18.63/-19.74	-18.57/-18.34	-17.15/-18.16	-17.64/-18.44	-19.43/-18.32	-18.51/-19.09	-18.58/-17.07	-18.35/-19.22	-18.58/-18.11	-19.01/-19.19	-19.17/-17.31	-19.37/-18.61	-17.91/-19.24	-18.01/-18.43	-17.94/-18.28
Theta (142.5°)	-18.29/-18.97	-19.21/-18.36	-16.84/-16.12	-16.19/-17.78	-18.51/-18.68	-17.49/-15.22	-13.85/-16.22	-17.44/-17.22	-18.93/-19.1	-17.79/-18.38	-18.86/-19.14	-19.93/-17.43	-17.92/-18.99	-18.88/-18.15	-18.82/-17.44	-17.92/-18.41	-17.34/-17.94	-19.17/-18.73	-17.83/-18.3	-18.47/-18.06	-18.22/-17.59	-18.55/-19.11	-17.87/-19.12	-17.41/-17.78
Theta (150°)	-18.15/-18.35	-18.57/-18.72	-16.63/-16.52	-17.55/-17.66	-18.3/-18.65	-17.87/-18.45	-18.05/-15.96	-15.71/-19.05	-19.39/-18.07	-19.15/-18.29	-18.74/-18.73	-19.03/-17.87	-17.95/-17.86	-18.96/-18.23	-18.22/-18.34	-17.61/-18.61	-17.36/-13.64	-17.49/-18.92	-19.03/-18.06	-18.22/-19.01	-18.47/-18.12	-17.81/-19.12	-17.87/-19.12	-17.41/-18.23
Theta (157.5°)	-18.61/-18.23	-18.67/-18.82	-15.28/-13.88	-14.14/-15.67	-16.83/-16.63	-16.41/-14.4	-13.24/-14.83	-19.12/-17.29	-18.37/-16.16	-15.28/-16.45	-19.21/-18.68	-17.84/-18.24	-19.32/-18.57	-18.01/-18.11	-18.61/-19.22	-17.69/-17.67	-18.21/-19.1	-18.27/-18.55	-19.31/-16.01	-14.98/-18.06	-17.36/-17.21	-18.76/-19.06	-17.94/-19.09	-18.41/-17.29
Theta (165°)	-18.74/-18.89	-17.91/-18.15	-17.86/-18.57	-18.11/-18.38	-17.42/-19.89	-18.72/-17.89	-18.71/-18.04	-18.27/-19.34	-17.36/-19.93	-18.17/-19.73	-18.27/-18.37	-18.32/-18.1	-18.04/-18.2	-19.17/-17.77	-17.71/-19.23	-19.24/-18.05	-18.29/-17.42	-18.56/-18.09	-18.95/-16.54	-17.14/-17.74	-18.75/-17.94	-18.75/-17.72	-18.36/-17.63	-18.39/-18.88
Theta (172.5°)	-19.18/-18.16	-17.93/-17.94	-17.91/-19	-16.76/-14.9	-14.89/-14.59	-14.16/-15.42	-15.75/-14.87	-15.17/-17.22	-18.13/-19.08	-17.89/-18.82	-17.76/-19.31	-18.43/-18.11	-17.78/-18.27	-18.98/-17.96	-14.62/-14.42	-18.59/-18.48	-18.68/-18.55	-18.44/-18.52	-17.37/-18.42	-18.41/-18.52	-18.54/-18.11	-18.75/-18.8	-17.45/-17.82	-19.06/-18.93
Theta (180°)	-17.75/-18.26	-18.49/-18.47	-18.34/-18.92	-18.24/-18.29	-17.96/-18.14	-18.93/-18.14	-17.34/-19.08	-19.26/-17.95	-18.66/-17.15	-18.03/-17.97	-17.76/-18.45	-18.32/-18.7	-18.19/-18.92	-17.84/-18.41	-18.12/-19.31	-17.73/-18.28	-19.23/-18.62	-16.81/-15.6	-16.41/-17.37	-18.56/-18.34	-18.97/-18.7	-17.64/-19.41	-18.68/-17.41	-18.18/-19.12
Freq(Hz)	5.20/Pol	Theta/Ant 2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Phi(0°)/Phi(7.5°)	Phi(15°)/Phi(22.5°)	Phi(30°)/Phi(37.5°)	Phi(45°)/Phi(52.5°)	Phi(60°)/Phi(67.5°)	Phi(75°)/Phi(82.5°)	Phi(90°)/Phi(97.5°)	Phi(105°)/Phi(112.5°)	Phi(120°)/Phi(127.5°)	Phi(135°)/Phi(142.5°)	Phi(150°)/Phi(157.5°)	Phi(165°)/Phi(172.5°)	Phi(180°)/Phi(187.5°)	Phi(195°)/Phi(202.5°)	Phi(210°)/Phi(217.5°)	Phi(225°)/Phi(232.5°)	Phi(240°)/Phi(247.5°)	Phi(255°)/Phi(262.5°)	Phi(270°)/Phi(277.5°)	Phi(285°)/Phi(292.5°)	Phi(300°)/Phi(307.5°)	Phi(315°)/Phi(322.5°)	Phi(330°)/Phi(337.5°)	Phi(345°)/Phi(352.5°)
Theta (0°)	0.11/1.06	-2.99/5.34	-8.04/12.11	-19.36/17.57	-10.95/7.13	-4.25/2.23	-0.81/2.05	0.92/1.32	1.69/2.06	2.38/2.6	2.52/2.09	1.44/0.6	-0.34/-1.41	-2.82/4.99	-8.32/14.52	-19.06/16.61	-8.85/5.22	-3.38/1.86	-0.33/0.79	1.68/2.27	2.49/2.59	2.66/2.6	2.35/1.86	1.27/0.79
Theta (7.5°)	0.81/0.31	-1.76/-3.51	-6.12/10.46	-17.37/17.35	-11.45/-7.16	-3.94/-1.89	-0.93/2.1	1.31/1.86	1.85/1.68	1.71/1.75	1.61/1.22	0.65/0.17	-1.11/-2.17	-3.51/5.29	-8.12/12.85	-17.05/13.09	-8.36/5.16	-3.35/-2.04	-0.66/0.62	1.58/1.12	2.37/2.59	2.88/3.06	3.02/2.69	2.24/1.65
Theta (15°)	1.16/0.07	-1.44/2.89	-4.57/10.41	-11.23/15.35	-12.39/8.06	-4.94/-2.69	-1.36/0.62	0.15/0.84	1.21/1.39	1.51/1.62	1.46/0.83	-0.07/0.1	-1.11/-2.17	-4.51/6.42	-8.51/10.81	-17.31/12.3	-9.76/6.5	-3.67/1.97	-0.81/0.4	1.59/2.9	2.16/2.4	2.69/2.93	2.98/2.88	2.64/2.04
Theta (22.5°)	0.51/0.73	-1.82/3	-4.71/7.02	-9.81/12.13	-9.86/6.81	-4.43/2.3	-0.86/0.08	0.37/0.87	1.15/1.09	0.63/1.03	1.57/1.1	0.41/0.05	-1.02/-2.72	-4.38/5.49	-7.33/10.71	-14.55/13.82	-10.27/6.61	-3.55/1.49	-0.14/0.88	1.67/2.03	2.12/2.38	2.83/3	2.91/2.63	2.11/1.46
Theta (30°)	-0.09/-0.82	-1.76/-3.24	-5.26/7.16	-9.43/9.83	-7.74/-5.63	-3.96/2.05	-0.49/0.2	0.48/0.85	0.89/0.87	0.17/0.34	0.93/1.1	0.68/0.16	-1.14/-2.72	-3.69/5.12	-8.96/13.91	-13.33/11.47	-9.48/7.24	-4.84/-2.7	-1.01/0.33	1.11/2.39	1.33/1.53	1.78/2.17	2.09/2.1	1.71/0.95
Theta (37.5°)	-0.41/-1.1	-2.18/4.14	-6.09/7.88	-8.68/6.83	-6.93/6.4	-4.51/3.13	-1.44/0.04	0.50/0.76	0.87/0.31	-1.21/1.29	-0.56/1.33	0.68/0.31	-1.41/3.78	-5.61/9.19	-14.62/14.14	-12.64/11.73	-10.81/9.74	-6.13/4.01	-2.31/0.78	1.22/2.4	0.08/0.09	0.06/0.35	1.09/1.16	0.73/0.02
Theta (45°)	-2.13/-2.45	-3.84/-5.54	-6.92/6.74	-6.97/8.71	-10.15/8.93	-5.97/4	-2.95/-1.19	0.07/0.04	-0.35/-0.81	-3.37/-2.26	-0.03/0.83	0.24/0.63	-2.45/-4.21	-7.04/13.38	-18.12/15.38	-11.54/-8.44	-8.37/9.02	-8.31/6.5	-4.54/-2.78	-1.11/0.7	-1.18/2.04	-2.52/1.78	-0.82/-0.75	-1.52/-1.8
Theta (52.5°)	-4.05/-4.95	-6.24/-6.86	-6.78/6.82	-8.11/10.14	-10.56/9.71	-6.42/-3.99	-3.72/2.58	-0.94/0.46	-1.52/-3.44	-4.35/-2.67	-1.34/-1.44	-1.97/-2.84	-4.34/-6.11	-9.71/18.64	-18.96/-19.2	-11.58/-8.45	-8.54/-10.42	-11.21/10.53	-9.04/-6.51	-3.03/-2.11	-3.14/-4.46	-4.84/-4.74	-4.74/-4.33	-3.28/3.13
Theta (60°)	-8.02/-8.11	-8.19/8.3	-7.93/8.4	-9.74/10.75	-9.53/7.9	-5.93/4.46	-4.64/3.88	-2.98/2.4	-2.39/-4.87	-2.83/-3.22	-3.81/-5.27	-1.72/-3.39	-8.93/16.61	-19.07/18.08	-15.16/-10.05	-9.05/10.96	-13.95/18.66	-15.19/10.65	-6.78/5.76	-7.17/5.1	-5.89/8.3	-10.36/6.68	-4.62/4.91	
Theta (67.5°)	-10.21/-9.53	-9.31/-8.85	-9.61/11.52	-13.06/11.15	-8.84/8.84	-8.02/-5.36	-5.79/5.44	-4.36/3.51	-5.5/-5.78	-7.61/-5.62	-4.52/-4.7	-5.86/-7.21	-8.14/-7.61	-8.21/6.77	-18.19/17.68	-17.51/9.14	-8.19/10.56	-16.24/19.17	-18.75/15.08	-10.1/10.1	-10.56/9.9	-9.95/15.82	-13.92/-8.36	-6.78/8.46
Theta (75°)	-12.29/-10.42	-11.84/-10.88	-12.71/13.26	-12.71/10.59	-9.27/9.84	-8.79/-7.39	-7.17/7.29	-7.37/6.81	-8.66/-7.98	-9.25/6.58	-5.4/6.31	-8.57/-8.7	-7.99/7.9	-8.06/15.99	-19.38/18.67	-7.42/11.01	-16.51/14.2	-10.08/17.05	-13.19/13.97	-13.29/13.18	-14.96/13.18	-13.56/12.31	-10.61/12.12	
Theta (82.5°)	-15.47/-12.43	-12.23/-11.82	-11.41/14.2	-11.95/11.89	-8.81/8.75	-8.45/8.94	-10.62/7.72	-8.43/8.43	-14.69/10.98	-8.58/10.6	-11.15/18.08	-18.59/16.35	-11.71/8.43	-8.27/11.45	-18.29/19.39	-17.77/15.22	-11.51/15	-15.21/5.87	-18.91/18.5	-12.82/12.35	-12.51/15.57			
Theta (90°)	-13.99/-12.94	-14.09/-12.82	-12.71/16.24	-14.33/12.66	-14.12/15.05	-11.23/11.64	-9.69/10.61	-12.22/9.74	-9.35/10.51	-13.73/9.99	-7.71/11.56	-17.17/12.44	-8.82/10.37	-12.55/18.53	-18.72/15.94	-12.18/9.72	-8.85/14.87	-17.62/18.4	-17.91/15.66	-13.07/17.44	-14.73/14.08	-17.63/16.97	-11.38/13.07	-16.36/18.87
Theta (97.5°)	-17.41/-13.72	-16.34/-15.25	-15.16/16.41	-13.75/13.82	-16.75/12.83	-11.83/14.73	-11.08/14.08	-12.19/12.68	-11.95/13.82	-16.31/11.97	-10.64/15.66	-17.21/14.29	-11.41/12.93	-14.55/16.66	-18.59/18.07	-13.92/12.19	-11.31/19.19	-18.04/19.17	-18.05/18.93	-15.68/16.53	-14.73/13.34	-18.48/18.7	-10.65/10.66	-13.87/18.98
Theta (105°)	-17.48/-18.86	-18.38/-15.62	-15.11/16.56	-14.57/15.9	-17.41/13.52	-14.02/17.53	-12.42/17.35	-14.18/14.48	-15.64/16.12	-13.82/15.27	-12.82/14.47	-15.44/18.84	-17.75/18.1	-18.98/18.82	-17.49/19.09	-17.52/18.68	-18.99/17.9	-18.99/17.9	-17.97/16.34	-19.13/13.98	-17.23/18.04	-13.21/10.53	-11.49/17.48	
Theta (112.5°)	-15.81/-16.66	-17.85/-15.61	-14.09/15.66	-16.75/18.14	-17.12/15.32	-16.07/14.5	-15.41/18.7	-15.48/18.02	-16.33/18.3	-18.93/16.64	-17.29/18.69	-16.99/12.47	-14.61/15.17	-16.01/19.07	-17.54/19.09	-18.64/17.82	-18.49/18.29	-18.65/17.82	-17.67/17.19	-16.89/18.88	-18.73/14.21	-18.99/17.61	-16.81/11.91	-13.14/15
Theta (120°)	-12.96/-12.79	-14.82/13.55	-14.63/17.69	-18.01/18.95	-16.12/17.22	-19.13/15.57	-19.13/16.69	-18.76/18.06	-17.17/18.62	-18.33/18.73	-19.33/18.29	-18.43/15.41	-18.71/17.33	-15.61/19.21	-18.93/18.88	-18.96/17.13	-18.76/18.22	-17.81/18.79	-18.99/14.91	-18.38/18.24	-16.49/17.94	-18.01/13.11	-13.52/18.55	-15.12/13.07
Theta (127.5°)	-11.74/-19.74	-15.58/-18.74	-18.82/-18.39	-18.19/18.68	-18.83/18.63	-17.78/18.84	-18.34/16.45	-18.37/18.18	-19.09/19.16	-17.47/18.62	-18.41/18.43	-18.74/18.23	-18.59/18.45	-17.75/18.17	-17.95/18.37	-19.19/19.14	-17.32/18.17	-18.82/19.83	-19.31/18.54	-15.49/18.34	-18.28/11.22	-12.52/16.27	-18.24/16.59	
Theta (135°)	-17.97/-19.04	-18.03/18.38	-17.82/14.62	-15.91/19.1	-17.05/17.39	-17.99/18.22	-18.56/18.78	-18.94/17.99	-17.32/17.22	-18.06/18.28	-17.97/19.31	-15.76/14.7	-19.09/18.57	-18.71/17.97	-18.05/18.24	-18.21/17.83	-18.25/17.54	-18.04/19.23	-18.14/18.56	-19.18/99	-17.93/19.05	-17.88/17.79	-14.15/12.38	-15.34/12.87
Theta (142.5°)	-15.87/-16.71	-16.25/16.65	-16.63/17.19	-18.51/17.83	-17.03/18.38	-18.24/18.92	-19.24/19.02	-18.65/18.05	-19.48/18.58	-18.33/18.94	-19.05/19.29	-19.18/13	-19.07/17.88	-19.18/10.65	-18.63/17.46	-17.78/18.72	-18.54/19.11	-18.95/17.3	-18.29/19.05	-18.36/19.76	-18.77/18.82	-18.95/18.57	-16.11/14.22	-13.99/13.87
Theta (150°)	-14.24/-15.31	-17.95/-18.42	-17.96/18.55	-18.11/18.4	-18.89/18.02	-18.34/19.31	-18.15/18.15	-19/18.94	-18.77/17.2	-17.37/15.73	-16.82/16.76	-17.25												



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta	165°	172.5°	180°	187.5°	195°	202.5°	210°	217.5°	225°	232.5°	240°	247.5°	255°	262.5°	270°	277.5°	285°	198°	191.5°	185°	178.5°	172.5°	166.5°	160.5°	154.5°	148.5°	142.5°	136.5°	130.5°	124.5°	118.5°	112.5°	106.5°	100.5°	94.5°	88.5°	82.5°	76.5°	70.5°	64.5°	58.5°	52.5°	46.5°	40.5°	34.5°	28.5°	22.5°	16.5°	10.5°	4.5°	0°	4.5°	10.5°	16.5°	22.5°	28.5°	34.5°	40.5°	46.5°	52.5°	58.5°	64.5°	70.5°	76.5°	82.5°	88.5°	94.5°	100.5°	106.5°	112.5°	118.5°	124.5°	130.5°	136.5°	142.5°	148.5°	154.5°	160.5°	166.5°	172.5°	178.5°	185°	191.5°	198°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Gain	0.0711	0.1049	0.1408	0.1782	0.2169	0.2567	0.2974	0.3389	0.3811	0.4241	0.4677	0.5118	0.5563	0.6012	0.6464	0.6919	0.7377	0.7837	0.8299	0.8763	0.9229	0.9696	1.0165	1.0635	1.1106	1.1577	1.2049	1.2521	1.2994	1.3467	1.3941	1.4415	1.4889	1.5363	1.5837	1.6311	1.6785	1.7259	1.7733	1.8207	1.8681	1.9155	1.9629	2.0103	2.0577	2.1051	2.1525	2.2000	2.2474	2.2948	2.3422	2.3896	2.4370	2.4844	2.5318	2.5792	2.6266	2.6740	2.7214	2.7688	2.8162	2.8636	2.9110	2.9584	3.0058	3.0532	3.1006	3.1480	3.1954	3.2428	3.2902	3.3376	3.3850	3.4324	3.4798	3.5272	3.5746	3.6220	3.6694	3.7168	3.7642	3.8116	3.8590	3.9064	3.9538	4.0012	4.0486	4.0960	4.1434	4.1908	4.2382	4.2856	4.3330	4.3804	4.4278	4.4752	4.5226	4.5700	4.6174	4.6648	4.7122	4.7596	4.8070	4.8544	4.9018	4.9492	4.9966	5.0440	5.0914	5.1388	5.1862	5.2336	5.2810	5.3284	5.3758	5.4232	5.4706	5.5180	5.5654	5.6128	5.6602	5.7076	5.7550	5.8024	5.8498	5.8972	5.9446	5.9920	6.0394	6.0868	6.1342	6.1816	6.2290	6.2764	6.3238	6.3712	6.4186	6.4660	6.5134	6.5608	6.6082	6.6556	6.7030	6.7504	6.7978	6.8452	6.8926	6.9400	6.9874	7.0348	7.0822	7.1296	7.1770	7.2244	7.2718	7.3192	7.3666	7.4140	7.4614	7.5088	7.5562	7.6036	7.6510	7.6984	7.7458	7.7932	7.8406	7.8880	7.9354	7.9828	8.0302	8.0776	8.1250	8.1724	8.2198	8.2672	8.3146	8.3620	8.4094	8.4568	8.5042	8.5516	8.5990	8.6464	8.6938	8.7412	8.7886	8.8360	8.8834	8.9308	8.9782	9.0256	9.0730	9.1204	9.1678	9.2152	9.2626	9.3100	9.3574	9.4048	9.4522	9.4996	9.5470	9.5944	9.6418	9.6892	9.7366	9.7840	9.8314	9.8788	9.9262	9.9736	10.0210	10.0684	10.1158	10.1632	10.2106	10.2580	10.3054	10.3528	10.4002	10.4476	10.4950	10.5424	10.5898	10.6372	10.6846	10.7320	10.7794	10.8268	10.8742	10.9216	10.9690	11.0164	11.0638	11.1112	11.1586	11.2060	11.2534	11.3008	11.3482	11.3956	11.4430	11.4904	11.5378	11.5852	11.6326	11.6800	11.7274	11.7748	11.8222	11.8696	11.9170	11.9644	12.0118	12.0592	12.1066	12.1540	12.2014	12.2488	12.2962	12.3436	12.3910	12.4384	12.4858	12.5332	12.5806	12.6280	12.6754	12.7228	12.7702	12.8176	12.8650	12.9124	12.9598	13.0072	13.0546	13.1020	13.1494	13.1968	13.2442	13.2916	13.3390	13.3864	13.4338	13.4812	13.5286	13.5760	13.6234	13.6708	13.7182	13.7656	13.8130	13.8604	13.9078	13.9552	14.0026	14.0500	14.0974	14.1448	14.1922	14.2396	14.2870	14.3344	14.3818	14.4292	14.4766	14.5240	14.5714	14.6188	14.6662	14.7136	14.7610	14.8084	14.8558	14.9032	14.9506	14.9980	15.0454	15.0928	15.1402	15.1876	15.2350	15.2824	15.3298	15.3772	15.4246	15.4720	15.5194	15.5668	15.6142	15.6616	15.7090	15.7564	15.8038	15.8512	15.8986	15.9460	15.9934	16.0408	16.0882	16.1356	16.1830	16.2304	16.2778	16.3252	16.3726	16.4200	16.4674	16.5148	16.5622	16.6096	16.6570	16.7044	16.7518	16.7992	16.8466	16.8940	16.9414	16.9888	17.0362	17.0836	17.1310	17.1784	17.2258	17.2732	17.3206	17.3680	17.4154	17.4628	17.5102	17.5576	17.6050	17.6524	17.6998	17.7472	17.7946	17.8420	17.8894	17.9368	17.9842	18.0316	18.0790	18.1264	18.1738	18.2212	18.2686	18.3160	18.3634	18.4108	18.4582	18.5056	18.5530	18.6004	18.6478	18.6952	18.7426	18.7900	18.8374	18.8848	18.9322	18.9796	19.0270	19.0744	19.1218	19.1692	19.2166	19.2640	19.3114	19.3588	19.4062	19.4536	19.5010	19.5484	19.5958	19.6432	19.6906	19.7380	19.7854	19.8328	19.8802	19.9276	19.9750	20.0224	20.0698	20.1172	20.1646	20.2120	20.2594	20.3068	20.3542	20.4016	20.4490	20.4964	20.5438	20.5912	20.6386	20.6860	20.7334	20.7808	20.8282	20.8756	20.9230	20.9704	21.0178	21.0652	21.1126	21.1600	21.2074	21.2548	21.3022	21.3496	21.3970	21.4444	21.4918	21.5392	21.5866	21.6340	21.6814	21.7288	21.7762	21.8236	21.8710	21.9184	21.9658	22.0132	22.0606	22.1080	22.1554	22.2028	22.2502	22.2976	22.3450	22.3924	22.4398	22.4872	22.5346	22.5820	22.6294	22.6768	22.7242	22.7716	22.8190	22.8664	22.9138	22.9612	23.0086	23.0560	23.1034	23.1508	23.1982	23.2456	23.2930	23.3404	23.3878	23.4352	23.4826	23.5300	23.5774	23.6248	23.6722	23.7196	23.7670	23.8144	23.8618	23.9092	23.9566	24.0040	24.0514	24.0988	24.1462	24.1936	24.2410	24.2884	24.3358	24.3832	24.4306	24.4780	24.5254	24.5728	24.6202	24.6676	24.7150	24.7624	24.8098	24.8572	24.9046	24.9520	24.9994	25.0468	25.0942	25.1416	25.1890	25.2364	25.2838	25.3312	25.3786	25.4260	25.4734	25.5208	25.5682	25.6156	25.6630	25.7104	25.7578	25.8052	25.8526	25.9000	25.9474	25.9948	26.0422	26.0896	26.1370	26.1844	26.2318	26.2792	26.3266	26.3740	26.4214	26.4688	26.5162	26.5636	26.6110	26.6584	26.7058	26.7532	26.8006	26.8480	26.8954	26.9428	26.9902	27.0376	27.0850	27.1324	27.1798	27.2272	27.2746	27.3220	27.3694	27.4168	27.4642	27.5116	27.5590	27.6064	27.6538	27.7012	27.7486	27.7960	27.8434	27.8908	27.9382	27.9856	28.0330	28.0804	28.1278	28.1752	28.2226	28.2700	28.3174	28.3648	28.4122	28.4596	28.5070	28.5544	28.6018	28.6492	28.6966	28.7440	28.7914	28.8388	28.8862	28.9336	28.9810	29.0284	29.0758	29.1232	29.1706	29.2180	29.2654	29.3128	29.3602	29.4076	29.4550	29.5024	29.5498	29.5972	29.6446	29.6920	29.7394	29.7868	29.8342	29.8816	29.9290	29.9764	30.0238	30.0712	30.1186	30.1660	30.2134	30.2608	30.3082	30.3556	30.4030	30.4504	30.4978	30.5452	30.5926	30.6400	30.6874	30.7348	30.7822	30.8296	30.8770	30.9244	30.9718	31.0192	31.0666	31.1140	31.1614	31.2088	31.2562	31.3036	31.3510	31.3984	31.4458	31.4932	31.5406	31.5880	31.6354	31.6828	31.7302	31.7776	31.8250	31.8724	31.9198	31.9672	32.0146	32.0620	32.1094	32.1568	32.2042	32.2516	32.2990	32.3464	32.3938	32.4412	32.4886	32.5360	32.5834	32.6308	32.6782	32.7256	32.7730	32.8204	32.8678	32.9152	32.9626	33.0100	33.0574	33.1048	33.1522	33.1996	33.2470	33.2944	33.3418	33.3892	33.4366	33.4840	33.5314	33.5788	33.6262	33.6736	33.7210	33.7684	33.8158	33.8632	33.9106	33.9580	34.0054	34.0528	34.1002	34.1476	34.1950	34.2424	34.2898	34.3372	34.3846	34.4320	34.4794	34.5268	34.5742	34.6216	34.6690	34.7164	34.7638	34.8112	34.8586	34.9060	34.9534	35.0008	35.0482	35.0956	35.1430	35.1904	35.2378	35.2852	35.3326	35.3800	35.4274	35.4748	35.5222	35.5696	35.6170	35.6644	35.7118	35.7592	35.8066	35.8540	35.9014	35.9488	35.9962	36.0436	36.0910	36.1384	36.1858	36.2332	36.2806	36.3280	36.3754	36.4228	36.4702	36.5176	36.5650	36.6124	36.6598	36.7072	36.7546	36.8020	36.8494	36.8968	36.9442	36.9916	37.0390	37.0864	37.1338	37.1812	37.2286	37.2760	37.3234	37.3708	37.4182	37.4656	37.5130	37.5604	37.6078	37.6552	37.7026	37.7500	37.7974	37.8448	37.8922	37.9396	37.9870	38.0344	38.0818	38.1292	38.1766	38.2240	38.2714	38.3188	38.3662	38.4136	38.4610	38.5084	38.5558	38.6032	38.6506	38.6980	38.7454	38.7928	38.8402	38.8876	38.9350	38.9824	39.0298	39.0772	39.1246	39.1720	39.2194	39.2668	39.3142	39.3616	39.4090	39.4564	39.5038	39.5512	39.5986	39.6460	39.6934	39.7408	39.7882	39.8356	39.8830	39.9304	39.9778	40.0252	40.0726	40.1200	40.1674	40.2148	40.2622	40.3096	40.3570	40.4044	40.4518	40.4992	40.5466	40.5940	40.6414	40.6888	40.7362	40.7836	40.8310	40.8784	40.9258	40.9732	41.0206	41.0680	41.1154	41.1628	41.2102	41.2576	41.3050	41.3524	41.3998	41.4472	41.4946	41.5420	41.5894	41.6368	41.68



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta	Phi	Gain	Phi(15)	Phi(22.5)	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(7.5)	2.81/3.57	4.09/4.43	4.62/4.68	4.64/3.35	3.92/3.27	2.39/1.19	-0.39/2.41	-5.16/-9.08	-16.59/-18.67	-11.22/4.45	-3.55/-1.56	-0.12/1.04	1.86/2.49	2.94/3.23	3.37/3.34	3.16/2.83	2.24/1.4	0.25/1.21	-3.07/-5.58	-9.11/-15.04	-18.38/-14	-8.66/-5.35	-2.82/-0.89	0.67/1.85				
Theta(15)	1.97/2.72	3.36/3.85	4.24/4.49	4.56/4.4	4.02/3.4	2.53/1.41	0.06/-1.59	-3.64/-6.25	-10.29/-18.34	-18.84/-11.75	-7.38/-4.83	-3.12/-1.78	-0.76/0.4	0.74/1.29	1.63/1.77	1.69/1.33	0.64/-0.35	-1.72/-3.49	-5.78/-8.86	-13.75/-17.55	-18.66/-11.59	-7.71/-5.1	-3.1/-1.47	-1.31/1.03				
Theta(30)	0.83/0.85	0.91/1.3	2.13/2.97	3.53/5.59	3.24/2.57	1.72/0.65	-0.65/2.22	-4.21/7.33	-10.36/-16.61	-17.64/-15.9	-10.82/8.3	-7.11/7.01	-7.84/8.9	-8.25/7.2	3.49/2.13	-1.71/2.16	-3.41/1.17	-7.14/-9.84	-10.62/-12.76	-16.32/-18.56	-14.13/-9.61	-6.3/3.82	-1.96/0.7	0.12/0.64				
Theta(45)	0.19/0	-0.19/0.12	1.11/2.27	3.03/3.21	2.83/2.1	1.17/0.06	-1.76/-3.84	-5.96/-7.59	-8.91/-10.85	-14.09/-14.66	-10.88/-8.3	-7.23/-7.59	-9.4/-12.93	-13.87/9.1	-5.55/-3.93	-3.79/-4.84	-6.74/8.71	-9.79/-10.22	-11.03/-12.96	-16.36/-18.56	-15.08/-11.13	-7.87/-5.1	-3.25/-1.69	-0.58/0.04				
Theta(60)	-0.77/-0.8	-1.11/-1.07	-0.24/0.05	2.12/4.8	2.82/1.57	0.72/0.45	-2.92/-3.13	-3.33/-2.91	-2.78/-3.66	-5.99/-10.36	-15.62/-13.6	-11.49/-11.65	-13.82/-18.15	-17.84/-12.36	-7.96/6.25	-6.55/-8.4	-11.07/-11.85	-10.84/-10.54	-11.84/-14.25	-16.04/-14.73	-10.02/-11.62	-9.97/-8.01	-5.78/-3.76	-2.19/-1.17				
Theta(75)	-2.15/-1.8	-1.98/-2.29	-1.73/-0.12	1.47/2.25	2.19/1.65	0.85/0.22	-1.39/-1.98	-1.68/-1.2	-1.16/-1.98	-4.12/-8.41	-17.03/-17.91	-18.58/-18.76	-18.29/-18.48	-17.25/-11.51	-8.55/-7.74	-8.95/-11.45	-12.81/-11.09	-10.12/-11.18	-13.41/-13.49	-11.54/-10.46	-10.84/-11.49	-12.08/-11.4	-9.15/-6.6	-4.45/-3.02				
Theta(90)	-4.27/-3.22	-3.04/-3.41	-3.05/-1.07	0.98/1.93	1.73/0.77	-0.51/-1.96	-3.08/-3.09	-2.35/-1.85	-1.94/-2.7	-4.64/-8.92	-17.46/-19.04	-18.78/-19.31	-18.48/-18.85	-15.72/-12.46	-10.06/-9.47	-10.93/-12.3	-10.59/-8.59	-8.67/-10.8	-13.1/-10.65	-8.82/-8.91	-10.51/-13.06	-15.8/-16.82	-14.38/-10.6	-8.04/-8.3				
Theta(105)	-6.03/-4.06	-3.38/-3.77	-4.08/-2.41	-0.34/0.47	-0.06/1.47	-2.95/-3.95	-3.85/-2.67	-1.61/-1.85	-1.79/-2.74	-4.66/-8.86	-17.44/-16.08	-15.23/-17.97	-16.13/-17.68	-17.62/-14.3	-11.83/-11.45	-12.45/-11.42	-8.67/-7.36	-8.23/-10.74	-10.39/-8.01	-7.34/-8.64	-12.01/-17.89	-18.01/-18.26	-17.97/-10.58	-12.28/-8.93				
Theta(120)	-6.74/-4.66	-4.04/-5.24	-7.71/-6.13	-3/-1.81	-2.27/-3.28	-3.71/-3.77	-3.73/-3.04	-2.18/-2.06	-2.62/-3.42	-4.74/-7.71	-13.07/-13.15	-12.21/-15.9	-16.83/-15.79	-13.51/-11.56	-10.13/-10.22	-11.47/-11.15	-8.92/-8.3	-10.26/-12.47	-8.82/-5.99	-5.39/-6.57	-9.73/-15.83	-17.99/-18.98	-17.61/-18.88	-14.89/-10.52				
Theta(135)	-6.99/-5.36	-5.44/-7.64	-11.17/-6.73	-3.64/-2.7	-3.16/-3.92	-4.39/-5.15	-6.29/-5.98	-4.79/-4.64	-5.33/-5.89	-6.85/-9.7	-14.04/-12.03	-11.03/-14.4	-18.07/-15.52	-12.19/-9.67	-8.43/-8.24	-8.22/-7.43	-6.46/-7.12	-10.68/-15.99	-9.94/-6.43	-5.75/-6.97	-10.04/-16.63	-18.15/-18.41	-17.37/-16.27	-13.26/-10.59				
Theta(150)	-8.32/-6.17	-5.03/-10.23	-14.23/-8.33	-5.83/-5.78	-6.61/7.39	-7.79/9.4	-12.51/10.41	-7.02/-5.9	-5.91/-5.88	-6.47/8.63	-11.41/10.03	-8.74/10.37	-14.13/11.57	-15.44/13.44	-12.31/11.12	-9.27/7.1	-5.9/5.64	-9.36/14.06	-2.98/5.32	-4.09/5.1	-6.14/-8.8	-11.86/-13.48	-11.77/-10.09	-8.82/7.3				
Theta(165)	-8.79/-9.9	-12.15/-18.47	-13.21/-6.94	-6/-7.45	-8.91/9.31	-9.71/-12.06	-15.65/-11.34	-8.06/-7.37	-7.63/-7.34	-7.65/-9.82	-13.27/-13.19	-11.19/-11.73	-13.85/-15.26	-14.34/12.81	-11.1/9.13	-7.89/-6.83	-6.33/-6.88	-9.32/-16.07	-11.18/-5.72	-3.91/-3.77	-4.69/-6.77	-10.06/-12.04	-10.94/-9.83	-8.96/-8.43				
Theta(180)	-9.66/-12.45	-16.63/-15.66	-8.5/-5.55	-6.29/-10.01	-14.27/-15.47	-16.32/-19.27	-19.43/-11.41	-8.99/-8.51	-7.86/-6.66	-7.02/-10.39	-16.91/-14.46	-11.89/-10.45	-13.36/-14.11	-18.15/-19.2	-15.48/-12.09	-9.4/-7.36	-6.61/-6.6	-7.63/-10.34	-9.61/-5.1	-4.15/-3.61	-7.32/-9.87	-9.72/-8.75	-17.37/-16.27	-13.26/-10.59				
Theta(195)	-9.81/-10.74	-14.45/-18.68	-14.74/10.66	-12.35/16.01	-13.78/12.95	-14.29/-16.62	-13.19/9.55	-7.93/7.09	-5.86/5.6	-6.11/10.38	-18.08/17.89	-12.26/9.58	-8.38/10.73	-11.11/11.31	-9.4/9.26	-10.19/9.79	-9.19/8.87	-10.04/-14.38	-12.79/8.5	-5.64/3.3	-3.51/3.78	-5.29/-4.69	-0.88/4.53	-5.48/-6.21				
Theta(210)	-16.48/-15.83	-13.33/-12.59	-10.56/-8.96	-9.96/-11.58	-10.51/10.75	-13.91/17.79	-18.02/-12.58	-10.23/-8.64	-7.38/-7.39	-10.01/-18.14	-18.69/-18.85	-17.95/-14.48	-14.52/-18.04	-18.04/-17.04	-12.88/-11.76	-10.96/-9	-7.52/-6.46	-6.37/-7.57	-8.78/-8.69	-9.29/-10.49	-9.81/-8.94	-10.24/-12.3	-11.83/-10.69	-10.98/-13.2				
Theta(225)	-18.21/-17.42	-17.34/-14.35	-12.12/11.71	-16.21/19.12	-14.16/12.97	-14.08/-10.77	-14.01/-10.22	-8.07/0.71	-6.83/-7.9	-11.16/1.1	-18.07/-16.66	-16.65/-14.13	-15.16/-17.49	-14.56/11.39	-10.14/-11.28	-14.18/-14.39	-11.88/-9.88	-9.62/-10.72	-9.93/-7.79	-7.15/-7.74	-7.81/-7.23	-7.57/-8.7	-9.07/-6.93	-9.06/-11.5				
Theta(240)	-11.31/-13.44	-14.42/-16.76	-18.29/17.94	-15.92/11.49	-9.04/8.8	-11.12/10.73	-18.48/-12.6	-9.58/8.81	-9.31/10.91	-13.69/17.7	-18.06/17.66	-17.02/16.45	-18.88/-18.26	-14.77/11.44	-11.89/11.22	-11.39/9.82	-7.86/11.3	-5.85/9.11	-9.09/-11.36	-14.52/10.51	-18.28/12.29	-9.53/8.2	-6.59/5.93	-6.36/4.29				
Theta(255)	-6.98/-6.97	-7.16/-8.04	-10.08/13.41	-16.78/15.93	-14.07/14.28	-17.94/-18.47	-18.12/12.61	-10.49/10.19	-11.05/12.55	-13.96/14.48	-14.46/14.57	-15.22/18.58	-18.21/18.22	-14.88/14.08	-15.25/18.75	-17.66/17.09	-11.42/8.18	-6.32/5.29	-4.95/4.98	-5.47/6.52	-7.79/8.46	-7.89/6.94	-6.11/5.79	-6.05/6.4				
Theta(270)	-6.77/-6.84	-7.08/-7.77	-9.29/12.17	-17.38/17.49	-17.37/18.55	-18.11/18.15	-18.19/25	-17.39/17.89	-17.24/12.98	-10.11/8.53	-8.17/8.82	-10.51/14.3	-15.86/16.17	-14.36/12.92	-12.47/12.9	-14.44/17.55	-17.97/19.09	-17.14/12.34	-9.8/8.52	-8.04/8.2	-8.71/9.1	-8.74/-8.18	-7.65/7.19	-7.01/6.95				
Theta(285)	-11.61/-11.46	-11.32/11.43	-12.24/14.18	-17.77/17.83	-19.3/17.88	-14.33/11.89	-10.37/9.57	-8.96/8.5	-8.21/8.77	-7.5/7.41	-8.9/8.45	-11.53/14.18	-16.51/18.17	-18.65/17.89	-16.44/15.01	-14.2/14.4	-15.54/17.65	-19.27/17.9	-14.58/12.17	-10.86/10.41	-10.42/10.58	-10.8/11.18	-11.57/11.79	-11.99/11.98				
Theta(300)	-16.81/-17.72	-18.79/-18.3	-18.47/18.22	-18.76/17.95	-18.61/15.87	-13.31/11.2	-9.74/8.9	-8.52/8.58	-9.11/10.04	-11.47/13.22	-15.49/18.56	-18.98/18.04	-18.29/17.73	-18.66/19	-18.13/17.23	-17.83/18.05	-18.82/17.68	-14.81/12.3	-10.14/8.45	-7.35/6.74	-6.53/6.63	-7.04/7.91	-9.03/10.32	-11.87/13.92				
Theta(315)	-10.05/-11.66	-13.68/-15.86	-18.04/17.67	-19.03/18.63	-17.59/18.9	-18.39/18.06	-16.96/16.12	-15.75/16.04	-16.77/17.34	-17.28/16.39	-14.79/13.16	-11.86/11.16	-10.96/11.19	-11.81/12.83	-14.49/16.89	-19.03/18.97	-19.16/19.44	-15.75/12.79	-10.58/8.79	-7.56/6.76	-6.24/5.96	-5.97/6.4	-6.88/7.48	-8.15/8.91				
Theta(330)	-7.41/7.95	-8.79/9.87	-11.08/12.35	-13.86/15.75	-18.09/19.06	-18.58/19.24	-18.83/17.59	-15/12.99	-11.24/9.85	-8.84/8.28	-8.07/8.01	-8.19/8.61	-9.19/9.84	-10.67/11.69	-13.07/15.05	-17.85/19.09	-17.54/18.32	-17.98/17.43	-14.65/12.52	-10.87/9.68	-8.66/7.9	-7.42/7.29	-7.29/7.23	-7.21/7.23				
Gain	Phi(0)Phi(7.5)	Phi(15)Phi(22.5)	Phi(30)Phi(37.5)	Phi(45)Phi(52.5)	Phi(60)Phi(67.5)	Phi(75)Phi(82.5)	Phi(90)Phi(97.5)	Phi(105)Phi(112.5)	Phi(120)Phi(127.5)	Phi(135)Phi(142.5)	Phi(150)Phi(157.5)	Phi(165)Phi(172.5)	Phi(180)Phi(187.5)	Phi(195)Phi(202.5)	Phi(210)Phi(217.5)	Phi(225)Phi(232.5)	Phi(240)Phi(247.5)	Phi(255)Phi(262.5)	Phi(270)Phi(277.5)	Phi(285)Phi(292.5)	Phi(300)Phi(307.5)	Phi(315)Phi(322.5)	Phi(330)Phi(337.5)	Phi(345)Phi(352.5)				
Theta(7.5)	0.05/-1.49	-2.94/-4.81	-7.51/-10.66	-12.87/-11.41	-8.26/-5.76	-3.9/2.34	-1.22/-0.23	0.52/1.16	1.66/2.02	2.16/2.2	1.77/1.42	0.82/0.06	-0.85/-2.09	-3.62/-6.2	-9.63/13.43	-13.07/8.97	-5.25/2.73	-0.86/0.6	1.69/2.48	2.97/3.33	3.56/3.62	3.58/3.43	3.25/2.88	2.21/1.9				
Theta(15)	0.22/-1.54	-3.6/-5.84	-8.62/-11.82	-14.08/12.22	-8.81/-6.01	-3.83/-2.12	-0.94/0.02	0.73/1.21	1.65/2.03	2.43/2.75	2.72/2.22	1.3/0.04	-1.25/-2.28	-3.45/5.08	-7.25/10.5	-15.78/15.72	-9.66/5.88	-3.19/1.13	0.33/1.38	2.16/2.75	3.13/2.4	2.97/2.5	2.97/2.5	2.29/2.4				
Theta(30)	1.47/0.52	-2.76/-5.61	-10.39/18.63	-14.32/9.37	-6.55/-4.42	-2.55/-1.01	0.21	1.72/2.28	2.69/2.83	2.92/3.6	3.23/3.14	2.61/3.4	-0.18/-1.89	-3.05/3.92	-5.22/7.97	-14.99/18.81	-10.52/8.83	-2.55/0.22	1.4/2.5	3.2/3.6	3.81/3.87	3.83/3.68	3.48/3.45	3.18/2.57				
Theta(45)	1.93/0.71	-1.59/-5.04	-12.13/18.76	-9.85/7.36	-7.3/6	-3.47/1.49	-0.09/1.31	2.55/3.5	4.15/4.33	4.43/7.77	3.4/3.03	2.44/4.7	2.01/5.2	-3.38/4.57	-5.44/7.65	-13.73/18.02	-10.88/5.02	-1.36/0.79	2.03/2.72	3.2/3.6	3.28/3.4	3.36/3.05	2.62/3.7	2.28/2.27				
Theta(60)	1.1/0.61	-1.21/-4.92	-14.22/17.24	-9.23/4.88	-10.47/6.48	-2.55/0.4	1.32/6.7	3.36/3.7	3.91/4.22	4.52/5.71	2.83/1.55	0.05/-1.69	-3.65/5.25	-8.51/11.19	-18.27/18.98	-9.64/4.57	-1.79/0.2	0.73/1.16	1.45/2.01	2.								



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta	5.65G/Pol	Phi/Ant 3	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta(52.5°)	-4.56/-3.47	-3.12/-3.66	-4.42/-3.92	-3.29/-3.5	-2.09/-0.99	-1.91/-3.59	-5.36/-5.48	-4.91/-6.02	-11.79/-18.19	-16.65/-13.09	-9.66/-4.83	-7.94/-7.31	-5.74/-3.09	-1.71/-1.34	-5.85/-5.64	-5.41/-4.83	-3.94/-3.65	-3.85/-4.76	-6.24/-6.37	-9.93/-10.03	-11.38/-14.52	-18.47/-13.43	-10.61/-10.15	-9.21/-7.1	
Theta(60°)	-5.36/-4.32	-5.16/-7.05	-6.28/-5.27	-5.78/-6.08	-4.71/-4.23	-5.16/-5.97	-7.95/-7.05	-6.21/-8.53	-13.52/-17.93	-18.65/-15.14	-9.41/-9.62	-10.09/-10.66	-8.61/-5.93	-4.55/-5.5	-7.64/-8.1	-8.77/-8.55	-6.72/-6	-5.81/-6.62	-8.32/-8.66	-8.84/-9.41	-12.53/-16.36	-17.08/-11.68	-10.21/-10.56	-11.02/-8.62	
Theta(67.5°)	-6.81/-6.52	-7.49/-9.61	-7.96/-7.37	-8.38/-8.54	-6.74/-7.13	-7.22/-7.84	-9.44/-8	-8.04/-10.4	-16.21/-18.95	-19.14/-18.12	-7.83/-9.94	-12.35/-14.67	-12.38/-8.4	-8.45/-9.76	-10.48/-9.85	-11.58/-12.23	-10.31/-8.26	-8.37/-8.96	-10.83/-10.38	-9.89/-11.15	-14.97/-19.17	-18.13/-12.34	-11.28/-11.37	-13.29/-10.67	
Theta(75°)	-8.67/-8.71	-10.13/-12.99	-9.34/-10.23	-11.31/-11.3	-9.14/-8.96	-7.42/-9.05	-10.33/-8.87	-8.52/-10.15	-17.53/-17.91	-18.14/-11.4	-7.71/-10.86	-15.03/-17.34	-17.42/-12.29	-12.33/-14.74	-15.18/-12.02	-15.05/-17.55	-15.66/-11.42	-11.29/-11.67	-13.31/-13.17	-11.83/-14.75	-18.39/-18.72	-18.93/-14	-12.77/-13.55	-16.34/-12.64	
Theta(82.5°)	-10.23/-11.82	-13.81/-16.98	-10.75/-12.57	-13.98/-13.44	-10.37/-10.6	-8.82/-11.6	-11.18/-10.46	-9.24/-12.92	-19.17/-18.98	-16.56/-11.46	-8.97/-12.89	-16.77/-18.08	-18.38/-15.12	-14.88/-18.1	-18.57/-16.11	-18.83/-17.49	-18.73/-17.19	-17.17/-17.9	-18.18/-18.07	-15.72/-17.55	-17.38/-18.79	-19.44/-16.16	-14.84/-15.26	-17.88/-15.76	
Theta(90°)	-13.18/-14.52	-17.29/-17.94	-12.77/-13.85	-15.37/-15.92	-12.47/-11.38	-11.45/-15.4	-14.98/-13.56	-11.41/-13.31	-18.58/-19.05	-19.11/-15.66	-11.58/-14.77	-17.42/-16.62	-18.84/-17.88	-18.85/-18.13	-18.24/-17.69	-17.85/-17.59	-19.35/-17.42	-18.68/-19.07	-18.81/-19.07	-18.11/-15.51	-16.66/-18.54	-18.34/-17.01	-15.79/-16.08	-19.25/-17.37	
Theta(97.5°)	-16.24/-17.63	-18.37/-19.26	-15.45/-15.92	-16.89/-18.89	-16.78/-12.94	-13.62/-18.57	-17.21/-15.65	-14.07/-17.83	-18.63/-18.75	-18.07/-17.61	-14.48/-19.65	-18.97/-19.22	-19.34/-18.21	-18.33/-18.17	-18.39/-19.01	-18.57/-18.04	-17.99/-16.16	-19.15/-18.07	-18.88/-18.23	-18.06/-19.2	-18.18/-18.67	-17.85/-18.45	-16.71/-17.23	-17.69/-18.37	
Theta(105°)	-18.27/-18.02	-18.24/-17.73	-17.77/-18.52	-17.83/-18.67	-19.31/-16.6	-17.91/-19.02	-18.54/-16.48	-15.44/-19.16	-17.76/-18.5	-18.42/-18.82	-16.53/-18.16	-18.28/-17.17	-18.77/-19.05	-17.55/-17.92	-19.25/-17.18	-18.74/-17.36	-19.11/-15.75	-18.88/-19.02	-18.42/-17.91	-18.82/-19.06	-18.94/-17.79	-18.58/-17.91	-17.86/-18.23	-18.09/-18.06	
Theta(112.5°)	-16.92/-19.19	-17.55/-18.1	-15.55/-19.51	-18.05/-19.34	-18.14/-15.6	-18.21/-17.61	-18.81/-16.34	-15.58/-19.62	-18.31/-18.33	-17.91/-19.38	-18.95/-18.66	-19.11/-17.38	-17.81/-18.74	-17.75/-18.97	-19.14/-17.42	-19.17/-18.86	-18.16/-18.23	-18.06/-18.85	-17.68/-18.4	-17.82/-19.3	-17.68/-18.14	-17.82/-17.93	-15.55/-17.52	-18.79/-17.38	
Theta(120°)	-18.76/-18.46	-19.02/-17.87	-17.79/-18.78	-18.27/-18.53	-18.33/-18.42	-18.12/-17.83	-18.05/-18.34	-18.74/-19.03	-17.83/-18.04	-19.46/-18.91	-17.85/-18.57	-18.63/-18.77	-18.48/-17.92	-18.75/-18.02	-18.91/-18.44	-18.63/-17.84	-19.07/-17.8	-18.89/-17.32	-18.83/-18.54	-17.99/-18.19	-18.31/-17.78	-18.92/-17.98	-18.49/-17.57	-18.37/-17.87	
Theta(127.5°)	-16.65/-18.62	-18.35/-17.94	-17.95/-18.52	-17.98/-19.15	-18.04/-18.69	-18.27/-17.81	-17.96/-18.36	-18.94/-19.21	-18.02/-18.91	-18.56/-19.03	-18.93/-19.09	-18.11/-18.05	-17.96/-18.33	-18.21/-18.29	-18.66/-17.18	-18.55/-19.16	-18.35/-18.57	-18.85/-18.03	-18.97/-17.75	-19.39/-17.99	-17.65/-17.39	-18.38/-17.32	-18.66/-18.64		
Theta(135°)	-18.84/-19.01	-17.51/-19.01	-18.27/-18.05	-18.53/-17.71	-19.12/-18.57	-19.06/-18.86	-17.22/-18.57	-18.32/-18.68	-17.24/-19.04	-17.81/-17.77	-19.26/-17.51	-18.27/-18.53	-18.67/-17.86	-18.28/-19.15	-18.65/-16.35	-15.35/-17.93	-18.68/-18.43	-17.64/-18.12	-18.71/-18.66	-17.85/-18.25	-18.69/-18.42	-18.21/-18.43	-19.06/-18.19		
Theta(142.5°)	-17.91/-18.41	-17.78/-18.81	-17.43/-17.45	-18.53/-18.69	-18.05/-18.22	-17.68/-18.48	-18.91/-18.69	-18.89/-17.73	-18.69/-18.77	-18.79/-17.7	-17.95/-19.07	-19.34/-18.43	-18.67/-18.18	-19.09/-18.56	-18.84/-18.15	-17.72/-16.01	-17.18/-18.54	-17.27/-17.67	-18.93/-18.97	-18.85/-19.13	-17.37/-17.49	-19.26/-17.98	-18.59/-18.84	-18.67/-18.1	
Theta(150°)	-18.05/-19.37	-18.26/-18.42	-18.51/-17.67	-17.89/-18.38	-18.94/-19.07	-17.81/-18.12	-18.27/-17.65	-18.84/-18.63	-18.54/-18.02	-18.09/-18.57	-18.83/-17.79	-18.29/-18.36	-17.86/-18.05	-18.59/-18.31	-19.01/-17.98	-19.61/-18.79	-18.33/-19.08	-17.68/-23.13	-17.71/-18.71	-17.32/-18.81	-18.33/-18.09	-17.96/-15.52	-17.63/-18.63		
Theta(157.5°)	-19.15/-18.52	-18.22/-17.46	-17.55/-18.17	-18.22/-18.19	-18.54/-19.22	-17.29/-18.43	-17.79/-18.12	-18.28/-18.45	-17.84/-18.17	-18.81/-18.28	-18.49/-17.83	-18.24/-18.55	-17.75/-18.71	-17.72/-17.24	-18.64/-18.95	-18.49/-18.69	-19.21/-19.29	-18.75/-18.8	-17.46/-18.02	-17.37/-18.57	-17.71/-18.69	-18.86/-18.9	-18.48/-19.12	-18.16/-18.62	
Theta(165°)	-18.81/-18.48	-18.38/-17.63	-17.59/-17.9	-17.91/-19.59	-18.94/-17.98	-18.24/-18.48	-18.67/-17.1	-18.92/-17.19	-18.04/-17.84	-18.92/-17.67	-17.94/-18.7	-17.46/-18.56	-18.57/-18.08	-18.58/-17.54	-19.23/-18.84	-17.83/-17.66	-18.01/-18.69	-18.68/-18.8	-19.05/-17.39	-19.45/-18.79	-18.88/-18.48	-17.98/-18.58	-18.27/-18.7	-18.72/-17.83	
Theta(172.5°)	-18.19/-17.25	-19.06/-18.65	-18.96/-18.02	-17.57/-18.58	-19.25/-18.41	-18.38/-19.12	-18.44/-18.26	-18.57/-17.78	-17.54/-17.79	-17.38/-18.75	-18.56/-19.07	-17.96/-19.21	-18.97/-18.5	-17.98/-17.63	-18.07/-19.45	-18.91/-18.07	-18.57/-18.7	-17.87/-18.05	-17.85/-17.76	-17.76/-18.09	-18.07/-17.79	-18.05/-18.09	-19.12/-18.43	-18.93/-19.11	
Theta(180°)	-18.02/-18.05	-19.41/-18.14	-17.54/-18.56	-18.22/-18.66	-17.46/-18.29	-18.43/-18.99	-18.54/-18.4	-18.33/-18.65	-19.04/-18.66	-18.18/-19.12	-19.04/-18.66	-17.51/-18.92	-18.14/-17.92	-18.23/-17.95	-19.22/-17.69	-19.18/-18.24	-18.32/-18.66	-18.43/-18.57	-17.82/-17.67	-18.32/-17.82	-18.65/-17.67	-18.28/-18.52	-18.31/-18.77	-19.41/-17.73	
Theta(187.5°)	-18.15/-18.52	-18.22/-17.46	-17.55/-18.17	-18.22/-18.19	-18.54/-19.22	-17.29/-18.43	-17.79/-18.12	-18.28/-18.45	-17.84/-18.17	-18.81/-18.28	-18.49/-17.83	-18.24/-18.55	-17.75/-18.71	-17.72/-17.24	-18.64/-18.95	-18.49/-18.69	-19.21/-19.29	-18.75/-18.8	-17.46/-18.02	-17.37/-18.57	-17.71/-18.69	-18.86/-18.9	-18.48/-19.12	-18.16/-18.62	
Theta(195°)	-18.81/-18.48	-18.38/-17.63	-17.59/-17.9	-17.91/-19.59	-18.94/-17.98	-18.24/-18.48	-18.67/-17.1	-18.92/-17.19	-18.04/-17.84	-18.92/-17.67	-17.94/-18.7	-17.46/-18.56	-18.57/-18.08	-18.58/-17.54	-19.23/-18.84	-17.83/-17.66	-18.01/-18.69	-18.68/-18.8	-19.05/-17.39	-19.45/-18.79	-18.88/-18.48	-17.98/-18.58	-18.27/-18.7	-18.72/-17.83	
Theta(202.5°)	-18.19/-17.25	-19.06/-18.65	-18.96/-18.02	-17.57/-18.58	-19.25/-18.41	-18.38/-19.12	-18.44/-18.26	-18.57/-17.78	-17.54/-17.79	-17.38/-18.75	-18.56/-19.07	-17.96/-19.21	-18.97/-18.5	-17.98/-17.63	-18.07/-19.45	-18.91/-18.07	-18.57/-18.7	-17.87/-18.05	-17.85/-17.76	-17.76/-18.09	-18.07/-17.79	-18.05/-18.09	-19.12/-18.43	-18.93/-19.11	
Theta(210°)	-18.02/-18.05	-19.41/-18.14	-17.54/-18.56	-18.22/-18.66	-17.46/-18.29	-18.43/-18.99	-18.54/-18.4	-18.33/-18.65	-19.04/-18.66	-18.18/-19.12	-19.04/-18.66	-17.51/-18.92	-18.14/-17.92	-18.23/-17.95	-19.22/-17.69	-19.18/-18.24	-18.32/-18.66	-18.43/-18.57	-17.82/-17.67	-18.32/-17.82	-18.65/-17.67	-18.28/-18.52	-18.31/-18.77	-19.41/-17.73	
Theta(217.5°)	-18.15/-18.52	-18.22/-17.46	-17.55/-18.17	-18.22/-18.19	-18.54/-19.22	-17.29/-18.43	-17.79/-18.12	-18.28/-18.45	-17.84/-18.17	-18.81/-18.28	-18.49/-17.83	-18.24/-18.55	-17.75/-18.71	-17.72/-17.24	-18.64/-18.95	-18.49/-18.69	-19.21/-19.29	-18.75/-18.8	-17.46/-18.02	-17.37/-18.57	-17.71/-18.69	-18.86/-18.9	-18.48/-19.12	-18.16/-18.62	
Theta(225°)	-18.81/-18.48	-18.38/-17.63	-17.59/-17.9	-17.91/-19.59	-18.94/-17.98	-18.24/-18.48	-18.67/-17.1	-18.92/-17.19	-18.04/-17.84	-18.92/-17.67	-17.94/-18.7	-17.46/-18.56	-18.57/-18.08	-18.58/-17.54	-19.23/-18.84	-17.83/-17.66	-18.01/-18.69	-18.68/-18.8	-19.05/-17.39	-19.45/-18.79	-18.88/-18.48	-17.98/-18.58	-18.27/-18.7	-18.72/-17.83	
Theta(232.5°)	-18.19/-17.25	-19.06/-18.65	-18.96/-18.02	-17.57/-18.58	-19.25/-18.41	-18.38/-19.12	-18.44/-18.26	-18.57/-17.78	-17.54/-17.79	-17.38/-18.75	-18.56/-19.07	-17.96/-19.21	-18.97/-18.5	-17.98/-17.63	-18.07/-19.45	-18.91/-18.07	-18.57/-18.7	-17.87/-18.05	-17.85/-17.76	-17.76/-18.09	-18.07/-17.79	-18.05/-18.09	-19.12/-18.43	-18.93/-19.11	
Theta(240°)	-18.02/-18.05	-19.41/-18.14	-17.54/-18.56	-18.22/-18.66	-17.46/-18.29	-18.43/-18.99	-18.54/-18.4	-18.33/-18.65	-19.04/-18.66	-18.18/-19.12	-19.04/-18.66	-17.51/-18.92	-18.14/-17.92	-18.23/-17.95	-19.22/-17.69	-19.18/-18.24	-18.32/-18.66	-18.43/-18.57	-17.82/-17.67	-18.32/-17.82	-18.65/-17.67	-18.28/-18.52	-18.31/-18.77	-19.41/-17.73	
Theta(247.5°)	-18.15/-18.52	-18.22/-17.46	-17.55/-18.17	-18.22/-18.19	-18.54/-19.22	-17.29/-18.43	-17.79/-18.12	-18.28/-18.45	-17.84/-18.17	-18.81/-18.28	-18.49/-17.83	-18.24/-18.55	-17.75/-18.71	-17.72/-17.24	-18.64/-18.95	-18.49/-18.69	-19.21/-19.29	-18.75/-18.8	-17.46/-18.02	-17.37/-18.57	-17.71/-18.69	-18.86/-18.9	-18.48/-19.12	-18.16/-18.62	
Theta(255°)	-18.81/-18.48	-18.38/-17.63	-17.59/-17.9	-17.91/-19.59	-18.94/-17.98	-18.24/-18.48	-18.67/-17.1	-18.92/-17.19	-18.04/-17.84	-18.92/-17.67	-17.94/-18.7	-17.46/-18.56	-18.57/-18.08	-18.58/-17.54	-19.23/-18.84	-17.83/-17.66	-18.01/-18.69	-18.68/-18.8	-19.05/-17.39	-19.45/-18.79	-18.88/-18.48	-			



Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta (°)	Phi (°)	Phi(15°)	Phi(22.5°)	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 (97.5°)	Phi(0°)	-19.03/-18.85	-18.41/-19.3	-17.52/-17.72	-16.66/-17.86	-15.51/-16.57	-17.18/-18.4	-17.44/-17.08	-16.39/-16.71	-18.11/-19.19	-18.51/-17.9	-18.83/-18.67	-18.48/-17.74	-18.74/-18.21	-18.69/-18.19	-19.01/-17.75	-18.87/-17.03	-19.05/-18.42	-18.47/-18.59	-17.65/-18.31	-18.23/-17.93	-17.84/-18.05	-17.42/-18.22	-19.02/-18.3	-18.78/-18.71	
Theta (105°)	Phi(0°)	-18.26/-19.03	-18.33/-18.8	-17.56/-18.05	-16.16/-19.23	-16.95/-19.65	-17.84/-17.7	-18.09/-17.78	-19.13/-18.24	-17.33/-18.21	-17.34/-17.19	-17.64/-18.41	-17.67/-17.7	-18.87/-18.65	-18.44/-18.18	-18.17/-19.29	-17.39/-18.35	-18.89/-18.42	-18.78/-18.71	-19.15/-19.25	-17.37/-17.7	-19.16/-18.44	-18.81/-17.18	-18.09/-18.7	-19.05/-18.22	
Theta (112.5°)	Phi(0°)	-18.47/-17.9	-18.56/-19.2	-17.56/-18.17	-16.66/-18.29	-16.65/-18.29	-17.31/-19.34	-18.34/-17.86	-18.39/-18.72	-17.64/-18.5	-18.11/-17.61	-18.31/-17.73	-18.71/-18.8	-18.11/-18.7	-17.88/-18.6	-18.91/-18.54	-18.71/-19.1	-18.89/-18.86	-19.06/-18.48	-18.33/-18.45	-18.29/-17.99	-17.51/-17.79	-17.71/-18.88	-19.04/-19.45	-18.03/-17.82	
Theta (120°)	Phi(0°)	-17.81/-19.35	-17.81/-17.82	-18.22/-19.11	-18.24/-18.34	-19.08/-18.11	-17.71/-19.51	-17.08/-19.32	-18.39/-18.02	-18.57/-18.63	-18.38/-18.9	-17.55/-19.37	-18.85/-17.51	-18.32/-19.01	-19.64/-18.37	-18.06/-17.93	-17.63/-17.86	-19.09/-18.58	-16.97/-19.25	-18.81/-18.07	-17.63/-18.35	-17.52/-17.94	-18.98/-19.07	-18.07/-18.02	-19.08/-18.29	
Theta (127.5°)	Phi(0°)	-19.31/-18.14	-18.98/-18.52	-18.05/-18.49	-18.46/-18.51	-17.22/-19.17	-18.94/-17.86	-17.81/-19.34	-19.15/-17.27	-18.54/-18.49	-17.41/-18.62	-18.09/-18.4	-18.06/-19.2	-18.83/-18.1	-18.06/-17.7	-18.72/-17.77	-18.51/-18.39	-18.51/-18.22	-15.51/-18.89	-18.97/-16.93	-18.12/-17.5	-18.18/-18.85	-18.18/-18.7	-18.27/-18.72	-18.22/-17.88	
Theta (135°)	Phi(0°)	-19.31/-17.94	-17.46/-18.74	-17.63/-17.17	-18.05/-18.4	-17.94/-17.92	-18.03/-18.66	-18.29/-18.7	-17.74/-19.02	-18.96/-18.16	-17.61/-19.12	-18.25/-18.08	-18.81/-18.46	-18.39/-18.91	-17.95/-17.4	-17.41/-16.7	-18.79/-18.58	-18.48/-17.82	-19.04/-18.02	-18.51/-17.69	-17.81/-17.18	-17.61/-18.08	-18.17/-18.18	-19.11/-18.6	-18.43/-18.3	
Theta (142.5°)	Phi(0°)	-18.19/-18.58	-19.08/-18.8	-18.93/-17.61	-19.42/-18.29	-18.31/-18.56	-17.91/-18.34	-18.49/-18.08	-18.82/-18.41	-17.37/-18.09	-17.39/-17.14	-18.22/-18.57	-19.11/-18.66	-17.83/-18.11	-18.76/-17.9	-19.26/-18.55	-17.39/-17.15	-18.83/-15.22	-18.03/-18.64	-17.21/-19.15	-18.19/-17.25	-19.19/-19.33	-19.03/-18.84	-19.28/-17.78	-19.15/-18.56	
Theta (150°)	Phi(0°)	-18.96/-17.48	-17.85/-19.16	-18.52/-17.44	-18.98/-19.01	-18.08/-18.29	-18.25/-18.48	-18.15/-17.82	-18.38/-17.77	-18.85/-17.61	-19.26/-17.9	-18.39/-18.2	-18.24/-18.24	-19.12/-18.35	-18.29/-18.21	-17.62/-18.55	-18.31/-17.67	-18.18/-18.2	-17.25/-19.08	-19.43/-18.76	-18.91/-17.78	-18.81/-18.55	-17.46/-18.82	-18.54/-18.57		
Theta (157.5°)	Phi(0°)	-18.66/-18.74	-18.51/-18.5	-18.39/-18.06	-17.24/-18.86	-17.81/-18.96	-16.68/-18.65	-17.98/-17.78	-18.79/-19.38	-18.16/-17.88	-18.24/-18.84	-18.24/-17.7	-17.77/-19.27	-18.01/-19.03	-17.61/-19.19	-19.07/-18.68	-18.95/-18.07	-18.71/-19.09	-17.48/-17.99	-18.08/-18.78	-18.48/-19.16	-18.28/-18.97	-18.28/-19.03	-19.27/-19.28	-18.01/-19.3	
Theta (165°)	Phi(0°)	-18.23/-17.69	-18.48/-19.05	-18.06/-18.99	-18.54/-18.45	-17.51/-18.89	-18.81/-19	-18.22/-18.99	-18.17/-17.5	-18.08/-18.56	-18.21/-18.06	-18.34/-18.95	-17.59/-17.92	-18.41/-18.16	-18.62/-18.94	-19.05/-18.59	-18.61/-18.29	-18.06/-18.78	-18.87/-17.61	-18.16/-18.76	-18.61/-17.75	-18.12/-19.08	-17.83/-17.31	-18.71/-18.11	-17.26/-17.84	
Theta (172.5°)	Phi(0°)	-18.14/-18.24	-17.42/-19.11	-18.63/-18.04	-19.12/-19.1	-18.19/-17.67	-18.66/-18.51	-18.06/-18.84	-17.94/-19.24	-18.68/-18.89	-17.37/-18.88	-18.41/-18.34	-18.55/-17.6	-17.99/-18.14	-18.73/-18.89	-18.72/-18.26	-18.44/-18.13	-18.23/-18.91	-18.76/-17.98	-18.89/-18.07	-18.02/-19.02	-18.98/-19.31	-19.17/-17.2	-17.79/-18.45	-18.74/-19.19	
Theta (180°)	Phi(0°)	-18.77/-18.07	-18.91/-18.29	-17.71/-18.83	-17.41/-17.19	-18.71/-18.18	-17.82/-17.46	-17.37/-18.97	-18.16/-19.2	-19.08/-18.77	-18.41/-18.64	-18.58/-18.85	-18.31/-17.72	-19.16/-17.61	-18.71/-18.66	-17.35/-17.13	-18.67/-18.43	-19.06/-17.78	-18.11/-18.28	-17.42/-18.43	-18.47/-18.12	-17.17/-19.2	-17.97/-18.88	-17.51/-18.39		
Gain	Phi(0°)	2.45GPaL	Phi(15°)	Phi(22.5°)	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 (0°)	Phi(0°)	4.124.95	5.576	6.326.5	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67	6.165.67
Theta (7.5°)	Phi(0°)	4.34.98	5.475.62	6.026.11	6.095.95	5.645.12	4.453.59	2.531.13	-0.751.328	-7.214.52	-16.921.803	-3.610.76	1.252.8	3.924.77	5.415.83	6.162.22	6.175.99	5.665.18	4.535.7	2.360.75	-1.461.471	-9.591.601	-9.941.492	-1.701.49	2.133.34	
Theta (15°)	Phi(0°)	3.944.47	4.96.18	5.345.4	5.385.22	4.914.42	3.792.92	1.980.79	-0.821.294	-6.211.217	-18.291.076	-5.271.211	-0.011.49	2.583.36	3.974.42	4.734.88	4.894.75	4.494.13	3.562.75	1.581.001	-2.315.69	-10.761.821	-7.361.341	-0.841.93	2.213.22	
Theta (22.5°)	Phi(0°)	3.033.64	4.164.58	4.895.07	5.14.98	4.654.07	3.242.25	1.220.13	-1.171.287	-5.651.07	-18.241.174	-6.541.334	-1.370.05	1.081.98	2.753.38	3.834.07	4.113.96	3.662.2	2.571.68	0.461.124	-3.711.58	-13.041.15	-6.111.283	-0.720.62	1.622.38	
Theta (30°)	Phi(0°)	1.482.43	3.364.04	4.544.84	4.974.93	4.654.03	2.981.62	0.171.112	-2.161.31	-5.441.959	-18.091.633	-8.361.506	-3.061.146	0.061.53	2.843.82	4.464.8	4.884.69	4.243.57	2.611.33	-0.261.224	-5.191.23	-17.141.15	-7.451.396	-2.031.098	-0.250.58	
Theta (37.5°)	Phi(0°)	0.211.72	2.943.81	4.394.7	4.874.97	4.874.33	3.251.58	-0.512.57	-0.404.152	-7.111.119	-18.514.12	-8.115.31	-3.381.32	0.772.67	4.044.94	5.445.65	5.655.45	5.655.45	5.424.79	3.181.65	-0.311.273	-5.781.104	-18.051.788	-9.521.57	-3.691.27	-2.131.16
Theta (45°)	Phi(0°)	1.120.49	1.842.73	3.311.88	3.914.17	4.324.1	3.311.88	-0.011.205	-3.831.527	-7.331.1159	-16.891.655	-6.091.455	-2.851.274	1.443.24	5.451.18	5.455.55	5.855.54	5.855.54	5.424.79	3.812.28	0.121.272	-6.310.79	-17.911.65	-10.51.61	-3.911.38	-3.121.255
Theta (52.5°)	Phi(0°)	-4.931.219	-0.340.86	1.662.12	2.232.17	2.081.71	0.841.63	-2.361.356	4.021.448	-5.61.783	-11.341.118	-7.521.476	-2.491.012	1.993.6	4.54.82	4.824.78	4.874.95	4.884.45	3.531.9	0.61.406	-8.411.383	-19.241.904	-10.91.67	-4.991.52	-6.81.731	
Theta (60°)	Phi(0°)	-5.871.227	0.021.44	2.463.03	3.122.7	1.880.59	-1.371.34	-8.571.193	-10.651.35	-9.211.406	-13.961.834	-14.081.837	-4.191.716	0.652.29	3.091.26	2.922.82	2.993.2	2.993.2	2.190.58	-1.851.741	-7.641.706	-15.621.178	-15.791.305	-8.971.623	-15.031.137	
Theta (67.5°)	Phi(0°)	-8.21.56	-5.21.42	0.871.69	1.971.77	1.061.04	-1.841.424	-6.711.94	-14.811.818	-17.841.844	-18.871.874	-14.821.849	-5.551.824	1.371.137	1.811.81	1.211.002	-1.591.349	-6.221.023	-16.811.896	-16.891.129	-11.371.193	-18.351.1424				
Theta (75°)	Phi(0°)	-10.751.796	-4.521.32	-1.41.42	-0.351.104	-2.411.447	-6.981.1019	-13.821.1432	-12.911.1384	-17.131.1903	-16.681.159	-11.071.725	-4.71.274	-1.131.004	0.370.2	-0.121.032	-0.361.008	0.490.75	0.431.034	-1.681.406	-8.181.49	-18.621.1903	-19.171.1765	-16.271.1957	-17.371.154	
Theta (82.5°)	Phi(0°)	-12.271.198	-7.41.67	-2.621.38	-1.231.209	-3.531.509	-6.541.582	-12.111.19	-18.851.1768	-18.221.18	-19.071.1782	-16.811.1404	-7.091.496	-3.311.206	-1.491.152	-1.971.423	-2.391.163	-0.521.128	-3.091.655	-12.231.1872	-17.861.1778	-16.631.197	-15.891.1807	-19.021.1835		
Theta (90°)	Phi(0°)	-18.131.1808	-13.371.921	-6.151.543	-4.371.162	-10.071.1518	-10.071.1518	-13.651.1632	-19.011.1885	-18.621.1894	-18.181.1811	-12.651.108	-7.621.51	-4.231.266	-1.821.163	-2.151.277	-2.731.22	-0.781.171	-2.221.378	-10.121.223	-16.011.1652	-16.331.1794	-14.651.186	-17.451.1615	-16.211.17	
Theta (97.5°)	Phi(0°)	-17.771.1826	-16.391.1151	-7.881.596	-5.331.64	-9.61.1507	-18.721.1908	-16.41.1622	-17.341.1673	-14.441.1324	-15.041.1842	-18.041.1346	-9.731.82	-6.321.462	-3.511.348	-4.21.62	-4.541.435	-4.261.439	-5.111.656	-7.911.87	-10.011.1207	-14.011.1699	-18.31.1856	-18.311.1891	-17.241.1647	
Theta (105°)	Phi(0°)	-16.881.1567	-14.081.1198	-9.591.584	-8.621.649	-11.251.1323	-16.361.176	-18.311.1754	-17.041.1516	-12.71.138	-12.381.1554	-16.431.1323	-10.551.918	-8.221.693	-5.731.633	-5.21.601	-5.141.544	-5.551.557	-6.61.8	-7.911.98	-13.561.181	-16.881.159	-17.171.1854	-16.671.1711	-16.761.1702	
Theta (112.5°)	Phi(0°)	-18.821.1551	-13.631.1355	-12.811.1191	-12.261.1334	-14.281.1498	-15.781.1535	-13.071.1184	-17.021.1286	-13.291.1376	-16.741.1826	-16.651.1425	-13.41.1254	-10.781.907	-7.891.779	-8.241.825	-7.891.82	-8.131.878	-10.151.1246	-13.981.1364	-11.951.1058	-11.441.1499	-17.581.1867	-19.031.1764		
Theta (120°)	Phi(0°)	-11.751.987	-8.31.825	-9.221.1061	-12.181.1315	-13.011.1362	-17.541.188	-16.251.1195	-10.581.1043	-10.61.131	-13.41.7	-18.831.1607	-13.011.1097	-9.781.909	-8.091.703	-6										



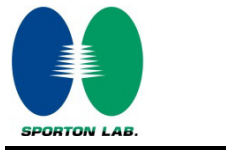
Radiated Composite Gain Data_2.4GHz, 5GHz UNII-1~3-4TX(Radio 1)

Appendix B

Theta (°)	0.46/0.83	1.67/1.96	2.37/2.89	3.33/4.3	3.16/2.66	2.08/1.35	0.46/-0.84	-2.21/-3.79	-6.46/-11.02	-18.57/-17.65	-10.75/-6.2	-3.58/-1.69	-0.14/1.05	2.02/2.68	3/3.9	3.35/3.49	3.38/3.05	2.45/1.73	0.86/-0.33	-2.09/-3.94	-6.81/-11.28	-18.42/-17.43	-9.7/-5.96	-3.96/-2.27	
Theta (7.5°)	-0.38/0.8	1.77/2.24	2.62/3.04	3.53/6.7	3.4/2.86	2.29/1.67	0.91/-0.21	-1.49/-3.15	-5.9/-9.98	-17.57/-18.13	-11.5/-6.7	-3.77/-1.51	0.01/1.23	2.1/2.66	3.02/3.22	3.23/3.08	2.82/2.39	1.72/0.72	-0.38/-1.72	-3.15/-4.72	-6.78/-10.15	-16.39/-17.5	-12.43/-6.93	-3.98/-2.08	
Theta (15°)	-0.89/0.07	0.92/1.52	2.19/2.99	3.64/3.94	3.67/3.01	2.08/1.13	0.08/-0.78	-1.66/-2.9	-5.14/-8.18	-13.07/-18.41	-13.96/7.41	-3.88/-1.48	0.09/0.4	1.77/2.37	2.72/2.92	3.04/3.1	2.79/2.23	1.52/0.63	-0.71/-2.31	-4.24/-6.56	-9.61/-14.15	-18.93/-18.99	-9.77/-5.85	-3.85/-2.3	
Theta (22.5°)	-1.29/0.41	1.68/2.55	2.88/2.78	2.89/2.95	3.01/2.89	2.26/1.24	-0.05/0.45	-0.41/-1.15	-3.29/-7.3	-13.71/-18.51	-11.52/5.66	-2.66/-1.13	-0.43/0.23	1.05/1.78	2.32/3.43	2.46/2.43	2.27/1.7	0.86/0.02	-0.71/-1.76	-3.6/-6.42	-10.17/-14.89	-15.38/-11.26	-7.79/-5.73	-4.32/-3	
Theta (30°)	-0.99/-0.04	0.64/1.66	2.58/2.78	2.26/1.52	1.14/1.31	1.89/1.69	0.25/-0.75	-0.12/-0.14	-2.62/-8.53	-18.12/-19.29	-12.06/6.62	-4.51/-3.14	-1.04/0.58	1.46/2.04	2.95/3.56	3.7/3.56	3/2.17	1.31/0.51	-0.67/-2.16	-3.44/-5.53	-10.17/-15.94	-13.41/-9.84	-8.1/-8.43	-7.09/-3.34	
Theta (37.5°)	-0.68/0.07	0.85/1.62	2.26/2.89	3.39/3.68	3.42/2.69	1.87/0.64	-1.38/3.46	-3.69/3.66	-5.85/-10.66	-11.92/-13.45	-11.65/7.05	-5.99/-2.88	0.32/1.51	1.82/2.55	3.74/4.77	5.02/4.61	3.45/2.59	2.19/1.17	-0.06/-1.36	-3.74/-6.92	-11.65/-19.25	-18.09/-13.11	-9.52/-7.96	-4.29/-1.74	
Theta (45°)	-0.18/0.85	1.27/1.66	2.44/2.93	2.92/2.82	2.61/2.46	2.09/0.61	-1.38/-3	-5.27/-11.39	-14.23/-12.28	-15.44/-13.22	-9.57/6.12	-5.24/-2.69	-0.10/0.86	1.51/2.22	2.63/3.36	3.68/3.39	2.04/0.76	-0.4/-0.41	-0.91/-1.76	-3.24/-7.47	-17.96/-19.04	-16.15/-18.49	-15.34/-8.6	-3.5/-1.16	
Theta (52.5°)	-2.09/-0.73	-0.71/1.07	2.68/3.12	2.94/2.26	1.31/1.03	1.19/0.23	-2.12/-3.1	-4.4/-10.74	-17.38/-14.32	-18.27/-9.44	-6.59/4.91	-4.67/5.31	-3.58/-0.83	0.93/1.64	1.33/1.53	1.67/1.84	1.05/-0.99	-2.17/-2.37	-2.9/-2.67	-4.09/-8.66	-13.7/-18.4	-18.14/-16.24	-11.24/-6.95	-3.75/-3.41	
Theta (60°)	-3.88/-4.68	-4.7/-2.41	-1.44/-1.69	-1.15/-0.56	-0.59/-0.46	-0.51/-1.1	-3.77/-6.71	-7.38/-9.5	-16.34/-18.75	-14.5/-8.43	-8.44/-6.8	-4.42/-6.53	-6.74/-2.52	-0.68/0.94	-2.18/-1.06	-0.82/-1.25	-0.51/-0.57	-1.16/-2.12	-4.06/-5.43	-6.95/-7.8	-10.12/-18.25	-17.85/-17.22	-9.97/-5.4	-3.66/-3.72	
Theta (67.5°)	-1.3/-1.95	-1.59/-1.46	-2.34/-3.8	-3.47/-2.14	-1.26/-0.83	-1.57/-3.03	-5.63/-7.73	-11.67/-15.38	-19.19/-18.41	-18.47/-13.43	-15.31/10.67	-6.44/-7.2	-4.94/-1.78	-1.38/-2.2	-2.53/0.59	-0.53/-2.35	-2.23/-1.59	-0.65/-2.26	-5.03/-6.36	-6.78/-8.81	-11.66/-17.16	-18.38/-17.39	-8.04/-4.84	-3.03/-1.53	
Theta (75°)	-2.74/-2.04	-1.71/-2.17	-2.84/-3.23	-4.22/-3.17	-1.32/-0.09	-1.09/-4.79	-8.49/-9.92	-13.79/-15.46	-13/-16.91	-14.51/-17.58	-18.07/-13.06	-7.25/-5.72	-4.59/-1.93	-1.95/-2.25	-2.91/-1.32	0.03/-0.56	-2.2/-1.98	-1.46/-2.38	-5.86/-6.93	-6.08/-7.08	-11.42/-18.64	-17.29/-16.57	-9.61/-6.98	-4.96/-3.18	
Theta (82.5°)	-3.67/-2.86	-3/-3.71	-4.34/-4.48	-6.63/-3.89	-1.22/-1.63	-2.73/-7.24	-10.16/-10.91	-14.55/-13.41	-10.01/-14.65	-17.61/-19.25	-17.13/-15.51	-11.54/-6.16	-4.97/-1.41	-4.35/-2.35	-2.59/-2.61	-1.37/-1.48	-1.91/-2.32	-1.78/-3.21	-6.71/-9.62	-8.53/-7.3	-8.9/-17.61	-18.62/-18.54	-13.76/-10.08	-7.72/-4.48	
Theta (90°)	-5.83/-4.46	-5.23/-6.43	-6.93/-6.25	-7.18/-5.58	-3.54/-4.84	-4.85/-10.57	-12.52/-11.54	-12.29/-14.23	-9.25/-13.36	-18.39/-17.99	-19.2/-16.7	-17.13/8.37	-6.35/-5.27	-7.3/-5.23	-2.89/-5.55	-4.88/-2.51	-2.11/-2.11	-3/-5.48	-10.6/-12.22	-10.52/-10.37	-13.7/-18.26	-18.08/-17.56	-16.37/-11.98	-9.87/-6.42	
Theta (97.5°)	-10.71/-7.27	-6.19/-7.53	-8.98/-7.81	-7.99/-8.32	-5.07/-9.3	-9.09/-11.94	-10.93/-10.94	-12.46/-13.96	-9.86/-13.98	-17.55/-18.72	-17.59/-15.84	-18.36/-12.09	-8.94/-6.45	-9.55/-5.6	-2.62/-4.63	-7.13/-7.39	-5.72/-4.16	-4.19/-3.77	-17.04/-19.47	-11.75/-11.64	-14.01/-19.25	-17.94/-18.29	-18.8/-17.89	-17.67/-12.09	
Theta (105°)	-14.81/-8.1	-7.05/-8.7	-10.4/-10.92	-9.36/-10.28	-11.28/-16.24	-12/-11.21	-11.77/-14.07	-18.91/-13.23	-9.41/-13.23	-17.9/-19.04	-17.13/-15.51	-17.94/-17.83	-10.77/-7.46	-10.53/-12.29	-5.28/-5.06	-6.65/-7.8	-8.59/-6.14	-5.96/-9.71	-18.14/-17.5	-17.94/-14.89	-18.49/-15.06	-18.86/-18.74	-17.81/-17.23	-18.57/-18.76	
Theta (112.5°)	-16/-13.4	-15.36/-11.24	-14.84/-16.96	-11.74/-15.67	-14.17/-14.18	-13.74/-11.09	-14.16/-13.31	-15.75/-12.52	-12.15/-14.83	-16.16/-16.31	-19.49/-18.66	-18.51/-18.13	-11.88/-8.11	-10.72/-19.1	-9.38/-5.47	-7.17/-10.38	-10.59/-8.04	-7.01/-9.64	-14.41/-18.07	-17.68/-15.62	-10.44/-17.61	-19.51/-18.69	-18.19/-19.24	-16.08/-17.61	
Theta (120°)	-17.49/-17.76	-18.51/-13.41	-18.58/-17.22	-15.35/-13.98	-17.1/-16.64	-13.25/-11.37	-14.24/-13.29	-15.86/-13.07	-12.9/-12.58	-13.69/-17.94	-17.38/-18.81	-15.61/-18.57	-18.21/-11.91	-8.99/-11.82	-18.99/-9.79	-8.87/-8.04	-9.01/-11.8	-9.02/-11.48	-13.87/-16.34	-13.13/-14.69	-15.31/-17.79	-18.74/-17.96	-18.56/-15.39	-17.67/-12.09	
Theta (127.5°)	-14.46/-12.96	-13.47/-18.1	-16.01/-12.85	-16.46/-14.58	-14.13/-16.03	-17.68/-18.34	-18.66/-17.89	-18.84/-12.06	-10.11/-11.16	-14.1/-17.89	-18.42/-18.22	-15.57/-18.09	-18.59/-13.12	-9.99/-11.92	-18.79/-13.74	-9.81/-16.73	-17.78/-8.86	-10.15/-6.55	-18.17/-17.35	-13.95/-14.25	-18.01/-17.79	-15.31/-18.45	-19.17/-18.66	-19.02/-16.1	
Theta (135°)	-16.4/-18.24	-18.62/-17.83	-18.34/-18.08	-17.97/-18.69	-19.07/-18.5	-18.5/-17.74	-17.71/-17.38	-12.19/-11.18	-12.82/-13.12	-15.29/-17.8	-16.01/-18.78	-16.48/-17.58	-17.11/-18.45	-10.8/-6.23	-4.99/-9.12	-19.17/-18.3	-16.15/-10.42	-9.47/-11.44	-19.06/-16.8	-16.9/-17.41	-13.82/-12.71	-18.74/-17.95	-16.05/-17.19	-17.85/-12.58	
Theta (142.5°)	-17.5/-18.33	-19.12/-17.22	-14.56/-15.34	-14.82/-15.08	-14.55/-17.19	-18.23/-17.94	-16.56/-13.01	-12.95/-15.87	-13.68/-10.7	-14.53/-16.94	-17.81/-18.75	-13.85/-11.41	-14.31/-17.49	-18.92/-12.03	-9.18/-8.39	-10.93/-16.26	-13.93/-13.09	-14.26/-12.58	-16.38/-17.79	-17.99/-18.97	-18.21/-17.94	-19.45/-17.05	-15.15/-17.67	-17.63/-18.32	
Theta (150°)	-15.84/-18.5	-17.88/-19.22	-14.65/-18.13	-17.54/-17.17	-15.34/-12.79	-12.13/-13.6	-17.32/-18.36	-16.57/-12.05	-9.04/-8.21	-10.06/-14.07	-18.97/-19.56	-13.69/-12.08	-14.78/-17.83	-18.53/-13.74	-12.12/-12.51	-13.24/-13.49	-18.06/-18.44	-18.86/-18.06	-18.68/-18.06	-18.5/-15.65	-14.74/-15.04	-15.28/-16.48	-17.77/-18.66	-18.59/-18.93	
Theta (157.5°)	-18.39/-19.04	-18.61/-16.99	-16.16/-12.66	-10.78/-11.98	-15.55/-18.08	-16.45/-13.07	-11.26/-10.61	-10.53/-10.6	-11.1/12.85	-17.13/-18.79	-16.36/-13.46	-14.84/-15.39	-16.35/-18.66	-18.36/-19.13	-19.38/-16.2	-13.5/-13.68	-10.99/-9.09	-9.59/-11.09	-11.58/-11.86	-12.43/-15.63	-18.43/-17.22	-18.28/-17.33	-19.24/-18.51	-18.93/-18.36	
Theta (165°)	-15.38/-13.93	-12.6/-11.99	-11.66/-11.37	-11.87/-13.49	-14.73/-15.5	-16.56/-18.04	-17.29/-14.99	-12.86/-12.02	-12.34/-13.04	-14.64/-16.56	-19.26/-18.95	-18.41/-19.02	-18.04/-18.67	-17.72/-19.17	-17.84/-15.12	-13.64/-12.33	-11.81/-11.89	-12.62/-12.79	-13.19/-14.2	-15.04/-19.41	-18.31/-18.36	-17.88/-19.05	-17.98/-17.89	-18.37/-17.01	
Theta (172.5°)	-16.02/-16.41	-16.13/-17.42	-18.78/-17.98	-19.27/-17.27	-16.44/-16.59	-16.77/-15.27	-14.19/-13.36	-13.41/-13.5	-15.14/-18.12	-17.44/-17.32	-15.81/-12.97	-11.68/-11.12	-10.77/9.8	-8.62/-8.22	-9.21/-10.54	-11.64/-13.41	-15.32/-14.39	-13.08/-12.63	-12.78/-13.03	-14.4/-17.06	-18.91/-17.18	-15.65/-15.21	-15.35/-15	-14.55/-14.86	
Theta (180°)	-13.86/-13.91	-14.23/-15.42	-16.79/-17.38	-19.41/-17.97	-18.13/-18.42	-18.49/-18.72	-18.97/-17.92	-17.67/-17.68	-19.29/-18.28	-18.45/-16.15	-13.73/-12.34	-11.81/-11.56	-12.16/-12.87	-12.38/-11.57	-11.07/-10.76	-10.56/-10.65	-11.08/-10.74	-10.39/-10.43	-12.93/-14.94	-15.21/-13.71	-12.56/-12.48	-12.15/-11.35	-11.47/-13.08		
Freq(Hz)	5.785GPol.	Theta/Ant. 4																							
Gain	Phi(0°)Phi(5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)	
Theta (0°)	0.97/0.06	-1.38/-3.34	-6.06/-10.08	-16.62/-17.11	-10.68/-6.46	-3.55/-1.59	-0.17/0.82	1.75/2.5	3.04/3.34	3.47/3.41	3.26/3.02	2.62/2.03	1.25/0.09	-1.42/-3.07	-5.29/-8.33	-13.71/-16.01	-10.67/-6.68	-3.74/-1.62	0.02/1.22	2.18/2.78	3.26/3.57	3.66/3.49	3.35/3.08	2.49/1.83	
Theta (7.5°)	1.59/0.51	-0.78/-2.47	-5.21/-8.71	-13.87/-18.92	-12.47/-7.52	-4.21/-1.83	-0.33/0.86	1.68/2.28	2.79/3.15	3.33/3.43	3.51/3.33	2.62/1.69	0.84/-0.27	-1.74/-3.94	-7.73/-13.92	-19.07/-15.71	-8.87/-5.3	-2.83/-0.94	0.43/1.45	2.08/2.73	3.23/3.64	3.88/3.85	3.68/3.42	2.86/2.4	
Theta (15°)	-1.41/-2.35	-3.07/-4.06	-5.85/-8.64	-14.02/-17.46	-12.86/-7.82	-4.94/-3.1	-1.65/-0.33	0.99/2.02	2.73/3.02	3.02/3.1	3.11/2.86	2.32/1.39	0.3/-0.85	-2.31/-4.26	-7.11/-11.92	-18.31/-17.69	-10.29/-6.06	-2.95/-0.68	0.74/1.59	2.11/2.29	2.49/2.67	2.92/2.92	2.67/2.04	0.83/-0.37	
Theta (22.5°)	-0.22/-0.76	-2.08/-3.9	-7.29/-12.89	-18.58/-17.3	-9.49/-5.42	-3.44/-2.79	-3.13/-3.12	-1.21/0.99	2.24/2.43	2.04/1.92	2.01/1.6	0.69/-0.7	-2.46/-4.57	-6.87/-9.83	-15.09/-18.16	-18.64/-13	-9.28/-5.9	-3.06/-1.03	0.49/1.65	2.48/2.75	2.72/2.51	2.25/2.05	1.84/1.3	0.45/-0.01	
Theta (30°)	0.51/-0.34	-1.																							



Freq(Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	7.48	6.28	6.49	5.9	7.49	7.42
Ant. 2 Max Gain (dBi)	7.11	8.01	6	4.87	7.65	8.32
Ant. 1 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/15/315	Theta/15/315	Theta/22.5/315	Phi/7.5/217.5	Theta/7.5/135	Theta/15/135
Ant. 2 Polarization/ $\theta(^{\circ})/\Phi(^{\circ})$	Theta/7.5/217.5	Theta/15/225	Phi/7.5/315	Theta/22.5/217.5	Theta/7.5/45	Theta/0/45
Max Gain (dBi)	7.48	8.01	6.49	5.9	7.65	8.32
DG [1SS] (dBi)	7.66	8.11	6.51	6.24	7.67	8.38
DG [2SS] (dBi)	7.48	8.01	6.49	5.9	7.65	8.32



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-2TX(Radio 2)

Appendix C

Theta	Phi	Phi(15°)	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(22.5°)	Phi(0°)	4.32/4.25	4.01/3.68	3.12/2.7	1.79/2.27	3.09/3.68	3.98/4.25	4.39/4.3	4.08/3.65	2.92/0.6	1.92/2.83	3.52/3.85	3.99/3.99	3.83/3.55	3.22/2.74	1.92/1.07	1.63/2.63	3.62/4.44	4.92/5	4.68/4.07	3.51/3.06	2.44/1.48	1.43/2.68	3.44/3.82	4.08/4.28	
Theta(30°)	Phi(0°)	3.53/3.34	2.86/2.21	1.44/0.71	0.29/0.73	1.68/2.56	3.13/3.37	3.4/3.28	3.03/2.45	1.67/1.09	0.67/1.24	2.26/3	3.51/3.76	3.66/3.26	2.72/1.11	1.09/0.5	-0.95/0.85	2.31/3.48	4.33/4.66	4.44/3.77	2.66/1.49	0.59/0.68	-0.41/1.18	2.39/3.09	3.38/3.57	
Theta(37.5°)	Phi(0°)	2.26/2.13	1.91/1.54	0.68/0.13	-0.66/0.33	1.07/2.22	2.96/3.03	2.82/2.78	2.51/3.73	0.75/0.02	-0.46/0.21	0.96/1.97	2.49/2.63	2.62/2.71	2.02/1.45	0.19/1.57	-1.47/0.19	1.68/2.62	3.02/3.27	2.56/2.71	1.70/7.77	-0.03/1.32	-1.27/0.16	1.53/2.42	2.68/2.63	
Theta(45°)	Phi(0°)	1.28/1.24	0.98/0.57	-0.41/1.38	-1.57/1.06	0.09/1.45	2.34/2.53	2.31/2.32	2.17/0.99	-0.26/0.56	-1.43/1.23	0.23/1.22	1.15/1.46	1.79/1.84	0.99/0.25	-1.35/3.07	-3.49/2.06	-0.26/1.46	2.42/2.59	2.45/1.91	0.62/1.01	-1.84/2.75	-3.02/2.02	-0.32/0.88	1.47/1.55	
Theta(52.5°)	Phi(0°)	0.25/0.15	-0.45/0.81	-2.15/3.55	-3.52/2.64	-1.31/0.01	0.7/0.93	0.85/0.87	0.97/0.18	-1.79/2.24	-3.21/2.23	-0.62/0.45	-0.95/0.76	0.01/0.12	-1.41/2.99	-4.18/1.51	-4.79/3.92	0.30/0.74	0.72/0.03	-1.73/3.44	-3.93/4.59	-4.82/4.7	-2.71/1.54	-0.20/4.7		
Theta(60°)	Phi(0°)	-0.48/-1.81	-1.77/-1.87	-3.06/5.48	-5.88/4.67	-2.63/-1.75	-1.11/-0.16	0.22/0.19	-0.18/-1.55	-3.03/4.46	-4.98/3.27	-1.89/2.08	-2.13/2.05	-0.62/0.5	-7.48/7.26	-7.23/6.88	-6/4.38	-3.91/3.07	-2.58/4.26	-6.34/7.09	-4.85/4.26	-6.4/6.5	-7.48/6.78	-5.61/3.22	-1.61/0.59	
Theta(67.5°)	Phi(0°)	-1.2/2.42	-3.01/2.55	-4.68/7.17	-8.2/6.18	-3.81/2.36	-1.47/0.5	-0.01/0.24	-0.63/2.25	-4.16/7.41	-7.33/4.55	-3.21/2.35	-2.42/2.9	-2.41/2.53	-3.74/6.41	-9.16/9.26	-9.87/10.07	-7.67/4.03	-3.14/2.8	-3.82/5.04	-6.34/8.29	-10.32/8.28	-9.48/9.02	-6.95/4.03	-1.89/1.1	
Theta(75°)	Phi(0°)	-2.19/-3.48	-4.56/-3.89	-6/8.39	-10.15/7.66	-5.11/2.89	-2.83/-1.06	0.2/0.58	-3.51/1.8	-1.95/2.29	-4.99/8.94	-9.26/7.14	-5.13/3.53	-3.52/3.29	-2.63/2.53	-3.88/3.72	-12.38/11.54	-11.95/13.14	-9.64/4.75	-2.19/2.61	-3.13/3.16	-4.85/8.17	-11.89/9.31	-11.41/10.97	-8.86/5.51	-2.75/1.9
Theta(82.5°)	Phi(0°)	-3.87/5.43	-5.65/5.28	-7.82/10	-11.64/8.98	-6.17/4.34	-4.1/-1.42	-0.08/1.06	-4.01/4.26	-7.32/12.27	-9.71/9.51	-6.72/5.17	-5.7/4.87	-3.73/3.53	-5.76/11.26	-15.42/15.6	-13.25/13.84	-9.5/5.49	-2.85/2.1	-3.38/3.5	-5.68/8.54	-13.02/11.14	-12.91/13.49	-12.35/6.95	-3.94/3.13	
Theta(90°)	Phi(0°)	-6.44/7.63	-7.34/7.06	-9.48/12.04	-12.64/11.17	-8.42/7.04	-5.8/2.85	-1.64/2	-5.13/6.86	-8.6/14.1	-12.27/11.58	-8.23/7.78	-7.73/6.9	-6.54/6.04	-8.25/12.84	-14.94/15.29	-14.28/15.3	-10.81/6.45	4.87/3.68	-4.13/4.89	-7.13/11.37	-13.36/12.53	-15.1/14.89	-13.47/9.28	-6.39/5.07	
Theta(97.5°)	Phi(0°)	-9.61/10.27	-9.38/8.74	-11.59/14.26	-15.31/12.49	-9.78/9.1	-7.41/4.36	-3.51/1.8	-10.42/14.28	-12.62/13.28	-10.87/10.89	-9.71/8.24	-8.13/9.08	-11.47/15.28	-15.48/14.51	-12.76/15.95	-13.99/2.28	-8.16/6.33	-7.18/8.57	-10.95/15.5	-14.74/14.31	-14.83/15.26	-14.24/11.52	-8.76/7.99		
Theta(105°)	Phi(0°)	-12.39/12.71	-12.07/9.88	-12.85/15.15	-14.61/14.28	-12.71/11.03	-10.01/7.05	-6.19/6.84	-9.29/9.98	-12.24/13.5	-12.61/15.02	-10.64/12.39	-11.63/15.56	-15.49/15.26	-14.3/15.03	-15.16/12.81	-13.16/13.76	-11.23/11.33	-15.31/15.73	-15.48/14.16	-15.2/14.93	-15.21/14.93	-15.13/15.62	-11.99/10.97		
Theta(112.5°)	Phi(0°)	-14.77/14.55	-13.99/11.27	-13.93/15.61	-15.71/13.84	-12.46/11.78	-11.4/10	-9.3/10.01	-10.77/10.92	-13.17/13.94	-13.19/15.91	-12.94/13.54	-11.24/12.38	-13.21/13.82	-14.75/15.36	-16.16/16.11	-15.37/14.81	-15.23/13.72	-12.39/15.1	-15.11/14.25	-14.94/14.89	-16.01/15.13	-15.49/15.13	-15.37/13.94	-12.09/12.9	
Theta(120°)	Phi(0°)	-15.6/14.9	-14.29/11.69	-14.53/15.74	-15.46/14.06	-12.31/13.13	-13.71/10.94	-10.61/11.62	-12.81/15.04	-14.35/15.52	-15.72/14.68	-13.72/13.37	-13.41/13.06	-15.34/15.21	-15.75/14.64	-16.17/14.99	-15.18/13.82	-12.25/14.64	-14.84/15.38	-15.27/15.56	-16.22/15.54	-15.12/12.45	-15.12/12.45	-15.12/12.45	-12.27/14.43	
Theta(127.5°)	Phi(0°)	-14.15/15.65	-15.69/14.61	-12.79/15.37	-15.46/14.06	-15.28/14.54	-12.88/13.34	-15.03/14.57	-13.13/14.35	-13.3/15.15	-15.29/13.91	-13.18/14.62	-14.29/15.5	-15.42/14.63	-11.69/14.82	-15.25/15.57	-15.85/14.72	-15.65/15.52	-15.22/15.4	-14.91/15.28	-15.97/15.26	-16.03/15.57	-15.03/15.45	-13.49/15.2		
Theta(135°)	Phi(0°)	-15.65/14.18	-13.04/14.4	-15.72/15.59	-15.08/15.57	-14.33/15.14	-15.32/15.11	-14.27/14.29	-14.75/15.02	-14.97/15.28	-15.09/14.77	-14.95/15.83	-14.64/15.77	-14.87/15.35	-14.93/15.42	-15.26/14.76	-15.53/14.12	-15.26/14.63	-15.04/14.81	-15.32/15.19	-15.84/15.1	-15.48/15.54	-15.23/15.15	-15.18/15.46	-14.85/15.62	
Theta(142.5°)	Phi(0°)	-15.14/14.78	-15.16/14.85	-15.23/15.36	-15.53/15.01	-15.63/15.24	-14.48/15.16	-15.16/13.98	-14.16/14.16	-14.5/14.82	-15.12/15.74	-15.42/15.45	-15.54/15.33	-14.83/15.19	-15.43/14.79	-15.68/14.56	-16.03/15.68	-15.91/15.72	-14.79/14.99	-15.32/15.11	-13.37/15.04	-15.62/15.54	-15.12/12.45	-15.12/12.45	-15.18/15.49	
Theta(150°)	Phi(0°)	-13.83/15.92	-15.38/14.8	-16.22/15.74	-15.11/15.61	-15.87/15.46	-14.63/14.96	-13.79/13.73	-15.26/15.92	-16.2/15.38	-15.99/15.56	-14.62/14.39	-14.86/15.35	-15.9/15.39	-14.54/15.16	-16.03/14.69	-15.14/15.54	-14.61/14.66	-15.13/15.52	-15.84/15.65	-14.82/14.68	-15.73/14.47	-14.98/15.04	-15.98/14.75	-14.37/13.41	
Theta(157.5°)	Phi(0°)	-14.32/15.29	-15.64/15.26	-14.68/14.53	-14.49/15.84	-15.2/15.76	-15.53/16.01	-15.31/13.95	-14.83/15.54	-15.16/15.85	-15.79/14.75	-15.29/16.12	-15.13/15.06	-14.59/15.23	-15.42/14.96	-15.68/14.58	-15.57/15.19	-15.95/15.42	-15.63/15.12	-15.13/15.34	-15.66/15.76	-15.17/15.31	-15.59/15.33	-15.24/15.18	-14.96/15.09	
Theta(165°)	Phi(0°)	-15.61/15.24	-15.12/15.66	-15.62/15.1	-15.47/15.07	-15.73/15.49	-15.37/14.84	-15.35/14.86	-13.45/13.43	-13.83/14.49	-15.03/15.15	-15.58/15.28	-14.41/15.19	-15.28/15.39	-15.18/15.29	-15.13/14.76	-15.06/14.94	-15.37/14.58	-14.67/15.15	-15.68/14.76	-15.61/15.79	-15.71/15.63	-15.96/14.83	-14.99/15.32	-16.02/15.03	
Theta(172.5°)	Phi(0°)	-15.72/14.91	-15.81/15.89	-15.29/15.1	-15.65/15.06	-15.84/16.24	-16.06/15.62	-16.06/14.94	-13.04/13.6	-13.87/15.53	-14.97/15.02	-15.37/15.7	-15.44/15.66	-15.54/15.96	-15.49/15.69	-15.69/15.15	-15.68/15.15	-14.91/15.81	-15.64/15.61	-16.1/15.79	-15.31/15.61	-14.54/15.91	-15.23/15.22	-15.01/15.81		
Theta(180°)	Phi(0°)	-13.14/13.54	-14.45/14.64	-15.33/15.51	-15.45/16	-15.61/15.1	-15.73/15.98	-15.11/14.67	-14.16/14.34	-14.17/15.59	-15.76/15.87	-15.31/14.95	-14.94/15.01	-14.93/15.54	-15.5/15.52	-16.08/15.16	-15.68/15.72	-14.83/15.58	-15.76/15.54	-14.83/14.33	-14.31/14.01	-14.51/14.87	-15.06/14.64	-13.49/13.27		
Freq(Hz)	Phi(0°)	6.175GPol.	Theta	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+		
DG(dB)	Phi(0°)	Phi(15°)	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(0°)	Phi(0°)	5.57/5.52	5.34/4.96	4.43/3.72	3.19/3.55	4.18/4.64	5.12/5.28	5.42/5.35	5.13/4.71	4.05/3.3	2.78/3.35	4.14/3.73	5.16/5.44	5.55/5.58	5.45/5.16	4.69/4.06	3.51/3.77	4.31/4.85	5.29/5.57	5.56/5.28	4.84/4.42	3.96/3.35	3.25/3.89	4.54/4.91	5.23/5.45	
Theta(7.5°)	Phi(0°)	5.18/5.24	5.12/4.82	4.43/3.68	3.43/4.09	4.74/5.28	5.66/5.85	5.95/5.79	5.56/5.16	4.51/3.73	3.37/4.05	4.77/5.38	5.86/6.04	6.15/6.08	5.83/5.39	4.74/3.84	3.86/3.64	5.04/5.43	5.42/5.11	4.63/4.05	3.38/2.6	2.25/2.92	3.68/4.28	4.67/4.96		
Theta(15°)	Phi(0°)	4.74/4.76	4.54/4.26	3.81/3.21	3.34/1.7	4.89/5.37	5.63/5.86	6.05/6.04	5.65/5.35	4.64/3.85	3.77/4.59	5.35/5.78	6.01/6.18	6.16/5.19	5.83/5.28	4.65/4.94	3.90/3.61	5.07/5.44	5.74/5.85	4.74/4.63	4.86/3.93	2.74/2.79	3.74/3.4	4.78/4.93		
Theta(22.5°)	Phi(0°)	4.35/4.06	3.76/3.48	2.97/2.58	3.06/4	4.75/4.14	5.37/5.5	5.51/5.41	5.15/4.73	4.08/3.41	3.36/4.17	4.99/5.41	5.56/5.73	5.76/5.49	5.18/4.82	4.29/3.48	2.71/3.06	3.62/3.95	4.19/4.36	4.54/4.8	5.06/5.21	5.17/4.88	4.13/3.65	3.98/4.35	4.55/4.57	
Theta(30°)	Phi(0°)	3.63/3.39	2.92/4.4	2.12/2.04	2.47/3.47	4.23/4.59	4.56/4.33	4.18/4.09	3.96/3.64	3.15/2.56	2.46/2.77	3.22/3.5	3.84/4.49	4.73/4.76	4.66/4.22	3.52/2.77	2.79/2.99	2.89/2.8	2.87/3.13	3.29/3.56	4.21/4.99	5.42/5.23	4.46/3.51	3.58/3.91	3.85/3.76	
Theta(37.5°)	Phi(0°)	2.76/2.72	2.22/2.2	2.22/3.2	2.23/3.09	3.86/3.98	3.55/2.88	2.44/2.51	2.37/2.91	2.44/1.81	2.37/2.48	2.57/2.18	1.97/2.15	2.45/2.46	1.89/1.3	0.70/5.6	1.05/1.66	1.69/1.53	1.89/2.87	4.08/4.7	4.93/3.3	2.32/1.6	1.22/1.6	1.74/2.3		
Theta(45°)	Phi(0°)	0.45/0.76	0.62/0.58	1.01/1.41	1.55/1.7	2.08/1.82	1.24/0.8	0.13/0.32	-0.24/0.6	0.98/0.99	1.3															



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-2TX(Radio 2)

Appendix C

Theta (°)	Phi (7.5°)	Phi (15°)	Phi (22.5°)	Phi (30°)	Phi (37.5°)	Phi (45°)	Phi (52.5°)	Phi (60°)	Phi (67.5°)	Phi (75°)	Phi (82.5°)	Phi (90°)	Phi (97.5°)	Phi (105°)	Phi (112.5°)	Phi (120°)	Phi (127.5°)	Phi (135°)	Phi (142.5°)	Phi (150°)	Phi (157.5°)	Phi (165°)	Phi (172.5°)	Phi (180°)
Theta (7.5°)	-3.67/-3.08	-3.31/-5.09	-5.07/-6.74	-8.57/-6.47	-4.05/-3.19	-0.53/0.05	-0.15/-0.6	-1.22/-3.44	-7.09/-7.77	-8.78/-6.01	-4.22/-4.21	-2.99/-2.23	-1.94/-2.74	-4.67/-8.34	-10.16/-10.54	-9.39/-8.89	-9.96/-8.04	-5.34/-4.93	-6.19/-5.33	-9.21/-11.21	-9.34/-8.24	-8.58/-7.94	-6.26/-4.57	-1.92/-2.1
Theta (15°)	-5.12/-4.8	-4.8/-6.31	-5.94/-7.08	-9.07/-8.53	-5.79/-3.84	-1.59/-1.63	-1.77/-1.68	-0.96/-3.39	-8.56/-8.2	-10.85/-5.53	-5.89/-5.6	-3.9/-3.81	-4.38/-3.84	-7.57/-8.5	-10.05/-10.7	-10.25/-8.89	-10.23/-6.17	-4.99/-4.05	-6.01/-5.33	-8.17/-10.39	-9.03/-7.97	-9.08/-9.44	-7.22/-5.61	-3.13/-3.03
Theta (22.5°)	-7.46/-7.43	-6.94/-7.65	-7.95/-8.09	-10.05/-9.2	-6.62/-4.86	-4.02/-3	-3.01/-3.24	-3.05/-5.6	-10.02/-8.99	-10.21/-5.92	-9.14/-7.53	-6.49/-7.51	-7.38/-5.87	-7.29/-9.19	-12.14/-11.88	-11.2/-8	-9.1/-5.22	-3.32/-2.74	-4.7/-5.07	-5.55/-11.2	-9.25/-10.02	-11.15/-10.92	-9.46/-6.94	-5.21/-6.47
Theta (30°)	-9.99/-9.48	-9.31/-9.76	-8.95/-10.14	-11.54/-11.24	-8.57/-6.99	-5.86/-4.19	-3.34/-3.75	-5.06/-8.56	-11.05/-10.16	-10.24/-7.95	-11.24/-9.29	-10.29/-10.36	-8.58/-7.2	-9.42/-10.02	-11.92/-14.46	-11.24/-9.63	-9.56/-8.77	-4.94/-4.29	-6.1/-6.9	-6.4/-9.73	-10.71/-13.8	-12.43/-13.79	-11.7/-13.35	-8.32/-9.46
Theta (37.5°)	-12.28/-10.52	-10.89/-11.71	-10.51/-11.8	-13.28/-11.92	-9.75/-8.02	-7.46/-5.74	-5.22/-5.63	-7.01/-10.44	-10.87/-12.67	-10.42/-10.71	-11.45/-10.63	-12.86/-12.45	-10.11/-10.58	-12.12/-14.16	-14.84/-15.14	-13.56/-12.77	-13.12/-12.96	-9.78/-8.87	-9.85/-11.19	-11.77/-11.57	-12.93/-15.16	-13.47/-15.81	-13.96/-9.33	-10.45/-13.29
Theta (45°)	-13.35/-12.21	-14.23/-13.76	-12.02/-12.12	-15.47/-13.59	-11.29/-8.55	-10.19/-9.22	-8.02/-8.43	-10.47/-11.79	-11.66/-14.2	-11.18/-13.02	-11.61/-12.53	-13.57/-11.83	-10.84/-13.79	-14.62/-15.08	-15.98/-15.32	-15.24/-13.9	-15.21/-13.66	-14.81/-14.4	-15.54/-15.1	-15.67/-14.44	-14.82/-15.66	-14.66/-15.61	-14.52/-12.06	-12.16/-14.22
Theta (52.5°)	-13.85/-14.78	-15.41/-14.41	-12.42/-13.22	-15.56/-14.37	-13.38/-10.79	-9.7/-8.63	-8.85/-9.45	-11.74/-12.09	-12.59/-15.33	-14.88/-13.53	-11.91/-12.69	-14.63/-13.09	-12.48/-15.44	-14.85/-16.1	-15.41/-14.91	-15.27/-11.28	-13.51/-13.46	-11.49/-11.87	-13.8/-12.51	-15.83/-15.97	-15.41/-14.73	-15.33/-15.37	-15.31/-15.19	-14.9/-15.58
Theta (60°)	-15.43/-14.72	-15.38/-15.03	-14.95/-14.73	-15.63/-15.84	-15.23/-14.79	-14.27/-13.95	-13.36/-13.78	-13.54/-10.89	-13.06/-15.19	-14.65/-13.72	-13.46/-14.14	-15.89/-13.67	-14.94/-15.25	-15.31/-15.05	-15.52/-15.05	-15.21/-13.83	-13.97/-14.86	-14.12/-14.56	-15.43/-14.15	-14.47/-15.46	-15.56/-15.86	-15.87/-15.45	-15.11/-14.94	-15.56/-15.64
Theta (67.5°)	-14.97/-15	-15.37/-15.43	-16.56/-15.17	-15.17/-15.5	-13.94/-15.27	-15.51/-15.57	-15.56/-13.93	-12.34/-14.14	-14.16/-15.23	-14.38/-13.69	-13.71/-14.82	-13.29/-13.59	-15.45/-15.01	-14.46/-15.31	-14.76/-15.68	-14.63/-15.46	-14.72/-14.93	-13.07/-14.91	-14.81/-15.51	-13.98/-13.16	-15.36/-15.19	-14.97/-16.21	-15.38/-15.75	
Theta (75°)	-14.37/-14.49	-12.29/-14.11	-13.31/-14.24	-15.38/-15.14	-15.94/-15.82	-15.55/-13.21	-15.01/-14.96	-15.93/-14.89	-14.41/-14.8	-14.26/-15.87	-14.92/-14.55	-14.07/-15.67	-15.45/-15.54	-15.52/-15.54	-15.85/-14.05	-15.56/-12.89	-13.71/-13.62	-13.71/-13.62	-13.71/-13.62	-14.62/-15.38	-15.03/-16.31	-15.54/-15.62	-15.19/-15.11	-14.57/-15.72
Theta (82.5°)	-15.66/-15.44	-13.07/-14.41	-15.28/-15.26	-15.95/-14.73	-13.46/-15.43	-15.56/-14.13	-15.76/-15.53	-15.58/-12.19	-14.67/-15.62	-15.24/-15.01	-15.54/-15.08	-14.71/-15.38	-15.31/-13.38	-15.14/-15.19	-15.26/-15.93	-14.95/-14.38	-15.13/-15.46	-14.49/-15.31	-15.58/-16.24	-15.88/-14.78	-15.43/-15.79	-15.49/-14.32	-14.93/-15.75	
Theta (90°)	-16.16/-15.24	-14.79/-14.49	-15.08/-15.46	-16.02/-15.1	-15.56/-15.77	-15.05/-14.13	-12.86/-14.32	-14.69/-15.22	-15.22/-15.22	-14.88/-15.44	-15.94/-16.34	-15.76/-14.92	-14.53/-13.39	-15.75/-13.15	-14.23/-15.52	-16.05/-15.06	-14.74/-14.41	-15.76/-16.11	-15.11/-15.06	-15.69/-15.61	-15.93/-14.93	-14.29/-16.33	-14.54/-15.11	
Theta (97.5°)	-15.41/-15.89	-15.28/-15.26	-14.76/-15.19	-15.41/-15.5	-14.21/-15.29	-14.62/-15.53	-14.15/-15.24	-15.53/-15.76	-14.88/-15.55	-15.05/-15.23	-15.67/-15.35	-16.28/-14.84	-15.81/-15.62	-15.93/-13.52	-15.71/-14.95	-16.51/-15.46	-15.05/-15.37	-14.53/-15.56	-15.83/-15.12	-15.41/-15.49	-15.45/-15.18	-16.21/-14.73	-15.77/-15.5	-14.63/-13.76
Theta (105°)	-14.17/-14	-14.27/-15.11	-15.88/-16.07	-15.31/-14.9	-14.12/-13.9	-14.16/-12.46	-12.71/-14.88	-14.43/-14.31	-14.76/-15.32	-14.57/-14.76	-15.43/-15.64	-15.81/-15.54	-15.25/-15.85	-15.18/-14.73	-15.77/-14.89	-14.91/-15.51	-15.51/-15.68	-15.39/-15.11	-15.81/-14.76	-15.73/-15.46	-15.08/-15.44	-15.57/-15.61	-15.23/-15.72	
Theta (112.5°)	-15.86/-14.95	-15.68/-15.15	-15.28/-15.16	-15.43/-15.72	-14.96/-15.1	-15.33/-15.11	-15.33/-15.11	-14.63/-14.01	-13.06/-12.85	-13.43/-13.3	-13.41/-13.44	-13.79/-14.73	-15.28/-14.99	-15.46/-15.48	-15.22/-15.26	-15.28/-15.38	-15.45/-15.15	-15.08/-14.57	-15.14/-14.74	-15.71/-15.62	-15.93/-14.93	-15.63/-14.74	-15.05/-15.67	-15.21/-15.02
Theta (120°)	-14.54/-14.78	-13.77/-14.18	-14.17/-14.35	-14.21/-14.5	-14.52/-14.66	-14.98/-13.72	-13.05/-12.38	-12.52/-12.38	-12.84/-12.89	-14.12/-13.35	-13.39/-12.84	-12.87/-12.99	-14.22/-15.15	-15.08/-15.02	-14.16/-13.29	-14.07/-14.27	-14.21/-14.02	-14.59/-15.54	-15.45/-15.34	-15.91/-15.25	-15.91/-15.63	-15.28/-15.39	-15.42/-14.79	-14.73/-15
Theta (127.5°)	6.65/6.47	6.18/5.77	5.26/4.65	4.54/5.16	5.83/6.36	6.76/6.95	7.01/6.98	6.82/6.44	4.33/4.82	5.84/5.02	6.53/6.27	6.71/6.96	6.94/6.76	6.41/5.88	5.24/4.52	4.75/4.49	6.13/6.61	6.97/7.18	7.23/7.16	6.84/6.38	5.74/4.97	4.65/5.21	5.86/6.29	6.54/6.64
Theta (135°)	7.7/3	6.96/6.2	6.12/5.36	5.05/5.7	6.31/6.76	7.01/7.25	7.39/7.42	7.32/6.99	6.44/5.73	5.26/5.66	6.24/6.72	6.96/6.96	6.81/6.5	6.07/5.49	4.73/4.26	4.59/3.37	6.02/6.55	6.88/7.02	7.05/6.83	6.39/5.87	5.25/4.61	4.53/5.13	5.74/6.2	6.58/6.85
Theta (142.5°)	6.31/6.4	6.27/5.99	5.54/4.7	4.44/4.85	5.6/6.1	6.43/6.65	6.75/6.78	6.68/6.38	5.8/5.13	4.92/5.35	5.92/6.36	6.53/6.4	6.06/5.66	5.16/4.48	3.66/2.89	2.87/3.66	4.53/5.35	6.04/6.4	6.41/6.2	5.62/4.97	4.33/3.8	3.79/4.39	5.08/4.58	5.77/6.11
Theta (150°)	4.75/4.67	4.62/4.26	3.83/3.41	3.1/3.53	4.18/4.83	5.45/5.71	5.95/5.91	5.75/5.3	4.69/4.25	4.21/4.51	4.99/5.64	5.89/5.75	5.42/4.92	4.11/3.4	3.1/3.6	3.47/3.76	4.06/4.33	4.53/4.66	4.65/4.56	4.49/4.54	4.83/4.62	4.53/4.49	4.52/4.64	4.96/5.01
Theta (157.5°)	2.98/2.44	2.22/2.24	2.32/2.12	1.86/1.85	2.11/2.42	2.76/2.99	3.92/3.61	3.92/3.61	3.43/3.65	3.91/4.19	3.94/3.58	3.27/2.78	2.34/2.22	2.75/3.06	3.31/3.55	3.71/3.73	3.42/3.08	3.16/3.44	3.85/2.21	3.16/3.44	4.84/4.54	5.36/5.29	4.91/4.35	3.98/3.56
Theta (165°)	0.80/4	0.81/3	1.41/1.3	0.52/0.16	-0.37/0.43	-0.85/-1.22	-0.83/0.41	1.89/2.73	2.92/9	2.94/9.5	2.24/9.5	-0.34/0.05	1.1/1.9	2.57/2.93	2.75/2.79	2.87/2.65	2.59/2.32	1.58/0.58	0.39/1.4	2.79/4	4.67/4.86	4.92/4.89	4.69/3.99	2.78/1.79
Theta (172.5°)	1.06/0.48	0.23/0.82	1.41/1.29	0.36/0.95	-1.75/-1.5	-1.31/-1.84	-2.38/-1.69	-0.18/0.92	1.54/1.53	1.61/1.51	0.21/2.03	-2.81/-1.26	0.21/1.57	2.27/2.48	1.72/1.64	1.22/0.68	0.51/0.24	-0.03/0.12	-0.11/0.14	1.21/1.59	3.01/2.84	2.68/2.98	3.49/3.4	2.69/2.03
Theta (180°)	-4.81/-1.67	-1.89/-1.17	-0.65/0.49	-0.63/0.22	-4.88/-2.75	-1.41/-1.39	-2.18/-2.1	-1.75/-1.33	-1.3/0.7	-0.63/0.79	-1.89/-4.4	-4.54/-2.25	-0.69/1.03	1.85/1.63	0.58/0.61	0.01/-0.56	-0.86/0.88	-0.71/0.58	-0.56/0.31	1.39/1.59	1.71/1.67	1.64/1.81	2.07/2.5	1.91/1.07
Theta (7.5°)	-3.59/-5.7	-5.51/-4.17	-4.12/4.82	-3.83/4.53	-5.01/-3.57	-2.42/3	-5.44/-4.46	-2.88/-3.3	-4.87/4.43	-4.33/4.33	-4.08/0.98	-8.53/-4.49	-2.69/0.23	0.91/4.8	0.96/0.12	-0.29/-1.97	-2.94/-2.4	-1.87/1.8	-1.71/1.8	-1.74/1.54	-0.57/0.36	0.59/0.44	0.10/0.59	-0.04/-1.54
Theta (15°)	-7.11/-8.6	-10.56/-7.14	-6.32/0.95	-7.92/-6.66	-5.82/-6.89	-4.97/-5.52	-8.06/-5.32	-3.62/0.53	-8.99/-8.77	-9.65/-7.5	-9.82/-15.31	-11.96/-8.43	-4.08/-1.73	-3.27/1.23	-0.86/-1.86	-2.35/-4.34	-2.57/-2.6	-2.23/-3.4	-4.16/-2.51	-2.01/-3.2	-2.16/-0.77	-0.69/-0.9	-1.51/-2.1	-3.5/-6.1
Theta (22.5°)	-9.39/-8.86	-9.42/-6.53	-4.8/-9.12	-8.03/-5.01	-6.48/-8.8	-7.61/-8.22	-9.13/-5.4	-4.49/-6.62	-7.99/-8.86	-10.85/-10.26	-11.42/-15.04	-14.92/-9.89	-7.04/-4.21	-1.61/-4.78	-2.87/-4.97	-6.67/-8.09	-2.91/-2.74	-3.87/-4.92	-6.08/-4.11	-5.29/-3.6	-3.06/-2.68	-3.4/-5.82	-4.57/-7.1	
Theta (30°)	-9.62/9.23	-8.18/-6.56	-5.09/-9.28	-8.56/-5.53	-7.51/-8.44	-8.23/-8.43	-8.17/-5.15	-5.41/-9.09	-8.03/-7.63	-10.01/-11.49	-11.41/-14.02	-11.04/-8.15	-6.71/-4.63	-5.36/-8.13	-4.59/-7.48	-9.61/-11.29	-4.18/-5.89	-8.53/-5.96	-2.88/-3.66	-5.67/-5.25	-5.27/4.36	-5.61/7.2	-5.77/-6.2	
Theta (37.5°)	-8.05/-9.43	-8.61/-8.84	-7.65/-10.61	-10.24/-5.95	-7.76/-9.19	-5.26/-8.46	-6.26/-5.16	-5.31/-10.44	-8.16/-7.13	-10.53/-11.14	-9.91/-12.45	-8.61/-7.1	-6.69/-6	-8.82/-10.79	-6.55/-8.09	-10.71/-13.59	-7.91/-5.72	-7.82/-14.47	-9.22/-7.48	-4.96/-5.62	-7.85/-7.91	-7.95/-6.41	-8.23/-12.82	-7.33/-8.02
Theta (45°)	-8.41/-8.81	-8.05/-8.69	-8.18/-9.64	-9.36/-9.41	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32	-5.29/-8.55	-6.44/-5.32
Theta (52.5°)	-9.63/-7.45	-8.27/-6.86	-7.51/-9.31	-9.51/-9.47	-11.81/-8.75	-7.37/-9.95	-8.59/-6.52																	



Freq(Hz)	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	7.48	6.28	6.49	5.9	7.49	7.42
Ant. 2 Max Gain (dBi)	7.11	8.01	6	4.87	7.65	8.32
Ant. 3 Max Gain (dBi)	7.24	6.68	5.88	4.86	7.37	7.26
Ant. 4 Max Gain (dBi)	6.57	7.32	6.34	7.31	6.46	6.82
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/15/315	Theta/15/315	Theta/22.5/315	Phi/7.5/217.5	Theta/7.5/135	Theta/15/135
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/7.5/217.5	Theta/15/225	Phi/7.5/315	Theta/22.5/217.5	Theta/7.5/45	Theta/0/45
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/22.5/135	Theta/30/142.5	Theta/15/315	Phi/7.5/52.5	Phi/7.5/37.5	Theta/15/127.5
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/22.5/45	Theta/15/45	Phi/0/315	Phi/0/307.5	Theta/30/60	Phi/0/142.5
Max Gain (dBi)	7.48	8.01	6.49	7.31	7.65	8.32
DG [1SS] (dBi)	9.91	10.4	9.21	9.03	10.32	10.71
DG [2SS] (dBi)	7.48	8.01	6.49	7.31	7.65	8.32
DG [4SS] (dBi)	7.48	8.01	6.49	7.31	7.65	8.32



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

DG 1SS Result

Freq(Hz)	5.6GPol.	Phi1	Phi2	Phi3	Phi4	Phi5	Phi6	Phi7	Phi8	Phi9	Phi10	Phi11	Phi12	Phi13	Phi14	Phi15	Phi16	Phi17	Phi18	Phi19	Phi20	Phi21	Phi22	Phi23	Phi24	Phi25	Phi26	Phi27	Phi28	Phi29	Phi30	Phi31	Phi32	Phi33	Phi34	Phi35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
DG(dB)	Phi(0)Phi(7.5)	Phi(15)Phi(22.5)	Phi(30)Phi(37.5)	Phi(45)Phi(52.5)	Phi(60)Phi(67.5)	Phi(75)Phi(82.5)	Phi(90)Phi(97.5)	Phi(105)Phi(112.5)	Phi(120)Phi(127.5)	Phi(135)Phi(142.5)	Phi(150)Phi(157.5)	Phi(165)Phi(172.5)	Phi(180)Phi(187.5)	Phi(195)Phi(202.5)	Phi(210)Phi(217.5)	Phi(225)Phi(232.5)	Phi(240)Phi(247.5)	Phi(255)Phi(262.5)	Phi(270)Phi(277.5)	Phi(285)Phi(292.5)	Phi(300)Phi(307.5)	Phi(315)Phi(322.5)	Phi(330)Phi(337.5)	Phi(345)Phi(352.5)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Theta(0°)	8.37818	7.6764	6.9747	6.2730	5.5713	4.8696	4.1679	3.4662	2.7645	2.0628	1.3611	0.6594	-0.0423	-0.7439	-1.4455	-2.1471	-2.8487	-3.5503	-4.2519	-4.9535	-5.6551	-6.3567	-7.0583	-7.7599	-8.4615	-9.1631	-9.8647	-10.5663	-11.2679	-11.9695	-12.6711	-13.3727	-14.0743	-14.7759	-15.4775	-16.1791	-16.8807	-17.5823	-18.2839	-18.9855	-19.6871	-20.3887	-21.0903	-21.7919	-22.4935	-23.1951	-23.8967	-24.5983	-25.2999	-26.0015	-26.7031	-27.4047	-28.1063	-28.8079	-29.5095	-30.2111	-30.9127	-31.6143	-32.3159	-33.0175	-33.7191	-34.4207	-35.1223	-35.8239	-36.5255	-37.2271	-37.9287	-38.6303	-39.3319	-40.0335	-40.7351	-41.4367	-42.1383	-42.8399	-43.5415	-44.2431	-44.9447	-45.6463	-46.3479	-47.0495	-47.7511	-48.4527	-49.1543	-49.8559	-50.5575	-51.2591	-51.9607	-52.6623	-53.3639	-54.0655	-54.7671	-55.4687	-56.1703	-56.8719	-57.5735	-58.2751	-58.9767	-59.6783	-60.3799	-61.0815	-61.7831	-62.4847	-63.1863	-63.8879	-64.5895	-65.2911	-65.9927	-66.6943	-67.3959	-68.0975	-68.7991	-69.5007	-70.2023	-70.9039	-71.6055	-72.3071	-73.0087	-73.7103	-74.4119	-75.1135	-75.8151	-76.5167	-77.2183	-77.9199	-78.6215	-79.3231	-80.0247	-80.7263	-81.4279	-82.1295	-82.8311	-83.5327	-84.2343	-84.9359	-85.6375	-86.3391	-87.0407	-87.7423	-88.4439	-89.1455	-89.8471	-90.5487	-91.2503	-91.9519	-92.6535	-93.3551	-94.0567	-94.7583	-95.4599	-96.1615	-96.8631	-97.5647	-98.2663	-98.9679	-99.6695	-100.3711	-101.0727	-101.7743	-102.4759	-103.1775	-103.8791	-104.5807	-105.2823	-105.9839	-106.6855	-107.3871	-108.0887	-108.7903	-109.4919	-110.1935	-110.8951	-111.5967	-112.2983	-112.9999	-113.7015	-114.4031	-115.1047	-115.8063	-116.5079	-117.2095	-117.9111	-118.6127	-119.3143	-120.0159	-120.7175	-121.4191	-122.1207	-122.8223	-123.5239	-124.2255	-124.9271	-125.6287	-126.3303	-127.0319	-127.7335	-128.4351	-129.1367	-129.8383	-130.5399	-131.2415	-131.9431	-132.6447	-133.3463	-134.0479	-134.7495	-135.4511	-136.1527	-136.8543	-137.5559	-138.2575	-138.9591	-139.6607	-140.3623	-141.0639	-141.7655	-142.4671	-143.1687	-143.8703	-144.5719	-145.2735	-145.9751	-146.6767	-147.3783	-148.0799	-148.7815	-149.4831	-150.1847	-150.8863	-151.5879	-152.2895	-152.9911	-153.6927	-154.3943	-155.0959	-155.7975	-156.4991	-157.2007	-157.9023	-158.6039	-159.3055	-160.0071	-160.7087	-161.4103	-162.1119	-162.8135	-163.5151	-164.2167	-164.9183	-165.6199	-166.3215	-167.0231	-167.7247	-168.4263	-169.1279	-169.8295	-170.5311	-171.2327	-171.9343	-172.6359	-173.3375	-174.0391	-174.7407	-175.4423	-176.1439	-176.8455	-177.5471	-178.2487	-178.9503	-179.6519	-180.3535	-181.0551	-181.7567	-182.4583	-183.1599	-183.8615	-184.5631	-185.2647	-185.9663	-186.6679	-187.3695	-188.0711	-188.7727	-189.4743	-190.1759	-190.8775	-191.5791	-192.2807	-192.9823	-193.6839	-194.3855	-195.0871	-195.7887	-196.4903	-197.1919	-197.8935	-198.5951	-199.2967	-199.9983	-200.6999	-201.4015	-202.1031	-202.8047	-203.5063	-204.2079	-204.9095	-205.6111	-206.3127	-207.0143	-207.7159	-208.4175	-209.1191	-209.8207	-210.5223	-211.2239	-211.9255	-212.6271	-213.3287	-214.0303	-214.7319	-215.4335	-216.1351	-216.8367	-217.5383	-218.2399	-218.9415	-219.6431	-220.3447	-221.0463	-221.7479	-222.4495	-223.1511	-223.8527	-224.5543	-225.2559	-225.9575	-226.6591	-227.3607	-228.0623	-228.7639	-229.4655	-230.1671	-230.8687	-231.5703	-232.2719	-232.9735	-233.6751	-234.3767	-235.0783	-235.7799	-236.4815	-237.1831	-237.8847	-238.5863	-239.2879	-239.9895	-240.6911	-241.3927	-242.0943	-242.7959	-243.4975	-244.1991	-244.9007	-245.6023	-246.3039	-247.0055	-247.7071	-248.4087	-249.1103	-249.8119	-250.5135	-251.2151	-251.9167	-252.6183	-253.3199	-254.0215	-254.7231	-255.4247	-256.1263	-256.8279	-257.5295	-258.2311	-258.9327	-259.6343	-260.3359	-261.0375	-261.7391	-262.4407	-263.1423	-263.8439	-264.5455	-265.2471	-265.9487	-266.6503	-267.3519	-268.0535	-268.7551	-269.4567	-270.1583	-270.8599	-271.5615	-272.2631	-272.9647	-273.6663	-274.3679	-275.0695	-275.7711	-276.4727	-277.1743	-277.8759	-278.5775	-279.2791	-279.9807	-280.6823	-281.3839	-282.0855	-282.7871	-283.4887	-284.1903	-284.8919	-285.5935	-286.2951	-286.9967	-287.6983	-288.3999	-289.1015	-289.8031	-290.5047	-291.2063	-291.9079	-292.6095	-293.3111	-294.0127	-294.7143	-295.4159	-296.1175	-296.8191	-297.5207	-298.2223	-298.9239	-299.6255	-300.3271	-301.0287	-301.7303	-302.4319	-303.1335	-303.8351	-304.5367	-305.2383	-305.9399	-306.6415	-307.3431	-308.0447	-308.7463	-309.4479	-310.1495	-310.8511	-311.5527	-312.2543	-312.9559	-313.6575	-314.3591	-315.0607	-315.7623	-316.4639	-317.1655	-317.8671	-318.5687	-319.2703	-319.9719	-320.6735	-321.3751	-322.0767	-322.7783	-323.4799	-324.1815	-324.8831	-325.5847	-326.2863	-326.9879	-327.6895	-328.3911	-329.0927	-329.7943	-330.4959	-331.1975	-331.8991	-332.6007	-333.3023	-334.0039	-334.7055	-335.4071	-336.1087	-336.8103	-337.5119	-338.2135	-338.9151	-339.6167	-340.3183	-341.0199	-341.7215	-342.4231	-343.1247	-343.8263	-344.5279	-345.2295	-345.9311	-346.6327	-347.3343	-348.0359	-348.7375	-349.4391	-350.1407	-350.8423	-351.5439	-352.2455	-352.9471	-353.6487	-354.3503	-355.0519	-355.7535	-356.4551	-357.1567	-357.8583	-358.5599	-359.2615	-359.9631	-360.6647	-361.3663	-362.0679	-362.7695	-363.4711	-364.1727	-364.8743	-365.5759	-366.2775	-366.9791	-367.6807	-368.3823	-369.0839	-369.7855	-370.4871	-371.1887	-371.8903	-372.5919	-373.2935	-373.9951	-374.6967	-375.3983	-376.0999	-376.8015	-377.5031	-378.2047	-378.9063	-379.6079	-380.3095	-381.0111	-381.7127	-382.4143	-383.1159	-383.8175	-384.5191	-385.2207	-385.9223	-386.6239	-387.3255	-388.0271	-388.7287	-389.4303	-390.1319	-390.8335	-391.5351	-392.2367	-392.9383	-393.6399	-394.3415	-395.0431	-395.7447	-396.4463	-397.1479	-397.8495	-398.5511	-399.2527	-399.9543	-400.6559	-401.3575	-402.0591	-402.7607	-403.4623	-404.1639	-404.8655	-405.5671	-406.2687	-406.9703	-407.6719	-408.3735	-409.0751	-409.7767	-410.4783	-411.1799	-411.8815	-412.5831	-413.2847	-413.9863	-414.6879	-415.3895	-416.0911	-416.7927	-417.4943	-418.1959	-418.8975	-419.5991	-420.3007	-421.0023	-421.7039	-422.4055	-423.1071	-423.8087	-424.5103	-425.2119	-425.9135	-426.6151	-427.3167	-428.0183	-428.7199	-429.4215	-430.1231	-430.8247	-431.5263	-432.2279	-432.9295	-433.6311	-434.3327	-435.0343	-435.7359	-436.4375	-437.1391	-437.8407	-438.5423	-439.2439	-439.9455	-440.6471	-441.3487	-442.0503	-442.7519	-443.4535	-444.1551	-444.8567	-445.5583	-446.2599	-446.9615	-447.6631	-448.3647	-449.0663	-449.7679	-450.4695	-451.1711	-451.8727	-452.5743	-453.2759	-453.9775	-454.6791	-455.3807	-456.0823	-456.7839	-457.4855	-458.1871	-458.8887	-459.5903	-460.2919	-460.9935	-461.6951	-462.3967	-463.0983	-463.7999	-464.5015	-465.2031	-465.9047	-466.6063	-467.3079	-468.0095	-468.7111	-469.4127	-470.1143	-470.8159	-471.5175	-472.2191	-472.9207	-473.6223	-474.3239	-475.0255	-475.7271	-476.4287	-477.1303	-477.8319	-478.5335	-479.2351	-479.9367	-480.6383	-481.3399	-482.0415	-482.7431	-483.4447	-484.1463	-484.8479	-485.5495	-486.2511	-486.9527	-487.6543	-488.3559	-489.0575	-489.7591	-490.4607	-491.1623	-491.8639	-492.5655	-493.2671	-493.9687	-494.6703	-495.3719	-496.0735	-496.7751	-497.4767	-498.1783	-498.8799	-499.5815	-500.2831	-500.9847	-501.6863	-502.3879	-503.0895	-503.7911	-504.4927	-505.1943	-505.8959	-506.5975	-507.2991	-508.0007	-508.7023	-509.4039	-510.1055	-510.8071	-511.5087	-512.2103	-512.9119	-513.6135	-514.3151	-515.0167	-515.7183	-516.4199	-517.1215	-517.8231	-518.5247	-519.2263	-519.9279	-520.6295	-521.3311	-522.0327	-522.7343	-523.4359	-524.1375	-524.8391	-525.5407	-526.2423	-526.9439	-527.6455	-528.3471	-529.0487	-529.7503	-530.4519	-531.1535	-531.8551	-532.5567	-533.2583	-533.9599	-534.6615	-535.3631	-536.0647	-536.7663	-537.4679	-538.1695	-538.8711	-539.5727	-540.2743	-540.9759	-541.6775	-542.3791	-543.0807	-543.7823	-544.4839	-545.1855	-545.8871	-546.5887	-547.2903	-547.9919	-548.6935	-549.3951	-550.0967	-550.7983	-551.4999	-552.2015	-552.9031	-553.6047	-554.3063	-555.0079	-555.7095	-556.4111	-557.1127	-557.8143	-558.5159	-559.2175	-559.9191	-560.6207	-561.3223	-562.0239	-562.7255	-563.4271	-564.1287	-564.8303	-565.5319	-566.2335	-566.9351	-567.6367	-568.3383	-569.0399	-569.74



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta (°)	7.34716	6.78616	5.42457	4.17473	5.766	7.16776	7.81778	7.58716	6.43556	5.06543	5.99645	6.75685	6.76566	6.22572	4.95409	4.08485	6.05691	7.36747	7.3698	6.58615	5.47453	4.64578	6.47685	7.13734
Theta (30°)	6.81676	6.24539	4.44343	2.73308	4.17533	6.35707	7.31711	6.56579	4.99429	3.79413	5.03588	6.56675	6.53598	5.21448	3.5228	2.348	4.94594	6.47667	6.57624	5.65491	4.21323	2.8838	4.9157	6.24666
Theta (45°)	5.76565	5.15054	3.88266	2.17229	3.54489	5.94642	6.46621	5.62643	3.61282	2.54271	3.59466	5.15185	5.94565	4.64378	2.54097	0.87233	3.84454	5.27561	5.76541	4.58374	2.97188	1.56256	3.8648	5.37582
Theta (60°)	4.66459	4.48394	2.88147	0.96188	3.08436	5.38564	5.45533	4.93375	2.79225	1.43124	2.29329	3.95454	5.06	3.96263	1.42303	-0.8091	2.74402	4.53474	4.7433	3.64267	1.70558	-0.0816	2.7375	4.27475
Theta (75°)	3.37304	2.68213	0.84409	-1.01053	1.63287	3.9242	4.01397	3.38211	1.39107	-0.58108	0.45134	1.96273	3.37335	2.01039	-1.23422	-2.13463	0.88201	2.353	3.27248	1.28019	-0.52155	-2.09113	1.03169	2.59342
Theta (90°)	2.43163	0.90668	-0.87335	-3.56116	-0.51078	2.11268	1.57043	-0.45141	-3.02193	-1.25403	0.57182	2.18172	-0.86065	-3.77443	-1.98407	-2.92333	-1.49342	-0.29033	1.15408	1.28019	-3.14139	-4.46264	-1.1409	1.48938
Theta (105°)	2.14113	-0.02	-2.49498	-5.78364	-1.977035	0.30093	1.2605	0.184034	-1.85444	-5.78368	-1.874051	0.28157	1.72114	0.151176	-5.23463	-7.53458	-2.79401	0.64036	0.94046	-1.54301	-6.44456	-6.99478	-1.79009	0.91168
Theta (120°)	1.24007	-1.23182	-3.97433	-8.564	-3.05144	-1.63031	1.23026	-0.88191	-2.7546	-7.56154	-2.73497	1.28081	-0.51124	-6.984795	-8.81814	-3.424037	1.54179	1.55076	-0.71253	-6.74455	-8.95678	-3.82129	-0.2109	
Theta (135°)	-0.45115	-2.154308	-6.184896	-9.634707	-4.06327	-1.96027	0.43032	-1.954362	-5.224934	-7.44636	-3.54202	-1.454036	-0.474903	-2.694527	-10.661084	-10.464873	-3.49111	1.16208	-0.94289	-7.684788	-9.72457	-6.88427	-1.76404	
Theta (150°)	-2.764323	-3.82493	-8.36107	-10.51948	-5.834574	-2.694122	-2.09168	-2.91688	-6.71097	-8.77187	-5.41444	-3.634228	-2.634345	-5.624866	-9.911251	-11.08119	-5.28121	-0.98044	-0.49123	-2.714506	-9.31999	-11.341047	-8.514	-4.61264
Theta (165°)	-5.41571	-6.53478	-10.321197	-11.121098	-8.554832	-4.844	-4.21356	-4.93479	-8.421095	-9.211208	-8.254753	-6.31471	-5.21627	-8.29494	-11.03115	-11.021183	-9.53453	-5.29432	-4.33459	-7.01481	-11.71167	-11.561114	-9.61809	-7.12438
Theta (180°)	-8.054767	-8.744832	-11.144142	-11.711172	-10.341016	-8.894965	-6.71649	-8.34488	-10.40138	-9.62142	-10.754985	-8.73673	-8.78438	-10.12198	-11.12198	-11.08499	-10.34988	-9.13119	-10.921048	-12.7112	-12.541153	-9.644943	-8.45476	
Theta (210°)	-10.361081	-11.031011	-11.721227	-12.371157	-10.861013	-10.01493	-8.83492	-9.124863	-10.37498	-10.28125	-11.191017	-8.56488	-9.391044	-10.731096	-12.861315	-12.511167	-9.87477	-8.754978	-8.411028	-10.971012	-10.331194	-12.671123	-10.481024	-9.51962
Theta (225°)	-11.951204	-11.681014	-11.841246	-11.931181	-10.721126	-10.84999	-9.791008	-10.221038	-11.361182	-11.391123	-11.631053	-9.951051	-10.831063	-10.311888	-11.831211	-12.191249	-11.061066	-9.411129	-10.031058	-10.271124	-12.271187	-11.361187	-11.361187	-10.751151
Theta (240°)	-11.571026	-10.811045	-11.381126	-12.571128	-12.061124	-11.141173	-12.071121	-12.301145	-11.091179	-12.321145	-10.61198	-10.591097	-12.081115	-9.411852	-11.311263	-12.191193	-12.711066	-11.771175	-12.251252	-12.191257	-12.781125	-11.011166	-11.331093	-11.491121
Theta (255°)	-12.771119	-11.271197	-12.381216	-12.331251	-11.711232	-11.691149	-11.071133	-12.191234	-11.641235	-12.451221	-12.051165	-11.841225	-12.351154	-10.95197	-12.411219	-12.261023	-11.421113	-11.51215	-12.291107	-12.271188	-11.941174	-12.351237	-11.37196	-11.481258
Theta (270°)	-12.151223	-12.01113	-11.441194	-12.561127	-12.231234	-12.151234	-12.211319	-11.721089	-11.161198	-12.371248	-12.261127	-12.451191	-12.381214	-11.681094	-11.381196	-11.491198	-12.191143	-10.55495	-10.341231	-11.971097	-12.561185	-10.811813	-12.35111	-11.541204
Theta (300°)	-11.111222	-12.291148	-12.881285	-12.211257	-12.331227	-12.081121	-11.371172	-12.041263	-13.121255	-12.421187	-12.311188	-12.171154	-11.691201	-11.851085	-11.311199	-12.131192	-11.911245	-11.911245	-10.351162	-12.271107	-12.561185	-12.621223	-12.621149	-10.501052
Theta (315°)	-11.781217	-11.911199	-11.931184	-12.151236	-12.461239	-12.221265	-11.071118	-12.121244	-12.051235	-12.281169	-12.171265	-12.211218	-12.031155	-11.331209	-12.641131	-11.631252	-12.421173	-11.341124	-11.891142	-12.281211	-12.251257	-12.131219	-12.2711217	-12.4911244
Theta (330°)	-11.491146	-11.731264	-12.441119	-12.211211	-11.671106	-11.261116	-12.611195	-11.341122	-11.491246	-11.781221	-11.941243	-12.041221	-12.61261	-12.051239	-12.321225	-12.091221	-11.321048	-11.121914	-12.681218	-12.351232	-12.621241	-12.431226	-12.371211	-12.161138
Theta (345°)	-12.491115	-12.02129	-12.41232	-12.451211	-12.671295	-12.781231	-12.441151	-10.591083	-11.571234	-12.221206	-12.141256	-12.361183	-11.661125	-10.691118	-10.931077	-10.29494	-9.181013	-11.05123	-12.721271	-12.641248	-12.091254	-12.221222	-12.041267	
Theta (360°)	-10.651018	-11.311174	-12.191216	-12.481307	-12.561169	-1211192	-11.211211	-11.071157	-11.551287	-12.841239	-12.211231	-12.411177	-11.941262	-12.721231	-12.461283	-12.671234	-12.511281	-12.541274	-12.271169	-11.24111	-11.011153	-11.411129	-10.751087	
Phi (Hz)	6.175GPol	Theta	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
DG (dB)	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta (0°)	8.35834	8.19785	7.42687	6.58697	7.53796	8.26845	8.51836	8.04757	6.91614	5.66621	6.9175	7.91816	8.2883	8.15787	7.42676	6.55705	7.62808	8.42862	8.57831	7.88738	6.77602	5.62618	6.8974	7.84815
Theta (7.5°)	8.53847	8.24786	7.39675	6.39692	7.58808	8.42858	8.55833	7.99747	6.72583	5.29593	6.8753	8.03837	8.6866	8.52823	7.72704	6.51685	7.54804	8.44867	8.62833	7.89732	6.71614	5.62673	7.39783	8.14838
Theta (15°)	8.46826	8.72	7.1638	6.16684	7.6824	7.91902	9.19909	7.7814	7.24624	5.74675	7.3379	8.21845	8.81789	8.67827	7.66697	6.45962	7.53805	8.38862	8.72869	8.51876	7.72714	6.84724	7.9584	8.64864
Theta (22.5°)	7.9758	7.37706	6.41587	6.13687	7.55615	8.61898	9.29121	7.72685	6.4683	7.6797	8.13834	8.56846	8.05758	7.632	5.9163	6.89727	7.44751	7.51756	7.58753	7.41719	6.84685	7.45795	8.22821	
Theta (30°)	6.94653	6.23595	5.51544	5.78643	7.04742	7.66788	8.09815	8.06776	7.2639	5.73574	6.39681	7.09768	8.075	7.83759	7.02623	5.5857	5.96609	6.12615	6.1161	6.36662	6.28629	6.67699	7.09717	
Theta (37.5°)	5.54512	4.7147	4.93525	5.42603	6.39641	6.38647	6.64681	6.92682	6.32547	5.18523	5.7829	6.24601	6.0763	6.26573	4.8432	4.044	4.2433	4.13385	4.04467	5.39554	5.6357	5.46529	5.2535	
Theta (45°)	2.5253	2.9335	3.96451	4.93492	4.8438	4.34458	4.67453	4.41448	4.41403	4.05417	3.50537	4.15434	4.14329	3.88262	4.33446	3.68276	2.4259	2.62259	2.2218	1.61209	2.85353	4.08394	3.4287	2.15226
Theta (52.5°)	-1.41028	1.693	3.3393	4.18376	3.06248	2.12201	2.189	2.0721	2.06237	2.51209	2.21272	2.36164	1.4618	2.3242	2.07276	2.15128	0.66083	0.64015	-0.124043	-0.41011	1.11191	2.37239	2.12194	0.27195
Theta (60°)	-3.46114	0.76225	2.62289	3.243	2.1317	0.93401	-0.73045	1.58146	1.09	0.9139	1.66206	0.94084	-1.3019	1.34122	0.36055	-0.371035	-0.43407	-1.8413	-3.221243	-1.61457	-0.924011	-0.2058	0.7053	-0.81254
Theta (67.5°)	-4.494216	-0.53078	1.51122	2.11337	0.52101	-0.0124	-2.48125	0.86037	-0.65485	-0.3027	0.84085	-0.93235	-3.41159	-0.64423	-0.76129	-2.76182	-0.56405	-1.93436	-3.671238	-0.95147	-2.14136	-2.11104	-1.05194	-2.77346
Theta (75°)	-4.164304	-1.84108	-0.24085	-0.06182	-1.14011	-1.764313	-3.644209	-1.164082	-2.344276	-1.544103	-0.334087	-1.97439	-4.5133	-2.56428	-1.97423	-4.1213	-0.67012	-0.75427	-2.964206	-0.83406	-2.51288	-3.464289	-2.81421	-4.04443
Theta (82.5°)	-5.76444	-3.51435	-2.311288	-2.741369	-2.371177	-3.09132	-4.221323	-2.861284	-4.08493	-3.34287	-2.871293	-3.85465	-5.91494	-4.371533	-4.684254	-5.484267	-0.24008	-0.571231	-1.47163	-2.84495	-5.39451			



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta (°)	0.32-0.17	-0.95-3.04	-3.78-5.26	-6.45-3.84	-2.72-0.83	2.61/2.62	1.93/1.82	1.75/0.7	-4.79-5.36	-6.73-3.69	-2.49-1.09	0.81/0.6	1.48/1.32	-0.46-4.41	-5.24-7.53	-8.81-7.81	-6.1-2.22	-0.81-1.77	-1.70/1	-3.67-5.33	-6.02-6.63	-5.97-4.16	-2.74-1.54	0.55-0.19	
Theta (75°)	-1.39-1.12	-1.39-3.39	-4.76-6.05	-7.09-4.69	-3.88-1.25	0.72/0.78	1.07/0.4	0.64-0.95	-4.79-5.03	-7.7-3.35	-2.81-1.02	0.39/0.28	-0.46-0.24	-1.49-5.26	-6.84-7.8	-8.26-7.58	-6.1-0.74	0.34-0.29	-1.47/0.71	-2.14-4.35	-5.3-5.8	-6.32-5.63	-4.08-2.88	-0.58-1.51	
Theta (82.5°)	-3.15-2.89	-2.42-3.7	-5.96-7.06	-8.17-5.37	-4.29-2.11	-1.53/0.15	1.24-0.28	-1.34-2.97	-4.81-5.24	-7.31-3.86	-3.56-1.64	-1.25-2.05	-2.45-2.52	-3.64-5.61	-8.91-9.07	-8.43-5.97	-4.81-0.7	1.12/0.75	-1.23/0.21	-1.07-1.73	-5.84-7.26	-7.31-7.25	-6.13-4.6	-3.37-3.87	
Theta (90°)	-6.3-5.25	-4.34-5.44	-6.88-8.47	-9.71-7.48	-6.04-4.18	-3.37-0.57	0.4-0.68	-2.3-4.59	-4.96-6.78	-7.6-6.31	-5.04-3.15	-3.74-4.64	-4.57-4.16	-6.15-7.23	-8.64-11.54	-9.15-6.54	-5.76-4.22	-1.37-0.96	-2.24-2.51	-2.09-4.64	-7.34-9.94	-8.77-9.3	-8.19-5.75	-5.68-5.18	
Theta (97.5°)	-8.76-6.41	-5.42-7.6	-8.33-10.11	-11.1-8.86	-7.9-5.46	-5.09-2.02	-1.7-2.47	-4.53-6.98	-6.35-9.93	-9.06-8.28	-6.39-5.7	-6.56-6.63	-6.27-6.68	-9.07-9.73	-10.83-12.02	-11.18-9.26	-9.09-6.71	-6.83-5.52	-5.09-8.26	-7.4-7.96	-9.75-11.48	-9.75-10.81	-10.07-7.26	-7.95-7.37	
Theta (105°)	-9.78-8.9	-8.67-9.81	-10.21-10.43	-12.47-10.12	-9.12-6.48	-7.25-5.33	-5.11-4.84	-7.93-8.33	-8.99-11.38	-9.81-10.06	-8.53-8.69	-9.54-8.3	-7.57-8.2	-11.06-10.81	-11.29-11.01	-11.97-11.74	-10.38-8.66	-10.64-10.87	-9.02-10.75	-11.65-10.88	-11.24-12.87	-11.14-10.87	-10.35-9.64	-10.01-8.34	
Theta (112.5°)	-10.97-11.06	-11.24-10.64	-9.83-11.25	-12.64-10.94	-9.86-9.53	-7.52-5.4	-5.39-6.67	-9.01-9.9	-10.45-11.54	-11.91-10.65	-9.97-10.32	-11.36-9.69	-9.45-9.95	-10.74-10.63	-10.81-10.73	-12.12-9.69	-9.73-8.55	-8.47-9.13	-9.22-8.41	-11.11-12.09	-11.77-11.87	-12.18-12.66	-11.23-12.18	-11.63-11.15	
Theta (120°)	-12.27-11.88	-12.56-11.45	-11.11-11.85	-12.26-12.45	-12.48-11.49	-11.54-9.6	-10.32-11.55	-11.01-9.96	-9.98-11.82	-11.3-11.52	-10.74-10.77	-11.76-10.6	-11.3-10.11	-10.4-10.16	-10.12	-12.22-11.63	-11.71-11.55	-11.17-11.46	-12.21-11.4	-11.49-12.05	-12.45-12.69	-11.49-12.4	-11.39-12.15	-12.42-12.43	
Theta (127.5°)	-12.47-12.28	-12.43-12.27	-12.81-12.63	-12.32-12.4	-11.56-12.03	-12.08-12.28	-10.41-10.28	-10.94-11.77	-11.02-12.42	-12.09-11.2	-11.17-11.82	-9.76-10.25	-11.87-12.29	-10.95-10.04	-10.24-12.7	-12.08-12.15	-10.71-11.87	-12.29-11.12	-11.29-11.66	-10.87-11.24	-12.5-12.19	-10.46-11.98	-12.32-12.66		
Theta (135°)	-12.14-11.98	-10.78-11.52	-11.08-11.75	-12.15-12.34	-12.55-12.38	-12.59-11.21	-11.41-12.31	-12.76-11.3	-11.34-12.22	-11.58-12.32	-11.16-12.02	-11.13-12.43	-12.28-11.92	-11.72-10.91	-10.97-11.71	-12.48-11.01	-12.05-10.38	-9.55-9.72	-9.81-11.43	-9.04-10.73	-11.91-12.8	-12.48-12.35	-12.23-11.4	-12.14-12.48	
Theta (142.5°)	-12.48-12.3	-11.28-11.83	-11.87-12.42	-12.9-12.29	-11.22-11.97	-12.12-11.65	-11.72-12.39	-12.38-10.33	-12.08-10.98	-12.23-12.4	-10.97-12.04	-12.01-12.34	-11.63-9.87	-11.41-11.54	-12.47-12.77	-12.66-11.7	-12.48-11.89	-12.1-12.39	-12.1-12.24	-12.65-12.8	-12.71-11.76	-12.36-12.55	-12.16-11.03	-11.85-11.62	
Theta (150°)	-12.81-12.4	-12.27-11.93	-10.88-12.25	-12.5-12.37	-12.61-12.61	-12.18-11.85	-10.68-11.87	-12.14-12.47	-12.08-11.63	-12.32-12.63	-12.16-11.95	-11.85-12.47	-11.95-11.41	-12.03-10.1	-11.39-12.32	-12.96-12.12	-12.12-13.02	-12.12-13.31	-11.81-12.05	-12.62-12.79	-12.77-12.33	-11.72-13.1	-12.26-11.45		
Theta (157.5°)	-11.89-12.75	-12.45-12.49	-12.31-12.43	-12.27-12.5	-12.05-12.22	-11.73-12.5	-12.02-11.6	-11.87-12.61	-12.32-12.31	-11.64-11.39	-11.97-10.9	-11.9-12.32	-12.58-10.67	-10.36-9.86	-12.06-12.4	-12.99-12.56	-12.42-11.96	-11.37-12.12	-11.63-10.47	-10.4-11.86	-12.45-12.28	-12.53-12.29	-12.32-11.86	-10.38-10.28	
Theta (165°)	-11.73-11.94	-11.58-12.19	-12.71-12.28	-12.27-11.92	-11.76-11.66	-11.82-10.81	-11.02-11.95	-11.21-11.21	-11.32-10.71	-11.45-11.81	-12.95-12.52	-12.38-12.62	-12.61-11.83	-10.73-10.72	-10.48-10.76	-12.02-12.29	-12.17-11.07	-10.77-11.83	-12.66-12.34	-12.34-12.02	-12.45-12.88	-12.18-11.69	-11.57-11.44	-11.81-12.44	
Theta (172.5°)	-12.4-11.98	-12.02-12.03	-12.52-12.59	-12.31-11.64	-10.94-10.93	-11.38-11.46	-11.54-11.57	-11.06-10.85	-10.41-10.46	-11.09-11.25	-11.56-11.56	-11.36-11.32	-11.49-11.21	-11.83-11.38	-11.91-12.14	-12.46-11.53	-11.13-11.02	-11.46-12.11	-12.12-12.21	-12.74-12.55	-12.57-12.39	-11.89-11.42	-11.71-11.75	-11.65-11.21	
Theta (180°)	-11.93-12.27	-11.65-11.74	-11.75-12.07	-11.64-11.77	-11.53-11.95	-12.12-11.29	-10.91-10.55	-10.28-10.48	-10.99-10.72	-11.67-11.41	-11.4-10.77	-10.81-10.77	-11.49-11.96	-11.94-11.91	-11.2-10.57	-11.06-10.91	-11.36-11.64	-11.87-12.19	-12.12-11.86	-11.79-11.98	-12.65-12.65	-12.15-12.18	-11.99-11.99	-11.89-12.53	
Freq (GHz)	6.955/Pol.	Theta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DG (dB)	Phi(0°)	Phi(7.5°)	Phi(15°)	Phi(22.5°)	Phi(30°)	Phi(37.5°)	Phi(45°)	Phi(52.5°)	Phi(60°)	Phi(67.5°)	Phi(75°)	Phi(82.5°)	Phi(90°)	Phi(97.5°)	Phi(105°)	Phi(112.5°)	Phi(120°)	Phi(127.5°)	Phi(135°)	Phi(142.5°)	Phi(150°)	Phi(157.5°)	Phi(165°)	Phi(172.5°)	Phi(180°)
Theta (0°)	8.44/8.31	7.99/7.56	6.98/6.64	7.03/7.84	8.61/9.23	9.68/9.99	10.07/10.07	9.92/9.6	9.18/3.8	7.65/7.38	7.64/8.16	8.48/8.65	6.59/8.39	8.04/7.51	6.86/6.36	6.98/7.97	8.77/9.38	9.83/10.11	10.23/10.22	9.96/9.6	9.04/8.3	7.72/7.51	7.69/8.09	8.33/8.42	
Theta (7.5°)	9.26/9.18	8.92/8.52	7.85/7.1	7.23/8.14	8.92/9.5	9.89/10.19	10.16/9.8	10.21/10.32	9.23/8.52	7.81/7.66	8.8/3.9	6.6/6.68	7.29/8.13	8.85/9.4	9.89/9.9	10.19/9.6	9.66/9.31	8.81/8.27	7.99/8.1	8.36/8.68	8.97/9.17	8.36/8.68	8.97/9.17		
Theta (15°)	9.45/4.5	9.28/7.3	8.17/4.8	7.14/5.4	8.25/8.3	9.26/9.58	9.58/9.29	8.81/6.2	7.87/7.4	8.06/8.52	8.78/8.75	7.87/8.1	7.69/7.24	6.68/6.16	6.82/6.4	5.49/5.4	4.54/5.25	3.31/2.63	2.70/3.6	2.67/6.58	2.70/3.6	2.70/3.6	2.70/3.6	2.70/3.6	
Theta (22.5°)	8.16/8.18	8.13/7.8	7.51/7.25	6.96/7.06	7.48/8.08	8.68/9.08	9.28/9.26	8.99/8.64	8.21/7.93	7.83/7.76	7.77/8.19	8.52/8.5	8.29/8.03	7.56/6.94	6.41/6.16	6.26/3.9	6.72/7.08	7.37/7.51	7.48/7.29	7.05/6.89	6.82/6.75	6.76/6.91	7.27/7.74	8.17/8.26	
Theta (30°)	6.26/6	6.126/6.19	6.436/5.1	6.496/6.69	6.896/6.98	7.067/1.3	7.367/6.6	7.938/0.2	7.92/7.72	7.42/7.2	6.81/6.66	6.56/2.1	6.36/2.4	5.935/8.3	6.146/2.6	6.025/6.4	5.494/4.2	5.215/0.1	5.095/2.8	5.445/6.6	6.076/5.9	6.92/7	6.785/6.56	6.746/7.1	
Theta (37.5°)	3.67/3.89	4.72/5.33	5.875/8.5	5.735/8.4	5.865/5.3	4.784/0.6	4.075/0.6	2.762/8.8	7.167/3.4	7.218/6.5	6.014/9.6	3.813/1.4	3.4/4	4.575/3.5	5.415/0.5	4.645/2.4	3.31/2.67	2.70/3.6	2.70/3.6	2.70/3.6	2.70/3.6	2.70/3.6	2.70/3.6	2.70/3.6	
Theta (45°)	3.28/3.26	3.67/4.74	5.64/5.66	5.06/4.65	4.49/4.18	3.52/2.79	2.49/3.12	4.26/5.24	5.98/5.54	6.66/6.37	5.35/4.02	2.87/2.28	1.53/1.64	2.15/3.4	3.16/3.3	3.52/3.16	3.03/2.62	1.75/1.14	1.08/1.61	2.96/4.13	4.44/6.6	4.77/4.72	4.87/4.3	3.77/3.55	
Theta (52.5°)	2.59/2.21	2.28/3.04	4.16/4.47	4.26/3.53	3.21/2.93	2.26/1.92	1.94/2.27	2.85/3.39	3.74/4.84	5.18/4.8	3.82/2.26	1.63/1.35	-0.06/0.28	0.01/0.16	1.42/2.43	2.07/1.33	1.68/1.53	1.14/0.23	0.37/1.23	2.03/2.83	2.76/2.89	3.48/2.91	2.38/2.42	2.73/2.87	
Theta (60°)	0.75/0.73	1.14/0.98	1.57/1.97	2.71/1.95	2.05/2.1	1.49/0.88	0.47/0.92	2.12/2.56	1.62/2.32	3.13/0.2	2.32/0.59	0.92/0.47	-0.51/0.71	-0.27/0.26	0.17/0.45	0.81/0.51	0.3-0.07	-0.16/0.89	-0.50/0.58	2.02/8.8	1.02/0.92	1.62/2.01	-0.32/0.07	2.70/3.6	
Theta (67.5°)	-1.91-1.26	-0.66-1.21	-0.67-0.54	0.24/0.55	0.22-0.69	0.02/0.3	-0.83/0.48	1.45/1.29	-0.29/0.02	0.48/0.63	0.23-0.5	-0.45-1.35	-1.59-0.93	-1.64-1.24	-0.83-0.95	-1.39-1.01	0.14-0.96	-1.2-1.76	-2.17/0.11	0.54-0.62	0.07-0.2	-0.5-1.44	-2.51-2.88	-1.58-2.23	
Theta (75°)	-4.35-3.33	-1.99-1.9	-1.46-1.78	-1.39/0.48	-2.16-2.44	-1.8-2.06	-3.47-1.25	0.01/0.53	-1.72-1.83	-2.08-1.22	-1.61-1.63	-2.71-3.77	-3.77-2.04	-1.75-3.8	-2.03-2.27	-2.9-1.99	-0.61-1.65	-3.1-1.86	-3.42-1.51	-0.12-0.85	-1.33-0.97	-2.08-1.91	-3.87-4.88	-1.83-6.6	
Theta (82.5°)	-6.12-4.78	-3.2-3.17	-2.81-2.91	-3.56-2.81	-4.53-2.84	-2.28-3.41	-4.1-2.25	-1.79-3.05	-4.38-3.56	-4.58-3.35	-3.07-3.13	-4.22-5.03	-4.18-1.96	-2.18/6.61	-3.11-5.17	-1.28-3.17	-4.17-2.93	-4.38-3.22	-1.77/0.32	-0.65-2.28	-2.99-3.89	-4.9-5.76	-1.93-3.99		
Theta (90°)	-4.5-6.14	-4.54-4.59	-5.1-4.85	-6.12-4.96	-5.56-3.54	-2.65-5.02	-4.03-5.52	-2.95-5.12	-5.84-5.62	-7.09-4.51	-3.97-4.42	-4.54-6.02	-5.29-3.51	-3.14-9.17	-4.92-5.93	-4.92-3.9	-2.87-4.81	-6.01-5.11	-4.58-3.95	-3.96-2.22	-1.63-4.6	-5.03-5.09	-5.82-7.35	-2.57-4.48	
Theta (97.5°)	-2.56-6.37	-3.58-5.75	-6.13-6.09	-8.29-6.01	-7.5-4.11	-3.46-6.42	-5.81-4.52	-3.61/7.7	-7.53-7.72	-9.06-5.16	-5.15-5.04	-5.79-6.82	-6.29-4.89	-5.63-10.7	-6.91-6.71	-6.15-6.23	-6.57-11.3	-9.32-6.2	-5.33-5.58	-8.1-7.05	-4.45-7.22	-6.6-6.56	-6.24-7.51	-4.74-5.63	
Theta (105°)	-7.26-6	-4.7-5.44	-6.34																						



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta (°)	2.082/2.86	3.383/3.84	4.1/4.16	4.214/3.41	4.314/0.99	4.322/3.99	1.08/0.59	-2.31/4.42	-7.81/13.97	-17.91/10.25	-5.36/2.74	-1.10/1.44	1.08/1.76	2.32/8.66	3.26/3.39	3.31/3.14	3.07/3.11	3.05/2.76	2.14/1.09	-0.42/2.61	-6.17/13.89	-17.35/8.57	-4.6/2.97	-0.55/0.96
Theta (30°)	1.452/1.7	2.392/4.2	2.292/2.8	2.522/2.9	2.942/9.5	2.561/6.3	0.12/1.75	-3.7/6.2	-9.12/15.53	-18.35/12.75	-6.99/3.87	-2.06/0.64	0.43/1.01	1.54/1.91	1.8/1.43	1.15/1.25	1.54/2.08	2.57/4.1	1.68/0.62	-0.76/3.15	-7.53/17.45	-16.93/9.92	-5.28/2.97	-1.22/0.31
Theta (37.5°)	1.05/1.74	1.07/1.16	1.03/1.2	1.48/1.75	1.98/1.93	1.66/0.88	-0.24/1.7	-3.64/6.2	-9.54/14.18	-18.91/12.58	-7.11/4.79	-3.38/1.75	-0.52/0.11	0.59/0.68	0.36/0.25	0.05/0.27	0.50/0.8	1.05/0.93	0.49/0.4	-1.81/3.74	-7.35/17.43	-17.89/9.22	-5.31/2.87	-1.28/0.28
Theta (45°)	-0.85/-0.61	-0.52/-0.39	-0.42/0.12	0.53/0.53	0.01/0.05	-0.10/0.47	-0.76/1.01	-2.15/4.81	-8.9/13.32	-19.15/12.21	-6.32/4.72	-4.63/3.28	-1.97/1.32	-1.66/2.24	-2.14/1.77	-1.62/1.26	-1.87/0.87	-0.13/0.12	-0.04/0.99	-3.15/6.45	-10.39/17.61	-18.03/11.31	-6.06/3.18	-1.78/0.93
Theta (52.5°)	-2.6/3.27	-3.1/2.96	-2.96/2.18	-1.61/1.85	-2.42/2.59	-2.78/2.88	-2.39/1.85	-2.16/4.14	-8.56/14.53	-18.42/10.21	-5.64/5.01	-5.35/4.68	-3.93/3.82	-4.3/4.96	-4.85/3.53	-3.14/3.37	-3.37/2.86	-2.78/1.97	-1.42/2.58	-5.93/9.77	-12.43/18.52	-17.3/13.76	-8.49/5.62	-3.33/2.05
Theta (60°)	-4.8/4.72	-6.76/5.82	-6.03/5.36	-4.58/5.36	-5.75/6.05	-5.22/4.26	-4.58/5.28	-2.16/3.49	-7.38/15.75	-18.47/9.03	-5.37/5.27	-5.4/1.2	-3.45/3.37	-5.28/6.55	-8.8/7.02	-6/6.28	-5.9/5.65	-6.85/6.78	-4.82/6.44	-12.08/14.9	-15.13/18.04	-19.28/13.76	-11.14/4.74	-5.31/4.2
Theta (67.5°)	-6.82/7.02	-6.74/6.96	-9.24/8.65	-7.45/8.89	-8.7/6.91	-5.46/4.78	-3.76/3.22	-2.64/3.57	-7.13/16.51	-16.84/7.45	-4.96/4.37	-3.94/3.61	-3.82/4.6	-5.42/8.17	-11.11/9.92	-9.64/9.81	-8.86/5.53	-5.82/7.78	-6.9/7.22	-10.58/14.88	-19.61/18.29	-18.7/15.11	-12.11/8.43	-6.25/5.73
Theta (75°)	-6.89/7.88	-8.53/8.59	-12.77/11.01	-9.92/11.44	-11.2/7.73	-7.27/4.86	-3.44/4.02	4.03/4.38	-6.87/15.35	-17.71/8.91	-5.72/5.33	-4.41/3.37	-4.22/5.25	-6.35/10.4	-15.5/14.08	-12.74/14.05	-13.87/7.33	-5.17/5.93	-6.23/5.31	-6.67/13.3	-18.24/17.25	-17.7/17.03	-15.51/9.3	-6.96/6.68
Theta (82.5°)	-9.98/9.77	-8.93/10.28	-16.98/12.4	-11.77/14.2	-13.21/9.23	-7.41/5.35	-3.14/4.51	-6.38/5.5	-8.06/18.37	-16.11/9.95	-6.87/6.76	-6.74/5.83	-5.42/5.89	-7.82/14.39	-18.01/18.94	-14.99/18.81	-15.11/9.22	-6.29/5.57	-6.56/6.09	-6.91/12.09	-18.81/18.89	-15.95/19.02	-18.49/11.08	-7.43/7.81
Theta (90°)	-13.4/12.89	-10.4/11.88	-18.22/14.85	-13.59/16.71	-15.08/12.43	-8.39/5.88	-4.96/5.9	-8.31/7.54	-8.36/18.69	-18.63/11.85	-8.92/9.77	-8.99/7.33	-6.94/7.55	-10.3/15.33	-17.44/18.95	-15.81/17.74	-15.49/10.93	-9.12/7.33	-7.39/8.36	-9.14/14.04	-18.5/18.56	-17.57/17.92	-18.58/13.94	-9.06/9.02
Theta (97.5°)	-16.08/17.33	-12.9/14.14	-17.23/16.86	-15.29/18.28	-17.32/14.05	-9.67/7.55	-7.15/8.5	-9.71/8.59	-10.53/17.56	-18.84/14.22	-11.44/11.67	-11.11/9.61	-8.82/10.25	-13.55/17.71	-18.45/17.24	-13.58/18.68	-19.05/12.64	-12.19/12.93	-9.91/11.27	-14.07/18.12	-17.79/17.49	-17.07/17.69	-18.85/17.18	-11.59/11.32
Theta (105°)	-17.72/18.98	-17.28/14.09	-17.67/13.32	-17.4/18.77	-18.35/15.24	-13.25/10.94	-10.63/11.2	-11.69/10.08	-12.59/18.98	-18.11/17.51	-13.67/14.62	-10.94/9.33	-11.05/13.07	-13.88/19.03	-18.35/17.6	-17.16/17.67	-16.94/15.51	-15.78/15.01	-18.78/19.11	-18.83/18.17	-18.7/18.84	-18.81/17.86	-18.55/17.7	-15.09/12.72
Theta (112.5°)	-18.49/18.47	-17.39/14.2	-17.85/18.3	-18.38/19.04	-19/14.4	-13.51/14.41	-14.09/13.15	-13.32/11.98	-14.82/18.22	-18.01/19.1	-14.25/15.18	-13.05/13.04	-14.5/15.05	-17.24/18.33	-19.38/19.11	-17.73/17.51	-17.6/14.89	-14.84/19.2	-17.21/15.87	-18.42/18.09	-19.16/18.77	-18.59/17.45	-17.7/18.79	-16.69/15.69
Theta (120°)	-18.84/18.14	-18.67/16.77	-17.42/17.82	-17.97/18.58	-18.59/17.81	-16.32/14.57	-13.27/13.72	-16.92/17.76	-16.62/18.26	-18.72/18.26	-15.11/14.23	-14.88/14.51	-18.73/18.62	-18.47/18.55	-18.94/18.31	-18.39/18.03	-13.41/16.64	-17.81/18.25	-19.33/19.05	-18.22/19.79	-18.1/18.69	-17.56/18.1	-18.72/17.65	-15.81/17.65
Theta (127.5°)	-18.09/18.85	-19.08/18.39	-17.32/19.04	-19.33/18.1	-18.25/19.24	-17.05/15.1	-17.04/18.85	-16.27/14.57	-14.8/18.23	-17.85/19.19	-15.17/16.17	-17.23/18.69	-18.63/18.88	-13.41/17.77	-18.4/18.45	-18.91/17.99	-18.65/18.27	-18.3/18.62	-18.31/17.76	-18.54/17.91	-19.3/18.08	-19.36/19.18	-18.11/18.76	-17.9/18.22
Theta (135°)	-19.26/18.07	-18.49/18.32	-18.41/18.65	-17.81/18.84	-18.62/19.4	-17.82/17.6	-17.96/18.81	-17.17/17.5	-17.55/17.8	-17.71/17.56	-17.86/18.26	-16.74/18.76	-18.1/18.33	-18.61/18.77	-18.82/17.12	-18.42/18.18	-18.13/17.76	-18.56/18.35	-19.03/18.09	-18.62/18.66	-18.24/18.51	-18.23/18.95	-17.6/18.96	-17.42/19.32
Theta (142.5°)	-17.7/16.75	-17.66/19.4	-18.21/18.34	-18.71/18.03	-18.79/17.75	-18.66/18.96	-18.28/18.95	-16.17/15.16	-17.31/17.43	-17.8/18.71	-18.16/18.64	-18.25/18.63	-17.88/18.95	-17.47/18.02	-18.25/18.02	-17.38/17.83	-19.07/18.51	-19.23/18.55	-19.06/19.04	-17.5/18.52	-18.29/17.76	-17.3/18.33	-18.97/17.42	-18.56/17.66
Theta (150°)	-18.76/19.01	-18.99/17.63	-19.25/18.53	-17.29/18.87	-17.97/18.73	-16.03/15.06	-16.83/18.83	-19.46/18.96	-19.2/18.94	-17.24/16.98	-18.01/17.22	-18.51/18.79	-18.47/17.76	-19.07/18.17	-17.69/18.08	-17.79/18.82	-19.14/17.97	-19.23/18.01	-18.56/18.1	-19.02/18.28	-19.1/18.98	-18.78/18.42	-18.11/18.84	
Theta (157.5°)	-18.69/18.94	-19.14/18.89	-17.51/17.09	-16.92/18.74	-18.33/18.26	-18.58/19.08	-17.86/18.51	-17.52/18.69	-18.33/18.87	-19.17/17.54	-18.2/19.55	-17.77/16.96	-17.45/18.14	-17.88/17.91	-18.69/18	-18.24/18.02	-19.84/17.82	-18.24/18.07	-18.22/18.28	-19.06/18.5	-17.3/18.32	-18.53/18.75	-18.47/18.2	-17.89/18.83
Theta (165°)	-18.73/18.9	-17.44/18.51	-19.25/18.65	-18.47/18.32	-18.46/18.24	-18.27/18.66	-18.5/18.12	-17.63/18.96	-18.27/19.12	-18.54/19	-18.11/17.89	-17.65/17.79	-18.38/18.28	-17.99/17.64	-17.65/17.92	-18.22/18	-17.96/17.31	-17.03/17.72	-18.79/17.7	-18.98/18.99	-18.31/18.7	-18.96/17.39	-18.31/18.41	-18.74/18.55
Theta (172.5°)	-19.12/17.38	-18.72/18.88	-18.07/18.01	-18.61/18.67	-18.86/19.3	-19.55/18.62	-18.72/18.83	-17.54/18.63	-17.21/18.13	-18.74/18.19	-18.47/18.82	-18.81/18.48	-17.95/18.9	-18.2/18.61	-18.7/18.46	-18.1/17.25	-18.24/19.24	-18.03/18.24	-18.86/18.95	-19.2/18.89	-18.17/19.22	-18.2/17.52	-17.7/18.17	
Theta (180°)	-17.91/18.3	-18.87/18.03	-18.39/17.89	-18.76/18.92	-18.08/18.04	-17.98/19.11	-18.71/18.51	-18.03/18.83	-17.65/19.1	-18.67/19.15	-17.59/17.39	-17.37/17.75	-18.74/18.9	-18.15/18.08	-18.44/18.47	-17.91/18.94	-18.1/18.42	-18.85/19.1	-18.21/17.84	-18.38/18.35	-18.75/18.94	-19.21/18.87	-17.91/18.09	
Freq(Hz)	6.175GPol.	ThetaAnt.1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Gain	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta (0°)	2.28/1.1	-0.58/2.83	-6.16/11.61	-18.3/12.59	-6.89/3.38	-0.96/0.91	2.3/3.27	4.03/4.5	4.8/5	5.008/5.02	4.85/4.54	4.023/2.27	2.28/1.04	-0.67/2.91	-5.98/10.41	-14.98/10.91	-6/2.7	-0.4/1.23	2.4/3.22	3.91/4.55	5.08/5.39	5.53/5.42	5.08/4.57	3.94/3.13
Theta (7.5°)	1.87/0.75	-0.88/3.17	-6.63/12.41	-16.01/9.39	-4.9/1.78	0.38/1.98	3.17/4.05	4.71/5.23	5.51/5.66	5.675/5.57	5.39/5.12	4.71/4.11	3.27/2.06	0.42/1.72	-4.78/9.7	-19.28/15.02	-7.42/3.36	-1.14/0.63	1.72/2.46	3.06/3.61	4.09/4.47	4.62/4.56	4.33/3.61	3.32/3.61
Theta (15°)	2.36/1.04	-0.77/3.01	-6.52/12.41	-12.76/7.1	-3.99/0.84	0.56/2.52	3.73/4.61	5.24/5.6	6.04/5.95	6.045/5.95	5.675/5.26	4.63/3.88	3.29/2.03	0.59/1.44	-4.33/9.95	-18.85/14.34	-4.72/3.3	-0.91/0.93	2.42/3.52	4.37/4.91	5.21/5.31	5.27/0.6	4.83/4.53	4.09/3.61
Theta (22.5°)	2.30/5.5	-1.65/4.02	-7.76/12.49	-10.91/6.32	-2.95/0.52	1.25/2.55	3.5/4.18	4.71/5.13	5.38/5.48	5.43/5.27	5.03/4.54	3.79/3.01	2.28/1.23	-0.37/2.66	-6.23/12.19	-18.65/11.33	-0.88/3.14	-0.88/0.87	2.22/3.37	4.37/5.25	5.92/6.4	6.49/6.19	5.75/0.6	4.23/3.48
Theta (30°)	1.61/0.18	-2.36/5.32	-9.01/13.49	-13.43/7.71	-4.08/1.86	-0.24/0.96	1.96/2.78	3.37/3.76	4.09/4.35	4.51/4.16	3.55/2.99	2.31/1.89	1.54/0.7	-0.79/3.38	-7.64/14.59	-16.42/10.29	-6.38/3.62	-1.65/0.11	1.06/2.16	3.49/4.84	5.8/6.25	6.36/0.7	5.64/4.92	3.82/7.2
Theta (37.5°)	0.73/0.83	-3.66/7.09	-10.65/13.94	-17.79/10.89	-6.24/3.81	-2.45/1.27	0.16/1.54	2.66/3.46	3.89/4.13	4.34	2.95/1.87	0.99/0.1	-1.44/3.3	-4.98/7.49	-11.9/17.35	-19.2/14.32	-10.02/6.11	-3.41/1.57	-0.40/0.49	1.47/2.89	4.39/4.52	5.95/6.1	4.72/3.57	2.53/1.77
Theta (45°)	-1.68/3.1	-6.88/9.22	-12.69/14.76	-18.18/11.11	-12.13/9.67	-7.59/4.94	-2.54/0.39	1.34/2.36	2.85/3.3	3.69/3.47	2.37/0.89	-0.22/2.12	-5.93/14.69	-18.75/18	-17.94/17.34	-19.19/18.87	-16.93/9.77	-5.2/2.9	-1.39/0.45	0.0/0.65	1.92/3.22	3.99/3.88	3.14/1.85	0.61/0.5
Theta (52.5°																								



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta (112.5°)	-14.67/-14.64	-14.71/-15.69	-17.94/-18.55	-17.82/-18.04	-18.87/-16.57	-15.34/-15.79	-13.84/-15.79	-18.48/-18.56	-18.68/-19.07	-18.15/-18.72	-18.85/-18.18	-16.29/-18.8	-17.81/-18.94	-19.05/-19.01	-18.18/-18.74	-18.65/-18.78	-17.76/-18.24	-18.93/-18.17	-18.27/-17.75	-16.91/-18.41	-18.67/-17.77	-17.73/-18.26	-19.54/-18	-17.51/-15.83	
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)	
Theta (0°)	4.19505	5.73619	6.48661	6.57638	6.09569	5.2145	3.42183	-0.37310	-6.961446	-18.65487	-3.841101	0.9725	3.67456	5.29576	6.13633	6.39623	5.9454	4.63371	2.53119	-0.73135	-7.911833	-15.761752	-3.271056	1.440304	
Theta (7.5°)	3.22414	4.73511	5.37547	5.45528	5.01459	4.07351	2.65136	-0.481306	-6.911341	-18.23198	-4.011	1.14284	4.11515	5.92652	6.92711	7.08689	6.53595	5.1441	2.79124	-0.81366	-7.961808	-17.121833	-4.02136	0.6321	
Theta (15°)	1.63253	3.0332	3.5361	3.71375	3.61326	2.81228	1.46022	-1.55415	-6.04151	-18.341131	-5.971263	-0.27154	2.93413	5.16598	6.51678	6.78656	6.09537	4.36314	1.68408	-2.321255	-9.61649	-18.441868	-6.271346	-1.36031	
Theta (22.5°)	-0.5064	1.44195	2.36268	2.87282	2.62231	1.84107	-0.13187	-4.331741	-11.841922	-18.861274	-7.951401	-1.29057	2.17356	4.51513	5.4957	5.83576	5.41469	3.6218	0.44162	-4.151742	-11.741757	-19.321351	-9.061627	-3.951216	
Theta (30°)	-0.94054	1.69231	2.832	3.43348	3.41299	2.16033	-0.981375	-7.721427	-17.291386	-18.181294	-8.351449	-1.88109	1.5278	3.58417	4.69521	5.33548	5.04415	2.79108	-0.831287	-5.43187	-13.351827	-19.141767	-12.331869	-5.511282	
Theta (37.5°)	0.03136	2.35901	3.59411	4.56472	4.43369	2.73134	-0.731369	-7.191137	-17.381554	-18.331091	-6.431474	-3.67124	2.41334	3.83168	4.73221	5.081141	4.44141	-0.341747	-10.041253	-16.981881	-19.17182	-14.681864	-4.531167		
Theta (45°)	-1.41017	1.41221	2.9937	4.334	3.77281	1.63021	-1.47137	-6.721089	-16.871785	-15.921093	-8.241667	-4.881344	-1.63014	1.63267	2.8238	2.32222	1.91111	-0.461236	-4.341672	-9.611308	-16.911913	-17.921824	-16.271054	-5.951287	
Theta (52.5°)	-4.551262	-1.04034	0.85174	2.292	1.42053	-0.73178	-5.55136	-9.461109	-13.111842	-14.911057	-6.65134	-3.261264	-2.081076	0.53152	1.2508	0.67086	0.48083	-2.74145	-5.61684	-9.21119	-12.021385	-12.921805	-12.06152	-10.751375	
Theta (60°)	-7.221668	-3.41302	-0.97108	-0.771163	-0.931386	-5.091728	-11.371628	-16.28147	-17.911653	-14.471522	-6.191408	-3.714572	-4.591285	-2.041042	-0.68121	-3.29121	-4.881674	-6.914647	-10.011091	-13.461454	-10.971876	-9.14112	-13.461047		
Theta (67.5°)	-10.681306	-8.951556	-3.81337	-3.271518	-6.891874	-11.091218	-15.241249	-17.111388	-18.811681	-13.961992	-7.461682	-7.65198	-8.791662	-4.531279	-3.251598	-9.471643	-4.191434	-6.17179	-8.081709	-7.381186	-14.35161	-10.751841	-8.641834	-9.111866	
Theta (75°)	-14.041717	-10.861645	-5.14546	-5.711776	-8.061023	-16.2319	-15.681097	-8.871022	-16.171822	-14.641203	-9.521974	-12.8618	-10.781762	-8.691971	-11.451092	-6.62182	-6.461789	-10.38185	-8.431242	-19.281518	-10.43181	-7.821695	-8.111934		
Theta (82.5°)	-16.621817	-10.251722	-6.33444	-6.87184	-7.84110	-19.841749	-15.231029	-8.011925	-13.941497	-15.421553	-13.811489	-18.29192	-14.921266	-10.871265	-13.781922	-18.15132	-10.07194	-7.861958	-11.391964	-10.781926	-11.12145	-17.441308	-10.781926	-9.361785	-8.741182
Theta (90°)	-17.311655	-11.4176	-6.451721	-6.851025	-8.911103	-16.771723	-15.911108	-7.441826	-14.031507	-17.811751	-15.11846	-18.951924	-16.331326	-12.161426	-16.46184	-17.971726	-14.31051	-11.051127	-15.211333	-14.341851	-18.391338	-12.341184	-9.841838	-8.841299	
Theta (97.5°)	-17.571801	-10.421769	-6.931691	-6.921109	-10.20147	-9.261185	-14.421348	-14.71114	-8.59179	-13.11134	-19.021716	-15.951769	-18.51033	-18.991554	-17.061655	-16.881178	-16.891333	-18.421149	-16.571728	-17.891606	-19.261718	-17.471633	-14.711539	-11.871838	-8.391241
Theta (105°)	-12.191793	-16.341091	-9.691699	-9.301191	-13.11109	-10.341343	-14.731451	-15.591254	-11.251215	-12.621419	-18.711834	-19.111776	-18.391585	-16.811927	-18.241162	-18.741101	-17.331922	-17.991921	-17.331922	-17.331922	-17.331922	-17.331922	-17.331922	-17.331922	-17.331922
Theta (112.5°)	-14.551414	-14.611578	-16.261716	-13.081107	-11.751538	-15.331631	-16.531309	-12.871511	-14.331855	-18.111692	-18.571803	-18.191805	-17.041691	-15.671816	-18.191877	-18.331814	-16.931526	-16.021796	-19.81855	-17.891808	-17.421825	-16.281317	-14.811739	-15.41326	
Theta (120°)	-17.99141	-12.691308	-12.761237	-13.021442	-17.741766	-16.151571	-17.711386	-15.891544	-16.551589	-17.821781	-18.521196	-17.81183	-19.111778	-15.451861	-19.241806	-16.81839	-17.151696	-17.871846	-19.041787	-18.311972	-17.951787	-16.891846	-12.971733	-17.981949	
Theta (127.5°)	-18.861821	-14.941445	-14.271523	-15.021578	-14.751552	-17.721968	-16.67162	-18.351648	-17.031916	-18.261789	-19.061799	-18.54191	-19.081797	-19.241806	-18.47185	-19.361872	-17.111759	-17.391858	-17.671817	-18.031972	-18.531754	-15.281847	-15.171536	-15.811525	
Theta (135°)	-14.811393	-17.291753	-18.621522	-14.461529	-18.461784	-17.271757	-18.851888	-18.331673	-17.941922	-18.431724	-18.811893	-18.11189	-18.1192	-19.841879	-17.271906	-18.311892	-18.231725	-19.11901	-18.151873	-19.311879	-19.071844	-16.11522	-17.121894	-18.431489	
Theta (142.5°)	-18.03175	-18.761731	-14.221378	-13.821586	-17.351659	-17.731809	-18.141187	-17.641846	-19.021865	-17.561868	-17.261865	-19.171925	-18.741894	-19.071577	-18.53174	-17.911917	-18.881739	-18.011891	-18.571846	-18.411863	-18.381846	-18.671773	-14.451436	-17.051839	
Theta (150°)	-18.971844	-17.831807	-19.381747	-16.921612	-15.411573	-18.411802	-18.881919	-18.41828	-17.121863	-18.921915	-16.061461	-14.951736	-18.731816	-18.171711	-16.181573	-17.71877	-18.671929	-18.02187	-18.091874	-17.921858	-18.121917	-17.941777	-17.941777	-18.221792	
Theta (157.5°)	-15.911614	-16.671409	-13.531354	-14.03157	-18.291854	-18.111811	-17.991867	-17.431839	-19.04177	-19.071835	-19.91184	-18.961725	-16.871742	-18.231912	-19.281893	-19.131892	-18.861753	-17.751843	-18.511776	-18.911844	-18.321849	-18.011778	-18.191903	-17.881777	
Theta (165°)	-17.871926	-17.741933	-18.961926	-18.721836	-18.671888	-18.51753	-19.761897	-17.431794	-19.21187	-19.151759	-19.011859	-18.441747	-18.041777	-17.911541	-14.831619	-18.641731	-17.92189	-17.931829	-18.171881	-17.75177	-17.181792	-16.861637	-16.451732	-18.321853	
Theta (172.5°)	-17.541866	-17.521978	-19.331922	-17.511872	-17.981923	-18.431753	-19.611873	-17.151879	-19.361587	-18.851866	-17.5619	-17.37177	-19.41182	-18.51857	-17.651816	-18.461577	-18.151805	-19.151879	-17.481814	-19.251912	-18.451893	-18.171854	-18.811854	-18.881854	
Theta (180°)	-18.46176	-17.841816	-17.711874	-18.091858	-18.181802	-18.781794	-17.921802	-16.181918	-18.491802	-18.751875	-18.691783	-18.71849	-19.091833	-18.431953	-19.181963	-18.971927	-17.431774	-17.471867	-18.111793	-18.081898	-18.71834	-18.181871	-18.631759	-18.651824	
Theta (187.5°)	-17.811807	-18.891921	-18.021849	-18.31813	-19.021812	-18.741751	-17.881864	-18.531852	-18.25183	-18.411856	-19.121802	-18.821798	-18.711905	-17.321796	-17.818	-19.011917	-18.251892	-18.291927	-18.231714	-16.651631	-15.951638	-18.121842	-18.981893	-18.181744	
Theta (195°)	4.19505	5.73619	6.48661	6.57638	6.09569	5.2145	3.42183	-0.37310	-6.961446	-18.65487	-3.841101	0.9725	3.67456	5.29576	6.13633	6.39623	5.9454	4.63371	2.53119	-0.73135	-7.911833	-15.761752	-3.271056	1.440304	
Theta (202.5°)	2.56116	-0.781338	-7.411555	-15.961757	-3.521092	1.02261	3.85484	5.62613	6.42647	6.44627	5.94546	4.84392	2.76135	-0.48139	-7.31527	-18.18181	-3.61102	0.96245	3.66458	5.35178	6.06618	6.26102	5.75122	4.55367	
Theta (210°)	1.95046	-1.411392	-8.051634	-16.021907	-4.61169	0.621	3.28431	5.12575	6.17637	6.45636	6.12574	5.19434	3.24177	-0.051273	-7.14139	-16.46191	-2.87104	1.43284	3.94175	5.38578	5.94598	5.93571	5.31478	4.09317	
Theta (217.5°)	1.27102	-2.161449	-8.111437	-17.97125	-6.881355	-1.1207	2.08321	4.21496	5.52987	6.016101	5.97588	5.58944	4.0281	1.26197	-4.491204	-13.551688	-2.69112	1.73306	4.03469	5.13535	5.41535	5.21495	4.57402	3.96245	
Theta (225°)	0.711085	-2.871539	-9.431573	-19.12178	-7.72144	-2.0103	1.27227	3.08264	4.1146	5.02525	5.31533	4.03433	3.31189	0.08126	-6.561303	-18.261976	-4.63146	0.73224	3.24384	4.1413	4.04397	3.95397	2.78327	2.55175	
Theta (232.5°)	-0.61195	-4.211746	-16.181794	-18.531379	-9.151557	-2.751509	0.78155	2.12621	2.73281	3.17378	4.21332	4.03317	1.95034	-1.94501	-8.731379	-17.91199	-5.91326	-0.01156	2.64323	3.79358	3.4037	2.71244	2.38121	1.77032	
Theta (240°)	-2.651361	-5.91931	-15.071812	-17.621584	-12.1148	-4.2114	-0.02059	1.06135	1.34125	1.4423	3.14333	2.89186	0.51121	-3.71841	-11.181842	-18.53108	-6.281321	-1.171002	0.75165	2.32236	2.05169	1.46098	0.29109	-1.21187	
Theta (247.5°)	-3.98147	-6.52196	-15.081886	-18.431572	-11.69193	-6.021339	-1.92114	-0.44015	-0.12109	-0.84004	1.15155	1.01101	-1.521297	-5.031771	-12.451931	-18.781403	-9.111623	-3.86126	-1.28165	0.08032	-0.41118	-1.28129	-1.781022	-2.53131	
Theta (255°)	-4.071415	-5.211752	-13.281882	-17.711284	-9.331781																				



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta (°)	-15.271-18.85	-17.82-18	-19.21-18.96	-19.01-18.38	-18.831-18.14	-17.321-17.28	-17.641-18.83	-17.931-19.04	-18.971-17.85	-18.031-18.21	-18.011-17.85	-17.741-17.47	-18.521-18.03	-17.291-18.61	-19.121-17.26	-18.641-19.04	-17.451-17.52	-17.251-19.13	-18.781-19.36	-17.161-17.3	-18.471-16.74	-15.421-17.88	-19.211-17.15	-16.711-14.81
Theta (157.5°)	-16.19-17.71	-18.18-17.69	-17.88-18.01	-18.13-18.97	-18.091-19.32	-18.56-18.96	-18.81-17.44	-18.18-18.41	-18.02-18.85	-18.44-17.98	-18.41-17.98	-18.52-19.34	-17.68-18.35	-19.02-18.63	-18.71-17.2	-18.93-18.38	-18.16-19.09	-19.05-18.2	-18.06-18.42	-18.34-19.04	-19.16-18.32	-18.671-17.95	-18.04-17.18	-18.051-17.42
Theta (165°)	-18.52-17.64	-18.89-18.83	-18.06-17.42	-18.02-18.76	-18.49-17.84	-18.49-17.11	-18.23-17.63	-15.43-14.49	-15.62-17.92	-17.57-18.62	-19.09-18.72	-17.21-18.63	-18.21-18.52	-18.41-19.02	-18.66-17.55	-17.92-17.9	-18.83-17.88	-18.59-17.85	-18.38-17.63	-18.28-18.63	-19.15-18.58	-18.99-18.31	-17.71-18.25	-19.331-17.56
Theta (172.5°)	-18.36-18.49	-18.92-18.93	-18.54-18.22	-18.72-17.51	-18.85-19.2	-18.62-18.65	-19.44-17.07	-14.78-14.98	-16.57-18.97	-18.81-17.87	-18.29-18.61	-17.26-17.24	-19.21-19.05	-18.22-19.02	-18.31-18.95	-19.35-19.17	-19.13-19.25	-17.79-19.45	-18.45-18.37	-19.03-18.8	-18.48-18.32	-17.49-18.64	-18.29-19.01	-18.35-18.94
Theta (180°)	-14.69-15.09	-16.25-17.28	-18.29-19.19	-18.17-19.11	-18.18-17.98	-19.57-18.87	-17.57-16.93	-16.38-16.09	-16.74-17.12	-18.92-18.61	-19.11-18.56	-18.57-18.3	-17.79-19.18	-19.21-18.04	-18.89-18.34	-19.34-18.75	-17.87-18.52	-19.21-19.21	-18.71-18.03	-17.49-16.87	-16.38-15.86	-15.82-16.93	-17.06-16.58	-15.28-14.78
Freq(Hz)	6.175GPol	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Phi(0°)Phi(7.5°)	Phi(15°)Phi(22.5°)	Phi(30°)Phi(37.5°)	Phi(45°)Phi(52.5°)	Phi(60°)Phi(67.5°)	Phi(75°)Phi(82.5°)	Phi(90°)Phi(97.5°)	Phi(105°)Phi(112.5°)	Phi(120°)Phi(127.5°)	Phi(135°)Phi(142.5°)	Phi(150°)Phi(157.5°)	Phi(165°)Phi(172.5°)	Phi(180°)Phi(187.5°)	Phi(195°)Phi(202.5°)	Phi(210°)Phi(217.5°)	Phi(225°)Phi(232.5°)	Phi(240°)Phi(247.5°)	Phi(255°)Phi(262.5°)	Phi(270°)Phi(277.5°)	Phi(285°)Phi(292.5°)	Phi(300°)Phi(307.5°)	Phi(315°)Phi(322.5°)	Phi(330°)Phi(337.5°)	Phi(345°)Phi(352.5°)
Theta (0°)	2.83372	4.5052	5.45161	5.67554	5.28479	4.18344	2.5113	-0.32-2.45	-5.75-10.77	-16.31-10.53	-5.71-2.49	0.23151	2.837	4.22533	5.68682	5.76557	5.21481	4.33372	2.71121	-0.911-3.56	-7.211-13.15	-15.589-9.18	-4.741-1.98	0.0817
Theta (7.5°)	2.46305	4.33495	5.41567	5.76569	5.44502	4.44362	2.61129	-0.34-2.67	-6.21-11.88	-15.761-8.98	-4.591-1.68	0.3218	3.01398	4.69516	5.41545	5.38516	4.91464	4.3439	3.05173	-0.12-2.69	-6.29-12.62	-17.741-10.8	-5.69-2.6	-0.421-23
Theta (15°)	1.3324	3.35409	4.69508	5.29532	5.13469	3.95316	2.28109	-0.48-2.93	-6.82-13.35	-15.02-7.65	-3.33-0.73	0.9824	3.742	4.6486	5.14543	5.55548	5.18477	4.27371	3.03211	0.78106	-3.71841	-15.581-15.94	-7.481-3.85	-1.402
Theta (22.5°)	0.26153	2.63341	3.98443	4.7449	4.7416	3.35243	1.36016	-1.52-3.99	-7.85-13.33	-13.39-6.89	-2.76-0.44	1.11242	3.2358	4.13475	5.24541	5.18481	4.35371	2.84181	0.77105	-1.13-2.56	-4.61-8.14	-15.671-18.9	-10.181-5.31	-2.381-0.91
Theta (30°)	0.50757	1.67248	3.23396	4.44459	4.49403	3.03166	0.29104	-2.42-4.32	-7.32-12.08	-11.12-9.59	-5.31-3.05	1.06104	1.9269	3.55419	4.645	5.14546	3.84223	1.15034	-0.571-1.42	-1.91-2.39	-3.22-5.51	-10.491-19.36	-13.081-6.83	-3.711-81
Theta (37.5°)	-1.36021	1.33256	3.68433	4.6478	4.7404	2.76087	-1.36-3.16	4.42-6.23	-10.23-17.53	-13.24-10.57	-9.15-5.88	-2.41-0.28	0.46109	1.66286	4.19482	4.34319	1.71012	-0.721-1.14	-2.361-4.02	-4.851-8.45	-4.371-9.47	-8.151-15.34	-18.051-14.03	-8.171-421
Theta (45°)	-3.531-1.48	0.09133	2.65341	3.9406	3.8302	1.69-0.13	-3.24-8.01	-13.61-13.83	-14.25-18.16	-18.491-14.3	-12.49-7.23	-4.08-2.25	-1.51-0.92	-0.151-1.59	2.85304	2.31117	0.281-0.28	-0.961-2.13	-3.651-5.29	-6.961-7.48	-7.061-7.24	-8.531-12.34	-14.111-15.03	-16.041-6.02
Theta (52.5°)	-2.241-5.72	-4.193	-0.23097	1.72203	1.81072	-0.89-3.12	-7.521-14.79	-17.221-15.09	-15.881-18.26	-16.581-14.36	-11.161-7.46	-5.171-3.92	-2.221-1.52	0.01091	1.85214	1.52043	-0.871-0.86	-1.11-2.89	-5.331-6.97	-8.171-7.77	-8.451-8.03	-9.281-9.22	-8.051-6.9	-10.831-13.47
Theta (60°)	-15.941-11.34	-9.12-6.54	-4.26-2.46	-1.881-1.64	-2.13-3.67	-6.04-8.94	-15.52-16.36	-9.22-7.22	-8.42-12.93	-13.811-10.61	-9.23-7.35	-6.37-5.11	-3.46-2.05	-0.49-0.82	-0.18003	-0.32-1.05	-1.421-1.54	-2.351-4	-7.281-8.21	-7.381-8.62	-11.411-9	-9.711-7.37	-6.011-5.71	-9.111-18.86
Theta (67.5°)	-16.511-14.23	-10.49-7.85	-5.38-4.15	-3.661-4.06	-5.18-6.88	-11.12-16.81	-18.971-16.69	-6.69-11.7	-7.221-13.37	-11.491-9.59	-9.971-9.34	-8.61-7.32	-5.29-2.08	-1.13-2.86	-3.551-4.1	-4.73-3.53	-1.661-0.5	-2.011-4.8	-7.081-9.03	-6.841-7.45	-12.431-9.54	-9.631-7.09	-5.931-7.28	-11.141-16.58
Theta (75°)	-12.421-11.6	-9.36-6.58	-5.38-4.16	-4.12-4.88	-5.85-7.62	-11.23-13.17	-15.991-12.57	-7.14-7.45	-6.61-10.13	-12.71-10.41	-9.871-12.33	-11.531-13.05	-2.341-5.31	-7.331-8.56	-3.441-4.6	-1.111-5.22	-1.731-9.05	-3.401-4.6	-1.111-5.22	-1.731-9.05	-14.511-9.8	-10.481-7.95	-6.711-9.64	-12.611-17.15
Theta (82.5°)	-12.221-10.04	-8.361-5.85	-5.28-4.15	-4.871-5.71	-5.761-7.44	-10.53-10.11	-11.721-10.46	-9.34-6.47	-8.971-11.98	-12.591-10.45	-11.581-13.58	-15.371-19.08	-11.51-5.2	-4.271-8.11	-11.531-17.55	-18.621-9.86	-4.641-1.69	-1.91-6.27	-8.411-10.04	-8.381-8.49	-13.821-16.5	-10.751-9.98	-10.481-11.57	-12.341-18.02
Theta (90°)	-14.361-13.69	-10.661-6.99	-6.25-6.12	-6.73-6.8	-6.13-7.96	-10.821-10.6	-11.351-9.62	-9.26-9.7	-10.111-13.86	-12.691-14.4	-16.941-18.4	-16.121-10.06	-13.31-16.9	-19.111-15.16	-7.921-4.46	-3.951-7.34	-11.591-12.91	-10.41-10.78	-16.751-18.49	-11.621-11.1	-12.911-13.73	-11.621-13.9	-11.621-13.9	-11.621-13.9
Theta (97.5°)	-16.181-8.6	-13.451-8.56	-8.24-6.8	-8.71-8.13	-7.521-9.95	-13.161-11.81	-12.111-10.77	-11.51-11.4	-12.571-15.17	-15.321-14.94	-13.391-16.98	-18.351-19.09	-14.361-10.86	-8.51-12.75	-13.751-13.53	-19.191-17.78	-12.781-17.82	-9.461-11.07	-18.361-19.24	-17.781-18.04	-14.791-12.46	-13.951-14.53	-13.231-11.78	-13.231-11.78
Theta (105°)	-10.691-14.15	-14.151-11.55	-10.94-9.73	-9.441-8.99	-9.481-13.21	-16.561-12.27	-13.171-12.82	-15.381-12.25	-13.671-14.82	-17.381-18.21	-12.731-17.73	-19.961-17.94	-18.461-16.26	-12.251-13.66	-16.311-11.98	-18.281-18.85	-16.921-13.11	-18.341-18.63	-17.181-18.57	-17.11-14.76	-19.351-18.85	-16.41-15.17	-15.621-16.2	-18.561-12.46
Theta (112.5°)	-13.571-15.45	-12.011-10.3	-9.141-9.26	-9.551-9.66	-11.251-13.24	-13.551-14.07	-15.781-15.14	-15.91-14.34	-18.31-17.82	-19.271-18.84	-19.081-18.07	-19.081-18.07	-19.371-14.65	-18.781-14.13	-18.731-16.1	-19.721-13.97	-14.021-13.68	-14.091-19.1	-19.631-17.88	-17.061-17.88	-12.911-15.51	-15.531-14.94	-18.191-17.68	-18.191-17.68
Theta (120°)	-17.791-18.35	-19.051-15.37	-13.31-14.19	-14.041-12.49	-11.121-12.2	-14.011-15.07	-14.341-15.59	-15.091-14.45	-16.531-14.42	-18.171-18.47	-19.121-18.37	-17.891-18.19	-19.061-18.1	-13.961-15.1	-18.17-18.8	-18.791-18.09	-14.761-17.75	-18.161-17.74	-17.41-19.2	-17.681-19.07	-15.711-17.1	-17.421-19.42	-15.281-16.81	-15.281-16.81
Theta (127.5°)	-13.751-14.3	-17.081-15.74	-13.731-13.02	-12.421-12.92	-14.431-19.1	-19.281-17.78	-16.871-17.57	-17.561-19.04	-18.151-17.37	-19.171-17.44	-18.51-19.27	-18.491-18.43	-18.821-19.11	-17.421-18.82	-18.951-17.15	-18.181-18.62	-19.081-18.82	-16.411-18.72	-18.61-18.8	-17.611-19.4	-18.471-18.05	-18.141-17.32	-17.311-18.31	-17.251-13.88
Theta (135°)	-18.21-16.47	-14.891-15.23	-14.101-13.51	-13.181-13.3	-15.931-15.79	-14.491-15.31	-18.081-19	-18.521-17.61	-18.591-17.32	-18.721-18.53	-18.741-17.98	-19.131-17.7	-19.331-18.5	-19.151-14.37	-17.541-17.9	-18.621-16.24	-17.021-17.78	-17.171-17.2	-17.071-17.47	-17.881-19.02	-17.821-19.03	-17.971-14.76	-17.741-17.62	-18.731-17.72
Theta (142.5°)	-15.621-14.75	-15.841-16.94	-12.16-14.47	-17.531-18.28	-18.321-18.17	-18.981-19.74	-18.381-18.32	-18.591-17.79	-18.271-19.19	-18.731-17.83	-17.811-17.61	-18.321-18.77	-17.851-17.3	-17.871-17.79	-18.641-18.6	-17.171-19.99	-16.811-15.53	-17.681-18.18	-18.841-18.12	-17.781-19.95	-18.611-18.38	-17.431-18.47	-17.431-17.98	-16.211-15.86
Theta (150°)	-18.061-18.18	-18.781-18.24	-17.191-17.54	-18.131-18.16	-17.421-19.37	-18.361-18.11	-17.411-18.04	-18.14-18.74	-18.521-19.05	-18.21-19.37	-17.621-17.99	-19.171-18.75	-18.851-18.81	-17.181-17.43	-18.51-19.11	-18.51-18.1	-18.961-18.75	-18.161-18.74	-19.031-18.63	-18.971-19.67	-18.161-18.57	-18.471-18.71	-18.141-19.86	-19.221-18.75
Theta (157.5°)	-18.951-17.97	-17.921-18.46	-18.881-18.45	-16.661-16.02	-15.31-15.52	-17.071-19.51	-18.711-19.09	-17.751-17.85	-18.61-17.01	-18.331-18.55	-17.631-19.56	-17.081-17.75	-18.871-18.27	-19.061-18.72	-19.561-16.21	-13.821-14.09	-15.691-19.1	-17.831-18.99	-17.171-16.35	-19.51-18.73	-18.381-18.8	-18.821-19.27	-18.111-19.32	-18.621-18.43
Theta (165°)	-19.211-18.58	-19.221-16.5	-14.261-13.17	-13.411-13.78	-14.431-16.18	-17.381-17.17	-16.491-15.54	-15.071-15.35	-16.171-15.57	-19.081-18.79	-19.581-18.2	-18.131-17.69	-18.171-18.03	-17.811-17.5	-17.61-16.33	-17.261-17.88	-18.411-18.31	-18.211-18.34	-19.211-19.1	-18.181-17.83	-18.441-18.67	-18.411-18.77	-18.851-17.62	-18.231-17.26
Theta (1																								



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta	Phi	Phi(15)	Phi(22.5)	Phi(30)	Phi(37.5)	Phi(45)	Phi(52.5)	Phi(60)	Phi(67.5)	Phi(75)	Phi(82.5)	Phi(90)	Phi(97.5)	Phi(105)	Phi(112.5)	Phi(120)	Phi(127.5)	Phi(135)	Phi(142.5)	Phi(150)	Phi(157.5)	Phi(165)	Phi(172.5)	Phi(180)	Phi(187.5)	Phi(195)	Phi(202.5)	Phi(210)	Phi(217.5)	Phi(225)	Phi(232.5)	Phi(240)	Phi(247.5)	Phi(255)	Phi(262.5)	Phi(270)	Phi(277.5)	Phi(285)	Phi(292.5)	Phi(300)	Phi(307.5)	Phi(315)	Phi(322.5)	Phi(330)	Phi(337.5)	Phi(345)	Phi(352.5)				
0	0	3.474/4.2	5.235/7.9	6.2/6.4	6.496/9.3	6.165/7.5	5.184/3.4	3.32/1.1	0.59/1.45	-4.73/-10.4	-18.9/-10.77	4.63/-1.2	1.172/9.5	4.165/0.7	5.756/2.2	6.676/9.9	6.816/6.5	6.325/8.8	5.364/6.5	3.692/4.1	0.53/-2.13	-5.96/-12.8	-17.81/-10.08	-4.6/-1.41	0.712/3.1	4.8/5.76	6.497/9.4	7.417/5.7	7.657/7.1	7.2/6.7	5.965/1.1	4.12/9.1	1.38/-0.67	-3.79/-8.4	-13.08/-8.56	-4.17/-1.17	0.952/4.5	3.534/3.7	5.045/5.4	5.8/5.94	6.895/7.8	5.5/5.09	4.553/7.8	2.851/5.7	-0.33/-2.91	-6.53/-11.35	-11.64/-6.48	-2.46/0.23	2.2/3.62		
0	7.5	4.114/9.2	5.616/1.1	6.26/7.3	6.966/9.6	6.86/4.2	5.814/9.4	3.882/7.1	1.25/0.65	-3.49/-7.14	-18.86/-9.15	-3.03/-0.7	0.891/9.3	2.723/4.9	4.074/2.8	4.23/4	3.693/5.7	3.362/5.4	1.23/1.05	-3.64/-4.8	-4.33/-3.35	-2.83/-2.82	-2.89/-2.15	-1.37/-1.8	-2.95/-2.27	4.114/9.2	5.616/1.1	6.26/7.3	6.966/9.6	6.86/4.2	5.814/9.4	3.882/7.1	1.25/0.65	-3.49/-7.14	-18.86/-9.15	-3.03/-0.7	0.891/9.3	2.723/4.9	4.074/2.8	4.23/4	3.693/5.7	3.362/5.4	1.23/1.05	-3.64/-4.8	-4.33/-3.35	-2.83/-2.82	-2.89/-2.15	-1.37/-1.8	-2.95/-2.27		
0	15	2.242/9.2	3.564/0.7	4.6/5	5.145/0.3	4.884/6.7	4.333/7.7	3.082/2.1	0.98/0.7	-3.39/-6.49	-7.72/-9.33	-3.18/-0.42	1.252/4.7	3.524/3.2	4.574/6.7	4.714/5.8	4.213/6.8	3.072/5.1	2.081/7.4	1.330/6.6	-0.22/-1.25	-2.36/-3.61	-4.35/-4.22	-3.32/-1.83	0.081/4.7	2.242/9.2	3.564/0.7	4.6/5	5.145/0.3	4.884/6.7	4.333/7.7	3.082/2.1	0.98/0.7	-3.39/-6.49	-7.72/-9.33	-3.18/-0.42	1.252/4.7	3.524/3.2	4.574/6.7	4.714/5.8	4.213/6.8	3.072/5.1	2.081/7.4	1.330/6.6	-0.22/-1.25	-2.36/-3.61	-4.35/-4.22	-3.32/-1.83	0.081/4.7		
0	30	0.470/8.4	1.181/8.9	2.663/0.7	2.912/4.7	1.921/4.2	1.1/6.9	0.23/0.14	-0.47/-1.26	-3.01/-5.1	-6.26/-5.41	-3.64/-1.68	-0.58/0.5	2.013/0.8	3.974/1.7	4.734/1.8	3.693/4.3	3.132/7.2	1.820/5.8	-0.26/-0.92	-1.62/-1.85	-1.75/-2.02	-2.21/-2.54	-3.04/-3	-1.94/-6.04	0.470/8.4	1.181/8.9	2.663/0.7	2.912/4.7	1.921/4.2	1.1/6.9	0.23/0.14	-0.47/-1.26	-3.01/-5.1	-6.26/-5.41	-3.64/-1.68	-0.58/0.5	2.013/0.8	3.974/1.7	4.734/1.8	3.693/4.3	3.132/7.2	1.820/5.8	-0.26/-0.92	-1.62/-1.85	-1.75/-2.02	-2.21/-2.54	-3.04/-3	-1.94/-6.04		
0	37.5	-1.76/-0.72	-1.03/0.9	0.921/2.6	1.160/5.4	-1.0/0.9	-2.03/-3.3	-3.87/-3.92	-4.7/5.16	-5.1/4.25	-4.61/-5.5	-5.71/-2.45	0.042/3.7	4.6/7	4.614/4.2	3.893/2.5	3.032/5.4	1.23/1.05	-3.64/-4.8	-4.33/-3.35	-2.83/-2.82	-2.89/-2.15	-1.37/-1.8	-2.95/-2.27	-1.76/-0.72	-1.03/0.9	0.921/2.6	1.160/5.4	-1.0/0.9	-2.03/-3.3	-3.87/-3.92	-4.7/5.16	-5.1/4.25	-4.61/-5.5	-5.71/-2.45	0.042/3.7	4.6/7	4.614/4.2	3.893/2.5	3.032/5.4	1.23/1.05	-3.64/-4.8	-4.33/-3.35	-2.83/-2.82	-2.89/-2.15	-1.37/-1.8	-2.95/-2.27				
0	45	-0.880/0.8	0.761/0.3	1.221/3.1	0.98/0.11	-1.08/-1.48	-2.08/-3.38	-5.04/-5.88	-5.61/-5.71	-6.12/-6.11	-5.03/-5.16	-7.71/-10.23	-7.87/-3.45	-0.671/1.5	2.032/5.2	2.562/8.2	2.442/2.6	2.081/5.4	0.55/0.9	-4.04/-8.28	-8.71/-6.43	-5.05/-5.15	-5.06/-3.68	-1.72/-1.37	-1.84/-1.81	-0.880/0.8	0.761/0.3	1.221/3.1	0.98/0.11	-1.08/-1.48	-2.08/-3.38	-5.04/-5.88	-5.61/-5.71	-6.12/-6.11	-5.03/-5.16	-7.71/-10.23	-7.87/-3.45	-0.671/1.5	2.032/5.2	2.562/8.2	2.442/2.6	2.081/5.4	0.55/0.9	-4.04/-8.28	-8.71/-6.43	-5.05/-5.15	-5.06/-3.68	-1.72/-1.37	-1.84/-1.81		
0	52.5	-4.19/-2.97	-1.62/-1.37	-1.41/-0.67	-0.56/-2.63	-4.48/-3.93	-2.64/-2.59	-3.47/-3.93	-4.85/-6.4	-7.82/-5.42	-5.05/-5.84	-6.71/-8.26	-8.81/-3.33	-1.83/-0.41	0.370/7.0	0.810/8.9	0.940/5.8	0.350/5.4	-0.33/-2.49	-5.18/-9.78	-12.34/-9.05	-6.16/-6.74	-5.62/-3.95	-2.81/-2.21	-2.53/-3.93	-4.19/-2.97	-1.62/-1.37	-1.41/-0.67	-0.56/-2.63	-4.48/-3.93	-2.64/-2.59	-3.47/-3.93	-4.85/-6.4	-7.82/-5.42	-5.05/-5.84	-6.71/-8.26	-8.81/-3.33	-1.83/-0.41	0.370/7.0	0.810/8.9	0.940/5.8	0.350/5.4	-0.33/-2.49	-5.18/-9.78	-12.34/-9.05	-6.16/-6.74	-5.62/-3.95	-2.81/-2.21	-2.53/-3.93		
0	60	-13.12/-11.09	-7.84/-7.38	-8.89/-6.88	-6.04/-9.29	-11.28/-8.33	-5.42/-4.64	-5.16/-4.24	-3.19/-4.64	-8.87/6.7	-6.05/-6.15	-5.76/-8.26	-9.18/-5.33	-3.27/-1.98	-0.740/4.0	0.620/3.9	0.06/-1.12	-1.71/-1.86	-2.37/-3.89	-6.15/-9.67	-11.98/-12.15	-8.44/-5.61	-6.59/-6.11	-5.53/-4.18	-4.63/-8.6	-13.12/-11.09	-7.84/-7.38	-8.89/-6.88	-6.04/-9.29	-11.28/-8.33	-5.42/-4.64	-5.16/-4.24	-3.19/-4.64	-8.87/6.7	-6.05/-6.15	-5.76/-8.26	-9.18/-5.33	-3.27/-1.98	-0.740/4.0	0.620/3.9	0.06/-1.12	-1.71/-1.86	-2.37/-3.89	-6.15/-9.67	-11.98/-12.15	-8.44/-5.61	-6.59/-6.11	-5.53/-4.18	-4.63/-8.6		
0	67.5	-16.66/-17.66	-17.74/-15.35	-14.33/-13.9	-11.71/-14.93	-17.99/-16.86	-12.37/-8.91	-6.95/-4.34	-3.69/-5.66	-10.21/-10.08	-11.72/-8.72	-10.21/-18.38	-12.43/-7.71	-6.02/-5.27	-3.971/1.99	-1.19/-2.01	-2.41/-3.32	-2.06/-2.66	-3.91/-5.21	-7.15/-7.18	-9.81/-4.32	-11.48/-6.16	-6.99/-7.5	-7.84/-8.44	-9.83/-14.28	-16.66/-17.66	-17.74/-15.35	-14.33/-13.9	-11.71/-14.93	-17.99/-16.86	-12.37/-8.91	-6.95/-4.34	-3.69/-5.66	-10.21/-10.08	-11.72/-8.72	-10.21/-18.38	-12.43/-7.71	-6.02/-5.27	-3.971/1.99	-1.19/-2.01	-2.41/-3.32	-2.06/-2.66	-3.91/-5.21	-7.15/-7.18	-9.81/-4.32	-11.48/-6.16	-6.99/-7.5	-7.84/-8.44	-9.83/-14.28		
0	75	-11.83/-16.13	-14.43/-10.43	-7.53/-11.3	-11.41/-11.39	-19.09/-18.38	-16.15/-12.84	-10.72/-6.35	-5.23/-7.6	-8.98/-13.37	-18.87/-13.78	-18.49/-17.82	-17.94/-10.87	-12.77/-10.8	-14.91/-13.46	-14.09/-12.62	-16.73/-18.01	-13.15/-15.52	-3.58/-2.89	-6.05/-6.2	-7.1/6.39	-11.98/-12.15	-8.44/-5.61	-6.59/-6.11	-5.53/-4.18	-4.63/-8.6	-11.83/-16.13	-14.43/-10.43	-7.53/-11.3	-11.41/-11.39	-19.09/-18.38	-16.15/-12.84	-10.72/-6.35	-5.23/-7.6	-8.98/-13.37	-18.87/-13.78	-18.49/-17.82	-17.94/-10.87	-12.77/-10.8	-14.91/-13.46	-14.09/-12.62	-16.73/-18.01	-13.15/-15.52	-3.58/-2.89	-6.05/-6.2	-7.1/6.39	-11.98/-12.15	-8.44/-5.61	-6.59/-6.11	-5.53/-4.18	-4.63/-8.6
0	82.5	-9.31/-12.08	-12.03/-8.87	-6.23/9.64	-10.68/-10.5	-14.16/-14.17	-10.27/-17.25	-13.71/-8.2	-8.86/-11.26	-10.32/-12.49	-18.1/18.21	-11.95/-12.01	-18.68/-12.08	-9.24/-8.4	-6.25/-8.52	-11.88/-11.53	-8.58/-4.1	-7.45/-8.74	-8.64/-7.53	-11.88/-14.74	-17.21/-10.12	-10.58/-11.3	-13.03/-18.09	-10.15/-7.37	-9.14/-6.74	-9.31/-12.08	-12.03/-8.87	-6.23/9.64	-10.68/-10.5	-14.16/-14.17	-10.27/-17.25	-13.71/-8.2	-8.86/-11.26	-10.32/-12.49	-18.1/18.21	-11.95/-12.01	-18.68/-12.08	-9.24/-8.4	-6.25/-8.52	-11.88/-11.53	-8.58/-4.1	-7.45/-8.74	-8.64/-7.53	-11.88/-14.74	-17.21/-10.12	-10.58/-11.3	-13.03/-18.09	-10.15/-7.37	-9.14/-6.74	-9.31/-12.08	
0	90	-7.2/-10.34	-12.5/-9.68	-7.63/-10.89	-12.1/-9.56	-10.78/-12.46	-10.08/-17.02	-9.89/-7.74	-9.18/-14.45	-11.6/-11.31	-18.2/-18.08	-18.59/-15.95	-9.59/-13.16	-17.32/-14.15	-10.04/-10.64	-7.99/-10.68	-14.83/-15.29	-10.72/-7.76	-8.96/-16.61	-10.65/-9.4	-10.29/-16.5	-17.55/-12.88	-11.89/-14.2	-16.78/-17.81	-10.22/-6.78	-7.2/-10.34	-12.5/-9.68	-7.63/-10.89	-12.1/-9.56	-10.78/-12.46	-10.08/-17.02	-9.89/-7.74	-9.18/-14.45	-11.6/-11.31	-18.2/-18.08	-18.59/-15.95	-9.59/-13.16	-17.32/-14.15	-10.04/-10.64	-7.99/-10.68	-14.83/-15.29	-10.72/-7.76	-8.96/-16.61	-10.65/-9.4	-10.29/-16.5	-17.55/-12.88	-11.89/-14.2	-16.78/-17.81	-10.22/-6.78		
0	97.5	-7.49/-9.26	-10.32/-9.47	-7.53/-10.7	-10.03/-9.09	-11.54/-12.31	-10.78/-15.53	-10.05/-7.64	-8.42/-19.14	-12.83/-14.13	-18.43/-14.96	-17.96/-13.98	-10.38/-16.45	-14.91/-13.46	-14.09/-12.62	-16.73/-18.01	-13.15/-15.52	-3.58/-2.89	-6.05/-6.2	-7.1/6.39	-11.98/-12.15	-8.44/-5.61	-6.59/-6.11	-5.53/-4.18	-4.63/-8.6	-7.49/-9.26	-10.32/-9.47	-7.53/-10.7	-10.03/-9.09	-11.54/-12.31	-10.78/-15.53	-10.05/-7.64	-8.42/-19.14	-12.83/-14.13	-18.43/-14.96	-17.96/-13.98	-10.38/-16.45	-14.91/-13.46	-14.09/-12.62	-16.73/-18.01	-13.15/-15.52	-3.58/-2.89	-6.05/-6.2	-7.1/6.39	-11.98/-12.15	-8.44/-5.61	-6.59/-6.11	-5.53/-4.18	-4.63/-8.6		
0	105	-10.95/-8.33	-8.85/-6.82	-7.13/8.17	-11.61/13.94	-14.87/-11.63	-13.49/-17.55	-12.01/-8.43	-8.82/-17.34	-13.46/-17.95	-16.71/-15.21	-18.12/-13.03	-10.86/-19.03	-19.15/-16.74	-16.71/13.71	-10.73/-10.55	-15.74/-18.26	-15.97/-17.57	-16.59/-17.29	-15.21/-14.68	-16.13/-18.27	-18.26/-16.88	-17.77/-17.51	-18.16/-13.56	-15.12/-18.93	-10.95/-8.33	-8.85/-6.82	-7.13/8.17	-11.61/13.94	-14.87/-11.63	-13.49/-17.55	-12.01/-8.43	-8.82/-17.34	-13.46/-17.95	-16.71/-15.21	-18.12/-13.03	-10.86/-19.03	-19.15/-16.74	-16.71/13.71	-10.73/-10.55	-15.74/-18.26	-15.97/-17.57	-16.59/-17.29	-15.21/-14.68	-16.13/-18.27	-18.26/-16.88	-17.77/-17.51	-18.16/-13.56	-15.12/-18.93		
0	112.5	-18.99/-18.12	-12.22/-9.47	-8.73/-11.75	-12.79/-13.1	-12.35/-10.5	-12.81/-17.73	-12.88/-8.32	-8.42/-18.23	-13.07/-17.52	-16.46/-18.94	-16.22/-12.55	-15.71/-18.98	-18.92/-18.46	-18.29/-18.82	-14.07/-12.95	-17.73/-14.66	-17.84/-14.46	-18.69/-17.06	-18.77/-17.68	-12.5/-15.54	-18.78/-16.26	-17.68/-15.39	-19.01/-12.72	-8.37/-9.73	-18.99/-18.12	-12.22/-9.47	-8.73/-11.75	-12.79/-13.1	-12.35/-10.5	-12.81/-17.73	-12.88/-8.32	-8.42/-18.23	-13.07/-17.52	-16.46/-18.94	-16.22/-12.55	-15.71/-18.98	-18.92/-18.46	-18.29/-18.82	-14.07/-12.95	-17.73/-14.66	-17.84/-14.46	-18.69/-17.06	-18.77/-17.68	-12.5/-15.54	-18.78/-16.26	-17.68/-15.39	-19.01/-12.72	-8.37/-9.73		
0	120	-9.89/-12.84	-16.04/-15.37	-14.26/-10.07	-8.93/-9.83	-13.68/-18.2	-18.35/-18.41	-16.62/-11.55	-13.13/-16.7	-15.22																																									



Radiated Composite Gain Data_5GHz UNII-2C~3, 6GHz-4TX(Radio 2)

Appendix D

Theta	Phi	Phi Ant 3	Phi Ant 2	Phi Ant 1	Phi Ant 0	Phi Ant -1	Phi Ant -2	Phi Ant -3	Phi Ant -4	Phi Ant -5	Phi Ant -6	Phi Ant -7	Phi Ant -8	Phi Ant -9	Phi Ant -10	Phi Ant -11	Phi Ant -12	Phi Ant -13	Phi Ant -14	Phi Ant -15	Phi Ant -16	Phi Ant -17	Phi Ant -18	Phi Ant -19	Phi Ant -20			
Theta(5°)	-5.771-10.23	-11.451-11.18	-10.471-12.15	-17.711-18.25	-11.881-7.06	-4.881-4.21	-3.151-3.13	0.711-0.97	2.041-2.33	1.040-0.95	1.771-5	0.741-0.55	-1.131-2.4	-4.241-6.72	-7.941-10.97	-15.011-14.3	-13.691-12.14	-9.21-6	-3.831-3.11	-2.911-2.7	-1.271-0.78	-1.211-1.22	-1.581-1.43	-1.551-3.59				
Theta(6°)	-13.131-11.62	-8.781-7.53	-6.741-9.16	-13.651-18.71	-12.231-6.71	-5.251-5.04	-4.591-3.12	-1.101-2.4	0.621-0.33	-0.771-0.53	0.091-0.61	-1.431-2.68	-3.251-4.44	-4.931-5.72	-7.311-10.52	-15.141-13.28	-11.831-11.07	-9.141-7.29	-6.361-6.96	-7.631-5.91	-4.711-4.1	-5.211-5.81	-6.361-6.84	-6.851-10.37				
Theta(7°)	-15.891-9.52	-6.851-5.9	-6.191-7.9	-13.611-18.96	-12.051-7.11	-6.021-5.88	-5.851-4.75	-3.081-2.16	-2.411-3.4	-5.031-3.78	-2.811-3.71	-4.041-5.62	-5.911-7.55	-6.091-6.08	-8.131-12.15	-13.111-10.34	-8.781-10.7	-7.911-8.53	-8.941-12.31	-12.561-11.6	-6.221-6.04	-6.811-7.9	-8.751-10.8	-12.111-17.56				
Theta(8°)	-12.451-8.19	-5.951-5.62	-6.251-9.29	-15.191-18.65	-12.811-8.66	-7.981-7.86	-8.051-3.44	6.151-6.03	-7.021-9.15	-12.311-9.37	-7.161-7.34	-8.31-8.88	-10.991-14.76	-10.351-7.42	-9.811-11.81	-11.631-9.3	-7.681-6.94	-6.881-10.24	-13.141-18.68	-12.131-6.47	-5.751-7.14	-6.991-6.74	-7.351-10.82	-15.251-17.34				
Theta(9°)	-13.711-8.33	-7.031-6.62	-7.631-10.21	-15.331-18.77	-15.061-9.66	-10.101-10.04	-10.061-9.28	-8.231-10.1	-12.181-7.9	-18.711-14.03	-11.061-10.24	-11.971-11.61	-17.481-18.1	-14.031-9.7	-11.991-12.22	-11.491-9.4	-7.841-6.73	-7.531-13.82	-15.381-17.76	-8.731-5.38	-5.351-7.23	-7.561-7.1	-7.511-10.16	-16.271-15.3				
Theta(10°)	-15.011-9.95	-9.81-8.66	-9.811-12.38	-17.481-18.82	-17.841-12.44	-12.661-12.87	-12.211-10.38	-9.911-13.38	-17.451-19.24	-18.911-18.75	-16.911-15.43	-15.811-16.31	-17.381-17.75	-19.411-13.33	-14.911-13.86	-13.081-9.89	-9.541-7.43	-8.121-10.6	-14.651-16.34	-8.931-6.42	-6.771-11.2	-9.371-8.44	-7.591-8.94	-13.881-14.41				
Theta(11°)	-12.131-8.5	-8.991-9.67	-11.091-15.31	-17.231-18.1	-18.41-14.84	-15.681-15.65	-15.351-13.08	-12.481-14.67	-18.641-17.8	-18.631-18.24	-18.711-18.83	-18.231-17.39	-19.091-18.6	-18.081-15.73	-18.791-18.1	-15.881-12.47	-10.581-11.27	-9.831-14.1	-16.361-16.08	-10.91-8.76	-9.461-8.37	-10.961-10.08	-10.131-11.38	-12.631-12.51				
Theta(12°)	-12.561-9.58	-10.681-11.3	-13.761-15.35	-17.931-18.49	-17.341-15.4	-16.581-14.29	-13.131-13.04	-13.611-14.55	-16.611-17.4	-17.891-18.05	-17.651-17.51	-17.271-19.06	-17.421-18.85	-18.471-17.7	-17.881-17.99	-16.141-13.53	-10.851-15.65	-13.951-13.82	-17.251-16.81	-13.121-12.5	-11.541-9.73	-10.321-9.94	-10.821-13.61	-14.951-13.19				
Theta(13°)	-16.251-18.48	-16.271-15.13	-17.381-19.77	-18.051-17.66	-17.581-16.68	-16.211-14.47	-13.311-14.49	-14.651-14.89	-18.591-18.74	-18.791-18.88	-18.941-18.5	-17.651-18.37	-18.411-18.34	-19.131-18.08	-17.771-17.5	-15.911-13.55	-11.311-14.46	-13.811-14.15	-17.321-17.99	-14.511-14.78	-13.271-13.42	-10.891-9.79	-11.311-15.91	-18.071-18.79				
Theta(14°)	-17.321-17.12	-12.951-13.65	-14.421-18.85	-18.171-19.64	-17.181-14.77	-16.261-17.27	-15.091-13.93	-13.321-16.38	-18.231-17.98	-18.921-17.63	-19.281-17.92	-19.261-17.86	-18.361-18.64	-17.481-19.31	-18.981-17.53	-18.511-16.37	-11.481-12.53	-14.191-16.48	-16.151-15.3	-16.421-16.32	-12.281-16.32	-14.211-12.37	-12.021-14.37	-17.611-18.4				
Theta(15°)	-14.991-12.21	-12.521-12.21	-17.111-17.3	-19.161-18.49	-18.911-18.36	-18.211-18.97	-18.711-18.79	-18.571-17.54	-18.271-18.97	-18.251-17.92	-18.571-18.47	-17.751-18.09	-18.771-18.58	-19.221-17.85	-18.111-14.57	-15.511-13.57	-14.691-15.02	-17.861-15.87	-14.751-13.34	-17.661-15.77	-16.141-16.9	-18.251-18.17	-18.521-17.51	-18.521-17.51				
Theta(16°)	-18.781-19.24	-18.421-17.71	-17.991-18.22	-17.941-18.38	-16.411-18.18	-16.431-18.56	-18.811-19.04	-18.761-17.91	-18.191-18.19	-18.271-18.23	-19.211-18.35	-18.991-17.93	-18.661-17.64	-18.831-18.96	-17.331-19.02	-18.711-13.28	-16.281-15.91	-14.241-16.13	-17.111-16.69	-17.471-17.47	-17.241-16.65	-15.101-15.54	-12.961-18.96	-17.691-17.74				
Theta(17°)	-17.221-17.87	-17.171-18.81	-18.971-19.3	-18.171-19.3	-18.791-17.6	-18.611-17.82	-18.171-17.52	-18.491-18.54	-18.891-18.92	-18.431-17.36	-18.411-17.35	-18.661-18.21	-18.711-18.24	-18.561-17.9	-19.391-18.68	-18.341-18.73	-19.171-16.34	-15.861-17.34	-18.921-16.71	-17.631-15.79	-16.321-17.76	-18.211-17.68	-17.321-17.96	-18.951-17.12				
Theta(18°)	-17.551-17.86	-16.791-17.38	-17.381-19.04	-15.691-16.91	-18.221-18.33	-18.641-18.75	-18.121-18.06	-19.021-19.06	-18.361-18.69	-18.111-18.75	-18.991-18.35	-17.331-17.29	-18.721-18.35	-19.021-18.55	-17.681-17.19	-17.841-17.7	-17.741-18.18	-19.071-18.23	-18.491-18.67	-19.261-18.97	-18.341-16.67	-15.441-16.77	-19.291-17.68	-18.481-17.68				
Theta(19°)	-19.391-18.26	-17.741-19.01	-18.491-18.03	-18.681-18.25	-17.951-17.37	-18.611-18.48	-18.921-17.41	-18.971-18.05	-17.791-17.19	-18.351-18.35	-17.711-18.1	-18.231-17.73	-18.651-18.51	-18.111-19.21	-18.811-18.84	-18.741-17.59	-17.941-18.73	-18.711-17.94	-18.611-18.56	-16.491-16.46	-17.061-17.3	-15.681-16.79	-19.141-18.63	-19.021-17.29				
Theta(20°)	-17.411-18.04	-18.661-18.36	-18.171-18.66	-18.61-19.06	-17.81-18.21	-17.141-16.95	-17.261-17.99	-18.91-18.86	-18.451-18.34	-18.931-19.75	-18.21-16.79	-17.141-16.67	-18.681-18.17	-19.041-18.41	-19.181-18.54	-18.391-17.6	-17.531-17.8	-17.891-19.33	-18.211-19.23	-17.721-17.02	-16.731-17.19	-18.521-18.41	-17.821-18.67	-18.111-17.5				
Theta(21°)	-14.491-12.73	-11.561-11.48	-12.541-13.36	-14.631-16.09	-17.111-17.81	-18.511-18.66	-18.761-18.66	-18.361-18.72	-17.841-18.89	-18.961-19.01	-19.211-18.75	-18.861-18.78	-18.981-16.31	-15.161-14.95	-15.041-15.65	-16.741-17.84	-18.791-18.76	-19.731-19.29	-18.861-17.82	-18.171-17.45	-18.511-18.81	-19.191-19.07	-17.941-17.68	-19.121-18.63				
Theta(22°)	-17.621-18.94	-19.211-18.19	-18.171-18.32	-17.621-17.86	-18.961-18.45	-18.811-19.12	-17.441-16.21	-15.261-14.5	-14.581-14.59	-14.911-15.44	-16.031-16.54	-18.611-18.76	-16.831-17.34	-18.731-18.32	-18.721-18.3	-17.611-18.99	-18.011-18	-19.271-18.94	-18.291-17.47	-16.931-16.79	-16.751-16.81	-18.511-17.16	-18.511-17.16					
Gain	Phi(0°)	Phi(15°)	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°)				
Gain	0.750-0.67	2.591-4.93	8.211-12.59	14.561-10.02	6.021-3.15	1.101-4.5	1.721-6	3.241-7.4	4.161-3.8	4.441-3.1	3.991-4.9	2.811-8.5	0.711-0.66	2.621-5.51	9.811-8.42	16.971-9.26	5.061-2.45	0.561-0.89	2.021-2.1	3.401-2.8	4.081-2.2	4.181-3.5	3.671-3.8	2.581-7.4				
Theta(7°)	3.041-4.13	4.741-5.22	5.551-5.73	5.771-5.72	5.541-5.21	4.751-4.12	3.261-2.09	0.691-1.14	-3.831-7.72	-14.241-14.35	-7.661-3.72	-1.111-0.93	2.371-5.5	4.461-5.2	5.621-9.7	6.091-6.6	5.951-5.62	5.131-4.47	3.531-2.7	0.611-1.66	4.751-9.91	-18.251-11.29	-5.471-2.12	0.181-8.2				
Theta(15°)	3.211-4.06	4.541-5.92	5.251-5.35	5.361-5.29	5.011-4.73	4.371-3.8	3.321-5.3	1.421-0.09	-2.541-4.63	-14.711-18.18	-7.731-3.44	-0.991-7.9	2.131-11	3.941-4.6	4.831-6.4	5.101-5.6	4.941-6.6	4.171-3.4	2.271-7.9	-1.271-1.41	-8.221-16.39	-17.661-9.6	-4.841-1.86	0.271-2.04				
Theta(22.5°)	2.511-4.4	3.991-3.1	4.541-4.7	4.311-4.2	4.021-4.2	3.991-3.82	3.391-5.4	1.191-0.71	-1.891-8.02	-17.671-22.87	-5.811-2.07	2.031-5.6	4.431-7.8	3.921-4.6	4.161-4.7	4.931-5.4	3.921-5.8	3.431-7.8	1.811-2.8	-1.751-4.43	-8.481-16.53	-17.791-9.41	-4.811-2.11	-0.311-2.9				
Theta(30°)	1.581-2.68	3.451-3.66	3.561-3.16	2.841-2.74	2.811-2.99	3.171-3.21	2.891-2.05	0.631-1.39	-4.541-9.93	-18.781-16.95	-8.251-3.83	-1.291-4.1	1.441-9.1	1.871-8.7	2.141-4.6	2.741-2.8	2.921-8.5	2.491-5.2	-0.191-2.42	-4.921-7.64	-11.261-17.84	-19.191-11.24	-6.151-3.1	-1.241-2.8				
Theta(37.5°)	0.651-0.98	2.391-2.82	2.561-1.7	1.861-1.62	1.611-1.87	2.261-3.2	1.871-0.95	-0.581-3.2	-7.491-7.1	-12.421-16.15	-19.311-18.36	-15.751-14.8	-8.751-7.67	-6.431-5.54	-4.811-5.42	-6.141-4.7	-5.441-5.28	-5.311-6.33	-9.041-14.43	-18.881-12.44	-17.781-2.44	-2.911-9.4						
Theta(45°)	-1.211-0.97	0.081-4.2	0.301-0.08	-0.081-0.34	-0.011-0.34	0.811-0.64	0.171-0.32	-1.161-2.33	-7.811-15.43	-19.451-19.38	-13.811-15.44	-3.181-2.31	-2.111-1.46	-1.321-1.47	-1.941-1.88	-1.101-1.78	-0.271-0.67	-0.911-1.7	-3.021-4.33	-5.971-5.9	-10.761-18.61	-17.341-12.39	-8.251-5.24	-4.101-3.06				
Theta(52.5°)	-3.221-2.69	-1.651-1.61	-2.241-2.41	-2.761-3.17	-2.691-2.06	-2.011-2.2	-2.581-3.02	-3.991-6.05	-10.51-18.43	-17.911-18.13	-12.121-8.07	-5.591-5.79	-5.371-4	-2.861-3.41	-4.421-4.02	-3.841-3.26	-3.071-3.02	-3.431-3.94	-4.731-5.77	-6.751-7.71	-9.491-14.98	-18.511-12.75	-7.611-4.47	-3.711-3.02				
Theta(60°)	-2.561-3.18	-2.941-3.38	-4.181-3.24	-6.031-6.36	-5.631-4.82	-4.751-4.22	-4.691-5.92	-7.491-7.1	-12.421-16.15	-19.311-18.36	-15.751-14.8	-8.751-7.67	-6.431-5.54	-4.811-5.42	-6.141-4.7													

