



Antenna Composite Gain Test Report

Equipment	BN19000 Tri Band WiFi Router
Brand Name	ASUS
Model Name	BN12 · BN12 Z
Applicant	ASUSTeK COMPUTER INC. 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Standard	KDB662911 D03 v02
Sample Received	Feb. 24, 2026
Start Test Date	Apr. 21, 2026
Final Test Date	Apr. 22, 2026

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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



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History of this test report

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1. Operation Mode and Antenna Information

Antenna Position	RF Port		Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
	2G	5G					
2G5GAnt1	1	4	Whayu	C660-510683-A	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
2G5GAnt2	2	3	Whayu	C660-510683-A	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
2G5GAnt3	3	2	Whayu	C660-510683-A	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
2G5GAnt4	4	1	Whayu	C660-510683-A	Dipole	I-PEX	2.4GHz, 5GHz UNII 1~3
6G Ant1	3		Whayu	C660-510683-A	Dipole	I-PEX	6GHz
6G Ant2	4		Whayu	C660-510683-A	Dipole	I-PEX	6GHz
6G Ant3	2		Whayu	C660-510683-A	Dipole	I-PEX	6GHz
6G Ant4	1		Whayu	C660-510683-A	Dipole	I-PEX	6GHz

Note:

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

2G5GAnt1~4 can be used as transmitting/receiving antenna.

2G5GAnt1~4 could transmit/receive simultaneously.

6GHz Operation Mode (4TX/4RX)

6G Ant1~4 can be used as transmitting/receiving antenna.

6G 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. Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
BN12	All the models are identical, the difference model served as marketing strategy.
BN12 Z	

Note 1: From the above models, model: BN12 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

4. Testing Location

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	05CH03-HY	Rofy Chen	23.5-24.5 / 45-55	Apr. 21, 2026~ Apr. 22, 2026

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

5. Test Facility and Configuration

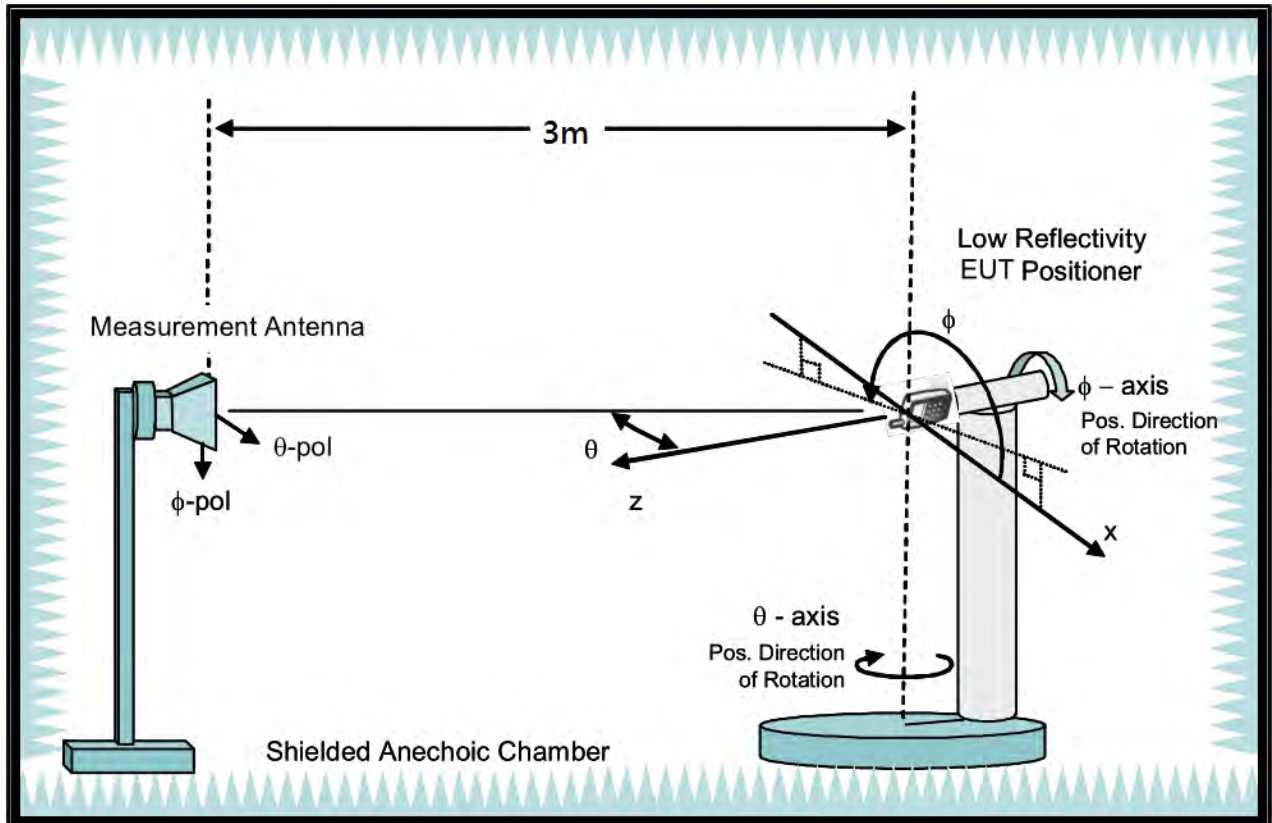
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna.

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

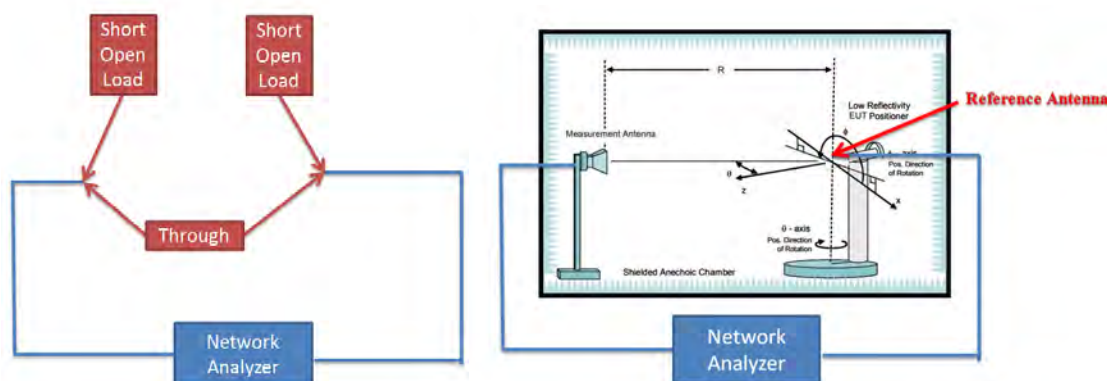
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



6. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7200
G(theta) reading (dB)	-32.12	-32.48	-32.45	-34.55	-34.56	-34.78	-34.94	-34.89	-34.99	-35.16	-35.32	-35.68	-35.88	-35.97
G(phi) reading (dB)	-32.35	-32.11	-32.43	-34.12	-33.95	-34.23	-34.56	-34.68	-34.78	-35.32	-35.45	-35.67	-35.86	-36.11
Reference gain (dBi)	10.2	10.2	10.2	11	11.3	11.6	12	11.6	11.4	11.3	11.4	11.1	11	10.3
Factor(theta) (dB)	42.32	42.68	42.65	45.55	45.86	46.38	46.94	46.49	46.39	46.46	46.72	46.78	46.88	46.27
Factor(phi) (dB)	42.55	42.31	42.63	45.12	45.25	45.83	46.56	46.28	46.18	46.62	46.85	46.77	46.86	46.41

Note:

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

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

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

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



7. Test Method

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

8. Measured Values and Calculation of Maximum Gain Positions

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	1.14	-0.63	1.32	2.94	2.35
Ant. 2 (dBi)	2.56	2	1.01	1.79	0.84
Ant. 3 (dBi)	-1.8	1.75	-1.22	2.17	2.16
Ant. 4 (dBi)	2.92	2.86	3.93	0.79	-0.38
DG [1SS] (dBi)	7.41	7.61	7.47	7.98	7.33
Polarization	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	67.5	90	90	90	105
$\Phi(^{\circ})$	330	120	300	180	352.5

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	1.5	0.64	0.89	1.42
Ant. 2 (dBi)	0.01	-0.69	-1.43	-0.99
Ant. 3 (dBi)	2.56	-1.78	0.32	2.43
Ant. 4 (dBi)	-1.97	3.66	0.11	-0.07
DG [1SS] (dBi)	6.71	6.73	6.03	6.82
Polarization	Theta	Phi	Theta	Theta
$\Theta(^{\circ})$	90	0	82.5	82.5
$\Phi(^{\circ})$	172.5	240	165	345

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



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DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [10^(G/20)]	10^(1.14/20)	10^(-0.63/20)	10^(1.32/20)	10^(2.94/20)	10^(2.35/20)
Ant. 2 [10^(G/20)]	10^(2.56/20)	10^(2/20)	10^(1.01/20)	10^(1.79/20)	10^(0.84/20)
Ant. 3 [10^(G/20)]	10^(-1.8/20)	10^(1.75/20)	10^(-1.22/20)	10^(2.17/20)	10^(2.16/20)
Ant. 4 [10^(G/20)]	10^(2.92/20)	10^(2.86/20)	10^(3.93/20)	10^(0.79/20)	10^(-0.38/20)
Ant. 1 [10^(G/20)] value	1.14	0.93	1.164	1.403	1.311
Ant. 2 [10^(G/20)] value	1.343	1.259	1.123	1.229	1.102
Ant. 3 [10^(G/20)] value	0.813	1.223	0.869	1.284	1.282
Ant. 4 [10^(G/20)] value	1.4	1.39	1.572	1.095	0.957
Sum All Antenna [Amax]	4.695	4.802	4.729	5.011	4.652
DG [10*log(Amax^2/Nant)]	7.41	7.61	7.47	7.98	7.33

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [10^(G/20)]	10^(1.5/20)	10^(0.64/20)	10^(0.89/20)	10^(1.42/20)
Ant. 2 [10^(G/20)]	10^(0.01/20)	10^(-0.69/20)	10^(-1.43/20)	10^(-0.99/20)
Ant. 3 [10^(G/20)]	10^(2.56/20)	10^(-1.78/20)	10^(0.32/20)	10^(2.43/20)
Ant. 4 [10^(G/20)]	10^(-1.97/20)	10^(3.66/20)	10^(0.11/20)	10^(-0.07/20)
Ant. 1 [10^(G/20)] value	1.189	1.076	1.108	1.178
Ant. 2 [10^(G/20)] value	1.001	0.924	0.848	0.892
Ant. 3 [10^(G/20)] value	1.343	0.815	1.038	1.323
Ant. 4 [10^(G/20)] value	0.797	1.524	1.013	0.992
Sum All Antenna [Amax]	4.329	4.339	4.006	4.385
DG [10*log(Amax^2/Nant)]	6.71	6.73	6.03	6.82

Note:

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

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

9. Summary of Test Result

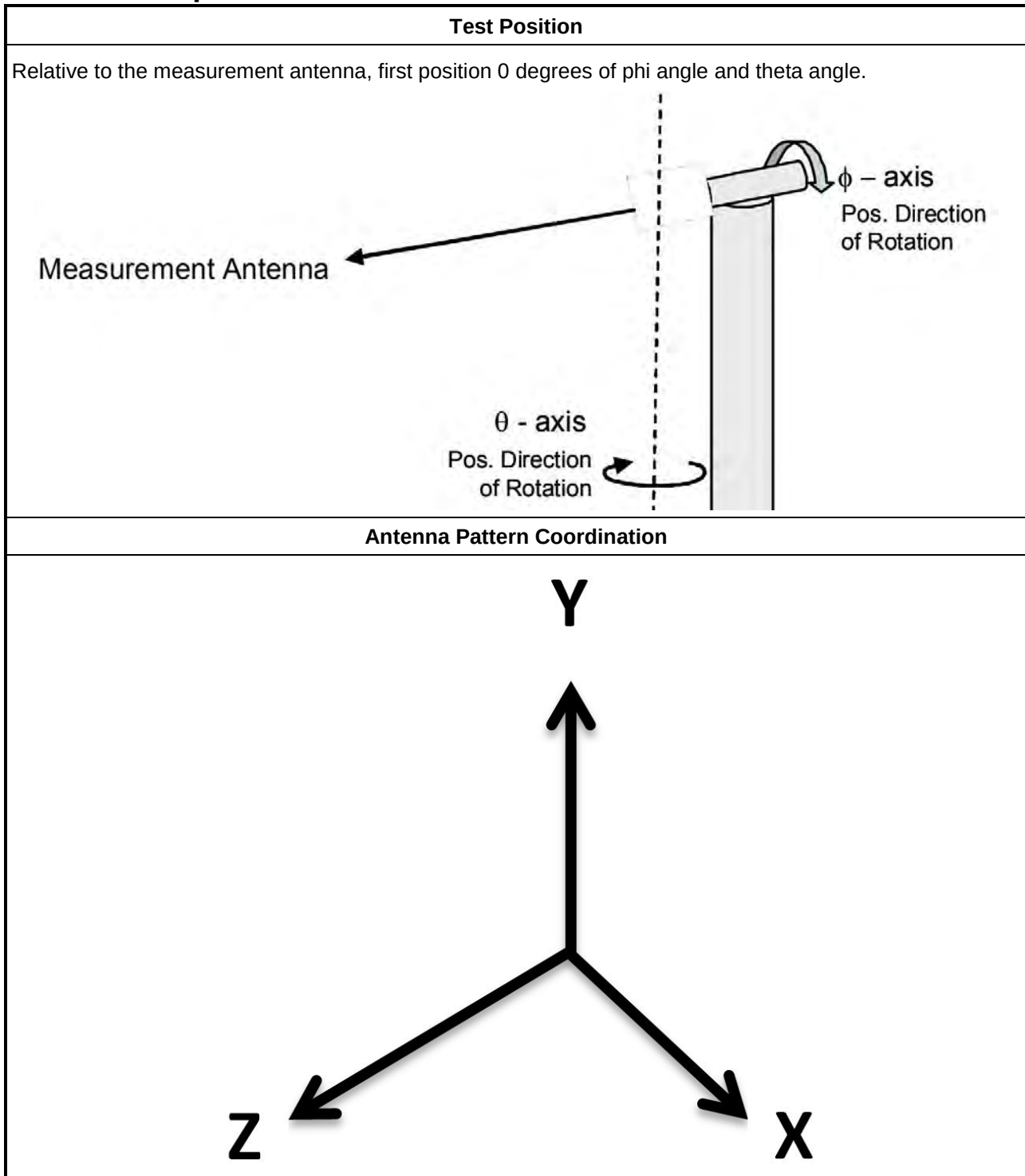
Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	3.52	2.95	3.28	3.9	3.78
Ant. 2 Max Gain (dBi)	3.69	3.47	2.87	3.76	3.81
Ant. 3 Max Gain (dBi)	3.59	3.98	3.76	3.77	3.93
Ant. 4 Max Gain (dBi)	3.47	3.46	3.93	3.64	3.55
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/292.5	Theta/112.5/15	Theta/52.5/270	Theta/90/187.5	Theta/97.5/90
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75/157.5	Theta/67.5/172.5	Theta/75/150	Theta/90/240	Theta/75/157.5
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/30/105	Theta/120/285	Theta/97.5/202.5	Theta/105/285	Theta/105/172.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/15	Theta/120/187.5	Theta/90/300	Theta/90/127.5	Theta/127.5/187.5
Max Gain (dBi)	3.69	3.98	3.93	3.9	3.93
DG [1SS] (dBi)	7.41	7.61	7.47	7.98	7.33
DG [2SS] (dBi)	4.41	4.61	4.47	4.98	4.33
DG [4SS] (dBi)	3.69	3.98	3.93	3.9	3.93

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.41	4.27	3.16	3.9
Ant. 2 Max Gain (dBi)	4.42	4.11	4.03	4.1
Ant. 3 Max Gain (dBi)	4.48	4.32	3.95	4.4
Ant. 4 Max Gain (dBi)	4.38	4.47	4.25	4.24
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/7.5/15	Phi/7.5/7.5	Phi/7.5/15	Phi/67.5/345
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/22.5/82.5	Phi/15/90	Theta/82.5/240	Phi/75/262.5
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/82.5/7.5	Phi/67.5/180	Phi/67.5/165	Phi/75/172.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/75/90	Phi/7.5/97.5	Theta/172.5/285	Theta/37.5/210
Max Gain (dBi)	4.48	4.47	4.25	4.4
DG [1SS] (dBi)	6.71	6.73	6.03	6.82
DG [2SS] (dBi)	4.48	4.47	4.25	4.4
DG [4SS] (dBi)	4.48	4.47	4.25	4.4

Note:

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

10. Test Setup



Note:

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

**11. Test Equipment and Calibration Data**

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1531	1GHz~18GHz	Dec. 19, 2025	Dec. 18, 2026
Dual Polarization Horn Antenna	Sporton	S0209DP	S0209DP-001	2GHz~9GHz	N.C.R.	N.C.R.
ENA Series Network Analyzer	AGILENT	E5071C	MY46419477	100kHz~8.5GHz	Aug. 06, 2025	Aug. 05, 2026
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.

N.C.R means Non-Calibration required.



12. Test Results

Please refer to the appendix.

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Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	3.52	2.95	3.28	3.9	3.78
Ant. 2 Max Gain (dBi)	3.69	3.47	2.87	3.76	3.81
Ant. 3 Max Gain (dBi)	3.59	3.98	3.76	3.77	3.93
Ant. 4 Max Gain (dBi)	3.47	3.46	3.93	3.64	3.55
Ant. 1 Polarization/Θ(°)/Φ(°)	Theta/60/292.5	Theta/112.5/15	Theta/52.5/270	Theta/90/187.5	Theta/97.5/90
Ant. 2 Polarization/Θ(°)/Φ(°)	Theta/75/157.5	Theta/67.5/172.5	Theta/75/150	Theta/90/240	Theta/75/157.5
Ant. 3 Polarization/Θ(°)/Φ(°)	Theta/30/105	Theta/120/285	Theta/97.5/202.5	Theta/105/285	Theta/105/172.5
Ant. 4 Polarization/Θ(°)/Φ(°)	Theta/60/15	Theta/120/187.5	Theta/90/300	Theta/90/127.5	Theta/127.5/187.5
Max Gain (dBi)	3.69	3.98	3.93	3.9	3.93
DG [1SS] (dBi)	7.41	7.61	7.47	7.98	7.33
DG [2SS] (dBi)	4.41	4.61	4.47	4.98	4.33
DG [4SS] (dBi)	3.69	3.98	3.93	3.9	3.93



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

DG 1SS Result

Freq(Hz)	2.45G/Pol.	Phi+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-0.93/-0.7	-0.64/-0.89	-1.31/-1.88	-2.46/-3.21	-4.01/-3.98	-4.1/-3.47	-2.45/-1.76	-1.27/-0.83	-0.46/-0.27	-0.37/-0.5	-0.5/-3.9	-0.03/-0.2	0.39/-0.46	0.28/-0.03	-0.47/-1.02	-1.62/-2.15	-2.55/-2.84	-2.73/-2.59	-2.38/-1.98	-1.61/-1.27	-0.92/-0.67	-0.56/-0.73	-0.99/-0.87	-0.76/-0.58
Θ(7.5°)	-0.74/-1.06	-0.87/-0.98	-1.26/-1.55	-2.12/-2.51	-2.72/-2.49	-1.95/-1.3	-1.1/-0.71	-0.39/-0.09	0.01/-0.06	-0.19/-0.35	-0.07/-0	0.43/-0.72	0.80/-0.71	0.26/-0.14	-0.59/-1.19	-1.66/-2.62	-3.2/-3.18	-3.15/-2.6	-2.14/-1.76	-1.46/-1.3	-1.06/-0.87	-0.81/-1.02	-1.11/-1	-0.91/-1.34
Θ(15°)	-0.99/-0.9	-0.78/-0.82	-1.16/-1.35	-1.56/-1.54	-1.47/-1.41	-1.45/-1.39	-1.11/-0.58	-0.27/-0.06	0.25/-0.3	0.22/-0.19	0.30/-48	0.81/-0.96	0.95/-0.81	0.39/-0.15	-0.76/-1.4	-2/-2.48	-2.98/-3.18	-2.61/-2.36	-1.81/-1.41	-1.13/-0.95	-0.84/-0.64	-0.39/-0.3	-0.36/-0.48	-0.71/-0.94
Θ(22.5°)	-1.21/-1.41	-1.39/-1.3	-1.25/-1.06	-0.84/-0.83	-0.64/-0.84	-0.95/-1.16	-1.17/-0.82	-0.31/-0.14	0.40/-48	0.47/-0.39	0.46/-58	0.77/-0.82	0.57/-0.6	-0.66/-1.25	-1.81/-2.35	-2.78/-3.04	-3.18/-3.03	-2.73/-2.37	-2.03/-1.72	-1.43/-1.21	-0.9/-0.45	-1.09/-0.1	-0.17/-0.33	-0.54/-1.13
Θ(30°)	-2.24/-2.49	-2.39/-1.83	-1.41/-1.02	-0.78/-0.67	-0.69/-0.85	-1.41/-1.91	-2.36/-2.18	-1.71/-1.18	-0.86/-0.75	-0.87/-0.92	-0.78/-0.6	-0.46/-0.45	-0.9/-1.08	-1.62/-2.15	-2.48/-2.84	-3.03/-3.05	-3.25/-3.3	-3.29/-3.31	-3.43/-3.34	-3.01/-2.24	-1.26/-0.3	0.25/-0.42	0.31/-0.01	-0.52/-1.27
Θ(37.5°)	-1.87/-1.82	-1.38/-1.1	-1/-0.99	-1.1/-1.38	-1.54/-1.68	-1.98/-2.53	-3.03/-3.15	-2.88/-2.49	-2.31/-2.38	-2.41/-2.3	-1.78/-1.52	-1.27/-1.21	-1.24/-1.41	-1.7/-1.96	-1.82/-1.54	-1.48/-1.92	-2.56/-3.36	-4.19/-4.56	-4.5/-4.37	-3.47/-2.3	-1.07/-0.13	0.36/-0.42	0.12/-0.21	-0.79/-1.22
Θ(45°)	0.07/-0.48	0.91/-	0.62/-0.16	-0.42/-0.99	-1.73/-2.43	-2.97/-3.61	-3.5/-2.87	-2.51/-2.4	-2.52/-2.36	-2.02/-2.19	-0.92/-0.69	-0.62/-0.3	-0.33/-0.09	0.31/-0.52	0.87/-0.97	0.58/-0.34	-1.65/-3.28	-4.43/-4.84	-4.32/-2.88	-1.64/-0.45	0.22/-0.62	1.01/-2.3	1.27/-1.16	0.80/-64
Θ(52.5°)	1.31/-1.39	1.35/-1.02	0.57/-0.29	0.15/-0.62	-1.83/-2.86	-3.34/-3.39	-3.33/-3.14	-2.95/-3	-3.26/-2.91	-2.08/-1.65	-1.47/-1.24	-1.06/-0.59	-0.33/-0.34	0.96/-1.7	1.94/-1.65	0.79/-0.86	-2.92/-4.56	-5.24/-4.8	-3.11/-1.78	-0.49/-0.45	0.93/-1.08	1.27/-1.54	1.87/-1.86	1.85/-1.42
Θ(60°)	-0.18/-0.37	-0.40/-0.39	-0.13/-0.34	0.46/-0.06	-0.77/-1.69	-2.39/-3.1	-3.68/-3.9	-4.05/-3.93	-3.44/-3.13	-2.7/-2.52	-2.4/-2.55	-2.11/-1.47	-1.25/-0.98	-0.53/-0.19	-0.15/-0.72	-0.7/-4.03	-5.78/-6.65	-6.1/-5.21	-4.31/-2.9	-1.75/-0.97	-0.57/-0.28	0.23/-0.62	1/-17	1.03/-0.52
Θ(67.5°)	-1.02/-1.37	-1.19/-0.95	-0.94/-0.48	-0.14/-0.4	-1.24/-1.72	-2.34/-3.03	-3.47/-3.61	-3.11/-2.47	-2.03/-1.31	-0.28/-0.45	0.59/-0.19	-0.29/-0.5	-0.6/-0.8	-0.98/-1.22	-1.7/-1.94	-1.78/-1.95	-2.44/-3.38	-4.26/-4.91	-4.76/-3.92	-2.51/-1.18	-0.09/-0.74	1.07/-0.87	0.24/-0.25	-0.06/-1.17
Θ(75°)	-1.65/-1.43	-0.51/-0.28	0.88/-0.03	0.57/-0.44	-1.44/-1.8	-1.59/-1.62	-1.36/-0.88	-0.4/-0.23	-0.39/-0.23	0.31/-0.04	1.24/-0.66	-0.47/-1.35	-1.91/-1.49	-0.88/-0.66	-0.78/-0.77	-0.96/-1.73	-2.74/-26	-6.43/-7.94	-6.82/-5.46	-4/-2.05	-0.29/-0.84	1.16/-0.96	0.36/-0.4	-0.89/-1.23
Θ(82.5°)	-1.99/-2.02	-1.05/-0.37	1.32/-1.61	1.40/-81	-0.08/-0.5	-0.19/-0.09	0.36/-0.75	0.88/-0.73	0.37/-0.26	0.60/-79	0.46/-0.31	-1.46/-2.35	-2.44/-1.82	-1.14/-0.54	-0.12/-0.33	-0.87/-1.17	-1.26/-1.78	-3/-3.89	-4.42/-4.19	-3.71/-2.27	-0.58/-0.33	0.34/-0.18	-0.9/-1.94	-1.67/-1.94
Θ(90°)	-0.37/-1.04	-0.86/-0.34	1.1/-1.48	1.51/-1.26	0.97/-0.86	0.82/-0.47	0.28/-0.48	-0.05/-1.23	-2.08/-1.88	-1.04/-0.41	-0.66/-1.7	-2.92/-3	-2.18/-1.05	0.06/-0.73	0.83/-0.28	-0.65/-0.96	-1.09/-1.57	-2.55/-3.83	-4.5/-4.63	-4.87/-3.9	-1.77/-0.17	0.06/-0.93	-1.83/-1.34	-0.88/-0.5
Θ(97.5°)	0.78/-0.96	1.22/-1.62	1.61/-1.19	0.84/-0.7	0.59/-0.59	0.76/-0.8	0.77/-0.5	-0.19/-1.11	-1.27/-0.47	0.22/-0.02	-1.35/-2.43	-3.14/-2.62	-1.25/-0.1	0.74/-0.95	0.48/-0.56	-1.16/-1.57	-1.46/-1.46	-1.52/-1.54	-1.52/-1.4	-2.31/-0.45	-4.43/-1.99	-0.54/-0.18	-0.59/-0.69	-0.08/-0.22
Θ(105°)	-0.04/-0.63	1.43/-21	2.29/-1.71	0.88/-0.13	0.02/-0.02	0.25/-0.63	0.65/-0.25	-0.93/-1.78	-0.55/-0.94	1.39/-0.83	-0.54/-1.66	-1.98/-1.32	-0.38/-0.55	1.34/-1.66	1.21/-0.06	-1.9/-3.86	-3.39/-1.9	-0.8/-0	0.50/-28	-0.94/-3.45	-5.93/-3.78	-1.34/-0.2	0.66/-0.27	0.27/-0.03
Θ(112.5°)	-0.24/-1.35	-1.68/-0.83	-0.42/-1.19	-2.13/-2.27	-2.57/-3.07	-2.48/-1.44	-0.95/-1.2	-1.03/-0.14	1.11/-1.36	0.87/-0.11	-0.49/-0.21	-0.09/-0.2	0.66/-0.75	1.15/-1.44	0.81/-0.82	-2.84/-4.36	-4.02/-2.56	-1.09/-0.17	0.13/-0.33	-1.79/-4.49	-8.61/-8.47	-4.04/-1.18	0.23/-0.81	1.06/-0.62
Θ(120°)	-0.11/-1.31	-2.67/-3.15	-1.94/-1.79	-3.02/-4.31	-5.2/-5.92	-5.36/-3.47	-1.64/-0.63	-0.18/-0.15	0.19/-0.2	-0.67/-0.68	0.64/-0.17	0.8/-0.12	-0.86/-2.3	-2.45/-2.13	-2.36/-3.09	-3.61/-3.56	-3.84/-3.48	-2.56/-1.85	-1.71/-2.34	-2.7/-3.09	-3.53/-3.11	-1.14/-0.78	1.56/-1.65	1.45/-1.04
Θ(127.5°)	0.4/-0.28	-0.59/-0.56	-1.03/-1.27	-2.12/-3.52	-4.45/-4.36	-3.45/-1.98	-0.50/-0.33	-0.14/-0.03	0.64/-0.68	1.0/-76	-0.01/-0.8	-1.14/-0.89	-0.73/-0.46	-0.60/-0.47	-1.55/-1.28	-0.73/-0.03	0.77/-1.22	0.66/-0.74	-1.53/-0.76	0.77/-1.22	-0.51/-0.56	0.57/-0.8	0.86/-49	0.86/-49
Θ(135°)	-1.04/-1.4	-1.24/-1.03	-0.93/-1.15	-1.93/-3.58	-4.4/-5.11	-4.9/-4.45	-3.65/-3.14	-3.15/-2.99	-2.52/-1.5	-0.15/-0.4	-0.12/-1.32	-2.78/-2.76	-1.85/-1.47	-1.03/-0.17	0.50/-68	0.41/-0.53	-1.65/-2.52	-2.56/-1.92	-0.61/-0.48	1.21/-34	0.09/-2.66	-5.57/-3.53	-1.21/-0.22	-0.01/-0.18
Θ(142.5°)	-3.81/-4.17	-3.66/-2.8	-2.4/-2.74	-3.93/-5.75	-7.15/-6.79	-5.88/-5.33	-5.18/-5.29	-5.1/-4.44	-2.75/-1.04	-0.18/-0.38	-2.16/-1.46	-5.38/-5.1	-4.06/-2.78	-1.3/-3.99	0.06/-0.06	-0.29/-0.86	-1.71/-2.86	-3.8/-3.85	-2.66/-1.58	-0.75/-0.83	-2.22/-4.79	-6.46/-4.08	-1.82/-1.21	-1.78/-3.24
Θ(150°)	-6.58/-5.64	-3.35/-1.91	-0.91/-0.36	-0.51/-1.49	-2.7/-3.17	-3.37/-3.07	-3.39/-1.93	-0.96/-0.19	0.50/-78	0.76/-0.04	-1.84/-5.36	-3.86/-7.81	-5.26/-3.1	-1.51/-0.22	0.49/-0.72	-0.60/-1.91	-0.59/-1.49	-2.21/-2.34	-1.87/-1.19	-0.79/-0.74	-2.12/-2.18	-3.84/-5.05	-4.9/-6.52	-4.9/-6.52
Θ(157.5°)	-5.39/-3.6	-1.81/-0.47	0.29/-0.74	0.80/-56	0.08/-0.49	-0.47/-0.69	-0.49/-0.28	0.92/-1.32	1.48/-1.32	0.83/-0.15	-1.69/-3.93	-6/-5.44	-3.52/-1.81	-0.58/-0.1	0.38/-0.23	-0.32/-1.19	-2.16/-2.44	-2.05/-1.53	-0.78/-0.09	0.27/-0.22	-0.21/-1.19	-3.01/-5.18	-6.82/-7.55	-7.24/-6.94
Θ(165°)	-4.69/-3.22	-1.88/-0.98	-0.32/-0.11	0.19/-0.17	-0.58/-1.14	-1.73/-2.22	-2.39/-2.14	-1.63/-1.28	-1.09/-1.25	-1.69/-2.62	-3.41/-4.64	-5.17/-4.53	-3.36/-2.71	-1.54/-1.23	-1.31/-1.97	-2.95/-3.62	-3.6/-3.19	-2.75/-2.36	-1.74/-1.29	-1.13/-1.6	-2.37/-3.5	-5.11/-6.47	-7.45/-7.87	-7.15/-6.5
Θ(172.5°)	-5.01/-4.4	-1.24/-1.06	-4/-3.89	-4.04/-0.67	-4.43/-5.26	-6.76/-6.23	-6.5/-6.39	-6.31/-6.16	-5.97/-5.96	-6.71/-7.19	-7.67/-7.3	-8.81/-8.65	-4.51/-3.72	-3.29/-3.32	-3.84/-3.86	-4.48/-4.28	-3.84/-3.86	-3.94/-2.45	-4.28/-4.24	-4.36/-4.85	-5.72/-6.67	-6.89/-7.4	-7.42/-7.29	-6.65/-6.12
Θ(180°)	-7.07/-7.37	-8.06/-9.06	-9.99/-10.02	-10.66/-11.56	-11.42/-11.43	-10.66/-9.93	-9.9/-9.85	-10.6/-9.7	-9.18/-8.79	-8.63/-8.52	-8.1/-8.22	-8.45/-8.56	-8.37/-7.96	-7.84/-7.9	-8.08/-7.87	-7.41/-6.71	-6.56/-6.44	-6.83/-7.02	-7/-7.39	-7.56/-7.9	-7.83/-7.6	-7.35/-7.28	-7.33/-7.23	-7.08/-6.79
Freq(Hz)	2.45G/Pol.	Theta+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-1.96/-1.48	-0.95/-0.69	-0.57/-0.75	-0.91/-1.11	-1.11/-1.23	-1.07/-0.94	-0.24/-0.18	0.38/-0.36	0.13/-0.32	-1.03/-1.69	-2.73/-3.17	-3.27/-2.38	-1.23/-0.44	0.10/-44	0.58/-0.6	0.38/-0.23	-0.73/-0.61	-0.58/-0.32	-0.02/-0.36	0.46/-0.32	0.14/-0.27	-0.84/-1.74	-2.29/-2.7	-2.68/-2.15
Θ(7.5°)	-0.75/-0.13	0.43/-0.54	0.61/-0.55	0.29/-0.21	0.15/-0.21	0.40/-49	0.76/-91	1.0/-96	0.75/-35	-0.24/-1.01	-1.64/-1.24	-2/-1.67	-1.31/-0.96	-0.87/-0.78	-0.85/-1.09	-1.19/-1.69	-1.55/-1.28	-1.19/-0.87	-0.77/-0.62	-0.38/-0.4	-0.62/-0.9	-1.31/-1.89	-2.47/-2.67	-2.57/-1.77
Θ(15°)	0.57/-1.13	1.58/-1.73	1.72/-1.57	1.41/-1.31	1.39/-1.53	1.53/-1.25	1.59/-1.56	1.41/-29	1.11/-0.82	0.38/-0.01	-0.46/-0.85	-1.08/-1.25	-1.24/-1.13	-1.04/-0.92	-0.86/-0.83	0.29/-35	-0.70/-42	-0.14/-0.01	0.29/-35	0.42/-0.19	-0.44/-0.74	-0.85/-1	-1.07/-1.01	-0.71/-0.04
Θ(22.5°)	2.02/-2.38	2.47/-2.46	2.32/-2.29	2.07/-1.95	1.97/-2.57	2.42/-48	2.39/-2.18	1.95/-1.7	1.44/-1.65	1.17/-0.66	0.21/-0.26	-0.47/-0.34	-0.28/-0.05	0.06/-0.37	0.67/-1.03	1.25/-1.4	1.68/-1.85	1.89/-2.09	2.21/-2.23	2.13/-1.86	1.46/-1.13	0.91/-0.82	0.62/-0.88	1.15/-1.39
Θ(30°)	2.77/-2.92	3.07/-3.15	3.05/-0.02	3.01/-0.31	3.01/-6	2.36/-2.64	2.71/-2.81	2.79/-2.62	2.26/-1.67	1.47/-0.88	0.44/-0.24	0.38/-0.69	1.04/-1.74	2.18/-2.59	2.71/-86	3	2.79/-66	2.67/-92	3.27/-59	3.61/-5	3.31/-14	2.91/-629	2.58/-2.56	2.58/-2.67
Θ(37.5°)	3.2/-26	3.11/-0.5	2.62/-2.49	2.27/-2.03	2.08/-2.26	2.14/-52	3.39/-3.28	3.39/-3.2	3.10/-83	0.85/-11	1.52/-1.89	1.73/-0.26	2.46/-2.66	2.96/-2.73	2.96/-2.7	2.96/-2.7	2.44/-2.27	2.61/-92	3.23/-77	4.16/-44	4.59/-65	4.52/-21	3.83/-47	3.22/-95
Θ(45°)	3.2/-85	3.37/-3.55	3.28/-2.83	2.28/-1.88	1.68/-1.85	2.41/-2.84	3.44/-4.22	4.42/-4.35	3.82/-66	1.39/-1.27	1.73/-1.98	1.97/-1.4	1.31/-1.81	2.65/-2.61	2.32/-1.98	1.58/-1.29	1.39/-1.73	2.39/-2.8	3.22/-3.6	4.07/-4.5	4.88/-5.2	5.26/-5.14	4.83/-4.4	3.85/-3.45



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(75°)	-3.77/-4	-3.03/-3	-3.19/-3.04	-3.06/-3.15	-4.03/-4.57	-4.89/-4.38	-4.3/-4.27	-4.46/-4.46	-4.84/-4.71	-4.96/-5.21	-5.51/-5.53	-5.27/-4.91	-4.62/-4.41	-4.03/-3.78	-3.58/-4.17	-3.81/-4.01	-5.08/-5.05	-5.53/-5.33	-5.34/-4.93	-5.27/-5.91	-5.25/-4.73	-3.95/-3.45	-3.32/-3.25	-2.95/-3.21	
Θ(15°)	-3.85/-3.94	-3.43/-3.22	-3.08/-2.78	-2.19/-2.15	-2.3/-2.66	-3.51/-3.59	-3.09/-2.26	-1.5/-1.1	-1.1/-1.13	-1.51/-2.26	-4.21/-5.11	-4.86/-4.3	-3.92/-3.66	-3.36/-2.85	-2.2/-1.85	-1.85/-2.14	-2.51/-3.06	-3.77/-4.63	-4.26/-3.7	-3.32/-3.72	-4.06/-4.1	-2.74/-1.59	-1.62/-2.51	-3.01/-3.32	
Θ(22.5°)	-3.3/-3.86	-3.24/-2.31	-1.97/-2.23	-2.77/-3.56	-4.61/-4.4	-3.65/-2.39	-3.62/-4.4	-1.24/-0.41	-0.090/0.3	0.11/-0.72	-2.58/-3.13	-3.82/-2.88	-2.47/-2.7	-2.92/-2.96	-2.7/-2.44	-2.75/-2.87	-2.61/-2.41	-3.21/-4.32	-4.15/-2.76	-1.81/-1.47	-1.66/-2.03	-2.13/-2.33	-3.02/-3.43	-2.73/-2.81	
Θ(30°)	-3.81/-3.8	-2.51/-2.08	-2.53/-2.52	-2.19/-1.99	-2.08/-2.3	-2.32/-2.01	-2.62/-2.44	-2.18/-1.55	-0.9/-0.44	-0.29/-0.8	-2.52/-4	-4.07/-3.04	-2.47/-2.54	-2.94/-3.1	-3.22/-3.68	-3.49/-2.89	-2.39/-2.64	-3.46/-4.64	-4.49/-3.23	-2.62/-2.16	-1.16/-0.18	0.03/-0.82	-2.43/-4.05	-3.45/-3.72	
Θ(37.5°)	-5.34/-4.63	-3.33/-3.04	-2.55/-1.97	-1.67/-1.89	-2.61/-3.85	-4.51/-3.13	-1.86/-1.29	-0.92/-0.21	-0.05/-0.73	-1.56/-1.82	-2.09/-2.81	-3.54/-3.7	-3.69/-4.06	-3.14/-2.8	-3.99/-1.84	-1.26/-1.61	-2.99/-3.13	-4.94/-5.32	-4.31/-4.45	-3.08/-1.45	-1.09/-2.04	-2.16/-2.61	-3.51/-4.89	-5.5/-5.31	
Θ(45°)	-7.5/-6.07	-5.56/-6.49	-4.57/-2.82	-1.76/-1.45	-2.04/-2.82	-3.12/-2.42	-1.89/-2.03	-2.65/-2.25	-1.5/-1.28	-1.59/-1.39	-1.66/-2.89	-4.32/-5.47	-6.45/-5.78	-3.3/-2.58	-1.84/-1.92	-2.18/-2.18	-3.17/-3.48	-4.57/-5.9	-5.45/-4.34	-2.18/-1.15	-1.72/-1.57	-1.79/-1.75	-2.7/-6.11	-7.59/-7.26	
Θ(52.5°)	-6.23/-6.92	-5.43/-3.36	-2.07/-1.18	-1.25/-1.01	-1.92/-2.74	-3.8/-4.58	-5.23/-4.76	-4.26/-3.43	-2.76/-1.48	0.221/3.1	0.79/-0.79	-2.57/-4.21	-5.27/-3.23	-2.4/-1.68	-0.84/-0.74	-1.36/-1.86	-1.2/-1.53	-2.48/-3.59	-6.19/-6	-4.13/-3.39	-2.1/-1.85	-2.21/-2.55	-3.39/-5.47	-6.24/-5.3	
Θ(60°)	-4.63/-3.71	-1.6/-4.06	-1.31/-1.14	0.16/-0.09	-1.48/-1.86	-2.26/-2.62	-3.57/-3.75	-3.31/-2.07	-2/-2.7	-1.92/-1.09	-1.01/-0.99	-1.05/-1.47	-2.24/-2.05	-2.06/-1.04	-0.91/-1.7	-2.66/-3.08	-3.07/-2.59	-3.59/-5.15	-5.3/-5.94	-7.22/-6.9	-4.24/-2.35	-1.26/-1.31	-2.92/-3.95	-3.45/-4.18	
Θ(67.5°)	-2.54/-0.82	0.04/-0.88	-1.30/-0.8	0.14/-1.49	-2.97/-2.9	-3.59/-4.43	-5.52/-5.87	-5.14/-3.39	-2.35/-2.6	-3.44/-4.51	-5.8/-4.72	-3.18/-1.51	-1.26/-1.55	-2.6/-1.96	-1.14/-1.72	-1.64/-3.45	-4.67/-5.98	-6.06/-6.94	-6.66/-6.11	-3.95/-3.82	-3.52/-2.11	-1.28/-1.49	-1.96/-3.59	-3.6/-2.96	
Θ(75°)	-0.63/-1.92	-1.82/-2.17	-2.6/-2.46	-2.23/-2.48	-3.11/-4.1	-5.38/-5.51	-4.46/-4.78	-7.24/-5.76	-3.37/-2.55	-3.14/-4.69	-5.19/-4.03	-4.32/-3.5	-2.78/-2.4	-2.2/-1.78	-3.25/-4.79	-3.78/-2.75	-5.26/-6.19	-5.14/-3.97	-3.88/-4.03	-5.25/-4.45	-2.67/-1.67	-1.47/-2.66	-3.16/-1.69	-1.3/-0.59	
Θ(82.5°)	-1.11/-2.17	-3.76/-4.44	-3.72/-1.65	-0.52/-2	-3.6/-5.56	-4.1/-3.98	-4.5/-3.38	-2.97/-4.33	-5.15/-3.16	-1.76/-2.18	-3.36/-4.35	-4.07/-2.36	-1.54/-2.05	-2.85/-2.29	-3.42/-1.82	-1.61/-1.49	-1.71/-2.47	-3.16/-1.14	-0.71/-1.79	-3.72/-3.67	-3.48/-2.73	-3.06/-4.76	-4.78/-4.46	-2.69/-1.63	
Θ(90°)	-0.92/-2.01	-3.99/-3.16	-2.82/-3.22	-2.16/-1.31	-1.76/-3.35	-4.41/-4.79	-3.51/-4.14	-4.41/-4.67	-4.28/-2.76	-1.17/-0.59	-1.27/-2.53	-3.69/-2.07	-1.47/-1.3	-2.85/-2.53	-2.09/-1.09	-0.090/0.3	0.05/-1.14	-1.48/-0.76	0.23/-0.8	-1.75/-1.47	-3.84/-5.17	-4.8/-4.29	-2.94/-1.09		
Θ(97.5°)	-1.11/-0.76	-0.490/0.18	-0.37/-0.87	-0.35/-0.83	-1.24/-2.54	-5.82/-4.43	-2.47/-1.41	-1.92/-3.76	-2.57/-1.21	-0.59/-1.91	-2.59/-2.32	-1.6/-1.16	-0.23/-1.44	-1.93/-1.81	-1.51/-0.2	-1.29/-1.87	-0.01/-0.96	-3.14/-2.48	-3/-1.92	-1.19/-1.14	-2.21/-3.19	-6.04/-6.23	-3.86/-4.05	-3.48/-1.89	
Θ(105°)	-0.69/-0.95	-0.77/-0.41	-0.22/-0.9	-1.79/-1.32	-1.47/-3.17	-5.77/-7.4	-6.7/-6.05	-5.68/-3.54	-3.05/-2.79	-3.12/-4.35	-6.58/-4.78	-2.2/-0.75	-0.88/-3.09	-2.77/-1.41	-1.64/-3.08	-3.17/-2.78	-1.56/-3.12	-5.15/-2.85	-4.63/-3.85	-2.94/-2.62	-2.38/-3.69	-6.2/-6.69	-6.42/-3.37	-1.520/3.4	
Θ(112.5°)	-0.260/0.15	0.74/-0.2	-2.52/-5.68	-4.77/-2.5	-1.45/-2.86	-3.47/-4.44	-4.95/-5.19	-5.47/-6.71	-4.08/-2.44	-3.33/-3.38	-3.2/-0.3	-2.79/-3.02	-4.44/-3.52	-2.39/-1.59	-0.86/-2.15	-6.23/-6.96	-3.01/-2.13	-5.73/-3.94	-1.63/-3.66	-5.69/-5.44	-5.17/-4.83	-4.87/-1.95	-1.37/-1.38		
Θ(120°)	-1.34/-0.55	-0.71/-2.12	-1.72/-2.6	-3.19/-1.53	-1.25/-1.25	-3.99/-4.24	-3.36/-3.48	-4.45/-3.69	-4.08/-3.2	-2.84/-3.67	-4.52/-0.01	-1.23/-3.3	-4.94/-2.54	-1.25/-1.13	0.01/-2.81	-3.48/-1.37	-4.28/-2.66	-6.85/-4.74	-6.06/-6	-2.22/-5.98	-3.17/-3.82	-7.26/-4.02	-3.520/4.9	1.62/-1.75	
Θ(127.5°)	-4.35/-2.58	-5.63/-4.34	-4.25/-2.74	-3.11/-2.47	-2.71/-3.95	-4.32/-5.27	-6.36/-5.07	-2.44/-1.85	-1.78/-2.28	-4.87/-5.52	-3.45/-3.16	-5.18/-3.72	-7.33/-3.06	-3.15/-0.82	-2.08/-2.16	-4.67/-3.39	-3.65/-2.88	-4.91/-1.35	-3.44/-4.59	-2.93/-3.08	-2.17/-5.88	-5.37/-4.98	-3.8/-4.49	-1.36/-3.8	
Θ(135°)	-5.95/-3.83	-1.98/-2.06	-2.6/-4.94	-5.69/-6.34	-5.5/-3.41	-2.28/-2.99	-3.02/-4.57	-3.22/-1.99	-3.59/-4.78	-2.86/-1.87	-2.09/-2.77	-6.22/-8.25	-4.99/-3.6	0.111/3.5	-2.65/-6.68	-5.65/-5.22	-5.06/-3.27	-4.5/-4.57	-3.19/-3.77	-5.92/-5.64	-4.58/-5.67	-5.11/-0.99	-2.78/-2.73	-5.01/-4.91	
Θ(142.5°)	-4.12/-4.53	-4.49/-6.51	-6.24/-4.66	-3.03/-0.79	-1.1/-2.63	-3.38/-3.43	-2.25/-1.49	-2.37/-2.57	-7.64/-6.08	-4.14/-4.08	-4.74/-6.18	-4.5/-4.12	-6.89/-7.21	-4.92/-5.88	-3.28/-1.45	-10.15	0.6/-2.99	-6.9/-6.41	-4.41/-3.17	-6.48/-8.58	-5.48/-4.58	-5.63/-6.19	-7.65/-6.48	-4.62/-6.02	
Θ(150°)	-6.25/-3.86	-3.41/-4.98	-6.65/-5.11	-3.77/-3.91	-3.66/-5.46	-5.08/-4.7	-3.12/-2.01	-1.32/-1.16	-0.59/-0.24	-1.73/-2.43	-4.55/-4.76	-5.53/-4.59	-4.37/-2.55	-6.14/-5.91	-5.16/-3.27	-0.90/3.9	-1.29/-2.45	-6.01/-7.33	-6.98/-5.01	-3.1/-2.93	-3.64/-3.3	-3.54/-5.18	-3.74/-3.2	-4.83/-5.98	
Θ(157.5°)	-1.85/-1.33	-1.63/-1.23	-0.5/-0.85	-1.35/-1.9	-2.05/-2.69	-3.97/-5.23	-6.15/-5.87	-6.24/-5.52	-4.33/-3.64	-3.83/-4.53	-4.8/-5.04	-4.39/-3.45	-4.8/-5.78	-6.27/-5.54	-4.14/-3.19	-2.61/-3.43	-5.13/-6.72	-7.49/-8.9	-8.79/-7.42	-5.89/-3.67	-3.25/-3.23	-3.1/-3.11	-2.53/-1.79	-1.5/-1.72	
Θ(165°)	-3.39/-4.16	-4.77/-4.92	-5.27/-5.42	-5.56/-5.61	-6.06/-6.09	-6.41/-6.05	-6.18/-5.67	-4.93/-3.74	-3.28/-2.97	-2.85/-2.53	-2.29/-2.41	-2.57/-2.92	-3.58/-4.67	-6.26/-6.64	-5.53/-4.64	-4.59/-5.74	-6.49/-6.19	-5.28/-5.04	-5.17/-4.96	-3.32/-2.41	-2.31/-2.68	-4.14/-4.96	-4.5/-3.74	-3.81/-3.59	
Θ(172.5°)	-8.05/-9.32	-9.51/-9.74	-8.49/-7.01	-6.15/-5.28	-4.75/-4.39	-4.08/-4.4	-4.31/-3.89	-3.37/-2.66	-2.3/-2.46	-2.79/-4.02	-5.67/-1.1	-8.43/-9.56	-10.31/-10.57	-9.01/-8.07	-6.77/-6.09	-5.22/-4.58	-4.06/-3.85	-3.69/-4.01	-4.37/-4	-3.6/-3.31	-3.29/-3.77	-4.76/-4.24	-7.49/-8.7	-8.37/-9.4	
Θ(180°)	-7.51/-7.82	-7.56/-7.65	-7.56/-7.3	-6.28/-5.04	-4.2/-4.16	-4.11/-3.95	-3.28/-2.97	-2.79/-3.12	-4.03/-4.97	-6.02/-6.21	-5.57/-5.66	-5.77/-6.24	-5.96/-5.83	-5.42/-5.4	-5.56/-6.15	-7.13/-6.75	-5.87/-5.61	-5.24/-5.49	-4.97/-4.14	-3.3/-2.76	-2.97/-3.64	-4.74/-6.24	-7.46/-8.23	-8.21/-7.83	
Freq(Hz)	5.3GPoL	ThetaL	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°)
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)	
Θ(0°)	-5.69/-5.82	-4.99/-4.7	-4.87/-4.89	-5.3/-5.56	-5.51/-5.61	-5.17/-5.44	-5.19/-4.98	-4.71/-4.44	-4.25/-4.08	-4.12/-4.24	-4.64/-5.5	-5.54/-5.62	-5.39/-5.22	-5.16/-5.25	-5.02/-4.74	-4.51/-4.53	-4.6/-4.8	-4.78/-4.7	-4.99/-5.23	-5.17/-4.72	-4.72/-4.69	-4.66/-4.61	-4.76/-4.69	-5.01/-5.61	
Θ(7.5°)	-5.49/-5.32	-5.04/-5.13	-5.46/-5.91	-5.89/-5.39	-4.91/-5.09	-5.55/-5.8	-5.64/-5.22	-4.55/-3.98	-3.5/-3.22	-3.31/-3.64	-4.4/-4.77	-4.95/-5.1	-4.74/-4.44	-5.01/-5.45	-4.64/-5.28	-4.69/-4.5	-4.39/-4.7	-4.71/-4.69	-4.55/-4.35	-3.96/-3.47	-4.04/-4.34	-4.68/-5.01	-3.51/-3.8		
Θ(15°)	-3.39/-3.22	-3.6/-4.01	-4.52/-5.54	-6.1/-5.86	-4.87/-4.48	-3.63/-3.07	-2.97/-2.99	-2.75/-2.81	-2.26/-2.02	-1.81/-1.59	-1.66/-2.07	-2.52/-3.46	-3.25/-3.2	-3.52/-3.99	-4/-4.17	-4.41/-4.26	-3.56/-3.17	-2.65/-2.79	-2.22/-1.78	-1.31/-0.84	-0.57/-0.21	-0.66/-1.22	-2.21/-3.21	-3.82/-3.69	
Θ(22.5°)	-2.14/-1.53	-1.62/-2.06	-3.1/-3.71	-4.03/-3.64	-2.59/-1.98	-1.38/-0.76	-0.55/-0.51	-0.72/-1.4	-2.04/-2.16	-1.88/-0.88	-0.57/-1.24	-2.29/-2.88	-2.98/-3.14	-3.16/-3.11	-3.42/-3.64	-4.47/-3.7	-2.72/-1.85	-1.49/-1.35	-0.440/-0.2	0.650/0.9	-0.31/-0.37	-0.55/-1	-2.05/-3.27	-4/-3.36	
Θ(30°)	-0.150/-0.44	-0.06/-0.96	-1.23/-1.23	-1.87/-2.42	-2.05/-1.25	-0.52/-0.64	-1.27/-1.41	-1.16/-1.01	-0.88/-0.25	0.360/0.13	-0.41/-0.53	-0.68/-0.09	-0.32/-0.68	-2.24/-2.7	-3.37/-3.12	-2.21/-3.1	-0.52/-0.18	0.340/5.1	0.170/0.2	0.34/-0.1	0.34/-0.1	-0.45/-0.36			
Θ(37.5°)	1.642/2.22	2.25/-0.96	1.580/9.7	0.450/-4.6	1.181/7.5	2.272/-4.6	2.211/7.2	1.030/-2.9	-0.1/-0.78	-2.04/-2.03	-0.810/2.3	0.70/-9.7	1.031/5.3	2.312/5.7	2.041/4.1	1.150/-5.7	0.370/1.4	0.140/-5.8	1.281/2.9	0.81/-0.24	-0.6/-0.03	0.20/-5.6	1.061/0.1	0.960/7.0	
Θ(45°)	1.832/-2	1.811/3.9	1.631/9.6	1.992/1.8	2.252/5.6	2.880/1.4	3.62/2	2.051/4.6	1.271/3.5	0.55/-0.45	0.04/1	1.932/0.3	1.862/5.7	3.012/5.5	2.153/-0.2	3.282/7.8	1.931/5.9	1.932/3.6	2.542/-4.8	1.861/5.5	1.621/3	0.760/5.7	1.52/-3.2	2.191/6.9	
Θ(52.5°)	2.291/8.8	1.932/0.4	3.161/2.6	2.962/-4.6	2.522/5.5	3.292/1.3	1.521/0.9	0.881/5	2.052/3.4	2.281/4.7	0.860/7.7	1.892/5.8	3.214/0.6	3.861/7.7	2.512/8.8	2.762/7.9	2.051/0.9	1.381/9.8	2.471/8.8	1.511/5.7	1.651/2.7	0.420/2.7	1.282/0.9	2.371/9.4	
Θ(60°)	2.942/5.1	2.983/5.7	4.253/7.5	3.071/7.4	2.052/0.8	1.992/5.8	2.261/7.6	1.161/7.9	2.893/3	3.462/3.7	1.911/8.6	2.273/2.6	3.753/9.7	2.842/5	2.791/6.4	0.73/-0.03	-0.540/0.7	1.122/0.1							



Radiated Composite Gain Data_2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(52.5°)	-1.25/-2.59	-3.02/-2.49	-2.95/-3.6	-2.2/-2.39	-4.22/-5.59	-5.05/-5.88	-6.98/-5.87	-5.79/-5.39	-3.65/-1.73	-1.02/-1.45	-2.95/-6.11	-8.47/-3.03	-0.98/-1.21	-3.67/-5.52	-4.45/-4.04	-4.4/-5.14	-6/-5.42	-4.46/-5.5	-5.94/-5.06	-4.51/-6.62	-6.31/-4.25	-3.02/-4.15	-4.59/-2.68	-1.54/-1.45
Θ(60°)	-0.98/-2.52	-4.4/-3.28	-2.5/-1.81	-0.98/-1.59	-1.73/-3.04	-3.49/-4.98	-7.6/-6.93	-4.2/-4.04	-4.03/-2.05	-0.63/-0.67	-2.66/-5.24	-3.05/-0.32	-0.24/-1.55	-4.08/-4.74	-2.82/-3.92	-4.61/-4.55	-1.85/-1.37	-1.63/-3.61	-3.98/-3.63	-3.62/-2.04	-2.57/-2.89	-1.070/-1.1	-1.64/-3.36	-2.17/-0.29
Θ(67.5°)	-3.48/-2.36	-2.07/-0.9	-1.25/-3.07	-3.16/-3.34	-5.57/-6.77	-6.34/-7.16	-6.3/-5.36	-5.67/-4.42	-2.37/-2.76	-2.89/-0.77	-1.21/-3.24	-1.91/-1.02	-0.09/-0.13	-1.34/-1.23	-1.49/-2.09	-2.67/-2.79	-2.67/-3.65	-4.38/-4.72	-4.63/-4.93	-6.55/-4.3	-0.46/-0.31	-2.06/-3.96	-2.84/-3.56	-2.73/-3.89
Θ(75°)	1.91/-1.64	1.18/0	-0.75/-0.55	-2.13/-3.93	-4.64/-4.66	-6.11/-4.26	-4.17/-4.46	-4.61/-3.61	-1.44/-1.53	-3.24/-4.06	-5.72/-5.59	-2.5/-1.11	-1.11/-2.19	-2.78/-1.6	-0.86/-1.95	-2.8/-7.78	-9.97/-8.88	-7.23/-8.2	-8.29/-7.25	-4.57/-3.53	-0.870/-58	-0.84/-1.59	-1.49/-1.25	-2.480/-64
Θ(82.5°)	1.44/-1.56	2.7/-2.82	1.57/-1.56	-5.83/-4.28	-4.55/-6.39	-6/-4.67	-4.08/-3.56	-4.5/-6.75	-4.79/-6.32	-5.99/-3.36	-2.67/-2.89	-2.81/-3.07	-1.46/-1.85	-2.73/-2.49	-2.99/-4.66	-5.22/-2.61	-2.56/-3.01	-2.63/-1.99	-1.63/-2.63	-0.93/-1.17	-1.33/-0.96	-1.16/-2.28	-4.35/-3.19	-0.26/-1.1
Θ(90°)	-2.16/-1.86	-1.07/-1.75	-2.74/-2.27	-1.36/-1.06	-2.36/-4.61	-3.71/-1.75	-1.06/-1.63	-1.84/-2.15	-1.86/-2.39	-1.11/-1.71	-2.69/-1.83	-1.05/-0.58	-1.24/-2.43	-2.2/-1.95	-3.21/-1.78	-1.92/-1.73	-0.4/-1.87	-1.83/-1.32	-1.37/-0.14	-1.15/-0.09	-0.480/-24	-1.71/-3.69	-4.76/-2.75	-0.91/-1.03
Θ(97.5°)	-1.8/-2.19	-3.23/-2.4	-0.410/-4.1	0.74/-1.55	0.94/-0.43	-5.17/-4.7	-3.96/-3.35	-2.75/-3.39	-3.23/-3.4	-2.27/-0.57	-0.88/-1.48	-0.090/-49	-0.68/-2.49	-1.94/-1.41	-2.48/-2.5	-3.05/-0.73	-0.57/-1.76	-4.53/-3.3	-2.4/-3.34	-0.83/-0.86	-1.38/-5.55	-2.94/-2.03	-2.62/-1.94	-0.29/-0.61
Θ(105°)	-3.09/-3.87	-4.88/-3.81	-2.04/-1.45	-0.230/-36	1.65/-0.42	-2.73/-2.53	-2.1/-2.78	-3.01/-4.09	-3.99/-2.84	-3.5/-2.96	-1.42/-1.26	-0.910/-85	0.39/-0.52	-2.41/-3.11	-1.63/-0.63	-2.16/-2.76	0.51/-2.15	-6.25/-4.92	-5.16/-3.64	-3.35/-4.11	-5.52/-6.6	-5.84/-3.45	-2.33/-2.99	-4.77/-3.85
Θ(112.5°)	-0.07/-2.15	-2.43/-0.64	-1.53/-1.84	-2.04/-2.89	-1.23/-0.07	-2.66/-5.91	-5.57/-6.26	-6.29/-6.54	-6.05/-7.63	-3.83/-0.6	-0.51/-0.88	0.750/-17	0.2/-1.27	-0.07/-2.3	-1.720/-25	-3.64/-5.47	-3.51/-4.45	-9.52/-10.48	-8/-8.36	-5.82/-3.97	-3.28/-5.15	-3.22/-2.08	-2.88/-1.85	-0.040/-26
Θ(120°)	-2.68/-2.65	-1.22/-1.16	-3.9/-3.95	-4.86/-3.44	-2.7/-2.37	-0.93/-2.9	-4.37/-4.17	-3.22/-3.2	-2.26/-3.94	-4.32/-3.28	-2.02/-2.27	-2.82/-3.14	-3.43/-1.95	-1.89/-1.14	0.520/-59	-2.79/-5.07	-2.9/-1.85	-3.2/-3.83	-2.77/-4.28	-4.76/-2.58	-2.54/-3.33	-1.6/-1.23	-3.29/-0.91	-0.04/-1.65
Θ(127.5°)	-0.46/-3.52	-2.25/-1.95	-1.7/-2	-0.52/-3.01	-1.88/-1.12	-1.6/-1.17	-1.82/-2.61	-1.83/-2.01	-4.04/-2.36	-0.06/-0.96	-2.97/-3.12	-3.25/-4.24	-1.99/-3.34	-0.93/-1.79	-0.51/-0.6	-0.45/-1.84	-2.38/-1.97	-4.6/-0.83	-3.25/-5.03	-0.91/-3.54	-2.19/-1.05	-1.1/-0.88	-2.78/-1.63	-1.08/-2.18
Θ(135°)	-3.37/-2.99	-1.38/-1.56	-3.27/-2.16	-2.29/-0.63	-1.21/-1.42	-2.05/-3.66	-2.76/-0.45	-0.95/-4.36	-4.67/-3.11	-0.880/-04	-0.39/-3.24	-5.58/-4.27	-5.13/-0.81	-0.92/-0.07	-1.09/-6.78	-2.26/-0.52	-1.07/-0.54	-2.52/-3.37	-1.23/-2.2	-1.68/-3.35	-0.36/-0.4	-4.03/-1.34	-1.57/-5.38	
Θ(142.5°)	-10.31/-4.87	-2.38/-0.35	-1.56/-3.45	-1.4/-0.09	0.24/-1.57	-3.86/-6.52	-5.5/-4.69	-3.32/-1.86	-3.3/-2.9	-4.06/-6.16	-4.63/-1.56	-1.98/-3.3	-4.17/-5.14	-4.21/-4.72	-6.19/-3.83	-0.34/-1.35	1.63/-3.53	-6.05/-4.62	-3.48/-6.61	-5.42/-4.19	-5.52/-5.34	-9.44/-5.72	-3.58/-4.61	-4.9/-6.57
Θ(150°)	-5.28/-4.54	-3/-3.4	-4.33/-7.58	-5.65/-2.19	-1.13/-0.87	-2.98/-6.22	-6.55/-4.79	-3.56/-3.81	-3.84/-3.08	-2.44/-2.25	-4.64/-7.73	-6.69/-7.93	-5/-3.11	-3.02/-2.81	-2.34/-2.49	-3.04/-0.78	-0.71/-3.8	-6.81/-6.25	-5.03/-6.37	-3.62/-3.98	-3.33/-1.54	-2.69/-4.47	-5.43/-4.92	-1.08/-2.18
Θ(157.5°)	-2.13/-1.22	-1.4/-2.96	-4.16/-4.6	-5.32/-5.45	-6.43/-8.49	-9.27/-7.02	-4.77/-3.69	-3.63/-3.81	-3.81/-3.82	-3.76/-3.25	-3.41/-3.73	-3.66/-3.19	-2.34/-0.88	-0.18/-0.15	-1.25/-4.13	-7.06/-7.2	-8.73/-9	-8.78/-8.22	-6.63/-4.54	-3.71/-4.58	-5.47/-4.11	-3.61/-3.9	-3.09/-2.52	-2.07/-2.11
Θ(165°)	-3.11/-2.71	-1.91/-1.12	-1.02/-1.83	-2.41/-3.23	-3.22/-4.06	-4.63/-5.65	-5.99/-7.22	-7.08/-5.65	-4.07/-2.65	-1.7/-1.23	-0.8/-0.21	0.06/-0.52	-1.87/-2.87	-3.43/-2.79	-1.42/-0.61	-0.58/-1.07	-1.91/-2.65	-3.08/-2.93	-2.23/-1.73	-1.9/-1.26	-1.35/-1.71	-1.58/-1.95	-2.34/-1.77	-1.35/-2.13
Θ(172.5°)	-4.38/-3.57	-3.16/-3.41	-4.34/-4.57	-4.11/-4.05	-4.08/-4.37	-4.66/-4.93	-5.1/-5.18	-4.21/-2.89	-1.69/-0.92	-0.84/-1.27	-2.31/-3.29	-4.21/-4.87	-4.47/-3.56	-2.49/-1.88	-1.89/-2.38	-2.98/-3.51	-4.07/-4.69	-4.45/-3.5	-2.87/-2.59	-1.73/-1.09	-0.7/-0.75	-0.77/-1.64	-2.24/-2.74	-3.08/-4.1
Θ(180°)	-5.13/-6.4	-7.33/-8.36	-8.42/-8.42	-8.24/-6.91	-6.31/-5.63	-5.12/-4.51	-3.77/-2.55	-1.79/-1.6	-1.86/-2.75	-3.6/-4.15	-4.82/-4.84	-5.17/-5.89	-6.34/-6.39	-6.06/-6.19	-6.49/-6.54	-6.56/-6.19	-5.91/-4.89	-4.4/-3.95	-3.41/-1.94	-0.55/-0.24	-0.14/-0.5	-1.15/-1.92	-2.12/-2.34	-2.83/-3.81
Freq(Hz)	5.785GPol.	Theta/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-4.32/-4.48	-4.51/-5.1	-5.49/-5.88	-5.91/-5.85	-5.56/-5.79	-5.75/-5.7	-5.81/-6.18	-6.28/-6.67	-6.39/-6.37	-6.44/-7.05	-7.2/-7.25	-7.18/-7.22	-7.61/-7.85	-8.13/-8.33	-8.45/-9	-9.62/-9.41	-9.27/-9.2	-9.61/-8.53	-8.47/-7.46	-7.03/-7.57	-7.78/-7.56	-7.56/-6.97	-6.34/-5.42	-5.04/-4.69
Θ(7.5°)	-6.67/-6.38	-6.86/-7.94	-9.62/-10.65	-10.09/-8.89	-8.63/-8.31	-7.34/-6.38	-6.15/-5.88	-5.4/-4.75	-4.77/-5.55	-6.45/-6.66	-6.62/-6.37	-5.91/-5.94	-5.72/-5.19	-4.74/-4.33	-4.08/-4.51	-4.59/-4.32	-3.88/-3.43	-3.64/-4.07	-4.49/-4.85	-5.14/-5.54	-5.98/-6.44	-7.03/-7.57	-8.23/-7.53	-7.03/-7.1
Θ(15°)	-6.26/-6.13	-6.47/-6.9	-5.95/-5.5	-4.56/-4.16	-3.75/-4.15	-4.62/-5.73	-7.24/-7.34	-7.4/-6.53	-5.23/-4.17	-3.34/-2.74	-2.61/-3.17	-4.26/-4.98	-5.04/-4.2	-3.48/-3	-3.13/-3.29	-3.41/-3.25	-2.4/-1.73	-1.85/-2.49	-2.86/-3.76	-4.58/-5	-4.98/-5.04	-5.22/-5.75	-6.92/-6.8	-6.97/-6.88
Θ(22.5°)	-6.19/-6.23	-4.76/-3.37	-2.87/-2.38	-2.06/-2.23	-2.66/-3.38	-4.01/-4.79	-6.4/-6.25	-6.5/-6.02	-5.13/-4.28	-3.21/-2.22	-1.78/-1.8	-2.22/-2.84	-2.96/-2.19	-1.28/-1.52	-2.4/-3.95	-5.4/-6.46	-5.78/-4.93	-4.01/-3.38	-3.02/-2.84	-2.5/-2.79	-3.53/-4.03	-3.63/-3.32	-3.38/-3.59	-4.05/-5.81
Θ(30°)	-2.36/-1.66	-1.2/-1.24	-1.94/-2.74	-3.16/-4.68	-6.51/-6.61	-5.78/-4.97	-3.98/-2.32	-0.84/-0.35	-0.89/-1.16	-1.05/-0.93	-0.76/-0.69	-0.85/-1.28	-1.85/-1.61	-0.7/-1.05	-2.21/-3.47	-4.83/-4.5	-3.65/-3.55	-2.7/-2.09	-1.82/-1.48	-0.68/-0.37	-0.35/-1.14	-1.31/-1.45	-1.52/-1.11	-1.05/-2.28
Θ(37.5°)	1.82/-1.87	1.5/-1.6	0.880/-66	1.010/-51	-0.54/-1.35	-2.36/-2.48	-1.8/-1.08	-0.66/-0.35	-0.13/-0.05	0.3/-0.39	-1.32/-1.78	-1.33/-0.53	-0.320/-68	1.310/-82	-0.94/-2.5	-3.51/-4.39	-3.14/-2.01	-1.55/-2.05	-2.48/-1.35	-0.71/-1.31	-1.49/-0.62	0.40/-78	1/-1.23	1.822/-08
Θ(45°)	1.17/-1.73	2.44/-2.4	2.36/-2.12	2.29/-1.83	1.44/-1.61	2/-2.48	2.49/-2.31	2.11/-1.74	1.040/-05	0.080/-01	-0.4/-0.67	-0.48/-0.28	0.34/-0.87	0.49/-1.33	0.310/-01	0.49/-1.24	1.43/-1.5	1.440/-44	0.79/-1.81	2.21/-95	1.17/-0.08	-1.330/-17	2.47/-2.42	2.29/-2.36
Θ(52.5°)	4.09/-3.09	2.83/-2.38	2.58/-3.16	4.03/-8.8	2.85/-2.17	2.273/-16	3.62/-3.34	3.26/-3.21	2.380/-95	-0/-0.18	-0.42/-1.39	1.95/-2.05	1.96/-1.69	1.71/-78	2.393/-29	3.8/-63	2.190/-78	0.48/-1.28	1.68/-1.29	1.94/-2.76	2.58/-2.02	0.210/-23	1.5/-2.1	1.363/-14
Θ(60°)	4.45/-1.99	1.552/-68	3.54/-52	4.66/-64	2.25/-1.28	0.71/-1.24	1.71/-64	1.682/-05	2.15/-1.86	1.380/-99	0.082/-28	3.41/-2.92	2.95/-63.5	3.61/-67	3.493/-35	2.52/-1.93	1.58/-0.7	1.060/-38	0.210/-94	1.08/-1.62	2.26/-2.03	1.10/-45	1.4/-29	2.953/-95
Θ(67.5°)	5.52/-4.75	4.594/-58	3.21/-3.73	3.43/-2.54	2.72/-91	3.22/-3.23	2.35/-1.05	0.66/-2.08	2.55/-2.72	3.09/-2.87	2.76/-3.48	2.77/-3.55	4.18/-4.53	4.76/-4.63	3.68/-3.4	1.090/-59	0.380/-56	1.27/-1.72	1.56/-1.2	1.18/-1.48	2.63/-3.36	3.16/-3.18	2.73/-23	3.724/-41
Θ(75°)	5.99/-4.62	4.814/-96	3.03/-4.12	3.23/-2.48	3.09/-2.88	2.893/-52	3.67/-2.35	2.51/-3.66	4.4/-3.68	3.54/-4.32	5.28/-5.65	4.56/-4.9	54/-96	5.535/-34	4.664/-27	3.93/-2.42	0.96/-1	0.71/-1.82	1.41/-3	1.94/-1.23	1.92/-62	3.11/-3.39	3.74/-5.16	5.315/-62
Θ(82.5°)	5.96/-5.71	6.77/-6.04	4.54/-96	3.39/-3.25	3.24/-3.64	3.35/-3.16	3.15/-2.89	4.07/-5.72	5.44/-2.79	2.61/-4.86	6.16/-51	5.47/-5.6	5.76/-6.66	6.36/-6.08	4.864/-41	3.563/-24	3.793/-88	2.252/-52	3.093/-79	3.383/-73	2.862/-12	1.28/-1.78	3.32/-5.14	5.465/-43
Θ(90°)	6.235/-05	7.326/-18	4.995/-33	3.573/-48	4.163/-92	3.283/-97	4.613/-92	5.286/-54	6.353/-96	2.883/-47	5.556/-91	6.946/-7	7.02/-6.91	5.555/-08	4.374/-93	4.524/-68	5.665/-85	3.744/-14	5.475/-47	5.065/-87	5.012/-23	1.922/-58	4.626/-18	6.235/-48
Θ(97.5°)	6.825/-25	6.726/-07	5.285/-12	3.262/-25	2.694/-19	4.875/-54	5.744/-91	5.786/-62	64/-91	3.12/-9	5.145/-66	6.696/-75	7/-7.3	6.146/-18	4.993/-53	1.812/-51	5.115/-76	6.35/-54	4.334/-68	5.255/-69	6.264/-04	1.693/-31	3.825/-37	6.567/-16
Θ(105°)	6.04/-4.87	5.515/-67	4.67/-3.62	1.57/-1.71	3.084/-1	3.814/-41	3.63/-95	4.335/-07	5.22/-48	3.223/-02	4.35/-09	6.72/-6.75	5.597/-08	6.276/-44	4.833/-74	0.862/-66	4.715/-33	5.755/-59	3.983/-11	5.066/-36	5.01/-0.2	0.94/-2.81	34/-84	6.617/-33
Θ(112.5°)	3.974/-06	4.495/-92	3.63/-1.84	0.20/-86	3.534/-9	5.015/-01	3.882/-99	3.934/-93	4.343/-06	1.983/-44	3.32/-93	4.383/-15	5.035/-67	5.45/-25	3.344/-18	1.171/-46	1.382/-76	5.213/-32	1.762/-25	2.34/-26	2.82/-1.93	0.762/-89	0.3/-2	4.724/-93
Θ(120°)																								



Sporton International Inc. Hsinchu Laboratory



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(22.5°)	-5.2/-6	-6.02/-6.22	-6.49/-6.53	-7.39/-9.29	-11.02/-12.4	-15.87/-18.09	-15.86/-13.17	-11.49/-9.72	-8.12/-6.58	-5.78/-5.74	-6.31/-7.11	-8.02/-8.87	-9.82/-10.28	-10.14/-9.69	-9.7/-9.34	-9.64/-9.92	-10.65/-12.07	-15.81/-18.78	-18.7/-14.63	-10.57/-7.84	-5.74/-4.36	-3.55/-3.21	-3.5/-4.4	-4.14/-4.67
Θ(30°)	-5.22/-5.24	-4.83/-4.74	-5.08/-5.36	-5.90/-7.97	-9.31/-12.95	-18.64/-18.33	-17.53/-11.96	-9.51/-8.17	-6.68/-6	-5.25/-4.74	-4.79/-5.16	-5.65/-6.51	-8.1/-9.54	-9.82/-9.86	-10.57/-11.55	-12.95/-14	-13.29/-13.6	-17.35/-18.07	-14.84/-11.57	-8.62/-6.92	-5.84/-5.17	-4.97/-4.86	-4.44/-4.71	-5.32/-5.47
Θ(35°)	-6.76/-6.39	-5.66/-5.63	-6.78/-7.52	-7.96/-8.65	-9.39/-12.76	-17.88/-16.19	-11.47/-8.23	-6.3/-5.04	-4.36/-3.99	-3.63/-3	-2.84/-3.47	-4.74/-6.96	-9.59/-11.57	-11.57/-11.48	-12.19/-13.64	-13.75/-13.77	-13.67/-16.09	-17.89/-17.96	-12.33/-9.6	-8.71/-8.82	-6.97/-6.66	-7.07/-8.49	-6.68/-8.17	-7.39/-7.02
Θ(45°)	-9.03/-7.8	-7.42/-9.56	-13.38/-17.51	-17.1/-18.64	-19.05/-18.89	-18.18/-18.28	-13.27/-9.99	-7.17/-5.49	-4.19/-3.18	-2.39/-1.79	-2.03/-2.91	-4.97/-9	-14.76/-16	-10.92/-8.28	-7.56/-9.23	-11.78/-13.19	-17.16/-18.89	-17.44/-13.15	-9.5/-6.82	-6.36/-9.02	-15.91/-17.6	-12.92/-11.06	-9.03/-10.31	-11.63/-8.56
Θ(52.5°)	-8.04/-12.2	-12.35/-8.54	-6.94/-8.28	-4.91/-6.12	-9.65/-13.1	-18.71/-18.43	-15.69/-12.85	-10.97/-8.07	-5.95/-4.44	-2.97/-1.84	-1.92/-2.59	-4.06/-7.27	-9.93/-7.89	-6/-5.2	-5.52/-6.07	-6.74/-8.88	-9.79/-10.09	-13.12/-19.04	-19.04/-12.88	-11.28/-12.9	-13.49/-8.52	-5.1/-5.08	-7.96/-9.34	-8.62/-7.07
Θ(60°)	-4.31/-3.87	-3.17/-1.99	-1.9/-1.82	-2.42/-4.2	-7.11/-9.15	-10.53/-10.69	-11.66/-11.53	-12.96/-16.35	-17.61/-15.25	-8.53/-4.43	-2.23/-1.66	-1.99/-3.47	-5.76/-6.66	-6.65/-5.17	-4.81/-6.24	-7.93/-9.78	-10.23/-11.22	-15.35/-19	-14.99/-17.99	-10.46/-6.34	-4.7/-3.51	-3.37/-4.05	-4.23/-4.68	
Θ(67.5°)	-2.34/-2.1	-2.54/-2.52	-2.05/-2.21	-3.16/-4.58	-6.36/-8.19	-9.92/-11.5	-13.42/-14.16	-13.88/-12.57	-13.39/-17.86	-18.43/-11.87	-8.17/-5.63	-3.74/-2.67	-3.02/-5.65	-10.24/-13.43	-12.18/-9.61	-8.97/-11.76	-11.87/-16.15	-17.35/-19.05	-18.6/-16.56	-11.1/-9.83	-9.08/-6.52	-4.93/-5.63	-5.93/-6.86	-5.07/-2.78
Θ(75°)	-1.77/-2.58	-2.39/-2.35	-1.92/-2.02	-2.73/-4.16	-6.15/-8.41	-12.13/-16.92	-19.03/-18.85	-13.63/-11.98	-11.54/-11.92	-13.89/-11.22	-7.79/-6.59	-6.53/-4.89	-4.13/-5.06	-6.47/-9.45	-11.47/-14.59	-18.19/-18.43	-18.35/-17.91	-18.62/-18.02	-16.46/-15	-13.11/-9.88	-6.19/-5.51	-6.66/-8.07	-7.49/-4.78	-2.65/-1.67
Θ(82.5°)	-2.98/-3.56	-5.78/-7.42	-6.33/-3.6	-1.87/-8.27	-5.41/-8.32	-10.57/-16.05	-18.83/-14.71	-12.61/-11.63	-11.17/-9.93	-7.3/-6.01	-6.36/-6.49	-5.83/-4.1	-3.89/-4.19	-7.16/-8.53	-12.85/-14.41	-15.67/-14.22	-14.22/-14.54	-12.88/-10.61	-9.04/-8.4	-8.3/-10.16	-13.5/-11.55	-9.26/-10.62	-9.47/-7.42	-5.32/-4.04
Θ(90°)	-3.15/-4.5	-6.33/-5.79	-3.81/-2.64	-2.95/-4.72	-8.51/-14.56	-18.64/-18.9	-18.47/-18.04	-17.28/-13.91	-12.01/-8.83	-6.22/-5.51	-5.2/-6.17	-6.74/-5.74	-5.16/-6.38	-10.39/-11.51	-9.51/-8.19	-6.8/-5.78	-6.78/-9.32	-12.54/-7.8	-5.72/-8.25	-9.55/-11.51	-9.87/-10.83	-14.63/-17.73	-14.41/-13.7	-9.49/-5.1
Θ(97.5°)	-2.44/-1.84	-2.28/-1.9	-2.69/-3.26	-3.74/-4.5	-5.37/-7.07	-12.76/-19.07	-17.85/-18.57	-18.87/-18.87	-18.81/-15	-8.61/-6.23	-5.22/-5.44	-4.91/-4.57	-4.8/-6.3	-9.26/-7.61	-8.25/-7.47	-7.21/-6.89	-6.93/-10.8	-13.75/-17.34	-13.58/-9.37	-9.3/-13.53	-11.18/-17.01	-14.5/-14.49	-10.06/-4.65	
Θ(105°)	-1.35/-2.49	-0.98/-0.77	-1.33/-2.49	-4.54/-5.94	-7.63/-8.72	-10.94/-15.31	-19.19/-15.87	-18.03/-13.65	-18.97/-17.41	-13.58/-11	-10.01/-8.45	-5.85/-4.03	-6.03/-10.06	-11.49/-7.7	-7.09/-9.38	-7.36/-7.5	-11.47/-10.2	-12.86/-15.67	-18.89/-16.28	-10.73/-9.6	-15.75/-18.41	-19.7/-9.76	-4.26/-1.76	
Θ(112.5°)	-1.14/-0.33	0.560/19	-2.15/-8.88	-13/-8.4	-6.73/-8.74	-10.34/-12.83	-15.67/-18.29	-18.24/-18.29	-18.1/-16.02	-18.4/-14.81	-10.27/-8.19	-7.22/-8.05	-9.69/-9.7	-7.53/-7.13	-7.9/-11.78	-16.84/-10.51	-8.9/-8.9	-14.69/-19.02	-14.4/-17.17	-13.03/-18.55	-18.09/-12.45	-14.3/-16.57	-10.06/-4.96	-2.5/-2.44
Θ(120°)	-3.37/-3.15	-1.61/-2.05	-3.64/-9.22	-13.03/-7.14	-5.51/-6.05	-10.45/-14.49	-12.65/-10.88	-11.82/-14.6	-18.29/-18.53	-14.5/-11.16	-18.82/-8.02	-7.61/-10.84	-18.23/-9.77	-7.59/-3.91	-3.28/-7.23	-9.66/-8.71	-11.06/-10.3	-17.56/-17.96	-16.78/-18.18	-16.58/-18.54	-8.4/-8.45	-11.16/-12.91	-11.02/-1.86	-1.5/-3.43
Θ(127.5°)	-7.7/-5.54	-5.77/-4.68	-6.46/-8.3	-13.67/-9.5	-7.37/-8.07	-11.76/-18.25	-18.18/-18.6	-11.57/-10.65	-11.8/-11.68	-9.73/-8.4	-11.64/-15.1	-15.31/-19.09	-6.79/-5.36	-3.74/-2.99	-5.62/-9.98	-15.62/-10.65	-12.1/-18.06	-14.29/-18.69	-15.85/-12.6	-17.69/-16.26	-11.23/-10.64	-14.45/-11.47	-8.16/-9.6	-5.28/-3.63
Θ(135°)	-11.02/-6.18	-5.14/-4.93	-7.4/-8.22	-12.75/-18.43	-14.46/-7.99	-5.07/-5.16	-10.15/-17.26	-11.53/-10.39	-10.97/-11.97	-9.72/-8.94	-12.31/-16.54	-12.95/-7.82	-6.16/-5.67	-3.81/-3.16	-4.87/-12.86	-17.24/-17.66	-14.7/-14.28	-13.01/-18.62	-19.32/-17.78	-17.9/-11.69	-14.78/-17.88	-7.55/-6.28	-8.22/-7.49	-9.6/-11.09
Θ(142.5°)	-11.16/-7.41	-6.26/-7.27	-11.02/-10.79	-11.24/-7.49	-8.19/-10.13	-12.13/-12.78	-10.52/-8.67	-8.46/-10.52	-14.29/-8.68	-7.41/-9.99	-12.18/-13.34	-14.59/-9.46	-8.33/-10.53	-11.7/-9.92	-8.41/-7.3	-6.85/-6.21	-9.1/-16.98	-17.69/-18.34	-18.59/-15.23	-11.85/-16.69	-16.01/-15.29	-9.48/-7.97	-13.48/-13.59	-13.99/-14.46
Θ(150°)	-19.08/-15.78	-12.06/-10.4	-9.83/-11.81	-16.42/-18.93	-12.61/-10.17	-9.58/-9.18	-8.25/-8.3	-11.32/-18.91	-13.37/-6.84	-5.02/-5.66	-8.25/-12.11	-11.65/-9.74	-7.61/-7.22	-6.79/-7.65	-10.15/-11.86	-10.8/-9.94	-13.39/-16.29	-14.49/-16.66	-17.6/-17.05	-17.85/-17.63	-18.59/-18.12	-14.99/-10.98	-16.49/-10.98	-9.71/-12.38
Θ(157.5°)	-9.78/-9.89	-7.85/-6.1	-6.15/-7.69	-9.44/-9.91	-9.12/-9.47	-10.59/-12.23	-13.06/-13.61	-18.72/-18.98	-10.25/-6.24	-5.09/-5.63	-8.1/-10.07	-8.59/-6.84	-5.83/-5.11	-4.83/-5.97	-9.67/-14.98	-18.81/-19.29	-19.34/-17.56	-14.46/-12.86	-14.88/-18.13	-16.8/-13.7	-11.78/-11.46	-11.74/-12.03	-11.04/-8.73	-17.81/-8.13
Θ(165°)	-9.88/-9.96	-9.68/-9.17	-9.95/-12.6	-16.44/-18.12	-17.88/-18.31	-18.44/-19.11	-17.26/-18.94	-19.48/-13.92	-10.28/-7.69	-6.84/-7.02	-8.24/-9.77	-10.71/-10.49	-9.35/-7.93	-6.52/-6	-6.23/-7.03	-8.32/-10.13	-12.42/-12.88	-12.5/-11.99	-12.66/-13.91	-12.61/-10.37	-10.22/-14.4	-13.55/-14.62	-14.09/-11.2	-9.93/-10.14
Θ(172.5°)	-14.74/-13.55	-12.86/-12.6	-12.37/-12.58	-14.21/-16.76	-18.78/-19.3	-17.27/-15.68	-15.1/-14.77	-13.93/-12.49	-12.07/-11.97	-12.81/-14.89	-18.76/-17.85	-18.58/-17.34	-14.61/-12.68	-10.89/-9.73	-9.05/-8.79	-9.21/-10.35	-12.49/-15.74	-17.06/-16.46	-15.77/-15.74	-16.39/-16.08	-16.69/-17.34	-17.38/-16.88	-16.72/-18.83	-18.6/-16.84
Θ(180°)	-17.43/-18.12	-18.07/-18.46	-18.27/-18.14	-17.83/-16.59	-14.69/-14.06	-12.9/-12.39	-12.22/-11.78	-11.24/-10.66	-11.35/-12.22	-14.41/-17.42	-17.4/-18.5	-18.19/-18.89	-16.3/-14.66	-12.4/-10.8	-9.9/-9.59	-10.04/-10.53	-11.62/-12.88	-15.1/-17.39	-17.81/-17.75	-19.36/-18.07	-18.22/-17.34	-18.22/-18.36	-18.99/-18.55	-19.44/-18.21
Freq(Hz)	5.63GPol	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-18.52/-17.32	-14.36/-11.71	-10.59/-9.26	-8.66/-8.33	-7.78/-7.42	-6.73/-6.47	-6.56/-6.61	-7.17/-7.6	-8.09/-8.71	-9.63/-11	-13.06/-17.1	-18.19/-17.74	-17.95/-17.09	-14.87/-13.17	-10.94/-9.56	-8.5/-7.74	-6.99/-6.84	-6.63/-6.76	-7.73/-8.66	-9.32/-9.42	-10.01/-11.8	-12.93/-14.38	-17.24/-17.62	-17.24/-19
Θ(7.5°)	-18.91/-18.12	-15.43/-12.85	-11.49/-9.94	-8.73/-9.47	-6.97/-6.29	-6.04/-6.21	-6.17/-6.59	-7.1/-7.79	-8.25/-9.5	-10.77/-12.7	-15.95/-18.37	-18.96/-14.92	-16.24/-14.42	-13.18/-11.61	-9.59/-8.26	-7.13/-6.11	-5.44/-5.38	-5.39/-5.61	-6.11/-6.64	-6.41/-6.47	-7.11/-7.78	-8.68/-9.76	-11.72/-14.49	-16.87/-19.06
Θ(15°)	-17.57/-19.17	-19.64/-16.79	-14.3/-12.55	-10.74/-9.41	-7.74/-6.67	-6.34/-5.78	-5.55/-5.99	-6.21/-7.51	-7.79/-8.82	-10.18/-12.25	-14.62/-18.21	-18.45/-19.31	-15.18/-12.72	-10.84/-9.72	-9.39/-7.27	-6.13/-4.94	-3.92/-3.13	-2.31/-2	-1.96/-1.94	-1.91/-2.24	-3.04/-4.81	-6.44/-8.89	-11.66/-16.27	
Θ(22.5°)	-17.05/-18.25	-18.21/-19.23	-19.52/-16.22	-13.65/-10.9	-8.63/-8.05	-7.29/-6.72	-6.36/-6.14	-6.74/-8.6	-10.53/-10.79	-10.12/-9.8	-10.99/-13.65	-15.48/-12.68	-10.12/-9.8	-7.5/-7.18	-6.99/-6.77	-6.45/-5.33	-3.86/-2.35	-1.23/-0.44	0.230/52	0.50/2	-0.23/-0.87	-1.86/-3.3	-5.5/-8.5	-11.25/-14.44
Θ(30°)	-6.48/-7.28	-9.72/-12.89	-14.06/-15.6	-1.8/-19.25	-14.25/-14.13	-10.07/-9.39	-8.8/-8.95	-10.47/-11.47	-10.83/-10.55	-9.27/-7.56	-6.43/-6.41	-6.21/-5.37	-4.74/-4.47	-4.35/-3.68	-2.84/-2.4	-2.19/-1.91	-2.1/-1.69	-0.750/23	0.690/84	1.151/19	0.740/22	-0.43/-1.4	-2.58/-4.39	-6.12/-6.62
Θ(37.5°)	-4.7/-4.49	-5.29/-5.96	-6.66/-8.5	-10.28/-10.27	-9.11/-7.32	-6.11/-5.42	-5.56/-6.82	-10.3/-16.24	-18.49/-17.19	-18.11/-13.43	-9.14/-6.28	-4.93/-4.27	-3.82/-3.27	-2.95/-2.16	-0.910/02	0.330/18	0.090/27	0.580/44	0.04/22	-0.21/-1.02	-1.47/-1.61	-1.85/-2.38	-3.46/-5.42	-6.39/-6.02
Θ(45°)	-6.72/-6.14	-7.34/-7.26	-6.28/-6.14	-6.39/-5.61	-5.31/-5.55	-5.87/-6.12	-7.12/-8.82	-11.66/-14.83	-13.89/-12.1	-12.61/-12.5	-8.68/-5.48	-5.81/-2.31	-2.2/-2.49	-2.1/-1.66	-0.350/54	0.810/4	1.451/87	2.262/9	2.912/26	1.06/-10.7	-1.4/-2.5	-3.97/-5.38	-6.86/-7.78	-6.59/-5.15
Θ(52.5°)	-4.89/-5.3	-4.87/-3.9	-2.38/-3.07	-4.62/-6.48	-9.21/-11.14	-12.22/-12.56	-13.53/-16.03	-14.37/-8.99	-5.48/-3.17	-3.64/-5.52	-6.79/-6.47	-3.99/-1.7	-1.98/-1.77	-2.26/-3.3	-1.59/-0.62	-0.010/64	0.641/22	2.583/23	3.282/37	1.20/3	-0.69/-2.29	-4.34/-7.12	-0.89/-6.61	-4.53/-7.3
Θ(60°)	-3.08/-3.25	-1.98/-2.01	-1.78/-4.09	-8.1/-16.14	-18.02/-17.77	-12.64/-8.3	-6.98/-8.31	-13.29/-13.71	-7.28/-3.73	-1.88/-2.72	-3.44/-3.47	-4.67/-3.32	-3.27/-3.29	-3.65/-4	-2.51/-1.61	-0.76/-0.38	-0.89/-0.17	1.092/53	2.468/24	0.01/-0.79	-0.88/-1.47	-2.94/-4.08	-4.2/-3.58	-2.09/-1.63
Θ(67.5°)	-0.96/-0.94	-0.64/-0.52	-0.76/-3.84	-9.73/-12.79	-12.19/-7.2	-5.92/-3.74	-2.97/-3.98	-7.25/-9.51	-4.99/-2.46	-0.96/-1.52	-2.43/-3.3	-3.32/-2.24	-0.98/-0.74	-0.87/-1.84	-0.26/-0.51	-1.07/-1.48	-2.63/-0.69	1.181/75	1.460/13	-1.22/-1.4	-0.71/-1.39	-2.66/-5.39	-4.49/-3.13	-0.840/-16
Θ(75																								



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(75°)	-1.14/-0.57	-1.16/-1.96	-3.02/-2.93	-4.68/-7.85	-11.26/-12.64	-13.53/-10.94	-9.29/-12.14	-17.06/-13.67	-8.27/-6.1	-6.19/-7.85	-8.1/-4.26	-1.03/-0.4	-2.67/-5.66	-7.93/-6.68	-5.77/-7.79	-9.3/-13.64	-15.45/-12.58	-15.89/-19.29	-15.98/-15.5	-9.57/-8.6	-11.47/-10.29	-13.8/-12.48	-6.92/-4.84	-3.62/-2.19
Θ(82.5°)	-1.26/-0.37	0.60 -2.8	-1.36/-4.54	-9.19/-13.1	-16.97/-18.02	-17.51/-18.62	-17.96/-18.29	-18.15/-18.28	-17.51/-12.01	-6.81/-4.64	-3.8/-2.64	-1.24/-1.35	-2.94/-6.24	-9.46/-7.93	-7.01/-7.95	-11.58/-12.09	-9.08/-12.3	-12.03/-13.53	-11.04/-7.5	-8.58/-10.76	-10.53/-13.31	-16.28/-18.4	-14.98/-8.32	-3.93/-2.33
Θ(90°)	-6.2/-5.33	-3.52/-4.58	-5.63/-3.93	-2.37/-2.85	-5.44/-11.88	-17.56/-17.02	-13.65/-15.22	-16.14/-16.72	-14.98/-6.85	-3.53/-3.48	-3.11/-1.53	-0.92/-1.72	-3.2/-4.2	-4.58/-6.47	-8.23/-13.69	-15.11/-13.94	-9.73/-9.25	-19.71/-22	-16.7/-12.2	-9.8/-11.47	-10.56/-9.72	-11.46/-14.84	-15.99/-10.66	-9.43/-9.36
Θ(97.5°)	-3.92/-5.54	-5.93/-6.68	-3.18/-1.32	-1.17/-2.52	-6.09/-11.71	-18.74/-17.67	-15.88/-18.58	-12.24/-14.18	-18.77/-9.4	-3.14/-1.18	-1.83/-2.23	-0.79/-0.62	-2.19/-5.34	-6.03/-7.13	-10.91/-17.04	-13/-8.83	-9.74/-11.4	-15.47/-15.85	-12.59/-15.62	-18.44/-12.46	-12.53/-19.03	-18.33/-16.94	-8.62/-5.73	-4.5/-4.77
Θ(105°)	-4.42/-5.11	-5.82/-5.57	-5.11/-6.14	-4.52/-3.61	-2.89/-5.53	-8.65/-11.9	-16.31/-13.81	-10.38/-10.96	-12.02/-15.32	-7.36/-4.85	-4.74/-4.9	-3.15/-1.65	-1.43/-2.54	-5.56/-9.12	-7.6/-7.59	-8.46/-7.3	-7.67/-12.61	-17.96/-17.74	-19.5/-16.73	-15.45/-17.24	-18.92/-17.64	-14.06/-10.93	-9.34/-7.17	-6.4/-9.17
Θ(112.5°)	-1.87/-3.53	-1.54/-1.77	-2.61/-5.21	-10.02/-9.29	-6.62/-4.84	-7.71/-3.66	-18.33/-18.21	-16.73/-19	-12.94/-14.1	-12.02/-18.64	-8.97/-6.45	-5.95/-5.59	-3.77/-2.03	-1.73/-3.74	-5.33/-7.87	-7.87/-10.66	-8.19/-6.18	-17.88/-9.15	-13.7/-17.5	-12.01/-15.26	-10.46/-9.56	-8.89/-8.58	-8.55/-7.97	-7.57/-4.09
Θ(120°)	-3.65/-4.27	-1.75/-1.72	-2.93/-8.2	-17.49/-11.45	-7.73/-10.04	-10.29/-14.4	-13.83/-17.5	-17.7/-12.2	-10.07/-13.01	-16.73/-13.22	-7.41/-6.87	-8.48/-7.42	-6.75/-8.41	-10.4/-9.22	-5.6/-7.37	-11.47/-9.45	-8.96/-10.42	-16.86/-18.5	-9.88/-13.28	-11.32/-11.94	-11.21/-6.97	-9.06/-11.96	-16.14/-4.25	-1.14/-3.55
Θ(127.5°)	-1.99/-3.43	-0.99/-1.22	-1.3/-6.3	-11.26/-16.72	-9.65/-8.95	-11.3/-14.01	-18.96/-18.43	-13.77/-10.55	-10.47/-13.33	-12.53/-14.1	-10.69/-8.39	-12.86/-11.79	-10.78/-5.98	-6.97/-5.61	-4.46/-7.68	-18.54/-9.59	-7.12/-7.58	-18.92/-18.93	-12.32/-14.02	-10.99/-8.89	-7.25/-3.38	-5.93/-13.89	-14.73/-6.44	-2.56/-4.92
Θ(135°)	-5.71/-5.13	-3.75/-3.05	-4.12/-7.09	-10.79/-15.05	-18.23/-14.05	-9.85/-11.95	-14.11/-11.17	-7.98/-8.29	-10.35/-10.89	-11.07/-8.71	-6.34/-9.57	-9.76/-16.48	-10.42/-5.15	-4.79/-4.52	-8.57/-17.4	-11.51/-9.16	-6.18/-10.15	-10.13/-18.69	-13.18/-12.09	-8.52/-10.78	-7.06/-8.25	-5.62/-6.11	-5.4/-3.27	-2.85/-6.92
Θ(142.5°)	-17.49/-7.89	-5.12/-4.75	-8.84/-16.45	-11.65/-8.18	-9.05/-14.06	-18.79/-18.76	-16.99/-15.1	-13.81/-12.95	-10.8/-11.07	-10.76/-9.69	-9.66/-8.85	-9.05/-9.93	-11.49/-14.75	-18.52/-18.49	-17.37/-14.21	-8.5/-8.56	-8.21/-16.82	-19.15/-17.98	-17.93/-15.19	-7.77/-10.91	-17.72/-13.82	-10.81/-9.81	-10.26/-10.41	-13.13/-15.04
Θ(150°)	-17.72/-14.79	-11.29/-9.4	-11.44/-19.23	-17.7/-9.08	-7.78/-8.01	-10.99/-16.05	-15.38/-16.55	-18.65/-13.67	-10.53/-14.1	-10.61/-11.28	-13.13/-14.13	-13.18/-10.19	-8.7/-8.91	-10.07/-10.3	-8.74/-6.81	-5.6/-7.11	-8.22/-11.07	-12.88/-11.63	-11.57/-12.18	-10.64/-11.37	-18.32/-17.71	-10.61/-8.95	-8.85/-8.36	-7.34/-8.95
Θ(157.5°)	-16.62/-11.46	-9/-9.25	-10.98/-14.29	-18.7/-19.59	-16.84/-17.56	-18.07/-16.19	-12.32/-12.44	-14.5/-13.28	-9.47/-6.39	-4.66/-3.8	-3.66/-3.74	-4.15/-5.17	-5.74/-5.39	-5.55/-6.46	-7.79/-10.27	-13.53/-18.72	-17.1/-15.14	-14.29/-12.35	-10.85/-8.82	-8.55/-11	-17.86/-16.58	-13.71/-14.26	-17.31/-18.78	-19.32/-18.26
Θ(165°)	-16.04/-14.85	-13.02/-14	-14.2/-16.7	-17.98/-18.62	-17.85/-18.28	-18.03/-19.07	-17.2/-15.56	-13.82/-12.27	-10.83/-8.97	-7.48/-6.65	-5.89/-4.71	-3.6/-3.12	-3.25/-3.79	-4.67/-5.27	-5.97/-7.34	-8.35/-8.5	-8.05/-7.37	-7.29/-7.7	-9.62/-12.47	-17.55/-15.57	-9.21/-7	-6.58/-7.88	-10.01/-12.05	-14.27/-15.79
Θ(172.5°)	-19.18/-14.72	-18.38/-18.02	-16.62/-16.49	-17.04/-17	-16.5/-16.89	-17.59/-18.56	-18.19/-17.9	-15.29/-14.38	-13.81/-12	-10.21/-9.01	-8.56/-7.87	-6.73/-5.59	-4.47/-3.72	-3.47/-3.67	-4.47/-5.94	-7.2/-7.97	-8.48/-8.1	-9.21/-9.98	-10.64/-11.37	-11.84/-10.73	-9.24/-8.9	-9.3/-11.03	-14.2/-18.52	-18.15/-18.32
Θ(180°)	-17.38/-17.98	-18.76/-16.28	-15.19/-14.8	-15.25/-15.2	-16.5/-16.87	-17.85/-19.09	-18.49/-16.58	-14.7/-13.47	-12.62/-12.02	-11.7/-12.31	-12.59/-12.7	-13.07/-14.45	-16.68/-19.17	-17.53/-18.68	-19.17/-17.69	-19.67/-17.97	-18.88/-18.14	-18.59/-17.76	-18.64/-17.86	-17.49/-16.71	-17.48/-18.1	-17.66/-18.97	-17.66/-17.57	-17.9/-17.58
Freq(Hz)	5.785GPol.	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-17.72/-18.39	-18.49/-18.77	-17.5/-18.86	-17.72/-18.76	-18.71/-19.02	-16.7/-15.88	-15.77/-16.65	-17.63/-17.94	-17.56/-17.82	-17.38/-16.23	-15.08/-13.93	-12.92/-12.75	-13.33/-14.07	-15.2/-15.72	-16.66/-17.9	-19.21/-18.43	-17.65/-18.08	-17.49/-14.14	-12.45/-11.18	-11.11/-11.68	-11.85/-12.29	-12.77/-12.75	-12.6/-12.95	-13.79/-15.03
Θ(7.5°)	-14.22/-13.39	-12.87/-13.44	-14.51/-18.2	-18.76/-19.06	-18.94/-19.47	-17.1/-13.82	-12.67/-11.65	-11.17/-10.36	-10.26/-10.84	-11.83/-12.41	-12.48/-12.63	-13.89/-16.46	-18.56/-18.6	-18.8/-18.97	-18.62/-18.79	-18.18/-17.7	-15.64/-13.4	-12.57/-12.57	-12.62/-12.33	-12.84/-13.92	-15.52/-16.78	-16.37/-15.58	-14.81/-14.86	-15.44/-15.16
Θ(15°)	-13.76/-12.15	-11.23/-10.99	-12.32/-15.19	-17.73/-18.39	-18.15/-16.68	-13.79/-11.2	-9.86/-9.03	-8.63/-9.18	-9.35/-10.4	-11.41/-12.46	-13.53/-14.74	-17.79/-18.04	-17.74/-14.06	-11.47/-9.56	-8.76/-8.94	-9.88/-10.26	-9.74/-9.1	-9.15/-9.63	-10.21/-10.52	-10.86/-12.12	-12.6/-12.86	-13.27/-14.75	-18.94/-17.75	-18.02/-16.99
Θ(22.5°)	-19.43/-16.13	-14.36/-15.64	-17.85/-17.39	-17.42/-14.16	-13.61/-11.76	-10.56/-10.73	-11.45/-11.83	-12.21/-12.48	-13.78/-17.05	-18.32/-18.16	-18.66/-18.54	-14.52/-11.11	-9.46/-8.18	-6.82/-6.25	-6.36/-7.51	-8.16/-7.71	-7.02/-6.69	-6.9/-7.34	-7.4/-7.83	-7.4/-6.94	-6.54/-6.53	-6.81/-6.9	-7.65/-10.12	-12.77/-18
Θ(30°)	-14.5/-17.51	-18.84/-17.72	-18.08/-18.81	-15.06/-14.26	-16.73/-17.42	-18.58/-18.9	-16.61/-15.07	-13.62/-13.72	-14.45/-14.1	-13.72/-15.58	-16/-13.2	-9.95/-8.71	-8.04/-6.5	-5.07/-4.37	-4.53/-5.28	-5.8/-5.91	-6.06/-5.78	-3.68/-2.9	-3.72/-4.9	-5.3/-4.92	-4.23/-3.92	-3.93/-3.92	-4.05/-5.25	-6.95/-10.51
Θ(37.5°)	-4.48/-7.36	-10.2/-9.06	-9.09/-9.19	-10.86/-16.48	-17.83/-15.43	-10.53/-8.46	-7.81/-8.15	-8.92/-10.27	-12.96/-18.38	-16.85/-16.83	-17.4/-15.39	-12.87/-10.95	-6.37/-4.17	-2.84/-4.81	-4.84/-8.21	-4.98/-2.05	-1.94/-2.45	-1.94/-1.96	-2.73/-3.89	-4.47/-4.29	-3.29/-2.35	-1.91/-2.51	-3.12/-3.83	
Θ(45°)	-6.53/-7.1	-6.06/-6.08	-6.57/-8.59	-10.8/-12.2	-9.95/-7.64	-6.05/-6.44	-8.33/-9.7	-11.31/-14.56	-18.09/-19.09	-11.05/-7.82	-7.49/-8.5	-10.99/-10.99	-8.63/-7.35	-5.58/-4.14	-3.54/-3.07	-2.83/-2.49	-1.2/-0.91	-0.96/-1.13	-0.710.28	0.34/-0.88	-2.8/-4.88	-6.31/-4.67	-2.81/-2.13	-2.46/-3.88
Θ(52.5°)	-5.8/-6.51	-6.7/-6.09	-5.24/-5.51	-6.62/-8.57	-10.36/-10.68	-10.58/-10.27	-11.67/-16.79	-16.9/-12.8	-12.34/-13.89	-11.65/-7.89	-6.59/-6.46	-9.59/-11.33	-12.55/-9.68	-4.58/-1.78	-0.770.75	0.880.95	0.780.39	0.220.8	0.810.04	1.190.73	-1.15/-3.86	-6.65/-7.43	-6.8/-6.55	-6.47/-6.12
Θ(60°)	-5.22/-12.26	-13.95/-8.65	-3.69/-2.83	-4.84/-8.55	-9.58/-10.5	-13.83/-8.79	-8.74/-11.87	-13.86/-9.14	-5.64/-5.1	-4.87/-5.08	-7.15/-7.72	-7.81/-6.34	-5.86/-4.7	-2.67/-5.92	1.072.54	1.411.54	1.120.2	-0.750.96	0.171.56	2.061.03	-1.38/-3.79	-5.31/-6.09	-5.32/-5.06	-3.25/-4.35
Θ(67.5°)	-2.39/-5.3	-5.97/-5.04	-3.37/-4.56	-10.12/-18.18	-16.07/-17.41	-11.26/-6.97	-7.07/-10.86	-16.38/-7.2	-3.1/-1.9	-1.61/-1.22	-2.68/-4.92	-4.96/-2.27	-0.88/-0.49	-0.55/-0.32	0.350.8	-0.360.31	0.270.01	-0.300.08	1.521.43	0.960.54	-1.74/-3.3	-4.17/-4.01	-2.74/-1.49	0.16/-1.37
Θ(75°)	1.26/-1.12	-1.36/-1.34	-0.86/-2.24	-8.45/-19.14	-13.48/-12.58	-11.07/-4.79	-3.26/-2.54	-12.51/-13	-5.44/-2.41	-1.21/-0.07	-0.02/-1.1	-0.830.35	1.610.43	-0.4/-1.86	-1.020.1	-0.820.76	-0.810.2	-0.29/-0.75	-0.050.36	-0.38/-2.63	-5.47/-3.73	-1.62/-6.46	-2.34/-7.6	
Θ(82.5°)	1.5801	2.181.95	0.29/-3.18	-12.62/-18.02	-15.04/-12.13	-7.13/-3.73	-2.74/-3.59	-5.07/-6.03	-5.47/-5.19	-1.72/-1.6	2.031.14	1.912.64	3.11/-11	0.85/-1.3	-0.35/-0.53	-0.99/-0.65	0.431.52	0.61/-0.09	1.612.61	1.550.36	-2.7/-8.61	-17.79/-9.11	-1.60/-98	2.110.83
Θ(90°)	1.903.34	1.121.94	2.690.5	-6.33/-11.59	-10.74/-11.65	-3.930.89	2.160.71	-2.25/-1.78	-0.62/-0.48	-0.95/-1.91	2.982.47	1.822.84	3.43/-67	0.93/-2.2	-3.58/-3.65	-1.750.65	1.651.92	1.071.42	0.791.86	1.771.82	-0.81/-8.18	-11.99/-9.78	-1.180.15	-0.370.76
Θ(97.5°)	2.651.49	2.212.82	2.551.02	-5.2/-9.48	-5.06/-2.81	-0.862.88	3.78 1.84	-0.930.15	1.13/-0.14	-1.471.09	1.281.78	1.063.02	2.632.96	1.14/-0.77	-3.79/-6.04	-4.33/-1.44	2.06/-1.21	1.480.41	-0.35/-1.03	0.080.64	-2.27/-10.45	-18.16/-4.23	-1.34/-3.49	-0.961.84
Θ(105°)	0.64/-0.4	0.044.03	2.770.11	-6.63/-10.53	-6.39/-2.01	0.712.77	2.922.78	0.060.08	1.471	-0.850.93	0.921.15	0.052.77	2.663.34	1.09/-1.38	-4.81/-8.93	-7.22/-5.6	-10.15/-2.88	0.05/-0.79	-5.87/-4.87	-0.99/-1.62	-4.16/-13.71	-17.71/-4.93	-2.59/-3.86	-0.552.35
Θ(112.5°)	-2.08/-1.68	-0.942.86	1.61/-1.5	-10.26/-9.09	-2.250.9	1.812.68	2.992.47	2.172.44	2.521.94	0.880.18	-1.18/-1.31	-2.42/-1.37	-2.530.73	-1.49/-3.38	-6.24/-7.21	-8.69/-10.87	-19.46/-10.58	-2.99/-7.3	-10.61/-12.75	-8.02/-8.58	-17.08/-18.06	-12.1/-4.36	-3.46/-5.54	-1.530.87
Θ(120°)	-6.08/-3	-1.352/-13	0.61/-3.84	-16.65/-7.44	-3.330.22	1.732.09	2.412.29	1.090.06	0.691.73	2.414.3	0.18/-0.67	-0.61/-0.95	-2.25/-2.6	-4.64/-9.45	-8.63/-10.92	-12.02/-18.73	-15.3/-9.78	-7.12/-7.13	-7.35/-10.75	-12.73/-15.01	-11.04/-15.08	-6.78/-4.99	-7.29/-5.93	-1.99/-1.64
Θ(127.5°)	-																							



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(120°)	-8.63/9.05	-12.09/17.88	-14.5/-9.49	-6.65/3.75	-3.66/2.06	-3.21/-3.75	-3.73/-4.4	-4.08/-3.67	-4.12/4.16	-4.05/-3.29	-3.31/-5.17	-11.17/18.07	-17.77/-11.29	-9.61/9.1	-8.57/2.87	-6.15/-7.59	-12.23/-5.49	-18.43/-10.57	-15.28/-10.97	-4.73/-7.42	-2.67/-11.34	-17.92/-3.7	-6.08/-3.6	-6.33/-10.99
Θ(127.5°)	-11.98/-10.74	-19.14/-16.11	-8.55/-6.18	-3.63/-4.78	-5.12/-6.9	-5.21/-4.48	-4.34/-3.85	-4.22/-3.42	-4.27/5.15	-8.59/-8.48	-7.55/-9.64	-17.13/-17.2	-15.04/-13	-10.99/-7.69	-5.55/-4.93	-9.1/-5.89	-3.95/-2.62	-7.67/-4.97	-18.5/-9.95	-2.83/-6.02	-2.25/-7.66	-12/-13.48	-10.53/-8.9	-8.67/-10.12
Θ(135°)	-16.96/-14.27	-9.76/-7.45	-9.55/-9.47	-8.96/-6.23	-7.23/-7.57	-8.27/-2.18	-5.97/-3.78	-4.69/-3.1	-2/-2.94	-3.62/-5.05	-9.13/-18	-12.32/-12.81	-17.89/-13.69	-8.35/-4.42	-10.52/-13.39	-10.88/-17.13	-8.49/-18.2	-7.42/-5.12	-7.86/-7.99	-5.32/-10.13	-12.61/-9.52	-12.89/-11.56	-10.53/-13.67	-16.26/-17.69
Θ(142.5°)	-15.8/-16.63	-19.04/-12.07	-10.12/-14.2	-17.8/-15.47	-8.37/-6.45	-4.9/-8.46	-5.42/-5.84	-7.04/-9.25	-11.27/8.29	-7.05/-7.51	-7.19/-7.72	-10.41/-16.9	-19.06/-11.16	-9.99/-13.39	-13.71/-7.3	-3.98/-1.23	-2.72/-12.52	-9.26/-8.26	-11.84/-13.09	-15.89/-11.73	-10.53/-6.53	-7.21/-12.15	-9.8/-8.89	-11.23/-18.12
Θ(150°)	-16.36/-14.8	-17.59/-17.57	-9.37/-7.77	-7.97/-9.86	-11.39/-8.6	-6.72/-5.43	-4.32/-3.99	-3.79/-3.28	-2.75/-3.23	-5.54/-9.86	-13.41/-13.31	-13/-18.97	-19.24/-16.09	-13.4/-11.03	-9.93/-4.79	-1.29/-0.93	-5.27/-18.72	-7.45/-8.84	-12.82/-10.31	-8.78/-3.92	-3.44/-5.6	-7.41/-18.6	-6.87/-5.21	-7.72/-13.19
Θ(157.5°)	-8.64/-13.05	-11.52/-10.85	-7.28/-4.46	-3.25/-2.59	-2.82/-4.15	-6.16/-8.13	-9.13/-9.75	-9.8/-10.78	-12.23/-14.74	-10.44/-11.71	-15.1/-17	-11.55/-10.8	-15.07/-16.8	-8.93/-4.44	-2.98/-4.55	-9.63/-18.1	-16.46/-12.2	-9.56/-8.21	-6.05/-4.3	-4.41/-5.57	-6.71/-10.22	-11.03/-11	-12.83/-17.98	
Θ(165°)	-16.11/-19.34	-17.95/-18.68	-14.89/-9.94	-6.87/-5.58	-5.25/-6.07	-6.28/-5.25	-4.56/-4.43	-4.33/-4.63	-4.74/-4.46	-3.95/-4.43	-5.81/-7.68	-9.69/-11.34	-14.02/-17.63	-17.78/-18.28	-17.99/-16.36	-14.77/-17.21	-18.57/-18.42	-10.85/-7.03	-5.27/-5.2	-5.69/-5.69	-5.48/-6.02	-7.52/-11.18	-11.53/-9.41	-9.94/-12.5
Θ(172.5°)	-18.58/-18.54	-18.49/-14.62	-12.25/-9.8	-8.61/-7.1	-5.56/-3.73	-2.52/-1.55	-1.06/-1.17	-1.48/-2.14	-3.09/-4.45	-5.84/-7.65	-9.72/-11.99	-14.42/-18.03	-18.15/-18.6	-19.2/-18.21	-17.99/-18.39	-16.31/-12.81	-10.7/-9.23	-8.4/-8.05	-8.28/-7.98	-7.21/-6.77	-7.43/-8.8	-10.6/-12.36	-12.93/-12.24	-11.71/-14.11
Θ(180°)	-8.63/-10.17	-13.02/-14.21	-11.53/-9.33	-8.17/-7.63	-7.02/-6.93	-5/-4.31	-4.26/-5.03	-6.42/-8.21	-9.99/-11.48	-13.78/-15.4	-14.24/-13.33	-11.78/-10.95	-10.88/-11.26	-12.07/-14.32	-18.66/-18.29	-18.54/-18.88	-16.98/-14.74	-13.33/-12.45	-10.76/-9.15	-7.68/-7.11	-6.87/-7.2	-8.19/-9.03	-9/-8.35	-7.92/-7.5
Freq(Hz)	5.2GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-5.49/-5.8	-6.33/-7	-9.06/-11.33	-13.55/-14.37	-13.78/-12.94	-11.99/-11.14	-10.14/-10.91	-10.57/-9.74	-8.89/-5.66	-9.07/-6.68	-10.71/-11.34	-11.87/-11.8	-11.14/-10.89	-10.89/-10.93	-10.84/-11.95	-13.61/-12.37	-12.31/-13.34	-14.03/-12.96	-11.94/-11.31	-11.16/-10.6	-9.57/-8.37	-17.18/-6.28	-5.68/-5.28	
Θ(7.5°)	-10.83/-12.57	-11.83/-10.37	-9.99/-9.77	-10.23/-10.84	-12.08/-12.7	-13.33/-13.26	-13.18/-13.43	-13.45/-13.22	-11.46/-8.78	-6.78/-5.73	-5.12/-5.15	-5.41/-5.39	-5.4/-5.55	-5.82/-6.21	-7.23/-10.51	-12.13/-16.15	-18.4/-17.18	-14.73/-13.91	-12.93/-11.08	-8.28/-8.96	-8.51/-9.43	-10/-10.19	-10.97/-10.55	-9.47/-9.9
Θ(15°)	-13.12/-12.13	-10.99/-10.22	-10.09/-10.53	-12.54/-16.48	-17.8/-18.01	-16.44/-12.93	-10.14/-8.43	-7.87/-7.73	-6.64/-4.72	-2.9/-1.92	-1.63/-2.07	-2.83/-3	-3.66/-4.21	-5.03/-6.25	-7.18/-8.59	-11.18/-15.35	-17.15/-14.68	-13.06/-12.42	-10.86/-9.02	-7.82/-7.91	-8.18/-8.92	-9.82/-10.91	-11.04/-12	
Θ(22.5°)	-12.33/-10.69	-11.31/-11.9	-12.17/-13.8	-18.21/-18.99	-14.34/-12.89	-11.95/-11.16	-8.78/-6.39	-4.89/-4.08	-3.69/-3.08	-2.11/-1.15	-0.69/-9.7	-1.32/-2	-2.54/-2.81	-2.99/-3.55	-4.19/-4.48	-4.77/-5.75	-8.34/-12.98	-19.06/-16.88	-13.61/-12.69	-13.27/-13.91	-12.72/-12.34	-13.08/-14.64	-17.75/-18.8	-18.84/-17.75
Θ(30°)	-14.7/-15.62	-19.19/-18.68	-18.61/-17.48	-17.81/-17.5	-13.77/-12.24	-9.62/-8.16	-6.9/-5.6	-4.78/-3.91	-3.32/-2.52	-1.37/-0.43	-0.39/-0.67	-0.91/-1.33	-1.45/-0.93	-1.14/-1.87	-2.87/-3.25	-3.32/-4.52	-6.43/-8.06	-10.36/-14.05	-18.35/-19.11	-17.97/-18.73	-18.57/-19.19	-18.38/-19.01	-17.31/-18.83	-17.69/-16.55
Θ(37.5°)	-15.45/-17.73	-19.33/-15.57	-15.18/-15.81	-18.64/-14.86	-17.81/-18.01	-13.71/-7.57	-6.04/-5.6	-4.52/-3.59	-3.14/-2.94	-2.99/-3.27	-2.62/-1.02	0.35/0.06	0.34/0.6	0.08/-0.69	-1.03/-4.03	-0.44/-0.47	-0.81/-1.77	-2.4/-3.68	-6.25/-7.69	-7.47/-7.65	-9.18/-11.06	-12.92/-12.65	-13.66/-17.1	-18.66/-18.78
Θ(45°)	-9.72/-11.67	-9.57/-8.99	-9.42/-10.67	-12.71/-11.12	-8.73/-6.37	-5.09/-4.08	-4.05/-3.9	-3.34/-2.78	-2.66/-16.41	-4.37/-1.09	1.01/1.76	1.04/0.52	0.82/1.34	0.77/-1.2	-0.44/-1.09	1.37/0.19	-1.09/-1.93	-5.98/-4.39	-5.98/-5.42	-5.94/-6.03	-5.11/-5.16	-5.96/-7.41	-6.94/-7.55	-9.98/-12.89
Θ(52.5°)	-6.03/-6.42	-6.75/-7.61	-7.61/-7.84	-7.06/-5.85	-5.77/-4.36	-3.9/-3.75	-3.75/-3.59	-2.75/-1.84	-1.84/-1.52	-1.76/-0.41	0.58/0.5	-0.30/-7.5	1.92/2.32	0.43/-0.07	1.74/1.33	0.57/-0.73	-2.8/-6.08	-7.99/-8.4	-9.76/-11	-9.11/-6.62	-5.73/-4.99	-4.92/-5.86	-7.18/-7	-5.8/-7.62
Θ(60°)	-4.84/-5.1	-5.43/-5.4	-3.79/-4.43	-4.68/-5.05	-4.23/-5.51	-2.29/-2.82	-1.66/-0.8	-0.25/-0.17	-0.75/-1.77	-0.59/0.21	1.43/-1.9	2.06/1.78	0.07/1.15	2.05/-1.42	0.46/-2.35	-4.73/-14.05	-17.97/-18.63	-18.26/-13.29	-10.61/-8.79	-5.92/-4.26	-4.1/-4.85	-3.83/-5.1	-4.85/-4.76	
Θ(67.5°)	-5.4/-4.52	-6.71/-5.91	-2.63/-3.85	-3.96/-5.07	-2.91/-2.02	-1.21/-0.1	7.02/9.99	0.75/0.56	0.98/0.08	0.71/3.38	2.13/-1.44	2.103.47	2.81/1.37	0.25/0.63	0.71/-0.54	-1.38/-2.69	-2.98/-4.67	-6.84/-11.35	-13.33/-15.1	-15.29/-16.05	-10.47/-6.59	-3.61/-6.95	-7.17/-6.9	-4.94/-7.12
Θ(75°)	-5.87/-3.53	-4.74/-3.55	-0.98/-1.83	-3.09/-2.69	-1.36/-1.82	-1.44/-0.11	1.33/2.31	2.51/1.98	2.24/2.05	1.36/1.99	2.3/-1.13	1.21/2.1	0.39/0.73	0.50/-1.7	-0.96/-0.83	-0.80/-34	-1.4/-3.77	-9.81/-12.63	-10.39/-9.74	-7.17/-6.46	-6.77/-7.25	-4.57/-3.55	-6.29/-6.26	-5.82/-7.72
Θ(82.5°)	-6.07/-14.9	-4.9/-4.68	-0.77/-2.34	-4.31/-3.03	-1.81/-1.25	-1.39/-0.42	0.71/-7.9	2.17/2.24	2.08/1.9	0.53/-1.53	0.85/-0.89	0.28/0.76	-1.46/-0.14	-0.48/-1.9	0.27/1.52	1.21/-06	0.91/-2.17	-10.63/-17.67	-13.18/-15.45	-10.98/-4.47	-2.05/-3.05	-5.63/-3.4	-5.07/-6.04	-6.38/-5.02
Θ(90°)	-4.58/-1.94	-4.31/-4.22	-1.3/-0.81	-1.63/-0.69	-0.59/-1	-1.94/-1.24	-0.34/0.08	0.16/1.32	2.02/8.1	-0.35/-0.55	0.18/-0.13	0.29/-0.24	-0.28/1.5	0.79/-1.14	1.08/1.1	-0.46/0.58	-3.21/2.23	-5.59/-18.82	-9.78/-18.23	-10.35/-2	0.31/0.69	-2.47/-2.76	-2.34/-5.07	-1.38/-4.94
Θ(97.5°)	-2.27/-0.59	-2.9/-3.65	-0.8/-0.92	-0.35/0.5	0.12/-0.8	-1.13/-1.24	-1.78/-2.01	-1.72/-0.72	-0.51/-1.26	-6.03/-2.65	-0.44/-1.87	-3.03/-3.39	-2.77/-0.53	-0.89/-1.71	-4.15/-3.03	-2.88/0.05	1.6/0.4	-7.39/-14.74	-16.71/-14.93	-8.47/-1.04	-0.65/-1.32	-1.69/-1.52	-2.02/-1.92	-0.81/-1.08
Θ(105°)	0.09/-0.3	-1.48/-0.82	-1.74/-2.35	-1.64/-1.18	0.77/0.47	-0.48/-1.16	-1.29/-2.37	-3.55/-1.9	-1.97/-1.28	-7.22/-2.2	-0.52/-3.62	-6.88/-5.36	-4.03/-1.65	-2.14/-2.52	-3.12/-4.03	-10.41/-1.15	0.84/0.75	-11.83/-19.16	-12.21/-8.48	-9.35/-0.72	-0.46/0.46	-3.41/-1.5	-0.64/-1.02	1.06/0.53
Θ(112.5°)	0.66/0.14	0.27/0.41	0.33/-0.18	-0.14/-1.23	0.52/0.02	-0.31/-1.9	-2.79/-3.59	-3.79/-4.24	-4.54/-6.59	-3.36/-2.49	-2.58/-6.77	-5.78/-4.6	-3.21/-0.94	-2.29/-0.24	-2.82/-3.62	-6.91/-5.34	-2.95/-3.04	-15.03/-17.92	-10.99/-9.23	-7.16/-3.78	-4.57/-2.18	-2.25/-0.64	-2.89/-1.19	0.32/-1.16
Θ(120°)	0.52/0.18	0.73/0.84	0.82/0.44	-0.61/-1.47	-1.78/-0.82	-1.27/-3.97	-5.66/-6.28	-6.28/-6.21	-18.91/-12.53	-7.9/-4.46	-5.95/-11.24	-17.21/-10.63	-13.42/-5.82	-3.33/-3.65	-7.62/-4.67	-12.93/-16.65	-6.76/-18.31	-6.73/-4.21	-1.81/-5.48	-6.11	-1.26/0.19	1.38/-2.19		
Θ(127.5°)	1.66/0.43	-0.32/-1.08	-1.07/-1	-1.13/-2.99	-4.26/-4.9	-3.26/-2.68	-3.14/-4.29	-4.72/-6.66	-6.78/-7.1	-7.21/-5.8	-8.28/-4.85	-5.49/-8.94	-11.75/-8.79	-9.19/-12.46	-13.48/-10.73	-14.47/-15.76	-3.89/-7.27	-18.47/-18.72	-12.29/-13.69	-4.73/-7.87	-3.34/-5.69	-4.95/-2.35	-4.92/0.15	0.32/-1.24
Θ(135°)	-0.10/-29	0.13/0.21	0.1/-0.21	-0.32/-1.2	-2.07/-4.25	-7/-7.35	-7.82/-8.23	-10.61/-10.68	-8.53/-10.84	-12.84/-18.8	-14.4/-9.61	-8.96/-7.19	-7.61/-7.07	-11.59/-11.15	-18.75/-18.85	-18.19/-12.73	-8.18/-10.3	-9.28/-9.16	-9.01/-9.63	-7.21/-18.91	-9.39/-7.21	-3.49/-5.66	-6.28/-3.92	-1.72/-0.15
Θ(142.5°)	-4.24/-1.7	-0.28/-0.1	-1.18/-2.33	-3.18/-3.99	-5.58/-6.02	-7.59/-9.75	-11.82/-12.2	-13.51/-18.18	-17.83/-18.1	-15.62/-13.12	-13.8/-14	-11.4/-11.51	-12.33/-12.4	-12.06/-13.79	-15.12/-17.58	-13.77/-10.57	-10.46/-7.65	-5.1/-6.06	-6.53/-7.65	-8.13/-8.11	-3.21/-2.84	-3.18/-4.46	-4.81/-6.84	
Θ(150°)	-4.88/-4.89	-4.94/-2.92	-2.97/-4.62	-5.48/-7.22	-7.15/-6.36	-6.29/-7.33	-9.89/-13.6	-13.84/-13.65	-17.18/-16.41	-11.61/-6.69	-4.52/-5.5	-7.91/-11.04	-17.86/-18.39	-16.03/-17.6	-18.67/-19.55	-17.68/-17.89	-14.82/-9.53	-7.56/-8.86	-11.87/-10.9	-7.85/-4.29	-2.3/-3.19	-3.3/-2.15	-1.53/-0.72	-0.6/-2.21
Θ(157.5°)	-3.65/-5.54	-6.91/-5.51	-3.78/-3.72	-4.1/-5.44	-5.61/-7.18	-9.03/-11.57	-13.86/-14.71	-14.72/-14.27	-13.29/-11.95	-11.25/-11.41	-15.78/-18.52	-14.4/-9.99	-7.53/-6.04	-5.77/-6.85	-9.2/-11.6	-13.48/-15.96	-18.38/-17.91	-18.58/-14.75	-13.88/-14.78	-15.39/-9.29	-5.45/-4.99	-4.81/-2.54	-0.61/-0.44	-0.89/-2.06
Θ(165°)	-3.62/-4.48	-4.67/-4.67	-3.98/-2.93	-5.25/-3.08	-3.86/-5.1	-6.27/-7.31	-8.52/-10.31	-12.57/-13.98	-14.08/-16.03	-18.66/-13.93	-9.84/-8.26	-8.22/-8.42	-7.77/-6.46	-5.97/-6.2	-7.24/-8.69	-9.81/-11.33	-12.44/-13.79	-18.54/-18.92	-18.1/-18.64	-18.95/-18.41	-12.99/-9.04	-6.34/-4.33	-2.68/-1.91	-2.01/-2.51
Θ(172.5°)	-5.06/-4.94	-5.4/-5.81	-6.06/-5.07	-4.32/-4.54	-4.68/-5.25	-6.81/-9.18	-12.63/-18.16	-18.66/-19.14	-18.93/-18.7	-16.9/-15.41	-15.18/-16.56	-17.82/-18.59	-17.5											



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(165°)	-12.88/-12.77	-10.91/8.66	-7.15/-5.09	-3.05/-2.02	-2.38/-3.28	-4.91/5.91	-5.87/-6.96	-9.89/-14.15	-13.63/-10.29	-6.81/4.42	-3.2/-3.43	-5.14/-8.67	-15.07/-19	-17.65/-17.57	-17.95/-19.25	-18.86/-19.01	-19.23/-18.28	-16.22/-13.77	-10.15/-6.81	-4.69/-3.85	-3.27/-2.86	-3.36/-5.26	-7.8/-11.07	-10.58/-11.11
Θ(172.5°)	-9.46/-9.9	-10.65/-12.43	-19.1/-17.88	-11.92/-9.15	-7.99/-7.52	-6.18/-5.22	-4.6/-4.92	-3.53/-3.32	-3.25/-3.49	-3.7/-4.41	-5.72/-4.75	-9.99/-13.08	-14.8/-13.13	-10.95/-10.52	-11.39/-15.02	-18.54/-14.02	-11.43/-9.91	-8.99/-7.83	-6.68/-6.1	-6.21/-7.06	-6.22/-4.97	-4.81/-5.75	-6.81/-8.02	-8.36/-8.74
Θ(180°)	-9.49/-12.38	-17.02/-18.35	-16.57/-15.15	-13.24/-10.97	-8.09/-6.38	-5.66/-5.09	-4.93/-4.42	-3.98/-4.07	-5.41/-8.34	-12.46/-18.41	-17.66/-18.84	-18.14/-14.73	-12.09/-10.1	-8.51/-7.69	-7.65/-8.38	-9.48/-10.87	-11.7/-11.07	-10.2/-8.63	-7.77/-7.98	-7.77/-7.24	-5.44/-4.88	-5.32/-5.69	-6.47/-9.7	
Freq(Hz)	5.65GPol	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-8.76/-8.33	-10.09/-8.52	-7.81/-8.03	-8.12/-8.4	-9.08/-9.13	-8.9/-8.9	-8.87/-9.5	-10.52/-11.82	-12.82/-14.05	-14.15/-13.11	-12.19/-10.74	-9.84/-9.64	-9.35/-9.28	-9.41/-9.78	-11.02/-13.08	-14.74/-15.71	-16.93/-17.31	-18.55/-17.89	-18.59/-18.57	-16.36/-14.61	-13.13/-11.72	-11.07/-10.79	-10.42/-10.09	-9.76/-9.19
Θ(7.5°)	-11.05/-10.88	-11.62/-11.54	-11.38/-13.48	-15.06/-17.83	-19.15/-17.24	-17.86/-18.14	-19.07/-17.92	-14.08/-13.14	-12.87/-12.71	-11.82/-10.39	-9.13/-8.1	-7.25/-7.08	-6.9/-6.73	-6.86/-7.79	-8.77/-10	-8.83/-7.75	-7.39/-7.01	-7.12/-7.5	-7.87/-7.48	-7.41/-9.29	-11.21/-12.59	-11.89/-12.16	-13.95/-14.76	-14.22/-12.58
Θ(15°)	-15.81/-14.95	-14.54/-14.04	-15.46/-16.64	-17.3/-15.36	-12.09/-10.84	-11.42/-12.74	-13.54/-12.55	-10.89/-9.35	-8.23/-7.67	-7.54/-7.41	-7.33/-6.83	-5.88/-5.25	-4.68/-4.73	-5.86/-7.92	-10.93/-13.28	-13.53/-12.03	-10.44/-9.02	-7.8/-6.59	-5.65/-4.71	-4.64/-5.64	-7.1/-8.97	-10.9/-13.06	-15.31/-18.32	-18.89/-19.18
Θ(22.5°)	-17.46/-16.91	-13.73/-13.42	-13.51/-13.3	-14.8/-13.79	-14.28/-17.4	-16.68/-14.56	-13.4/-11.8	-9.98/-8.32	-7.64/-7.09	-5.98/-5.01	-4.11/-3.09	-2.33/-2.47	-2.45/-3.14	-5.18/-4.74	-11.41/-12.25	-12.83/-13.25	-13.46/-14.48	-15.71/-16.2	-16.94/-15.31	-12.9/-11.01	-10.32/-10.56	-9.81/-9.07	-9.46/-10.33	-11.45/-17.27
Θ(30°)	-19.11/-16.14	-11.32/-10.53	-11.84/-14.16	-14.68/-15.76	-17.36/-10.95	-10.19/-10.59	-11.85/-10.19	-7.07/-4.69	-4.28/-5.91	-6.78/-4.42	-2.85/-1.27	-0.54/-1.61	-2.71/-2.71	-5.34/-7.92	-6.86/-5.38	-4.75/-6.5	-9.71/-11.09	-14.48/-14.05	-8.2/-5.25	-4.83/-5.96	-6.54/-7.34	-10.88/-15.14	-11.89/-10.4	-8.86/-12.21
Θ(37.5°)	-14/-8.9	-7.16/-5.19	-5.53/-6.4	-7.05/-9.38	-11.35/-12.97	-13.97/-11.07	-7.26/-4.62	-3.62/-3.75	-4.2/-4.22	-3.51/-1.56	-1.14/-0.69	0.18/-0.06	0.43/-0.16	-2.26/-1.76	-1.59/-3.15	-5.66/-4.79	-4.92/-5.72	-6.83/-11.43	-16.79/-17.08	-17.52/-18.82	-15.34/-12.77	-8.49/-9.26	-17.2/-17.08	-12.12/-12.75
Θ(45°)	-11.98/-15.15	-9.59/-6.32	-5.36/-6	-5.51/-6.6	-6.94/-8	-6.9/-5.4	-4.13/-2.84	-1.58/-0.86	-0.74/-1.69	-2.33/-1.64	0.53/-0.49	1.12/-1.46	0.83/-0.94	0.26/-0.31	0.37/-0.05	-1.27/-4.14	-5.76/-4.06	-4.62/-8.12	-8.57/-9.78	-10.82/-8.47	-8.63/-5.89	-8.26/-12.13	-13.01/-8.19	
Θ(52.5°)	-9.91/-13.72	-10.39/-9.5	-10.93/-8.6	-7.82/-8.27	-7.31/-7.27	-5.96/-5.17	-4.51/-3.8	-2.68/-1.89	-0.44/-0.16	-0.91/-1.78	0.64/-2	2.48/-2.72	2.95/-2.79	2.69/-2.77	1.93/-1	1.73/-0.55	-0.78/-0.36	-1.64/-3.73	-3.23/-2.37	-3.03/-4.4	-5.15/-5.89	-5.75/-6.06	-7.38/-12.99	-14.15/-8.85
Θ(60°)	-5.47/-9.24	-7.71/-6.59	-6.54/-7.53	-4.67/-5.18	-5.53/-5.53	-5.48/-4.76	-4.82/-4.83	-3.99/-2.69	-1.54/-0.31	-0.14/-0.32	1.48/-2.91	2.71/-0.96	1.3/-2.7	2.11/-0.78	-0.65/-0.53	-1.84/-2.9	-5.4/-8.95	-8.9/-7.48	-7.56/-5.67	-3.05/-1.63	-2.2/-3.77	-7.82/-9.93	-7.28/-7.51	-13.52/-8.3
Θ(67.5°)	-4.71/-5.93	-6.51/-5.99	-4.82/-3.98	-4.19/-4.44	-4.63/-2.73	-2.61/-2.47	-2.27/-1.68	-1.64/-1.61	-1.92/-0.46	0.80/-26	1.73/-2.83	1.92/-0.99	2.351/-63	1.177/-169	2.220/-23	-1.16/-4.41	-6.54/-14.68	-16.48/-15.13	-13.95/-9.98	-11.72/-10.04	-5.56/-1.84	-2.66/-4.44	-4.66/-3.96	-6.59/-9.48
Θ(75°)	-4.64/-6.83	-2.38/-2.24	-4.06/-2.96	-1.04/-1.91	-4.99/-3.18	-1.23/-0.36	0.54/-0.28	0.26/-0.77	0.79/-1.38	1.74/-1.91	2.79/-2.78	0.43/-1.26	2.11/-93	1.71/-97	1.32/-0.7	0.98/-2.83	-4.71/-10.04	-18.02/-13.27	-14.45/-12.45	7.46/-5.22	-5.43/-10.76	-4.1/-8.36	-5.26/-2.69	-4.22/-4.58
Θ(82.5°)	-3.19/-3.61	-1.78/-2.07	-1.73/-2.29	-0.04/-1.62	-2.27/-1.61	-0.23/-0.81	1.62/-1.82	1.32/-0.19	-0.85/-0.54	2.01/-2.25	0.89/-1.69	1.21/-63	1.18/-106	0.1/-8	0.1/-8	-0.38/-1.5	1.82/-0.22	-7.15/-12.26	-12.88/-18.35	-9.21/-4.66	-2.64/-2.9	-5.5/-4.68	-8.15/-4.52	-4.08/-4.18
Θ(90°)	-3.94/-3.85	-2.80/-3.4	-0.57/-0.93	-1.38/-1.91	-1.12/-0.45	2.16/-2.98	1.32/-2.57	-0.54/-1.52	1.34/-1.45	1.92/-37	2.19/-136	0.8/-23	1.21/-97	0.8/-23	1.21/-97	0.8/-23	3.76/-1.78	-4.33/-16.71	-9.11/-11.19	-4.6/-0.13	2.05/-0.4	-4.12/-4.82	-7.1/-5	-2.38/-1.05
Θ(97.5°)	-1.66/-1.67	-3.42/-1.07	-1.07/-0.65	-0.19/-0.56	-0.60/-0.4	0.69/-1.29	1.86/-2.5	1.92/-0.22	-3.8/-1.36	0.48/-0.99	-0.76/-0.21	0.2/-0.32	-0.39/-1.63	0.42/-3.85	0.31/-0.29	-3.2/-1.46	2.86/-1.28	-3.05/-7.14	-12.61/-10.54	-1.44/-1.68	2.54/-0.61	-0.09/-0.17	-2.48/-3.88	-2.13/-0.65
Θ(105°)	-1.79/-0.35	-0.13/-2.65	0.37/-1.51	-0.02/-0.97	-0.03/-0.13	-0.21/-0.49	-0.42/-1.05	-2.32/-3.24	-0.45/-1.47	-0.57/-0.49	-3.43/-4.02	-1.37/-0.1	-2.55/-4.86	-3.24/-0.22	-6.57/-9.6	2.17/-0.65	-6.93/-8.76	-4.67/-9.43	-2.96/-2.53	1.28/-0.98	-1.5/-1.16	-1.86/-0.09	1.26/-2.1	
Θ(112.5°)	2.04/-2.43	-0.58/-0.96	0.10/-49	-0.05/-0.61	-0.95/-2.18	-0.88/-0.42	-0.12/-1.5	-1.85/-0.49	-0.31/-1.91	-3.82/-1.42	-0.20/-0.57	-5.49/-7.99	-2.02/-0.57	-0.72/-0.82	-2.9/-3.3	0.63/-0.47	-7.38/-4.79	-1.1/-15.45	-3.92/-59	-3.75/-5.88	1.88/-0.37	-7.37/-0.87	0.75/-41	
Θ(120°)	-0.26/-0.93	1.62/-0.35	1.09/-0.9	-0.46/-1.52	-0.77/-2.66	-4.16/-4.83	-5.14/-4.99	-5.4/-0.9	-1.53/-0.84	-3.15/-6.44	-8.05/-4.66	-4.65/-4.89	-1.39/-4.31	-9.01/-1.24	-7.89/-6.58	-4.82/-5.26	-5.2/-1.75	-12.14/-6.83	-2.59/-12.26	-17.98/-0.95	-2.05/-12.91	-0.74/-2.25	-1.06/-2.26	1.23/-2.86
Θ(127.5°)	0.83/-1.69	1.29/-2.15	2.24/-1	1.51/-0.37	-1.77/-1.73	-2.13/-87	-0.83/-3.39	-1.97/-1.75	-3.51/-10.51	-8.03/-5.42	-8.67/-11.93	-5.06/-1.86	-3.44/-1.81	-5.06/-5.58	-15.1/-9.33	-8.12/-12.93	-3.25/-4.75	-9.37/-11.73	-11.44/-11.29	-10.75/-2.28	-4.04/-5.1	-1.99/-0.18	-1.24/-0.85	0.74/-63
Θ(135°)	2.09/-0.36	3.67/-2.51	1.08/-0.84	0.55/-0.55	-2.48/-4	-3.79/-2.3	-1.58/-2.44	-4.54/-6.72	-7.3/-2.5	-1.18/-2.7	-7.12/-10.63	-7.6/-9.17	-6.92/-4.44	-6.23/-10.58	-10.72/-11.25	-17.94/-13.97	-10.15/-14.33	-9.41/-11.26	-8.2/-16.15	-18.9/-14.2	15.13/-2.46	-2.91/-2.22	-7.16/-2.06	-0.07/-1.7
Θ(142.5°)	-0.34/-0.87	0.01/-0.25	-0.81/-1.71	-1.68/-0.66	-0.84/-2.1	-4.01/-5.51	-5.39/-5.09	-6.07/-7.46	-7.97/-10.51	-17.21/-10.3	-4.43/-2.86	-3.13/-6.19	-12.66/-13.67	-16.74/-18.38	-14.7/-10.08	-18.44/-18.15	-14.17/-11	-5.2/-2.06	-2.75/-6.96	-8.47/-3.75	-5.38/-10.6	-3.82/-2.82	-4.07/-5.68	-3.38/-0.88
Θ(150°)	-2.82/-4.58	-4.65/-2.69	-1.41/-0.82	-1.66/-3.05	-3.8/-4.2	-4.73/-5.74	-7.78/-10.42	-12.84/-16.92	-17.73/-18.59	-18.67/-18.59	-13.22/-8.3	-7/-6.91	-6.95/-9.86	-19.52/-18.06	-12.13/-11.63	-13.05/-9.88	-7.22/-8.91	-11.32/-10.41	-10.93/-10.27	-11.79/-4.69	-2.38/-4.06	-0.66/-1.52	1.94/-1.17	-1.26/-2.74
Θ(157.5°)	0.60/-83	0.46/-0.12	-0.37/-0.17	0.39/-0.92	-2.86/-4.45	-4.91/-5.17	-6.11/-7.09	-7.91/-7.55	-6.62/-5.26	-4.4/-4.5	-5.48/-7.07	-9.08/-10.35	-9.31/-9.77	-7.09/-7	-7.18/-7.01	-7.05/-8.64	-14.01/-18.97	-18.51/-17.95	-10.69/-8.47	-3.42/-4.07	-1.04/-1.49	1.95/-1.5	0.98/-2.5	
Θ(165°)	-2.15/-2.35	-2.48/-2.42	-2.39/-3.25	-3.95/-4.22	-4.39/-5.42	-7.27/-9.28	-6.28/-7.97	-6.83/-6.24	-6.28/-7.97	-7.22/-8.65	-11.93/-18.63	-18.38/-19.94	-16.34/-13.96	-12.13/-11.3	-10.89/-10.35	-8.58/-7.97	-8.91/-11.4	-12.1/-11.35	-14.52/-11.55	-8.01/-5.27	-2.33/-0.33	0.35/-0.54	-1.38/-2.02	
Θ(172.5°)	-6.15/-6.19	-4.94/-3.64	-2.49/-1.68	-1.27/-1.22	-1.84/-2.39	-2.67/-2.93	-3.48/-4.46	-5.93/-8.03	-9.73/-9.98	-9.76/-9.98	-10.93/-11.66	-12.23/-13.77	-15.94/-17.98	-17.4/-15.1	-12.39/-10.34	-9.15/-8.82	-9.6/-10.68	-11.49/-12.2	-11.63/-11.89	-14.95/-19.1	-18.22/-16	-11.74/-8.07	-5.41/-4.4	-4.07/-5.21
Θ(180°)	-8.6/-8.53	-7.89/-7.27	-6.27/-5.79	-6.8/-8.29	-9.67/-10.85	-11.44/-12.99	-16.23/-19.39	-18.6/-18.76	-18.4/-18.99	-18.33/-17.8	-15.29/-14.44	-13.85/-13.2	-12.83/-12.19	-11.53/-10.89	-10.2/-9.62	-9.48/-9.27	-9.33/-9.77	-10.01/-9.75	-9.06/-8.93	-10.08/-12.19	-14.14/-14.91	-14/-12.16	-10.79/-9.75	-8.69/-8.14
Freq(Hz)	5.785GPol	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-17.65/-18.37	-16.17/-18.07	-18.09/-17.53	-17.88/-18.62	-18.65/-18.32	-16.39/-14.03	-12.23/-11.52	-10.89/-10.63	-11.22/-11.51	-10.77/-10.11	-9.79/-9.49	-9.57/-9.88	-10.48/-11.52	-12.86/-13.76	-14.2/-14.17	-12.93/-11.74	-11.36/-19.18	-10.95/-10.68	-9.91/-10.73	-10.96/-12.11	-15.22/-15.78	-16.91/-17.79	-14.51/-14.58	
Θ(7.5°)	-9/-10.57	-10.88/-13.56	-13.23/-14.08	-14.99/-15.78	-14.29/-11.88	-10.82/-9.85	-8.82/-8.46	-9.01/-10.41	-12.42/-15.2	-18.17/-18.26	-19.21/-17.98	-16.98/-16.77	-17.91/-18.18	-17.19/-18.02	-18.44/-18.24	-18.56/-14.91	-12.92/-12.32	-11.03/-9.28	-8.3/-7.95	-7.65/-7.7	-8.24/-7.98	-8.19/-7.75	-8.67/-7.74	
Θ(15°)	-8.47/-10.4	-12.22/-17.81	-18.55/-19.1	-18.13/-18	-15.42/-12.89	-10.01/-6.96	-4.72/-3.48	-3.21/-3.74	-4.67/-5.82	-6.75/-8.41	-10.74/-14.5	-19.37/-17.89	-19.28/-17.89	-15.07/-12.19	-9.42/-8.73	-6.86/-6.68	-7.4/-8.63	-9.57/-9.83	-9.33/-8.62	-7.85/-6.9	-5.53/-4.91			



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(7°S)	-12.52/-11.09	-9.36/-7.3	-5.5/-3.72	-2.57/-1.49	-0.75/-0.06	0.460/74	0.890/84	0.560/05	-0.64/-1.55	-2.72/-1.49	-5.98/-7.98	-9.94/-11.28	-11.18/-9.98	-9.14/-7.75	-6.53/-5.96	-5.03/-5.41	-5.25/-5.08	-5/-4.96	-5.18/-5.13	-5.75/-6.63	-7.94/-9.66	-12.02/-15.7	-17.64/-18.53	-18.44/-15.17
Θ(15°)	-9.64/-8.07	-6.45/-4.95	-3.66/-2.24	-1.070/06	0.85/-1.62	2.12/08	2.672/99	2.81/-2.51	1.99/-1.21	0.17/-0.95	-2.43/-0.66	-5.73/-7.45	-8.74/-9.4	-9.47/-8.93	-8.17/-7.79	-7.73/-7.47	-7.32/-7.48	-7.48/-8.58	-8.23/-9.42	-9.34/-9.79	-10.73/-12.21	-13.94/-15.7	-15.87/-14.01	-12.36/-10.77
Θ(22.5°)	-6.81/-5.61	-4.41/-3.19	-2.08/-0.87	0.21/05	1.932/84	2.63/07	3.33/-3.37	2.99/03	2.562/86	1.960/89	-0.33/-1.73	-3.26/-4.66	-6.32/-3.69	-9.61/-10.22	-10.41/-10.68	-9.74/-9.22	-8.93/-9.45	-9.09/-8.63	-8.31/-8.07	-8.06/-8.24	-8.58/-8.91	-9/-8.35	-7.92/-7.4	
Θ(30°)	-4.97/-3.97	-2.95/-1.69	-0.760/22	1.131/91	2.54/-2.5	2.38/06	3.38/55	3.59/-3.38	3.02/-4.5	2.66/-1.88	0.9/-0.44	-1.79/-3.31	-5.3/-6.58	-7.74/-8.06	-8.59/-8.66	-8.76/-8.86	-9.37/-8.57	-8.26/-7.75	-7.2/-6.47	-6.63/-6.24	-5.77/-5.53	-5.61/-5.81	-5.82/-5.55	-5.33/-5.25
Θ(37.5°)	-3.8/-2.62	-1.55/-0.94	-0.50/-27	0.84/-1.42	1.99/-2.59	2.252/66	2.882/96	2.952/81	2.412/75	1.941/09	0.16/-0.96	-2.48/-4.29	-6.31/-6.21	-9.18/-9.79	-9.41/-8.43	-9.33/-8.93	-8.12/-8.04	-7.71/-7.44	-7.13/-6.47	-6.57/-6.41	-3.98/-3.5	-3.39/-3.69	-3.99/-3.96	-4.68/-4.61
Θ(45°)	-4.48/-4.16	-2.39/-1.38	-1.2/-1.05	-0.86/-0.17	0.481/15	1.84/-1.62	2.212/94	3.04/0.1	2.722/04	1.060/1	-0.74/-2.02	-4.01/-6.32	-8.92/-9.31	-8.82/-8.61	-8.97/-9.58	-10.03/-9.83	-9.07/-8.02	-7.34/-7.28	-7.1/-7.17	-6.35/-5.05	-3.76/-2.81	-2.37/-2.43	-2.83/-3.15	-3.63/-4.04
Θ(52.5°)	-6.04/-5.64	-4.08/-2.78	-2.51/-2.51	-1.93/-0.91	0.24/-1.19	2.112/6	2.963/24	3.423/34	2.992/19	1.130/19	-0.54/-1.68	-3.29/-4.5	-4.61/-4.27	-4.2/-4.89	-6.15/-7.94	-9.79/-10.74	-10.45/-9.66	-9.17/-9.18	-9.56/-8.94	-7.66/-6.17	-4.59/-3.15	-2.3/-2.36	-3.03/-3.27	-3.73/-3.9
Θ(60°)	-4.42/-5.16	-3.79/-2.07	-1.34/-1.28	-0.80/-15	1.151/86	2.352/67	2.743/06	3.323/23	2.791/92	0.75/-0.04	-0.33/-0.88	-1.8/-2.18	-2.11/-1.85	-1.88/-2.66	-4.12/-5.71	-7.33/-8.95	-10.27/-11.43	-11.52/-11.93	-9.53/-8.67	-6.74/-5.57	-4.73/-3.35	-1.95/-1.44	-2.07/-2.63	-2.71/-2.82
Θ(67.5°)	-3.74/-4.41	-3.63/-2.25	-1.65/-1.33	-0.95/-0.08	0.981/71	2.162/51	2.672/81	2.852/86	2.51/-61	0.550/06	0.130/07	-0.2/-0.38	-0.42/-0.44	-0.83/-1.78	-3.12/-4.59	-6.43/-9.51	-12.26/-13.24	-12.14/-11.05	-10.31/-9.14	-8.02/-6.31	-5.43/-3.66	-2.5/-1.23	-1.8/-3.1	-3.22/-3.53
Θ(75°)	-4.8/-4.65	-3.51/-2.17	-0.740/36	0.88/-15	2.312/84	2.99/3	2.663/14	3.123/1	2.98/2.5	1.430/48	0.60/75	0.39/-0.13	-0.36/-0.25	-0.5/-1.4	-2.52/-3.65	-5.72/-7.7	-7.65/-6.94	-6.26/-5.85	-5.47/-5.55	-6.43/-6.42	-5.24/-4.48	-3.82/-2.71	-2.34/-3.12	-4.28/-4.53
Θ(82.5°)	-2.5/-1.88	-0.82/-0.01	0.450/86	1.368/71	1.922/19	2.232/32	2.432/24	1.932	2.251/81	0.48/-0.52	-0.15/-0.13	-1.16/-2.25	-2.25/-2.08	-2.9/-1.6	-4.91/-5.04	-4.4/-3.98	-2.62/-2.26	-2.47/-2.19	-1.4/-0.82	-1.11/-1.72	-1.48/-1.1	-1.22/-1.43	-1.17/-1.32	-1.86/-2.88
Θ(90°)	-4.75/-4.22	-3.09/-2.85	-3.13/-2.28	-1.080/03	0.190/54	0.790/8	1.081/58	1.471/65	2.192/03	0.830/12	0.750/61	-0.77/-1.53	-1.17/-1.33	-2.53/-3.64	-2.98/-2.38	-2.07/-1.02	-0.04/-0.08	-0.51/-0.58	-0.010/92	1.5/1.3	0.850/58	0.14/-0.6	-0.98/-1.82	-3.51/-4.1
Θ(97.5°)	-8.36/-7.36	-5.82/-5.61	-6.17/-5.11	-2.19/-0.12	0.490/44	0.330/45	0.80/99	0.820/95	1.431/21	-0.04/-0.43	0.33/-0.09	-1.38/-1.17	-0.35/-0.99	-2.81/-3.14	-1.95/-2.31	-2.72/-1.58	-0.83/-1.21	-1.59/-1.26	-0.17/-1.54	2.662/2.97	2.772/7.1	1.920/7.4	-0.28/-1.85	-4.4/-7.78
Θ(105°)	-18.56/-17.68	-14.67/-9.54	-8.62/-10.7	-6.08/-2.31	-0.97/-1.02	-1.5/-1.82	-1.91/-1.54	-1.49/-0.8	0.0/-0.4	-1.36/-1.85	-0.5/-0.24	-0.74/-0.27	0.18/-0.71	-2.43/-2.31	-1.97/-3.27	-2.99/-0.93	-0.6/-1.68	-2.58/-2.29	-0.85/-1	2.032/4	2.552/82	1.71/-0.35	-1.23/-1.91	-4.62/-10
Θ(112.5°)	-3.57/-2.78	-8.46/-4.27	-3.2/-5.26	-6.47/-3.26	-1.28/-1.12	-1.8/-2.82	-3.82/-4.36	-3.19/-2.64	-2.03/-3.04	-5.71/-4.99	-2.36/-1.79	-2.09/-1.91	-2.08/-3.67	-5.11/-4.63	-5.51/-6.84	-2.370/67	1.020/11	-0.34/-0.23	0.351/54	2.482/29	2.01/-0.24	-1.87/-1.75	-1.87/-2.43	
Θ(120°)	-1.86/-4.36	-7.81/-5.56	-3.8/-5.43	-9.5/-8.97	-6.13/-5.46	-6.05/-6.64	-6.82/-5.65	-4.28/-3.67	-4.48/-6.86	-6.3/-3.4	-1.37/-1.68	-3.16/-4.44	-5.8/-7.75	-9.26/-11.78	-14.29/-6.99	-1.80/62	0.950/57	0.530/66	0.460/93	1.41/-1.16	0.590/92	1.09/-0.19	-2.37/-2.01	-0.99/-0.54
Θ(127.5°)	-0.23/-1.01	-0.32/-3.95	-3.13/-3.67	-6.19/-10.16	-11.32/-8.95	-6.43/-4.63	-4.01/-3.99	-1.59/-2.24	-3.78/-4.9	-3.44/-1.53	-1.15/-2.34	-4.04/-4.05	-3.33/-3.56	-5.17/-7.4	-5.79/-2.22	0.16/-16	1.060/9	1.31/59	1.371/28	1.470/94	-0.22/-1.22	-0.97/-1.45	-3.08/-3.71	-2.15/-106
Θ(135°)	-0.87/-0.4	-1.26/-2.41	-2.72/-3.1	-4.46/-6.79	-8.78/-8.37	-6.56/-5.04	-3.12/-4.44	-3.22/-3.97	-5.23/-4.86	-4.56/-3.94	-4.52/-6.22	-6.9/-4.92	-3.33/-3.53	-5.71/-7.57	-5.83/-3.24	-1.33/-0.74	-0.65/-0.65	0.0/76	0.850/85	1.010/64	-0.42/-2.22	-2.32/-2.53	-2.93/-3.76	-3.07/-1.77
Θ(142.5°)	-3.25/-2.79	-3.27/-4.35	-5.21/-5.8	-6.35/-6.99	-7.81/-8.26	-7.79/-7.22	-6.94/-7.03	-7.33/-7.6	-7.52/-6.86	-6.45/-6.85	-7.62/-7.27	-5.49/-4.13	-3.88/-5.11	-7.06/-7.09	-5.53/-4.67	-4.6/-4.94	-5.45/-5.15	-3.9/-2.61	-1.96/-1.85	-1.87/-2.07	-3.23/-5.08	-5.97/-5.56	-5.38/-5.79	-5.71/-4.84
Θ(150°)	-4.39/-4.03	-4.03/-4.49	-5.02/-5.58	-5.84/-5.87	-5.84/-6.12	-6.53/-7.05	-7.63/-7.9	-7.73/-7.25	-6.64/-5.93	-5.41/-5.22	-5.07/-4.57	-3.92/-3.5	-3.61/-4.39	-4.93/-4.7	-3.9/-3.49	-3.96/-4.84	-5.59/-5.42	-4.61/-4.5	-4.85/-5.02	-5.08/-5.28	-6.15/-8.32	-10.61/-10.86	-6.02/-7.36	-5.88/-4.81
Θ(157.5°)	-3.4/-3.29	-3.44/-3.71	-4.17/-4.54	-4.88/-4.77	-4.59/-4.55	-4.47/-4.78	-5.14/-5.36	-6.15/-4.7	-4.38/-4.18	-4.05/-3.95	-3.98/-4.01	-4.09/-4.03	-4.14/-35	-4.41/-4.33	-4.04/-3.79	-3.89/-4.1	-4.28/-4.08	-3.58/-3.26	-3.24/-3.67	-3.75/-4.1	-4.58/-5.52	-6.82/-7.66	-7.17/-5.91	-4.57/-4.17
Θ(165°)	-4.17/-4	-3.85/-4.17	-4.51/-4.81	-5.04/-5.16	-5.14/-4.96	-4.73/-4.66	-4.85/-5.06	-5.19/-5.09	-5.08/-5.22	-5.34/-5.64	-5.91/-6.24	-6.69/-7.06	-7.23/-7.32	-7.1/-6.84	-6.74/-6.55	-6.32/-5.98	-5.15/-4.48	-3.95/-3.71	-3.75/-4.09	-4.53/-4.94	-5.34/-5.63	-5.64/-5.33	-4.82/-4.4	
Θ(172.5°)	-6.23/-6.08	-6.11/-6.54	-7.12/-7.79	-8.27/-8.34	-8.41/-8.44	-8.19/-8.19	-8.29/-8.58	-9.12/-9.84	-10.53/-10.94	-11.36/-12.02	-12.82/-13.55	-14.27/-14.71	-15.2/-15.49	-15.17/-14.97	-14.95/-14.49	-13.3/-11.72	-10.27/-9.19	-8.29/-7.3	-6.45/-5.84	-5.55/-5.44	-5.93/-6.18	-6.23/-6.31	-6.5/-6.8	-6.71/-6.85
Θ(180°)	-11.51/-11.15	-11.28/-11.91	-12.57/-13.31	-14.53/-16.22	-18/-17.57	-18.89/-19.16	-18.43/-19.02	-17.18/-18.33	-19.14/-17.38	-16.38/-15.71	-14.9/-14.63	-14.85/-15.18	-15.44/-16.16	-16.38/-16.67	-16.52/-16.45	-16.88/-18.24	-18.41/-16.88	-15.51/-14.91	-14.31/-13.21	-12.23/-11.59	-10.84/-11.65	-11.87/-11.79	-12.13/-12.59	-12.82/-12.27
Freq(Hz)	5.2GPol.	PhiAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-6.31/-7	-6.64/-7.3	-7.36/-8.1	-10.95/-13.42	-14.93/-14.17	-19.51/-13.3	-19.39/-9.02	-8.65/-9.98	-9.06/-9.24	-9.62/-9.05	-9.16/-8.92	-8.62/-9.05	-9.37/-7.66	-11.89/-13.72	-12.59/-13.32	-11.89/-13.7	-8.54/-8.14	-6.15/-6.59	-5.4/-4	-4.51/-4.1				
Θ(7.5°)	-6.84/-6.38	-5.72/-5.52	-5.41/-5.84	-6.66/-7.65	-8.32/-9.02	-10.71/-11.91	-13.14/-12.77	-10.86/-8.55	-7.35/-6.78	-6.14/-5.7	-5.2/-5.11	-5.33/-5.54	-6.18/-7.37	-8.41/-9.12	-9.75/-10.81	-13.12/-13.43	-13.4/-12.49	-12.78/-12.48	-11.4/-11.15	-9.87/-9.41	-8.91/-8.8	-9.16/-8.9	-8.24/-7.32	-6.12/-5.74
Θ(15°)	-6.93/-6.35	-5.61/-5.28	-4.78/-5.42	-6.38/-7.19	-9.34/-10.02	-11.54/-16.92	-19/-17.7	-12.49/-8.97	-6.7/-5.76	-5.08/-4.75	-4.42/-4.14	-3.97/-4.19	-4.71/-5.73	-7.01/-7.66	-7.65/-8.18	-9.67/-12.5	-16.65/-15.59	-13.87/-12.84	-12.86/-12.86	-11.54/-11.48	-12.26/-12.11	-12.14/-10.41	-9.15/-8.59	-7.67/-6.44
Θ(22.5°)	-6.24/-7.39	-8.27/-8.23	-8.65/-10	-11.31/-11.77	-14.94/-16.73	-18.32/-18.8	-16.79/-13.63	-11.39/-8.37	-6.02/-4.77	-4.45/-4.57	-4.83/-4.96	-5.69/-6.26	-6.54/-6.85	-6.94/-7.84	-9.16/-12.08	-16.74/-17.22	-17.77/-17.85	-13.7/-9.66	-7.98/-7.26	-7.03/-7.34	-7.64/-7.41	-6.88/-6	-5.26/-5.48	
Θ(30°)	-4.53/-5.05	-6/-7.75	-8.85/-10.31	-12.82/-15.75	-17.39/-17.7	-13.21/-9.62	-8.36/-6.88	-8.96/-8.25	-7.12/-6.42	-6.97/-8.48	-9.74/-9.46	-8.78/-8.14	-8.02/-7.09	-5.98/-4.87	-4.77/-5.8	-7.33/-10.25	-15.9/-18.28	-16.52/-16.91	-18.24/-14.72	-10.32/-7.05	-5.11/-4.18	-3.87/-3.33	-3.61/-3.84	-5.48/-5.09
Θ(37.5°)	-7.14/-6.19	-6.98/-7.83	-6.4/-5.78	-5.51/-5.55	-6.54/-6.84	-10.65/-9.92	-8.76/-9.36	-11.89/-13.97	-13.46/-11.76	-11.12/-11.31	-10.32/-8.6	-6.79/-6.09	-6.52/-5.83	-5.2/-5.44	-5.26/-4.75	-5.46/-6.32	-14.24/-17.3	-17.98/-13.59	-14.12/-18.12	-14.17/-9.66	-6.94/-5.73	-5.51/-5.51	-5.02/-5.09	-5.29/-5.33
Θ(45°)	-7.21/-6.92	-5.97/-6.15	-5.97/-5.45	-5.44/-6.18	-7.61/-9.9	-11.02/-10.9	-11.96/-16.31	-17.87/-14.74	-11.54/-13.83	-18.78/-17.46	-16.39/-15.43	-11.63/-10.21	-9.87/-6.58	-7.35/-8.95	-8.25/-9.04	-10.77/-9.75	-8.95/-9.79	-9.86/-9.44	-10.67/-12.48	-17.81/-17.62	-12.31/-8.94	-6.27/-6.36	-3.38/-4.79	-6.47/-5.67
Θ(52.5°)	-10.79/-6.69	-5.67/-4.76	-4.53/-4.88	-7.72/-8.22	-8.46/-11.81	-16.94/-17.95	-18.32/-11.93	-6.64/-4.89	-5.39/-7.84	-6.57/-8.37	-7.88/-6.53	-5.51/-4.89	-5.14/-5.01	-7.37/-7.42	-7.64/-9.72	-14.45/-18.51	-16.44/-10.68	-11.48/-16.95	-17.93/-18.94	-12.32/-9.15	-8.43/-9.48	-7.73/-6.93	-7.12/-10.69	
Θ(60°)	-7.68/-6.54	-4.91/-5.99	-6.32/-6.75	-7.47/-9.57	-11.39/-17.59	-18.78/-15.51	-11.66/-10.02	-7.54/-5.92	-7.11/-6.43	-3.81/-3.82	-5.94/-9.1	-9.51/-11	-5.87/-4.87	-5.63/-7.16	-5.82/-6.73	-12.35/-16.56	-18.5/-17.13	-17.86/-18.78	-18.48/-15.59	-18.86/-17.66	-9.7/-8.21	-6.2/-5.42	-5.3/-6.32	-8.18/-6.6
Θ(67.5°)	-6.92/-6.23	-5.11/-5.66	-7.21/-10.19	-11.97/-11.98	-12.82/-13.71	-11.89/-10.46	-9.27/-8.8	-6.65/-6.72	-8.47/-7.76	-6.71/-8.89	-10.31/-11.41													



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(60°)	-4.25/-4.45	-3.78/-2.5	-0.790/-22	1.191/-31	1.832/-31	2.392/-42	1.670/-84	0.620/-94	0.780/-43	-0.59/-3.33	-5.7/-5.68	-3.03/-1.46	-0.43/-1.17	-2.17/-3.59	-5.54/-8.88	-18.79/-18.69	-14.61/-9.33	-6.62/-5.44	-7.8/-10.28	-13.21/-12.63	-6.96/-6.4	-4.29/-3.77	-4.98/-5.13	-4.41/-4.13
Θ(67.5°)	-4.22/-3.86	-3.55/-2.75	-1.21/-0.51	-0.340/-28	1.592/-36	2.742/-83	2.862/-68	2.3/-93	0.84/-1.02	-0.57/-2.98	-3.94/-6.4	-0.29/-0.26	0.03/-2.54	-2.86/-2.15	-3.18/-6.75	-10.28/-15.42	-14.75/-10.37	-11.67/-13.62	-12.19/-14.39	-12.79/-10.09	-4.41/-2.97	-3.1/-2.82	-3.33/-6.36	-6.92/-5.04
Θ(75°)	-4.36/-3.91	-3.18/-2.3	-2.2/-1.62	-1.49/-1.47	0.43/-29	1.892/-5	1.991/-44	1.271/-39	0.66/-0.71	-4.29/-7.4	-8.32/-4.33	1.892/-67	2.63/-2.5	-1.2/-2.17	-1.89/-5.03	-12.33/-15.21	-12.91/-12.4	-15.17/-6.42	-4.4/-3.19	-8.92/-7.7	-2.13/-1.88	-3.53/-6.21	-1.75/-1.69	-7.91/-6.69
Θ(82.5°)	-1.56/-0.43	-0.89/-1.74	-1.93/-1.94	-1.61/-0.03	1.782/-93	3.172/-1	0.350/-16	0.221/-1	-0.28/-2.43	-7.45/-12.77	-6.53/-3.12	2.81/-86	2.23/-2.28	0.631/-3	1.22/-1.66	-9.89/-10.73	-10.61/-11.12	-3.75/-0.05	0.430/-39	-0.08/-1.84	-3.16/-4.75	-2.96/-1.07	-0.78/-4.4	-4.02/-4.07
Θ(90°)	-0.070/-85	-0.56/-1.59	-3.14/-2.71	-4.04/-2.26	-0.85/-1.47	1.871/-86	0.960/-23	0.721/-1	0.47/-1.98	-5.94/-18.28	-9.46/-6.17	0.571/-44	0.66/-0.85	1.242/-61	2.99/-0.41	-10.04/-13.1	-8.91/-7.81	-0.97/-1.72	2.472/-93	1.310/-14	-1.22/-3.46	-6.17/-3.24	0.05/-7.3	-0.490/-66
Θ(97.5°)	0.141/-18	-2/-4.6	-8.32/-4.21	-5.85/-2.83	-3.34/-1.86	-1.51/-2.42	-3/-2.11	-0.240/-44	-7.67/-18.05	-7.2/-5.37	0.180/-96	0.77/-1.56	1.483/-7.6	2.78/-0.31	-12.78/-8.5	-1.58/-2.19	-0.851/-31	1.842/-24	1.761/-57	0.32/-2.83	-1.24/-5.51	-2.64/-2.72	-1.75/-1.34	-0.880/-96
Θ(105°)	-3/-1.04	-5.26/-4.59	-6.67/-4.13	-5.94/-3.87	-3.64/-3	-3.34/-5.17	-7.2/-6.64	-3.49/-2.21	-1.27/-3.1	-10.43/-11.83	-5.97/-5.39	-0.24/-1.02	-0.2/-2.16	1.222/-22	2.48/-2.82	-12.43/-5.22	-2.05/-3.2	2.572/-66	0.261/-0.4	1.732/-41	0.95/-2.23	-3.73/-1.12	-1.89/-4.33	-3.5/-0.46
Θ(112.5°)	-6.86/-7.46	-7.44/-6.09	-5.6/-4.08	-6.26/-6.02	-3.55/-3.45	-1.8/-3.13	-5.99/-7.8	-4.86/-2.16	-2.7/-5.3	-14.63/-7.42	-4.03/-6.14	-1.26/-0.06	-3.69/-4.07	-1.08/-0.14	1.64/-4.82	-18.82/-2.63	-3.63/-0.86	3.171/-46	0.132/-11	2.581/-91	0.32/-2.83	-4.78/-0.95	-6.34/-6	-6.98/-8
Θ(120°)	-6.15/-6.73	-7.8/-11.61	-7.53/-8.14	-6.19/-8.15	-6.34/-5.66	-7.37/-9.2	-16.42/-11.32	-6.06/-4.2	-4.66/-10.52	-11.92/-7.06	-7.76/-6.11	-2.39/-1.93	-6.3/-7.24	-2.11/-2.3	1.04/-3.93	-8.05/-1.47	-5.970/-36	3.471/-1	-2.180/-26	3.24/-138	0.78/-7.8	-3.671/-34	-0.75/-10.25	-4.77/-8.72
Θ(127.5°)	-7.03/-4.81	-9.59/-6.47	-9.73/-9.57	-12.89/-13.13	-14.87/-9.8	-8.13/-10.77	-14.64/-18.06	-12.65/-8.85	-11.55/-14.1	-16.99/-14.29	-15.43/-9.15	-8.23/-4.45	-13.66/-5.93	-9.39/-2.25	-5.8/-2.48	-4.05/-1.61	4.971/-63	2.07/-1.06	-3.64/-1.25	2.270/-74	-0.45/-10.78	-4.73/-0.57	0.63/-5.07	-2.5/-1.87
Θ(135°)	-9.98/-9.5	-7.34/-13.13	-10.2/-10.59	-10.84/-12.38	-11.46/-15.72	-11.69/-9.79	-13.6/-18.5	-17.41/-17.89	-17.13/-16.03	-15.27/-18.21	-18.67/-13.35	-14.17/-13.3	-18.13/-17.61	-12.76/-9.88	-13.84/-8.24	-8.31/-13.13	-3.170/-98	1.05/-2.12	-8.43/-6.06	-1.850/-0.8	-1.7/-3.92	-7.08/-2.56	-2.7/-7.64	-4.23/-3.68
Θ(142.5°)	-13.01/-10.93	-10.28/-16.5	-15.06/-12.74	-12.24/-11.93	-12.47/-15.45	-11.84/-12.79	-16.96/-18.67	-18.73/-19.09	-13.89/-9.31	-9.3/-8.76	-8.31/-12.66	-12.63/-12.83	-19.09/-13.43	-7.22/-8.62	-4.78/-7.27	-6.33/-7.67	-3.67/-0.26	-1.294/-6.8	-8.71/-7.54	-7.21/-2.94	-2.74/-5.51	-5.58/-4.43	-12.63/-14.66	-7.59/-15.52
Θ(150°)	-6.05/-6.09	-6.98/-8.87	-11.06/-16.7	-18.36/-17.88	-17.36/-18.74	-18.48/-14.23	-11.09/-10.4	-11.01/-12.34	-14.25/-15.82	-19.12/-18.61	-18.09/-12.05	-9.32/-9.39	-6.4/-5.11	-6.61/-8.91	-11.28/-11.73	-7.61/-6.65	-7.65/-9.66	-12.1/-11.35	-10.98/-11.37	-15.61/-8.02	-5.14/-6.8	-7.57/-8.82	-11.25/-14.06	-13.11/-7.86
Θ(157.5°)	-13.35/-14.82	-15.61/-18.35	-19.35/-23.19	-17.93/-17.77	-17.6/-18.53	-18.54/-15.4	-9.02/-9.67	-12.24/-14.18	-15.91/-19.07	-16.8/-10.9	-10.39/-8.95	-8.52/-9.37	-12/-12.65	-10.32/-7.38	-5.85/-6.22	-8.95/-18.72	-13.32/-14.86	-18.78/-18.14	-14.13/-10.52	-7.49/-8.88	-7/-6.41	-7.71/-10.41	-11.35/-13.51	
Θ(165°)	-7.72/-8.27	-7.92/-10.35	-14.11/-18.51	-17.27/-17.75	-17.9/-18.1	-18.82/-14.45	-12.75/-12.8	-13.11/-14.32	-14.98/-16.16	-19.55/-17.81	-18.36/-18.02	-18.48/-14.75	-11.49/-9.24	-7.99/-7.39	-7.53/-9.93	-8.52/-9.11	-10.23/-11.41	-12.5/-11.92	-12.77/-14.59	-17.99/-10.93	-19.14/-10.04	-10.24/-8.69	-8.72/-9.63	-9.61/-8.23
Θ(172.5°)	-18.4/-19.33	-17.29/-18.1	-17.04/-18.81	-18.62/-17.39	-14.51/-13.41	-14/-14.02	-16.23/-18	-18.27/-16.17	-13.95/-13.47	-13.48/-13.86	-15.31/-16.13	-16.7/-16.13	-15.17/-14.44	-14.05/-14.38	-13.64/-11.84	-10.52/-9.68	-9.68/-10.06	-10.45/-10.36	-9.67/-10.02	-10.26/-11.85	-13.72/-16.61	-19.25/-18.31	-16.54/-17.12	-18.93/-18.72
Θ(180°)	-15.44/-16.91	-16.59/-16.63	-18.75/-17.92	-17.83/-18.82	-19.26/-19.25	-18.45/-18.13	-17.45/-18.02	-17.47/-15.05	-13.42/-12.43	-12.46/-11.98	-12.09/-12.58	-12.98/-13.96	-14.15/-14.05	-13.26/-12.48	-11.98/-12.02	-12.65/-13.72	-14.94/-16.47	-18.2/-17.61	-17.34/-15.08	-14.04/-13.49	-11.93/-11.9	-11.09/-12.03	-12.66/-12.24	-13.38/-16.64
Freq(Hz)	5.6GPol	PhiAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-18.24/-18.56	-14.53/-13.17	-12.54/-13.17	-13.67/-14.36	-13.89/-14.85	-15.33/-14.68	-15.75/-16.53	-16.2/-15.43	-14.66/-14.67	-14.2/-13.95	-13.67/-12.92	-12.3/-11.86	-11.49/-11.97	-13.27/-12.44	-14.2/-13.2	-11.39/-10.95	-11.06/-12.39	-13.1/-14.61	-13.67/-15.22	-16.69/-17.27	-18.58/-18.92	-18.34/-18.77	-18.89/-17.62	-18.79/-17.59
Θ(7.5°)	-11.09/-10.25	-10.59/-12.04	-16.12/-18.72	-12.89/-19.18	-17.89/-19.03	-17.74/-18.15	-19.01/-19.28	-18.73/-19.93	-17.51/-17.77	-18.26/-17.24	-13.98/-11.66	-9.72/-8.34	-7.89/-8.47	-9.44/-10.38	-11.32/-11.15	-10.61/-11.17	-12.24/-13.66	-14.57/-15.19	-13.92/-13.22	-12.43/-13.21	-12.73/-12.52	-10.73/-12.58	-15.18/-16.52	-15.49/-15.05
Θ(15°)	-10.84/-9.88	-8.83/-10.48	-12.76/-13.22	-19.21/-19.12	-18.27/-16.81	-18.6/-18.73	-18.78/-18.89	-16.29/-12.94	-11.05/-9.64	-8.68/-7.59	-6.85/-5.81	-5.31/-5.33	-6.1/-7.48	-10.11/-12.77	-14.72/-15.52	-16.86/-18.36	-18.58/-17.83	-17/-14.01	-12.74/-12.02	-11.35/-10.51	-11.69/-12.08	-15.38/-19.01	-18.78/-18.63	-17.81/-14.62
Θ(22.5°)	-8.32/-9.38	-9.23/-8.92	-8.77/-10.27	-16.29/-17.88	-18.41/-18.17	-18.25/-18.22	-14.23/-10.36	-7.42/-5.66	-5.19/-5.16	-5.35/-5.29	-5.04/-5.72	-6.68/-7.78	-8.2/-8.4	-8.61/-9.24	-10.47/-11.53	-12.48/-13.15	-15.24/-17.17	-14.52/-14.83	-15.28/-17.49	-15.8/-15.46	-15.84/-16.38	-16.55/-12.59	-8.47/-7.99	-7.29/-6.81
Θ(30°)	-7.83/-8.29	-6.24/-4.79	-4.43/-4.51	-5.76/-8.59	-10.93/-11.86	-14.03/-15.28	-11.01/-8.39	-7.2/-6.58	-6.59/-6.66	-6.93/-5.97	-5.34/-6.2	-10.78/-11.73	-11.65/-11.14	-10.06/-9.31	-10.04/-12.57	-14.2/-16.16	-18.37/-17.76	-18.55/-18.95	-18.54/-16.58	-14.23/-10.58	-8.92/-5.11	-4.61/-4.18		
Θ(37.5°)	-5/-4.8	-3.93/-4.21	-4.63/-4.62	-6.31/-8.9	-9.89/-12.76	-18.49/-18.04	-13.18/-12.84	-13.56/-13.96	-12.58/-11.45	-10.99/-10.45	-10.22/-10.96	-9.45/-9.01	-6.74/-8.63	-13.63/-15.83	-14.23/-13.36	-11.83/-11.4	-10.52/-9.65	-11.62/-19.15	-18.06/-19.02	-18.23/-15.56	-15.83/-12.14	-9.1/-5.59	-3.53/-2.84	-3.17/-3.96
Θ(45°)	-4.13/-3.7	-3.59/-3.24	-2.62/-3.12	-4.28/-6.42	-7.73/-9.61	-13.65/-6.12	-15.96/-16.62	-15.86/-12.09	-9.47/-9.02	-10.97/-14.8	-18.52/-17.2	-16.2/-8.42	-5.93/-8.91	-12.95/-18.56	-17.23/-18.55	-9.78/-9.33	-14.57/-19.11	-13.86/-11.77	-14.19/-13.82	-12.04/-11.4	-12.14/-11.69	-9.2/-8.39	-6.05/-4.34	-3.04/-3.5
Θ(52.5°)	-4.06/-5.41	-8.53/-10.95	-7.24/-6.18	-5.51/-5.13	-6.21/-8.41	-10.45/-13.8	-17.99/-18.62	-18.58/-15.89	-11.45/-11.1	-14.9/-18.29	-19.06/-15.77	-7.87/-2.27	-2.25/-4.09	-6.78/-9.65	-18.27/-10.93	-10.92/-8.95	-11.5/-17.13	-15.46/-12.64	-12.93/-12.01	-10.05/-8.33	-6.8/-6.22	-4.45/-3.87	-3.23/-2.5	-2.07/-4.51
Θ(60°)	-5.76/-8.83	-8.14/-10.54	-9.05/-6.31	-5.55/-6.37	-8.8/-10.59	-15.37/-15.07	-13.23/-12.33	-10.49/-8.95	-7.98/-8.71	-10.24/-11.22	-11.58/-10.99	-6.31/-3.59	-2.38/-2.88	-4.13/-3.95	-5.23/-5.08	-6.26/-13.66	-18.11/-18.12	-19/-14.72	-16.38/-18.52	-13.75/-8.32	-6.47/-5.83	-4.86/-4.08	-5.02/-7.24	-6.55/-6.3
Θ(67.5°)	-5.71/-4.7	-5.26/-5.13	-5.31/-5.15	-4.16/-8.45	-10.18/-12.78	-17.99/-10.96	-18.75/-15.21	-12.92/-10.39	-8.48/-6.38	-5.13/-7.15	-12.74/-12.18	-9.82/-4.79	-1.98/-2.28	-4.83/-6.75	-4.53/-3.23	-6.04/-9.63	-18.22/-18.8	-18.99/-14.42	-10.93/-12.04	-13.83/-18.42	-7.29/-5.17	-3.29/-3.25	-4.08/-6.38	-7.71/-6.85
Θ(75°)	-3.02/-2.63	-3.08/-4.12	-5.71/-8.67	-11.62/-13.39	-15.15/-14.76	-15.99/-19.28	-18.91/-14.09	-8.72/-7.77	-10.57/-18.26	-19.15/-18.31	-13.91/-6.45	-4.46/-3.98	-5.75/-4.96	-4.13/-3.51	-3.98/-6.76	-11.75/-15.87	-17.66/-11.63	-7.88/-8.06	-13.8/-16.85	-5.96/-2.94	-2.48/-3.54	-5.18/-4.6	-4.41/-3.19	
Θ(82.5°)	0.15/-0.53	-1.47/-3.06	-6.14/-11.21	-11.93/-14.02	-16.34/-10.85	-11.3/-14.54	-12.91/-10.9	-14.79/-18.22	-11.76/-14.27	-12.91/-16.85	-12.58/-18.66	-13.89/-6.24	-4.34/-4.63	-4.34/-4.17	-3.23/-3.82	-2.51/-2.31	-5.59/-13.3	-18.34/-18.91	-9.01/-7.76	-7.46/-13.24	-12.64/-8.47	-6.14/-3.9	-3.9/-2.78	-1.15/-1.21
Θ(90°)	-2.19/-4.47	-6.18/-10.07	-12.11/-11.03	-9.29/-8.96	-7.62/-8.61	-15.3/-13.24	-8.57/-5.84	-6.17/-5.93	-7.51/-14.45	-15.41/-13.11	-15.05/-12.57	-7.03/-8.27	-1.91/-2.11	-4.91/-3.24	-2.4/-1.09	-0.37/-0.59	-3.38/-7.9	-11.31/-12.16	-8.95/-6.96	-6.15/-8.12	-15.82/-12.66	-8.24/-5.45	-2.18/-1.33	-0.95/-1.48
Θ(97.5°)	-7.05/-8.97	-10.81/-16.63	-18.24/-8.88	-6.53/-7.31	-8.35/-14.14	-10.97/-10.42	-11.42/-10.44	-9.74/-12.68	-16.79/-14.49	-15.01/-16	-10.07/-3.8	-1.8/-8.78	-1.79/-5.08	-2.92/-1.58	-2.96/-3.89	-8.85/-9.61	-15.82/-17.63	-16.82/-13.93	-9.9/-9.12	-8.05/-14.38	-12.39/-8.55	-6.61/-5.08	-4.41/-3.33	
Θ(105°)	-17.44/-12.46	-11.42/-11.33	-13.84/-10.86	-7.93/-9.39	-8.93/-8.05	-13.72/-18.22	-13.79/-15.04	-18.68/-16.29	-15.55/-15.89	-11.06/-11.08	-8.71/-7.19	-3.22/-1.09	0.56/-2.43	-0.66/-2.89	-3.93/-6.67	-6.27/-11.24	-6.08/-14.06	-15/-12.71	-18.62/-19.18	-10.85/-8.31	-8.32/-11.25	-10.7		



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(112.5°)	-1.5/1.35	-0.97/-1.71	-5.34/-8.37	-6.77/-6.35	-4.09/-3.11	-1.81/-1.68	-5.43/-11.47	-11.54/-9.51	-7.73/-10.35	-15.41/-6.11	-2.93/-5	0.27/0.28	1/4.97	0.54/2.46	0.22/-1.86	-10.95/-6.88	-4.98/-2.96	2.64/1.23	-1.35/1.77	1.71/2.67	0.79/-4.6	-4.68/-2.45	-6.16/-3.64	-4.55/-1.93
Θ(120°)	-2.12/-3.24	-5.07/-5.49	-11.08/-8.63	-9.45/-6.14	-7.05/-5.61	-3.88/-2.51	-2.71/-6.02	-13.05/-11.62	-9.33/-12.04	-13.41/-7.11	-6.92/-7.81	-3.31/-2.96	-3.33/-5.2	-1.95/-0.28	0.83/-7.43	-6.89/-3.97	-6.04/-7.1	3.41/7.7	-2.47/2.12	1.97/1.72	-1.04/-6.05	-2.80/7.7	-3.3/-5.16	-1.51/-2.74
Θ(127.5°)	-1.05/-5.58	-5.22/-5.48	-19.14/-14.14	-7.39/-7.48	-5.67/-6.61	-7.81/-10.37	-16.54/-11.18	-10.97/-10.57	-10.84/-8.07	-6.24/-17.96	-8.62/-17.96	-9.31/-11.36	-3.18/-18.18	-3.22/-4.71	-2.53/-8.18	-1.55/-3.51	-17.11/-0.64	3.36/0.43	-5.40/5.8	3.18/2.99	-0.93/-10.72	-3.29/7.1	0.13/-7.77	-9.74/-6.43
Θ(135°)	8.1/-13	-9.71/-9.8	-12.53/-9.56	-9.92/-8.84	-10.22/-15.14	-19.32/-19.11	-15.38/-18.72	-18/-15.43	-12.31/-12.03	-11.54/-17.14	-19/-17.9	-18.03/-11.13	-5.66/-10.89	-9.95/-3.19	-8.21/-7.82	-9.9/-6.52	-17.40/2.5	3.41/-1.09	-9.03/-5.03	-2.72/-0.89	-3.25/-10.65	-4.94/-0.67	-1.39/-2.92	-1.79/-7.95
Θ(142.5°)	-6.77/-8.59	-15.59/-10.81	-8.39/-7.29	-6.47/-7.8	-8.56/-8.07	-9.57/-14.04	-17.06/-17.7	-18.52/-13.65	-9.61/-6.69	-6.17/-7.46	-9.23/-10.48	-14.73/-18.46	-15.51/-16.5	-7.41/-5.9	-8.06/-6.4	-13.09/-5.64	-4.81/-1.88	-1.67/-14.14	-8.21/-7.39	-5.64/-4.88	-4.99/-3.89	-4.41/-3.86	-6.35/-4.77	-3.55/-6.73
Θ(150°)	-12.27/-12.77	-13.69/-15.35	-15.32/-13	-12.48/-13.77	-15.52/-16.58	-15.54/-13.95	-16.02/-18.2	-19.2/-18.54	-15.31/-13.91	-15.49/-17.63	-16.89/-10.82	-9.4/-7.84	-6.27/-7.55	-9.46/-11.88	-14.86/-8.68	-6.77/-9.06	-12.99/-17.14	-14.71/-14.98	-8.56/-7.09	-8.21/-9.3	-11.49/-12.36	-18.53/-18.15	-12.24/-13.97	
Θ(157.5°)	-8.85/-11.69	-13.7/-12.49	-12.23/-13.38	-12.98/-12.46	-11.83/-11.9	-14.05/-17.29	-15.34/-12.37	-12.09/-12.14	-12.17/-12.15	-13.32/-14.06	-14.55/-15.07	-13.33/-11.09	-8.74/-7.98	-10.88/-18.36	-11.68/-8.17	-7.81/-7.95	-10.67/-16.99	-18.81/-15.46	-14.79/-15.2	-15.61/-14.42	-11.58/-10.42	-11.44/-10.51	-10.15/-14.01	-10.84/-8.35
Θ(165°)	-11.48/-12.63	-16.66/-17.88	-17.9/-17.28	-19/-17.93	-18.47/-18.15	-18.79/-17.7	-18.72/-13.54	-11.07/-9.4	-9.14/-9.5	-10.51/-11.89	-11.66/-10.99	-10.78/-11.09	-10.34/-9.5	-8.78/-8.39	-8.67/-9.78	-11.84/-11.6	-9.65/-8.89	-8.86/-10.33	-12.78/-19.21	-17.72/-10.95	-6.39/-4.21	-4.22/-5.71	-8.12/-10.62	-11.71/-11.85
Θ(172.5°)	-12.93/-14.36	-18.77/-18.3	-18.56/-17.52	-19.08/-18.08	-19.32/-15.99	-11.3/-7.81	-5.92/-5.68	-6.58/-7.82	-9.6/-12.1	-16.66/-18.5	-17.58/-18.59	-17.84/-18.21	-19.35/-18.79	-18.29/-18.36	-13.58/-10.49	-8.77/-8.26	-9.09/-11.56	-13.03/-11.94	-10.72/-11.7	-15.09/-18.2	-18.04/-12.35	-9.99/-9.83	-9.83/-8.81	-9.76/-11.46
Θ(180°)	-15.57/-15.8	-15.3/-14.42	-15.38/-18.15	-16.82/-14.08	-12.56/-11.92	-12.14/-11.82	-11.05/-13.66	-18.29/-18.14	-18.08/-16.38	-13.83/-12.25	-11.88/-11.78	-12.41/-13.24	-14.31/-16.56	-18.11/-17.59	-15.73/-13.6	-12.11/-11.75	-12.19/-12.93	-14.96/-17.84	-19.11/-18.13	-17.89/-18.75	-18.65/-17.18	-16.02/-15.12	-14.82/-15.1	-15.07/-14.4
Freq(Hz)	2.450/Pol.	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-11.97/-10.68	-9.47/-8.65	-8.03/-7.33	-6.57/-5.87	-5.5/-5.46	-5.65/-6.11	-6.23/-6.75	-7.51/-8.15	-9.13/-10.55	-12.45/-14.95	-18.26/-18.37	-18.39/-17.77	-14.23/-12.09	-10.58/-9.58	-8.77/-8.08	-7.59/-7.45	-7.29/-7.46	-7.62/-9.32	-9.53/-10.59	-11.01/-11.19	-11.69/-12.19	-12.99/-14.33	-15.4/-15.21	-14.12/-12.98
Θ(7.5°)	-14.2/-13.17	-11.15/-10.21	-9.13/-7.6	-6.62/-5.5	-4.82/-4.55	-4.39/-4.4	-5.74/-6.4	-7.35/-8.56	-10.29/-12.71	-15.79/-18.17	-17.91/-18.07	-15.66/-13.3	-11.71/-10.57	-9.8/-9.2	-8.63/-8.22	-7.96/-7.71	-7.46/-7.16	-7.13/-7.57	-8.52/-9.4	-10.21/-11.21	-12.67/-13.29	-13.31/-13.92	-15.39/-16.37	-17.29/-16.92
Θ(15°)	-26.29/-14.42	-12.75/-11.46	-10.2/-8.95	-7.75/-6.76	-6.14/-5.72	-5.66/-5.69	-5.55/-5.71	-6.29/-7.19	-8.39/-10.07	-12.06/-13.76	-14.35/-13.66	-12.42/-11.41	-10.46/-9.95	-9.61/-9.49	-9.66/-9.64	-9.64/-8.56	-7.71/-6.75	-6.07/-5.89	-6.44/-7.33	-8.39/-9.86	-11.57/-11.61	-10.63/-10.22	-10.55/-11.71	-13.62/-15.97
Θ(22.5°)	-16.83/-17.64	-15.62/-12.89	-10.69/-8.97	-7.6/-6.99	-6.09/-6.44	-6.19/-5.97	-5.66/-5.48	-5.48/-5.87	-6.58/-7.57	-8.59/-9.61	-10.4/-10.69	-10.38/-9.8	-9.36/-9.08	-8.95/-9	-9.41/-9.99	-10.31/-9.79	-8.54/-7.05	-5.88/-5.3	-5.43/-6.17	-7.39/-8.92	-9.81/-8.95	-7.75/-7.29	-7.83/-8.96	-11.12/-14.35
Θ(30°)	-18.2/-18.06	-16.67/-12.88	-10.76/-9.61	-8.99/-8.38	-7.76/-7.27	-7.63/-7.73	-7.79/-7.61	-7.16/-6.76	-6.62/-6.67	-6.86/-7.29	-7.97/-8.85	-9.24/-9.09	-8.86/-8.35	-8.31/-8.4	-8.86/-10.22	-11.79/-14.41	-10.2/-8.53	-6.91/-6.01	-6.07/-6.57	-7.74/-8.29	-7.51/-6.12	-5.28/-5.24	-5.78/-7.04	-9.2/-12.47
Θ(37.5°)	-18.85/-18.84	-14.66/-11.83	-10.67/-10.55	-9.12/-10.12	-9.07/-8.47	-8.68/-9.59	-10.29/-10.05	-8.83/-7.33	-6.62/-6.62	-5.48/-5.8	-6.96/-7.91	-8.97/-9.25	-8.74/-8	-7.51/-7.41	-9.19/-10.23	-11.05/-12.59	-12.41/-10.96	-9.51/-8.61	-8.09/-7.62	-6.76/-5.38	-3.99/-3.35	-3.57/-4.37	-5.44/-7.2	-9.25/-12.32
Θ(45°)	-18.57/-18.15	-16.35/-14.6	-14.88/-14.86	-14.05/-13.07	-11.97/-11.3	-11.27/-11.58	-10.04/-7.97	-6.31/-5.15	-4.5/-4.28	-4.59/-5.23	-6.62/-8.58	-10.77/-12	-11.43/-9.58	-8.32/-7.6	-7.65/-8.57	-10.19/-11.76	-13.14/-13.31	-12.15/-10.72	-8.27/-5.69	-3.6/-2.26	-1.76/-2.03	-3.07/-4.47	-5.8/-7.12	-8.86/-11.9
Θ(52.5°)	-15.62/-18.64	-18.87/-19.17	-18.43/-15.67	-12.09/-11.24	-11.45/-10.73	-9.32/-7.65	-6.02/-6.42	-3.53/-3.09	-3.42/-4.28	-5.34/-5.78	-9.83/-13.49	-19.22/-13.36	-18.91/-13.72	-10.98/-9.48	-8.83/-8.92	-9.48/-10.35	-10.93/-10.54	-9.04/-7.07	-4.77/-8.21	-1.5/-1.05	-1.44/-2.52	-3.81/-4.92	-5.87/-7.4	-9/-11.95
Θ(60°)	-13.81/-15.16	-14.59/-13.27	-10.84/-7.91	-6.37/-6.07	-6.15/-5.99	-4.28/-3.14	-2.62/-1.74	-1.5/-1.54	-2.32/-3.16	-4.69/-6.95	-10.71/-18.79	-13.29/-13.95	-14.11/-13.32	-11.12/-11.09	-11.03/-10.5	-10.4/-10.58	-10.94/-10.33	-8.51/-6.62	-4.38/-2.96	-2.33/-2.58	-3.35/-3.83	-3.68/-3.74	-4.41/-6.07	-8.4/-11.19
Θ(67.5°)	-12.21/-13.43	-11.61/-9.41	-8.32/-6.3	-5.59/-5.97	-6.19/-4.85	-3.29/-1.94	-1/-0.72	-1.05/-1.67	-2.49/-3.58	-4.58/-5.73	-7.96/-11.65	-12.67/-10	-8.3/-7.91	-8.33/-9.1	-10.03/-10.44	-10.46/-10.68	-11.04/-11.23	-10.32/-8.43	-6.69/-5.68	-5.08/-4.61	-3.85/-2.84	-2.23/-2.41	-3.29/-5.09	-7/-10.19
Θ(75°)	-12.13/-12.77	-11.06/-8.13	-6.21/-5.18	-4.84/-4.85	-4.55/-4.53	-2.04/-1.02	-0.65/-0.27	-0.02/-1	-2.87/-5.63	-8.58/-10.26	-11.2/-13.96	-16.49/-13.15	-13.14/-10.23	-9.76/-8.73	-8.97/-9.34	-9.37/-9.39	-8.75/-9.39	-12.53/-12.77	-12.14/-10.23	-8.05/-8.92	-4.25/-3.19	-2.95/-3.38	-4.15/-5.27	-6.85/-9.14
Θ(82.5°)	-10.34/-11.55	-10.99/-8.13	-6.29/-5.21	-4.68/-3.89	-2.75/-1.34	-0.27/-0.39	0.66/0.55	0.11/-0.8	-2.42/-5.26	-8.74/-12.74	-16.97/-18.94	-17.13/-14.42	-12.68/-10.25	-7.74/-6.42	-6.66/-8.1	-9.22/-8.45	-7.05/-6.54	-7.35/-9.35	-11.13/-11.13	-9.18/-7.01	-5.28/-4.31	-4.12/-4.82	-6.3/-8.49	-8.85/-9.69
Θ(90°)	-8.09/-8.2	-8.12/-7.28	-5.94/-5.01	-4.38/-3.32	-1.92/-0.78	-0.23/-0.57	-1.02/-1.36	-2.36/-4.18	-7.1/-12.22	-18.76/-19.09	-19.13/-17.88	-17.49/-15.5	-13.5/-10.36	-7.35/-5.81	-5.59/-6.69	-8.36/-7.88	-6.91/-6.18	-6.27/-7.43	-8.24/-8.08	-6.93/-5.99	-4.42/-3.62	-3.39/-5.25	-7.33/-8.76	-9.08/-8.58
Θ(97.5°)	-8.03/-7.8	-7.21/-5.98	-4.44/-3.24	-2.4/-1.46	-0.54/-0.11	-0.14/-1	-2.29/-3.59	-4.69/-7.59	-7.51/-14.34	-12.74/-12.47	-17.37/-17.4	-18.05/-16.99	-14.21/-11.59	-9.71/-9.93	-7.16/-6.9	-7.08/-7.36	-7.31/-7.06	-6.54/-5.69	-4.83/-4.28	-3.98/-3.94	-4.17/-4.8	-5.95/-6.71	-6.36/-6.23	-6.78/-7.88
Θ(105°)	-11.59/-11.74	-10.74/-8.57	-6.11/-4.36	-3.95/-2.81	-2.3/-2.17	-2.53/-3.19	-3.77/-3.82	-4.19/-4.97	-6.36/-8.3	-10.45/-11.88	-12.91/-14.74	-16.58/-16.66	-15.35/-13.96	-11.01/-9.91	-7.42/-6.77	-6.98/-7.26	-6.69/-5.67	-5.53/-3.84	-3.57/-3.69	-4.34/-5.9	-8.18/-9.76	-9.55/-7.97	-7.03/-7.47	-9.16/-10.98
Θ(112.5°)	-18.37/-16.82	-14.53/-12.64	-10.14/-9.03	-9/-9.39	-9.44/-9.43	-8.6/-7.12	-5.28/-3.59	-2.49/-2.49	-3.91/-6.28	-7.73/-8.19	-9.87/-13.02	-16.48/-18.61	-16.07/-12.05	-9.09/-7.06	-5.75/-5.43	-5.99/-6.77	-6.55/-5.44	-4.52/-4.28	-4.82/-6.24	-8.52/-11.44	-14.11/-16.21	-16.42/-14.94	-15.04/-17.41	-17.6/-17.98
Θ(120°)	-12.01/-9.27	-7.87/-7.64	-7.44/-7.83	-9.8/-13.69	-17.87/-16.27	-11.73/-8.11	-5.82/-4.46	-4.14/-4.44	-5.96/-7.23	-6.08/-5.1	-5.75/-9.15	-14.87/-17.93	-15.04/-11.57	-9.22/-4.99	-5.86/-4.74	-4.46/-4.9	-5.38/-5.01	-4.23/-4.13	-5.16/-5.46	-7.07/-6.61	-6.71/-8.4	-11.2/-12.98	-13.83/-15.39	-16.21/-14.44
Θ(127.5°)	-12.78/-9.94	-8.3/-7.86	-7.95/-8.71	-11.15/-13	-17.71/-14.24	-10.66/-8.08	-6.13/-5.13	-5.58/-7.15	-7.63/-5.24	-3.05/-2.48	-3.49/-6.17	-10.17/-12.72	-13.46/-12.14	-10.43/-8.61	-6.14/-4.23	-3.42/-3.46	-3.91/-4.36	-4.68/-5.03	-5.16/-4.45	-3.42/-2.91	-3.61/-6.39	-12.45/-19.21	-15.81/-13.62	-12.93/-13.94
Θ(135°)	-17.95/-16.42	-12.22/-10.58	-9.87/-10.2	-12.63/-19.24	-18.15/-17.3	-16.81/-17.84	-16.41/-14	-12.09/-9.32	-5.89/-3.09	-1.46/-1.46	-2.48/-5.05	-8.52/-11.84	-14.81/-17.72	-17.13/-13.99	-9.63/-6.87	-5.03/-4.19	-3.91/-3.97	-4.1/-3.88	-3.27/-2.53	-2.09/-2.33	-3.99/-8.1	-16.64/-13.54	-9.55/-8.64	-9.66/-12.7
Θ(142.5°)	-18.03/-18.75	-14.45/-11.83	-10.95/-11.08	-13.11/-17.79	-18.13/-13.51	-10.82/-9.89	-9.55/-8.48	-9.04/-6.95	-4.24/-2.25	-1.28/-1.5	-3.13/-6.1	-10.22/-14.49	-16.85/-17.07	-16.41/-14.71	-12.07/-9.79	-8.14/-6.9	-6.23/-5.89	-5.82/-5.23	-4.82/-4.54	-4.66/-5.41	-7.17/-9.25	-8.94/-7.16	-6.26/-6.91	-9.01/-13.78
Θ(150°)	-19.12/-18.88	-13.13/-10.84	-9.79/-9.58	-10.92/-15.54	-19.07/-13.03	-8.75/-6.64	-6.51/-5.03	-5.11/-5.32	-4.39/-3.4	-2.93/-3.31	-4.55/-7.59	-11.53/-15.2	-15.89/-14.86	-14.48/-12.9	-11.99/-10.85	-9.77/-8.78	-7.81/-7.3	-6.74/-6.68	-6.43/-5.86	-5.14/-4.43	-4.12/-4.24	-4.85/-6.48	-9.75/-15.94	
Θ(157.5°)	-17.47/-15.57	-12.18/-10.15	-9.69/-9.77	-11.02/-14.43	-17.82/-17.01	-10.84/-8.04	-6.21/-5.36	-5.21/-5.28	-4.99/-4.61	-4.61/-5.1	-6.28/-8.14	-12.94/-13.12	-13.14/-13.12	-13.34/-13.73	-17.18/-12.57	-10.69/-9.09	-8.14/-7.23	-6.05/-4.93	-4.06/-3.48	-3.21/-3.37	-4/-5.1			



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ(165°)	-18.2U/-13.6	-10.13/8.68	-8.06/-8.2	-9.02/-9.64	-10.97/-11.61	-12.06/-13.81	-16.23/-18.11	-17.9/-18.58	-14.12/-9.41	-5.92/-3.58	-2.16/-1.17	-0.66/-0.78	-1.3/-2.05	-2.75/-3.32	-3.68/-4.14	-4.41/-5.48	-7.79/-10.9	-13.78/-17.32	-17.18/-17.01	-12.27/-9.74	-8.23/-8.86	-9.58/-11.25	-11.22/-10.35	-11.8/-16.37
Θ(172.5°)	-3.97/-3.05	-2.63/-3.79	-5.39/-7.34	-8.85/-9.01	-9.22/-9.14	-8.92/-9.59	-9.79/-9.69	-10.98/-13.32	-17.03/-19.76	-14.71/-10.18	-7.77/-6.7	-6.74/-7.14	-7.84/-8.15	-7.95/-7.46	-7.17/-7.23	-8.05/-9.22	-11.7/-14.28	-17.08/-17.62	-19.07/-16.33	-11.44/-8.96	-8.99/-9.23	-10.55/-13.57	-19.04/-19.2	-16.26/-7.69
Θ(180°)	-9.35/-9.36	-8.7/-9.8	-11.95/-11.8	-10.1/-10.45	-9.84/-10.72	-10.56/-4.53	-9.87/-8.63	-8.24/-8.28	-7.81/-7.62	-8.51/-9.71	-11.22/-11.52	-14.22/-11.03	-10.68/-10.36	-9.8/-9.61	-8.91/-8.84	-8.68/-8.09	-7.71/-9.88	-8.81/-10.24	-9.98/-16.12	-6.72/-6.62	-8.9/-8.45	-10.60/-11.5	-18.36/-18.91	-12.59/-11.75
Freq(Hz)	5.3GPol	Phi/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-13.53/-12.74	-10.34/-9.25	-8.76/-9.05	-10.28/-10.69	-9.77/-8.63	-7.11/-7.73	-8.06/-8.5	-8.11/-7.86	-8.31/-9.34	-10.43/-11.62	-10.96/-11.06	-11.66/-12.81	-13.02/-12.33	-11.28/-9.61	-8.64/-7.54	-7.5/-7.34	-8.13/-7.53	-7.22/-9.59	-6.23/-6.31	-7.98/-8.64	-9.01/-8.25	-8.04/-8.81	-8.78/-10.32	-11.43/-13.52
Θ(7.5°)	-17.56/-18.04	-12/-10.22	-8.76/-8.22	-7.88/-7.9	-7.91/-7.78	-7.87/-7.64	-8.54/-9.07	-10.06/-9.45	-10.29/-10.55	-12.63/-14.9	-15.06/-14.34	-13.91/-14.42	-14.27/-14.15	-13.61/-13.06	-12.11/-10.87	-9.95/-8.35	-8.52/-8.35	-9.06/-7.86	-7.27/-5.57	-6.26/-6.16	-8.24/-8.4	-8.09/-7.82	-8.45/-9.75	-11.33/-15.59
Θ(15°)	-16.73/-18.99	-15.13/-12.49	-9.75/-9.55	-8.51/-8.35	-8.15/-7.92	-8.2/-8.05	-7.58/-6.87	-5.98/-5.35	-6.42/-7.1	-8.97/-11.32	-18.84/-18.46	-14.94/-12.12	-11.7/-12.44	-14.18/-14.74	-13.28/-11.05	-10.18/-9.02	-7.64/-6.65	-6.73/-7.68	-8.6/-7.48	-6.82/-7.99	-9.42/-11.11	-9.74/-8.14	-7.69/-9.72	-12.13/-14.06
Θ(22.5°)	-17.95/-18.27	-12.58/-10.01	-9.39/-11.31	-12.94/-13.47	-11.17/-7.72	-6.6/-6.14	-7.08/-6.82	-6.04/-5	-5.26/-5.78	-5.78/-7.63	-12.53/-18.75	-12.21/-8.85	-8.25/-9.84	-12.76/-16.3	-15.01/-11.02	-8.67/-6.34	-4.81/-3.66	-3.84/-4.76	-5.47/-4.55	-4.68/-5.29	-7.8/-7.3	-9.35/-9.51	-10.24/-13.56	-14.75/-16.8
Θ(30°)	-14.07/-12.95	-10.29/-10.77	-12.15/-9.54	-6.34/-4.37	-3.03/-2.22	-2.75/-4.18	-6.63/-8.37	-9.17/-8.34	-8.69/-8.7	-9.08/-10.68	-15.71/-18.03	-12.56/-8.44	-6.74/-6.56	-7.67/-9.03	-8.43/-6.68	-5.37/-5.22	-5.59/-6.24	-6.23/-6.76	-6.44/-5.51	-5.45/-4.78	-4.2/-3.6	-3.44/-5.52	-9.59/-14.12	-12.35/-13.1
Θ(37.5°)	-18.58/-15.23	-10.58/-9.74	-8.67/-6.85	-5.15/-4.85	-5.14/-6.84	-6.34/-6.35	-4.99/-4.28	-4.59/-6.46	-5.91/-9.07	-12.9/-15.58	-15.62/-17.25	-17.07/-12.35	-9.48/-9.37	-9.37/-8.4	-6.93/-5.91	-5.35/-5.13	-6.01/-7.49	-6.56/-6.22	-6.55/-7.97	-7.93/-4.57	-3.43/-2.97	-4.26/-6.8	-7.8/-12.3	-13.74/-16.58
Θ(45°)	-15.76/-11.14	-10.93/-16.41	-9.36/-5.33	-4.48/-4.88	-5.6/-7.07	-6.89/-6.54	-7.1/-7.27	-8.89/-9.36	-9.49/-9.94	-9.18/-7.58	-6.97/-8.58	-12.31/-13.02	-17.7/-11.25	-10.64/-9.29	-7.22/-6.59	-8.84/-4.44	-4.16/-4.71	-5.12/-5.74	-6.09/-5.57	-5.01/-4.1	-3.85/-3.6	-3.39/-4.59	-8.08/-15.3	-15.93/-17.75
Θ(52.5°)	-17.36/-14.16	-10.37/-7.62	-6.59/-6.99	-7.44/-6.03	-4.81/-4.32	-4.51/-6.37	-9.69/-14.91	-18.42/-18.79	-15.56/-9.01	-6.07/-5.49	-7.52/-11.15	-13.46/-14.84	-16.87/-14.35	-13.47/-11.87	-9.78/-8.76	-7.96/-6.4	-4.16/-3.21	-4.23/-6.63	-8.72/-7.87	-4.57/-2.39	-3.34/-7.36	-13.68/-10.66	-8.68/-12.18	-15.14/-15.33
Θ(60°)	-17.79/-15.14	-6.47/-5.36	-10.1/-12.44	-5.89/-6.51	-8.01/-5.6	-4.12/-5.14	-8.23/-10.54	-9.43/-6.41	-5.98/-7.6	-8.43/-9.42	-10.15/-12.29	-11.96/-12.22	-15.68/-11.84	-10.02/-9.83	-10.32/-9.58	-8.45/-6.4	-4.65/-6.23	-9.04/-10.21	-6.82/-8.07	-7.7/-8.5	-9.43/-11.59	-18.48/-16.21	-17.97/-19.13	
Θ(67.5°)	-16.47/-11.86	-8.15/-9.15	-10.52/-5.23	-5.33/-2.55	-9.06/-7.59	-9.33/-13.41	-16.17/-14.09	-9.52/-5.91	-4.54/-6.14	-9.47/-12.5	-16.72/-17.08	-18.92/-18.16	-14.85/-17.78	-18.59/-18.22	-10.86/-10.05	-8.48/-9.58	-11.2/-7.81	-6.14/-5.52	-4.68/-7.18	-8.55/-9.5	-11.17/-10.94	-11.86/-11.33	-10.13/-10.42	-13.69/-18.86
Θ(75°)	-14.18/-18.99	-17.88/-19	-16.01/-12.87	-12.17/-11.01	-10.03/-9.48	-9.18/-7.72	-6.66/-7.75	-14.95/-11.19	-6.87/-7.22	-10.69/-15	-11.98/-11.59	-13.1/-17.77	-18.69/-15.94	-19.14/-16.32	-18.78/-18.94	-11.21/-10.4	-13.66/-9.93	-5.59/-3.22	-3.12/-4.25	-6.5/-6.65	-7.44/-7.22	-7.57/-16.37	-18.4/-13.03	-14.52/-14.67
Θ(82.5°)	-17.59/-15.71	-18.99/-13.22	-8.77/-8.99	-15.64/-14.1	-11.12/-12.61	-7.92/-9.46	-3.37/-2.47	-3.68/-6.75	-8.4/-16	-3.04/-4.82	-7.16/-9.47	-14.87/-14.89	-16.39/-18.41	-18.01/-14.2	-18.64/-13.33	-9.62/-7.84	-8.51/-7.56	-6.56/-5.26	-4.3/-5.29	-7.36/-8.43	-8.89/-7.33	-9.55/-14.54	-19.15/-16.57	-14.19/-19.13
Θ(90°)	-9.74/-10.42	-9.99/-9.59	-10.03/-8.75	-9.54/-7.4	-8.01/-6.61	-8.81/-5.43	-4.29/-3.77	-6.64/-7.91	-6.2/-3.58	-2.52/-1.7	-2.67/-6.51	-10.97/-12.72	-17.46/-18.43	-16.26/-15.32	-14.12/-10.93	-7.98/-6.72	-5.6/-7.49	-6.51/-3.88	-2.95/-4.31	-6.62/-8.76	-8.29/-11.15	-9.26/-11.13	-10.82/-10.04	-10.05/-9.45
Θ(97.5°)	-14.2/-9.18	-6.16/-6.17	-9.92/-14.68	-9.5/-6.05	-5.17/-9.26	-17.57/-9.28	-5.11/-2.86	-4.11/-7.1	-2.71/-0.05	-1.9/-5.09	-5.57/-7.45	-9.51/-10.83	-14.95/-12.39	-10.36/-14.02	-16.46/-10.05	-11.03/-11.67	-6.3/-5.11	-5.1/-4.18	-3.52/-4.26	-5.26/-11.95	-17.83/-18.71	-18.44/-12.38	-9.66/-11.02	-11.12/-15.08
Θ(105°)	-19.37/-11.19	-11.57/-13.27	-9.64/-12.34	-8.09/-4.23	-4.48/-7.4	-15.15/-17.94	-10.49/-9.96	-8.57/-3.38	-0.54/-0.72	-2.49/-6.69	-10.11/-12.66	-11.33/-17.07	-18.93/-14.45	-15.55/-18.33	-17.28/-18.27	-12.14/-6.18	-3.69/-9.33	-4.79/-4.6	-5.59/-7.77	-12.42/-12.76	-12.99/-18.4	-18.41/-15.94	-9.23/-8.24	
Θ(112.5°)	-13.56/-16.45	-11.63/-13.12	-14.48/-13.95	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45	-3.89/-6.93	-11.02/-4.45
Θ(120°)	-13.54/-7.62	-11.56/-16.13	-10.37/-5.35	-6.2/-6.8	-6.51/-8	-10.9/-10.78	-7.86/-9.85	-13.37/-6.76	-4.45/-5.22	-8.05/-16.32	-12.31/-6.51	-10.27/-15.19	-14.53/-14.16	-18.58/-12.98	-12.8/-12.49	-12.03/-8.47	-16.37/-13.1	-9.08/-7.26	-5.14/-4.99	-3.14/-11.06	-15.53/-6.28	-10.28/-15.62	-6.94/-8.17	-5/-15.16
Θ(127.5°)	-16.47/-11.24	-19.18/-12.7	-9.67/-8.17	-7.52/-9.69	-11.09/-9.79	-6.69/-8.02	-12.35/-8.57	-4.94/-7.48	-11.88/-14.9	-8.64/-7.75	-12.31/-18.5	-17.95/-19.2	-13.8/-13.01	-8.96/-7.25	-6.33/-8.03	-13.68/-9.99	-1.85/-8.25	-11.71/-5.3	-5.95/-10.52	-6.53/-9.88	-18.86/-18.81	-12.1/-13.7		
Θ(135°)	-8.86/-18.08	-10.62/-15.47	-12.13/-18.76	-18.93/-13.13	-12.98/-13.64	-9.81/-7.45	-5.39/-5.51	-5.41/-5.36	-11.67/-19.11	-13.69/-12.34	-10.67/-5.69	-7.66/-18.1	-17.73/-18.8	-10.52/-9.42	-16.97/-12.97	-8.91/-5.93	-5.38/-7.14	-15.16/-9.57	-3.54/-4.43	-11.54/-10.84	-4.89/-6.93	-10.44/-3.86	-13.69/-8.34	-13.93/-9.51
Θ(142.5°)	-10.45/-8.87	-7.77/-13.86	-14.26/-7.14	-5.91/-5.53	-5.97/-9.5	-15.25/-14.69	-8.6/-6.2	-7.46/-13.32	-14.21/-14.59	-18.68/-17.42	-17.46/-18.95	-13.95/-13.64	-17.76/-18.26	-12/-9.42	-8.63/-5.93	-7.45/-7.83	-4.67/-5.36	-10.92/-7.73	-2.81/-2.28	-8.21/-16.61	-6.94/-6.42	-13.14/-17.94	-16.77/-18.57	-15.27/-17.92
Θ(150°)	-10.71/-6.53	-5.69/-9.13	-16.72/-11.12	-6.72/-6.24	-7.43/-10.5	-12.73/-14.58	-11.28/-7.85	-4.49/-2.34	-1.93/-4.38	-7.99/-13.5	-10.14/-9.01	-8.89/-11.44	-15.81/-18.94	-15/-13.59	-11.77/-8.14	-6.84/-5.49	-4.67/-5.05	-7.55/-8.17	-5.82/-7.68	-4.21/-8.77	-10.98/-8.16	-8.47/-12.1	-11.66/-10.27	-16.58/-14.22
Θ(157.5°)	-8.78/-10.23	-12.63/-12.44	-8.93/-7.52	-6.23/-6.05	-7.54/-8.73	-10.38/-10.51	-6.42/-5.99	-4.14/-3.87	-5.2/-7.78	-11.23/-13.96	-14.81/-12.92	-10.12/-10.47	-14.17/-19.07	-16.18/-11.47	-8.31/-7.37	-7.04/-8.17	-8.82/-9.68	-11.22/-13.21	-13.27/-14.06	-18.57/-12.33	-9.66/-9.43	-8.78/-12.3	-8.67/-9.58	-9.06/-6.87
Θ(165°)	-13.43/-15.71	-18.49/-18.3	-18.82/-15.42	-15.04/-16.56	-18.77/-18.32	-17.16/-12.28	-11.43/-9.02	-7.3/-6.6	-8.3/-11.73	-15.02/-13.7	-10.5/-8.11	-6.48/-6.63	-8.34/-12.34	-17.7/-16.52	-10.64/-8.46	-7.37/-7.93	-7.52/-6.79	-6.61/-8.26	-9.73/-10.36	-6.48/-4.9	-4.07/-4.15	-6.34/-9.21	-11.26/-12.8	-14.57/-13.33
Θ(172.5°)	-16.26/-19.31	-18.75/-17.69	-13.25/-11.37	-10.1/-9.74	-10.09/-13.6	-13.1/-17.78	-18.09/-15.04	-13.03/-10.2	-8.8/-8.04	-7.36/-7.6	-7.9/-8.81	-10.27/-12.37	-14.93/-18.32	-18.2/-18.23	-14.64/-12.19	-10.41/-9.47	-7.6/-6.4	-5.27/-5.44	-5.61/-4.59	-3.46/-2.87	-2.72/-3.57	-5.84/-9.56	-13.07/-17.33	-18.97/-17.51
Θ(180°)	-13.69/-15.64	-15.69/-15.66	-15.14/-15.3	-14.24/-12.74	-10.33/-9.91	-8.62/-8.17	-6.99/-6.64	-6.32/-6.51	-6.86/-6.72	-6.26/-5.88	-5.77/-6.26	-6.72/-7.19	-7.24/-7.39	-7.41/-7.78	-8.11/-9.15	-10.69/-9.61	-6.77/-5.86	-5.02/-5.32	-5.01/-4.52	-3.79/-3.48	-4.99/-7.19	-9.91/-14.8	-17.68/-19.43	-16.91/-14.11
Freq(Hz)	5.3GPol	Theta/Ant. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-7.71/-7.81	-7.61/-7.67	-8.68/-9.69	-11/-11.5	-11.82/-12.52	-12.61/-14.39	-15.53/-16.23	-16.95/-16.57	-15.28/-13.68	-12.46/-11.57	-10.46/-9.8	-9.02/-8.45	-7.62/-7.29	-7.67/-8.49	-8.97/-9.37	-9.38/-9.44	-10.11/-11.17	-10.73/-10.73	-12.01/-11.19	-10.67/-10.73	-10.53/-8.47	-7.45/-6.73	-7.28/-8.2	
Θ(7.5°)	-5.34/-4.64	-5.05/-6.09	-7.56/-10.02	-11.49/-11.75	-11.6/-11.86	-12.72/-14.98	-16.47/-14.43	-13.29/-12.46	-11.39/-9.86	-9.18/-8.44	-8.15/-7.54	-7.41/-7.62	-7.34/-7.9	-9.09/-10.47	-10.88/-11.12	-11.7/-12.35	-12.72/-14.26	-16.11/-18.27	-17.98/-18.54	-18.56/-18.78	-17.54/-13.93	-14.35/-12.94	-10.29/-8.25	-7.79/-6.89
Θ(15°)	-1.37/-1.07	-1.26/-1.4	-3.85/-8.63																					



Radiated Composite Gain Data 2.4GHz and 5GHz UNII 1~UNII 3

Appendix A

Θ (15°)	-15.79/-15.51	-12.02/-11.49	-11.58/-17.35	-18.15/-12.72	-9.6/-9.97	-10.27/-10.74	-11.23/-11.95	-13.89/-18.16	-17.72/-18.97	-15.42/-11.41	-8.38/-6.71	-6.33/-7.04	-8.35/-10.32	-12.09/-13.05	-13.62/-14.12	-15.32/-19.88	-18.81/-12.16	-9.78/-10.72	-9.63/-8.2	-7.76/-9.03	-10.62/-12.33	-14.35/-17.69	-18.6/-16.29	-15.31/-15.27
Θ (22.5°)	-13.97/-17.85	-18.39/-13.85	-10.18/-7.51	-5.43/-3.73	-4/-5.65	-6.37/-7.55	-7.24/-9.31	-11.53/-13.99	-15.24/-17.55	-17.88/-17.47	-11.27/-8.3	-7.04/-7.49	-8.96/-11.54	-12.39/-10.78	-8.3/-6.54	-6.79/-9.2	-11.99/-7.3	-4.65/-3.84	-3.42/-3.15	-3.37/-5.1	-7.87/-11.67	-16.85/-17.33	-17.45/-13.13	-11.65/-12.32
Θ (30°)	-12.88/-10.86	-7.8/-6.24	-5.98/-5.7	-5.36/-5.15	-5.71/-7.36	-10.2/-12.44	-12.57/-11.33	-10.29/-9.35	-8.41/-8.78	-11.88/-17.22	-14.3/-9.62	-7.05/-7.71	-10.55/-12.36	-13.12/-15.78	-18.43/-17.11	-12.3/-9.66	-6.78/-5.48	-4.87/-4.66	-3.93/-2.82	-1.92/-2.73	-6.76/-14.01	-17.36/-18.37	-18.29/-18.9	-15.09/-14.02
Θ (37.5°)	-9.89/-8.66	-7.44/-7.75	-11.22/-12.83	-10.23/-6.71	-5.02/-4.88	-4.9/-6.62	-8.01/-7.4	-5.63/-5.04	-5.08/-4.95	-7.39/-10.82	-11.97/-10.18	-7.51/-9.51	-15.19/-15.36	-11.71/-10.92	-15.62/-18.11	-10.71/-6.96	-5.23/-5.37	-6.11/-6.56	-5.86/-4.58	-3.01/-5.13	-10.73/-11.56	-11.28/-14.64	-17.93/-18.06	-15.21/-11.99
Θ (45°)	-9.84/-11.3	-12.36/-14.61	-18.66/-16.59	-12.29/-9.15	-7.41/-7.72	-9.52/-11.7	-14.45/-9.45	-6.34/-4.36	-3.58/-3.53	-4.85/-7.4	-7.45/-9.11	-9.51/-8.32	-11.38/-19.4	-19.03/-11.98	-9.32/-11.59	-13.04/-12.08	-9.84/-9.54	-7.76/-5.5	-4.12/-4.36	-7.09/-9.18	-9.61/-11.19	-12.32/-14.34	-18.65/-15.25	-12.16/-9.24
Θ (52.5°)	-9.36/-13.25	-10.67/-8.41	-8.32/-9.78	-6.85/-6.48	-10.53/-15.64	-9.51/-9.21	-13.51/-9.23	-6.4/-6.9	-8.05/-7.76	-6.46/-6.6	-7.72/-10.35	-10.39/-8.58	-8.72/-9.69	-11.84/-11.59	-11.52/-11.79	-10.92/-9.34	-7/-4.91	-5.58/-7.73	-7.19/-5.22	-8/-18.53	-18.13/-13.82	-13.44/-12.71	-10.95/-9.62	-8.93/-8.57
Θ (60°)	-10.3/-10.68	-7.93/-4.35	-3.86/-6.09	-7.96/-9.54	-8.13/-5.77	-5.46/-7.11	-13.38/-11.23	-5.75/-7.52	-11.41/-8.74	-6.43/-5.74	-6.9/-8.58	-7.91/-8.36	-12.98/-12.35	-17.51/-16.55	-11.21/-9.83	-9.91/-5.03	-2.06/-2.29	-3.19/-5.18	-5.75/-7.25	-8.26/-6.41	-8.8/-11.69	-9.56/-6.71	-7.62/-12.91	-12.94/-11.47
Θ (67.5°)	-14.44/-15.16	-17.71/-9.94	-10.23/-16.4	-12.77/-8.18	-7.15/-8.38	-10.54/-14.87	-15.59/-16	-17.27/-12.09	-8.22/-8.65	-8.09/-3.98	-4.4/-9.55	-11.52/-16.17	-12.52/-13.65	-18.27/-15.45	-7.32/-6.93	-7.17/-7.15	-6.69/-4.87	-6.32/-12.03	-12.55/-10.03	-9.67/-7.13	-2.99/-4.54	-9.4/-13.57	-9.01/-9.23	-13.4/-18.48
Θ (75°)	-7.02/-8.69	-13.49/-14.55	-16.7/-12.02	-11.38/-13.84	-11.93/-10.56	-9.71/-8.46	-11.37/-11.54	-9.76/-5.88	-4/-6.11	-11.35/-13.06	-14.17/-18.31	-17.5/-14.21	-18.03/-18.02	-17.54/-9.43	-7.45/-9.7	-12.22/-13.11	-17.66/-19.4	-9.79/-10.29	-13.92/-18.76	-12.22/-7.46	-3.96/-4.55	-12.89/-10.26	-7.53/-10.83	-18.01/-9.52
Θ (82.5°)	-16.46/-15.98	-12.51/-10.17	-9.68/-10.09	-14.68/-11.4	-13.58/-17.18	-13.9/-7.3	-4.69/-4.93	-7.23/-6.62	-5.76/-11.28	-15.67/-11.06	-10.36/-12.61	-17.32/-19.02	-10.1/-12.35	-17.91/-18.82	-18.39/-18.44	-16.76/-7.02	-9.55/-12.5	-8.73/-3.72	-3.7/-5.26	-5.41/-3.89	-5.48/-4.81	-8.96/-18.16	-17.59/-17.54	-10.4/-10.28
Θ (90°)	-17.28/-12.8	-12.83/-10.94	-11.16/-10.16	-15.75/-16.24	-11.29/-10.37	-7.68/-5.92	-4.69/-3.89	-4.39/-3.92	-4.18/-6.53	-4.73/-5.88	-7.92/-14.16	-18.2/-12.62	-15.27/-17.53	-17.64/-12.11	-13.53/-11.8	-8.97/-7.51	-5.03/-6.05	-7.6/-4.1	-2.72/-2.41	-8.09/-4.29	-2.24/-2.76	-7.4/-16.38	-19.55/-10.77	-8.06/-7.83
Θ (97.5°)	-13.68/-9.4	-14.98/-13.63	-9.44/-13.26	-10.85/-5.52	-5.11/-6.83	-14.03/-8.06	-4.51/-5.48	-7.44/-4.8	-6.22/-8.09	-11.61/-6.16	-5.72/-11.88	-17.11/-12.65	-12.17/-18.74	-11.24/-11.83	-10.49/-8.27	-7.55/-1.93	-0.96/-2.39	-6.47/-5.61	-6.52/-7.9	-4.35/-6.87	-6.17/-8.59	-6.87/-7.86	-15.67/-13.65	-9.51/-9.47
Θ (105°)	-10.38/-10.78	-11.08/-12.96	-13.19/-9.05	-9.27/-9.48	-5.32/-5.9	-8.49/-7.42	-3.91/-3.73	-4.47/-6	-5.91/-2.89	-6.94/-8.74	-7.28/-10.83	-13.31/-12.4	-10.99/-18.47	-14.12/-17.11	-12.42/-7.83	-8.42/-6.03	-3/-4.44	-8.38/-6.94	-6.81/-6.76	-6.52/-17.64	-14.53/-7.74	-8.53/-11.13	-8.98/-13.94	-16.67/-17.82
Θ (112.5°)	-10.23/-18.56	-16.61/-10.53	-18.1/-10.28	-6.16/-7.34	-11.29/-10.37	-7.03/-9.29	-7.04/-7.08	-7.09/-9.01	-10.45/-10.24	-8.79/-5.6	-7.73/-16.37	-11.91/-13.2	-10.45/-13.2	-11.13/-8.86	-13.22/-19.06	-11.36/-18.65	-13.73/-19.06	-15.69/-8.68	-8.8/-6.79	-8.86/-8.66	-12.73/-18.99	-13.02/-18.82		
Θ (120°)	-16.09/-15.07	-8.6/-5.83	-9.7/-5.02	-3.43/-4.89	-6.67/-4.94	-3.53/-5.73	-10.54/-10.63	-9.2/-10.99	-11.08/-12.53	-5.78/-5.46	-8.04/-11.2	-17.97/-11.72	-12.92/-16.66	-8.83/-8.53	-9.74/-7.27	-10.36/-6.4	-4.17/-2.33	-1.03/-4.46	-5.29/-2.57	-2.73/-6.11	-5.81/-10.87	-18.44/-16.97	-10.84/-10.97	
Θ (127.5°)	-9.31/-15.42	-11.03/-8.23	-5.98/-1.12	-0.6/-3.59	-6.54/-5.18	-5.72/-5.88	-6.33/-9.05	-6.81/-10.41	-15.86/-8.55	-4.41/-5.93	-9.85/-11.01	-11.33/-10.87	-13.15/-18.5	-10.81/-13.91	-16.33/-7.04	-5.2/-6.99	-6.57/-11.04	-8.69/-2.09	-2.23/-8.9	-4.18/-2.85	-8.47/-3.96	-2.96/-4.64	-5.38/-9.33	-8.47/-7.78
Θ (135°)	-13.05/-10.44	-8.89/-10.44	-14.85/-12.01	-7.42/-6.27	-6.96/-10.01	-15.42/-12.88	-6.66/-2.14	-3.6/-4.49	-16.85/-8.65	-4.18/-6.98	-13.62/-14.74	-12.78/-9.46	-16.68/-18.15	-17.74/-14.68	-10.2/-12.46	-6.13/-2.46	-2.94/-3.14	-8.2/-5.79	-1.48/-4.8	-9.94/-4.51	-5.98/-12.02	-1.56/-1.05	-1.41/-4.51	-5.94/-13.07
Θ (142.5°)	-17.99/-12.37	-11.72/-9.53	-10.92/-14.52	-6.62/-3.31	-2.9/-3.81	-7.53/-18.14	-13.71/-11.34	-8.89/-7.49	-16.29/-11.67	-13.3/-11.06	-7.97/-8.41	-12.13/-18.15	-10.67/-9.49	-6.8/-7.13	-10.99/-7.38	-2.72/-1.31	-0.89/-2.71	-11.65/-7.74	-2.99/-7.39	-12.29/-11.11	-6.97/-5.57	-17.25/-11.99	-8.85/-17.24	-10.51/-10.02
Θ (150°)	-11.54/-5	-2.63/-3.69	-6.02/-10.94	-8.67/-4.95	-4.01/-5.38	-7.98/-12.66	-13.42/-8.58	-6.08/-5.81	-5.97/-8.24	-11.74/-9.52	-11.83/-17.18	-13.32/-18.3	-14.13/-17.78	-13.18/-6.57	-5.26/-5.43	-7.54/-8.11	-6.52/-5.48	-7.02/-6.19	-4.19/-4.73	-7.42/-11.12	-5.57/-2.53	-5.44/-8.03	-8.38/-12.39	-14.06/-17.42
Θ (157.5°)	-7.84/-4.84	-4.83/-8.11	-9.61/-9.65	-8.83/-8.35	-9.27/-11.31	-15.81/-15.83	-12.96/-9.94	-8.08/-7.68	-8.29/-10.75	-9.85/-8.54	-10.06/-12.73	-13.07/-14.09	-14/-11.3	-9.65/-8.79	-8.33/-7.39	-7.24/-9.15	-13.63/-16.19	-13.7/-11.95	-8.85/-8	-7.6/-9.42	-10.56/-12.89	-15.69/-16.68	-14.14/-14.04	-12.1/-10.22
Θ (165°)	-13.35/-10.95	-10.18/-7.8	-6.77/-8.22	-11.78/-18.38	-17.44/-18.78	-18.09/-18.77	-15.06/-12.86	-10.34/-9.54	-9.19/-8.91	-8.81/-9.11	-9.81/-9.46	-9.02/-9.71	-12.62/-18.62	-16.69/-9.15	-4.82/-2.46	-2.05/-2.99	-5.37/-7.88	-8.63/-7.65	-5.52/-5.16	-5.7/-3.54	-3.52/-4.53	-5.3/-6.11	-6.42/-7.18	-7.33/-10.77
Θ (172.5°)	-14.1/-12.5	-9.6/-8.71	-9.65/-8.84	-7.56/-7.12	-7.08/-7.11	-7.19/-7.07	-7.32/-7.61	-7.09/-5.72	-4.35/-3.75	-3.84/-3.8	-5.58/-7.05	-8.7/-10.15	-10.98/-12.04	-12.71/-13.14	-12.53/-10.91	-8.83/-7.4	-7.31/-8.19	-7.33/-5.24	-3.67/-3	-1.74/-1.34	-0.72/-0.4	-0.78/-2.03	-3.06/-4.54	-6.79/-11.68
Θ (180°)	-13.17/-14.39	-14.26/-12.23	-11.14/-9.91	-9.3/-8.37	-7.52/-6.46	-5.89/-4.63	-4.15/-3.12	-2.43/-2.08	-2.28/-2.53	-2.53/-2.56	-3.18/-3.75	-4.37/-5.14	-6.04/-7.42	-8.76/-9.9	-11/-11.87	-10.76/-9.77	-8.04/-5.7	-4.53/-3.6	-2.95/-1.36	0.190.21	0.06/-0.53	-1.63/-2.87	-3.97/-5.2	-6.42/-9.45
Freq(Hz)	5.7855Pol.	ThetaAnt. 4																						
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-6.79/-6.95	-7.25/-8.39	-9.55/-10.21	-10.93/-11.83	-12.39/-14.41	-17.98/-18.43	-18.41/-15.81	-13.34/-12.63	-11.5/-10.41	-8.62/-9.4	-7.45/-7.47	-7.82/-8.55	-9.38/-9.84	-10.06/-10.81	-11.22/-12.79	-14.39/-14.93	-14.77/-16.18	-18.16/-18.5	-18.91/-18.17	-17.58/-19.17	-19.14/-17.68	-19.19/-19.01	-15.73/-11.89	-9.67/-7.91
Θ (7.5°)	-7.14/-8.1	-10.75/-13.92	-18.58/-19.06	-18.81/-17.73	-16.15/-18.02	-15.16/-13.79	-14.27/-15.82	-16.09/-14.77	-15.06/-16.91	-19.05/-19.1	-18.17/-16.29	-13.61/-14.44	-9.68/-8.33	-7.74/-7.46	-7.49/-8.65	-9.46/-9.45	-10.04/-11.19	-12.66/-13.13	-14.15/-14.24	-12.92/-11.16	-9.98/-9.98	-8.11/-8.35	-8.69/-7.81	-6.52/-6.82
Θ (15°)	-8.64/-11.07	-15.67/-18	-11.71/-9.33	-8.06/-8.97	-8.54/-9.42	-11.07/-13.69	-17.78/-18.82	-18.7/-14.53	-11.77/-10.24	-9.43/-8.91	-9.3/-11.16	-15.03/-17.81	-17.82/-15.86	-14.95/-15.81	-18.5/-19.05	-18.48/-18.82	-15.4/-12.57	-11.48/-12.19	-13.9/-17.27	-19.26/-16.2	-12.7/-10.27	-7.65/-6.46	-6.2/-5.43	-5.83/-7.34
Θ (22.5°)	-7.61/-9.38	-7.58/-4.5	-2.94/-2.27	-2.27/-3.05	-3.08/-3.74	-4.58/-6.15	-8.01/-9.53	-10.95/-13.12	-14.95/-14.36	-12.21/-10.69	-9.9/-9.94	-11.63/-14.49	-12.9/-9.36	-7.56/-7.04	-7.42/-9.56	-13.21/-19.47	-17.56/-18.22	-18.17/-18.31	-18.59/-15.59	-10.7/-8.82	-8.43/-7.84	-5.51/-4.25	-4.33/-3.75	-4.3/-6.03
Θ (30°)	-2.86/-2.6	-2.24/-3.45	-5.17/-6.59	-7.66/-9.03	-9.6/-9.42	-8.32/-8.43	-9.06/-8.35	-7.41/-7.21	-8.77/-10.98	-11.85/-13.19	-15.88/-12.84	-14.63/-18.8	-17.39/-14.09	-9.63/-7.78	-8.77/-12.01	-16.63/-19.51	-18.93/-17.51	-15.74/-13.59	-10.91/-8.02	-4.97/-3.86	-3.96/-4.76	-4.34/-3.73	-3.4/-2.81	-3.42/-3.1
Θ (37.5°)	-1.39/-0.86	-1.31/-2.74	-4.8/-3.39	-1.58/-2.08	-3.86/-6.08	-9.78/-12.94	-14.35/-13.05	-12.26/-11.49	-12.2/-15.33	-14.54/-13.67	-17.65/-19	-18.8/-12.83	-17.51/-14.16	-8.9/-11.69	-17.54/-18.34	-18.27/-11.33	-9.69/-9.48	-10.52/-11.8	-14.1/-8.05	-5.45/-4.99	-3.68/-2.35	-1.97/-2.26	-1.89/-0.23	0.08/-0.84
Θ (45°)	-3.27/-1.56	-1.15/-4.2	-5.1/-2.12	-0.2/-1.18	-3.75/-5.8	-6.2/-4.25	-2.72/-2.69	-3.29/-2.86	-2.71/-4.11	-6.04/-7.44	-10.28/-17.11	-16.59/-10.11	-10.47/-19.24	-14.47/-9.4	-9.87/-18.91	-11.93/-8.02	-7.1/-6.08	-5.61/-4.91	-4.21/-4.08	-3.7/-2.05	-1.73/-2.99	-5.32/-3.29	0.470/8	-0.95/-2.74
Θ (52.5°)	1.34/-1.59	-0.42/-4.3	-3.28/-0.45	0.54/-1.23	-4.33/-6.13	-5.07/-2.78	-1.3/-0.75	-0.41/-0.6	-1.28/-2.86	-4.77/-8.38	-11.59/-9.4	-8.39/-6.34	-6.26/-11.94	-17.8/-11.87	-9.5/-10.94	-8.92/-7.37	-8.21/-10.08	-8.87/-6.63	-5.57/-4.83	-4.68/-4.71	-2.32/-1.08	-2.27/-2.62	-0.8/-0.25	-1.42/-0.92
Θ (60°)	0.990/0.35	-1/-0.68	0.67/-1.92	0.83/-3.36	-7.18/-9.93	-17.26/-17.46	-10.91/-7.91	-7.76/-10.34	-11.34/-10.29	-9.95/-9.11	-15.57/-13.81	-8.07/-8.17	-8.51/-6.43	-6.27/-6.95	-8.65/-10.35	-11.97/-9.33	-6.97/-5.58	-5.21/-5.54	-5.68/-5.65	-6.3/-3.99	-2.6/-3.42	-4.5		



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Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.41	4.27	3.16	3.9
Ant. 2 Max Gain (dBi)	4.42	4.11	4.03	4.1
Ant. 3 Max Gain (dBi)	4.48	4.32	3.95	4.4
Ant. 4 Max Gain (dBi)	4.38	4.47	4.25	4.24
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Phi/7.5/15	Phi/7.5/7.5	Phi/7.5/15	Phi/67.5/345
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Phi/22.5/82.5	Phi/15/90	Theta/82.5/240	Phi/75/262.5
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/82.5/7.5	Phi/67.5/180	Phi/67.5/165	Phi/75/172.5
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Phi/75/90	Phi/7.5/97.5	Theta/172.5/285	Theta/37.5/210
Max Gain (dBi)	4.48	4.47	4.25	4.4
DG [1SS] (dBi)	6.71	6.73	6.03	6.82
DG [2SS] (dBi)	4.48	4.47	4.25	4.4
DG [4SS] (dBi)	4.48	4.47	4.25	4.4



Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

DG 1SS Result

Freq(Hz)	6.175GiPol.	Phi+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	4.73466	5.34553	5.41574	5.75583	5.71554	5.264477	4.05343	5.252177	1.622464	3.15372	4.2445	4.51448	4.76497	5.12534	5.65598	6.18623	6.34616	6.04467	5.08441	3.46272	3.88084	4.02434	4.56483	
Θ(7.5°)	5.14535	5.19534	5.55579	6.14641	6.36616	6.08605	5.525	4.29351	3.11304	3.1356	3.589387	3.9241	4.32457	4.79503	5.29548	5.68578	5.7546	5.07461	3.83264	1.35091	2.23424	3.87425	4.46467	4.9751
Θ(15°)	2.27255	3.99479	5.14532	5.5156	5.355	4.67404	3.06544	2.16256	2.49247	2.9335	3.5835	2.93247	2.12232	3.21399	4.69513	5.24506	4.98502	4.841	3.01247	2.39226	2.59305	3.31338	3.1311	3.12301
Θ(22.5°)	-0.0212	2.01288	3.07339	3.59391	3.75344	2.77347	3.51306	2.02102	1.0915	1.88165	2.77347	0.77105	0.25172	0.25172	0.99065	4.43478	4.75431	3.67304	2.82797	2.82251	1.93119	-0.21021	0.04956	
Θ(30°)	-0.52001	0.64145	2.4278	2.47206	1.5145	1.49081	-0.13047	2.26344	3.78378	3.54222	0.171094	0.23225	2.71747	0.13113	3.12438	4.91489	4.52408	3.18306	2.72303	2.95317	2.91232	1.74054	-1.91166	0.04026
Θ(37.5°)	-0.251044	0.18181	1.9239	2.19199	0.6411	-2.08126	-2.29175	-0.26101	1.91296	3.81359	2.16122	-1.25067	1.18032	0.8311	1.46184	1.43167	2.062	2.04225	2.12198	2.64254	1.86168	1.26103	-2.42127	0.11051
Θ(45°)	-1.56183	0.09135	1.83186	2.2126	1.32102	-0.19026	0.12035	0.82164	2.45346	3.86338	2.13061	-1.38128	-3.94254	0.41155	2.02131	0.99065	0.98066	0.59092	1.02138	1.95189	21.82	0.63069	-0.581205	-1.361252
Θ(52.5°)	-1.521035	-0.63094	0.3804	1.84224	0.461207	-6.491569	-1.731089	-2.561235	0.29314	4.64413	2.021018	-1.391088	-1.841083	0.171049	-2.491058	0.71165	1.80102	0.0510	-0.89094	1.9342	3.94357	2.381203	-5.581573	-1.641157
Θ(60°)	2.61321	3.77322	1.48026	2.5399	3.36172	1.45227	1.66101	-1.12162	-2.36116	3.07389	2.93094	1.31199	3.239	3.11218	0.281093	0.3409	-0.171009	1.177332	4.18288	1.84118	2.74405	2.95155	-1.341407	-0.06226
Θ(67.5°)	5.05557	5.27587	3.9186	3.83538	4.40248	1.99227	2.49215	0.261191	-1.74142	3.34385	1.72056	2.93265	3.04412	3.55506	3.49211	2.39246	1.34059	2.16278	3.53258	1.461062	0.64322	3.3219	0.40105	2.91424
Θ(75°)	3.85426	4.67505	3.57275	4.04477	2.6909	1.12231	3.28231	1.2188	2.58225	1.42257	1.69247	4.77442	3.77323	4.27441	2.84184	3.88482	1.931031	-0.95239	3.94275	2.01051	-0.91131	3.08243	1.01282	3.77413
Θ(82.5°)	2.33304	3.76242	2.15285	1.64097	0.61017	-0.14116	-0.16054	0.3066	2.88344	2.17118	1.45386	4.65428	3.92322	4.61466	3.87396	2.62085	3.26337	2.94359	4.02317	2.93238	2.21423	1.66274	2.69261	1.53269
Θ(90°)	3.13236	1.87118	0.95169	1.44228	1.91213	0.021007	0.53112	-0.22267	3.99383	1.96078	2.62421	4.32414	4.61405	3.28239	2.09254	1.79088	2.95265	2.29123	1.15188	2.87316	3.91202	1.68394	4.44407	3.76479
Θ(97.5°)	2.79247	-0.09127	-0.781033	-0.08137	2.07193	1.78061	0.57042	-0.11176	1.96156	0.66083	2.5362	3.77286	2.99324	2.89151	-1.021041	-1.39131	2.22171	2.04208	-1.551209	-1.27117	1.73144	0.0426	4.41406	2.77254
Θ(105°)	-0.671065	-3.04129	-5.011386	-1.27015	0.5414	1.74117	-0.711324	-1.271057	-0.551008	-1.36142	2.77193	0.371001	2.3278	1.16075	-1.321486	-2.02146	0.48154	2.54269	-0.211084	-21.206	-2.661478	-0.84046	1.53248	3.05139
Θ(112.5°)	-2.761347	-3.351425	-2.851261	-2.531086	0.2806	-1.571309	-2.31187	-2.131174	-0.071193	-1.171008	1.62103	-1.051049	-0.321036	-3.641138	-1.371031	0.651084	0.84111	0.311057	-1.951423	-5.741479	-1.411092	1.85183	0.45113	
Θ(120°)	-2.331316	-4.1215	-1.021009	-1.621264	-2.111185	-3.511514	-5.941643	-2.361035	-0.171087	0.24191	1.141114	-4.51328	-4.031095	-0.091261	-1.971271	-5.221052	0.41148	-2.691198	-2.821587	-5.431201	-3.51275	-1.69038	1.75195	-3.031231
Θ(127.5°)	-0.171075	-2.231412	-1.82115	1.1511	-1.8141	-6.691638	-3.4119	-0.88028	-1.771166	0.29127	-0.531433	-7.011415	-2.621052	-0.661369	-7.141325	-1.67114	-1.24006	-0.151549	-0.25107	-1.11182	01.97	1.95037	-3.831316	-0.67066
Θ(135°)	-0.41029	-0.741177	-3.551293	-0.461015	-0.581276	-0.83034	-1.241033	-2.761311	-3.03121	-1.211039	-0.62022	-0.311349	-4.521216	-2.71324	-5.371454	0.221225	-0.921222	1.981	1.451018	-4.07102	-2.141533	-5.291323	-2.581154	0.591012
Θ(142.5°)	-4.87116	-0.72104	-0.131139	-2.791468	-1.77057	1.13019	-1.871459	-5.431472	-6.11397	-2.051093	-2.11193	-3.711423	-3.81382	-1.511027	-1.16127	-0.1307	-1.931174	-0.551512	-9.281317	-0.881163	-0.881261	-3.331252	-3.721406	
Θ(150°)	-4.931407	-5.821438	-0.28056	-0.35112	0.11168	2.15163	0.561075	-1.661235	-3.171199	-1.351235	-5.05155	-3.061216	-0.67127	1.47084	1.2213	1.03051	1.53127	-1.01001	-1.571459	-6.141244	1.99066	-1.591424	-3.991308	-3.68156
Θ(157.5°)	-2.03117	-1.981473	-4.641263	-1.431074	-0.4104	-0.281105	-2.441253	-0.50106	-0.39114	-3.451706	-7.581496	-2.1112	-3.731321	-0.90148	0.11156	-3.961618	-2.96127	-4.131313	-2.8613	-4.241279	0.04071	0.25101	0.45028	-0.371238
Θ(165°)	1.72171	1.471051	-3.1515	-5.181372	-2.851274	-3.571467	-6.01161	-5.421451	-4.171512	-5.731678	-5.94177	-3.57127	-2.911253	-2.511416	-0.171839	-6.611341	-1.541104	-1.08016	0.12028	-0.011005	0.05012	-0.371096	-1.811236	-1.01014
Θ(172.5°)	-0.961076	-1.071154	-2.341271	-2.46126	-2.71251	-2.521256	-2.791311	-3.281325	-3.281394	-4.761559	-6.821839	-10.541023	-9.061705	-5.69153	-4.771423	-3.591251	-1.09008	0.89129	1.38109	0.41105	-1.761266	-3.421393	-3.971302	-1.781118
Θ(180°)	-7.58169	-5.551573	-5.821523	-4.361341	-2.521178	-1.491133	-1.081118	-1.761209	-2.381295	-3.891515	-6.88182	-11.141046	-8.62165	-5.011426	-3.381311	-2.331135	-0.4601	0.47042	-0.111077	-1.43125	-3.771531	-6.471817	-9.8193	-8.39179
Freq(Hz)	6.175GiPol.	Theta+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	2.81158	1.43134	1.6211	2.64294	3.43388	4.54156	4.35448	4.36438	4.61506	5.38548	5.42517	4.85446	4.22383	3.46192	2.63273	2.97319	3.4337	3.85387	3.8386	4.22464	4.92497	4.88518	5.29486	4.5339
Θ(7.5°)	2.47229	1.92213	2.35199	3.34361	3.68357	3.6345	3.23306	2.76306	3.57429	4.78517	5.15508	4.72438	3.88312	2.66184	1.26151	2.21298	3.55415	4.5247	4.73469	4.58449	4.96493	4.67446	4.14379	3.73333
Θ(15°)	1.61149	1.73191	2.44312	3.46357	3.52345	3.76342	2.6342	2.2822	2.7131	3.34333	3.26333	3.46347	3.07258	2.29223	3.9634	4.19443	4.45423	4.64243	3.96391	3.98405	3.65327	3.34284		
Θ(22.5°)	1.87156	1.24155	1.99267	3.43391	4.04383	3.82359	3.59329	2.41155	0.96064	0.42013	0.03018	0.38157	3.23414	4.26403	3.8941	4.46449	4.11354	2.89231	2.0818	1.48159	2.21249	2.37234	2.19181	2.12129
Θ(30°)	2.26133	1.73198	2.31285	2.41108	0.38082	2.0331	3.54338	3.77326	1.58133	-3.61229	-2.31181	-0.93111	2.59307	3.11332	3.55365	3.69375	3.77352	3.37358	3.64321	1.54037	0.81224	3.25274	2.08266	
Θ(37.5°)	3.06322	3.34389	3.41257	1.13048	0.9812	1.89288	3.42368	4.02372	2.61061	-0.48047	1.31087	-0.03107	1.1513	0.71087	4.31424	3.63356	3.86365	3.85395	3.88319	2.89387	0.64158	2.48341	3.64374	
Θ(45°)	3.56331	4.72481	4.9455	4.25412	3.583	2.72257	2.2241	3.41396	4.1281	1.9626	4.13389	2.061	2.522	1.19138	3.17396	4.25384	2.8223	2.94336	2.4154	2.4241	4.32463	4.04314	1.96183	3.21435
Θ(52.5°)	3.17301	3.95382	1.37117	3.54375	3.44256	1.81136	1.96245	3.39391	3.8271	0.89048	3.65232	2.14244	2.98137	3.37425	3.85298	3.24387	3.37238	2.07089	1.59319	3.21292	1.68296	3.25183	2.67293	
Θ(60°)	1.57062	0.61107	-3.811013	2.87347	4.13611	4.11295	3.01439	5.6756	4.03166	-3.171312	2.03274	2.27343	3.32327	-0.43058	1.51303	3.89351	2.44255	2.72309	4.58473	3.61089	-1.34153	2.74142	1.98229	
Θ(67.5°)	3.49232	1.5023	-1.06078	2.3331	4.58502	4.04298	1.58208	3.236	2.26063	-2.44101	2.54176	0.66335	3.15294	3.51313	2.57198	1.18315	3.3347	2.43207	1.12206	2.35235	1.321083	-0.35242	2.74221	3.73356
Θ(75°)	3.38442	4.74448	2.84085	1.67248	4.21398	3.7338	2.44084	2.69382	3.79105	-1.91064	2.35173	3.09353	2.87293	4.51506	2.63297	1.9236	3.28364	2.78182	0.10184	3.344	1.29018	2.0842	4.25413	4.44441
Θ(82.5°)	4.46522	5.82484	4.55376	0.60112	2.29161	2.6632																		



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Appendix B

Θ(22.5°)	1.831.86	1.271.08	1.041.83	3.153.81	3.723.62	3.463.07	2.832.65	2.221.9	1.841.86	1.380.11	-1.713.81	-5.92/-6.47	-5.82/-4.68	-2.57/-0.29	1.171.88	2.242.29	2.432.82	2.421.49	1.482.06	1.991.3	0.810.74	0.570.43	0.080.14	0.631.72
Θ(30°)	0.950/02	-0.950/-36	1.5/2	2.6/2.54	1.8/1.12	0.62/-0.36	-1.33/-1.75	-1.77/-1.31	-0.470/-0.1	0.370/0.3	-0.43/-1.27	-3.74/-4.71	-6/-4.5	-1.83/-0.07	1.512.28	2.742.64	2.291.37	-0.07/-1.71	-2.38/-1.63	-1.09/-1	-1.43/-1.32	-1.34/-1.65	-1.43/-0.17	1.6/1.78
Θ(37.5°)	-1.23/-1.86	-2.08/-0.38	0.591/52	1.460.28	-1.87/-3.15	-2.41/-0.52	0.561/0.4	0.640.78	1.662.32	2.011.19	0.91/08	0.72/-0.31	-1.83/-2.97	-3.48/-1.59	0.350/0.1	0.550.91	1.411.5	0.92/-0.39	-1.8/-1.48	-1.07/-0.34	-0.07/-1.61	-3.26/-3.85	-2.24/-0.56	-0.38/-0.47
Θ(45°)	-4.04/-3.12	-1.320.65	1.060/21	-2.33/-3.15	-1.390.12	1.321.29	0.32/-0.51	-0.980/06	1.171.84	2.151.8	1.540.26	-0.21/-0.92	-2.1/-1.94	-1.7/-2.25	-3.31/-3.67	-3.09/-0.8	0.360.77	-1.57/-3.27	-1.230.05	1.521.06	1.07/-0.2	-2.58/-3.71	-1.92/-1.76	-2.46/-4.88
Θ(52.5°)	-3.71/-1.64	-0.830.33	1.23/-0.04	-2.01/-0.6	1.871/1.17	-1.33/-4.76	-5.71/-6.16	-3.57/-0.09	10.29	-0.31/-1.52	-1.32/-2.21	-2.460.04	0.420/0.5	0.55/-0.44	-3.79/-2.55	-0.370.56	1.46/-0.17	-2.57/-3.38	-2.15/-1.31	-0.052/33	1.31/-1.63	-4.88/-3.75	-1.82/-2.11	-2.05/-3.35
Θ(60°)	0.981.13	-0.04/-0.57	-0.04/-0.66	0.032.34	2.690.38	-1.040/0.3	0.481/62	0.43/-1.88	-0.220.19	1.981.76	1.190.9	0.860/27	0.791/28	3.623.39	0.51/-0.44	0.183.02	2.490.8	-1.67/-1.12	-2.96/-6.28	-1.551/07	1.60.87	-2.92/-4.12	-2.64/-1.66	1.410.49
Θ(67.5°)	1.861/66	2.073.38	3.17/-0.09	-2.591/63	2.11/63	1.282.02	2.892/3	0.72/-1.25	0.383/4	2.791/27	1.582.24	2.271/97	1.441/02	3.492.91	2.11/43	0.850/37	0.28/-0.69	1.272.62	2.170.52	-0.51/-2.9	-1.362.11	2.640.71	-0.240.32	2.122.94
Θ(75°)	2.351/4	1.362/45	2.80.52	-1.021/77	2.030/57	-0.031/81	0.690/83	0.140.08	1.422/68	2.120.64	0.781/75	2.893/04	0.920.76	1.433.36	4.11/835	-0.060.55	2.421/38	1.313/2	3.682/94	1.271/54	3.032/72	1.811/58	1.722/58	3.154/23
Θ(82.5°)	0.07/-1.26	-1.75/-1.25	0.521/39	2.731.62	1.7/-0.21	1.2/-0.91	-1.97/-0.23	1.150.82	1.9/23	-0.031.25	1.171/74	0.422/93	2.370.65	-0.231.24	3.64.24	3.172.81	1.880.37	1.232.4	3.772/67	1.332/04	3.783/55	1.852/94	3.582/18	1.37/1
Θ(90°)	-0.64/-2.25	-1.58/-0.59	-0.18/-1.44	0.930.92	0.73/-0.77	-1.37/-3.95	-1.73/-2.17	0.11/13	0.96/-0.57	-1.190.72	2.312.82	2.642/04	1.421/53	1.031.86	1.961/89	1.63/-0.18	0.780.16	-0.80.38	-0.48/-0.4	-1.860.75	1.261/37	1.962/98	3.311/78	0.750.9
Θ(97.5°)	-0.13/-1.01	-2.04/-1.37	-1.35/-3.84	-1.78/-2.33	-2.2/-4.66	-1.99/-1.02	-0.39/-1.31	-2.37/-3.98	-1.37/-1.22	-0.930.81	1.512/62	1.51/-41	2.522/27	1.1/2	0.06/-1.77	-0.4/-3.39	-7.02/-4.63	-2.51/-5.21	-4.4/-2.04	-2.08/-5.49	-2.09/-1.32	0.513/27	1.910.4	0.02/-0.27
Θ(105°)	-0.89/-2.34	-2.72/-0.81	-1.06/-3.38	-4.48/-4.23	-3.6/-4.83	-2.480.93	-1.2/-3.65	-2.31/-3.77	-2.85/-1.89	0.17/-0.44	-0.741.06	0.881/78	1.7/02	-1.19/-0.51	-0.85/-3.05	-3.260.22	-3.1/-8.86	-4.38/-4.09	-5.82/-3.52	-2.96/-3.84	-5.63/-0.4	1.32/-0.06	0.911/45	1.690.46
Θ(112.5°)	-4.34/-8.83	-5.45/-6.33	-6.37/-4.4	-3.17/-4.26	-5.58/-2.59	-2.2/-1.97	-3.03/-1.79	-1.46/-3.25	-3.83/-3.53	-0.8/-1.15	-3.59/-3.15	-3.52/-0.93	0.49/-2.09	-2.67/-0.63	-3.15/-1.21	-1.28/-0.99	-1.61/-4.51	-6.43/-3.83	-0.97/-0.55	-0.43/-7.76	-6.83/-0.63	1.561/02	0.37/-0.51	0.41/-1.6
Θ(120°)	-2.08/-3.25	-7.01/-10.73	-8.49/-5.29	-3.92/-3.3	-3.19/-4.71	-4.03/-2.03	-2.36/-3.27	-5.34/-4.81	-4.49/-1.42	1.24/-0.14	-2.08/-0.77	-0.54/-1.34	-0.78/-2.24	1.361/13	-1.96/-1.63	-0.12/-2.45	-3.22/-2.05	-7.2/-0.52	-3.84/-3.9	-1.71/-0.1	-1.2/-4.57	-1.971/45	-2.1/-1.02	
Θ(127.5°)	-0.63/-1.27	-2.23/-2.8	-1.68/-2.34	-2.3/-2.09	-0.98/-3.63	-5.2/-3.81	-4.21/-4.87	-2.21/-2.58	-4.46/-4.43	-3.98/-2.93	-2.76/-2.19	-1.031.85	1.630/07	1.631/52	-2.48/-4.92	-5.15/-4.09	-1.26/-4.39	-3.61/-5.2	-1.36/-2.07	-3.65/-1.7	0.32/-1.59	-3.37/-4.83	-2.64/-0.11	0.350.59
Θ(135°)	-0.65/-2	-2.95/-2.33	-0.5/-1.2	-2.89/-3.83	-3.6/-3.92	-1.99/-0.34	-0.47/-3.45	-4.99/-2.99	-1.65/-2.48	-3.54/-6.51	-3.68/-2.33	-1.07/-2.09	-3.89/-1.49	-0.14/-1.5	-8.19/-3.75	-2.681/01	-2.22/-1.47	-0.27/-1.46	1.710.87	-10.13/-5.26	-3.57/-6.76	-4.31/-4.46	-5.53/-6.42	-5.32/-3.1
Θ(142.5°)	-3.5/-3.38	-4.24/-3.01	-2.1/-3.16	-4.6/-4.18	-3.65/-2.24	0.461/61	0.49/-1.39	-2.1/-3.19	-2.48/-0.22	0.45/-1.6	-3.5/-4.85	-2.42/-0.22	-3.79/-1.74	-2.19/-3.07	-2.5/-0.13	0.45/-4.79	-3.72/-1.7	0.02/-0.87	-1.67/-2.96	-5.41/-3.95	-5.31/-4.48	-4.96/-0.54	-4.37/-1.8	-2.71/-4.74
Θ(150°)	-4.82/-5.57	-3.62/-3.45	-5.33/-5.23	-5.2/-5.22	-4.71/-4.79	-4.97/-5.42	-4.03/-4.34	-3.67/-3.16	-3.23/-2.25	-0.321/31	0.52/-1.76	-4.01/-5.14	-5.74/-3.99	0.442.54	2.07/-0.06	-2.96/-1.71	0.58/-0.86	-3.15/-1.73	-1.79/-2.09	-5.04/-4.34	-1.81/-1.63	-1.63/-2.29	-3.32/-3.61	-2.33/-3.69
Θ(157.5°)	-4.52/-5.07	-4.14/-4.28	-4.88/-5.37	-5.6/-0.6	-5.98/-6.99	-6.17/-7.42	-10.96/-11.3	-6.95/-4.19	-3.1/-4.6	-0.44/-1.23	-3.03/-4.41	-4.46/-2.68	-2.01/-2.75	-2.56/-2.18	-2.11/-2.46	-4.36/-4.22	-2.08/-1.67	-2.6/-4.33	-2.62/-0.58	-1.95/-4.22	-2.5/-0.45	0.15/-1.44	-2.89/-3.65	-3.64/-4.15
Θ(165°)	0.39/-0.02	-0.66/-1.45	-2.48/-4.31	-5.97/-5.41	-4.31/-3.55	-3.07/-2.49	-2.26/-2.42	-1.81/-0.85	-0.79/-1.65	-3.06/-4.85	-6.1/-6.57	-5.49/-4.1	-3.33/-3.51	-3.8/-3.47	-3.6/-4.74	-5.96/-4.66	-3.6/-4.01	-2.26/-4.04	0.811/56	1.05/-0.07	-0.94/-1.61	-2.56/-3.91	-4.81/-6.31	-1.110.5
Θ(172.5°)	-1.44/-1.3	-1.86/-3.08	-4.19/-4.9	-6.43/-6.47	-5.48/-4.99	-4.91/-4.92	-4.96/-5.7	-6.11/-5	-4.31/-3.98	-3.52/-4.07	-4.69/-5.32	-4.8/-4.33	-4.14/-4.69	-4.98/-5.25	-5.14/-4.6	-4.13/-3.08	-1.85/-0.53	0.461/1	0.910.25	-0.73/-1.91	-3.32/-4.2	-4.71/-4.67	-4.11/-3.21	-2.3/-1.5
Θ(180°)	-4.09/-4.09	-4.15/-4.16	-4.06/-3.86	-3.47/-3.54	-3.17/-3.16	-3.43/-4.47	-4.78/-5.37	-5.8/-6.75	-7.99/-8.61	-8.72/-8.72	-8.57/-8.06	-4.4/-6.23	-5.15/-4.3	-3.31/-2.6	-2/-1.72	-1.54/-1.09	-0.59/-0.14	0.13/-0.15	-0.92/-1.9	-2.27/-3.16	-4.35/-5.63	-6.24/-6.98	-6.99/-6.67	-6.99/-5.01
Freq(Hz)	6.695GPol.	ThetaA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	1.981/23	0.440/57	0.991/82	2.863/53	3.563/57	4.01/4	3.713/71	3.653/6	3.583/64	3.573/38	3.183	2.582/22	1.641/01	1.041/7	2.513/07	3.393/6	3.653/56	3.473/47	3.22/87	3.043/16	3.182/97	2.882/9	3.13/13	3.082/58
Θ(7.5°)	1.250.34	0.140.54	1.212/12	3.153/69	3.93/89	3.833/52	2.982/65	2.482/57	2.893/11	3.133/13	3.193/22	3.413/25	2.782/27	1.91/57	1.491/93	2.663/07	3.393/63	3.873/94	3.823/75	3.983/69	3.932/92	3.953/72	3.483/14	2.762/27
Θ(15°)	-0.11/-0.67	-0.940.52	1.582/95	4.114/74	4.754/34	4.093/01	1.951/02	0.110.06	0.030/9	22/68	3.193/52	3.533/37	3.032/74	2.662/39	1.752/1	2.332/52	2.753/05	3.33/7	3.663/94	4.484/71	4.934/87	4.323/59	2.551/36	
Θ(22.5°)	0.21/-0.36	-0.010.62	1.051/43	1.851/99	1.691/89	2.052/01	2.52/36	1.971/34	0.8/0.1	0.321/27	1.882/2	2.753/14	3.443/88	4.133/8	2.832/07	1.692/08	2.472/47	2.312/24	2.322/32	2.252/74	3.033/45	3.693/13	2.381/67	1.721/29
Θ(30°)	1.240.99	1.371/23	1.371/33	0.7/0.18	0.520/86	1.381/78	1.330/46	-1.76/-2.85	-2.33/-1.08	-0.90/0.42	1.152/11	2.041/96	2.072/53	2.732/65	2.692/62	1.931/45	1.741/54	1.120.88	1.11/02	0.04/-0.53	-0.43/-0.92	-0.870.3	1.232/47	2.211/6
Θ(37.5°)	2.742/5	2.091/52	0.53/-0.17	-0.88/-0.24	0.220.82	1.251/23	0.41/-1.06	-2.8/-2.96	-2.54/-3.24	-3.260.02	1.872/04	1.471/37	1.180/77	0.871/74	2.572/47	1.671/18	1.181/67	1.92/08	1.140.58	1.381/08	0.69/-0.3	-1.85/-0.54	-0.161/58	2.191/53
Θ(45°)	1.531/48	1.43/-0.03	-1.55/-3.18	-2.45/-0.3	1.1/15	0.740/97	0.37/-1.57	-0.221/54	0.41/-1.49	-3.37/-3.24	-0.221/54	0.051/87	1.22/-0.19	-1.81/-1.39	1.571/94	1.181/94	3.162/89	3.082/64	0.92/-1.12	-0.161/29	0.980/58	-0.321/18	1.141/64	1.101/69
Θ(52.5°)	-1.18/-2.32	-3.17/-3.91	-3.94/-2.09	-0.61/96	3.283/18	2.390/9	-1.1/-0.69	2.463/77	3.12/-0.32	-4.57/-1.15	2.332/51	2.763/85	2.740/94	0.511/33	2.282/4	2.12/57	2.822/72	2.322/09	0.420.82	2.612/72	2.550/93	-2.71/-2.87	-0.350/66	-0.36/-0.54
Θ(60°)	0.681/02	-1.28/-3.51	-1.89/-3.09	-1.772.84	5.174/55	2.771/01	-0.390/08	1.512/74	2.59/-0.4	-5.41/-0.28	3.714/25	4.353/32	3.238/25	3.252/86	2.112/47	2.791/25	1.339/28	1.340.85	1.733/31	2.590.56	0.010/48	0.470/64	0.980/19	
Θ(67.5°)	0.730.76	-1.46/-0.34	0.61/-0.14	-1.422/58	4.193/79	3.913/23	3.264/74	4.432/68	-0.42/-2.58	-2.71/-0.2	2.573/47	3.711/81	0.042/95	4.453/21	2.13/28	1.730/26	1.462/39	2.422/75	1.912/59	3.222/46	-0.11/-0.2	2.343/19	2.262/29	2.651/63
Θ(75°)	0.430.96	-0.491/23	2.051/92	0.120.88	2.083/68	3.592.84	1.250.95	1.671/34	-3.89/-4.24	-3.230.92	0.722/68	2.992/72	-0.081/63	3.632/09	1.683/75	1.810/6	3.11/96	0.181/6	1.321/97	4.252/11	-2.50/95	3.623/23	2.461/32	4.712/92
Θ(82.5°)	0.872/8	1.413/86	3.172/97	3.131/65	1.551/88	-0.330/77	0.440/40	0.882/11	-1.19/-3.02	-0.651/68	1.863/81	6.035.61	3.712/73	3.074/47	3.632/58	3.112/15	3.763/16	-0.532/18	1.660/9	1.530.28	-0.393/77	4.863/93	3.53/07	5.134/22
Θ(90°)	1.351/3	0.061/79	0.212/84	3.821/54	0.922/28	0.851/84	1.440/47	-1.13/-0.05	1.441/-1.52	-0.713/48	3.533/58	5.725/91	4.071/56	0.243/93	3.292/98	3.082/64	0.321/21	0.511/54	-2.870.74	1.713/22	4.083/98	4.825/09		





Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

Θ(22.5°)	-0.47/-0.43	-0.28/0.03	-0.12/-0.66	-0.48/-0.83	-1.93/-3.05	-5.28/-6.62	-8.39/-9.86	-11.2/-11.81	-11.47/-9.89	-9.16/-9.71	-11/-12.73	-14.86/-16.87	-15.29/-10.96	-7.34/-5.25	-4.02/-3.93	-3.81/-3.37	-3.28/-3.96	-4.74/-4.49	-4.84/-7.53	-12.26/-17.98	-14.57/-8.71	-5.04/-3.3	-2.63/-1.33	-0.43/-0.23
Θ(30°)	-2.01/-3.4	-5.22/-4.92	-4.55/-8.7	-5.49/-6.14	-7.82/-7.09	-8.92/-13.93	-16.24/-14.73	-12.65/-11.76	-12.06/-12.11	-9.96/-7.66	-7.12/-7.72	-10.14/-12.65	-13.14/-11.45	-8.21/-5.09	-2.69/-2.09	-2.16/-2.47	-3.97/-6.3	-8.32/-8.83	-9.93/-10.16	-11.12/-14.85	-18.17/-17.7	-15.93/-12.51	-8.41/-5.27	-3.22/-2.18
Θ(142.5°)	-7.08/-9.95	-17.66/-18.11	-15.22/-11.83	-10.91/-10.4	-13.69/-14.86	-15.46/-13.14	-12.79/-11.75	-12.87/-14.27	-11.32/-6.59	-3.29/-1.89	-1.47/-1.72	-3.02/-4.59	-5.32/-5.86	-6.49/-6.36	-5.68/-4.4	-2.68/-2.12	-3.95/-3.69	-4.02/-7.42	-12.54/-16.23	-17.6/-17.39	-18.68/-18.73	-17.62/-14.09	-8.91/-17.8	
Θ(45°)	-9/-14.53	-10.62/-13.36	-14.08/-15.18	-15.99/-19.05	-14.43/-10.06	-6.85/-6.22	-8.61/-12.45	-14.95/-13.17	-8.63/-4.71	-1.98/-0.71	-0.24/-1.13	-2.11/-2.44	-3.57/-3.63	-5.28/-7.14	-13.23/-9.07	-4.43/-2.27	-3.24/-3.24	-6.94/-9.26	-7.76/-8.97	-9.34/-12.12	-14.17/-18.47	-18.72/-14.09	-12.17/-10.73	-11.57/-9.83
Θ(52.5°)	-4.49/-7.12	-5.74/-7.66	-11.24/-18.06	-18.75/-14.88	-14.37/-15.12	-17.15/-18.82	-13.18/-12.75	-8.29/-6.51	-6.41/-7.05	-4.84/-3.7	-3.12/-3.79	-2.78/-1.77	-0.91/-2.87	-4.28/-5.09	-7.73/-9.53	-5.55/-2.9	-1.63/-1.82	-2.39/-4.02	-8.76/-17.84	-18.58/-18.07	-13.06/-14.48	-10.24/-6.5	-8.48/-5.09	-2.6/-3.01
Θ(60°)	0.2/-0.47	-0.72/-4.11	-6.45/-9.98	-8.31/-6.55	-8.76/-12.35	-12.96/-15.06	-13.08/-8.71	-5.94/-5.88	-8.64/-12.79	-8.22/-5.35	-7.18/-0.77	-3.85/-2.35	-2.95/-1.7	-4.43/-2.12	-2.23/-1.94	-2.28/-2.32	-2.25/-1.73	-2.42/-4.74	-17.04/-10.97	-10.85/-12.85	-11.94/-10.07	-6.38/-3.39	-1.55/-0.77	1.41/-0.31
Θ(67.5°)	1.07/1.11	1.61/0.02	-3.34/-6.37	-9.71/-6.09	-6.52/-7.14	-15.66/-19.13	-18.16/-15.23	-11.84/-13.5	-17.88/-18.48	-13.03/-7.7	-7.36/-5.71	-4.18/-4.2	-5.4/-5.17	-2.45/-1.46	-1.22/-3.64	-7.99/-7.57	-8.53/-5.33	-4/-0.07	-2.5/-3.32	-6.93/-13.65	-11.2/-3.68	-0.25/0.53	0.22/0.47	2.95/2.61
Θ(75°)	-0.56/0.03	-2.36/-2.19	-3.64/-5.21	-8.26/-5.56	-3.95/-7.73	-13.54/-18.27	-18.65/-16.18	-10.98/-11.92	-11.87/-10.15	-4.08/-3.88	-5.2/-5.27	-2.4/-1.79	-2.02/-2.12	-1.05/0.09	0.06/-1.2	-6.37/-8.92	-6/-6.12	-6.2/-5.75	-2.49/-2.38	-5.82/-6.08	-3.73/-0.52	1.59/0.92	1.13/0.5	0.51/0.65
Θ(82.5°)	-1.18/-2.25	-4.93/-10.94	-9.92/-3.53	-2.81/-6.18	-5.34/-10.2	-12.6/-13.39	-16.01/-9.7	-5.72/-7.48	-8.99/-6.76	-3.29/-2.15	-0.93/0.32	0.49/-0.18	-1.06/-1.17	-0.81/-0.5	-0.06/-0.19	-1.08/-2.18	-6.73/-9.13	-6.71/-9.2	-3.96/-6.22	-11.89/-11.64	-2.66/1.3	1.97/-0.55	-1.35/-1.44	0.18/0.7
Θ(90°)	1.04/-2.02	-3.41/-5.41	-7.07/-7.76	-6.45/-5.74	-7.37/-9.06	-12.37/-10.75	-7.44/-7.61	-5.54/-4.15	-8.06/-4.46	-2.58/-0.85	0.31/0.91	1.68/-1.62	-4.94/-6.01	-3.76/-1.94	-1.71/-4.02	-7.22/-7.35	-6.15/-9.75	-8.14/-10.46	-8.38/-15.54	-13.66/-10.37	-10.96/-5.69	-0.38/-0.17	0.08/-1.05	-3.51/0.84
Θ(97.5°)	-0.11/-2.31	-2.12/-2.91	-5.85/-8.38	-6.04/-9.74	-18.39/-13.12	-11.47/-11.71	-8.25/-8.22	-14.77/-10.05	-8.86/-5.65	-2.38/-0.65	-0.12/1.26	1.71/-41	-0.28/-0.38	-3.41/-4.36	-6.09/-7.28	-8.08/-18.72	-11.53/-9.01	-9.76/-17.41	-19/-12.56	-12.16/-16.26	-7.84/-7.12	-3.83/0.61	-0.42/-4.29	-6.3/-2.05
Θ(105°)	-9.12/-6.39	-6.35/-4.65	-5.17/-6.59	-8.55/-10.32	-11.76/-11.65	-7.69/-4.57	-5.6/-14.24	-13.24/-12.67	-15.73/-5.84	-4.46/-4.41	-2.7/-0.48	1.37/1.66	-1.64/-2.03	-4.53/-5.06	-3.39/-3.91	-8.3/-9.88	-18.56/-18.14	-18.08/-17.35	-18.75/-17.89	-18.39/-14.76	-7.21/-5.38	-6.91/-5.24	-7.63/-6.76	-8.34/-1.18
Θ(112.5°)	-6.1/-18.46	-19.06/-17.09	-10.02/-9.88	-8.73/-11.95	-15.35/-12.82	-9.9/-9.85	-14.38/-12.75	-13.61/-17.36	-11.31/-5.6	-3.22/-3.49	-6.14/-5.17	-2.6/-0.54	-0.46/-3.55	-6.72/-3	-6.45/-6.21	-4.02/-9.95	-15.74/-16.76	-17.05/-15.77	-6.48/-5.95	-8.22/-18.31	-15.62/-17.16	-8.18/-6.48	-5.49/-6.47	-6.91/-4.27
Θ(120°)	-1.11/-3.64	-16.27/-17.99	-18.15/-17.71	-15.71/-14.83	-13.74/-16.85	-18.46/-16.09	-18.43/-13.3	-11.42/-12.11	-14.1/-6.47	-3.25/-2.53	-10.46/-9.53	-4.68/-2.84	-2.74/-4.98	-5.82/-3.93	-9.35/-4.34	-7.43/-17.69	-11.33/-9.67	-18.15/-13.26	-13.36/-7.55	-7.02/-9.08	-12.7/-12.37	-8.03/-10.05	-6.99/-3.8	-2.33/-2.69
Θ(127.5°)	-5.56/-7.26	-6.21/-10.47	-12.01/-8.42	-10.06/-14.32	-9.62/-11.75	-18.51/-11.82	-11.43/-14.31	-9.01/-8.11	-10.93/-14.39	-15.17/-9.76	-5.86/-3.87	-1.77/-2.19	-3.33/-3.92	-3.09/-1.01	-5.81/-17.72	-14.24/-4.19	-7.77/-7.55	-6.77/-9.02	-10.83/-8.82	-17.21/-5.38	-8.66/-19.3	-11.7/-9.93	-6.95/-4.79	-2.92/-3.49
Θ(135°)	-7.82/-9.76	-11.3/-10.45	-7.03/-7.33	-10.34/-16	-19.18/-17.57	-13.49/-9.78	-7.67/-10.11	-18.18/-13.48	-9.67/-8.31	-7.24/-8.51	-6.84/-5.59	-5.94/-5.95	-8.68/-6.66	-6.28/-5.52	-12.14/-6.06	-2.66/-1.23	-10.78/-11.96	-6.02/-3.57	-3.82/-4.59	-15.11/-12.48	-8.81/-18.18	-11.72/-13.22	-10.51/-9.65	-9.03/-8.47
Θ(142.5°)	-18.78/-18.85	-17.25/-15.54	-9.25/-9.82	-16.58/-17.42	-15.82/-11.04	-10.22/-9.88	-7.13/-2.75	-9.63/-16.12	-12.29/-6.91	-6.65/-9.74	-10.44/-12.01	-9.05/-7.55	-6.88/-10	-10.7/-9.6	-5.03/-3.03	-3.46/-1.39	-13.87/-13.22	-8.5/-6.57	-5.43/-6.78	-12.5/-13.68	-6.06/-7.4	-7.9/-8.18	-11.59/-9.7	-10.6/-19
Θ(150°)	-13.44/-17.45	-18.12/-16.18	-18.74/-15.96	-16.33/-16.06	-13.91/-11.06	-10.42/-10.77	-10.93/-11.99	-16.83/-16.13	-10.97/-7.43	-7.52/-8.71	-10.91/-13.82	-9.25/-6.84	-4.67/-3.12	-3.23/-5.25	-14.77/-10.65	-5.77/-4.32	-3.53/-4.13	-3.78/-7.11	-15.25/-18.7	-10.85/-13.67	-12.18/-7.48	-6.45/-11.14		
Θ(157.5°)	-18.33/-19.43	-13.51/-13.38	-16.41/-17.01	-14.32/-14.22	-12.98/-11.98	-11.24/-11.89	-13.77/-16.9	-18.79/-17.65	-17.07/-13.02	-10.1/-10.28	-11.15/-10.51	-11.12/-6.67	-3.51/-3.38	-4.12/-4.86	-7.03/-10.83	-11.11/-10.74	-6.66/-6.51	-6.3/-3.17	-2.52/-4.01	-7.77/-9.41	-7.47/-5.15	-3.84/-4.56	-6.89/-9.46	-11.64/-15.77
Θ(165°)	-11.42/-9.9	-9.83/-10.15	-10.46/-11.97	-13.12/-14.01	-15.38/-16.48	-18.49/-18.17	-19.09/-18.57	-16.84/-13.08	-11.54/-12.2	-15.84/-19.06	-14.54/-10.72	-8.91/-7.21	-6.48/-7.7	-10.02/-15.68	-18.9/-17.65	-15.86/-16.12	-18.03/-18.54	-12.78/-7.47	-4.72/-3.84	-4.78/-6.4	-8.64/-10.8	-12.96/-15.54	-14.02/-10.73	-9.42/-9.52
Θ(172.5°)	-12.29/-10.3	-9.86/-10.51	-11.05/-10.26	-12.25/-12.8	-13.21/-14.47	-15.53/-18.83	-17.61/-17.82	-18.38/-18.43	-18.96/-18.5	-15.83/-15.37	-15.43/-14.66	-12.52/-11.07	-10.35/-12.84	-16.18/-18.55	-19.65/-17.74	-18.45/-18.77	-18.91/-14.77	-11.86/-8.92	-8.48/-8.49	-9.1/-10.34	-12.05/-13.81	-13.89/-14.37	-14.15/-15.07	-17.43/-15.07
Θ(180°)	-8.77/-9.88	-9.96/-10.89	-11.93/-12.98	-11.9/-12.93	-14.57/-15.76	-16.65/-19.48	-18.84/-17.87	-17.72/-19.02	-19.02/-19.21	-19.08/-17.51	-15.92/-14.3	-13.37/-12.7	-11.51/-11.36	-10.81/-10.22	-9.78/-9.97	-10.15/-9.83	-10.23/-11.01	-12.23/-14.55	-16.72/-18.93	-18.43/-18.3	-18.21/-17.63	-14.51/-12.54	-10.12/-8.28	-7.72/-8.8
Freq(Hz)	6.995GPol.	ThetaAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-12.08/-15.54	-19.45/-19.27	-14.83/-10.76	-6.51/-4.19	-2.84/-1.41	-0.30/0.28	0.91/2.6	1.46/1.45	1.51/1.26	0.78/0.03	-1.08/-2.29	-3.83/-6.03	-9.28/-15.37	-19.18/-13.64	-8.26/-5.24	-3.54/-2.13	-1.15/-0.48	-0.12/0.36	0.33/0.26	0.35/0.22	-0.18/-1.12	-2.27/-3.09	-4.01/-5.09	-7.13/-9.7
Θ(7.5°)	-0.20/-18.59	-18.54/-13.68	-8.49/-5.29	-2.56/-1.26	-0.04/0.65	0.71/0.86	0.96/1.68	0.44/-0.12	-0.66/-1.43	-0.74/-3.88	-5.03/-6.28	-1.18/-17.9	-18.89/-15.9	-11.78/-8.85	-6.81/-5.13	-3.66/-2.1	-0.89/0.27	0.85/1.46	1.93/-9.86	21/95	1.44/0.4	-0.69/-2.04	-3.66/-6.1	
Θ(15°)	-11.64/-17.79	-16.65/-9.66	-6.21/-3.03	-1.10/0.25	1.12/1.42	1.76/1.59	1.03/0.68	0.03/-0.52	-1.63/-2.95	-4.67/-6.32	-7.52/-8.56	-9.81/-11.77	-14.91/-17.7	-18.4/-18.71	-19.93/-13.93	-8.82/-4.57	-3.16/-1.41	-0.03/0.1	1.63/2	1.85/1.67	1.67/1.23	0.59/0.09	-0.79/-1.68	-3.11/-5.46
Θ(22.5°)	-11.69/-19.21	-14.21/-8.97	-4.98/-2.71	-1.2/-0.08	0.79/1.17	1.26/1.09	1.26/0.81	0.19/-0.71	-1.66/-2.63	-3.24/-4.37	-3.92/-4.52	-5.39/-6.63	-8.07/-7.78	-7.15/-5.89	-5.1/-4.68	-4.15/-3.88	-3.43/-2.61	-1.54/-1.22	-0.59/0.26	0.96/1.38	1.09/0.51	-0.47/-2.1	-3.32/-4.34	-5.22/-7.57
Θ(30°)	-8.12/-14.74	-11.99/-9.02	-6.78/-4.12	-3.15/-2.68	-1.35/-0.04	0.91/1.44	0.34/-1.41	-3.63/-5.5	-4.88/-3.57	-1.39/-0.62	-1.4/-2.35	-3.24/-4.72	-5.23/-4.65	-3.71/-4.19	-4.24/-4.45	-4.35/-3.36	-2.12/-1.74	-0.26/-2.02	-2.52/-4.43	-5.4/-5.19	-6.66/-5.16	-4.67/-6.03		
Θ(37.5°)	-5.91/-7.59	-7.43/-8.35	-11.19/-9.7	-8.78/-6.09	-2.97/-0.21	1.32/1.16	-0.61/-3.86	-7.14/-6.98	-4.47/-2.44	-1.02/-0.63	-1.93/-3.14	-4.8/-6.02	-7.74/-7.44	-4.2/-2.93	-2.16/-2.24	-2.71/-4.76	-7.68/-8.25	-8.46/-9	-8.92/-7.24	-6.15/-7.91	-12.4/-15.88	-13.1/-5.77	-4.57/-2.08	-1.49/-4.18
Θ(45°)	-4.51/-6.61	-8.4/-13.64	-18.82/-17.27	-17.89/-6.15	-0.87/1.57	2.13/1.35	-1.31/-5.13	-6.34/-3.4	-1.65/-1.66	-3.12/-5.58	-8.84/-4.15	-6.8/-5.54	-11.19/-14.68	-11.28/-9	-4.95/-1.44	-1.2/-2.26	-6.14/-13.31	-12.58/-6.39	-8.43/-11.96	-16.99/-13.71	-16.56/-9.94	-8.9/-3.71	-3.24/-2.3	-1.78/-2.68
Θ(52.5°)	-7.94/-6	-9.65/-16.69	-11.62/-11.12	-18.07/-6.36	-1.19/1.06	1.39/0.17	-0.32/-3.34	-6.10/-0.75	-0.14/-2.06	-5.97/-10.58	-5.51/-1.73	-0.21/-1.03	-4.89/-8.93	-11.7/-16.56	-10.53/-2.14	-0.39/-0.61	-4.37/-9.6	-18.66/-15.87	-14.1/-13.4	-11.27/-14.23	-9.73/-8.76	-8.68/-7.26	-2.82/-2.71	-4.46/-6.29
Θ(60°)	-7.97/-3.44	-5.84/-13.8	-10.1/-6.11	-11.08/-5.61	-0.46/0.71	0.08/0.67	-1.71/-0.79	0.4/-0.27	-1.59/-4.33	-6.44/-4.75	-1.39/1.85	2.81/0.68	-0.76/-1.64	0.19/-2.03	-2.88/-3.73	-2.23/-3.03	-7.78/-12.36	-5.2/-4.22	-9.8/-13.13	-18.11/-15.89	-16.8/-12.8	-11.48/-5.83	-3.45/-3.81	-9.7/-10.68
Θ(67.5°)	-12.89/-8.85	-4.51/-6.88	-7.05/-18.8	-6.62/-7.24	-2.05/-0.93	-1.79/-4.11	-3.22/-0.06	-1.4/-38	-10.37/-7.54	-7.64/-6.45	-1.47/2.1	1.14/-4.08	-3.46/0.78	2.11/2.19	0.02/-1.09	-3.39/-13.3	-9.78/-6.35	-1.96/-2.35	-5.47/-12	-12.42/-14.7	-17.87/-15.37	-10.15/-6.12	-6.62/-4.57	-17.59/-14.88
Θ(75°)	-7.94/-6.63	-5.96/-6.54	-3.26/-0.99	-5.71/-14.29	-11.42/-3.62	-2.																		



Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

Θ(67.5°)	-8.75/-7.38	-7.1/-9.42	-17.16/-3.92	-1.37/-1.85	-3.88/-3.53	-5.5/-6.24	-7.3/-7.98	-9.43/-10.47	-13.61/-16.07	-9.85/-6.63	-10.92/-14.46	-6.92/-12.53	-10.44/-7.33	-9.27/-0.75	-0.59/0.05	0.26/0.39	-1.46/-2.47	0.752/-43	2.36/-0.35	-3.02/-6.66	0.16/-1.96	0.76/-3.5	-12.75/-9.57	-10.11/-19.23
Θ(75°)	-11.06/-10.27	-15.89/-15.05	-18.93/-6.57	-1.32/-0.96	-3.4/-6.32	-8.36/-5.99	-4.91/-5.78	-3.71/-2.32	-2.15/-6.88	-9.02/-3.14	-8.56/-7.51	-3.19/-7.01	-8.2/-15.39	-6.05/-2.74	-3.53/-3.24	0.11/-1.82	-0.22/-2.68	-1.982/58	4.252/26	0.1/-1.61	-3.37/-3.25	-2.99/-6.3	-10.89/-11.5	-11.27/-12.51
Θ(82.5°)	-18/-10.57	-13.03/-17.42	-18.36/-9.35	-7.31/-7.19	-7.08/-8.78	-4.28/-4.43	-7.17/-5.01	-1.96/-2.51	-0.35/-3.64	-3.46/-3.65	-7.71/-3.45	-6.26/-10.2	-8.49/-15.58	-4.94/-4.57	-1.89/-0.53	-6.5/-7.9	-1.68/-2.51	-0.083/35	3.462/72	-1.51/-1.08	1.21/-0.42	-8.3/-7.09	-7.54/-11.64	-15.17/-13.23
Θ(90°)	-18.04/-18.52	-18.11/-17.86	-16.41/-9.84	8.58/-5.02	-0.77/-0.21	1.34/-1.46	-3.46/-5.45	-2.23/-0.63	0.55/-0.33	-2.04/-1.5	-3.34/-4.8	-8.17/-7.14	-5.64/-10.37	-8.14/-2.59	0.29/0.61	-3.08/-9.19	-2.33/-3.68	-6.66/-5.34	-2.75/-0.9	-1.15/-2.22	-0.98/-6.62	-6.88/-2.66	-2.47/-4.09	-7.57/-9.51
Θ(97.5°)	-14.24/-13.02	-12.7/-15.48	-18.89/-18.91	-14.16/-8.97	-1.23/-0.22	1.41/0.01	-0.65/-1.04	-0.29/-0.97	0.22/-0.83	-3.15/-5.98	-1.68/-1.98	-5.4/-12.51	-13.05/-11.78	-8.47/-4.21	-4.7/-2.11	-5.48/-17.68	-5.64/-3.64	-6.9/-8.68	-17.44/-13.56	-11.29/-6.8	-5.73/-13.89	-11.82/-9.1	-4.64/-5.35	-17.94/-11.25
Θ(105°)	-18.82/-19.28	-13.65/-15.94	-15.64/-16.15	-11.87/-7.9	-2.62/-0.57	0.12/-0.75	-2.2/-3.54	-1.55/-2.05	-0.26/-0.95	-6.55/-3.38	-1.29/-3.73	-9.59/-16.93	-18.94/-10.3	-9.32/-14.38	-6.28/-4.86	-11.59/-6.52	-3.08/-1.95	-12.76/-14.18	-8.36/-8.65	-10.25/-12.22	-14.06/-13.43	-13.85/-14.21		
Θ(112.5°)	-14.75/-11.69	-12.76/-10.35	-13.07/-15.68	8.41/-3.51	-1.75/-1.23	-3.16/-2.46	-2.01/-0.73	-1.53/-0.58	1.16/0.67	-0.83/-3.91	-4.89/-12.73	-12.18/-10.23	-8.96/-8.74	-14.57/-8.32	-8.64/-8.68	-12.09/-11.74	-10.01/-7.26	-1.96/-1.51	-4.57/-1.27	-7.84/-13.35	-14.52/-9.28	-3.83/-4.77	-3.05/-4.5	-15.28/-16.39
Θ(120°)	-7.96/-11.04	-13.79/-18.79	-12.71/-10.2	-10.78/-6.75	-5.51/-5.97	-6.68/-7.65	-7.85/-9.31	-4.69/-0.65	0.42/-0.31	-3.25/-3.51	-3.57/-8.92	-18.89/-10.6	-7.88/-6.63	-10.97/-19.02	-7.89/-17.9	-14.73/-7.81	-7.76/-8.89	-12.77/-9	-15.68/-18.49	-15.58/-12.66	-14.48/-10.95	-10.62/-5.35	-3.54/-4.31	-11.47/-8.36
Θ(127.5°)	-14.19/-11.91	-16.39/-19.38	-9.97/-6.42	-4.92/-4.07	-4.45/-3.82	-5.7/-6.51	-5.45/-3.23	-2.16/-1.15	-1.81/-1.82	-1.34/-1.78	-5.05/-13.28	-14.71/-18.26	-12.61/-6.03	-8.25/-13.6	-15.13/-15.84	-10.87/-8.54	-18.66/-9.13	-7.66/-13.32	-17.97/-17.31	-10.77/-10.96	-6.25/-4.21	-14.79/-7.8	-5.67/-7.78	
Θ(135°)	-19.01/-13.29	-10.27/-11.36	-17.56/-17.41	-12.96/-10.47	-7.03/-3.95	-1.53/-1.58	-3.03/-4.09	-2.59/-1.59	-0.79/-0.33	-0.87/-2.56	-5.49/-6.77	-6.4/-10.87	-14.6/-11.38	-8.87/-7.89	-17.27/-11.74	-5.38/-4.77	-7.45/-18.2	-2.13/-2.79	-7.71/-6.63	-5.71/-1.43	-4.57/-10.4	-18.01/-6.83	-10.84/-17.22	-11.85/-13.24
Θ(142.5°)	-13.9/-21	-7.84/-7.69	-10.74/-18.67	-12.62/-6.41	-5.69/-6.15	-6.13/-6.62	-8.38/-7.14	-6.16/-6.96	-7.12/-8.68	-11.97/-8.42	-5.21/-4.51	-5.28/-7.74	-13.66/-18.39	-18.87/-17.72	-9.46/-11.5	-17.66/-7.53	-2.3/-2.51	-12.25/-5.4	-4.35/-15.43	-18.51/-3.94	-1.96/-7.59	-11.88/-12.6	-9.46/-8.99	-11.53/-14.6
Θ(150°)	-15.43/-15.79	-18.4/-9.65	-5.89/-4.7	-5.82/-6.7	-5.32/-3.61	-2.37/-2.02	-2.19/-2.25	-2.13/-2.14	-2.52/-3.3	-0.42/-6.73	-14.58/-15.91	-12.68/-9.1	-12.45/-13.42	-18.83/-17.71	-6.39/-2	-1.8/-5.91	-3.08/-2.85	-9.41/-11.6	-12.75/-13.53	-18.36/-9.1	-2.21/-2.73	-5.52/-8.78	-15.32/-17.06	-14.55/-12.27
Θ(157.5°)	-15.06/-13.42	-14.49/-18.24	-14.19/-9.73	-7.95/-8.24	-8.17/-7.11	-5.91/-4.13	-2.35/-0.82	0.12/-0.04	-0.7/-1.06	-2.25/-5.1	-6.77/-7.23	-7.9/-10.08	-16.36/-16.34	-10.42/-7.01	-4.94/-4.55	-7.61/-19.11	-14.78/-15.2	-14.58/-8.75	-8.62/-11.3	-14.11/-11.1	-8.19/-8.55	-5.59/-3.09	-3.37/-6.32	-10.21/-13.53
Θ(165°)	-8.39/-7.09	-5.78/-7.4	-10.68/-14.29	-8.72/-7.05	-5.87/-5.05	-4.21/-3.94	-3.79/-3.52	-3.1/-3.22	-4.21/-5.27	-6.34/-8.28	-9.94/-11.8	-18.5/-16.37	-13.5/-14.33	-19.8/-18.48	-9.89/-4.93	-3.06/-3.36	-5.38/-6.99	-7.17/-7.09	-7.84/-8.63	-9.36/-7.63	-5.73/-5.94	-7.94/-10.19	-10.11/-9.01	
Θ(172.5°)	-10.8/-8.35	-6.97/-6.77	-6.52/-5.96	-5.49/-5.01	-4.37/-3.63	-3.89/-3.29	-3.21/-2.79	-2.68/-2.81	-2.89/-3.48	-4.5/-5.97	-7.88/-10.68	-15.88/-17.27	-17.97/-14.51	-11.9/-12	-13.41/-17.08	-18.47/-16.86	-13.45/-11.22	-9.55/-9.34	-10.49/-14.28	-18.83/-18.47	-19.2/-17.5	-17.69/-18.04	-18.17/-15.85	
Θ(180°)	-12.26/-10.78	-9.13/-8.39	-7.68/-6.2	-4.68/-3.35	-2.29/-1.62	-1.19/-1.2	-0.99/-1.53	-2.92/-4.31	-4.83/-5.95	-7.16/-8.51	-10.46/-12.92	-17.17/-18.66	-18.76/-13.45	-11.16/-10.36	-9.18/-8.45	-7.17/-5.66	-4.08/-2.93	-2.23/-2.35	-3.01/-3.55	-4.04/-4.52	-5.84/-8.12	-10.69/-14.06	-18.52/-18.73	-18.26/-16.01
Freq(Hz)	6.175GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-2.39/-2.1	-1.14/-0.51	-0.07/-0.43	-0.79/-1.14	-1.59/-1.71	-1.83/-2.78	-4.05/-5.02	-6.3/-7.31	-6.93/-5.92	-4.87/-3.95	-3.29/-2.54	-1.56/-1.09	-0.63/-0.41	-0.05/-0.01	-0.16/-0.59	-1.07/-1.85	-2.36/-2.77	-3.7/-4.77	-5.83/-6.2	-5.89/-5.4	-4.85/-4.82	-4.75/-3.18	-2.79/-2.56	-2.39/-2.33
Θ(7.5°)	-2.24/-1.23	-0.84/-0.48	-0.18/-0.59	-1.02/-1.55	-2.51/-3.48	-4.36/-5.98	-7.56/-9.49	-9.66/-8.7	-6.71/-4.73	-3.41/-2.39	-2.04/-1.57	-1.79/-1.39	-1.39/-1.28	-1.15/-1.04	-0.94/-0.81	-0.79/-1.06	-1.39/-1.48	-1.74/-2.36	-3.23/-4.76	-7.05/-7.87	-8.43/-8.16	-7.34/-6.6	-5.95/-5.14	-4.04/-3.01
Θ(15°)	-1.99/-1.56	-0.040/-0.96	1.53/-4.45	1.250/-76	0.1/0.3	-1.87/-2.82	-4.96/-7.47	-9.71/-11.54	-13.91/-16.2	-9.55/-6.47	-6.47/-4.7	-3.57/-3.01	-2.55/-2.26	-2.31/-2.57	-2.61/-2.57	-2.29/-2	-2.38/-3.56	-5.24/-8.07	-11.33/-19.29	-17.51/-17.62	-16.17/-12.89	-8.89/-5.99	-4.89/-3.99	-2.91/-9.8
Θ(22.5°)	-0.31/-0.71	0.16/-1.37	2.09/-2.91	3.673/.71	2.85/-1.98	0.28/-1.18	-3.13/-5.44	-9.35/-15.68	-16.96/-12.72	-12.73/-19.06	-17.98/-9.54	-5.29/-3.05	-1.4/-1.81	-3.84/-5.2	-4.45/-3.07	-2.31/-2.98	-5.14/-7.71	-10.02/-11.41	-12.7/-15.18	-15.16/-10.74	-6.23/-4.26	-3.67/-3.42	-4.13/-4.23	-2.4/-0.4
Θ(30°)	1.180/-3.4	0.661/-73	3.164/-36	4.022/-25	0.37/-0.62	-1.41/-2.19	-2.89/-3.13	-3.93/-5.99	-10.41/-17.96	-16.88/-12.92	-16.07/-18.71	-14.61/-9.07	-7.83/-8.95	-1.18/-13.95	-12.57/-10.3	-9.81/-9.71	-9.9/-10.9	-11.98/-10.51	-7.31/-4.39	-2.61/-1.92	-2.67/-4.29	-3.54/-3.1	-1.48/-4.28	-2.930/-33
Θ(37.5°)	2.080/83	1.272/-95	3.6/-69	0.07/-1.41	-1.52/-1.63	-1.37/-1.25	-1.16/-0.98	-1.45/-2.75	-5.97/-14.15	-18.47/-10.95	-7.11/-8.67	-17.38/-16.65	-17.55/-16.69	-11.36/-6.61	-6.17/-6	-6.71/-8.9	-12.28/-17.03	-13.61/-7.19	-1.64/-0.2	-1.02/-2.92	-6.66/-6.91	-6.27/-7.18	0.12/-28	
Θ(45°)	2.091/18	2.252/-93	2.710/-23	-0.10/-0.42	-0.11/-0.46	-1.38/-2.5	-3.47/-4.59	-5.21/-5.71	-6.88/-13.5	-12.97/-6.76	-4.52/-5.08	-9.1/-12.77	-9.41/-10.26	-14.57/-13.17	-6/-4.53	-3.65/-2.22	-4.44/-10.41	-7.45/-9.29	-18.69/-11.89	-6.010/-09	-2.34/-78	-1.27/-5.12	-7.97/-7.97	-1.592/-05
Θ(52.5°)	0.840/-62	2.041/-62	0.42/-1.95	-0.59/-0.78	-1.82/-4.13	-4.75/-3.48	-3.05/-4.12	-5.3/-5.59	-5.93/-8.34	-10.73/-9.05	-5.13/-5.44	-8.18/-6.01	-2.61/-3.92	-12.16/-7.79	-3.96/-1.66	0.65/0.19	-1.65/-3.48	-8.82/-10.48	-10.37/-18.85	-4.84/-0.71	0.09/-0.93	-3.92/-2.63	-2.07/-4.73	-1.620/-14
Θ(60°)	-0.33/-0.85	0.47/-0.81	-4.1/-4.82	-3.13/-4.6	-5.74/-3.68	-1.95/-0.68	-1.07/-2.42	-3.65/-4	-4.23/-6.29	-13.03/-15.38	-7.22/-4.4	-6.28/-10.3	-8.17/-9.57	-9.44/-9.21	-1.71/-0.29	-2.95/-9.21	-17.74/-8.18	-7.81/-11.41	-3.4/-1.5	1.72/-1.84	-4.131/-87	1.4/-4.71	-1.43/-1.44	
Θ(67.5°)	0.74/-0.84	-3.92/-6.14	-6.56/-4.16	-3.92/-6.72	-4.83/-1.08	-0.15/-0.3	-1.64/-3.64	-5.47/-5.91	-6.99/-8.58	-13.57/-13.33	-15.53/-11.84	-9.39/-1.74	-8.41/-8.18	-6.81/-8.45	-9.34/-2.82	0.951/-49	-1.18/-6.14	-10.17/-9.72	-11.55/-9.09	-3.32/-3.13	-3.37/-3.84	-3.2/63	0.29/-7.23	0.73/-45
Θ(75°)	-1.43/-2.25	-3.49/-9.23	-5.62/-3.77	-4.86/-8.51	-6.25/-3.22	-1.48/0.05	-0.79/-3.28	-4.73/-6.61	-4.46/-6.57	-12.07/-8.28	-5.81/-4.98	-2.87/-3.75	-5.9/-3.48	-2.91/-5.38	-3.73/0.08	2.772/-18	2.11/-2.18	-9.45/-18.19	-17.33/-8.24	-2.66/-2.86	-11.31/-8.29	0.251/-97	-1.06/-3.33	2.082/-43
Θ(82.5°)	-1.47/-3.81	-3.94/-6.6	-2.92/-4.27	-7.51/-8.49	-4.72/-3.17	-2.48/-2.44	-3.83/-6.62	-4.95/-8.65	-4.47/-5.77	-7.57/-7.34	-2.75/-8.28	-2.76/-1.44	-5.37/-5.08	-1.4/-3.6	-6.04/-0.74	-0.012/86	3.593/-18	0.97/-6.46	-10.55/-6.79	-2.83/-4.62	-8.19/-2.15	2.631/-75	0.270/-55	3.74/-2.29
Θ(90°)	-1.95/-2.37	-3.11/-6.17	-2.49/-1.44	-9.23/-6.03	-3.41/-2.79	-0.88/-2.65	-3.04/-3.32	-2.07/-2.79	-3.1/-3.4	-4.17/-5.76	-6.82/-3.08	-0.870/0.1	-3.27/-4.64	-0.84/-5.43	-5.95/-1.67	-1.63/-0.02	2.423/-52	0.74/-8.85	-18.08/-17.67	-7.367/-52	-4.74/-5.84	-4.28/-0.05	2.481/-63	
Θ(97.5°)	-5.77/-1.39	-2.96/-5.41	-4.29/-3.9	-10.69/-7.68	-4.94/-3.39	-3.85/-3.33	-2.14/-2.3	-0.64/-0.5	-2/-3.8	-2.64/-2.7	-1.03/-0.68	-0.142/-0.9	-0.68/-3.57	-3.59/-13.72	-8.15/-1.55	-1.05/-9.07	-1.41/-1.2	0.913/-57	-8.43/-12.15	-6.87/-17.57	-10.66/-3.9	-3.46/-14.95	-5.53/-1.16	2.061/-7.9
Θ(105°)	-9.66/-5.67	-10.06/-14.87	-6.94/-8.51	-7.84/-3.48	-2.9/-2.93	-4.88/-4.7	-5.25/-4.92	-1.05/-1.69	-1.39/-3.41	-1.270/-26	-3.1/-1.25	0.591/-85	-1.58/-6.15	-4.57/-8.27	-12.41/-4.33	-1.9/-8.87	-8.18/-5.08	-6.06/-8.89	-11.76/-8.62	-5.76/-6.41	-6.41/-14.11	-14.08/-9.22	-11.58/-2.57	-0.12/-3.08
Θ(112.5°)	-6.98/-8.61	-13.9/-12.9	-7.62/-9.68	-13.22/-9.18	-4.17/-2.95	-2.83/-2.66	-2.35/-1.45	-0.72/-0.21	-1.54/-2.33	-0.52/0.23	-0.74/-0.07	1.561/-68	-1.19/-6.97	-8.44/-11.94	-10.59/-5.83	-3.42/-10.88	-15.52/-6.22	-1.11/-3.64	-2.66/-2.6	-14.26/-12.45	-14.83/-17.92	-15.2/-13.08	-10.7/-5.27	-6.48/-3.11
Θ(120°)	-10.28/-17.32	-15.96/-9.53	-10.63/-9.91	-9.45/-8.29	-6.78/-7.77	-8.22/-8.77	-6.69/-5.24	-3.43/-2.13	-2.88/-9.39	-0.51/-44	0.68/-1.2	-2.25/-0.05	-0.45/-2.49	-1.68/-2.17	-2.65/-0.83	-10.63/-15.93	-5.65/-8.86	-2.99/-4.74	-10.1/-13.24	-12.29/-18.51	-			



Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

Θ(120°)	-18.85/-12.27	-9.77/-14.39	-14.78/-15.93	-9.42/-6.08	-5.94/-8.04	-8.48/-5.96	-3.85/-3.53	-4.78/-3.94	-5.37/-3.29	-2.01/-3.19	-4.76/-3.88	-7.29/-17.96	-17.05/-17.77	-6.46/-9.73	-14.16/-33.37	-10.7/-18.46	-13.99/-6.1	-13.43/-10.26	-18.62/-4.35	-16.65/-10.2	-4.66/-4.89	-6.37/-9.95	-15.68/-9.97	-11.19/-16.58
Θ(127.5°)	-7.8/-3.8	-14.9/-18.53	-9.61/-8.29	-8.85/-6.7	-5.45/-8.43	-9.05/-7.53	-6.86/-6.92	-4.95/-6.24	-7.69/-6.15	-5.11/-8.22	-12.88/-12.35	-13.5/-7.75	-9.93/-11.07	-9.97/-11.78	-10.95/-12.13	-10.32/-7.45	-19.19/-14.58	-19.3/-12.57	-9.39/-6.35	-7.35/-10.7	-10.78/-12.75	-6.48/-13.31	-14.66/-15.18	-13.85/-8.48
Θ(135°)	-6.27/-8.94	-12.74/-10.94	-9.99/-7.84	-5.48/-4.73	-3.57/-1.71	-0.79/-1.32	-2.6/-4.96	-5.07/-6.87	-2.58/-3.42	-4.63/-12.79	-1.73/-12.07	-7.21/-5.98	-11.37/-15.51	-13.72/-11.55	-18.41/-10.68	-18.09/-9.15	-10.82/-8.33	-4.61/-9.74	-18.19/-9.12	-15.05/-17.53	-8.43/-8.86	-14.96/-18.29	-16.79/-13.31	
Θ(142.5°)	-9.45/-10.91	-17.12/-10.68	-7.83/-7.05	-6.71/-5.7	-3.57/-1.84	0.11/0.18	-1.9/-2.67	-1.69/-2.17	-0.45/0.03	-1.65/-4.66	-6.12/-9.98	-11.11/-11.62	-13.73/-14.7	-7.96/-12.37	-10.65/-6.6	-10.44/-18.11	-11.57/-13.28	-5.52/-6.12	-15.35/-12	-9.38/-17.35	-16.81/-13.83	-12.94/-18.76	-18.64/-10.79	-11.9/-16.64
Θ(150°)	-13.34/-15.71	-12.76/-10.11	-8.85/-7.64	-7.15/-7.67	-9.16/-10.8	-14.37/-13.87	-8.36/-8.06	-8.93/-6.28	-4.63/-3.17	-2.34/-0.66	-0.79/-4.49	-12.99/-13.18	-10.6/-17.81	-18.97/-13.93	-13.65/-11.07	-5.96/-2.31	-3.15/-8.14	-18.73/-8.66	-9.4/-10.5	-10.37/-17.85	-17.81/-14.84	-13.34/-10.27	-17.41/-6.84	-7.77/-10.84
Θ(157.5°)	-10.54/-11.39	-11.91/-9.9	-7.74/-6.53	-6.52/-7.38	-6.52/-9.75	-11.24/-15.41	-18.65/-17.07	-10.42/-7.82	-6.31/-4.01	-2.42/-2.25	-3.04/-5.22	-7.98/-10.32	-11.54/-17.63	-17.8/-13.13	-7.37/-5.36	-6.08/-8.62	-11.42/-15.91	-17.98/-13.98	-10/-7.94	-7.82/-15.5	-14.02/-12.75	-13.5/-17.97	-16.01/-10.54	-9.21/-9.38
Θ(165°)	-8.23/-11.23	-14.53/-18.1	-16.93/-12.66	-11.01/-10.58	-11.38/-11.83	-9.92/-7.27	-6.38/-5.54	-5.14/-4.33	-3.94/-4.11	-4.21/-3.93	-5.17/-8.87	-14.67/-17.59	-17.24/-17.87	-14.1/-7.87	-6.29/-8.64	-10.93/-7.24	-4.54/-4.28	-6.01/-7.9	-7.19/-6.3	-6.54/-8.09	-8.67/-8.64	-8.54/-10.58	-18.5/-18.09	-10.75/-7.73
Θ(172.5°)	-6.97/-6.41	-6.37/-6.2	-6.27/-6.43	-6.99/-7.43	-6.86/-6.16	-6.02/-5.91	-5.9/-6.67	-7.42/-7.1	-6.16/-5.26	-4.6/-5.02	-6.54/-6.68	-6.94/-6.99	-6.91/-6.57	-6.23/-6.43	-7.35/-8.12	-8.69/-8.47	-7.61/-7.15	-7.64/-9	-11.57/-14.38	-14.68/-13.94	-14.03/-13.04	-12.93/-12.42	-11.05/-10.09	-8.5/-7.38
Θ(180°)	-8.12/-7.76	-9.05/-8.72	-8.26/-7.22	-6.71/-6.92	-7.47/-7.85	-8.1/-9.27	-9.11/-9.51	-10.19/-11.3	-11.74/-12.04	-13.35/-15.07	-16.23/-15.55	-13.46/-11.36	-10.05/-9.03	-8.17/-8.19	-8.24/-8.48	-6.84/-8.22	-6.87/-5.12	-3.97/-3.92	-5.02/-5.96	-6.04/-6.17	-6.59/-7.19	-8.13/-8.06	-8.99/-10.45	-10.86/-10.12
Freq(Hz)	6.895GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-1.84/-1.94	-2.41/-2.4	-2.47/-2.23	-2.21/-2.72	-3.64/-4.56	-4.64/-4.81	-5.91/-7.26	-8.29/-8.49	-8.18/-4.24	-6.38/-7.52	-6.47/-5.09	-4.66/-3.51	-3.16/-2.68	-2.25/-1.66	-1.43/-1.56	-1.88/-1.83	-2.32/-3.49	-4.81/-6	-6.69/-6.63	-6.4/-6.2	-6.91/-6.4	-4.86/-4.86	-3.98/-3.01	-2.26/-2.07
Θ(7.5°)	-1.98/-1.67	-1.44/-1.47	-2.16/-2.78	-3.07/-3.62	-4.31/-5.29	-5.64/-6.67	-8.18/-9.68	-9.51/-8.09	-6.52/-5.34	-5.06/-4.49	-4.09/-3.89	-3.21/-2.79	-2.87/-2.9	-2.99/-3.25	-3.07/-2.72	-2.09/-1.83	-1.89/-2.53	-3.76/-4.87	-6.23/-8	-9.44/-10.48	-11.34/-11.12	-10.01/-8.3	-6.31/-4.74	-3.75/-2.75
Θ(15°)	-1.9/-1.16	-1.16/-1.12	-1.17/-0.85	-0.52/-0.6	-0.95/-1.25	-2.68/-3.83	-5.45/-8.29	-13.45/-18.87	-15.14/-8.38	-5.36/-3.59	-2.99/-3.15	-4.12/-5.18	-6.36/-6.15	-4.06/-2.77	-2.21/-1.85	-2.27/-3.07	-4.68/-6.71	-7.87/-8.81	-9.17/-10.81	-12.57/-13.08	-10.09/-6.94	-5.11/-4.01	-3.84/-4.18	-4.37/-3.29
Θ(22.5°)	-1.28/-0.33	0.56/0.42	-0.68/-1.04	-1.54/-2.26	-3.65/-4.39	-4.13/-3.57	-3.38/-4.07	-5.32/-3.36	-10.99/-19.44	-14.21/-6.84	-4.38/-4.58	-5.96/-7.28	-7.48/-4.93	-2.8/-3.18	-5.68/-8.01	-8.81/-7.49	-6.65/-8.42	-13.15/-17.52	-16.85/-13.1	-9.03/-8.04	-9.73/-9.75	-5.26/-4.23	-2.54/-1.84	
Θ(30°)	0.53/0.76	0.65/0.4	-1.01/-2.59	-4.33/-5.34	-5.22/-5.92	-6.32/-6.46	-6.82/-8.41	-14.6/-16.14	-12.78/-14.39	-18.97/-13.77	-6.15/-4.17	-5.47/-9.34	-16.4/-14.54	-10.1/-10.58	-12.49/-12.42	-12.96/-14.39	-15.32/-16.37	-17.77/-17.96	-15.03/-12.12	-11.09/-9.33	-8.27/-9.32	-10.72/-10.29	-5.08/-1.88	-1.05/0.24
Θ(37.5°)	3.01/29	2.16/0.49	-1.74/-3.72	-4.83/-4.32	-5/-5.21	-5.11/-5.58	-5.89/-16.2	-7.75/-13.59	-13.71/-19.22	-18.63/-19.78	-13.25/-10.15	-9.14/-11.9	-16.97/-15.63	-9.76/-8.58	-11.91/-13.36	-9.75/-7.87	-8.53/-3.07	-13.08/-9.11	-8.1/-8.66	-5.91/-4.02	-4.49/-6.17	-8.22/-6.62	-8.31/-4.17	-0.24/-2.14
Θ(45°)	1.45/1.21	0.29/-1.18	-3.19/-4.57	-6.19/-8.35	-8.26/-5.23	-3.66/-3.63	-3.19/-3.2	-4.32/-5.35	-8.32/-14.98	-16.02/-16.01	-17.97/-17.97	-14.52/-11.83	-11.01/-10.63	-9.23/-11.78	-7.65/-7.39	-6.34/-5.92	-5.8/-9.5	-12.2/-14.73	-16.94/-17.3	-5.97/-2.91	-3.11/-6.91	-7.58/-5.4	-3.97/-2.78	-1.71/-0.54
Θ(52.5°)	-0.83/-2.47	-5.15/-4.93	-5.81/-6.6	-5.74/-3.37	-1.74/-0.88	-0.94/-2.14	-3.24/-4.4	-4.75/-6.9	-9.46/-17.21	-18.67/-12.96	-14.89/-18.24	-12.72/-8.8	-8.6/-6.97	-8.76/-7.8	-5.53/-5.4	-3.63/-3.5	-4.98/-6.82	-8.14/-6.58	-11.47/-13.68	-5.76/-2.09	-3.24/-7.3	-9.83/-7.33	-4.15/-3.23	-3.79/-1.98
Θ(60°)	-2.58/-3.14	-7.42/-9.7	-7.86/-7.62	-7.59/-4.17	-1.83/-1.7	-1.87/-2.42	-5.46/-11.4	-19.19/-11.62	-9/-8.81	-10.35/-13.25	-13.29/-8.49	-8.18/-9.89	-6.95/-2.64	-4.25/-4.17	-5.1/-6.04	-2.8/-1.56	-1.8/-6.25	-14.71/-11.94	-8.6/-9.26	-5.15/-7.24	-3.82/-2.37	-4.18/-7.33	-5/-4.31	
Θ(67.5°)	-2.59/-4.53	-7.66/-6.03	-5.05/-3.59	-10.26/-6.92	-4.97/-4.54	-2.46/-1.97	-2.11/-3.63	-9.83/-16.81	-11.84/-17.79	-6.10/-5.18	-10.34/-6.4	-9.57/-5.08	-3.97/-4.88	-8.24/-3.58	-8.61/-8.36	-3.98/-2.88	-1.25/-4.6	-13.71/-14.91	-16.44/-10.36	-5.47/-14.18	-7.86/-3.82	2.493/-1.4	-0.21/-4.41	-1.86/-1.46
Θ(75°)	-2.39/-1.95	-8.34/-4.13	-3.33/-6.52	-5.71/-3.84	-3.38/-4.12	-5.12/-4.84	-5.94/-5.67	-5.52/-10.34	-15.83/-16.6	-11.1/-9.6	-13.89/-7.78	-5.86/-6.73	-9.82/-12.96	-4.72/-4.56	-18.35/-6.06	-0.49/-1.83	1.24/-2.39	-12.74/-8.93	-9.62/-7.13	-2.67/-3.76	-18.63/-0.91	2.943/-2.2	0.19/-1.52	-0.5/-2.4
Θ(82.5°)	-4.63/-2.69	-2.98/-1.11	-1.54/-8.98	-1.92/-2.2	-2.88/-2.3	-4.48/-3.07	-5.03/-7.78	-4.79/-8.75	-11.66/-12.38	-7.26/-3.34	-7.38/-5.01	-1.43/-3.39	-2.16/-3.35	-2.38/-0.57	-5.62/-5.35	0.08/-9.3	4.03/-0.31	-5.24/-3.91	-8.21/-18.45	-7.34/-11.35	-5.56/-2.18	2.65/0.88	-1.68/-5.9	-3.51/-1.82
Θ(90°)	-2.12/-2.68	-2.45/-0.92	-4.8/-5.08	-2.69/-4.24	-4.84/-3.62	-3.66/-3.03	-5.61/-6.75	-5.03/-5.63	-3.38/-7.1	-8.09/-2.27	-3.23/-7.85	-3.07/-3.81	-0.97/-1.65	-1.68/-0.67	-6.61/-4.98	-5.48/-0.28	1.84/-1.63	0.18/-2.9	-9.85/-15.12	-1.47/-5.31	-0.61/-1.45	0.49/-4.67	-3.65/-1.14	-1.01/-1.03
Θ(97.5°)	-5.83/-5.73	-2.86/-2.37	-6.04/-4.73	-5.24/-7.94	-6.37/-2.3	-4.02/-2.98	-3.24/-4.02	-2/-3.62	-3.69/-6.25	-11.23/-4.33	-7.22/-3.2	-2.06/-9.73	-8.12/-4.05	-5.32/-3.59	-3.58/-1.31	-1.56/-6.74	-9.13/-1.27	0.33/-2.3	-5.92/-9.09	-11.76/-7.44	-1.65/-3.04	-6.26/-9.28	-7.87/-4.94	-6.43/-3.95
Θ(105°)	-5.89/-5.73	-2.4/-5.7	-7.5/-6.95	-6.05/-12	-9.22/-3.76	-2.44/-0.75	-3.46/-3.73	-3.27/-5.72	-2.32/-4.9	-8.27/-6.43	-1.2/-0.18	-3.35/-5.02	-6.71/-11.9	-4.99/-5.12	-6.46/-6.29	-7.08/-8.81	-13.51/-3.59	-6.04/-3.93	-7.26/-11.83	-8.15/-5.14	-12.9/-10.65	-4.47/-3.71	-10.12/-11.7	-12.19/-6.96
Θ(112.5°)	-8.8/-7.29	-6.15/-10.04	-12.96/-8.45	-10.87/-14.24	-9.88/-5.92	-1.86/-2.46	-3.81/-6.66	-7.74/-5.06	-4.81/-6.73	-3.94/-4.27	-2.07/-0.57	-4.16/-3.03	-5.31/-7.03	-5.26/-12.35	-14.59/-4.6	-4.86/-5.86	-16.94/-2.78	1.63/-0.44	-5.28/-4.89	-9.66/-6.43	-12.94/-15.04	-1.97/-5.74	-6.28/-5.46	-8.93/-9.79
Θ(120°)	-6.17/-7.95	-4.83/-9.03	-15.98/-13.14	-17.28/-17.5	-11.41/-6.26	-4.76/-2.93	-3.57/-4.12	-4.03/-4.41	-8.68/-6.38	-5.51/-4.67	-8.83/-0.18	-3.01/-4.31	-3.48/-5.85	-4.98/-4.94	-5.65/-12.43	-7.59/-9.16	-4.41/-13.4	-4.68/-11.93	-9.37/-11.98	-13/-17.34	-18.64/-9.41	-18.46/-14.64	-10.75/-7.43	-13.31/-6.03
Θ(127.5°)	-4.68/-16.64	-18.58/-12.14	-11.19/-10.21	-11.85/-15.32	-18.07/-10.83	-6.47/-6.13	-4.44/-3.33	-2.99/-3.91	-3.58/-2.87	-2.71/-2.36	0.81/-41	-3.32/-4.36	-1.94/-4.16	-3.34/-3.67	-11.15/-19.38	-10.65/-6.33	-1.47/-11.05	-6.04/-7.69	-0.07/-1.74	-12.11/-10.86	-14.62/-17.31	-11.65/-12.9	-6.32/-6.38	-13.89/-5.86
Θ(135°)	-17.75/-17.72	-17.83/-12.97	-18.87/-14.87	-14.57/-13.1	-11.52/-16.01	-17.91/-11.83	-9/-7.81	-6.58/-7.74	-9.08/-5.56	-2.42/-3.46	-1.97/-0.59	-1.66/0.7	-9.97/-9.39	-10.89/-19.14	-18.16/-8.53	-5.16/-9.45	-10.35/-6.09	-4.64/-3.81	-7.4/-11.16	-8.02/-11.73	-17.91/-13.99	-12.84/-12.72	-8.52/-7.94	
Θ(142.5°)	-18.57/-12.69	-8.26/-5.68	-7.16/-8	-10.44/-12.62	-11.72/-15.05	-10.55/-8.32	-9.37/-7.63	-8.17/-9.62	-10.6/-8.43	-4.74/-1.95	0.81/0.08	-1.73/0.54	0.78/-1.6	-15.53/-3.03	-6.59/-6.62	-5.29/-5.63	-18.74/-16.64	-13.95/-10.17	-11.08/-8.98	-13.74/-8.4	-6.69/-11.58	-18.32/-7.79	-8.61/-9.65	-7.86/-9.68
Θ(150°)	-6.63/-7.71	-10.12/-12.72	-14.83/-17.94	-17.69/-16.4	-10.23/-9.82	-11.35/-13.01	-14.88/-12.69	-10.06/-8.8	-8.22/-8.08	-6.93/-3.17	0.63/-1.62	0.67/-3.2	-6.14/-4.09	-1.78/0.17	1.37/-1.01	-0.31/-3.35	-5.94/-4.68	-8.78/-13.29	-7.82/-6.17	-13.31/-19.25	-10.64/-1.77	-5.41/-5.98	-9.91/-18.79	-9.19/-6.73
Θ(157.5°)	-13.69/-12.92	-12.39/-14.75	-18.07/-19	-16.39/-16.22	-13.37/-13.41	-12.56/-13.97	-17.65/-18.19	-16.41/-10.15	-6/-4.39	-3.85/-2.15	-0.45/-0.59	-2.08/-4.93	-4.79/-0.44	0.40/-44	-1.14/-4.49	-4.43/-4.97	-6.25/-7.98	-10.46/-8.99	-6.54/-5.82	-7.54/-11.1	-10.35/-7.33	-6.36/-9.73	-8.22/-9.13	-9.26/-8.75
Θ(165°)	-12.63/-10.29	-11.99/-16.12	-19.03/-17.56	-18.51/-18.61	-18.47/-18.39	-16.26/-14.63	-14.08/-15	-12.6/-8.91	-6.51/-4.39	-1.75/0.86	1.99/-1.6	0.29/-1.28	-5.19/-14.21	-9.21/-7.21	-8.83/-9.94	-6.82/-9.56	-18.22/-17.63	-12.38/-12.49	-11.94/-10.57	-9.21/-10.17	-13.79/-17.31	-13.32/-9.64	-7.79/-8.03	-10.66/-16.95
Θ(172.5°)	-10.21/-10.46	-10.78/-12.48	-15.96/-18.5	-17.98/-17.36	-17.06/-19.32	-17.21/-14.37	-12.07/-9.14	-7.04/-																



Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

Θ(172.5°)	-1.64/-2.15	-3.42/-4.83	-6.59/-8.02	-7.79/-7.87	-8.45/-9.02	-10.6/-12.12	-13.95/-16.9	-18.88/-14.89	-11.03/-10.02	-9.58/-10.33	-12.18/-14.92	-18.79/-18.53	-15.29/-11.83	-10.75/-10.83	-9.97/-8.53	-8.3/-8.45	-9.24/-10.15	-10.25/-9.3	-7.65/-6.16	-5.64/-5.73	-6.36/-6.96	-6.52/-4.78	-3.25/-2.57	-1.46/-1.35	
Θ(180°)	-17.93/-19.56	-19.02/-18.7	-19.45/-19.07	-18.42/-19.18	-18.35/-17.43	-15.49/-13.85	-11.56/-10.02	-8.78/-7.57	-6.7/-6.27	-7.05/-8.31	-10.54/-13.15	-18.3/-18.77	-18.03/-18.84	-17.92/-17.75	-17.49/-18.93	-19.1/-18.63	-18.28/-18.72	-17.31/-15.93	-15.22/-13.54	-13.75/-13.65	-15.06/-18.23	-18.32/-18.67	-17.66/-18.51	-19/-19.24	
Freq(Hz)	6.175GPol.	ThetaAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)	
Θ(0°)	-6.28/-6.69	-9.85/-13.18	-17.76/-16.62	-11.53/-7.87	-5.4/-3.61	-1.9/-1.02	-1.38/-0.38	-0.4/-0.54	-0.43/-0.64	-0.76/-1.18	-1.77/-2.83	-4.18/-5.49	-6.8/-8.3	-9.18/-10.05	-9.93/-9.17	-7.95/-7.15	-6.45/-5.28	-3.96/-2.79	-1.86/-1.58	-1.18/-0.91	-0.95/-0.78	-1.21/-1.64	-2.12/-3.11	-4.15/-4.77	
Θ(7.5°)	-6.13/-6.24	-6.22/-5.56	-6.32/-6.14	-5.29/-4.31	-3.48/-2.78	-2.32/-2.37	-2.28/-2.26	-2.51/-2.49	-2.26/-2.41	-2.44/-1.8	-1.81/-1.95	-2.66/-3.74	-5.35/-7.57	-9.86/-13.32	-18.49/-18.85	-12.51/-8.2	-5.58/-3.43	-1.82/-0.74	-0.32/-0.04	0.290/29	0.480/3	-0.55/-1.76	-2.99/-4.49	-5.05/-5.44	
Θ(15°)	-3.4/-3.63	-2.9/-3.23	-3.82/-3.45	-3.19/-2.63	-2.22/-1.54	-0.99/-0.86	-0.540/0.3	0.220/5	0.340/-0.1	-0.46/-1.15	-2.21/-3.48	-4.26/-4.77	-5.18/-6.16	-7.87/-10.14	-13.94/-18.66	-13.67/-7.69	-3.89/-1.77	-0.670/24	0.891/31	1.080/91	0.66/-0.28	-1.43/-2.68	-3.85/-4.18	-3.36/-3.08	
Θ(22.5°)	-3.12/-3.25	-4.01/-4.71	-4.74/-4.52	-4.5/-4.21	-3.8/-3.05	-2.45/-1.56	-0.290/46	0.560/24	-0.41/-1.12	-1.72/-3.05	-5.36/-8.97	-11.54/-11.26	-10.56/-10.11	-10.05/-10.63	-10.83/-8.32	-5.52/-3.56	-1.95/-0.84	-0.63/-0.81	-0.350/17	0.25/-0.18	-1.44/-2.2	-2.84/-2.93	-2.79/-2.92	-2.12/-2.38	
Θ(30°)	-3.91/-4.82	-4.36/-4.39	-5.53/-7.3	-10.36/-13.15	-12.76/-10.63	-7.28/-4.55	-2.79/-2.51	-2.88/-3.08	-4.37/-4.8	-5.83/-8.57	-14.46/-11.66	-7.41/-6.08	-7.24/-10.7	-14.77/-12.04	-7.53/-467	-3.86/-3.73	-2.97/-1.5	1.091/28	1.491/25	0.850/24	-0.8/-1.35	-1.41/-1.33	-0.81/-0.86	-2/-3.04	
Θ(37.5°)	-2.25/-1.15	-0.46/-1.06	-2.63/-5.15	-9.55/-12.08	-11.93/-11.59	-12.3/-11.51	-9.36/-8.12	-7.85/-8.34	-10.54/-14.4	-17.56/-6.71	-1.70/33	-1.14/-1.36	-2.56/-4.08	-4.69/-6.16	-5.43/-5.06	-8.46/-9.74	-1.780/39	-1.05/-1.41	-1.12/-0.4	1.411/02	-0.69/-1.58	-4.89/-9.19	-12.93/-6.46	-2.53/-0.65	
Θ(45°)	-1.630/1.7	2.06/2.49	1.86/-0.35	2.42/-4.82	-9.76/-16.39	-14.59/-9.84	-7.61/-6.36	-6.24/-8.02	-10.91/-13.23	-7.65/-3.09	-1.58/-0.03	0.340/0.3	2/-4.72	-8.54/-16.93	-16.17/-5.32	-2.84/-2.82	-0.761/76	2.53/41	3.191/43	0.881/34	1.641/46	0.38/-0.85	-3.06/-3.48	-2.24/-1.97	
Θ(52.5°)	-3.81/-3.49	-1.86/-1.37	-2.87/-4.12	-5.01/-9.86	-18.24/-11.03	-5.63/-4.2	-3.86/-3.35	-3.97/-7.59	-12.61/-16.5	-10.23/-3.38	-0.40/99	0.680/-0.4	-1.9/-267	-4.79/-10.64	-8.41/-5	-0.921/78	2.290/29	-0.530/15	0.462/14	2.560/99	-1.8/-2.53	-4.87/-2.02	-5.13/-4.29		
Θ(60°)	-3.86/-6.68	-1.86/-1.07	-10.64/-7.19	-4.54/-5.17	-4.48/-2.11	-2.18/-4.38	-6.24/-5.49	-4.47/-5.71	-12.14/-18.25	-17.56/-6.71	-1.70/33	-1.14/-1.36	-2.56/-4.08	-4.69/-6.16	-5.43/-5.06	-8.46/-9.74	-1.780/39	-1.05/-1.41	-1.12/-0.4	1.411/02	-0.69/-1.58	-4.89/-9.19	-12.93/-6.46	-2.53/-0.65	
Θ(67.5°)	-1.41/-2.63	-5.2/-7.73	-8.22/-5.42	-4.57/-5.11	-4.22/-2.89	-2.77/-3.87	-8.79/-8.11	-6.26/-8.48	-18.49/-12.66	-14.35/-8.33	-1.78/-0.58	-3.81/-5.29	-3.22/-1.41	-1.5/-3.48	-2.16/-4.83	-13.02/-13.27	-4.04/-0.72	-0.87/-1.05	-1.66/-1.85	0.170	-1.75/-5.26	-6.2/-4.18	-3.79/-0.31	1.370/93	
Θ(75°)	0.131/8.1	2.241/0.1	-2.47/-6.2	-6.31/-4.51	-3.1/-2.02	-0.89/-0.57	-5.88/-6.28	-8.65/-15.32	-14.45/-12.22	-3.02/-1.36	-2.45/-8.9	-5.24/-3.7	0.1/-0.49	-1.46/-4.18	-11.36/-12.24	-4.52/-3.33	-1.79/-12.3	-2.54/-1.45	1.241/78	-0.67/-4.76	-3.460/61	0.891/33	1.430/62		
Θ(82.5°)	2.514.48	4.15/3.89	1.88/-1.32	5.83/-5.66	-3.69/-6.33	-2.63/-1.98	-6.06/-16.45	-17.32/-12.27	-9.9/-15.7	-7.74/-2.18	-0.18/-0.39	-0.15/-0.76	-2.97/-4.09	0.280/45	-1.61/-2.71	-7.87/-9.9	-7.64/-3.43	-2.81/-1.06	-2.4/-3.66	0.040/85	-1.29/-5.96	-2.730/16	1.30/-48	0.691/83	
Θ(90°)	0.9/3	2.79/2.89	2.520/8.2	-3.12/-5.06	-11.62/-15.98	-2.31/-0.3	-3.89/-14.24	-5.38/-3.42	-2.79/-7.89	-5.420/52	1.271/33	1.462/56	1.49/-1.86	-0.470/13	-1.51/-4.71	-7.25/-9.21	-8.74/-5.01	-2.010/27	-5.16/-8.19	-2.24/-0.51	-4.02/-13.36	-5.95/-2.6	-0.320/64	-0.360/89	
Θ(97.5°)	0.462/0.4	0.280/13	1.761/99	-0.45/-0.52	-0.41/-3.03	-2.020/16	-1.62/-4.52	-10.81/-8.1	-3.89/-6.65	-5.361/35	1.971/37	2.052/27	2.4/-2.26	-2.87/-2.36	-5.3/-6.41	-6.1/-3.31	-4.98/-6.54	-5.41/-3.64	-15.02/-13.32	-6.53/-3.56	-7.42/-17.73	-10.01/-3.61	-1.66/-0.69	-0.75/-1.47	
Θ(105°)	-3.85/-2.93	-2.79/-2.36	1.55/3.3	2.692/43	2.730/12	-4.93/-5.29	-2.49/-4.25	-9.82/-9.43	-2.93/-8.23	-16.91/-1.49	1.420/9	0.240/39	1.61/-2.6	-8.24/-9.69	-14.04/-11.84	-13.71/-8.02	-2.36/-6.48	-9.43/-8.69	-11.76/-7.14	-7.87/-4.65	-12.82/-19.13	-10.25/-7.17	-3.74/-0.45	-1.71/-3.85	
Θ(112.5°)	-6.13/-3.69	-2.24/-1.86	1.293/4	3.481/44	0.31/-0.77	-3/-3.26	-0.51/-0.59	-2.68/-5.8	-3.77/-6.53	-13.64/-3.56	-0.34/-0.77	-2.99/-3.44	-3.43/-3.97	-10.27/-7.6	-7.03/-16.86	-7.31/-7.66	-3.38/-6.02	-13.81/-12.53	-18.81/-6.02	-5.72/-8.99	-16.86/-8.88	-6.76/-64	-5.96/-4.52	-5.81/-10.61	
Θ(120°)	-1.81/-2.48	-1.77/-1.6	0.851/66	1.46/-0.15	-0.110/48	-0.54/-3.47	-4.03/-1.91	-2.64/-6.3	-9.98/-18.18	-12.85/-8.05	-3.75/-2.31	-7.33/-3.86	-5.81/-5.58	-17.87/-10.88	-4.14/-12.63	-4.76/-8.71	-8.58/-16.81	-18.79/-7.53	-19.13/-18.91	-9.76/-14.2	-14.16/-9.94	-18.5/-7.74	-3.58/-2.74	-1.03/-2.62	
Θ(127.5°)	-1.58/-2.36	-0.681/32	2.383/15	2.621/4	-0.53/-2.31	-4.66/-8.08	-10.19/-10.98	-9.47/-7.18	-7.65/-10.36	-17.16/-8.84	-4.15/-3.42	-8.77/-5.44	-5.01/-8.49	-13.81/-18.71	-8.29/-10.73	-9.98/-7.22	-17.8/-12.85	-17.51/-14.13	-16.51/-14.19	-12.91/-13.71	-14.63/-7.98	-17.35/-13.98	-8.83/-6.76	-1.45/-1.35	
Θ(135°)	-1.224/-7.77	-0.941/56	1.561/59	1.91/9	0.42/-2.71	-3.44/-1.19	-2.44/-1.19	-3.64/-0.72	1.07/-10.43	-6.15/-18.18	-9.06/-3.4	-17.31/-11.5	-1.37/-8.7	-14.31/-15.78	-8.31/-5.45	-6.99/-10.36	-17.57/-12.02	-19.14/-12.85	-12.72/-13.63	-10.85/-13.24	-1.63/-6.09	-5.92/-4.72	-5.83/-4.01	-3.91/-6.56	
Θ(142.5°)	-8.67/-2.83	-0.60/34	-0.93/-3.38	-4.01/-3.02	-1.320/58	2.242/53	1.620/3	-1.44/-0.06	2.252/26	-0.44/-4.54	-14.42/-8.46	-3.84/-4.55	-11.38/-19.05	-13.36/-7.9	-5.65/-7.25	-7.99/-16.4	-19.1/-13.2	-8.8/-9.78	-16.63/-12.29	-15.91/-12.49	-14.34/-9.74	-6.04/-3.58	-2.53/-7.71	-8.4/-16.83	
Θ(15°)	-5.25/-3.19	-2.1/-2.37	-3.14/-5.71	-9.07/-9.73	-6.8/-2.64	0.552/79	3.652/51	-0.71/-2	-0.250/2	-0.73/-1.39	-4.81/-17.09	-12.88/-7.82	-9.42/-15.85	-9.54/-9.92	-11.34/-12.37	-18.73/-18.89	-18.92/-18.34	-16.03/-13.85	-12.52/-12.38	-12.23/-12.4	-8.43/-6.86	-10.75/-17.93	-15.08/-7.81		
Θ(157.5°)	-4.51/-2.32	-0.8/-0.65	-1.34/-1.9	-2.44/-3.52	-3.33/-1.71	-10.58/-6	1.280/56	-1.65/-4.57	-7.45/-6.87	-4.4/-2.78	-2.82/-3.95	-6.13/-7.65	-6.78/-5.29	-5.12/-7.13	-9.77/-10.88	-11.03/-11.07	-11.3/-12.82	-14.03/-13.28	-11.17/-10.75	-10.97/-14.11	-9.54/-617	-5.24/-3.72	-3.65/-5.05	-6.71/-17	
Θ(165°)	-5.91/-3.33	-1.31/-1.03	-1.43/-2.61	-4.43/-5.95	-5.38/-4.49	-3.28/-2.38	-2.2/-2.6	-4.88/-9.2	-18.74/-18.95	-10.52/-5.97	-3.54/-2.8	-3.12/-4.21	-4.88/-4.75	-4.31/-4.07	-4.37/-6.3	-6.53/-8.45	-9.72/-11.84	-13.83/-14.68	-18.91/-17.83	-18.96/-13.09	-7.13/-4.55	-4.63/-6.67	-10.36/-15.91	-18.26/-8.94	
Θ(172.5°)	-5.95/-4.33	-3.68/-3.38	-4.17/-5.94	-7.05/-7.66	-9.06/-9.49	-11.77/-12.94	-17.79/-17.72	-17.8/-18.55	-17.39/-16.56	-13.1/-18.15	-8.45/-7.68	-8.14/-8.87	-9.81/-10.2	-9.98/-10.7	-11.41/-13.58	-13.63/-12.53	-13.29/-13.77	-14.5/-15.06	-18.86/-16.77	-13.69/-11.31	-9/-7.31	-7.6/-9.94	-13.45/-16.06	-12.17/-3.84	
Θ(180°)	-16.82/-19.09	-19.33/-19.1	-18.58/-19.12	-19.13/-17.43	-18.65/-14.1	-12.47/-9.84	-8.39/-9.44	-11.15/-12.41	-11.15/-12.41	-13.17/-16.51	-15.35/-18.3	-18.22/-13.46	-17.13/-12.48	-12.02/-11.82	-10.73/-9.93	-8.93/-10.76	-12.08/-14.54	-18.91/-18.04	-17.81/-19.17	-18.65/-17.86	-14.81/-13.51	-14.87/-14.94			
Freq(Hz)	6.475GPol.	PhiAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)	
Θ(0°)	0.090/7.4	0.540/67	0.810/41	-0.06/-0.69	-1.63/-2.57	-3.42/-4.87	-7.34/-8.84	-12.19/-17.77	-17.57/-11.93	-7.37/-4.68	-2.8/-1.61	-1.25/-0.76	-0.330/7	0.550/78	0.830/26	-0.44/-1.06	-1.78/-2.99	-4.56/-6.21	-8.29/-10.85	-16.17/-17.76	-18.35/-12.84	-9.35/-7.41	-5.39/-3.95	-2.19/-0.65	
Θ(7.5°)	-0.39/-0.15	0.260/42	-0.06/-0.7	-0.6/-0.92	-1.93/-3.06	-4/-4.7	-6/-0.6	-10.81/-16.11	-18.38/-18.33	-16.17/-11.15	-8.1/-6.28	-3.88/-2.39	-1.47/-0.68	0.270/75	0.860/59	0.16/-0.56	-1.33/-2.48	-4.27/-6.41	-8.91/-9.74	-6.69/-9.24	-7.12/-5.53	-4.54/-3.55	-2.65/-2	-1.22/-0.74	
Θ(15°)	-2.19/-1.04	-0.88/-0.95	-1.34/-1.54	-1.55/-2.05	-3.72/-5.66	-6.31/-7.6	-11.88/-19.21	-17.51/-19.09	-17.49/-17.87	-18.91/-18.49	-18.9/-14.9	-7.02/-4.66	-2.82/-1.71	-1.18/-1.37	-1.75/-2.26	-3.18/-4.69	-7.18/-10.57	-12.99/-9.57	-6.2/-4.56	-3.68/-3.38	-3.42/-3.86	-4.63/-4.3	-4.28/-3.49		
Θ(22.5°)	-2.14/-1.68	-1.44/-0.94	-0.510/32	0.750/43	-0.73/-1.73	-3.55/-6.12	-10.25/-15.58	-11.45/-8.51	-7.09/-8.18	-12.87/-18.83	-18.71/-18.52	-18.1/-18.25	-17.11/-11.33	-9.21/-8.49	-8.32/-7.73	-6.36/-5.17	-4.82/-4.87	-6.4/-10.53	-18.13/-15.7	-18.13/-15.7	-7.85/-7.57	-3.99/-3.91	-4.41/-5.22	-5.67/-5.84	-4.94/-2.88
Θ(30°)	-0.3/-0.1	0.10/64	1.241/52																						



Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

Θ(15°)	-8.8/-12.54	-18.53/-16.13	-13.15/-10.57	-8.32/-7.14	-6.57/-5.45	-4.77/-5.64	-6.21/-6.94	-7.62/-8.66	-9.19/-8.45	-7.02/-5.67	-4.25/-3.17	-2.59/-2.68	-3.05/-3.73	-4.89/-6.66	-10.1/-13.64	-12.67/-8.53	-5.15/-2.68	-0.90/23	0.59/1.06	1.15/1.25	1.31/0.99	0.41/-0.16	-0.89/-1.41	-2.55/-4.93
Θ(22.5°)	-6.09/-8.47	-9.15/-8.54	-8.27/-7.4	-6.69/-6.15	-6.31/-6.8	-7.47/-7.56	-6.6/-6.77	-7.6/-8.46	-8.28/-7.83	-8.08/-8.34	-8.25/-7.35	-5.29/-4.28	-3.67/-4.09	-4.73/-5.43	-6.27/-7.24	-8.34/-7.63	-5.42/-3.31	-1.9/-0.86	-0.08/0.18	-0.38/-1.22	-0.81/-0.38	-0.41/-0.96	-1.78/-2.37	-3.57/-4.85
Θ(30°)	-4.61/-5.26	-5.05/-4.29	-4.6/-5.48	-6.42/-7.09	-6.45/-6.47	-4.54/-4.27	-4.69/-4.57	-4.44/-4.34	-5.13/-6.08	-8.38/-13.65	-18.23/-9.4	-6.95/-6.9	-7.22/-8.11	-8.52/-6.7	-5.29/-5.54	-7.93/-9.27	-5.51/-2.84	-1.92/-2.24	-2.39/-3.64	-4.86/-5.47	-4.19/-5.93	-2.2/-1.9	-1.91/-1.89	-2.99/-5.32
Θ(37.5°)	-6.26/-7.33	-7.74/-6.74	-6.35/-7.61	-8.24/-8.06	-8.31/-7.78	-6.62/-6	-5.4/-5.92	-6.25/-7.29	-9.91/-13.96	-18.99/-9.92	-3.76/-0.91	-0.44/-1.57	-3.71/-7.55	-18.42/-14.72	-8.67/-6.7	-7.15/-5.99	2.780/19	1.81/39	-0.63/-1.9	-0.91/-1.13	-0.76/-0.54	-0.81/-1.45	-2.87/-3.09	-4.11/-6.03
Θ(45°)	-10.89/-11.27	-8.5/-6.9	-7.24/-7.97	-7.14/-8	-10.54/-14.48	-18.69/-17.33	-12.96/-11.45	-12.64/-15.15	-18.79/-19.04	-14.14/-5.4	-0.990/-97	1.320/68	-0.35/-3	-10.02/-12.17	-1.68/-6.95	-9.14/-5.95	-0.952/-33	3.961/-89	-0.52/-2.42	-1.25/-1.19	1.70/88	-1.03/-1.87	-4.62/-4.9	-6.91/-8.95
Θ(52.5°)	-11.27/-16.67	-17.95/-14.06	-9.9/-5.15	-3.52/-4.3	-5.13/-7.62	-12.26/-18.04	-15.35/-8.84	-8.1/-9.78	-15.59/-17.14	-9.55/-2.92	0.481/-23	-0.3/-1.45	-1.53/-2.95	-6.67/-4.4	-1.54/-2.41	1.930/18	-2.99/-2.45	-0.30/-98	1.22/-1.04	-6.01/-7.27	-10.49/-9.98	-10.36/-10.4		
Θ(60°)	-1.31/-3.09	-6.08/-7.36	-7.78/-8.64	-6.43/-4.7	-5.51/-8.3	-10.01/-12.68	-12.87/-9.55	-8.87/-10.05	-15.92/-18.35	-15.05/-5.38	0.490/96	-1.12/-5.92	-5.73/-5.22	-4.02/-4.53	0.12/1.21	-5.74/-18.84	-6.72/-0.91	0.570/45	-1.45/-1.28	1.362/61	0.61/-2.55	-7.04/-5.78	-4.1/-3.74	-1.49/-1
Θ(67.5°)	0.06/-2.67	-4.9/-4.09	-4.08/-8.92	-10.65/-5.84	-6.53/-6.2	-2.24/-1.61	-3.59/-5.3	-6.38/-8.32	-18.14/-18.54	-19.03/-9.71	-1.82/-2.72	-5.91/-10	-6.61/-6.46	-4.85/-5.01	-1.590/-16	-4.68/-16.37	-7.93/-2.8	-0.19/-0.79	-1.71/-1.3	2.681/-66	-2.98/-8.47	-7.71/-4.95	-1.170/-88	2.932/-02
Θ(75°)	-5.02/-4.5	-2.71/-2.2	-2.6/-4.66	-8.69/-8.79	-8.69/-6.47	-1.08/-0.08	-2.69/-7.1	-10.06/-8.78	-16.28/-16.69	-18.56/-8.77	-4.56/-2.92	-3.56/-3.35	-8.71/-7.88	-6.53/-4.09	-3.11/-0.84	-4.71/-12.94	-9.58/-4.76	-3.49/-2.39	-2/-0.93	1.36/-1.09	-8.96/-1.08	-8.67/-4.43	-0.23/-0.02	3.10/75
Θ(82.5°)	-6.61/-0.79	0.45/-0.45	-0.62/0.4	-1.87/-4.82	-4.82/-6.68	-8.21/-3.46	-0.99/-4.22	-18.99/-11.49	-17.17/-1.77	-10.02/-4.77	-3.57/-2.46	0.32/1.32	-1.75/-5.77	-3.57/-1.84	-2.91/-1.25	-3.51/-11.45	-9.25/-2.78	-3.19/-3.23	-4.84/-1.87	0.42/-5.96	-10.74/-6.02	-4.16/-2.08	1.892/-97	1.31/-2.54
Θ(90°)	-15.61/-5.16	-2.62/-4.67	-1.53/-1.52	1.87/-1.24	-2.97/-1.71	-1.36/-3.85	-15.14/-8.33	-1.53/-3.5	-17.13/-7.48	-9.37/-13.42	1.190/-44	1.562/-59	0.31/-3.84	-7.54/-5.02	-6.8/-1.47	-2.25/-6.02	-7.74/-6.26	-12.25/-15.5	-9.24/-5.28	-3.77/-6.3	-9.04/-8.16	-3.490/-66	1.761/-68	2.932/-02
Θ(97.5°)	-8.7/-7.2	-4.7/-9.07	-3.72/1.6	0.06/-3.95	-2.39/-2.88	-1.436/-1.71	-1.61/-4.15	-18.5/-7.88	-8.41/-12.71	-7.37/-1.1	1.281/-77	1.952/-18	-0.43/-0.59	-2.8/-3.32	-10.1/-12.59	-8.81/-5.43	-8.01/-18.45	-17.2/-18.14	-6.56/-17.03	-10.05/-11.27	-11.19/-8.84	-3.89/-0.92	-1.63/-1.37	-1.05/-2.78
Θ(105°)	-4.27/-6.75	-4.94/-6.67	4.81/0.1	0.81/-1.51	-1.390/-12	-4.97/-19.2	-4.36/-3.43	-7.42/-17.94	-11.19/-8.88	-5.91/-0.94	-0.25/-0.73	0.122/-36	-0.21/-4.45	-5.5/-4.47	-6.3/-11.24	-11.29/-7.59	-6.08/-19.87	-12.25/-10.15	-11.26/-5.79	-10.75/-15.61	-16.3/-12.91	-8.01/-4.71	-3.16/-2.42	-2.36/-2.08
Θ(112.5°)	-7.41/-7.19	-3.85/-3.25	-2.581/93	1.87/-1.24	-2.97/-1.71	-1.363/-9.99	-6.98/-6.37	-11.87/-13.98	-6.21/-7.67	-11.4/-2.29	-1.89/-1.01	-1.31/-3.19	-2.59/-12.01	-18.42/-8.26	-5.03/-6.67	-8.61/-9.51	-7.11/-8.55	-19.12/-11.29	-18.85/-15.78	-18.98/-18.69	-14.14/-19.3	-11.36/-5.16	-5.33/-5.87	-5.57/-3.62
Θ(120°)	-7.92/-9.5	-3.88/-2.74	-1.11/0.6	0.62/-0.75	-2.29/-2.51	-3.18/-4.21	-3.01/-1.97	-5.07/-10.04	-7.42/-4.46	-5.37/-5.75	-6.18/-5.36	-1.57/-0.41	-3.61/-8.62	-10.91/-3.28	-4.79/-9.26	-11.43/-8.67	-10.4/-16.99	-15.97/-11.15	-16.81/-16.78	-10.66/-11.91	-11.97/-8.49	-6.73/-2.36	-2.72/-6.69	
Θ(127.5°)	-5.28/-6.52	-3.2/-0.91	1.472/-3.2	2.070/68	-1.26/-1.83	-1.8/-3.12	-3.19/-3.86	-8.45/-16.03	-6.56/-6.59	-13.2/-5.84	-3.06/-4.19	-6.39/-1.95	-2.97/-8.27	-8.31/-7.16	-5.69/-8.27	-8.06/-18.47	-12.58/-10.85	-9.69/-14.81	-12.44/-18.78	-17.14/-15.02	-17.37/-12.42	-18.27/-10.18	-0.06/-3.79	-3.7/-5.06
Θ(135°)	-6.22/-12.44	-5.67/-9.07	0.991/89	1.4/-0.62	-1.19/-0.73	-1.52/-1.81	0.30/82	-2.05/-6.42	-0.950/-82	-4.55/-17.08	-6.23/-3.57	-4.65/-10.61	-6.54/-6.24	-11.81/-12.87	-6.57/-0.43	-7.09/-1.65	-12.87/-9.62	-18.02/-14.58	-11.73/-13.45	-10.12/-12.72	-17.35/-15.89	-9.53/-8.26	-6.9/-1.78	-5.55/-3.96
Θ(142.5°)	-12.9/-23	-3.96/-0.96	-0.59/-2.05	-4.3/-5.12	-2.090/-64	1.61/78	2.142/-31	0.92/-1.5	0.21/39	-1.96/-5.08	-14.8/-9.57	-4.27/-5.76	-14.83/-17.47	-7.99/-3.36	-4.09/-9.43	-16.15/-28	-18.35/-17.92	-18.85/-12.82	-9.4/-8.59	-13.92/-18.01	-19.51/-14.97	-11.26/-6.49	-3.13/-3.23	-5.93/-11.51
Θ(150°)	-9.7/-4.88	-1.81/-1.75	-3.09/-5.53	-9.37/-7.72	-3.95/-1.01	0.130/65	21/87	0.33/-1.51	-1.79/-1.46	-1.11/-4.6	-4.37/-10.92	-7.47/-4.96	-6.45/-15.05	-16.73/-13.69	-17.88/-18.44	-15.26/-13.8	-9.64/-8.33	-8.51/-11.33	-18.74/-19.13	-11.98/-9.74	-13.41/-12.78	-7.76/-5.23	-3.8/-4.88	-9.77/-18.73
Θ(157.5°)	-3.25/-1.88	-2/-2.42	-2.78/-3.53	-3.81/-4.7	-4.63/-4.3	-2.68/-6.56	0.991/49	0.51/-2.17	-6.68/-13.23	-8.89/-5.76	-6.56/-10.22	-15.77/-14.25	-10.53/-16.07	-10.39/-12.1	-18.63/-18.24	-11.84/-7.6	-6.96/-7.3	-6.67/-5.96	-6.51/-10.39	-16.25/-17.3	-13.88/-7.38	-4.96/-3.86	-4.31/-6.6	-7.18/-5.25
Θ(165°)	-13.77/-10.35	-7.15/-5.99	-4.83/-3.93	-4.4/-6.44	-8.39/-9.14	-8.82/-6.52	-3.56/-2.89	-3.93/-6.46	-11.45/-18.83	-12.82/-7.31	-6.32/-6.95	-9.5/-14.53	-17.43/-13.14	-9.01/-7.85	-8.13/-10.65	-12.15/-10.18	-8.78/-8.59	-8.78/-9.02	-9.51/-11.33	-12.74/-16.96	-17.53/-11.18	-7.94/-6.41	-5.37/-5.95	-9.23/-13.39
Θ(172.5°)	-13.56/-9.2	-7.31/-5.77	-5.27/-6.07	-6.93/-7.09	-8.97/-12.31	-15.19/-18.95	-17.83/-17.82	-17.57/-13.53	-12.81/-13.54	-14.47/-15.08	-14.43/-13.5	-13.28/-13.77	-15.33/-15.34	-16.19/-17.42	-19.32/-17.95	-18.21/-18.29	-18.89/-17.89	-17.57/-17.31	-13.01/-11.53	-9.87/-8.44	-8.13/-8.53	-9.63/-11.94	-18.57/-17.85	
Θ(180°)	-18.76/-18.65	-17.55/-16.69	-18.65/-14.66	-13.44/-13.58	-17.19/-0.1	-18.22/-16.32	-15.76/-16.29	-14.36/-11.84	-12.85/-14.9	-19.11/-19.42	-17.82/-14.44	-12.74/-12.93	-14.52/-16.84	-18.26/-17.77	-17.33/-15.18	-14.43/-14.02	-14.65/-16.65	-17.64/-19.01	-19.26/-19.31	-18.82/-18.14	-16.49/-14.74	-13.83/-14.32	-15.42/-14.71	-17.49/-18.5
Freq(Hz)	6.995GPol.	PhiAnt.3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-1.71/-6.46	-6.79/-7.38	-8.29/-8.98	-9.5/-9.86	-9.85/-10.66	-12.04/-12.6	-13.71/-13.99	-14.94/-13.53	-11.13/-3.96	-8.14/-6.6	-5.64/-4.71	-3.85/-3.08	-2.61/-2.15	-1.96/-1.89	-2.15/-2.69	-1.84/-3.41	-3.97/-5.1	-6.52/-8.23	-10.14/-12.28	-13.18/-12.61	-10.43/-9.58	-8.21/-7.2	-7.43/-7.24	-7.33/-8.02
Θ(7.5°)	-2.39/-1.52	-1.01/-1.15	-0.93/-0.92	-0.93/-1	-1.54/-2.64	-4.15/-4.93	-6.55/-7.83	-10.36/-10.47	-9.38/-7.74	-7.17/-6.9	-6.63/-6.37	-6.29/-6.2	-6.34/-6.55	-6.7/-6.89	-8.9/-28	-10.68/-11.5	-12.65/-13.94	-17.34/-17.35	-18.59/-17.57	-19.14/-16.35	-14.87/-13.99	-11.27/-9.01	-8.41/-4.83	-4.19/-3.43
Θ(15°)	-0.2/0.5	1.1/1.23	1.29/1.11	1.060/39	-0.81/-1.74	-2.25/-2.61	-3.51/-5.28	-7.54/-8.71	-7.55/-5.59	-4.33/-4.07	-4.29/-4.32	-3.96/-3.95	-4.34/-4.75	-4.67/-4.21	-3.57/-3.07	-2.87/-2.96	-3.2/-3.68	-5.76/-9.31	-17.04/-18.7	-14.6/-11.78	-10.98/-12.5	-14.64/-12.88	-7.49/-4.56	-2.76/-1.43
Θ(22.5°)	0.170/68	0.620/49	-0.150/-7.9	-0.91/-1.56	-1.98/-2.05	-1.89/-2.66	-4.38/-4.62	-6.51/-14.9	-16.11/-10.14	-10.15/-9.32	-7.72/-6.69	-6.89/-8.29	-10.88/-13.57	-13.76/-11.19	-7.84/-7.6	-2.58/-9.06	-0.33/-1.07	-3.02/-6.9	-10.97/-7.66	-5.3/-4.71	-5.33/-7.08	-9.96/-11.09	-7.77/-6.66	-2.47/-0.65
Θ(30°)	-0.35/-0.77	-1.61/-2.66	-3.62/-3.59	-2.51/-1.88	-0.84/-0.38	-1.12/-2.5	-4.74/-7.55	-11.45/-14.59	-11.64/-9.81	-10.59/-9.56	-6.69/-6.26	-8.27/-12.27	-13.45/-8.85	-6.93/-8.4	-10.16/-7.66	-5.42/-4.66	-4.98/-6.09	-6.69/-8.77	-11.56/-6.49	-3.46/-3.02	-4.56/-6.61	-7.29/-5.52	-3.85/-2.78	-1.73/-0.62
Θ(37.5°)	-6.83/-4.09	-2.81/-1.22	-1.11/-1.96	-0.95/-0.25	-0.2/-0.81	-1.94/-4.12	-5.7/-5.7	-8.06/-11.21	-5.9/-3.16	-5.73/-11.09	-7.91/-6.42	-9.87/-11.14	-5.71/-2.51	-2.69/-6.66	-13.33/-9.61	-6.88/-7.58	-10.18/-12.18	-15.67/-17.56	-17.89/-16.2	-6.36/-3.42	-3.91/-4.24	-4.63/-4.61	-4.67/-4	-5.02/-7.54
Θ(45°)	-18.65/-11.19	-4.64/-1.94	-0.081/0.4	1.19/-0.17	-2.93/-4.34	-4.25/-4.75	-5.32/-6.04	-8.96/-18.34	-9.48/-7.66	-15.28/-8.35	-5.35/-6.4	-7.69/-6.33	-5.2/-3.95	-6.58/-10.73	-9.52/-9.67	-17.21/-16.75	-8.17/-8.56	-12.16/-11.19	-19.18/-11.48	-14.1/-19.19	-8.44/-9.58	-19.38/-15.34	-12.58/-9.63	-15.46/-17.88
Θ(52.5°)	-2.11/-4.43	-8.04/-7.54	-4.88/-3.31	-3.56/-4.09	-3.64/-3.36	-4.78/-6.91	-9.29/-10.56	-9.58/-17.72	-12.81/-18.97	-6.86/-4.54	-4.84/-3.14	-0.97/-3.83	-6.33/-7.72	-5.59/-8.64	-14.83/-8.27	-8.79/-15.17	-17.86/-13.39	-10.27/-13.97	-7.4/-7.17	-8.16/-7.91	-12.21/-6.93	-10.25/-11.36	-8.88/-3.95	
Θ(60°)	-1.05/-4.61	-8.97/-7.56	-3.32/-2.03	-3.82/-4.78	-4.69/-5.34	-6.51/-6.98	-9.65/-9.97	-9.84/-18.33	-11.96/-10.94	-4.02/-2.68	0.171/89	2.57/-4.27	2.573/-32	3.131/-71	-2.48/-14.05	-16.09/-10.02	-14.8/-12.56	-13.24/-11.78	-12.86/-19.1	-7.45/-5.67	-8.3/-8.34	-8.5/-7.79	-8.96/-9.35	-5.11/-0.54
Θ(67.5°)	-2.89/-12.36	-12.03/-5.01	-1.38/-0.68	-2.45/-3.02	-3.26/-5.4	-6.92/-5.42	-9.3/-4.64	-9.33/-14.22	-7.66/-0.3	1.14/-0.6	0.794/-26	4.363/-38	0.832/-81	3.672/-42	1.67/-2.07	-11.41/-10.74	-7.99/-7.84							



Radiated Composite Gain Data 6GHz UNII 5~UNII 8

Appendix B

Θ(67.5°)	-6.13/-6.63	-6.59/-5.02	-10.99/-6.06	-0.072/2.27	2.31/-0.79	-6.62/-10.62	-7.42/-4.06	-0.56/-1.87	2.4/-0.16	-5.96/-0.26	2.16/-3.41	-5.24/0.05	-2.35/-4.93	-1.29/-0.78	-2.22/-6	-4.79/-0.87	-4.21/-3.19	-4.53/-4.81	-4.05/-4.53	-2.92/-3.25	-4.41/-4.29	-8.91/-16.74	-9.61/-6.49	-11.33/-9.17
Θ(75°)	-3.45/-3.83	-3.33/-2.34	-6.37/-8.05	-1.67/0.82	1.72/-1.02	-3.9/-10.29	-12.17/-5.65	-0.17/-1.76	1.91/-1.34	-9/-1.82	-0.02/-2.79	-1.38/0.03	-3.64/-3.27	-0.28/-4.34	-8.3/-5.6	-3.58/-4.04	-5.7/-2.16	-4.27/-5.34	-5.96/-8.73	-11.21/-5.31	-3.17/-3.09	-4.91/-6.6	-5.58/-3.91	-7.73/-5.74
Θ(82.5°)	-5.94/-7.19	-3.2/-3.61	-6.4/-4.23	-6.8/-5.73	-0.83/-3.34	-5.23/-5.51	-7.87/-13.57	-4.68/-1.45	-2.79/0.51	-3.98/-6.85	-0.72/0.43	-2.58/-3.65	-2.7/-9.71	-8.66/-3.61	-1.87/-5.88	-4.08/-1.31	-3.42/-5.96	-7.32/-7.4	-4.5/-0.93	-1.13/-4.1	-2.14/-0.66	-3.94/-3	-2.05/-2.13	
Θ(90°)	-4.92/-3.84	-0.5/-2.92	-9.52/-7.25	-4.58/-7.77	-3.3/-2.7	0.14/0.54	-0.38/-2.19	-3.45/-1.07	1.72/0.44	-2.89/-0.11	-4.07/-3.31	-1.53/-1.97	-2.05/-2.06	-1.6/-3.95	-1.33/-0.77	-2.1/-5.5	-2.01/-0.92	-1.47/0.59	-2.93/1.07	1.91/4	0.89/0.43	0.86/0.62	-1.3/-0.21	0.62/-0.07
Θ(97.5°)	-1.14/-4.06	-2.87/-5.06	-18.58/-6.06	-3.79/-13.24	-5.89/-5.36	-5.31/-10.36	-10.55/-13.85	-8.84/-3.41	0.37/-2.39	-11.97/-4.84	-10.68/-5.48	-4.75/-6.05	-4.51/-3.95	-5.54/-3.66	-2/-2.24	-3.88/-3.61	0.15/-2.2	-1.54/-0.25	-2.97/0.77	-0.13/-1.89	1.41/0.54	-0.25/-1.43	-1.89/-1.22	1.09/2.67
Θ(105°)	-5.52/-5.61	-6.84/-8.44	-11.07/-5.53	-6.19/-5.15	-5.65/-11.75	-5.54/-2.51	-3.14/-6.38	-11.13/-9.13	-5.08/-9.94	-11.51/-14.61	-9.88/-12.79	-5.94/-4.62	-6.15/-9.17	-3.97/-3.39	-0.08/-1.17	-0.42/-2.72	-2.11/-1.05	1.12/0.05	1.57/-2.04	0.57/0.16	-0.66/-1.6	-4/-2.2	-1.35/0.08	
Θ(112.5°)	-9.63/-8.72	-6.99/-13.43	-12.47/-8.18	-2.78/-1.78	-7.37/-7	-1.98/-1.08	-1.86/-2.5	-3.14/-3.23	-3.21/-8.25	-16.8/-18.84	-15/-7.27	-9.8/-18.32	-6.73/-9.11	-6.36/-2.75	-3.74/-5.24	-1.59/-0.02	-1.04/-4.98	-6.34/-2.44	-0.84/-2.67	-1.71/-4.63	-3.21/-1.53	-0.34/-3.85	-10.02/-3.34	-0.95/-1.27
Θ(120°)	-4.36/-6.63	-1.05/-2.37	-11.65/-2.73	-1.36/-7.36	-10.89/-3.92	-4.09/-6.63	-5/-5.23	-8.3/-8.4	-6.94/-7.82	-8.19/-6.34	-7.01/-5.56	-5.95/-10.51	-10.59/-16.75	-6.12/-1.58	-3.6/-15.51	-12.77/-5.08	-5.32/-2.52	-9.56/-11.01	1.96/-2.71	-5.78/-1.36	-2.39/-1.44	-1.05/-3.72	-4.42/-0.77	1.09/0.45
Θ(127.5°)	-2.69/-4.46	-7.63/-7.4	-13.9/-3.4	-3.35/-11.35	-14/-11.54	-15.93/-3.66	0.15/0.81	-1.22/-5.72	-13.03/-15.35	-7.92/-6.41	-15.26/-15.46	-8.39/-13.04	-10.83/-9.62	-9.43/-6.24	-10.03/-11.01	-14.47/-2.67	-8.74/-3.04	-4.63/-6.31	1/3.4	-7.66/-6.89	-4.78/-1.49	0.52/-15.76	-18/-19.96	0.63/-1.9
Θ(135°)	-17.71/-13.12	-6.97/-14.76	-18.17/-11.62	-6.38/-4.94	-4.24/-4.65	-10.77/-6.95	-2.59/-2.75	-4.05/-6.52	-8.13/-7.21	-8.68/-8.01	-8.63/-10.58	-18.77/-18.79	-9.61/-8.34	-7.21/-5.36	-9.92/-13.31	-17.81/-8.28	-10.33/-7.06	-0.97/-4.56	-1.71/-3.88	-9.97/-6.85	-3.26/-3.89	-1.79/-6.16	-11.77/-6.48	-0.69/-0.15
Θ(142.5°)	-2.88/-10.14	-5.3/-3.28	-6.86/-11.47	-9.03/-11.9	-9.08/-13.8	-10.7/-12.3	-15.1/-12.3	-10.43/-15.1	-18.45/-13.26	-11.61/-10.8	-8.93/-10.1	-13.57/-10.55	-7.44/-8.94	-14.73/-14.64	-18.78/-15.22	-16.04/-9.31	-7/-9.85	-4.39/-3.02	-6.35/-7.15	-3.78/-2.44	-2.28/-2.75	-3.9/-3.37	-0.43/0.85	
Θ(150°)	-5.73/-5.53	-1.08/-0.82	-3.88/-8.07	-7.05/-4.58	-3.97/-6.46	-11.66/-15.42	-18.03/-18.8	-17.63/-18.62	-17.73/-15.37	-13.96/-17.13	-18.27/-18.83	-18.22/-14.77	-11.6/-13.08	-16.73/-17.88	-18.63/-13.79	-8.91/-7.28	-9.7/-8.9	-8.3/-13.28	-11.23/-9.11	-9.78/-9.64	-4.79/-2.21	-0.88/-4.47	-1.6/-0.35	-0.73/-3.07
Θ(157.5°)	-3.64/-4.76	-2.78/-1.78	-3.65/-7.95	-9.23/-8.17	-7.2/-8.71	-14.94/-15.72	-11.48/-9.61	-8.67/-7.37	-8.36/-9.88	-12.16/-17.87	-19.32/-17.24	-13.83/-9.37	-7.65/-8.71	-11.1/-13.51	-14.69/-17.5	-16.98/-14.51	-12.48/-12.48	-12.38/-10.38	-6.89/-6.35	-9.22/-18.16	-19.22/-8.18	-2.46/-0.55	0.02/0.25	-0.55/-2.18
Θ(165°)	-5.85/-6.13	-4.59/-2.95	-2.58/-3.5	-5.72/-8.55	-13.47/-18.46	-17.4/-18.5	-18.68/-18.51	-18.68/-18.34	-18.69/-19.02	-14.54/-11.61	-11.49/-14.11	-19.07/-17.92	-18.67/-17.33	-18.69/-12.85	-11.78/-13.33	-14.2/-14.14	-12/-10.56	-8.27/-5.77	-4.12/-2.66	-2.59/-3.66	-3.45/-2.56	-0.94/0.25	-0.56/-1.87	-3.48/-4.1
Θ(172.5°)	-10.68/-15.1	-10.68/-9.47	-7.25/-7.22	-10.56/-16	-19.35/-19.05	-12.9/-10.85	-12.67/-8.27	-7.37/-6.88	-6.93/-7.21	-7.83/-8.65	-11.6/-14.96	-17.79/-18.03	-17.89/-17.88	-18.43/-19	-19.34/-16.37	-16.57/-16.45	-13.92/-10.06	-6.76/-9.93	-2.42/-1.14	-0.15/0.7	0.74/0.88	0.67/0.52	-0.28/-1.79	-3.67/-7.37
Θ(180°)	-10.09/-11.75	-13.33/-12.49	-10.34/-9.57	-11.05/-14.16	-15.4/-16.9	-15.18/-13.13	-10.48/-8.45	-7.19/-6.6	-6.68/-6.82	-7.85/-7.14	-6.3/-5.39	-4.71/-4.38	-4.56/-5.43	-6.64/-7.88	-9.28/-10.99	-12.66/-13.82	-13.9/-11.04	-7.8/-4.93	-3.42/-2.47	-1.51/-0.68	0.05/0.62	0.31/-0.08	-0.75/-1.77	-3.65/-6.01
Freq(Hz)	6.475GPol.	PhiAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-9.33/-8.98	-7.49/-3.28	-1.33/-0.77	-0.52/1.02	2.03/2.68	3.25/3.5	3.36/3.26	2.77/2.05	0.45/0.93	0.27/-0.74	-1.79/-3.3	-5.04/-6.07	-5.41/-4.11	-2.59/-1.25	-0.02/1.08	2.11/3.04	3.66/3.97	4.27/4.32	4.184/2.7	4.01/3.64	2.92/2.4	1.48/-0.13	-1.35/-4.08	-6.29/-6.78
Θ(7.5°)	-8.33/-8.84	-6.21/-1.3	-0.73/-0.13	1.11/1.36	2.72/3.36	4.09/4.1	4.384/4.47	4.25/4.24	3.79/3.33	2.51/0.74	-0.73/-2.58	-4.85/-7.66	-9.75/-9.51	-6.97/-4.74	-2.43/-6.09	0.62/1.68	2.32/2.74	2.94/3.11	2.96/2.75	2.12/1.07	0.02/-1.01	-1.82/-3.77	-5.49/-7.52	-6.55/-6.46
Θ(15°)	-6.16/-5.94	-4.62/-3.66	-3.04/-0.9	0.25/1.1	2.25/3.1	3.14/3.84	3.74/3.85	3.02.9	1.33/0.33	1.03/-0.17	-1.46/-3.49	-5.87/-8.78	-12.26/-15.79	-12.57/-8.3	-4.9/-2.72	-0.83/0.74	1.87/2.51	2.92/3.04	2.83/2.22	1.24/0.06	0.52/-1.07	-2.74/-4.76	-5.12/-4.82	-4.55/-3.81
Θ(22.5°)	-4.81/-6.19	-11.65/-6.99	-4.02/-3.09	-3.66/-2.58	-2.54/-2.2	-1.49/-1.12	-0.9/-0.66	-0.27/0.02	-0.05/-0.16	-1.05/-3.2	-5.61/-7.14	-6.47/-7.92	-9.91/-10.96	-7.31/-4.13	-2.2/-0.75	0.67/2.12	3.47/4.31	4.37/4.32	4.354/0.7	3.31/1.38	-0.6/-2.11	-3.8/-6.9	-10.23/-9.24	-7.49/-5.85
Θ(30°)	-5.65/-11.89	-13.25/-5.91	-3.82/-3.13	-4.62/-7.57	-13.89/-18.92	-14.51/-10.34	-8.17/-7.55	-6.45/-3.97	-3.83/-2.63	-1.82/-2.34	-3.88/-4.47	-4.63/-5.11	-7.74/-13.43	-13.27/-11.1	-3.86/-1.26	0.71/1.65	1.77/1.1	0.31/0.46	0.65/0.37	0.07/0.74	0.77/0.37	-1.13/-4.77	-8.14/-6.24	-4.94/-5.83
Θ(37.5°)	-15.53/-19.23	-7.41/-2.84	-2.43/-5.98	-12.89/-17.12	-14.04/-8.21	-5.52/-1.57	-0.93/-1.67	-2.72/-3.03	-3.27/-2.53	-0.98/-0.22	-1.7/-4.74	-5.13/-6.48	-9.22/-18.46	-10.19/-9.83	-6.94/-2.18	0.1/-0.08	-1.59/-2.97	-3.56/-2.44	-1.88/-3.06	-6.65/-7.95	-5.63/-3.94	-3.34/-3.13	-4.28/-0.87	-13.41/-19.23
Θ(45°)	-15.04/-18.55	-6.11/-3.59	-8.01/-11.05	-6.3/-4.41	-4.58/-4.81	-3.53/-5.52	-0.25/-5.34	-3.99/-2.5	-1.64/-3.76	-0.07/-5.42	-3.89/-5.24	-10.54/-11.39	-12.99/-11.6	-6.81/-7.91	-8.23/-4.25	-3.8/-4.4	-3.84/-3.07	-1.74/-0.71	-0.5/-0.15	0.11/-0.34	-2.4/-5.85	-3.77/-4.93	-4.4/-9.74	-17.55/-17.95
Θ(52.5°)	-6.76/-4.11	-2.68/-3.8	-4.12/-4.18	-4.56/-4.19	-3.52/-5.7	-9.63/-18.03	-17.75/-14.95	-9.08/-2.01	1.12/1.34	0.354/-1.7	-8.21/-5.13	-8.99/-18.46	-12.62/-11.43	-13.05/-10.48	-7.01/-11.86	-18.81/-13.65	-10.36/-10.6	-10.28/-0.74	-7.33/-8.92	-6.53/-6.27	-7.03/-6.04	-10.44/-11.72	-11.08/-13.51	-17.89/-17.65
Θ(60°)	-12.1/-7.22	-8.59/-5.63	0.34/-0.42	-1.69/0.03	0.09/-4.54	-8.85/-2.95	-0.69/-1.3	-5.56/-7.19	-1.11/-2.5	1.43/-0.88	-4.31/-5.39	-10.67/-18.58	-12.35/-12.73	-8.07/-3.73	-4.75/-12.66	-14.25/-12.84	-9.26/-18.31	-17.43/-18.98	-12.82/-6.93	-7.16/-6.58	-8.1/-4.73	-8.09/-9.58	-12.32/-17.31	-8.73/-9.41
Θ(67.5°)	-10.26/-8.12	-13.78/-6.03	0.4/-3.22	-4.38/1.48	1.64/-3.28	-4.09/0.88	3.51/2.91	-0.78/-4.84	-1.96/2.59	2.55/-1.01	-6.78/-4.74	-5.54/-14.87	-14.66/-18.75	-9.73/-6.49	-8.23/-7.26	-6.63/-8.83	-7.75/-7.36	-3.72/-1.81	-1.93/-3.62	-3.34/-1.44	-0.99/-14.4	-12.33/-9.06	-10.86/-11.56	
Θ(75°)	-9.8/-16.16	-6.37/-6.22	-5.59/-6.97	-5.27/0.57	-1.63/-6.12	-1.15/-2.77	4.284/0.7	1.52/-3.26	-1.28/-1.7	-1.19/-7.45	-9.8/-9.92	-6.4/-9	-12.01/-9.42	-8.06/-12.75	-7.44/-3.76	-1.08/-2.94	-3.44/-1.97	-1.09/-1.39	-1.16/-2.09	-2.8/-1.28	-1.19/-0.07	-5.57/-7.6	-4.9/-8.2	-10.64/-4.61
Θ(82.5°)	-6.35/-18.44	-7.85/-5.18	-2.44/-1.64	-3.78/-4.31	-6.11/-3.16	-3.78/-4.11	-1.75/-4.14	-5.8/-1.01	0.16/-0.36	-10.48/-13.98	-11.85/-18.01	-10.74/-7.67	-15.91/-14.32	-14.16/-13.01	-4.11/-0.66	-2.06/-1.09	-1.49/-0.98	-2.72/-2.15	0.97/-1.51	-3.18/-0.69	-3.78/-10.87	-6.11/-4.56		
Θ(90°)	-12.12/-5.9	-8.62/-5.13	-2.98/-5.25	-3.8/-8.41	-8.39/-3.92	-8.16/-7.17	-4.75/-8.94	-7.21/-3.11	-2.71/-7.7	-18.57/-17.49	-10.82/-12.45	-14.02/-14.75	-17.82/-7.75	-3.99/-6.49	-15.43/-13.61	-8.69/-9.54	-5.49/-3.05	-2/-1.36	-3.85/-2.29	-6.48/-3.01	-4.77/-1.58	-8.77/-18.26	-13.6/-18.1	
Θ(97.5°)	-17.24/-13.74	-8.61/-7.5	-12.53/-11.44	-5.05/-7.43	-11.87/-5.74	-8.48/-4.18	-4.75/-4.47	-3.59/-2.81	-6.2/-12.25	-15.57/-17.46	-11.17/-6.97	-9.82/-15.47	-9.59/-5.02	-3.68/-16.56	-18.12/-13.95	-14.79/-5.28	-0.67/-5.65	-2.05/-0.51	-6.1/-1.54	-9.99/-7.02	-1.22/-3.04	-8.64/-3.63	-4.94/-7.24	-4.36/-12.48
Θ(105°)	-6/-8.99	-12.12/-13.58	-9.73/-9.52	-10.45/-12.86	-18.36/-18.95	-5.96/-2.94	-4.78/-12.62	-8.12/-3.69	-4.88/-15.21	-15.78/-17.48	-17.77/-18.48	-17.91/-8.7	-5.37/-7.4	-7.06/-16.2	-18.09/-19.1	-17.39/-1.55	-1.02/-2.85	-1.98/1.58	0.85/0.8	-3.13/-10.72	-7.08/-2.39	-3.98/-3.95	-3.95/-1.86	-3.28/-6.82
Θ(112.5°)	-16.79/-16.86	-11.53/-18.96	-7.25/-5.17	-6.22/-12.37	-16.47/-15.23	-14.54/-16.12	-13.28/-19.63	-9.43/-6.54	-17.27/-18.54	-2.56/-13.06	-10.61/-11.64	-15.45/-9.02	-3.59/-7.09	-2.23/-5.25	-17.83/-8.82	-8.69/-9.54	-5.49/-3.05	-2/-1.36	-3.85/-2.29	-6.48/-3.01	-4.77/-1.58	-8.77/-18.26	-13.6/-18.1	
Θ(120°)	-17.71/-13.71	-6.99/-9.58	-7.42/-3.03	-6.18/-10.03	-8.63/-11.13	-9.06/-5.94	-4.03/-6.37	-9.92/-18.93	-15.53/-6.56	-5.14/-2.29	-5.96/-8.26	-13.63/-10.02	-2.18/-3.77	0.87/-1.84	-10.98/-13.93	-9.52/-0.89	2.67/-2.51	-4.73/-1.79	-1.52/-5.07	-5.57/-4.54	-3.2/-1.63	-8		



Radiated Composite Gain Data_6GHz UNII 5~UNII 8

Appendix B

Θ(120°)	1.4/-4.01	-6.92/-7.39	-8.06/-8.82	-0.58/-3.53	-12.7/-8.53	-9.24/-6.94	-5.6/-6.78	-7.37/-8.86	-11.89/-7.33	-2.82/-8.46	-7.36/-4.11	-9.08/-13.1	-9.34/-4.22	-3.14/-1.21	-1.43/-3.83	-2.72/-6.32	-1.3/-9.77	-10.9/-2.1	-5.97/-4.95	-4.08/-8.8	-3.38/-0.01	-2.14/-10.46	-3.85/0.44	0.08/1.45
Θ(127.5°)	2.31/1.38	-7.56/-4.81	-9.22/-13.7	-3.81/-2.99	-5.96/-11.81	-9.17/-7.87	-4.52/-5.59	-8.89/-11.44	-9.72/-6.85	-6.22/-13.5	-2.14/-2.4	-8.39/-5.2	-4.96/-4.39	-2.74/-1.92	-0.7/-6.05	-4.87/-3.97	-3.45/-4.61	-5.74/-5.19	3.74/-4.21	-0.33/-3.62	-8.26/-1.64	-9.56/-8.51	-10.93/0.27	-6.23/-4.09
Θ(135°)	-1.4/-0.94	-16.93/-7.28	-7.06/-8.86	-3.72/-3.67	-4.89/-5.27	-9.99/-18.77	-17.47/-14.93	-15.28/-16.64	-10.33/-8.36	-14.2/-7.08	-3.95/-6.11	-18.74/-9.69	-10.3/-8.49	-6.21/-5.36	-6.68/-7.39	-8.84/-8.61	-9.47/-9.22	-3.72/-0.18	2.82/-2.51	-2.26/-6.28	-5.08/-2.9	-1.09/-11.94	-6.19/-3.77	-6.88/-4.74
Θ(142.5°)	-7.79/-11.78	-7.93/-2.6	-4.38/-7.69	-18.72/-10.2	-13.1/-12.08	-15.88/-13.38	-7.88/-6.68	-11.26/-15.31	-7.14/-7.33	-15.88/-6.25	-3.24/-4.08	-15.5/-19.02	-15/-11.45	-6.09/-4.7	-7.02/-12.68	-11.19/-15.64	-10.74/-10.87	-7.31/-3.8	1.18/-0.36	-12.24/-12.8	-6.28/-5.72	-3.89/-0.46	0.25/0.5	-0.47/-2.11
Θ(150°)	-10.46/-17.79	-9.22/-2.51	-0.85/-2.28	-5.23/-8.98	-9.52/-9.31	-9.99/-10.66	-15.78/-18.81	-15/-13.76	-16.11/-19.09	-13.15/-7.65	-6.62/-9.92	-18.68/-12.87	-8.47/-9.37	-10.81/-10.97	-19.03/-13.27	-14.17/-10.85	-10.48/-17.19	-9.51/-8.96	-6.46/-3.22	-6.59/-12.3	-9.17/-4.77	-4.66/-1.06	2.59/1.31	-3.25/-8.28
Θ(157.5°)	-3.25/-3.8	-5.72/-8.21	-5.99/-4.19	-5.75/-8.59	-10.66/-10.48	-10.01/-9.37	-7.96/-7.18	-9.73/-9.53	-9.35/-7.65	-6.7/-10.15	-16.65/-18.93	-18.64/-17.68	-19.17/-15.78	-9.77/-10.81	-13.29/-13.31	-10.95/-8.57	-10.25/-14.43	-11.09/-10.57	-9.77/-8.79	-12.75/-16.71	-10.32/-4.73	-1.47/-0.51	0.03/-1.09	-4.09/-4.98
Θ(165°)	-15.87/-15.75	-9.04/-5.97	-5.53/-4.66	-4.95/-7.49	-10.17/-8.28	-6.06/-5.43	-6.26/-8.35	-8.89/-10.26	-15.97/-19.31	-18.26/-17.21	-18.17/-17.64	-18.79/-18.47	-16.71/-16.35	-13.91/-10.72	-7.99/-7.12	-7.81/-10.82	-18.19/-19.02	-19.06/-7.86	-3.9/-2.02	-2.02/-2.98	-3.51/-2.02	0.61/2.65	2.83/1.94	-0.89/-6.69
Θ(172.5°)	-19.33/-19.22	-18.25/-17.75	-12.43/-11.26	-10.61/-10.47	-9.87/-9.36	-9.91/-11.65	-11.09/-9.83	-9.2/-10.95	-13.56/-16.67	-18.19/-18.93	-18.04/-17.6	-19.78/-17.23	-18.46/-18.54	-18.29/-19.03	-18.38/-19.08	-16.04/-14.34	-10.97/-6.86	-2.53/0.89	2.96/4.18	4.25/4.18	2.76/0.83	-0.88/-1.98	-3.25/-5.33	-8.37/-13.74
Θ(180°)	-6.64/-9.53	-12.51/-18.87	-19.41/-14.99	-12.76/-11.43	-10.52/-9.84	-8.26/-6.32	-4.37/-3.35	-3.36/-3.47	-3.24/-3.72	-3.31/-3.49	-3.73/-3.62	-3.65/-4.12	-5.22/-6.89	-8.62/-9.9	-11.62/-13.71	-16.12/-15.36	-11.17/-7.94	-5.92/-4.22	-2.48/-2	-1.05/-0.3	0.02/-0.41	-1.59/-2.85	-2.5/-2.47	-2.45/-3.76
Freq(Hz)	6.995GPol.	Phi/Ant. 4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-9.81/-9.3	-8.27/-7.82	-4.14/-2.43	-0.67/-0.12	0.55/0.68	1.15/1.94	2.37/2.25	1.75/1.38	0.51/0.44	-0.26/-1.39	-3.3/-5.03	-7.02/-8.07	-8/-7.57	-6.68/-5.19	-3.69/-2.44	-1.15/-0.33	0.33/0.67	0.88/1.1	1.49/1.39	1.25/0.73	0.33/-0.01	-0.96/-1.57	-2.96/-4.9	-5.14/-7.05
Θ(7.5°)	-9.87/-8.3	-5.32/-3.72	-3.16/-2.88	-1.2/-1.39	-0.87/-0.35	-0.67/-0.17	0.01/0.32	0.04/-0.4	-0.65/-0.86	-1.09/-1.54	-2.78/-3.89	-5.5/-6.87	-7.95/-8.08	-7.18/-5.46	-3.52/-1.62	-0.1/1.01	1.34/1.58	1.94/2.15	2.09/1.7	1.24/0.85	0.27/0.64	-1.64/-2.9	-4.56/-5.4	-6.68/-6.91
Θ(15°)	-10.27/-5.43	-4.18/-2.99	-3.67/-3.74	-6.57/-7.72	-4.59/-2.22	-0.34/0.2	0.25/1.57	2.15/1.48	0.07/-1.47	-2.53/-4.34	-6.19/-8.01	-8.64/-9.34	-10.13/-9.11	-6.39/-4.51	-3.48/-1.83	0.1/26	1.98/2.28	2.55/2.92	3.16/2.54	1.61/16	0.92/-0.1	-1.58/-3.37	-5.3/-6.81	-8.96/-10.18
Θ(22.5°)	-9.99/-7.69	-6.16/-3.87	-3.41/-6.31	-11.39/-10.93	-5.9/-2.96	-1.02/0.27	0.85/1.39	1.58/1.46	0.89/0.16	-1.34/-4.66	-8.11/-8.48	-7.99/-10.37	-16/-18.11	-9.83/-4.93	-1.75/0.38	2.08/2.85	2.79/2.05	1.32/1.11	1.23/0.92	0.2/-0.01	-0.01/-0.25	-1.41/-3.91	-7.42/-12.45	-14.09/-12.22
Θ(30°)	-16.09/-9.29	-6.17/-4.89	-6.37/-6.44	-5.9/-5.36	-6.5/-6.72	-4.31/-2.76	-2.25/-1.21	-0.15/0.79	1.34/1.77	1.94/1.45	0.17/-1.1	-2.48/-5.66	-9.31/-14.53	-16.95/-5.39	-0.25/1.83	2.22/1.75	0.75/0.2	-0.06/-0.13	-0.19/-0.42	-0.59/-0.59	-1.43/-3.43	-5.26/-5.84	-6.92/-10.41	-14.15/-18.88
Θ(37.5°)	-10.22/-9.48	-6.17/-3.73	-1.06/0.18	-1.33/-2.91	-3.33/-1.68	0.69/1.51	1.87/2.26	2.59/2.98	3.13/3.06	2.74/2.04	1.06/-0.39	-2.25/-5.84	-8.46/-7.33	-12.93/-6.91	-1.83/-0.31	-0.09/-0.26	-0.82/-0.61	-0.63/-1.64	-2.19/-2.41	-1.4/-0.61	0.33/-0.6	-2.81/-6.18	-7.42/-13.53	-18.5/-13.43
Θ(45°)	-15.17/-7.89	-4.39/-2.71	-1.21/-0.52	-3.28/-5.24	-3.7/-1.39	-0.22/0.12	-1.02/-1.89	-1.96/-0.06	0.74/-0.12	-0.59/0.16	-0.04/-2.38	-3.54/-5.12	-8.74/-9.61	-18.86/-12.49	-6.71/-4.63	-3.17/-4.15	-7.08/-13.65	-14.54/-11.76	-9.6/-7.92	-5.33/-3.67	-2.32/-2.52	-3.52/-6.4	-7.27/-8.93	-11.86/-17.1
Θ(52.5°)	-16.76/-13.97	-8.91/-8.69	-11.3/-8.01	-6.38/-6.1	-3.94/-3.85	-7.25/-9.39	-11.12/-11.85	-8.71/-1.64	0.77/-1.33	-8.85/-12.2	-6.67/-13.94	-8.64/-6.19	-7.71/-10.06	-9.13/-7.14	-11.28/-5.86	-3.55/-4.35	-5.36/-7.66	-10.86/-8.65	-6.16/-4.38	-4.74/-5.34	-3.6/-4.32	-9.56/-5.05	-8.82/-9.32	-10.7/-14.59
Θ(60°)	-15.59/-7.96	-5.96/-7.63	-1.89/-2.39	-10.48/-3.63	-6.93/-4.67	-1.78/-2.23	-8.12/-9.25	-2.45/-2.6	0.99/-3.02	-7.75/-9.24	-13.2/-11.79	-10.37/-9.4	-4.99/-3.83	-8.68/-6.66	-15.19/-10.51	-3.34/-3.16	-4.79/-6.35	-5.52/-2.53	-1.79/-1.05	-1.72/-2.43	-8.29/-5.43	-8.19/-15.56	-8.53/-14.78	
Θ(67.5°)	-10.9/-9.1	-2.13/-7.31	-0.89/-1.84	-9.24/-0.15	0.42/-3.34	-2.39/2.23	2.93/2.86	0.68/-2.18	-0.59/2.1	0.18/-6.85	-6.93/-10.94	-9.55/-9.33	-13.09/-8.87	-8.24/-8.43	-7.78/-5.52	-8.62/-14.03	-1.39/-3.75	-3.17/-1.44	-1.75/-4.15	-1.8/-1.89	-0.7/-1.73	-12.97/-13.73	-18.23/-17.41	-18.9/-17.78
Θ(75°)	-11.07/-12.29	-5.61/-12.97	-1.02/-1.94	-6.63/-2.44	-1.4/-5.41	-7.77/-4.2	-0.8/-4.44	1.65/0.84	0.59/0.15	-2.99/-16.54	-9.37/-9.56	-10.1/-10.5	-9.37/-11.84	-13.45/-6.22	-9.51/-5.72	-7.61/-3.28	-4.87/-3.44	0.24/2.32	2.61/1.32	-0.89/-3.43	-3.69/-2.24	-6.52/-18.27	-17.97/-15.5	-13.09/-11.6
Θ(82.5°)	-9.78/-3.33	-8.83/-6.59	-3.1/-4.48	-3.44/-2.53	-2.57/-6.23	-5.32/-1.89	-0.48/-1.46	-1.28/1.44	1.28/-8.55	-15.74/-5.6	-12.89/-12.34	-13.07/-16.93	-5.99/-6.36	-7.04/-9.73	-9.24/-8.25	-2.5/-3.19	-6.69/-1.01	1.99/1.76	2.92/2.15	0.89/-0.86	-2.85/-2.03	-2.95/-11.62	-11.81/-14.35	-12.02/-8.33
Θ(90°)	-18.46/-6.88	-19.17/-5.65	-4.16/-3.97	-2.69/-3.3	-2.49/-5.4	-9.76/-5.48	-0.61/-1.79	-8.25/-5.25	1.14/-8.02	-8.24/-5.28	-12.57/-15.15	-13.92/-13.92	-9.62/-9.97	-11.04/-12.66	-16.23/-18.17	-2.24/-2.62	-5.13/0.71	1.39/0.59	-1.07/0.56	0.18/-3.6	-3.75/-6.27	-7.16/-15.51	-7.53/-2.69	-9.26/-6.79
Θ(97.5°)	-13.76/-10.95	-16.68/-7.4	-5.02/-11.98	-11.41/-9.37	-4.4/-17.83	-12.13/-14.06	-9.64/-14.18	-9.14/-6.73	-3.26/-15.25	-17.6/-13.32	-18.08/-18.26	-10.67/-12.98	-4.77/-5.81	-10.04/-11.3	-12.62/-19.07	-4.75/-3.92	-5.22/-3.08	-2.86/0.19	-3.79/-0.68	-1.09/-1.82	-1.78/-2.69	-1.88/-13.7	-16.28/-8.84	-17.2/-9.19
Θ(105°)	-6.51/-16.21	-18.9/-11.56	-9.14/-8.89	-9.2/-18.33	-7.36/-13.07	-15.85/-6.19	-5.16/-5.89	-9.37/-4.91	-7.77/-18.3	-7.98/-7.51	-14.31/-17.98	-12.5/-8.04	-11.84/-11.2	-7.14/-8.91	-5.1/-11.87	-8.15/-2.57	-8.6/-9.53	-3.6/-0.9	-1.97/1.03	-0.94/-2.96	-1.04/1.65	-1.29/-9.47	-8.89/-5.77	-5.21/-10.74
Θ(112.5°)	-18.21/-17.89	-18.42/-14.5	-10.19/-7.86	-7.07/-17.75	-9.18/-7.26	-13.26/-11.92	-11.14/-6.47	-4.84/-6.97	-10.23/-13.72	-13.26/-11.92	-15.18/-11.42	-16.75/-11.64	-10.18/-5.57	-2.29/-3.28	-8.31/-7.41	-6.94/-0.32	-2.37/-11.14	-6.89/-1.21	-0.22/6.8	-2.35/-5.82	-3.67/0	-18.47/-4.95	-1.4/-15.82	
Θ(120°)	-9.1/-14.34	-9.32/-9.28	-15.92/-10.74	-5.41/-6.64	-18.54/-6.51	-8.52/-8.66	-5.84/-9.37	-18.79/-10.63	-5.09/-3.69	-1.72/-9.62	-18.74/-16.68	-15.05/-8.15	-9.62/-6.64	0.63/0.96	-10.99/-6.5	-18.92/-3.73	1.2/-5.71	-7.2/-3.91	-3.07/-0.36	-2.71/-18.23	-12.07/-5.68	-3.11/-8.11	-15.51/-6.93	-1.69/-8.04
Θ(127.5°)	-11.78/-16.84	-9.49/-7.14	-6.97/-9.65	-12.83/-11.87	-5.49/-7.21	-5.68/-3.48	-7.9/-14.65	-7.38/-6.25	-7.27/-13.11	-13.1/-5.18	-12.11/-18.63	-6.9/-6.43	-7.89/-8.1	0.03/-2.4	-7.8/-6.69	-7.21/-4.32	2.42/-5.59	-6.64/-15.84	-3.44/-13.65	-13.73/-6.54	-5.49/-1.98	-6.89/-7.59	-18.73/-11.58	-7.91/-9.49
Θ(135°)	-4.76/-9.23	-11.41/-13.54	-12.66/-8.53	-10.78/-18.7	-8.71/-7.72	-14.06/-9.16	-4.76/-6.09	-13.83/-13.32	-5.8/-12.33	-18.08/-6.83	-9.85/-7.17	-19.35/-16	-8.85/-6.53	-3.07/-3.92	-17.52/-6.61	-12.78/-4.71	-8.84/-5.78	-9.87/-13.86	-1.34/-6.49	-5.83/-13.82	-7.76/-6.7	-5.15/-9.66	-18.7/-149	-19.21/-10.73
Θ(142.5°)	-14.11/-14.03	-14.89/-9.67	-7.27/-6.56	-5.51/-5.77	-9.66/-18.78	-18.27/-11.96	-7.33/-5.66	-7.29/-9.81	-11.76/-14.06	-9.32/-8.86	-9.45/-11.33	-9.55/-16.62	-13.69/-9.32	-2.42/-2.26	-7.87/-7.59	-6.12/-11.92	-6.99/-2.8	-9.93/-12.28	-3.63/-5.83	-18.01/-15.09	-12.39/-9.65	-13.81/-14.21	-16.34/-6.93	-8/-9.73
Θ(150°)	-8.41/-12.83	-10.48/-11.41	-14.83/-17.08	-14.21/-10.36	-7.68/-9.51	-15.91/-16.49	-10.18/-7.2	-6.81/-7.82	-11.08/-18.24	-18.3/-11.95	-8.88/-8.31	-8.14/-17.22	-10.22/-3	-0.1/-0.52	-1.25/-1.75	-5.79/-15.21	-11/-11.53	-16.9/-16.58	-8.88/-10.52	-18.71/-9.1	-8.22/-14.5	-10.22/-6.29	-6.48/-12.56	-16.92/-9.07
Θ(157.5°)	-9.31/-9.17	-11.93/-12.85	-13.3/-14.76	-12.53/-8.36	-6.04/-16.4	-7.05/-9.15	-14.11/-18.14	-13.27/-12.87	-17.27/-18.29	-15.28/-14.85	-15.43/-13.68	-7.71/-7.67	-11.79/-9.08	-5.53/-6.05	-9.76/-12.6	-16.32/-15.17	-6.45/-3.93	-7.19/-11.53	-9.66/-9.79	-7.77/-4.91	-4.2/-4.17	-2.32/-0.62	-1.71/-7.9	-16.22/-12.68
Θ(165°)	-7.81/-8.59	-5.73/-4.5	-3.91/-6.43	-10.77/-15.12	-13.07/-8.85	-5.19/-3.66	-3.12/-4.19	-6.26/-10.73	-19.31/-18.77	-18.11/-14.44	-18.53/-18.97	-10.92/-7.66	-7.08/-7.28	-5.99/-4.31	-3.65/-5.01	-8.59/-10.04	-12.04/-17.84	-7.07/-7.93	-0.18/-0.36	-1.26/-2.83	-4.62/-5.38	-5.64/-7.66	-11.01/-18.57	-16.5/-10.42
Θ(172.5°)	-10.73/-10.84	-10.63/-11.85	-12.03/-10.06	-9.44/-9.18	-8.44/-9.88	-12.05/-12.92	-14.56/-12.01	-9																

Total Gain Data

Freq(Hz)	2.45GPol.	TotalAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-2.05/-2.08	-1.61/-1.71	-1.70/-1.82	-1.91/-1.95	-1.95/-1.81	-1.95/-1.42	-1.08/-0.82	-0.64/-0.64	-0.82/-1.16	-1.58/-1.92	-2.11/-2.17	-2.20/-2.20	-2.25/-2.33	-2.53/-2.27	-2.64/-2.51	-2.45/-2.47	-2.62/-2.54	-2.37/-2.23	-2.20/-2.08	-2.02/-2.00	-2.04/-1.28	-2.14/-2.21	-2.15/-2.05	-1.98/-1.92
Θ(7.5°)	-2.29/-2.31	-2.33/-2.52	-2.79/-2.99	-3.40/-3.67	-3.64/-3.41	-2.98/-2.65	-2.30/-2.07	-1.97/-1.84	-1.70/-1.83	-1.88/-1.89	-1.82/-1.76	-1.61/-1.44	-1.38/-1.46	-1.65/-1.80	-1.91/-1.88	-1.78/-1.81	-1.69/-1.42	-1.14/-0.90	-0.72/-0.66	-0.61/-0.70	-0.89/-1.17	-1.49/-1.83	-2.08/-2.29	-2.15/-2.48
Θ(15°)	-2.32/-2.41	-2.44/-2.79	-3.31/-3.89	-4.45/-4.97	-5.15/-5.16	-4.94/-4.72	-4.46/-3.85	-3.44/-3.17	-2.82/-2.56	-2.31/-2.15	-1.80/-1.60	-1.40/-1.08	-1.12/-0.82	-0.84/-0.94	-1.02/-0.97	-0.85/-1.01	-0.51/-0.26	-0.30/-0.64	0.91/-0.13	1.05/-0.85	0.57/-0.15	-0.32/-0.88	-1.36/-1.71	-1.96/-2.13
Θ(22.5°)	-2.21/-2.45	-3.04/-3.73	-3.67/-5.29	-5.84/-6.48	-6.83/-6.92	-6.92/-6.40	-6.02/-5.60	-5.11/-4.53	-3.92/-3.45	-3.03/-2.64	-2.17/-1.95	-1.62/-1.24	-1.11/-0.86	-0.83/-0.46	-0.25/-0.02	0.30/-0.68	1.04/-1.36	1.67/-0.04	2.13/-0.32	2.31/-1.11	1.81/-1.36	0.78/-0.10	-0.69/-1.20	-1.54/-2.21
Θ(30°)	-2.66/-3.39	-4.14/-5.00	-5.81/-6.33	-8.62/-7.31	-7.76/-8.39	-8.83/-9.11	-9.03/-8.48	-8.06/-7.25	-6.56/-5.85	-5.34/-4.76	-4.19/-3.79	-3.38/-2.90	-2.33/-1.40	-0.63/-0.02	0.48/-0.72	1.13/-1.55	1.87/-1.95	2.14/-2.59	2.81/-2.94	2.95/-2.91	1.67/-1.08	0.40/-0.32	-1.07/-1.84	
Θ(37.5°)	-3.10/-4.20	-5.12/-5.75	-6.22/-6.64	-7.11/-7.82	-8.79/-9.87	-10.73/-10.94	-10.70/-10.37	-9.92/-9.23	-8.54/-7.87	-7.14/-6.54	-6.11/-5.47	-5.22/-4.10	-2.74/-1.35	-0.19/-0.60	1.09/-1.41	1.71/-1.85	1.89/-1.97	2.15/-2.34	2.52/-2.67	2.82/-2.87	2.78/-2.52	2.14/-1.64	0.80/-0.23	-1.11/-1.24
Θ(45°)	-1.65/-2.26	-2.50/-2.80	-2.38/-3.99	-4.76/-5.73	-6.82/-7.95	-8.07/-9.07	-9.10/-9.06	-8.77/-8.62	-6.18/-4.71	-6.34/-5.44	-5.75/-4.47	-4.07/-3.07	-1.94/-0.59	0.59/-2.11	1.50/-1.63	1.58/-1.31	1.19/-1.05	1.52/-1.85	2.79/-2.86	2.78/-2.52	2.07/-1.67	1.14/-0.50	-0.06/-0.76	
Θ(52.5°)	1.28/-0.72	-0.09/-1.01	-1.81/-2.80	-3.48/-4.74	-5.61/-8.37	-9.76/-10.09	-9.84/-9.49	-9.48/-9.11	-8.13/-6.56	-4.83/-3.40	-2.72/-2.62	-2.53/-2.00	-1.15/-0.33	0.26/-0.64	0.85/-0.96	0.82/-0.69	0.88/-1.32	1.79/-2.26	2.73/-0.02	3.21/-2.34	3.14/-2.88	2.52/-2.26	2.09/-1.90	1.75/-1.31
Θ(60°)	1.97/-1.34	0.52/-0.36	-1.04/-1.46	-2.11/-3.21	-4.64/-6.59	-7.66/-7.90	-7.39/-6.96	-7.11/-7.12	-6.26/-4.81	-3.15/-1.88	-1.14/-1.48	-2.19/-2.16	-2.05/-1.92	-1.45/-1.01	-0.48/-0.27	0.48/-0.67	0.75/-1.36	1.91/-2.63	2.94/-3.32	3.64/-3.80	3.85/-3.70	3.40/-3.14	3.00/-2.88	2.67/-2.47
Θ(67.5°)	1.84/-1.72	1.49/-1.14	0.90/-0.45	-0.00/-0.70	-2.08/-4.00	-6.30/-8.22	-8.59/-7.74	-6.44/-5.18	-3.96/-2.55	-1.23/-0.11	0.61/-1.11	-0.77/-1.06	-1.12/-1.35	-1.22/-0.59	0.30/-0.77	1.40/-1.78	2.10/-2.37	2.48/-2.43	2.91/-2.93	2.91/-2.15	3.13/-2.84	2.55/-2.37	2.22/-2.08	1.91/-1.58
Θ(75°)	2.152/58	3.03/30	3.30/37	2.51/37	-0.13/-1.84	-4.08/-6.51	-7.51/-7.22	-6.14/-4.65	-3.56/-2.47	-1.40/-1.02	0.83/0.46	-0.56/-1.02	-1.28/-1.37	-0.93/-0.09	0.91/-1.48	1.95/237	2.53/-190	1.56/-130	1.06/-99	1.06/-10	0.91/-60	0.46/-62	0.92/-31	1.57/-81
Θ(82.5°)	2.63/3.11	3.43/3.60	3.74/3.40	2.61/1.71	0.61/-0.31	-1.24/-2.30	-2.72/-2.15	-1.40/-0.64	-0.13/-0.29	1.27/2.47	2.86/2.28	1.21/0.40	-0.29/-0.78	-0.70/-0.08	0.46/-0.99	1.74/-1.87	1.40/-0.68	0.58/-1.05	1.46/-1.70	1.61/-1.36	0.97/-0.47	0.07/-0.14	0.48/-0.83	1.62/-1.87
Θ(90°)	2.69/2.82	2.83/2.69	2.65/2.23	1.43/0.57	0.43/0.98	1.27/0.73	0.43/0.96	1.30/1.53	2.25/3.10	3.34/2.52	0.97/0.53	-1.53/-1.94	-1.64/-1.62	-1.67/-0.96	-0.36/-0.93	-1.56/-0.97	0.04/-0.95	1.52/-1.90	1.95/-153	0.65/-0.39	-1.11/-0.89	-0.23/-0.40	1.23/-2.22	
Θ(97.5°)	3.62/3.29	2.52/1.68	1.12/0.44	-0.45/-0.88	-0.01/-1.55	2.44/-2.45	2.23/2.06	1.86/2.16	2.76/3.15	3.56/3.99	3.56/-1.98	-0.53/-2.51	-2.95/-2.78	-2.82/-3.48	-3.72/-3.08	-2.96/-2.05	-0.33/0.94	1.28/-1.24	1.36/-1.31	1.13/0.62	-0.40/-1.39	-1.47/-0.30	1.00/-1.59	2.20/2.71
Θ(105°)	2.71/2.29	1.41/0.67	0.73/-1.16	1.02/0.77	1.61/2.84	3.26/2.86	2.18/1.47	0.93/0.83	1.50/2.42	3.15/3.69	3.32/-1.87	-0.50/-1.33	-0.94/-0.99	-1.49/-2.60	-3.37/-3.51	-2.65/-0.93	0.25/-0.83	0.62/0.53	-0.14/-1.09	-1.92/-2.51	-3.08/-3.47	-3.53/-2.20	-0.23/-1.05	1.75/2.53
Θ(112.5°)	1.47/0.86	-0.17/-0.39	0.35/0.80	0.63/0.78	1.83/2.86	3.14/2.74	1.96/-1.08	0.09/-0.29	0.47/-1.57	2.57/2.33	2.97/-1.68	0.51/0.76	-0.78/-1.0	-0.30/-0.77	-0.82/-0.75	-0.89/-1.03	-1.08/-1.77	-3.61/-6.24	-2.89/-7.89	-5.55/-3.53	-2.76/-2.27	-0.99/-2.20	0.56/-1.03	
Θ(120°)	-1.29/-2.89	-4.18/-3.61	-1.99/-0.96	-1.23/-1.84	-1.16/0.08	0.81/0.92	0.67/0.09	-0.79/-1.40	-0.86/0.42	1.27/-1.88	1.86/-1.14	0.27/0.57	1.32/-1.53	1.38/0.69	-0.14/-0.87	-1.58/-3.22	-5.39/-6.36	-6.74/-8.08	-7.88/-5.49	-3.76/-2.60	-1.22/-0.19	0.06/-0.08	0.06/0.43	0.47/0.00
Θ(127.5°)	-2.08/-1.46	-4.91/-3.44	-1.68/-0.71	-0.86/-1.32	-1.14/-1.02	1.02/-1.76	1.92/-1.60	0.81/-0.03	-0.23/0.02	-0.22/-1.21	-0.23/-0.62	-1.89/-0.74	0.32/0.99	1.16/0.63	-0.40/-1.63	-2.95/-4.54	-5.66/-5.62	-4.85/-3.48	-1.76/-0.63	-0.08/0.11	0.18/-0.12	-0.73/-0.89	-0.30/-2.27	0.23/-0.73
Θ(135°)	-2.88/-2.50	-7.97/-6.04	-3.84/-2.30	-1.76/-1.86	-1.91/-1.14	0.09/-1.00	1.44/-1.53	1.27/0.75	0.39/-0.01	-0.94/-3.11	-0.69/-2.61	-4.11/-1.78	-0.25/0.67	1.05/-1.16	0.62/0.01	-0.62/-1.40	-2.25/-2.83	-3.01/-2.86	-2.50/-2.40	-2.38/-2.70	-3.53/-2.26	-6.71/-5.17	-0.35/-2.07	-2.21/-3.26
Θ(142.5°)	-7.01/-7.12	-7.18/-6.02	-4.06/-2.39	-1.53/-1.60	-2.08/-2.61	-2.72/-2.49	-2.27/-2.02	-1.69/-1.40	-1.29/-1.62	-2.82/-4.89	-7.42/-7.40	-5.22/-3.36	-2.09/-1.31	-0.94/-0.85	-0.82/-0.80	-0.99/-1.61	-2.67/-3.75	-4.60/-5.37	-5.72/-5.61	-5.24/-5.09	-5.78/-7.45	-9.15/-8.42	-6.92/-6.44	-6.89/-7.12
Θ(150°)	-4.17/-3.56	-2.78/-2.11	-1.22/-0.27	0.34/0.39	-0.17/-1.13	-2.30/-3.53	-4.74/-5.00	-4.45/-4.37	-2.78/-2.64	-3.12/-4.24	-5.64/-6.45	-6.34/-5.71	-4.96/-4.36	-3.86/-2.87	-1.93/-1.29	-1.00/-1.18	-1.76/-2.55	-3.30/-3.78	-3.57/-3.08	-2.50/-2.15	-2.17/-2.58	-3.37/-4.34	-5.39/-6.21	-5.96/-4.96
Θ(157.5°)	-3.85/-2.80	-2.05/-1.40	-0.83/-0.50	-0.30/-0.28	-0.47/-1.09	-0.17/-1.03	-0.38/-3.62	-3.30/-2.69	-2.18/-2.07	-1.85/-2.63	-2.39/-3.10	-0.47/-0.59	-5.83/-6.04	-5.61/-4.75	-3.60/-2.44	-1.41/-0.76	-0.50/-0.51	-1.76/-1.09	-1.54/-1.78	-1.90/-2.03	-2.12/-2.30	-2.58/-3.10	-3.95/-5.22	-6.65/-7.10
Θ(165°)	-5.38/-4.29	-3.38/-2.79	-2.21/-1.69	-1.42/-1.47	-1.74/-2.05	-2.35/-2.63	-2.89/-3.20	-3.23/-3.11	-3.04/-3.14	-3.50/-4.10	-4.75/-5.34	-5.73/-5.63	-4.87/-3.92	-2.91/-1.97	-1.22/-0.91	-0.90/-1.04	-1.21/-1.45	-1.95/-2.55	-3.26/-4.22	-5.30/-6.27	-7.18/-8.11	-9.06/-9.86	-10.25/-9.71	-8.26/-6.56
Θ(172.5°)	-6.78/-6.61	-5.59/-5.24	-4.99/-4.63	-4.47/-4.53	-4.80/-5.24	-5.38/-5.50	-5.70/-5.90	-5.92/-5.93	-5.78/-5.77	-6.01/-6.28	-6.47/-6.47	-6.33/-5.95	-5.29/-4.59	-3.91/-3.42	-3.19/-3.33	-3.63/-4.03	-4.44/-4.88	-5.47/-6.29	-7.51/-9.06	-10.79/-12.23	-12.88/-12.83	-11.68/-10.69	-9.79/-9.33	-8.62/-8.72
Θ(180°)	-7.96/-8.22	-8.53/-9.09	-9.58/-10.09	-10.35/-10.73	-11.17/-11.48	-11.20/-10.84	-10.18/-10.24	-10.06/-9.53	-8.79/-8.91	-8.04/-8.08	-7.90/-7.99	-7.79/-7.95	-8.29/-8.93	-9.73/-10.38	-10.99/-11.17	-12.30/-12.76	-12.39/-12.08	-10.14/-9.52	-8.74/-8.20	-7.94/-7.86	-7.91/-7.79			
Freq(Hz)	5.2GPol.	TotalAnt.1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-4.24/-3.89	-3.10/-2.78	-3.06/-3.22	-3.35/-3.45	-3.58/-3.70	-3.54/-3.41	-3.31/-3.14	-3.33/-3.15	-3.32/-3.44	-3.79/-3.94	-3.89/-3.93	-3.73/-3.72	-4.19/-4.76	-5.03/-5.00	-4.93/-4.72	-4.80/-4.95	-4.27/-4.97	-4.33/-3.69	-3.24/-2.93	-2.64/-2.81	-2.88/-3.07	-3.05/-3.29	-3.21/-3.57	-3.68/-3.65
Θ(7.5°)	-3.84/-4.03	-4.01/-4.16	-4.21/-4.11	-4.04/-4.01	-3.98/-4.00	-3.91/-3.87	-3.60/-3.79	-3.66/-3.65	-3.69/-4.13	-4.14/-4.14	-4.07/-3.87	-3.54/-3.35	-3.45/-3.43	-3.39/-3.38	-3.66/-4.07	-4.78/-5.34	-5.78/-5.43	-4.60/-3.78	-3.24/-2.99	-2.99/-3.04	-3.04/-2.96	-2.93/-2.73	-2.58/-3.01	-2.94/-3.17
Θ(15°)	-3.35/-3.75	-4.21/-4.41	-4.57/-4.58	-4.44/-4.60	-5.18/-5.48	-5.10/-4.90	-5.19/-5.25	-5.05/-5.45	-4.84/-4.52	-4.48/-4.53	-4.71/-4.88	-4.63/-4.09	-4.03/-3.63	-3.35/-3.16	-3.07/-2.95	-3.14/-3.30	-3.24/-2.73	-1.84/-0.92	-0.27/-0.04	0.14/-0.03	0.47/-0.60	-0.83/-1.42	-1.82/-2.09	-1.82/-2.09
Θ(22.5°)	-2.83/-2.85	-2.99/-3.14	-3.87/-4.53	-4.78/-5.21	-5.08/-3.68	-6.65/-6.53	-6.34/-6.51	-6.03/-6.45	-4.24/-4.52	-2.99/-2.76	-2.70/-2.74	-2.68/-3.08	-3.76/-4.76	-5.46/-5.16	-4.89/-3.75	-3.06/-2.53	-2.22/-1.89	-1.39/-0.69	0.18/0.73	1.00/-1.05	0.92/0.45	-0.16/-0.72	-1.25/-1.76	-2.29/-2.58
Θ(30°)	-4.74/-4.29	-3.64/-3.36	-3.79/-4.40	-5.04/-6.28	-6.95/-7.06	-7.65/-7.41	-8.08/-7.82	-8.12/-7.92	-6.61/-4.66	-3.13/-2.21	-1.90/-1.90	-1.82/-1.94	-2.10/-2.00	-1.55/-0.89	-0.24/0.07	0.22/-0.14	-0.75/-1.09	-0.72/-0.34	-0.60/-0.59	0.08/0.79	0.77/0.27	-0.35/-1.28	-2.39/-3.09	-4.24/-4.78
Θ(37.5°)	-2.95/-4.24	-2.69/-0.37	-4.45/-6.12	-7.42/-7.66	-6.92/-6.43	-6.22/-7.37	-4.83/-4.64	-4.72/-4.74	-3.50/-1.11	-3.33/-2.92	-2.02/-0.78	-0.26/-0.54	-1.36/-1.94	-1.78/-0.91	-0.70/-0.36	0.25/-0.55	-1.23/-0.88	-0.77/-0.60	0.11/0.15	0.63/-0.75	-3.50/-4.11	-5.48/-7.02	-5.78/-4.01	
Θ(45°)	-5.44/-4.81	-5.38/-6.85	-7.17/-10.2	-7.43/-7.58	-7.62/-7.83	-7.31/-7.27	-7.11/-7.28	-6.28/-4.71	-5.04/-1.83	-1.08/0.05	-0.97/-0.91	-0.88/-1.42	-2.24/-1.73	-0.76/0.56	1.74/-1.93	1.64/-0.96	0.46/-0.09	0.18/0.91	1.14/0.98	-0.16/-0.31	-1.55/-3.13	-4.69/-4.84	-9.05/-8.03	-7.35/-4.45
Θ(52.5°)	-2.69/-4																							



Antenna Pattern 2.4GHz and 5GHz UNII 1~UNII 3

Appendix C

Θ(22.5°)	-6.38/-6.47	-6.31/-6.14	-6.16/-6.10	-6.60/-6.98	-7.55/-7.80	-8.26/-9.47	-10.46/-10.89	-11.05/-11.51	-11.96/-13.14	-13.38/-12.80	-11.89/-11.46	-11.32/-9.93	-8.28/-6.57	-6.01/-5.77	-6.07/-7.18	-7.81/-7.22	-6.71/-6.39	-6.62/-6.84	-6.70/-7.07	-6.89/-6.65	-6.22/-6.25	-6.44/-6.28	-6.39/-6.99	-6.47/-6.51
Θ(30°)	-3.00/-3.27	-3.44/-4.18	-4.87/-5.76	-6.08/-7.03	-9.95/-14.62	-15.76/-15.43	-12.65/-11.33	-11.24/-11.83	-13.00/-12.84	-12.14/-13.86	-14.21/-12.06	-9.36/-7.99	-6.84/-5.93	-4.47/-3.94	-4.18/-4.88	-5.04/-4.62	-4.77/-4.93	-3.33/-2.57	-3.08/-3.97	-4.02/-6.33	-3.30/-3.23	-3.20/-3.08	-2.88/-2.98	-2.81/-3.08
Θ(35°)	-0.16/-0.56	-1.25/-1.28	-1.76/-2.97	-4.16/-7.58	-13.17/-13.90	-8.56/-6.06	-12.66/-6.46	-7.49/-8.42	-11.08/-8.83	-9.42/-12.18	-14.87/-13.69	-11.08/-8.39	-5.99/-2.87	-1.68/-1.59	-2.54/-3.84	-5.08/-6.65	-4.40/-1.87	-1.47/-2.34	-2.61/-1.25	-2.06/-3.13	-3.53/-3.35	-2.57/-1.64	-1.13/-1.46	-1.31/-1.05
Θ(45°)	-2.55/-2.17	-1.28/-0.93	-1.54/-3.19	-5.67/-9.55	-9.42/-6.16	-3.40/-2.44	-2.74/-4.09	-6.83/-11.04	-11.33/-7.83	-5.45/-5.18	-7.09/-8.08	-8.40/-7.02	-5.01/-3.42	-2.49/-2.09	-2.16/-2.16	-2.19/-2.16	-1.09/-0.83	-0.88/-1.04	-0.590/0.52	0.63/-0.47	-2.08/-3.76	-5.11/-4.01	-2.34/-1.47	-1.36/-1.66
Θ(52.5°)	-3.66/-3.29	-3.50/-3.46	-3.93/-5.22	-6.03/-6.74	-7.58/-7.46	-6.96/-6.48	-6.66/-7.64	-9.08/-9.44	-8.08/-5.56	-3.59/-2.84	-3.89/-5.51	-8.05/-6.00	-1.58/-0.37	0.07/1.11	1.17/1.11	0.82/0.45	0.29/0.89	0.98/1.11	1.24/0.84	-0.59/-1.79	-3.07/-4.32	-4.63/-5.33	-5.32/-6.44	
Θ(60°)	-1.82/-6.34	-12.23/-8.24	-3.09/-1.28	-1.57/-3.78	-5.87/-9.38	-9.73/-10.26	-11.62/-7.65	-4.37/-3.05	-2.19/-1.99	-3.62/-4.60	-4.44/-2.79	-2.21/-1.86	-1.22/0.14	1.44/2.70	1.59/1.61	1.18/0.31	-0.59/-0.78	0.43/-1.80	2.28/1.43	-0.60/-2.57	-2.70/-2.65	-3.16/-3.41	-1.97/-1.27	
Θ(67.5°)	-0.26/-2.09	-2.31/-1.05	-0.14/-0.70	-3.40/-7.77	-13.15/-14.91	-8.71/-4.78	-4.71/-6.52	-9.89/-6.54	-2.70/-1.47	-1.17/-0.48	-1.28/-1.91	-1.26/0.03	0.56/0.60	0.41/0.65	1.04/1.29	0.16/0.63	0.63/0.24	-0.15/0.28	1.67/1.66	1.24/0.75	-1.30/-2.50	-3.51/-3.37	-2.16/-0.78	1.26/0.36
Θ(75°)	3.23/2.17	1.75/-3.7	1.20/0.44	-3.16/-7.54	-9.22/-11.65	-9.12/-3.85	-2.29/-4.43	-11.20/-10.31	-3.62/-0.86	-0.01/0.61	2.08/0.30	2.99/-3.9	0.31/-0.62	0.23/0.75	-0.24/0.91	-0.66/0.42	0.17/-0.69	0.06/0.47	0.11/-1.65	-3.85/-4.32	-4.87/-3.19	-0.50/-0.89	-0.60/-1.46	0.62/2.70
Θ(82.5°)	3.40/3.38	4.47/-4.21	2.55/-0.80	-7.56/-11.89	-12.89/-11.13	-6.80/-3.59	-2.61/-3.45	-4.86/-5.78	-5.21/-4.37	-0.55/2.53	3.04/2.66	3.62/4.10	4.07/3.59	1.24/-0.45	0.50/0.19	-0.63/-0.35	0.89/1.70	1.84/2.98	1.95/0.68	-2.04/-7.34	-13.96/-8.64	-1.41/-1.46		3.08/2.54
Θ(90°)	2.53/1.38	2.40/2.81	3.29/1.84	-0.90/-2.31	-4.32/-8.75	-3.75/0.96	2.27/0.82	-2.08/-1.64	0.46/-0.37	0.96/0.31	3.94/3.93	3.67/4.14	4.26/4.33	2.01/-0.82	-2.32/-3.24	-1.55/0.80	1.96/2.24	1.40/1.48	0.87/2.07	2.06/2.02	-0.37/-5.87	-8.71/-8.60	-1.04/0.50	0.14/1.26
Θ(97.5°)	3.51/2.28	2.83/2.28	3.58/0.02	0.28/-1.72	-2.53/-2.28	-0.79/2.92	3.83/1.88	-0.62/0.31	1.34/0.35	0.79/3.11	3.01/3.23	3.24/-5.18	3.87/3.56	1.90/0.13	-3.02/-5.71	-3.78/-0.71	-1.38/-0.81	1.57/0.51	-0.10/-0.88	0.18/0.85	-1.88/-9.89	-15.23/-4.00	-0.60/-1.46	0.62/2.70
Θ(105°)	1.82/1.14	1.36/3.59	3.43/0.98	-2.44/-2.81	-0.26/0.91	1.18/2.92	2.97/2.87	0.44/0.48	1.66/1.10	0.03/-0.95	1.96/2.11	1.75/4.51	4.09/4.34	2.61/-0.70	-2.97/5.20	-4.79/-3.37	-5.73/-2.44	-0.12/-0.70	-5.69/-4.60	-0.84/-1.50	-4.02/-12.23	-12.50/-3.96	-1.76/-2.20	0.45/3.10
Θ(112.5°)	1.04/0.50	1.78/4.15	3.00/0.04	-7.13/-6.18	-0.90/1.93	2.26/2.78	3.02/2.51	2.23/2.47	2.55/1.98	1.31/1.03	0.07/0.07	-0.03/1.32	0.90/2.06	0.01/-2.06	-3.97/-5.59	-5.42/-4.91	-7.59/-6.80	-2.83/-6.90	-8.24/-10.82	-6.06/-6.03	-8.28/-8.48	-6.96/-2.79	-2.04/-1.74	1.34/2.62
Θ(120°)	-1.69/-0.58	1.46/3.63	2.20/-2.48	-14.04/-5.99	-1.98/0.61	1.99/2.19	2.51/2.34	1.15/0.31	1.04/1.87	2.45/-1.58	0.88/0.26	0.05/-0.07	-0.93/-1.59	-3.62/-6.32	-3.85/-5.78	-8.73/-8.97	-8.05/-7.08	-6.68/-6.82	-5.42/-8.82	-10.85/-15.33	-8.11/-6.35	-6.72/-3.12	1.47/0.52	
Θ(127.5°)	-0.72/0.88	1.41/4.19	2.76/-1.00	-7.66/-7.00	-2.27/-1.75	-1.85/-3.06	-2.73/-2.48	-2.23/-2.04	-1.87/-1.69	-1.79/-1.75	-1.11/0.64	-1.08/-1.58	-3.44/-2.73	-4.63/-3.82	-2.45/-5.36	-15.71/-8.12	-4.54/-4.53	-2.90/-5.01	-7.92/-9.87	-9.64/-7.16	-3.90/-2.59	-4.90/-10.08	-4.44/-4.20	0.02/-1.84
Θ(135°)	-3.69/-2.73	-1.67/-0.32	-1.12/-4.27	-8.06/-8.63	-3.96/-0.91	-0.46/-2.24	-5.32/-6.30	-3.84/-2.76	-2.70/-3.28	-3.06/-2.65	-2.06/-2.23	-2.80/-3.46	-3.49/-2.34	-2.83/-3.86	-6.69/-14.85	-8.09/-8.68	-4.88/-7.42	-6.15/-13.16	-10.05/-6.33	-6.94/-9.91	-6.36/-6.23	-4.66/-5.35	-5.16/-2.85	-1.96/-5.36
Θ(142.5°)	-7.54/-3.91	-2.66/-1.94	-4.68/-9.94	-7.29/-2.37	-1.13/-0.09	-0.37/-0.95	-4.13/-5.60	-4.81/-2.69	-2.01/-2.59	-3.95/-5.58	-7.26/-8.15	-8.06/-6.87	-8.20/-7.12	-8.63/-9.27	-7.23/-6.93	-7.72/-7.34	-7.16/-13.77	-10.85/-15.33	-7.36/-10.21	-10.77/-1.47	-8.73/-3.87	-7.74/-9.69	-9.04/-10.90	
Θ(150°)	-4.39/-4.28	-4.66/-6.51	-5.93/-6.77	-5.35/-3.05	-1.74/-1.12	1.68/-2.93	-5.46/-6.78	-10.80/-11.49	-11.80/-9.90	-8.66/-9.12	-9.93/-11.39	-11.84/-9.63	-7.44/-8.46	-9.45/-9.35	-7.76/-5.42	-4.63/-6.11	-7.79/-9.75	-11.02/-10.67	-10.86/-10.55	-9.99/-10.66	-11.84/-10.00	-9.45/-8.45	-6.74/-4.56	-3.16/-3.89
Θ(157.5°)	-7.37/-6.28	-5.52/-6.40	-7.58/-7.97	-6.96/-5.90	-5.81/-5.44	-6.29/-9.06	-11.05/-11.00	-9.27/-7.21	-5.30/-3.63	-2.39/-1.88	-2.06/-2.52	-3.08/-4.16	-4.98/-5.18	-5.36/-6.22	-7.43/-9.73	-12.53/-13.99	-8.71/-6.59	-7.10/-9.13	-9.63/-8.31	-8.18/-10.42	-13.96/-12.83	-12.47/-10.96	-6.68/-7.78	-8.30/-8.42
Θ(165°)	-7.80/-6.56	-6.11/-7.04	-8.07/-8.74	-9.51/-9.86	-11.26/-13.84	-14.98/-15.55	-14.58/-13.55	-12.08/-10.13	-8.66/-7.26	-6.22/-5.68	-5.09/-3.93	-2.95/-2.62	-3.01/-3.54	-4.48/-5.05	-5.66/-6.74	-7.61/-8.08	-7.66/-7.06	-6.98/-7.33	-8.28/-8.22	-8.31/-7.42	-5.51/-4.54	-4.76/-5.91	-6.38/-6.54	-7.23/-7.67
Θ(172.5°)	-14.14/-14.03	-15.39/-14.93	-14.29/-14.45	-13.00/-12.28	-12.28/-12.39	-13.18/-14.08	-13.45/-12.78	-11.75/-10.62	-9.78/-8.52	-7.19/-6.51	-6.19/-5.93	-5.40/-4.82	-4.05/-3.52	-3.34/-3.51	-4.88/-5.66	-6.50/-6.62	-6.62/-6.48	-6.08/-5.74	-5.45/-6.06	-6.93/-7.09	-7.61/-7.93	-8.89/-10.23	-12.47/-14.70	-14.55/-14.61
Θ(180°)	-13.84/-14.95	-15.62/-14.13	-13.24/-11.43	-11.35/-12.36	-13.98/-14.61	-14.94/-15.97	-15.67/-14.46	-13.20/-12.38	-11.74/-10.99	-10.57/-10.98	-11.30/-11.42	-14.23/-16.17	-15.01/-15.34	-15.57/-14.37	-16.20/-15.19	-15.07/-14.80	-15.13/-13.70	-13.94/-14.48	-14.87/-14.57	-14.13/-14.07	-12.66/-11.74	-11.61/-12.90	-13.25/-13.15	
Freq(Hz)	2.45GPol	TotalAnt.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-4.69/-4.58	-4.32/-4.49	-4.90/-5.30	-5.68/-5.79	-5.86/-6.14	-6.89/-7.55	-7.97/-8.14	-8.09/-7.62	-6.98/-6.61	-6.77/-6.07	-5.60/-5.23	-4.79/-4.53	-4.21/-4.08	-4.15/-4.22	-4.48/-4.70	-4.82/-4.75	-4.63/-4.43	-4.54/-4.80	-4.71/-4.73	-4.96/-5.05	-4.85/-4.87	-4.79/-4.76	-4.48/-4.18	-4.06/-4.06
Θ(7.5°)	-4.30/-4.12	-4.04/-4.15	-4.44/-4.62	-4.67/-4.52	-4.71/-4.89	-5.18/-5.53	-6.26/-6.81	-7.05/-6.53	-6.13/-5.71	-5.28/-4.94	-4.42/-4.22	-3.95/-3.81	-3.81/-3.94	-4.22/-4.54	-4.83/-4.91	-4.71/-4.24	-3.95/-3.71	-3.77/-3.88	-4.03/-4.22	-4.48/-4.76	-4.93/-5.19	-5.38/-5.35	-5.02/-5.44	-4.37/-4.65
Θ(15°)	-4.38/-4.14	-3.70/-3.54	-3.53/-3.70	-3.82/-3.94	-3.82/-3.93	-4.44/-4.85	-5.86/-6.38	-7.13/-6.99	-6.68/-6.20	-5.75/-5.10	-4.68/-4.44	-3.99/-3.97	-3.66/-3.56	-3.51/-3.42	-3.25/-3.02	-2.70/-2.41	-2.24/-2.20	-2.55/-2.88	-3.32/-3.82	-4.53/-5.33	-5.43/-5.75	-5.43/-5.10	-4.86/-4.61	
Θ(22.5°)	-4.98/-4.55	-4.31/-4.16	-4.15/-3.99	-3.89/-3.96	-3.73/-3.57	-3.49/-3.80	-4.27/-4.64	-5.03/-5.31	-5.53/-5.68	-5.73/-5.57	-5.14/-4.49	-3.62/-2.73	-1.87/-1.09	-0.47/-0.06	0.25/0.43	0.41/0.26	0.01/-0.24	-0.49/-0.87	-1.22/-1.56	-1.96/-2.64	-3.53/-4.48	-5.27/-5.87	-6.45/-6.76	-5.55/-5.44
Θ(30°)	-6.15/-6.01	-5.58/-5.52	-5.44/-5.24	-4.94/-4.64	-4.26/-3.83	-3.39/-3.25	-3.23/-2.80	-2.82/-3.10	-3.75/-4.75	-5.91/-6.20	-5.23/-3.61	-1.86/-3.01	0.89/2.07	2.59/2.75	2.71/-4.9	2.14/-5.2	0.71/0.01	-0.60/-1.02	-1.13/-1.12	-1.07/-1.17	-1.54/-2.10	-3.02/-4.25	-5.41/-6.16	-6.40/-6.37
Θ(37.5°)	-5.42/-5.45	-5.50/-5.68	-6.39/-6.74	-7.02/-6.99	-6.46/-5.25	-3.78/-2.66	-1.73/-1.14	-1.02/-1.53	-2.81/-5.02	-7.09/-6.19	-3.10/-0.55	1.47/2.89	2.83/3.17	3.04/2.62	2.98/2.21	1.32/0.24	-0.87/-1.74	-2.10/-2.00	-1.53/-1.03	-0.54/-0.09	0.19/0.11	-0.44/-1.61	-3.23/-3.88	-4.30/-4.96
Θ(45°)	-3.21/-2.99	-2.30/-2.28	-2.75/-3.42	-4.47/-5.58	-6.26/-5.82	-4.32/-3.03	-1.74/-0.58	-0.31/-0.61	-2.00/-4.66	-7.56/-4.71	-1.18/-1.34	2.95/3.22	3.52/3.43	3.54/2.51	1.41/0.52	-0.28/-0.95	-1.48/-1.77	-1.95/-1.99	-2.01/-1.73	-1.05/-0.14	0.75/1.47	1.72/1.37	0.40/-0.90	-0.62/-2.80
Θ(52.5°)	-2.57/-1.89	-1.02/-0.76	-0.97/-1.25	-2.04/-3.44	-4.72/-5.08	-4.30/-2.96	-1.77/-0.99	-0.64/-0.86	-2.21/-5.35	-6.98/-2.60	0.72/2.69	3.12/3.60	3.19/3.08	1.96/1.21	0.66/0.29	0.11/-0.28	-0.77/-1.41	-2.11/-2.93	-3.51/-3.54	-2.85/-1.67	-0.19/1.30	2.48/2.99	2.46/1.19	-0.18/-1.99
Θ(60°)	-5.22/-4.43	-2.06/-0.87	-0.63/-0.14	-1.97/-3.37	-4.96/-5.97	-6.43/-6.18	-4.88/-3.81	-2.78/-2.32	-3.01/-5.15	-5.08/-0.97	2.03/3.67	3.58/3.63	3.32/2.33	1.61/1.09	0.31/-0.32	-0.88/-1.83	-2.48/-3.30	-3.15/-3.54	-4.22/-4.60	-4.41/-3.88	-2.85/-1.03	1.09/2.60	3.04/2.31	0.51/-2.08
Θ(67.5°)	-4.30/-4.67	-1.74/0.03	0.42/-0.25	-1.19/-2.79	-4.56/-5.82	-7.46/-8.48	-7.43/-5.67	-3.70/-2.16	-1.54/-1.67	-0.51/2.17	4.14/4.26	4.42/3.62	3.001/6.2	0.93/0.26	-0.55/-0.64	-0.68/-0.93	-0.65/-0.38	-0.59/-1.49	-2.64/-3.39	-3.31/-2.48	-1.33/-0.28	0.92/2.30	3.07/2.92	1.79/-1.08
Θ(75°)	-1.83/-2.72	-0.55/-1.36	2.11/2.04	1.35/0.05	-1.36/-2.27	-3.14/4.03	-3.39/-1.96	-0.61/0.64	1.41/1.48	1.62/2.91	4.25/-4.77	4.34/3.03	1.02/0.09	0.42/0.15	-0.28/-0.62	-1.05/-1.13	-0.49/0.15	0.09/-0.46	-1.31/-2.30	-3.				



Antenna Pattern 2.4GHz and 5GHz UNII 1~UNII 3

Appendix C

θ(75°)	-4.42/6.39	-2.01/1.80	-2.50/-1.82	-0.21/-0.35	-1.91/-0.55	0.70/1.69	1.91/1.36	0.77/1.08	0.99/1.57	2.03/2.21	2.89/2.81	0.59/1.36	2.14/1.20	2.52/2.73	1.69/1.32	1.77/-2.43	-3.86/-7.55	-11.38/-8.51	-12.88/-8.54	-5.18/-4.41	-4.49/-4.76	-1.75/-6.08	-5.01/-2.40	-3.59/-4.37
θ(82.5°)	-3.06/-3.36	-1.63/0.57	-0.47/-0.64	0.67/-0.41	-0.62/0.27	0.92/1.75	2.58/2.75	1.83/0.90	0.40/1.77	2.80/2.79	1.06/-1.38	-0.91/0.73	2.20/2.34	1.48/1.55	0.59/1.34	-0.29/-1.68	2.71/2.13	-0.00/-3.15	-3.97/-6.37	-5.30/-2.05	-0.99/-2.35	-3.36/-1.49	-6.29/-4.36	-3.92/-4.04
θ(90°)	-3.76/-3.70	-0.21/0.41	-0.44/0.81	-0.24/0.69	0.12/-0.10	0.01/1.45	1.36/1.86	4.07/3.80	1.58/0.13	1.94/1.95	-0.71/-1.22	-0.49/0.73	1.85/2.42	2.28/2.07	0.85/2.53	1.15/2.14	4.34/2.85	-1.38/-1.66	-3.21/-4.38	-0.95/-1.84	-2.71/-2.10	-2.19/-3.15	-5.29/-2.41	-2.26/-0.98
θ(97.5°)	-1.52/-1.57	-2.90/-0.91	-0.93/0.10	1.19/1.50	2.17/3.22	2.73/2.34	2.80/3.42	2.81/-1.54	-1.32/-0.57	0.83/-0.28	-0.64/0.58	0.55/-0.16	-0.32/1.70	0.57/-3.64	0.52/0.31	-2.70/-0.93	3.23/1.69	-0.87/-1.49	-1.66/-1.68	0.57/3.30	3.09/0.68	0.92/-6.72	-1.78/-3.51	-2.02/-0.57
θ(105°)	-1.71/0.40	-0.05/-2.55	0.45/-1.77	0.87/2.29	1.45/-1.52	1.38/0.84	0.70/-0.22	-0.96/-1.05	-1.90/-0.36	0.63/-0.80	-3.26/-2.98	-2.56/-3.80	-1.28/0.08	-2.36/-6.46	-2.71/0.84	-3.15/-0.32	2.99/-1.46	-6.21/-4.92	-3.94/-1.57	-1.09/3.57	2.58/-0.04	-1.41/-0.74	-0.73/0.23	1.42/-1.37
θ(112.5°)	2.09/2.52	-0.87/-0.85	0.17/0.76	0.24/1.03	0.19/-0.63	0.36/0.82	1.23/0.26	-0.41/0.05	1.28/0.58	-1.77/-3.40	-1.54/-0.19	-1.22/-2.72	-1.42/-0.01	-4.59/0.91	0.67/2.57	-1.58/-3.17	1.13/0.23	-0.47/-1.58	-3.23/2.99	-2.34/-2.59	2.36/0.27	-7.07/-1.11	0.82/-1.55	
θ(120°)	-0.20/0.98	1.66/0.40	1.22/1.01	-0.23/-1.19	0.05/-1.39	-1.11/-0.54	-0.33/-0.28	-0.39/-0.58	0.48/-0.08	-2.46/-5.63	-5.44/-3.08	-3.58/-4.68	-1.00/-2.56	-3.34/0.65	-3.80/-3.59	-1.67/-4.30	-1.91/0.55	-7.65/-5.91	-1.94/-8.44	-10.84/-0.38	-0.25/-8.34	-0.36/2.96	0.25/2.96	1.81/3.08
θ(127.5°)	1.06/1.79	1.46/2.26	2.49/2.36	1.61/-0.10	-0.66/0.78	-0.06/-0.12	-0.33/-0.42	0.07/0.34	-0.99/-1.70	-1.88/-2.68	-6.48/-11.16	-4.73/-1.77	-3.26/-0.43	-3.04/-3.51	-1.27/-0.00	-1.34/-3.30	-2.77/-1.20	-5.50/-0.75	-6.13/-4.40	-0.76/-2.08	0.29/-3.82	-1.90/-1.43	-0.67/-1.38	0.86/3.84
θ(135°)	2.13/3.10	3.80/2.62	1.23/-1.62	1.98/1.11	0.10/-0.55	0.45/0.91	1.10/0.48	1.39/0.65	-1.77/-5.91	-7.09/-6.52	-3.65/-1.17	-3.05/-4.98	-1.39/-3.96	-2.07/-2.42	-5.78/-10.11	-3.83/-0.79	-4.00/-8.24	-4.62/-7.48	-2.85/-0.73	-1.50/-0.82	-5.07/-1.65	-0.71/-1.65	-0.02/-1.94	
θ(142.5°)	-0.24/-0.78	0.25/0.73	-0.29/-0.89	-0.10/0.94	0.80/-0.00	-1.48/-1.74	-1.20/-1.06	-1.35/-2.26	-4.28/-8.05	-9.64/-6.05	-3.30/-1.64	-0.98/-3.20	-9.51/-12.50	-9.53/-8.36	-10.41/-6.26	-5.54/-1.70	-0.23/-6.22	-3.52/-0.28	-2.34/-6.68	-7.81/-2.86	-3.39/-5.34	-3.41/-2.36	-2.20/-2.42	-1.99/-0.81
θ(150°)	-2.69/-4.42	-4.46/-2.52	-1.19/-0.60	-1.43/-2.73	-3.13/-3.06	-2.77/-3.13	-3.88/-4.45	-4.78/-4.23	-2.52/-1.42	-1.27/-3.05	-7.39/-7.87	-6.58/-6.46	-6.65/-7.72	-6.78/-6.09	-6.47/-10.12	-6.39/-1.30	-1.38/-6.96	-8.92/-7.62	-10.36/-7.98	-7.46/-2.40	-0.21/-0.34	1.51/2.65	2.73/-1.72	-0.66/-2.63
θ(157.5°)	0.73/0.94	0.52/0.09	0.00/0.93	1.37/0.42	-1.16/-2.61	-0.22/-0.36	-3.45/-3.85	-4.20/-4.13	-4.50/-4.51	-4.25/-3.90	-3.49/-3.95	-5.97/-8.61	-8.75/-5.41	-3.54/-4.11	-6.20/-6.75	-4.58/-6.43	-8.84/-15.29	-15.53/-15.02	-10.06/-7.34	-5.06/-2.72	-1.24/-0.61	0.68/2.07	2.37/1.95	1.35/0.42
θ(165°)	-1.80/-1.97	-1.90/-1.49	-1.14/-1.06	-0.47/0.03	-0.30/-1.21	-2.91/-4.27	-4.24/-4.43	-5.09/-5.59	-5.50/-4.96	-4.00/-3.03	-2.65/-3.30	-4.94/-8.28	-12.65/-12.78	-11.06/-10.24	-10.10/-9.82	-8.19/-7.64	-8.52/-10.59	-10.68/-9.38	-7.91/-5.94	-4.26/-3.17	-2.01/-0.89	0.20/0.88	0.97/-0.17	-0.89/-1.52
θ(172.5°)	-4.49/-4.65	-3.91/-3.10	-2.40/-1.58	-0.91/-0.57	-0.90/-1.23	-1.07/-0.92	-0.99/-1.17	-1.56/-2.06	-2.37/-2.61	-2.74/-3.35	-4.58/-6.05	-7.96/-10.40	-12.32/-11.90	-10.06/-9.22	-8.85/-9.07	-6.88/-7.67	-7.41/-7.27	-7.05/-6.48	-5.47/-5.08	-5.67/-6.80	-5.95/-4.64	-4.01/-3.75	-3.04/-2.83	-2.70/-3.62
θ(180°)	-6.01/-0.73	-7.21/-6.94	-5.88/-5.31	-5.90/-6.42	-5.80/-5.05	-4.64/-4.44	-4.62/-4.28	-3.83/-3.92	-5.20/-7.98	-11.46/-15.08	-13.30/-13.09	-12.48/-10.89	-9.43/-8.01	-6.75/-5.99	-5.73/-5.95	-6.47/-6.99	-7.34/-7.36	-7.09/-6.14	-5.36/-5.42	-5.76/-6.03	-5.12/-4.25	-3.98/-4.14	-4.24/-4.25	-4.39/-5.04
Freq(Hz)	5.785GPol.	TotalAnt 2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
θ(0°)	-7.92/-7.91	-7.94/-8.17	-7.95/-7.58	-7.25/-7.07	-6.73/-6.69	-6.51/-6.90	-7.37/-7.87	-8.14/-8.44	-8.12/-8.44	-9.02/-9.08	-9.23/-8.88	-9.02/-9.08	-9.38/-10.37	-11.41/-11.91	-12.41/-12.84	-12.05/-10.92	-10.59/-10.10	-9.35/-9.15	-9.40/-10.13	-9.68/-8.74	-9.30/-10.58	-9.73/-8.18	-9.37/-8.18	-7.30/-5.74
θ(7.5°)	-8.22/-9.25	-9.36/-11.12	-11.86/-12.99	-13.52/-13.62	-13.01/-11.03	-10.00/-8.86	-8.76/-7.99	-7.01/-6.23	-6.22/-6.98	-7.96/-8.69	-9.11/-8.86	-8.04/-7.70	-7.67/-7.48	-7.21/-6.78	-6.40/-6.57	-6.20/-5.76	-5.39/-4.64	-4.78/-5.32	-5.47/-5.31	-5.28/-5.56	-5.54/-6.02	-6.91/-7.32	-7.87/-7.29	-6.58/-7.33
θ(15°)	-8.00/-9.58	-10.78/-14.90	-15.17/-15.03	-11.03/-9.39	-8.29/-7.28	-6.00/-4.86	-3.69/-2.84	-2.61/-2.94	-3.35/-4.37	-3.12/-3.02	-3.12/-3.51	-3.57/-3.79	-3.92/-3.93	-3.65/-3.18	-2.78/-2.62	-2.47/-2.45	-2.66/-3.22	-4.24/-4.87	-4.97/-4.84	-4.50/-4.11	-3.58/-3.48	-3.99/-4.59	-5.59/-6.64	-6.55/-7.62
θ(22.5°)	-11.93/-14.09	-15.45/-15.27	-14.73/-12.56	-10.46/-9.41	-7.25/-4.97	-4.05/-3.56	-2.69/-2.13	-2.11/-2.52	-2.98/-2.99	-2.94/-2.27	-1.76/-1.47	-1.31/-1.60	-2.23/-1.71	-0.51/-0.21	-0.83/-1.42	-2.13/-3.04	-4.08/-4.76	-4.91/-4.73	-5.89/-6.33	-6.92/-7.41	-7.59/-7.59	-7.64/-7.74	-8.78/-9.97	
θ(30°)	-9.42/-7.58	-8.73/-9.54	-9.66/-8.69	-8.08/-8.37	-5.80/-4.77	-3.70/-2.17	-1.53/-1.03	-0.58/-0.78	-1.91/-2.06	-1.38/-0.36	0.24/-0.39	-0.38/0.09	-0.76/-0.76	0.06/-0.54	-1.05/-2.09	-3.51/-4.56	-5.44/-6.68	-7.34/-6.52	-5.78/-5.41	-5.19/-4.31	-3.35/-3.48	-5.01/-7.89	-11.97/-10.40	-8.43/-10.14
θ(37.5°)	-11.18/-8.24	-6.44/-6.63	-5.73/-4.79	-8.81/-6.60	-5.60/-5.25	-3.78/-3.50	-2.92/-2.10	-1.57/-1.25	-0.31/-1.20	1.59/-2.08	-1.56/-2.82	-0.27/-1.24	-0.90/-1.19	0.45/0.35	-1.40/-2.92	-3.62/-4.19	-5.21/-8.49	-9.88/-9.36	-7.99/-7.31	-8.04/-7.57	-9.38/-9.49	-9.38/-13.34	-13.00/-10.91	
θ(45°)	-7.87/-6.90	-4.85/-3.03	-4.19/-8.78	-9.24/-6.66	-4.91/-3.70	-3.33/-3.57	-3.86/-3.48	-1.76/-2.07	0.07/-0.16	-0.05/-1.12	-1.44/-1.28	0.03/0.23	0.83/0.20	0.93/0.19	-3.02/-1.19	0.12/0.55	0.06/0.54	-1.57/-4.55	-3.15/-2.84	-3.96/-4.93	-4.46/-4.50	-4.65/-5.39	-6.43/-12.31	-10.01/-5.27
θ(52.5°)	-3.72/-8.02	-5.85/-3.00	-5.05/-5.97	-6.23/-0.67	-1.02/-1.78	-2.64/-2.70	-2.20/-1.68	-1.00/-0.05	0.60/-1.05	1.01/0.39	-1.02/-0.98	0.45/0.94	2.24/3.32	2.87/0.77	1.10/2.42	2.79/2.52	0.22/-2.53	-2.70/-3.35	-4.47/-5.00	-1.89/-0.33	-0.68/-2.08	-4.77/-4.85	-6.60/-7.10	-9.52/-3.81
θ(60°)	-2.84/-7.64	-5.71/-3.66	-7.05/-5.21	-2.04/-0.87	-1.49/-2.20	-2.56/-2.91	-3.68/-3.35	-1.89/-1.43	0.46/0.87	0.91/0.15	-0.94/-1.22	2.55/-1.86	2.72/3.03	2.29/-1.54	1.76/2.00	1.37/-1.24	-1.17/-1.14	-1.86/-4.08	-6.62/-4.53	-4.16/-2.32	-0.68/0.09	-1.80/-4.74	-6.29/-6.40	-11.43/-4.37
θ(67.5°)	-3.04/-4.24	-1.80/-1.05	-4.06/-3.15	-1.13/-0.80	-0.40/-0.37	-1.26/-2.77	-3.19/-1.80	-0.69/-0.03	-0.33/-0.87	0.37/0.13	0.73/2.89	1.82/0.40	2.49/2.17	1.78/-1.39	0.05/-0.76	-3.04/-2.91	-3.70/-5.51	-4.85/-2.88	-2.73/-4.71	-9.86/-9.81	-4.29/-0.40	0.32/-2.42	-6.84/-5.14	-7.54/-6.40
θ(75°)	-2.33/-5.24	-3.41/-2.25	-3.63/-0.96	-1.09/-2.34	-2.75/-1.34	-0.99/-0.50	-0.89/-0.57	0.08/-0.18	0.26/-0.26	0.95/2.30	3.83/3.84	0.33/0.04	1.01/-1.21	2.79/-2.14	-0.48/-0.71	-0.60/-2.91	-5.24/-9.94	-13.30/-10.85	-14.31/-8.92	-4.28/-5.31	-5.28/-4.61	-1.64/-4.39	-8.71/-3.54	-4.56/-3.72
θ(82.5°)	-2.54/-2.57	-1.27/-1.07	-0.91/-0.18	-0.74/-0.70	-0.86/-1.30	-1.04/-0.08	0.88/-1.51	2.00/-1.72	1.41/-1.58	-0.18/-2.51	2.91/-1.45	-2.68/-2.41	0.31/0.33	3.33/-2.66	-0.24/-0.50	-2.95/-0.57	-0.07/0.09	-3.67/-5.32	-6.38/-9.57	-2.60/-0.35	-1.44/-2.96	-1.78/-3.39	-6.46/-3.76	-5.20/-2.92
θ(90°)	-3.28/-3.96	-0.46/0.10	-1.56/-0.26	0.43/-0.84	-1.01/0.49	0.86/-1.43	1.52/-1.57	2.23/-1.95	2.33/-0.33	0.20/-0.62	-2.15/-0.27	-0.87/-2.56	-0.79/-1.48	0.74/-0.05	0.42/-1.80	-0.09/-0.11	2.97/0.75	-2.45/-2.95	-3.55/-3.55	-1.51/-1.69	1.60/-0.73	-2.24/-3.25	-5.99/-1.01	-2.26/-4.04
θ(97.5°)	-2.85/-3.77	-0.51/-1.68	1.01/-1.97	2.37/-1.86	2.09/2.51	1.59/-1.89	2.02/-1.58	2.42/-1.54	1.14/0.00	-0.91/-3.16	-1.14/-0.82	-0.17/-0.32	-1.50/0.87	-0.17/-1.33	-1.70/-1.18	-4.70/-2.62	1.80/2.19	-0.27/-1.29	-2.24/-2.31	0.48/2.01	-0.56/-1.21	-4.42/0.59	-0.44/-1.15	
θ(105°)	-0.46/-0.65	0.26/-1.12	0.97/-1.97	2.43/2.80	2.36/2.38	0.89/0.32	-0.56/-0.19	-0.55/-1.34	-1.68/-4.23	-3.54/-4.20	-4.54/-3.44	-1.38/-5.75	-8.23/-3.17	-2.88/-2.03	-3.05/-1.09	-4.76/-2.92	3.25/-1.17	-5.07/-4.65	-2.02/-4.43	-2.15/2.75	0.01/-7.81	-1.92/-0.59	0.40/2.24	2.39/0.95
θ(112.5°)	1.48/0.73	-0.21/-2.23	0.70/-0.46	0.58/0.12	0.00/-1.71	1.38/-1.15	0.44/-0.71	-1.56/-1.58	-4.42/-5.80	-4.00/-3.21	-4.24/-4.35	-4.41/-7.37	-2.19/-0.16	-2.03/-2.03	-3.85/-1.98	-1.51/-5.72	-6.74/-12.07	-8.03/-7.24	-11.36/-0.92	-1.32/-1.95	0.16/0.89	-3.97/-3.01	2.73/0.16	
θ(120°)	-0.27/0.86	1.40/-1.50	1.83/0.29	-2.52/-0.05	-0.95/-2.34	-1.76/-1.92	-1.51/-1.36	-1.67/-3.19	-2.62/-2.82	-3.34/-4.79	-6.23/-3.79	-5.87/-6.68	-2.74/-4.13	-0.81/-1.43	-0.49/0.14	-3.10/-4.04	-2.15/2.11	-4.51/-8.42	-8.29/-1.25	-6.75/-9.00	0.89/-1.23	0.05/-1.12	2.40/2.39	
θ(127.5°)	0.16/0.38	1.56/0.53	0.24/-0.74	-2.56/-4.54	-2.60/-2.25	-2.20/-0.57	0.32/0.32	0.07/0.00	-1.78/-1.39	0.07/-0.78	-3.63/-7.55	-9.07/-9.42	-3.22/-2.68	-6.44/-2.08	-4.75/-2.47	-1.97/-3.95	-6.63/-0.66	-9.29/-3.32	-4.85/-6.39	-1.54/-2.31	-2.01/-5.38	-2.60/-0.84	0.06/-0.02	0.39/0.01
θ(135°)	-0.02/-1.63	0.75/-																						



Antenna Pattern 2.4GHz and 5GHz UNII 1~UNII 3

Appendix C

Θ(120°)	-2.66/3.28	-2.81/4.83	-3.17/5.35	-3.63/-4.94	-4.31/-3.43	-4.67/5.73	-12.10/-10.67	-5.84/-4.03	-4.48/-6.66	-7.53/-4.94	-5.81/-2.28	0.00/0.25	-1.75/-2.74	1.21/-0.79	2.37/-3.82	-7.61/-0.32	-3.40/-0.79	3.65/1.51	-1.95/0.34	3.34/1.44	0.82/-6.64	-3.48/-1.67	-0.39/-7.68	-2.50/-4.36
Θ(127.5°)	-4.02/-2.62	-6.91/-4.61	-9.27/-6.21	-7.32/-5.11	-7.20/-7.75	-7.48/-10.13	-12.72/-15.65	-11.27/-5.73	-4.62/-5.84	-10.22/-8.81	-7.96/-5.76	-6.36/-2.56	-12.58/-2.96	-5.79/-0.37	-3.73/-0.80	-2.28/-0.38	-4.55/-1.89	2.41/-0.53	-3.50/-1.15	2.36/0.80	-0.37/-9.71	-4.38/-0.17	1.36/-4.11	-1.12/-0.79
Θ(135°)	-7.89/-4.47	-3.85/-4.86	-3.99/-6.88	-6.04/-9.27	-9.04/-9.68	-9.47/-9.27	-12.15/-15.57	-15.08/-12.14	-10.43/-8.13	-6.46/-7.06	-5.94/-5.55	-10.56/-11.98	-4.68/-6.02	-7.91/-1.49	-6.47/-6.02	-7.20/-10.46	-2.94/-1.83	1.63/-2.02	-7.99/-5.80	-1.76/0.28	-1.53/-3.79	-6.72/-1.77	-1.29/-5.64	-3.30/-2.52
Θ(142.5°)	-5.60/-8.10	-9.04/-14.27	-9.14/-5.81	-4.91/-3.89	-5.50/-7.89	-6.94/-7.41	-10.41/-13.24	-15.01/-15.18	-11.03/-7.94	-6.80/-5.40	-5.85/-10.19	-6.25/-6.04	-10.24/-8.41	-4.23/-7.68	-3.47/-5.82	-5.36/-5.48	-2.17/0.36	-0.80/-4.22	-7.16/-6.10	-6.73/-2.79	-2.53/-5.33	-5.70/-8.05	-11.44/-9.08	-4.31/-3.68
Θ(150°)	-3.38/-2.96	-3.74/-6.41	-10.07/-13.27	-11.11/-9.22	-9.99/-14.60	-15.27/-11.60	-9.13/-8.73	-9.75/-10.84	-12.29/-12.26	-13.44/-15.46	-14.52/-8.54	-7.04/-5.40	-3.40/-3.83	-6.08/-7.56	-8.26/-9.75	-5.77/-3.73	-4.72/-7.80	-11.09/-10.51	-10.05/-10.41	-12.52/-7.12	-3.98/-4.26	-5.03/-6.17	-7.66/-9.62	-8.89/-4.99
Θ(157.5°)	-1.52/-0.89	-1.45/-2.30	-3.49/-5.78	-8.21/-10.38	-10.80/-10.67	-10.69/-10.45	-10.08/-9.12	-8.59/-9.16	-11.25/-12.48	-13.78/-16.10	-11.15/-8.68	-7.26/-6.14	-6.36/-8.13	-10.89/-11.16	-9.25/-6.16	-4.91/-5.05	-7.01/-8.82	-6.86/-12.39	-16.13/-14.00	-10.83/-8.13	-6.13/-5.48	-5.26/-4.31	-3.99/-3.66	-2.97/-2.04
Θ(165°)	-3.05/-3.22	-3.84/-6.54	-7.37/-9.13	-9.56/-10.27	-12.41/-12.88	-13.29/-11.88	-11.49/-11.65	-12.21/-12.96	-12.95/-13.06	-13.52/-11.43	-9.61/-7.77	-6.49/-5.36	-5.13/-5.70	-6.51/-6.84	-6.96/-7.05	-7.56/-8.13	-9.17/-9.79	-10.09/-9.58	-10.74/-12.43	-15.04/-15.90	-16.23/-12.61	-9.74/-7.89	-6.92/-6.71	-6.14/-4.43
Θ(172.5°)	-10.39/-10.98	-11.87/-13.37	-12.63/-11.72	-11.96/-11.11	-10.86/-10.77	-11.65/-11.92	-13.75/-14.89	-15.52/-13.49	-12.52/-11.83	-10.97/-10.55	-10.78/-11.05	-11.81/-12.54	-13.20/-12.89	-11.63/-10.61	-9.47/-8.51	-7.82/-7.38	-7.48/-7.73	-8.30/-8.81	-8.92/-9.39	-9.64/-10.96	-12.28/-14.17	-15.09/-15.44	-14.68/-14.60	-12.64/-10.90
Θ(180°)	-12.20/-11.47	-10.00/-8.93	-8.50/-8.14	-8.16/-8.33	-9.55/-12.15	-13.88/-14.50	-14.33/-14.36	-13.70/-12.20	-11.11/-10.26	-10.61/-10.31	-10.46/-10.95	-11.51/-12.64	-12.73/-12.61	-12.17/-11.65	-11.28/-10.91	-11.26/-11.44	-11.90/-12.34	-12.23/-13.01	-13.08/-11.88	-10.86/-9.89	-8.81/-9.25	-9.37/-10.43	-11.60/-11.22	-12.08/-14.26
Freq(Hz)	5.6GPol.	TotalAnt.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Ψ(7.5°)	Φ(15°)Ψ(22.5°)	Φ(30°)Ψ(37.5°)	Φ(45°)Ψ(52.5°)	Φ(60°)Ψ(67.5°)	Φ(75°)Ψ(82.5°)	Φ(90°)Ψ(97.5°)	Φ(105°)Ψ(112.5°)	Φ(120°)Ψ(127.5°)	Φ(135°)Ψ(142.5°)	Φ(150°)Ψ(157.5°)	Φ(165°)Ψ(172.5°)	Φ(180°)Ψ(187.5°)	Φ(195°)Ψ(202.5°)	Φ(210°)Ψ(217.5°)	Φ(225°)Ψ(232.5°)	Φ(240°)Ψ(247.5°)	Φ(255°)Ψ(262.5°)	Φ(270°)Ψ(277.5°)	Φ(285°)Ψ(292.5°)	Φ(300°)Ψ(307.5°)	Φ(315°)Ψ(322.5°)	Φ(330°)Ψ(337.5°)	Φ(345°)Ψ(352.5°)
Θ(0°)	-13.44/-13.38	-11.82/-11.43	-11.37/-12.21	-12.60/-13.09	-12.35/-13.39	-13.17/-13.76	-13.88/-13.55	-12.83/-11.78	-10.91/-10.75	-9.29/-8.68	-8.40/-8.88	-8.00/-8.68	-10.50/-10.27	-10.35/-10.75	-10.53/-11.43	-10.56/-10.86	-10.76/-10.69	-10.34/-9.59	-9.31/-10.14	-10.34/-10.96	-10.43/-12.29	-14.28/-11.47	-7.75/-6.93	-6.05/-5.29
Θ(7.5°)	-8.45/-8.53	-8.07/-9.10	-11.28/-12.01	-10.20/-10.43	-10.59/-10.21	-9.78/-8.40	-9.02/-9.76	-10.83/-10.67	-9.73/-8.90	-8.51/-8.33	-8.12/-8.11	-7.56/-7.03	-7.10/-7.70	-8.53/-9.27	-10.07/-10.08	-9.74/-10.29	-11.05/-12.30	-12.95/-13.30	-12.74/-12.07	-11.39/-12.03	-12.87/-11.99	-11.41/-10.56	-11.42/-11.88	-11.33/-10.17
Θ(15°)	-9.00/-7.62	-5.96/-6.31	-6.17/-6.53	-6.96/-7.77	-7.96/-7.46	-6.06/-5.35	-5.21/-5.23	-3.85/-3.74	-3.90/-4.13	-4.25/-4.31	-4.44/-4.78	-5.70/-6.85	-8.87/-10.42	-10.80/-10.48	-10.31/-9.94	-9.69/-7.65	-6.98/-6.91	-7.03/-7.79	-9.21/-10.45	-13.90/-15.82	-14.35/-14.06	-14.03/-11.87		
Θ(22.5°)	-5.89/-5.11	-3.83/-2.61	-1.73/-2.19	-2.65/-2.43	-2.17/-1.72	-2.29/-3.27	-3.99/-3.44	-2.29/-1.20	-1.05/-1.57	-2.30/-2.83	-3.21/-4.28	-5.66/-7.35	-7.77/-8.02	-8.22/-8.53	-9.10/-8.81	-8.62/-8.47	-8.29/-7.32	-5.63/-4.39	-4.23/-4.92	-6.26/-8.11	-10.33/-12.29	-14.28/-11.47	-7.75/-6.93	-6.05/-5.29
Θ(30°)	-4.23/-4.26	-2.50/-0.38	0.79/0.74	0.33/-0.01	-0.43/-1.29	-2.37/-2.70	-1.53/-0.82	-0.46/-0.47	-1.06/-1.76	-2.49/-2.83	-3.31/-4.48	-5.91/-6.82	-7.81/-7.34	-6.91/-7.08	-7.47/-7.82	-8.16/-8.62	-7.39/-6.40	-5.74/-6.11	-6.63/-7.36	-8.07/-9.92	-11.20/-12.55	-11.80/-9.75	-6.41/-4.68	-3.68/-4.07
Θ(37.5°)	-1.07/-0.63	-0.11/-0.42	1.29/1.34	1.04/1.03	0.88/0.79	1.23/1.94	1.84/0.86	-0.79/-2.26	-3.65/-4.56	-5.14/-5.34	-5.64/-5.90	-4.20/-4.55	-3.05/-3.98	-5.12/-5.27	-5.31/-7.02	-11.10/-10.49	-9.28/-7.47	-6.92/-8.13	-9.62/-10.71	-11.21/-11.48	-12.73/-10.49	-8.11/-9.41	-2.53/-4.19	-1.71/-4.12
Θ(45°)	-0.29/-0.14	-0.05/-0.53	1.31/1.51	1.44/1.17	1.59/1.17	3.18/3.75	2.99/1.52	-0.16/-1.49	-2.86/-5.02	-7.65/-9.25	-7.47/-4.66	-4.23/-1.93	-1.69/-3.96	-4.27/-3.72	-3.28/-5.89	-6.82/-8.42	-12.98/-12.62	-10.83/-8.69	-6.61/-6.88	-8.36/-9.44	-11.77/-10.69	-7.32/-5.37	-2.71/-1.30	-0.77/-1.40
Θ(52.5°)	1.12/0.10	-1.66/-1.87	-0.35/1.32	2.07/2.31	2.65/2.89	3.54/3.65	3.03/2.00	0.80/-0.91	-2.21/-3.38	-4.86/-6.40	-5.28/-3.33	-1.78/0.46	0.57/-0.20	-1.27/-2.13	-2.65/-4.28	-7.73/-8.19	-10.60/-13.48	-10.09/-9.22	-8.76/-9.00	-9.16/-7.71	-6.45/-5.73	-3.78/-3.11	-1.80/0.21	1.21/1.16
Θ(60°)	2.77/1.53	-0.29/-1.40	-1.72/0.67	1.76/2.56	2.89/2.67	2.65/2.53	1.97/1.51	0.96/-0.07	-3.35/-1.02	-1.94/-3.07	-3.09/-2.59	-1.37/0.19	0.98/0.81	-0.32/-0.47	-2.13/-3.00	-4.96/-1.26	-13.52/-14.49	-15.72/-13.13	-10.69/-9.92	-8.77/-5.52	-3.90/-4.16	-2.93/-1.99	-2.10/-1.63	1.12/1.98
Θ(67.5°)	2.51/2.61	0.31/-0.24	-0.42/1.78	2.15/2.89	2.61/2.74	3.59/3.12	2.14/1.18	1.33/1.62	1.67/1.24	-0.15/-2.50	-4.16/-2.49	-0.17/2.10	2.15/1.77	-0.20/-0.65	-4.02/-4.42	-3.93/-1.77	-15.74/-14.38	-14.85/-13.14	-9.91/-8.50	-7.41/-5.98	-1.57/-0.82	-0.08/-0.05	-0.73/-1.52	-0.53/-0.89
Θ(75°)	2.71/2.84	2.13/0.77	0.17/1.05	1.42/2.27	1.67/1.71	2.70/2.64	2.19/2.69	2.87/2.53	1.22/-1.39	-4.44/-6.94	-5.52/-1.14	-1.04/1.47	0.43/-1.02	-1.18/1.56	1.27/0.23	-1.75/-5.00	-10.59/-14.80	-10.25/-7.31	-4.89/-4.41	-6.13/-6.66	-1.28/1.46	1.12/1.07	-0.53/-0.11	-0.62/-1.61
Θ(82.5°)	4.80/-6.64	3.58/0.92	-0.51/-0.19	1.40/1.10	1.03/1.38	1.48/0.97	1.05/0.86	1.99/1.90	0.70/-1.78	-4.24/-5.60	-4.01/-0.17	1.76/2.98	3.15/-0.37	0.31/2.08	2.51/-0.47	-0.95/-2.04	-3.71/-4.73	-2.47/-3.26	-2.37/-0.09	-0.08/-2.85	-8.04/-6.62	-1.36/0.83	-0.21/0.05	1.49/1.93
Θ(90°)	4.45/3.91	3.50/-0.77	-1.69/-1.62	0.66/2.62	0.12/-0.38	0.40/-1.34	0.22/0.95	3.96/2.07	-0.71/-3.58	-6.89/-1.17	-0.87/2.02	1.93/2.82	3.60/0.30	0.77/3.50	3.35/2.71	1.05/-0.01	-2.22/-0.22	0.20/0.25	0.77/1.53	1.24/-0.73	-3.01/-7.01	-3.53/-0.33	2.48/2.84	4.53/4.24
Θ(97.5°)	3.16/3.12	2.84/-0.85	-1.79/-2.78	-0.74/-2.99	-3.10/-1.00	0.20/-0.32	-0.81/0.98	1.83/0.29	-1.90/-2.22	-3.97/-9.45	-2.56/0.61	2.02/4.22	1.66/1.61	1.69/4.61	3.74/2.79	-1.46/-3.75	-2.65/0.55	1.33/2.09	3.05/3.59	3.93/3.14	1.21/-0.66	-1.68/-1.50	1.01/2.92	3.37/3.81
Θ(105°)	2.65/2.67	0.50/-0.25	-6.54/-3.89	-3.93/-2.80	-2.00/-2.93	-3.71/-4.56	-4.01/-3.43	-3.14/-5.22	-4.00/-4.54	-6.76/-7.68	-3.15/-2.24	1.96/3.67	3.46/-4.40	0.23/4.38	3.04/0.91	-4.25/-5.11	-0.86/-2.09	2.82/3.15	2.00/2.36	3.92/3.95	2.21/-2.64	-1.32/1.05	-1.17/0.34	2.04/2.62
Θ(112.5°)	0.07/1.60	-0.96/-0.20	-1.99/-2.30	-5.89/-4.28	-5.49/-2.75	-3.29/-2.03	-1.18/-1.85	-4.30/-5.81	-4.52/-6.65	-8.33/-5.24	-2.92/-0.97	0.98/1.47	-0.42/-2.08	2.15/2.48	1.81/-0.88	-8.36/-3.21	-4.12/-0.56	3.37/2.02	0.36/3.74	3.52/3.22	0.77/1.08	-3.37/-1.91	-1.87/-0.40	1.61/1.18
Θ(120°)	0.88/-2.65	-2.06/-3.96	-4.56/-5.32	-4.88/-5.81	-3.77/-4.70	-3.31/-3.90	-5.24/-6.60	-9.42/-8.72	-7.72/-7.27	-7.72/-5.65	-3.32/-6.30	0.35/-1.85	-1.29/-3.43	1.01/0.16	2.66/-3.60	-3.46/-3.14	-5.83/-3.16	3.64/2.61	-1.04/2.39	3.45/2.07	0.21/-2.92	-1.66/3.43	0.42/-2.79	1.54/-0.67
Θ(127.5°)	-4.83/-9.52	-6.58/-9.52	-6.30/-5.08	-4.46/-3.57	-3.97/-3.51	-6.31/-8.24	-10.05/-12.59	-13.20/-13.73	-8.79/-5.90	-5.75/-8.57	-8.39/-2.66	-3.40/-3.11	-2.21/-2.74	-0.94/0.17	0.30/-0.93	-1.10/-1.64	-7.75/0.69	3.98/0.46	3.49/1.10	3.45/2.96	0.76/-6.72	-1.21/2.21	0.69/-5.60	-2.11/9.67
Θ(135°)	-7.67/-8.78	-10.75/-4.29	-6.48/-6.70	-7.42/-6.63	-5.59/-6.28	-7.36/-11.27	-14.07/-15.37	-15.79/-13.88	-10.37/-9.91	-6.59/-4.57	-6.28/-6.15	-8.09/-8.26	-12.64/-3.91	-1.60/1.51	-5.25/-4.35	-11.99/-3.72	-10.89/1.81	3.16/-0.97	-7.82/-4.00	-1.61/-0.82	-2.48/-6.22	-0.97/-0.46	-1.72/-3.69	-1.24/-5.65
Θ(142.5°)	-5.74/-4.46	-7.34/-4.68	-3.43/-4.23	-4.15/-6.81	-9.74/-9.81	-8.23/-12.91	-13.70/-12.55	-12.60/-12.45	-9.12/-6.00	-6.35/-7.27	-4.13/-4.88	-6.70/-4.26	-4.25/-8.04	-4.36/-7.34	-4.22/-4.30	-7.06/-3.15	-3.58/-1.98	-2.40/-3.90	-6.90/-7.12	-4.12/-1.45	-3.72/-4.22	-4.77/-4.41	-5.86/-3.82	-0.90/-1.91
Θ(150°)	-7.46/-12.34	-14.85/-14.05	-11.12/-9.52	-7.19/-7.01	-10.05/-12.06	-14.46/-15.59	-13.29/-10.89	-11.40/-13.41	-11.68/-9.99	-10.36/-11.19	-13.52/-10.83	-7.56/-8.80	-9.32/-7.25	-6.72/-7.16	-7.20/-10.83	-9.04/-5.52	-6.23/-8.51	-10.35/-11.69	-9.71/-11.38	-10.28/-7.10	-8.05/-9.41	-8.89/-11.05	-13.88/-10.81	-6.62/-6.59
Θ(157.5°)	-0.77/-1.52	-3.24/-3.99	-6.04/-6.66	-9.60/-9.40	-9.88/-10.71	-10.44/-9.97	-9.93/-8.10	-7.41/-7.75	-8.46/-8.77	-9.27/-9.09	-9.96/-9.85	-8.94/-7.20	-6.61/-8.75	-11.72/-8.57	-5.59/-4.34	-4.15/-5.64	-9.18/-10.57	-12.03/-13.72	-15.65/-14.54	-11.51/-8.17	-6.04/-8.47	-4.62/-3.25	-1.98/-0.97	
Θ(165°)	-3.50/-3.43	-3.99/-5.76	-7.85/-10.32	-10.90/-11.32	-10.01/-9.57	-8.71/-10.54	-10.62/-10.13	-10.59/-10.69	-10.21/-9.85	-9.98/-9.28	-7.88/-6.30	-5.07/-4.56	-4.69/-5.38	-6.47/-6.54	-6.16/-5.82	-5.24/-5.17	-5.31/-5.87	-6.89/-6.79	-7.24/-7.90	-7.84/-9.26	-11.04/-8.48	-6.48/-6.40	-5.63/-4.02	-3.73/-3.62
Θ(172.5°)	-6.61/-6.83	-7.54/-9.74	-10.																					



Antenna Pattern 2.4GHz and 5GHz UNII 1~UNII 3

Appendix C

Θ(172.5°)	-3.80/2.94	-2.51/-3.45	-4.65/-6.25	-7.58/-7.52	-8.17/-8.59	-8.43/-9.08	-8.68/-8.04	-7.76/-6.90	-6.86/-7.13	-7.37/-6.26	-4.92/-4.43	-4.67/-5.52	-6.88/-7.72	-7.65/-6.92	-5.62/-4.38	-3.89/-4.07	-5.15/-5.76	-6.07/-4.52	-2.89/-1.49	-1.44/-1.93	-2.74/-3.72	-5.05/-6.96	-9.60/-13.75	-11.45/-6.47
Θ(180°)	-7.42/-7.49	-7.35/-6.57	-10.24/-9.89	-8.76/-7.57	-6.72/-6.42	-5.56/-4.75	-4.43/-3.96	-3.87/-3.93	-3.64/-3.68	-4.19/-4.78	-4.97/-4.67	-4.28/-4.32	-4.60/-5.39	-5.87/-6.12	-5.76/-5.06	-4.56/-4.26	-4.72/-4.88	-4.72/-3.72	-2.78/-2.23	-2.97/-3.55	-4.52/-4.75	-5.32/-8.14	-15.29/-15.50	-12.73/-9.13
Freq(Hz)	5.3GPol.	TotalAnt.4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-6.70/-6.60	-5.75/-5.38	-5.71/-6.35	-7.61/-8.07	-7.66/-7.14	-6.03/-6.88	-7.34/-7.82	-7.58/-7.31	-7.51/-7.98	-8.32/-8.38	-7.69/-7.37	-7.13/-7.09	-6.52/-6.11	-6.10/-6.00	-5.79/-5.35	-5.33/-5.25	-6.00/-5.97	-5.93/-5.11	-5.21/-5.09	-6.13/-6.52	-6.75/-6.31	-6.10/-5.63	-5.05/-5.15	-5.87/-7.08
Θ(7.5°)	-5.09/-4.45	-4.25/-4.67	-5.11/-6.02	-6.32/-6.40	-6.36/-6.35	-6.64/-6.90	-7.89/-7.96	-8.37/-7.69	-7.79/-7.23	-7.56/-7.56	-6.53/-6.80	-6.54/-6.98	-7.78/-8.56	-8.44/-7.98	-7.73/-6.89	-7.12/-7.36	-8.28/-7.48	-6.92/-5.36	-6.01/-7.80	-7.76/-7.33	-7.17/-6.66	-6.26/-5.93	-6.20/-6.34	
Θ(15°)	-1.25/-1.00	-1.27/-2.04	-2.86/-4.97	-6.11/-6.72	-6.84/-6.91	-7.14/-7.11	-6.97/-6.57	-5.68/-5.16	-5.94/-6.23	-6.31/-5.79	-5.79/-5.01	-4.98/-5.38	-5.83/-7.60	-9.85/-11.38	-10.66/-9.38	-9.13/-8.58	-7.27/-6.37	-6.40/-7.25	-7.47/-6.04	-5.33/-5.60	-5.44/-4.79	-4.41/-4.30	-3.85/-4.05	-3.34/-2.15
Θ(22.5°)	-0.69/-0.09	-0.01/-0.57	-1.92/-3.77	-5.51/-6.35	-6.20/-4.97	-4.60/-4.76	-6.06/-6.09	-5.38/-4.51	-4.90/-5.58	-5.54/-6.32	-7.26/-7.36	-6.66/-6.23	-6.85/-9.04	-11.69/-12.61	-10.55/-8.52	-7.94/-6.11	-4.66/-3.49	-3.66/-4.56	-4.43/-2.96	-2.87/-3.51	-4.10/-3.64	-2.95/-2.47	-2.47/-3.28	-2.63/-1.88
Θ(30°)	-0.270/26	0.46/-0.41	0.610/40	-0.62/-0.74	-1.17/-1.61	-1.87/-1.76	-2.61/-4.02	-6.39/-7.92	-8.77/-7.93	-8.18/-8.19	-8.89/-9.84	-11.10/-10.22	-8.66/-7.05	-6.13/-6.19	-6.54/-6.09	-5.25/-4.88	-4.99/-4.98	-5.52/-6.13	-5.06/-3.50	-2.64/-1.98	-1.47/-0.50	0.230/44	0.510/13	-0.077/-0.47
Θ(37.5°)	0.211/49	2.202/13	1.771/34	0.67/-0.21	-1.08/-2.15	-2.69/-2.55	-2.29/-2.12	-2.84/-3.39	-4.64/-7.48	-10.86/-12.17	-11.32/-10.35	-10.75/-10.87	-9.01/-8.27	-6.94/-5.73	-5.44/-5.30	-4.77/-4.47	-5.23/-6.30	-5.00/-3.29	-2.25/-2.53	-2.98/-1.42	0.321/11	0.710/22	0.710/81	0.18/-0.75
Θ(45°)	0.64/1.33	1.190/36	0.95/1.54	0.98/-0.58	-2.32/-2.66	-2.26/-1.89	-1.91/-2.16	-3.03/-3.69	-3.89/-4.41	-5.10/-5.21	-5.53/-6.28	-7.48/-10.27	-10.82/-10.27	-9.20/-7.34	-6.30/-4.77	-3.36/-2.94	-3.58/-4.40	-4.55/-4.66	-4.60/-3.61	-1.91/-0.16	0.56/1.08	1.150/58	0.70/1.63	1.500/47
Θ(52.5°)	-0.12/-0.36	-0.420/41	0.610/40	-0.27/-1.00	-1.04/-1.37	-2.22/-3.24	-4.79/-6.94	-8.66/-9.73	-9.27/-7.12	-4.85/-4.56	-6.70/-8.32	-7.21/-9.15	-11.33/-8.79	-7.63/-9.10	-7.16/-4.56	-3.64/-2.88	-2.55/-2.79	-3.92/-5.97	-6.43/-4.84	-1.790/00	0.39/-0.47	-1.73/-0.89	1.040/84	-0.18/-0.40
Θ(60°)	0.16/-0.72	0.44/-1.19	0.510/13	0.46/-1.13	-2.40/-2.20	-3.07/-4.42	-7.88/-9.87	-8.70/-5.43	-5.03/-6.13	-6.06/-5.05	-6.09/-5.33	-5.49/-8.93	-9.24/-7.43	-7.44/-6.20	-6.00/-7.38	-7.45/-6.71	-6.21/-4.84	-2.68/-2.83	-3.38/-3.04	-3.19/-3.77	-2.59/-1.00	-0.88/-1.09	0.420/81	0.530/49
Θ(67.5°)	1.58/-1.46	1.00/-0.20	0.111/82	0.75/-1.34	-1.35/-2.15	-6.40/-12.31	-14.16/-12.32	-6.71/-2.70	-1.21/-2.11	-3.10/-3.89	-4.27/-3.36	-5.62/-7.47	-4.74/-5.03	-7.19/-3.94	-2.36/-4.68	-4.13/-4.67	-5.48/-2.40	-0.20/0.41	0.11/-0.37	-1.56/-2.32	-1.57/-0.12	-0.93/-1.88	0.20/-1.27	-2.140/25
Θ(75°)	-0.19/-0.68	-0.61/-0.78	0.070/86	-0.42/-0.61	0.57/-0.89	-4.93/-7.40	-6.27/-7.37	-9.11/-2.95	-0.46/-0.43	-0.93/-0.99	-2.20/-2.00	-1.91/-5.10	-4.66/-2.56	-8.20/-6.21	-4.07/-6.43	-2.08/-0.06	-0.51/-0.61	0.79/2.21	2.26/1.73	1.170/91	0.39/-0.47	-1.73/-0.89	1.040/84	-0.374/-0.92
Θ(82.5°)	1.52/-0.71	-0.49/-1.28	-0.370/22	-2.62/-2.08	0.17/-3.16	-6.26/-4.78	-3.06/-2.31	-1.92/-0.28	1.88/2.42	1.720/93	0.16/1.04	0.87/-2.60	-0.720/24	-6.82/-9.83	-7.23/-4.08	0.13/2.41	2.48/1.07	1.08/2.25	1.830/50	0.41/2.29	2.69/2.43	1.36/-1.59	-2.47/-6.89	-2.76/1.58
Θ(90°)	1.69/-1.59	-1.39/-1.16	-2.04/-1.48	0.600/58	1.80/-2.02	-6.14/-5.12	-2.07/-2.82	-2.20/-0.27	2.934/08	2.68/2.55	0.630/84	2.610/79	2.53/2.82	-1.83/-3.92	0.410/06	-0.37/2.75	2.64/-1.47	0.820/82	1.210/63	0.65/2.72	4.18/3.48	2.83/-36	-0.99/-5.03	-2.34/-1.75
Θ(97.5°)	-1.35/-3.15	-1.24/-0.61	-3.18/-3.26	-1.66/-0.90	1.46/-3.23	-11.41/-8.62	-4.47/-1.84	-0.90/-0.89	3.234/08	3.270/03	-2.000/31	1.670/67	2.183/02	0.460/27	3.122/95	2.412/00	2.070/66	0.460/94	0.280/50	0.550/18	2.091/97	1.250/85	-0.52/-6.54	-6.22/-1.71
Θ(105°)	-5.01/-6.90	-3.09/-2.44	-6.07/-8.43	-3.45/-2.04	-1.42/-4.43	-12.58/-14.97	-9.84/-7.72	-4.000/36	3.82/3.66	2.650/80	-3.100/19	0.95/-1.87	1.57/2.90	0.27/-0.70	2.063/13	2.302/10	0.370/11	2.25/2.00	1.320/63	0.26/-0.67	-0.730/70	-0.38/-1.73	-4.59/-10.22	-6.09/-1.52
Θ(112.5°)	-6.71/-6.41	-3.48/-4.80	-11.60/-9.75	-7.03/-0.31	-1.97/-3.64	-6.90/-11.95	-15.15/-9.16	-2.93/-0.32	0.58/-1.04	1.05/1.30	-1.95/-0.07	0.84/-0.92	0.010/63	-1.04/-2.62	-0.450/73	1.860/81	-2.51/-2.48	-0.040/99	0.69/-0.75	-1.81/-2.24	-1.61/-1.66	-0.701/-7.40	-9.07/-7.25	
Θ(120°)	-11.19/-6.28	-5.37/-7.90	-8.93/-4.51	-4.59/-4.95	-2.97/-4.10	-8.15/-8.23	-5.86/-6.91	-12.09/-3.46	0.50/1.41	0.07/-3.05	-0.26/-3.17	2.200/46	2.373/12	2.340/32	-0.021/40	2.502/14	0.33/-4.35	-5.52/-1.42	-0.41/-4.39	-2.49/-3.31	-5.32/-2.16	-7.05/-12.57	-4.61/-7.19	-4.23/-7.55
Θ(127.5°)	-6.55/-10.49	-15.27/-15.22	-7.91/-5.92	-5.89/-7.01	-6.70/-7.20	-5.92/-6.79	-9.95/-8.22	-3.81/-4.55	-3.14/-1.30	-3.46/-4.30	-0.54/-1.58	1.27/-0.93	1.09/1.45	0.85/-1.74	-3.320/18	1.802/49	2.67/-2.34	-10.03/-0.24	2.13/-3.01	-9.91/-0.98	-2.53/-9.80	-4.99/-4.38	-10.44/-8.17	-3.79/-3.58
Θ(135°)	-6.09/-11.79	-6.84/-10.66	-11.00/-11.50	-9.03/-7.62	-7.95/-9.54	-7.04/-4.58	-3.06/-3.75	-4.10/-3.66	-5.35/-5.61	-6.13/-6.32	-3.230/29	-0.77/-6.33	0.212/-39	-0.43/-5.64	-6.88/-1.42	-1.880/31	0.84/-4.04	-8.85/-0.52	2.97/-6.02	-9.30/-7.77	-1.64/-4.70	-9.82/-3.72	-10.60/-7.61	-7.25/-3.73
Θ(142.5°)	-8.69/-7.46	-6.07/-6.36	-7.54/-5.89	-5.20/-5.22	-5.69/-7.02	-5.44/-2.95	-0.36/-3.03	0.02/-3.71	-5.20/-5.96	-5.12/-4.26	-2.73/-2.64	-4.52/-1.29	2.892/97	-0.81/-4.30	-4.42/-3.43	-2.35/-1.89	-3.12/-5.12	-10.14/-4.67	-0.26/-1.00	-7.44/-13.35	-5.04/-4.74	-10.93/-9.52	-8.03/-8.88	-8.22/-1.59
Θ(150°)	-7.16/-4.91	-5.13/-8.19	-11.11/-7.17	-4.15/-4.15	-5.76/-8.45	-8.10/-6.53	-4.87/-3.58	-1.88/-0.81	-0.79/-0.50	0.040/10	-0.25/-1.28	-1.38/-0.27	0.640/56	-0.29/-1.65	-3.04/-2.56	-1.27/-1.49	-2.93/-3.75	-4.92/-4.41	-3.25/-2.79	-4.05/-8.11	-8.16/-7.34	-8.03/-9.81	-10.88/-8.14	-7.25/-8.25
Θ(157.5°)	-2.80/-3.68	-6.54/-10.06	-8.44/-7.09	-6.36/-6.75	-7.06/-7.90	-8.44/-7.30	-6.24/-8.38	-2.29/-2.01	-3.55/-4.96	-4.09/-3.11	-2.81/-2.26	-1.05/-0.08	0.540/78	0.42/-0.36	-1.40/-2.28	-3.27/-5.41	-6.97/-7.98	-8.38/-9.53	-10.09/-11.84	-14.01/-10.89	-8.69/-8.53	-4.82/-7.75	-7.02/-0.57	-3.42/-2.71
Θ(165°)	-12.36/-13.64	-15.30/-12.18	-10.83/-9.36	-7.88/-8.96	-9.49/-8.79	-8.57/-8.11	-6.55/-6.89	-6.13/-5.59	-5.80/-5.55	-3.85/-2.00	-0.530/33	0.580/20	-0.62/-1.64	-2.38/-2.62	-2.70/-3.29	-3.50/-4.52	-5.06/-5.56	-6.20/-7.92	-9.15/-9.09	-5.61/-3.74	-2.36/-3.42	-4.16/-6.52	-7.23/-6.77	-8.48/-10.24
Θ(172.5°)	-4.90/-3.59	-2.77/-3.02	-3.92/-5.58	-6.45/-7.04	-7.69/-8.10	-8.83/-9.06	-7.92/-7.90	-8.81/-8.97	-8.38/-7.21	-5.47/-4.32	-3.23/-3.02	-3.23/-4.01	-5.22/-6.09	-6.48/-6.63	-6.69/-6.99	-7.11/-7.59	-6.79/-6.15	-5.10/-5.23	-5.41/-4.26	-2.72/-1.61	-1.27/-2.11	-4.12/-8.06	-11.96/-15.17	-13.00/-7.69
Θ(180°)	-8.39/-3.84	-8.64/-10.36	-11.66/-12.28	-10.43/-9.10	-7.84/-7.14	-7.46/-7.41	-6.39/-5.88	-5.28/-5.01	-5.09/-4.85	-4.31/-3.85	-3.68/-4.12	-4.63/-5.06	-5.01/-5.04	-4.84/-4.97	-5.16/-5.86	-6.83/-6.91	-5.57/-4.93	-4.28/-4.16	-4.01/-3.64	-2.43/-2.07	-2.56/-4.16	-6.26/-11.12	-15.21/-16.26	-14.47/-10.36
Freq(Hz)	5.6GPol.	TotalAnt.4	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-12.55/-12.57	-12.67/-11.20	-9.24/-8.42	-9.03/-10.22	-11.12/-10.79	-9.85/-7.96	-7.66/-7.80	-8.73/-8.80	-8.37/-7.84	-7.86/-8.20	-8.18/-7.96	-7.67/-7.54	-7.47/-7.59	-7.78/-7.90	-8.00/-7.85	-8.09/-8.16	-8.99/-9.54	-11.22/-12.24	-11.68/-10.95	-11.13/-12.26	-12.02/-13.84	-14.87/-15.13	-13.43/-13.41	-12.86/-13.39
Θ(7.5°)	-7.87/-9.74	-10.46/-10.61	-6.83/-6.80	-6.66/-5.80	-6.49/-5.99	-5.71/-7.00	-7.58/-8.49	-9.87/-12.01	-12.25/-10.99	-10.98/-12.14	-14.46/-15.44	-15.53/-15.83	-14.94/-14.98	-15.90/-16.10	-13.56/-11.46	-9.73/-9.10	-9.22/-9.53	-8.47/-7.44	-7.78/-8.01	-8.82/-7.24	-5.65/-5.47	-6.34/-6.90	-7.36/-7.88	-8.62/-8.21
Θ(15°)	-5.04/-3.89	-3.57/-3.29	-3.28/-2.80	-2.81/-3.12	-4.23/-5.64	-6.63/-7.49	-8.16/-9.46	-11.25/-15.07	-13.73/-13.20	-11.96/-11.47	-10.18/-9.18	-9.12/-9.78	-10.13/-10.44	-10.49/-10.73	-10.65/-9.96	-10.05/-11.66	-13.64/-15.36	-14.32/-13.16	-9.40/-7.09	-7.53/-7.56	-5.75/-4.31	-4.06/-4.30	-5.55/-6.31	-7.25/-6.18
Θ(22.5°)	-1.87/-1.25	-1.16/-1.32	-1.40/-1.51	-1.85/-2.80	-4.73/-7.68	-9.37/-9.60	-7.99/-8.61	-5.97/-6.84	-6.88/-9.75	-11.33/-11.28	-8.54/-6.53	-6.12/-6.91	-6.87/-7.06	-7.46/-8.04	-8.44/-8.78	-8.48/-9.42	-12.23/-15.69	-8.32/-7.06	-5.27/-4.58	-2.76/-2.21	-2.60/-2.61	-2.51/-3.56	-3.95/-3.73	
Θ(30°)	-0.380/12	0.25/-1.14	-2.74/-3.08																					

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

