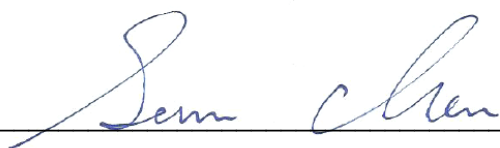


Antenna Composite Gain Test Report

FCC ID	2AHBN-AP17
Equipment	Wi-Fi 7 Wireless Access Point
Brand Name	Juniper
Model Name	AP17
Applicant	Juniper Networks, Inc. 1133 Innovation Way Sunnyvale, California 94089 USA
Manufacturer	Juniper Networks, Inc. 1133 Innovation Way Sunnyvale, California 94089 USA
Standard	KDB662911 D03 v02
Sample Received	Oct. 21, 2025
Start Test Date	Nov. 08, 2025
Final Test Date	Nov. 08, 2025



Approved by: Sam Chen

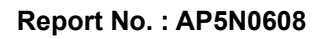
Sporton International Inc. Hsinchu Laboratory

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



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[illegible]

1. Operation Mode and Antenna Information

Antenna Position	RF Port	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
2G5G Ant1	1	Juniper	AP17	PIFA	I-PEX	WLAN 2.4GHz WLAN 5GHz UNII 1-3
2G5G Ant2	2	Juniper	AP17	PIFA	I-PEX	
2G6G Ant1	1	Juniper	AP17	PIFA	I-PEX	WLAN 6GHz UNII 5-8
2G6G Ant2	2	Juniper	AP17	PIFA	I-PEX	
Scan Ant	1	Juniper	AP17	PIFA	I-PEX	WLAN 2.4GHz WLAN 5GHz UNII 1-3 WLAN 6GHz UNII 5-8

Note:

For Radio 0:

6GHz Operation Mode (2TX/2RX)

2G6G Ant1~2 can be used as transmitting/receiving antenna.

2G6G Ant1~2 could transmit/receive simultaneously.

For Radio 1:

5GHz Operation Mode (2TX/2RX)

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

2G5G Ant1~2 could transmit/receive simultaneously.

For Radio 2:

2.4GHz Operation Mode (2TX/2RX)

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

2G5G Ant1~2 could transmit/receive simultaneously.

For Radio 3:

2.4GHz, 5GHz and 6GHz Operation Mode (1TX/1RX)

Scan Ant can be used as transmitting/receiving antenna.

2. Table for Radio Function

Radio \ Function	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz	Bluetooth	IEEE 802.15.4
0	-	-	V	-	-
1	-	V	-	-	-
2	V	-	-	-	-
3 (Scanning radio)	V	V	V	-	-
4	-	-	-	V	V

Note1: For WLAN 2.4GHz: The Radio 2 and Radio 3 (Scanning radio) can't operate at the same frequency simultaneously.

For WLAN 5GHz: The Radio1 and Radio 3 (Scanning radio) can't operate at the same frequency simultaneously.

For WLAN 6GHz: The Radio 0 and Radio 3 (Scanning radio) can't operate at the same frequency simultaneously.

Note 2: The above information was declared by manufacturer.

3. Test Frequency

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

Band [MHz]	Test Frequency [MHz]
2400-2483.5	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

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	Raven	23.5-24.5 / 45-55	Nov. 08, 2025

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

5. Test Facility and Configuration

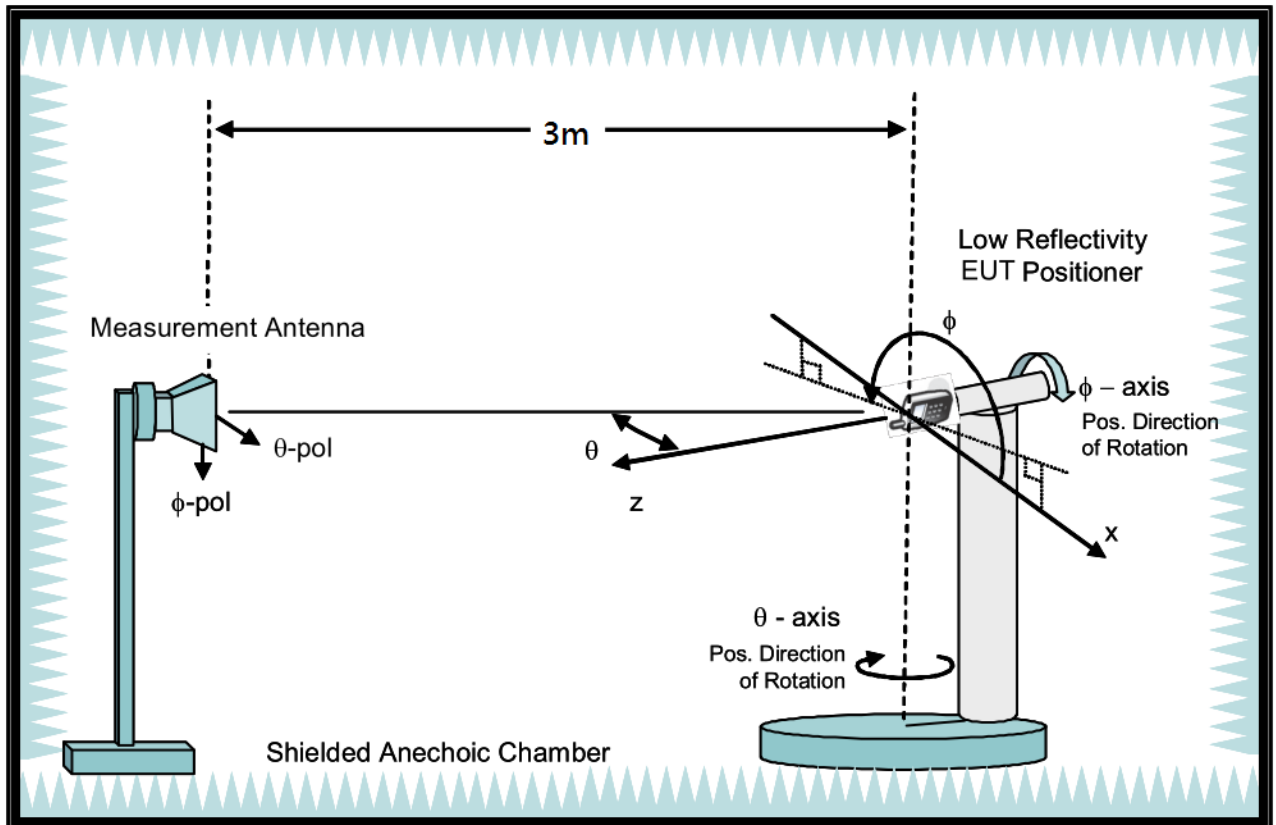
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

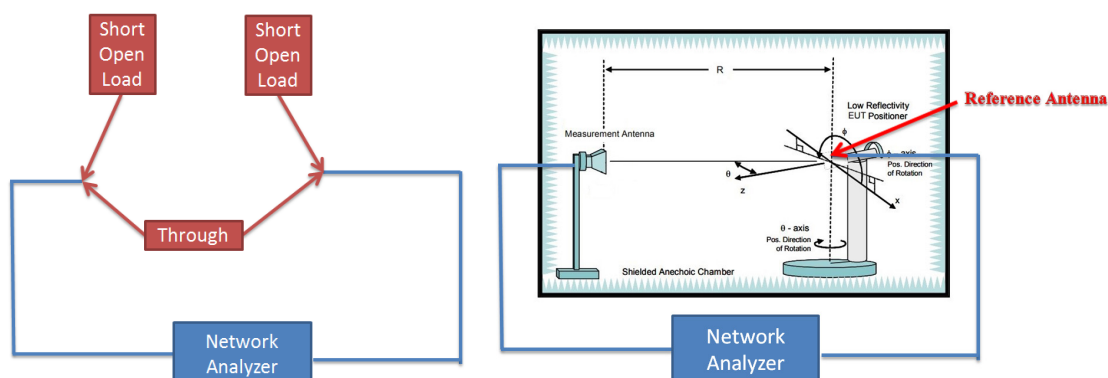
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



6. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	7200
G(theta) reading (dB)	-33.48	-33.18	-32.45	-32.78	-32.43	-32.85	-32.74	-32.13	-32.46	-33.46	-32.73	-33.41	-34.78	-35.31
G(phi) reading (dB)	-33.45	-32.13	-32.74	-32.43	-32.87	-31.78	-32.46	-32.37	-32.73	-32.87	-32.46	-33.68	-34.74	-35.08
Reference gain (dBi)	10.4	10.5	10.2	11.4	11.5	11.9	12.5	11.8	11.7	11.6	11.8	11.5	11.4	10.8
Factor(theta) (dB)	43.88	43.68	42.65	44.18	43.93	44.75	45.24	43.93	44.16	45.06	44.53	44.91	46.18	46.11
Factor(phi) (dB)	43.85	42.63	42.94	43.83	44.37	43.68	44.96	44.17	44.43	44.47	44.26	45.18	46.14	45.88

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.

DG steps:

1. Each Phi and Theta polarization antenna gain are measured for all test angles.
2. Composite Phi and Theta antenna gain are computed, using formula in KDB662911 D01 d) (i) and e) (ii), for all angles.
3. Composite antenna gain are examined for all angles to determine max gain and Phi/Theta position. Max gain and phi/theta position are listed in section 8 tables.

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

8. Measured Values and Calculation of Maximum Gain Positions

DG_1SS max value position

For 2G5G Ant1~2:

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	-4.49	2.08	2.12	2.42	3.07
Ant. 2 (dBi)	2.46	0.84	2.24	2.63	2.22
DG [1SS] (dBi)	2.67	4.49	5.19	5.54	5.67
Polarization	Phi	Phi	Theta	Theta	Theta
$\Theta(^{\circ})$	37.5	15	82.5	82.5	75
$\Phi(^{\circ})$	300	135	285	255	247.5

For 2G6G Ant1~2:

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	2.61	3.17	3.84	2.32
Ant. 2 (dBi)	5.41	4.84	4.75	3.73
DG [1SS] (dBi)	7.13	7.06	7.32	6.06
Polarization	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	45	37.5	37.5	37.5
$\Phi(^{\circ})$	315	307.5	307.5	225

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

DG_1SS max value position calculation

For 2G5G Ant1~2:

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [$10^{(G/20)}$]	$10^{(-4.49/20)}$	$10^{(2.08/20)}$	$10^{(2.12/20)}$	$10^{(2.42/20)}$	$10^{(3.07/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(2.46/20)}$	$10^{(0.84/20)}$	$10^{(2.24/20)}$	$10^{(2.63/20)}$	$10^{(2.22/20)}$
Ant. 1 [$10^{(G/20)}$] value	0.596	1.271	1.276	1.321	1.424
Ant. 2 [$10^{(G/20)}$] value	1.327	1.102	1.294	1.354	1.291
Sum All Antenna [Amax]	1.924	2.372	2.571	2.675	2.715
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	2.67	4.49	5.19	5.54	5.67

For 2G6G Ant1~2:

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(2.61/20)}$	$10^{(3.17/20)}$	$10^{(3.84/20)}$	$10^{(2.32/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(5.41/20)}$	$10^{(4.84/20)}$	$10^{(4.75/20)}$	$10^{(3.73/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.351	1.44	1.556	1.306
Ant. 2 [$10^{(G/20)}$] value	1.864	1.746	1.728	1.536
Sum All Antenna [Amax]	3.215	3.186	3.284	2.843
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	7.13	7.06	7.32	6.06

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

For 2G5G Ant1~2:

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.2	3.25	2.86	3.52	3.57
Ant. 2 Max Gain (dBi)	2.46	3.43	3.43	3.09	3.11
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/0/217.5	Phi/7.5/120	Theta/7.5/202.5	Theta/82.5/247.5	Theta/75/270
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Phi/37.5/300	Phi/30/330	Phi/45/337.5	Theta/82.5/262.5	Theta/82.5/262.5
Max Gain (dBi)	2.46	3.43	3.43	3.52	3.57
DG [1SS] (dBi)	2.67	4.49	5.19	5.54	5.67
DG [2SS] (dBi)	2.46	3.43	3.43	3.52	3.57

For 2G6G Ant1~2:

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.46	3.21	4.02	4.34
Ant. 2 Max Gain (dBi)	5.41	5.51	4.75	4.05
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/45	Theta/37.5/202.5	Theta/37.5/315	Theta/75/315
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/45/315	Theta/75/292.5	Theta/37.5/307.5	Theta/30/307.5
Max Gain (dBi)	5.41	5.51	4.75	4.34
DG [1SS] (dBi)	7.13	7.06	7.32	6.06
DG [2SS] (dBi)	5.41	5.51	4.75	4.34

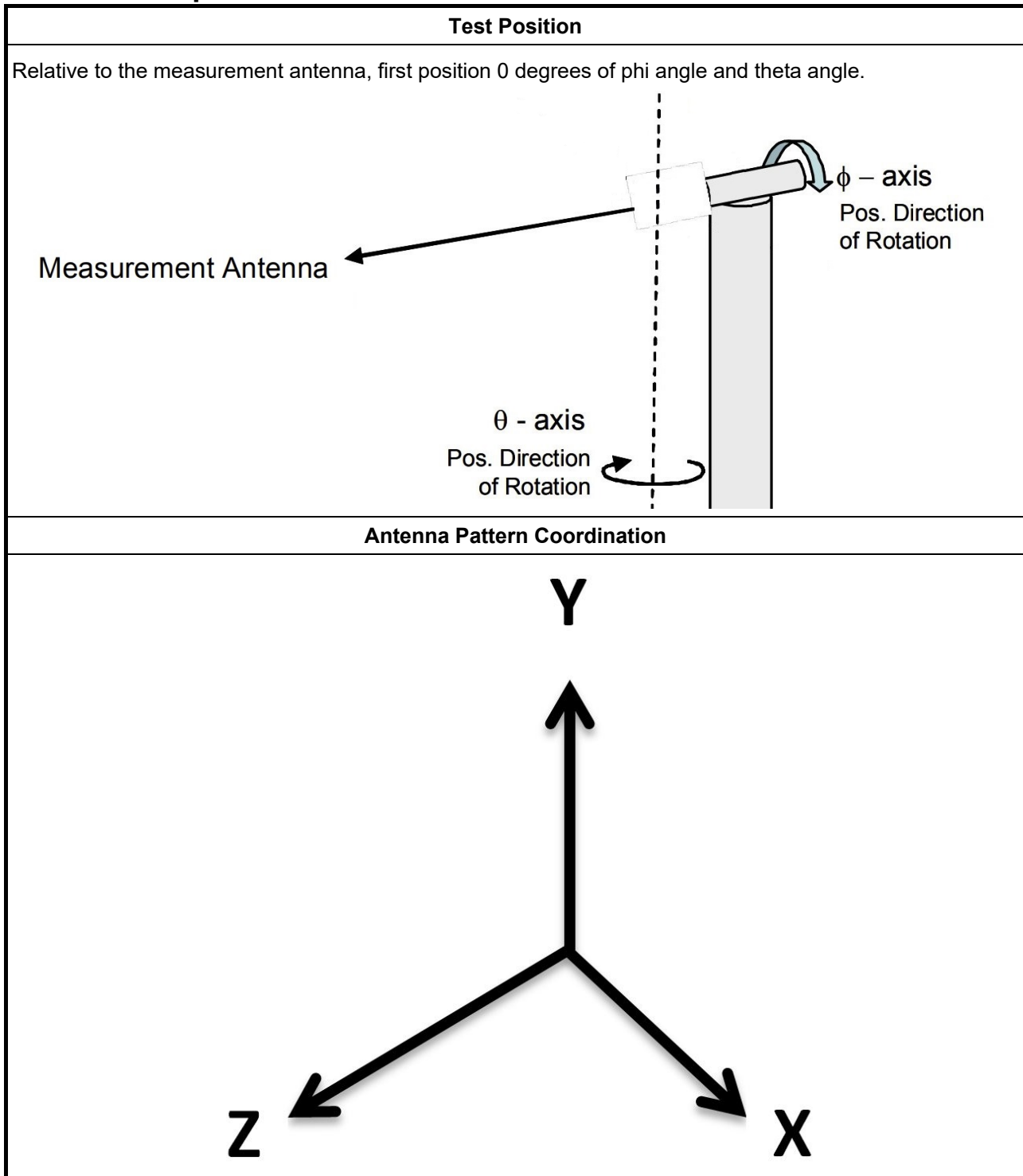
For Scan Ant:

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	2.75	2.98	2.89	3.07	2.33	2.96	4.13	2.21	4.07
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/37.5/0	Theta/60/75	Theta/52.5/75	Theta/52.5/0	Theta/37.5/82.5	Theta/52.5/135	Theta/45/135	Theta/37.5/135	Theta/67.5/30

Note:

1. Antenna max gain is the max value of each individual antenna through all measurement angles.
2. The max gain is the max value of all antennas.
3. 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

10. Test Setup



Note:

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

**11. Test Equipment and Calibration Data**

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

NCR means Non-Calibration required.



12. Test Results

Please refer to the appendix.

Appendix A – Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz).....	Page 15
Appendix B – Radiated Composite Gain of Radio 0 (6GHz).....	Page 24
Appendix C – Radiated Composite Gain of Scan Radio 3 (2.4GHz, 5GHz and 6GHz).....	Page 31
Appendix D – Antenna Pattern of Radio 2 (2.4GHz) and Radio 1 (5GHz).....	Page 37
Appendix E – Antenna Pattern of Radio 0 (6GHz).....	Page 41
Appendix F – Antenna Pattern of Scan Radio 3 (2.4GHz, 5GHz and 6GHz).....	Page 44
Appendix G – Test Photos.....	Page 48



Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.2	3.25	2.86	3.52	3.57
Ant. 2 Max Gain (dBi)	2.46	3.43	3.43	3.09	3.11
Ant. 1 Polarization/Θ(°)/Φ(°)	Phi/0/217.5	Phi/7.5/120	Theta/7.5/202.5	Theta/82.5/247.5	Theta/75/270
Ant. 2 Polarization/Θ(°)/Φ(°)	Phi/37.5/300	Phi/30/330	Phi/45/337.5	Theta/82.5/262.5	Theta/82.5/262.5
Max Gain (dBi)	2.46	3.43	3.43	3.52	3.57
DG [1SS] (dBi)	2.67	4.49	5.19	5.54	5.67
DG [2SS] (dBi)	2.46	3.43	3.43	3.52	3.57



Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

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°)	-1.62/-1.33	-0.97/-0.55	-0.10/3	0.61/0.83	0.91/0.86	0.71/0.43	-0.05/-0.73	-1.56/-2.52	-3.45/-3.68	-3.23/-2.77	-2.27/-1.89	-1.65/-1.52	-1.42/-1.29	-0.95/-0.45	0.12/1.37	0.93/1.09	1.15/1.12	0.95/0.58	0.05/-0.59	-1.35/-2.2	-2.88/-3.06	-2.8/-2.49	-2.26/-2.08	-1.94/-1.84
Θ(7.5°)	-2.12/-2.01	-1.45/-0.7	0.02/0.6	1.01/1.23	1.28/1.18	0.98/0.63	0.02/-0.82	-1.91/-3.19	-4.34/-2.3	-3.47/-2.69	-2.09/-1.62	-1.34/-1.22	-1.21/-1.21	-1.12/-0.88	-0.49/-0.12	0.23/0.5	0.72/0.85	0.81/0.62	0.30/-0.15	-0.69/-1.3	-2.07/-2.01	-1.95/-1.91	-1.95/-2.03	
Θ(15°)	-2.55/-2.86	-2.37/-1.34	-0.38/0.36	0.88/1.18	1.27/1.2	0.99/0.6	-0.11/-1.13	-2.51/-4.22	-5.78/-5.28	-4.01/-2.91	-2.1/-1.58	-1.34/-1.32	-1.44/-1.67	-1.87/-1.93	-1.73/-1.34	-0.85/-0.37	0.06/0.39	0.6/0.67	0.59/0.43	0.15/-0.17	-0.48/-0.74	-0.96/-1.16	-1.35/-1.53	-1.74/-2.08
Θ(22.5°)	-2.88/-3.57	-3.48/-2.41	-1.27/-0.34	0.37/0.83	1.03/1	0.76/0.22	-0.72/-1.96	-3.59/-5.54	-6.55/-5.99	-4.24/-2.9	-2.04/-1.55	-1.39/-1.52	-1.82/-2.28	-2.79/-3.13	-2.9/-2.19	-1.47/-0.92	-0.54/-0.3	-0.13/0.05	0.28/0.52	0.68/0.72	0.55/0.25	-0.1/-0.46	-0.91/-1.29	-1.64/-2.18
Θ(30°)	-3.44/-4.19	-4.8/-3.97	-2.63/-1.36	-0.38/0.35	0.63/0.61	0.34/-0.26	-1.17/-2.27	-3.4/-4.45	-5.36/-5.78	-5.17/-3.94	-2.81/-2.06	-1.72/-1.73	-2.08/-2.76	-3.7/-4.43	-3.89/-2.42	-1.32/-0.8	-0.81/-1.14	-1.49/-1.47	-0.88/0.04	0.81/16	1.07/0.64	0.04/0.58	-1.2/-1.71	-2.77/-2.73
Θ(37.5°)	-4.8/-5.21	-5.91/-5.34	-3.7/-2.03	-0.7/0.2	0.58/0.59	0.33/-0.23	-1.01/-1.85	-2.62/-3.35	-4.21/-5.26	-6.12/-5.07	-3.36/-2.22	-1.71/-1.75	-2.33/-3.41	-4.7/-5.59	-3.99/-1.84	-0.62/-0.28	-0.74/-1.74	-2.93/-3.46	-2.45/-0.66	0.62/1.19	2.67/0.44	-0.7/-1.8	-2.75/-3.58	-4.28/-4.67
Θ(45°)	-7.17/-6.74	-6.78/-5.79	-4.02/-2.2	-0.7/0.34	0.78/0.78	0.47/-0.14	-0.92/-1.72	-2.48/-3.27	-4.32/-5.71	-6.93/-5.32	-3.24/-1.98	-1.48/-1.73	-2.65/-4.12	-5.76/-6.34	-4.32/-1.84	-0.59/-0.3	-0.81/-2	-3.54/-4.83	-3.68/-1.75	-0.24/0.46	0.41/-0.4	-1.93/-3.6	-4.82/-5.94	-7.31/-7.61
Θ(52.5°)	-9.26/-8.92	-8.11/-6.55	-4.63/-2.79	-1.31/-0.25	0.22/0.26	-0.08/-0.72	-1.46/-2.22	-2.99/-3.7	-4.56/-5.57	-5.84/-5.3	-3/-2.04	-1.88/-2.51	-3.84/-5.79	-7.54/-6.69	-3.71/-1.75	-0.83/-0.68	-1.29/-2.52	-3.94/-4.99	-4.73/-3.29	-1.83/-0.96	-0.76/-1.29	-2.67/-4.44	-6.55/-7.62	-8.93/-10
Θ(60°)	-12.65/-11.04	-10.36/-9.2	-6.85/-4.65	-2.99/-1.81	-1.22/-1.04	-1.28/-1.87	-2.58/-3.22	-3.78/-4.21	-4.58/-4.95	-5.11/-4.56	-5.45/-2.52	-2.26/-2.76	-4.13/-6.31	-8.08/-6.81	-3.83/-2.16	-1.45/-1.63	-2.69/-4.21	-5.51/-6.37	-6.68/-5.92	-4.21/-2.89	-2.24/-2.29	-3.08/-4.62	-7.22/-10.58	-13.43/-13.82
Θ(67.5°)	-8.88/-8	-7.68/-1.67	-6.71/-4.78	-2.98/-1.8	-1.31/-1.37	-1.87/-2.8	-3.8/-4.47	-4.79/-4.88	-4.95/-5.28	-5.83/-5.67	-4.45/-3.22	-2.73/-3.22	-4.81/-6.77	-8.14/-6.79	-4.06/-2.58	-2.06/-2.79	-4.57/-6.4	-8.09/-8.45	-8.6/-7.46	-6.02/-4.16	-3.4/-3.69	-4.61/-5.87	-7.84/-9.8	-10.76/-9.95
Θ(75°)	-8.06/-6.57	-5.94/-6.14	-6.38/-5.73	-4.4/-3.2	-2.54/-2.42	-2.77/-3.49	-4.2/-4.64	-4.82/-4.85	-4.91/-5.41	-6.11/-6.97	-4.68/-3.3	-2.72/-3.41	-5.11/-6.86	-8.79/-7.5	-4.39/-2.54	-2.09/-2.81	-4.01/-5.25	-7.13/-7.77	-7.77/-6.33	-5/-3.94	-3.49/-4.04	-5.66/-7.7	-8.92/-9.2	-9.86/-9.54
Θ(82.5°)	-12.44/-8.74	-6.28/-6.47	-5.27/-5.14	-4.49/-4.73	-4.26/-3.82	-3.81/-4.33	-5.1/-5.55	-5.33/-5.02	-4.92/-5.15	-5.53/-5.56	-4.73/-3.67	-3.7/-5.2	-6.77/-8.3	-9.19/-6.77	-3.8/-2.68	-3.07/-4.36	-5.99/-6.26	-6.75/-6.03	-5.78/-5.39	-4.61/-3.83	-3.38/-3.74	-5.47/-8.33	-10.52/-11.09	-14.11/-12.39
Θ(90°)	-12.61/-11.68	-7.93/-5.85	-5.02/-4.39	-4.19/-4.41	-4.41/-4.01	-3.9/-4.58	-5.52/-5.24	-4.57/-4.33	-4.55/-5.05	-5.73/-6.38	-5.85/-4.93	-5.21/-5.93	-6.01/-7.33	-7.91/-5.25	-3.19/-2.42	-2.41/-3.13	-4.34/-5.43	-5.24/-5.07	-5.95/-6.53	-5.38/-3.99	-3.15/-3.13	-4.36/-8.42	-9.71/-10.41	-10.46/-11.04
Θ(97.5°)	-10.29/-12.87	-10.36/-9.6	-5.62/-5.08	-4.83/-5.38	-6.03/-5.66	-5.22/-5.73	-6.4/-7.12	-6.81/-7.16	-7.63/-7.66	-7.31/-7.19	-6.9/-3.69	-6.82/-6.64	-7.01/-7.89	-6.23/-4.1	-3.42/-2.47	-2.01/-2.66	-3.77/-4.67	-4.95/-5.53	-7.99/-10.97	-8.12/-6.11	-4.81/-4.2	-4.69/-5.83	-6.44/-6.81	-7.75/-8.57
Θ(105°)	-6.55/-8.05	-8.33/-5.65	-4.07/-3.83	-3.98/-4.7	-5.9/-6.1	-5.49/-5.38	-5.63/-6.58	-4.72/-7.96	-7.93/-7.39	-7.11/-7.67	-7.65/-7.22	-6.57/-5.71	-6.74/-7.52	-6.5/-5.16	-5.01/-3.09	-2.31/-2.72	-3.02/-3.63	-4.88/-5.73	-6.72/-7.23	-6.15/-5.46	-4.5/-3.71	-3.35/-3.59	-3.77/-4.03	-4.91/-5.82
Θ(112.5°)	-7.59/-7.96	-7.48/-4.8	-2.78/-2.5	-3.22/-4.56	-6.43/-8.09	-8.21/-8	-8.71/9.17	-9.71/10.07	-9.85/-9.02	-8.95/-9.25	-7.34/-5.67	-4.65/-4.63	-6.17/-6.89	-6.41/-7.33	-5.77/-3.17	-2.57/-2.42	-2.37/-3.52	-4.82/-4.07	-4.55/-5.92	-5.85/-5.76	-5.74/-4.98	-4.32/-4.36	-4.42/-4.41	-5.36/-7.06
Θ(120°)	-7.32/-9.33	-10.11/-6.68	-3.44/-2.38	-2.73/-3.73	-4.9/-4.4	-7.82/-8.77	-9.74/-10.72	-11.09/-10.55	-9.04/-7.52	-6.98/-6.7	-6.29/-6.59	-7.4/-8.33	-8.53/-7.82	-8.11/-8.33	-4.82/-3.06	-2.93/-2.69	-2.8/-4.13	-4.51/-3.74	-4.4/-5.71	-5.54/-5.66	-5.92/-5.67	-5/-4.86	-4.59/-3.65	-3.58/-4.99
Θ(127.5°)	-3.92/-5.77	-8.44/-9.51	-5.99/-3.86	-3.69/-4.63	-5.1/-5.54	-5.85/-5.74	-5.57/-5.65	-5.56/-5.74	-6.62/-6.25	-6.51/-6.64	-6.77/-9.49	-11.01/-11.93	-10.35/-10.45	-10.24/-7.44	-4.56/-3.33	-2.88/-2.08	-2.58/-4.21	-5.35/-4.84	-4.95/-5.36	-5.22/-5.19	-5.58/-6.4	-7.22/-7.54	-5.5/-2.88	-2.52/-5.87
Θ(135°)	-2.48/-3.44	-4.68/-5.66	-4.9/-3.14	-2.35/-2.85	-4.11/-5.28	-6.15/-7.26	-8.57/-9.68	-10.21/-10.29	-9.73/-9.31	-9.57/-10.15	-11.84/-13.95	-13.49/-11.04	-9.49/-9.64	-9.86/-8.23	-5.95/-4.23	-2.96/-2.36	-2.79/-4.31	-5.81/-5.16	-4.75/-4.86	-4.64/-4.48	-4.81/-5.71	-7.25/-7.48	-4.09/-1.92	-1.29/-1.73
Θ(142.5°)	-2.17/-2.81	-3.66/-4.34	-3.85/-2.58	-1.64/-1.67	-2.46/-3.58	-4.71/-6.17	-8.29/-11.4	-14.02/-14.52	-15.05/-15.69	-15.28/-14.91	-14.47/-12.04	-10.16/-8.93	-8.68/-9.33	-10.31/-9.44	-6.78/-4.45	-2.84/-2.15	-2.48/-3.88	-5.52/-5.44	-5.06/-4.86	-4.39/-4.07	-4.33/-5.05	-5.8/-5.04	-2.9/-1.53	-1.16/-1.56
Θ(150°)	-3.54/-0.99	-4.59/-6.84	-5.62/-4.27	-3.05/-2.49	-2.58/-2.96	-4.02/-4.37	-6.82/-7.13	-5.13/-5.64	-6.64/-6.29	-6.82/-6.7	-5.84/-6.94	-7.42/-8.33	-9.06/-7.31	-4.84/-3.04	-1.96/-1.67	-2.39/-4.15	-6.73/-7.73	-7.4/-6.87	-5.71/-4.96	-4.88/-4.98	-5.07/-4.89	-3.82/-2.92	-2.66/-2.97	
Θ(157.5°)	-6.01/-7.01	-8.31/-9.71	-10.34/-9.03	-7.11/-5.86	-5.3/-4.85	-4.38/-3.98	-3.65/-3.41	-3.33/-3.49	-3.82/-4.29	-4.84/-5.4	-6.02/-6.67	-7.43/-8.46	-9.63/-9.42	-8.21/-6.39	-4.79/-3.84	-3.61/-4.18	-5.81/-6.69	-10.64/-10.84	-9.24/-7.08	-6.1/-5.23	-5.11/-5.44	-5.45/-5.61	-5.79/-5.25	-4.98/-5.32
Θ(165°)	-7.81/-8.8	-9.9/-11.23	-12.91/-14.17	-13.93/-12.77	-12.06/-11.28	-9.95/-8.61	-7.57/-7.69	-6.37/-6.31	-6.5/-6.78	-7.25/-7.96	-8.87/-9.97	-11.31/-12.92	-12.18/-13.72	-10.82/-9.63	-9.02/-9.02	-9.92/-12.01	-12.79/-14.36	-11.83/-9.12	-7.47/-6.84	-4.86/-4.42	-4.55/-5.08	-5.97/-6.51	-7.04/-7.07	-6.88/-7.15
Θ(172.5°)	-9.68/-10.15	-10.46/-10.66	-10.91/-11.24	-11.31/-11.66	-11.79/-12.77	-13.24/-14.96	-13.62/-12.59	-12.15/-12.01	-11.91/-11.97	-12.55/-12.6	-13.01/-12.92	-13.70/-12.84	-13.04/-13.51	-14.17/-15.23	-15.46/-14.8	-14.58/-13.17	-10.59/-8.74	-7.48/-4.96	-5.53/-5.36	-7.22/-7.67	-8.16/-8.72	-8.68/-9.08		
Θ(180°)	-12.48/-12.49	-12.26/-12.12	-11.87/-11.07	-11.09/-10.8	-10.69/-11.18	-11.05/-11.07	-10.96/-10.86	-10.69/-10.49	-10.24/-9.72	-9.86/-9.88	-9.92/-10.29	-10.47/-10.59	-10.69/-11.16	-10.98/-10.25	-9.67/-8.84	-7.68/-6.9	-6.42/-6.26	-6.22/-6.27	-6.62/-7.18	-7.82/-8.72	-9.93/-10.1	-10.26/-10.64	-10.95/-11.38	-11.37/-12.09
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°)	-3.15/-3.93	-4.87/-4.58	-7.08/-7.37	-7.49/-6.54	-5.74/-5.13	-4.66/-4.32	-4.04/-3.81	-3.62/-3.37	-2.94/-2.47	-2.03/-1.73	-1.56/-1.53	-1.66/-1.98	-2.49/-3.16	-4.04/-5.07	-6.25/-6.48	-6.31/-5.43	-4.73/-4.2	-3.84/-3.66	-3.74/-3.94	-3.97/-3.63	-3.05/-2.54	-2.19/-1.99	-1.93/-2.01	-2.32/-2.61
Θ(7.5°)	-2.72/-3.31	-4.16/-4.96	-5.69/-5.96	-5.59/-4.98	-4.45/-4	-3.7/-3.41	-3.08/-2.72	-2.38/-2.02	-1.7/-1.43	-1.3/-1.26	-1.35/-1.58	-1.94/-2.47	-3.13/-3.91	-4.79/-5.78	-6.36/-6.28	-6.21/-5.33	-4.7/-3.41	-4.1/-4.1	-4.33/-4.76	-4.92/-4.42	-4.41/-3.52	-2.89/-2.45	-2.2/-2.08	-2.14/-2.35
Θ(15°)	-2.29/-2.69	-3.23/-3.56	-3.75/-3.78	-3.67/-3.43	-3.25/-3.1	-2.29/-2.58	-1.51/-1.68	-1.25/-0.89	-0.63/-0.55	-0.61/-0.82	-1.19/-1.64	-2.23/-2.88	-3.55/-4.2	-4.83/-5.46	-5.58/-5.54	-5.49/-4.67	-4.02/-3.61	-3.42/-4.03	-4.54/-4.96	-4.83/-4.19	-3.45/-2.84	-2.36/-2.13	-2.03/-2.09	
Θ(22.5°)	-1.91/-2.04	-2.11/-2.01	-1.96/-2.05	-2.21/-2.41	-2.61/-2.74	-2.6/-2.18	-1.69/-1.2	-0.78/-0.45	-0.27/-0.25	-0.43/-0.81	-1.38/-2.07	-2.75/-3.36	-3.71/-3.85	-3.91/-3.96	-4.12/-4.35	-4.41/-3.99	-3.33/-2.83	-2.55/-2.56	-2.86/-3.38	-4.02/-4.57	-4.82/-4.55	-3.8/-3.02	-2.41/-2.07	-1.89/-1.85
Θ(30°)	-1.84/-1.6	-1.19/-0.83	-0.71/-0.91	-1.32/-1.83	-2.37/-2.64	-2.47/-2.04	-1.58/-1.18	-0.81/-0.52	-0.32/-0.25	-0.39/-0.81	-1.49/-2.28	-2.98/-3.29	-3.11/-2.68	-2.31/-2.2	-2.41/-2.93	-3.64/-3.77	-3.05/-2.36	-2.02/-2.06	-2.44/-3.12	-3.95/-4.69	-5.05/-4.86	-4.12/-3.2	-2.48/-2.13	-1.99/-1.97
Θ(37.5°)	-2.32/-1.88	-1.15/-0.57	-0.39/-0.61	-0.99/-1.49	-1.99/-2.27	-1.13/-1.85	-1.57/-1.34	-1.15/-0.98	-0.84/-0.79	-0.97/-1.48	-2.31/-3.25	-1.57/-1.82	-1.79/-1.82	-1.39/-1.41	-1.87/-2.72	-3.61/-3.57	-2.7/-2	-1.68/-1.77	-2.19/-3.06	-4.26/-5.33	-5.7/-5.38	-4.49/-3.46	-2.63/-2.26	-2.24/-2.38
Θ(45°)	-1.93/-1.76	-1.22/-0.78	-0.65/-0.77	-0.93/-1.17	-1.45/-1.63	-1.59/-1.58	-1.54/-1.52	-1.48/-1.46	-1.45/-1.49	-1.72														



Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix A

Θ(22.5°)	-2.37/-3.23	-3.72/-3.82	-4.18/-4.59	-5.27/-5.57	-5.54/-4.66	-2.99/-1.54	-0.740/-17	0.961/56	1.982/28	2.472/53	2.221/53	0.79/-0.02	-0.55/-0.68	-0.5/-0.45	-0.58/-0.8	-1.03/-1.52	-2.26/-2.45	-1.63/-0.89	-0.360/-07	0.711/32	2.08/2.57	2.512/29	1.71/1.13	0.18/-1.34
Θ(30°)	-1.1/-2.14	-3.58/-5.56	-7.02/-7.75	-8.19/-8.03	-7.52/-6.05	-4.29/-2.75	-1.19/-0.04	0.7/1	0.940/94	1.18/1.4	1.210/84	0.16/-0.65	-1.44/-1.61	-1.98/-1.89	-0.98/-0.11	-0.04/-0.89	-2.23/-3.15	-1.76/-0.3	-0.27/-1.29	-2.2/-1.27	0.18/1.89	2.882/93	2.33/1.73	1.130/-12
Θ(142.5°)	-1.05/-1.61	-2.28/-4.4	-5.87/-6.22	-6/-5.79	-6.18/-5.33	-3.48/-1.68	-0.52/-0.57	-0.75/-0.73	-0.59/-1.01	-0.820/23	0.690/28	-0.8/-1.4	-2.25/-1.13	-3.21/-2.52	-10.14	0.36/-0.2	-1.24/-2.06	-0.720/29	0.890/96	10.78	-0.194/-1.02	4.02/2.02	2.34/1.39	0.38/-0.36
Θ(45°)	-2.51/-3.07	-2.42/-3.71	-5.14/-4.49	-3.97/-4.19	-4.91/-4.79	-2.92/-1.33	-0.58/-0.33	-0.53/-1.43	-1.94/-1.71	-1.44/-0.04	0.920/7	-0.76/-0.9	-1.53/-2.99	-2.77/-2.75	-1.42/-0.31	-0.24/-0.83	-1.3/-1.05	-0.08/0.95	1.81/2.56	2.81/1.92	0.44/-0.77	-0.980/59	1.952/34	1.14/-0.96
Θ(52.5°)	-2.77/-4.54	-3.97/-4.43	-4.63/-3.23	-2.85/-3.73	-4.49/-3.34	-1.4/-0.22	-0.15/-0.51	-1.18/-1.37	-2.07/-3.01	-2.19/-0.62	0.05/-0.44	-2.08/-1.65	-1.66/-3.12	-2.67/-2.78	-2.28/-2.46	-2.74/-2.2	-3.09/-2.11	-0.83/-0.35	0.071/38	2.342/0.5	4.86/-1.25	-1.290/-12	1.2/1.61	1.57/-0.08
Θ(60°)	-0.94/-3.82	-4.96/-6.15	-6.4/-4.08	-3.29/-4.26	-5.57/-4.52	-2.65/-1.75	-2.06/-2.92	-3.56/-2.73	-2.08/-3.31	-3.15/-1.52	-0.29/-0.97	-1.57/-1.77	-1.49/-2.93	-2.22/-4.07	-4.6/-4.64	-4.07/-3.19	-1.9/-0.92	-0.09/-0.38	-1.83/-1.68	1.172/28	0.490/0.02	-1.24/-1.49	-0.98/-0.36	0.680/71
Θ(67.5°)	0.35/-2.32	-5.13/-9.05	-8.34/-5.08	-3.7/-4.75	-7.28/-5.24	-3.04/-1.92	-2.17/-3.47	-4.44/-4.25	-3.75/-4.55	-4.57/-2.34	-0.94/-2.15	-2.92/-2.85	-1.58/-2.6	-2.67/-5.09	-6.75/-6.35	-5.74/-2.98	-1.53/-1.2	-1.34/-1.73	-3.88/-3.65	-0.46/1.57	1.990/27	-1.24/-0.55	-0.58/-1.96	-1.350/-34
Θ(75°)	-1.45/-2.11	-3.78/-7.31	-9.55/-6.76	-4/-5.24	-9.17/-4.71	-2.57/-2.43	-3.02/-3.68	-4.62/-6.09	-5.19/-5.99	-5.82/-3.32	-2/-2.97	-3.52/-3.14	-2.05/-2.78	-3.85/-6.03	-6.38/-8.57	-8.9/-3.34	-0.8/-1.61	-1.41/-1.18	-3.62/-5.59	-1.360/32	1.540/22	-3.5/-3.22	-1.27/-2.65	-3.87/-3.33
Θ(82.5°)	-3.3/-4.04	-5.42/-7.75	-8.14/-9.02	-5.39/-5.82	-9.24/-5.97	-4.17/-3.8	-5.05/-6.08	-6.03/-4.64	-5.35/-6.91	-6.17/-3.82	-3.31/-4.49	-4.4/-3.85	-2.57/-4.14	-4.35/-5.13	-7.64/-11.93	-8.9/-3.57	-1.63/-3.92	-2.35/-1.32	-2.26/-3.5	-2.44/-2.05	0.03/-1.18	-5.58/-3.93	-1.04/-1.24	-3.46/-6.08
Θ(90°)	-7/-6.39	-7.97/-7.41	-7.26/-13.16	-6.83/-4.99	-6.94/-4.89	-2.97/-3.77	-5.52/-5.22	-5.18/-4.46	-4.94/-6.84	-6.42/-4.38	-3.85/-4.74	-4.67/-5.2	-4.03/-5.07	-5.77/-6.62	-8.23/-10.65	-9.3/-4.69	-3.45/-6.45	-5.77/-2.81	-2.04/-2.61	-2.64/-4.62	-1.89/-2.37	-7.7/-6.23	-2.13/-1.63	-2.55/-7.4
Θ(97.5°)	-8.73/-6.42	-9.81/-7.58	-6.23/-11.29	-9.28/-5.05	-5.08/-5.66	-4.17/-6.02	-8.74/-8.52	-7.52/-6.62	-5.86/-7.99	-7.01/-4.12	-3.71/-4.05	-5.71/-6.16	-5.19/-5.85	-7.18/-6.99	-7.58/-9.85	-7.11/-6.44	-4.74/-6.24	-5.4/-3.81	-4.03/-6.48	-5.01/-5.55	-7.96/-7.35	-3.53/-1.83	-3.05/-3.73	
Θ(105°)	-11.41/-5.96	-9.55/-11.29	-7.78/-9.76	-11.96/-6.31	-6.22/-7.9	-5.87/-6.92	-9.04/-7.33	-7.39/-8.45	-8.62/-10.2	-8.45/-5.79	-5.77/-7.14	-8.74/-8.53	-5.36/-7.71	-7.43/-5.55	-6.59/-7.29	-11.67/-9.05	-7.97/-5.23	-8.37/-7.14	-4.28/-4.8	-4.52/-5.17	-6.67/-5.41	-8.3/-9.62	-5.75/-3.33	-3.24/-4.78
Θ(112.5°)	-9.39/-6.08	-9.34/-13.58	-8.48/-9.03	-12.7/-8.11	-5.2/-7.92	-6.68/-6.08	-8.75/-7.5	-7.38/-8.51	-9.96/-8.43	-6.41/-5.4	-6.12/-8	-7.73/-5.79	-7.49/-11.32	-10.63/-8.63	-6.36/-7.95	-11.28/-7.47	-6.23/-4.65	-8.49/-6.99	-5.07/-5.66	-2.85/-3.35	-5.38/-6.07	-4.24/-5.18	-9.33/-6.4	-4.65/-4.76
Θ(120°)	-7.44/-10.09	-9.19/-13.02	-13.91/-9.56	-11.57/-9.98	-7.05/-6.6	-9.68/-12.54	-13.11/-10.58	-6.5/-4.52	-5.55/-5.96	-8.74/-8.44	-7.12/-6.59	-10.5/-12.48	-10.34/-7.69	-6.83/-9.5	-15.05/-7.67	-9.85/-5.91	-5.25/-6.78	-6.79/-5.67	-2.11/-2.3	-7.42/-11.3	-10.04/-6.05	-8.54/-7	-4.82/-3.47	
Θ(127.5°)	-6.72/-10.95	-11.48/-14.98	-15.9/-11.43	-9.54/-9.45	-7.53/-7.72	-9.47/-11.48	-10.13/-11.53	-14.26/-11.89	-9.01/-10.38	-10.23/-10.78	-11.31/-10.08	-8.66/-8.73	-15.68/-10.32	-14.06/-9.91	-10.54/-10.78	-14.01/-7.78	-8.13/-5.89	-7.24/-7.75	-11.42/-6.08	-3.17/-2.57	-10.32/-10.01	-10.12/-7.31	-7.89/-7.65	-5.07/-4.85
Θ(135°)	-7.33/-11.17	-15.37/-14.54	-13.27/-9.68	-8.63/-9.05	-7.21/-5.68	-6.81/-9.76	-10.74/-9.53	-9.8/-11.46	-10.82/-9.1	-8.84/-9.12	-8.59/-9.38	-9.78/-11.9	-15.8/-14.54	-15.31/-15.18	-13.71/-14.19	-13.1/-10.68	-14.23/-7.72	-9.84/-12.52	-12.13/-6.24	-4.67/-5.93	-8.86/-14.47	-10.85/-9.46	-6.46/-8.94	-8.95/-8.35
Θ(142.5°)	-8.98/-8.38	-11.79/-14.74	-14.74/-9.36	-7.34/-8.05	-11.12/-9.9	-8.99/-10.08	-11.45/-11.33	-9.85/-7.62	-6.4/-7.02	-8.41/-9.47	-9.62/-8.34	-10.11/-14.03	-13.22/-11.79	-13.72/-12.39	-9.85/-8.41	-8.2/-14.06	-14.26/-10.86	-12.34/-14.92	-15.41/-11.95	-10.22/-12.91	-12.54/-11.92	-8.75/-17.7	-7.04/-7.5	-10.83/-12.1
Θ(150°)	-7.73/-10.82	-12.27/-15.48	-13.74/-10.79	-8.28/-7.27	-8.36/-9.53	-7.96/-7.6	-8.28/-9.9	-12/-12.11	-10.88/-10.3	-9.61/-8.97	-8.27/-8.96	-10.11/-14.83	-15.91/-12.88	-14.03/-15.76	-14.51/-14.37	-15.14/-15.47	-9.03/-8.19	-10.54/-12.79	-12.42/-9.65	-8.35/-9.38	-10.32/-9.26	-7.24/-5.88	-5.19/-6.01	-8.96/-13.99
Θ(157.5°)	-12.76/-14.29	-14.78/-14.99	-11.86/-10.75	-9.66/-8.94	-9.66/-11.02	-10.54/-10.3	-10.64/-11.67	-12.83/-15.05	-14.93/-14.81	-13.53/-12.13	-10.59/-10.75	-12.85/-13.05	-11.35/-10.39	-11.47/-14.5	-15.58/-15.1	-11.84/-10.85	-10.84/-11.28	-12.06/-13.08	-11.36/-10.02	-9.6/-10.37	-10.18/-9.03	-9.25/-9.46	-7.19/-6.29	-7.33/-10.69
Θ(165°)	-14.47/-13.69	-13.54/-13.01	-12.33/-12.01	-11.47/-11.77	-13.54/-15.04	-15.28/-13.54	-12.43/-10.72	-9.34/-8.95	-9.02/-9.37	-9.92/-9.92	-9.45/-6.67	-7.93/-7.49	-8.29/-9.49	-11.01/-13.04	-13.13/-11.47	-11.37/-11.75	-13.08/-13.46	-12.29/-10.77	-9.89/-10.24	-11.6/-12.69	-12.14/-11.52	-10.23/-2.93	-8.67/-9.47	-12.17/-13.66
Θ(172.5°)	-10.76/-10.48	-9.52/-8.58	-8.48/-9.25	-9.8/-9.91	-10.61/-11.63	-11.49/-10.39	-9.61/-9.27	-9.6/-9.75	-9.51/-9.93	-10.46/-10.48	-10.34/-10.63	-12/-13.63	-15.09/-14.48	-14.41/-14.04	-12.85/-12.44	-11.11/-10.83	-10.54/-10.26	-9.93/-9.73	-9.59/-9.98	-10.45/-10.74	-11.75/-12.66	-12.56/-11.77	-10.36/-10.25	
Θ(180°)	-11.54/-12.39	-12.23/-11.82	-12.06/-12.79	-13.47/-13.36	-13.65/-13.86	-14.06/-13.72	-13.62/-12.96	-13.49/-13.14	-14.31/-14.36	-15.42/-15.35	-15.33/-14.83	-13.57/-12.36	-12.01/-12.33	-13.33/-13.85	-14.42/-15.1	-16.06/-14.44	-14.99/-15.43	-14.72/-15.87	-14.27/-14.93	-14.67/-13	-12.37/-11.95	-11.87/-11.84	-11.21/-10.79	-11.02/-11
Freq(Pol)	5.3GPol	ThetaL	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	0.010/85	1.7/2.53	2.95/3.17	3.28/3.29	3.26/3.12	2.822/3.33	1.510/39	-1.08/-1.61	-1.38/-0.78	-0.48/-0.09	0.070/11	-0.05/-0.51	-0.140/39	1.52/31	2.883/25	3.41/34	3.23/30.2	2.59/1.98	0.960/0.17	-1.02/-1.06	-0.5/-0.01	0.20/38	0.18/-0.14	-0.63/-0.48
Θ(7.5°)	-1.06/-0.4	0.52/1.5	1.97/2.11	2.12/1.99	1.95/1.69	1.290/91	0.38/-0.59	-1.72/-2.22	-1.88/-1.48	-1.33/-0.9	-0.440/0.2	0.11/-0.19	0.050/76	1.872/73	3.41/76	3.933/88	3.8/54	3.022/0.1	0.8/-0.35	-1.28/-1.17	-0.79/-0.56	-0.92/-1.46	-2.17/-1.83	
Θ(15°)	-2.02/-1.63	-0.93/-0.07	0.380/54	0.580/77	1.12/1.21	0.970/61	-0.08/-1.09	-2.45/-3.01	-3.54/-3.47	-3.08/-2.12	-1.07/0.3	-1.0/-0.33	-0.63/-0.3	0.71/62	2.912/76	3.1/32	3.333/19	2.76/1.95	0.8/-0.45	-1.05/-1.33	-1.17/-1.11	-1.34/-1.72	-2.26/-3.04	-3.55/-2.72
Θ(22.5°)	-4.62/-4.44	-3.57/-2.62	-2.47/-2.57	-1.89/-1.04	-0.33/-0.01	-0.05/-0.1	-0.62/-1.41	-2.5/-3.29	-3.96/-4.39	-4.47/-3.65	-2/-0.84	-0.45/-0.63	-1.22/-1.37	-1.47/-0.79	-2.09/0.66	1.562/48	3.06/3.18	3.06/2.66	2.39/1.98	1.360/4	-0.42/-1.15	-1.33/-2.02	-3.09/-4.21	-5.14/-4.93
Θ(30°)	-7.17/-6.84	-9.21/9	-7.65/-6.31	-4.6/-3.26	-2.74/-2.32	-2.15/-2.24	-2.62/-3.33	-3.45/-3.1	-2.71/-2.71	-3.74/-4.97	-4.18/-2.63	-1.86/-1.56	-2.23/-2.38	-3.23/-3.22	-2.57/-1.57	-0.210/83	1.25/1.71	2.44/2.87	2.82/2.4	1.98/1.2	0.51/-0.51	-2.59/-3.63	-3.81/-4.43	-5.38/-7.77
Θ(37.5°)	-4.42/-6.32	-10.89/-15.94	-15.23/-10.28	-7.59/-5.5	-4.65/-4.38	-4.49/-4.69	-4.82/-5.21	-5.36/-4.62	-2.94/-1.86	-2.63/-4.73	-5.08/-3.48	-2.73/-2.54	-3.33/-3.93	-3.87/-4.3	-3.6/-3.21	-2.95/-2.21	0.022/18	3.053/11	3.042/48	1.490/9	0.770/72	0.36/-1.09	-2.98/-2.68	-1.33/-4.52
Θ(45°)	-1.48/-2.05	-4.35/-7.3	-8.28/-7.74	-3.47/-6.48	-5.3/-4.91	-5.32/-6.36	-6.61/-6.08	-5.85/-4.53	-2.86/-1.11	-0.62/-2.57	-5.07/-3.85	-2.82/-3.6	-3.54/-4.07	-4.06/-4.77	-4.81/-3.65	-4.14/-3.77	-1.090/8	1.742/61	3.263/33	2.03/-0.14	-0.22/106	1.73/1.5	0.21/-2.11	-1.53/-1.06
Θ(52.5°)	-0.2/-0.7	-2.23/-3.89	-4.08/-4.39	-5.77/-4.23	-3.28/-3.29	-4.19/-5.27	-5.81/-5.76	-5.03/-5.37	-1.67/-0.67	-0.29/-1.35	-3.32/-2.91	-1.77/-2.53	-3.12/-2.9	-4.37/-5.34	-4.49/-3.66	-5.33/-4.5	-2.8/-1.2	0.16/1.4	2.32/1.96	0.57/1.24	-1.830/81	2.86/2.6	1.49/-4.09	-0.34/-0.34
Θ(60°)	0.39/-0.27	-0.91/-1.1	-0.75/-1.58	-4.4/-3.78	-2.43/-2.5	-3.75/-3.99	-3.89/-3.04	-1.96/-1.38	-1.0/-0.59	-1.05/-1.34	-1.99/-1.5	-1.0/-0.3	-1.77/-1.28	-2.73/-3.35	-3.64/-2.48	-4.67/-5.09	-4.53/-1.54	0.110/9	1.091/79	1.22/-0.46	-0.94/-1.12	3.083/34	2.48/-0.21	0.180/28
Θ(67.5°)	0.35/-0.9	-1.48/-1.09	-0.39/-0.75	-3.23/-3.63	-2.17/-1.33	-3.88/-3.75	-3.25/-2.75	-1.93/-0.93	-0.61/-0.16	-0.6/-1.12	-1.52/-1.24	-0.89/-1.16	-1.37/-1.26	-1.54/-2.54	-0.02/-2.47	-6.14/-5.88	-3.3/-0.45	1.732/59	3.22/36	1.18/1.14	2.732/39	1.75/-0.79	-0.60/-0.18	
Θ(75°)	-0.78/-0.95	-0.84/-0.14	0.330/64	-2.24/-5.16	-2.97/-4.08	-4.33/-3	-1.77/-1.8	-1.68/-1	-0.39/-0.82	-1.08/-1.97	-1.58/-2.19	-1.07/-2.11	-0.57/-3.2	-1.05/-3.4	-3.21/-3.38	-6.74/-4.45	-1.161/33	3.433/44	3.67/4.35	4.920/9	1.62/105	2.052/-12	1.18/-1.36	-0.84/-0.65
Θ(82.5°)	-4.08/-2.62	-1.																						



Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix A

Θ(75°)	-1.51/-0.43	-1.66/-5.96	-9.55/-7.35	-9.83/-7.84	-4.84/-4.9	-4.6/-3.99	-4.83/-6.68	-8.24/-6.32	-4.5/-3.85	-4.46/-3.34	-2.22/-1.1	-2.63/-3.67	-0.64/-3.13	-7.61/-9.54	-8.23/-8.09	-12.21/-4.6	-2.18/-1.71	-0.94/0.64	0.75/-1.13	-5.16/-1.57	-1.73/-3.24	-1.44/-0.63	-1.89/-5.45	-5.13/-2.93
Θ(82.5°)	-2.87/-1.76	-2.25/-7.79	-11.21/-7.21	-10.11/-8.28	-5.01/-4.58	-3.89/-2.33	-3.91/-8.09	-7.9/-6.25	-4.85/-5.46	-5.22/-3.81	-3.01/-1.59	-3.1/-2.75	-1.41/-4.47	-5.53/-10.07	-11.91/-13.37	-8.93/-2.64	-1.19/-1.39	-1.47/-0.19	0.59/0.01	-3.02/-4.16	-2.66/-3.27	-4.18/-2.77	-2.72/-6.96	-5.33/-2.59
Θ(90°)	-3.05/-1.74	-3.41/-8.22	-11.22/-7.86	-10.37/-11.02	-6.34/-6.21	-4.16/-3.49	-4.77/-6.65	-8.18/-8.98	-8.06/-6.12	-5.5/-5.85	-5.4/-3.2	-3.75/-5.24	-4.67/-6.02	-5.28/-10.86	-15.12/-11.78	-11.03/-4.45	-2.26/-3.5	-3.2/-2.69	-2.37/-0.66	-1.81/-6.25	-4.26/-3.53	-8.41/-6.49	-5.38/-8.39	-6.78/-4.25
Θ(97.5°)	-4/-2.96	-3.5/-5.99	-11.61/-8.93	-9.1/-10.22	-9.06/-5.51	-3.4/-2.05	-3.56/-8.88	-6.38/-8.87	-11.33/-5.91	-5.16/-6.77	-6.4/-3.73	-6.04/-7.19	-4.91/-3.64	-6.76/-15.04	-12.31/-10.97	-11.24/-5.52	-3.87/-3.75	-4.1/-4.64	-4.45/-0.1	-0.15/-4.33	-7.51/-5.32	-12.38/-8.42	-7.8/-11.24	-8.35/-6.72
Θ(105°)	-6.6/-4.68	-4.61/-5.59	-10.47/-9.82	-8.79/-7.88	-8.86/-6.6	-6.96/-3.89	-3.61/-5.56	-6.4/-11.84	-9.92/-5.98	-6.3/-8.63	-7.67/-7.2	-7.26/-7.53	-5.43/-5.85	-9.92/-12.94	-12.34/-10.8	-9.46/-5.81	-4.34/-3.59	-2.12/-6	-3.93/-2.63	-0.32/-2.88	-9.09/-6.84	-8.81/-8.76	-8.19/-9.23	-7.81/-11.5
Θ(112.5°)	-7.95/-6.08	-3.92/-6.53	-10.96/-15.56	-7.99/-5.97	-6.46/-6.62	-5.99/-6.84	-5.55/-7.38	-7.86/-6.04	-8.1/-7	-6.91/-7.33	-8.71/-7.99	-7.63/-10.33	-5.09/-7.5	-12.01/-10.83	-7.22/-12.67	-9.23/-6.48	-7.15/0.32	-1.92/-5.51	-4.17/-0.85	-0.02/-2.2	-8.06/-7.24	-5.63/-8.13	-12.58/-11.3	-9.81/-7.96
Θ(120°)	-11.93/-7.34	-9.57/-8.75	-11.27/-15.02	-11.68/-5.75	-6.07/-8.3	-9.22/-7.51	-7.04/-8.08	-7.35/-8.05	-9.67/-11.2	-9.41/-6.44	-6.52/-7.19	-8.86/-15.59	-8.82/-9.74	-9.68/-8.47	-6.76/-9.66	-10.21/-9.56	-9.95/-3.13	-4.62/-5.6	-1.68/-2.74	-1.32/-5.58	-11.51/-11.68	-10.54/-7.54	-10.04/-15.84	-11.84/-9.32
Θ(127.5°)	-13.89/-7.78	-7.49/-8.73	-12.4/-11.04	-12.5/-7.82	-4.7/-5.27	-8.59/-9.84	-9.64/-11.12	-12.27/-10.54	-11.14/-10.1	-8.25/-6.16	-5.52/-7.06	-10.41/-10.67	-10.5/-9.95	-10.19/-8.37	-10.44/-15.08	-12.69/-8.73	-10.05/-4.17	-6.05/-6.72	-7.2/-9.87	-5.1/-5.8	-9.64/-9.65	-10.19/-5.8	-8.02/-10.04	-7.47/-7.99
Θ(135°)	-9.58/-10.21	-7.39/-8	-7.65/-12.59	-15.16/-7.87	-4.81/-3.86	-6.44/-9.96	-8.84/-9.65	-13.15/-11.37	-7.9/-7.49	-6.96/-6.68	-9.18/-9.62	-11.73/-9.76	-10.8/-8.56	-8.24/-15.7	-11.96/-6.55	-8.67/-14.64	-14.32/-8.13	-9.28/-11.96	-15.72/-11.85	-6.92/-9.7	-14.59/-15.47	-11.9/-11.27	-6.92/-14.18	-14.59/-9.14
Θ(142.5°)	-7.66/-12.31	-10.6/-11.95	-6.95/-6.63	-8.22/-11.59	-10.28/-8.91	-9.17/-10.7	-9.46/-8.29	-7.6/-8.49	-10.66/-9.75	-9.62/-11.61	-10.64/-11.44	-12.74/-14.83	-14.37/-11.19	-15.05/-14.24	-8.85/-8.91	-12.7/-12.25	-12.66/-12.63	-11.04/-11.53	-14.81/-11.03	-8.22/-11.48	-7.09/-8.82	-11.9/-12.97	-8.71/-11.4	-14.45/-10.28
Θ(150°)	-7.3/-7.07	-8.26/-10.66	-12.97/-7.95	-7.19/-8.52	-9.77/-10.25	-11.21/-12.09	-12.21/-10.78	-9.17/-7.76	-7.2/-7.46	-7.58/-7.92	-8.75/-7.75	-8.27/-11.27	-11.14/-10.98	-13.15/-15.89	-12.39/-8.57	-10.9/-13.93	-11.41/-9.59	-10.5/-13.38	-12.45/-12.08	-11.83/-10.72	-7.79/-8.7	-11.52/-10.84	-10.69/-12.4	-11.71/-11.45
Θ(157.5°)	-10.56/-9.68	-9.46/-9.12	-9.56/-11.36	-13.85/-15.35	-13.61/-10.61	-10.05/-9.59	-9.3/-10.07	-11.84/-12.74	-13.41/-13.61	-13.45/-11.98	-11.03/-11.12	-10.74/-10.62	-12.58/-13.78	-13.9/-10.92	-8.79/-9.44	-13.37/-14.35	-10.96/-9.92	-11.23/-14.03	-15.09/-15.18	-11.88/-9.93	-8.05/-8.83	-12.95/-15.52	-12.96/-12.18	-15.44/-14.27
Θ(165°)	-10.06/-7.96	-7.04/-7.24	-9.09/-11.58	-13.18/-13.39	-11.7/-11.63	-10.37/-9.71	-9.77/-10.36	-11.1/-12.12	-13.55/-14.5	-13.46/-12.24	-11.17/-10.28	-9.43/-9.22	-9.44/-10.46	-11.08/-10.3	-8.66/-8.46	-8.92/-9.7	-10.94/-12.45	-14.13/-14.7	-13.05/-12.64	-14.03/-14.33	-15.08/-14.66	-13.73/-13.56	-14.67/-14.33	-14.14/-13.59
Θ(172.5°)	-9.6/-8.04	-7.77/-8.15	-9.67/-11.3	-12.36/-11.99	-11.92/-11.77	-10.61/-9.61	-9.49/-10.37	-11.63/-12.43	-12.33/-11.85	-10.82/-9.97	-9.15/-8.67	-8.83/-9.89	-10.79/-11.91	-12.43/-12.45	-11.91/-11.88	-11.35/-10.79	-10.8/-11.04	-11.25/-11.92	-12.6/-13.68	-14.89/-14.94	-15.1/-15.81	-15.48/-15.01	-14.18/-12.28	-11.71/-11.45
Θ(180°)	-15.29/-13.59	-13.12/-12.66	-10.95/-10.73	-11.28/-11.85	-11.55/-11.01	-11.34/-11.26	-11.09/-11.88	-13.52/-14.57	-15.33/-15	-15.03/-15.01	-15.66/-15.53	-15/-15.64	-14.99/-15.03	-14.97/-15.39	-13.98/-12.77	-11.71/-11.53	-11.7/-12.47	-12.02/-12.19	-12.6/-12.86	-13.71/-13.84	-13.21/-13.01	-13.17/-13.98	-15.02/-15.36	
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°)	2.05/2.39	2.73/2.83	3.04/2.88	2.72/37	1.70/78	-0.44/-1.89	-3.06/-3.68	-3.19/-2.73	-2.49/-2.33	-2.41/-2.2	-1.62/-0.39	0.64/-1.39	2.03/2.56	2.87/3.01	2.96/2.79	2.51/2.04	1.26/0.21	-1.11/-2.65	-3.25/-2.83	-2.57/-2.4	-2.3/-2.14	-2.31/-1.93	-0.73/0.7	1.57/1.81
Θ(7.5°)	1.97/2.28	2.35/2.37	2.64/2.72	2.73/2.7	2.31/65	0.54/-0.55	-2.02/-3.99	-5.31/-6.19	-5.24/-4.4	-3.79/-3.47	-3.39/-2.43	-1.8/-0.63	0.13/0.48	0.71/0.96	1.11/1.26	1.32/1.24	0.97/0.62	0.24/-0.2	-0.72/-1.03	-1.37/-1.5	-1.55/-1.46	-1.44/-1.26	-0.91/0.07	1.15/1.71
Θ(15°)	0.22/0.82	0.77/0.75	0.96/1.07	1.14/0.82	0.2/-0.43	-0.77/-1.23	-1.91/-2.81	-3.74/-5.2	-5.33/-5.73	-5.91/-5.77	-5.38/-4.86	-4.19/-2.54	-1.26/-0.43	-0.28/-0.38	0.12/0.73	1.21/1.53	1.74/1.7	1.43/0.84	-0/-1.25	-2.51/-3	-3.49/-3.37	-3.2/-3.04	-3.51/-4.33	-3.01/-0.97
Θ(22.5°)	-2.12/-0.73	-0.69/-0.36	-0.24/-1.12	-2.4/-4.02	-4.28/-3.58	-3.01/-2.95	-3.39/-3.84	-3.63/-2.55	-1.54/-1.25	-1.45/-2.25	-3.65/-4.37	-3.79/-2.24	-0.51/0.52	0.13/-0.94	-0.44/0.02	0.45/0.97	1.41/1.52	1.48/1.63	1.73/1.51	0.33/-0.2	0.64/0.92	0.6/-0.06	-1/-3.21	-7.44/-5.23
Θ(30°)	-5.93/-3.93	-2.42/-1.41	-1.66/-3.57	-5.04/-6.63	-6.91/-6.55	-5.61/-4.39	-3.25/-2.86	-3.09/-3.08	-1.96/-0.82	-0.25/0.14	-0.35/-1.66	-1.76/-1.6	-1.59/-1.48	-2.61/-2.43	-1.16/0.34	0.91/0.5	0.66/0.3	1.19/1.93	2.02/1.88	1.59/0.98	0.61/1.89	2.33/1.99	0.5/-1.38	-3.38/-5.53
Θ(37.5°)	-6.46/-6.5	-4.77/-4.25	-5.04/-6.8	-6.89/-8.61	-9.47/-7.78	-5.8/-2.7	-1.43/-1.22	-1.53/-1.5	-1.46/-1.01	-0.74/-1.13	-0.93/-0.8	-0.09/-0.53	-1.74/-3.73	-4.66/-3.24	-1.86/-0.14	-0.18/-0.99	-1.43/-0.04	1.71/2.14	2.12/2.02	1.88/1.25	0.4/-0.92	-2.05/-4.08	-0.69/-1.02	-2.52/-4.81
Θ(45°)	-1.47/-2.5	-2.93/-3.28	-4.45/-6.7	-8.34/-9.49	-7.47/-5.01	-3.23/-1.54	-0.48/-0.14	-0.6/-1.66	-2.1/-1.78	-0.84/-0.79	-1.61/-1.13	1.11/82	0.87/-2.66	-5.31/-5.22	-3.56/-1.35	-1/-1.11	-1.08/0.82	2.03/1.86	1.95/1.92	1.69/1.99	1.58/1.15	0.21/-0.88	-1.16/-1.55	-2.8/-2.36
Θ(52.5°)	0.61/0.49	0.32/0.69	-0.29/-1.43	-3.23/-4.24	-2.94/-2.4	-0.67/0.42	0.62/0.1	-0.35/-0.78	-1.54/-0.91	0.56/0.77	-0.58/-1.66	1.5/1.94	1.23/-2.25	-2.03/-2.42	-2.06/-2.15	-1.54/-2.11	-1.87/0.38	1.22/0.68	-0.27/0.34	0.72/1.21	1.91/2.73	2.96/3.43	2.3/1.89	0.5/-0.25
Θ(60°)	1.56/2.32	2.27/2.19	1.46/0.88	-0.15/-0.69	-0.98/-1.71	-0.51/1.06	0.92/-0.16	-1.3/-1.17	-0.75/-1.1	0.44/1.54	0.61/-1.59	0.4/0.84	0.81/-1.07	-0.24/-1.8	-1.92/-4.46	-2.04/-2.06	0.29/2.74	2.43/0.86	-0.11/0.95	0.61/0.42	1.34/3.22	3.784/1.3	3.61/3	1.46/1.02
Θ(67.5°)	1.85/2.46	2.2/2.18	1.61/0.79	0.53/1.4	1.14/-0.65	-0.73/0.73	0.2/-1.47	-2.92/-2.25	-0.78/-1.09	-0.30/95	0.5/-0.75	-0.59/0.84	0.63/0.65	0.22/-2.06	-2.78/-2.23	-2.01/-0.86	2.59/5.04	4.45/3.59	3.04/3.24	1.99/-0.04	1.98/3.34	3.24/3.49	3.28/3.11	2.05/2.02
Θ(75°)	2.11/3.39	2.61/1.95	1.63/-0.04	0.03/1.15	1.15/-0.72	-1.43/-0.4	-0.32/-1.46	-2.64/-2.11	-0.08/-0.34	-0.48/-0.05	-0.48/-1.89	-2.33/1.27	1.31/1.61	-0.49/-1.8	-1.24/-1.34	-2.47/-1.19	3.45/5.67	5.41/5.38	4.93/4.14	2.87/1.39	2.11/3.33	3.07/1.94	1.93/2.45	1.39/1.75
Θ(82.5°)	0.7/2.6	2.33/1.13	1.99/-0.18	-2/-0.86	-0.35/-1.79	-1.9/-1.55	-1.13/-1.56	-2.53/-3.38	-1.72/-1.62	-1.64/-1.84	-1.89/-2.76	-2.35/1.32	1.25/-0.1	-0.67/-0.43	-0.18/-0.98	-5.35/-0.74	4.44/5.51	5.49/5.33	4.81/4.5	4.17/2.71	1.92/2.86	2.01/1.18	1.55/2.1	1.29/0.68
Θ(90°)	-1.62/0.83	0.87/-0.22	0.94/0.57	-1.6/-2.15	-1.06/-1	-0.79/-2.1	-3.98/-3.15	-2.15/-3.33	-1.57/-1.88	-3.27/-3.11	-2.15/-2.43	-3.07/-0.35	0.22/-1.74	0.14/0.38	-1.12/-3.34	-4.83/-1.18	3.14/74	4.03/3.73	3.37/3.12	4.66/2.58	0.26/0.83	0.33/0.82	0.58/-0.09	0.71/-1.37
Θ(97.5°)	-5.68/-0.77	1.05/-0.57	-0.4/0.23	-1.11/-3.35	-2.53/-4.86	-2.17/-1.54	-2.19/-2.17	-2.58/-4.11	-3.12/-4.09	-3.1/-2.22	-3.27/-2.55	-2.37/-1.37	-1.01/-1.76	0.44/-1.75	-4.34/-6.38	-4.18/-2.96	0.14/2.09	1.61/0.77	1.01/1.37	3.88/0.84	-3.43/-3.46	-1.42/-0.34	-0.54/-1.97	-1.09/-3.99
Θ(105°)	-5.28/-4.13	-0.93/-0.7	-2.5/-1.41	-2.01/-2.35	-2.9/-4.05	-4.21/-1.5	-1.42/-2.5	-4.46/-4.36	-4.65/-7.08	-3.33/-2.31	-3.82/-2.88	-2.35/-2.64	-2.47/-1.46	-1.54/-4.59	-7.02/-7.76	-6.47/-5.55	-6.44/-3.08	-0.1/-1.15	-3.54/-2.85	0.54/-2.2	-9.37/-7.97	-2.66/-2.73	-4.57/-5.63	-5.87/-6.24
Θ(112.5°)	-4.08/-5.3	-2.36/-1.83	-2.41/-2.36	-2.58/-4.43	-3.76/-4.04	-4.57/-2.21	-0.33/0.02	-1.16/-1.67	-3.93/-4.85	-4.66/-5.91	-6.8/-3.66	-4.78/-4.64	-3.7/-1.25	-6.25/-6.38	-7.73/-4.2	-7.9/-12.23	-7.94/-5.29	-1.21/-3.6	-6.48/-5.93	-2.71/-2.92	-6.51/-6	-3.57/-5.57	-8.35/-8.38	-12.08/-10.78
Θ(120°)	-6.18/-3.58	-3.66/-3.05	-1.54/-2.05	-2.83/-3.09	-5.67/-5.15	-4.5/-4.9	-3.22/-1.81	-1.9/-1.65	-2.36/-2.81	-4.16/-6.12	-5.12/-5.37	-8.8/-8.19	-4.91/-2.87	-4.56/-2.8	-5.81/-3.69	-8.41/-12.47	-8.79/-7.15	-6.22/-3.51	-2.07/-3.11	-4.95/-6.76	-7.33/-8.76	-4.62/-4.57	-7.51/-6.37	-8.67/-7.36
Θ(127.5°)	-6.01/-1.92	-3.28/-3.22	-4.34/-4.19	-4.15/-5.05	-6.75/-6.94	-5.68/-5.3	-5.25/-5.25	-5.49/-6.01	-5.85/-4.8	-5.43/-5.5	-5.85/-8.36	-15.45/-7.17	-4.13/-3.48	-1.89/-3.93	-9.88/-6.54	-8.55/-10.84	-11.83/-7.64	-4.82/-4						





Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix A

Θ(22.5°)	-18.15/-15.18	-12.67/-10.14	-8.63/-7.4	-6.56/-5.32	-4.14/-2.91	-1.7/-0.92	-0.74/-0.61	-0.72/-1.01	-1.4/-1.72	-1.89/-1.83	-2.04/-2.93	-4.57/-7.22	-10.27/-11.75	-10.79/-9.39	-8.04/-6.52	-4.71/-3.13	-1.84/-0.97	-0.59/-0.38	-0.2/-0.2	-0.43/-0.96	-1.38/-2.02	-3.55/-5.6	-7.06/-8.8	-11.53/-18.62
Θ(30°)	-18.16/-16.22	-14.55/-14.28	-13.18/-12.16	-10.86/-9.96	-7.64/-5.59	-3.32/-1.44	-0.50/-0.61	0.63/-0.1	-1.15/-2.85	-3.82/-3.91	-4.04/-4.62	-6.78/-10.88	-15.56/-14.74	-13.69/-13.42	-9.4/-5.41	-3.1/-2.16	-1.89/-1.41	-0.61/-0.29	0.67/0.53	-0.13/-2.18	-2.71/-3.14	-3.73/-5.6	-8.69/-8.78	-9.89/-13.63
Θ(37.5°)	-14.68/-13.24	-14.47/-18.32	-15.99/-10.84	-8.34/-7.12	-6.83/-5.55	-3.87/-1.96	-0.84/-0.63	0.53/0.34	-0.82/-3.62	-6.31/-6.22	-5.36/-6.08	-8.62/-15.75	-18.55/-17.77	-18.85/-17.77	-9.44/-4.74	-2.67/-1.79	-0.94/-0.47	-0.06/-0.48	1.32/1.82	1.50/1.6	-2.38/-2.68	-6.29/-5.56	-7.34/-11.88	-12.28/-13.99
Θ(45°)	-15.37/-11.9	-11.25/-14.65	-13.3/-7.85	-5.45/-4.86	-5.21/-4.95	-3.81/-2.59	-1.75/-0.66	0.13/0.2	-0.6/-2.8	-6.59/-7.03	-5.4/-5.51	-8.89/-13.38	-18.14/-18.27	-13.86/-12.26	-6.49/-2.63	-1.06/-0.41	-0.19/0.07	0.49/0.91	1.42/1.77	1.68/0.34	-2.66/-7.23	-11.19/-8.98	-7.09/-8.7	-12.79/-15.39
Θ(52.5°)	-18.12/-14.28	-11.57/-13.98	-11.4/-6.35	-4.72/-5.11	-5.45/-4.22	-2.81/-1.7	-1.25/-0.15	-1.18/-1.16	-1.54/-3.31	-7.09/-8.78	-6.53/-7.8	-12.19/-14.03	-12.98/-12.65	-11.44/-12.01	-6.98/-3.94	-2.48/-2.15	-2.24/-1.75	-1.42/-1.09	-0.48/-0.42	0.78/0.35	-1.66/-6.31	-10.04/-10.86	-9.62/-8.47	-8.44/-12.05
Θ(60°)	-10.98/-13.2	-10.58/-12.56	-12.27/-7.21	-5.64/-6.14	-6.42/-5.22	-3.91/-3.1	-3.03/-3.37	-2.9/-1.56	-0.96/-2.61	-6.49/-15.15	-6.39/-7.42	-9.47/-12.31	-13.89/-12.86	-9.79/-12.6	-9.72/-5.77	-4.29/-4.8	-3.3/-2.63	-0.67/0.69	-0.64/-4.15	-0.57/-3.74	-0.42/-2.89	-11.61/-8.45	-6.61/-7.59	
Θ(67.5°)	-6.8/-10.87	-12.28/-17.92	-14.58/-8.87	-7.41/-7.8	-8.8/-7.37	-4.92/-2.85	-2.53/-3.57	-4.12/-3.75	-3.39/-4.54	-7.35/-8.33	-6.75/-8.42	-11.35/-14.03	-12.44/-10.55	-8.83/-13.44	-10.88/-7.68	-8.12/-6.72	-4.04/-4.41	-5.51/-5.45	-5.19/-4.35	-2.05/-0.22	-0.34/-4.11	-8.05/-8.25	-7.5/-7.43	-5.98/-5.78
Θ(75°)	-7.1/-7.53	-11.26/-18.62	-15.19/-9.94	-9.86/-11.72	-13.19/-10.38	-6.29/-3.38	-2.55/-3.14	-4.11/-4.06	-4.22/-5.63	-7.8/-8.12	-7.88/-8.89	-10.13/-13.22	-13.21/-9.37	-9.09/-14.46	-15.87/-12.02	-15.13/-7.94	-4.64/-5.4	-6.9/-8.8	-6.97/-4.76	-2.05/-0.22	-1.19/-6.63	-9.29/-7.82	-6.08/-6.83	-5.85/-7.88
Θ(82.5°)	-8.16/-6.63	-10.91/-18.48	-13.28/-11.34	-11.44/-12.33	-12.32/-10.74	-7.91/-4.41	-3.65/-4.8	-5.04/-4.68	-5.45/-7.08	-8.93/-9.16	-9.94/-9.84	-9.72/-13.03	-10.77/-10.57	-10.88/-17.07	-18.26/-17.68	-14.86/-7.84	-6.19/-9.59	-10.36/-8.5	-5.05/-4.9	-3.64/-2.12	-2.82/-7.31	-10.59/-7.62	-4.64/-5.56	-6.08/-10.27
Θ(90°)	-13.57/-7.83	-10.39/-18.13	-16.13/-16.48	-14.56/-12.83	-10.54/-9.55	-7.76/-5.11	-4.02/-3.76	-4.53/-4.68	-6.3/-9.61	-10.45/-9.9	-10.92/-11.74	-11.21/-15.49	-11.92/-10.57	-11.85/-15.51	-18.46/-16.64	-14.85/-8.44	-9.14/-16.29	-17.17/-11.48	-6.4/-6.39	-5.84/-4.14	-5.36/-9.14	-12.42/-7.54	-4.43/-4.67	-5.72/-11.52
Θ(97.5°)	-16.05/-9.85	-9.68/-14.16	-17.23/-18.17	-18.06/-14.54	-9.37/-8.22	-8.79/-9.04	-8.05/-7.87	-6.29/-5.74	-8/-11.2	-12.48/-11.03	-13.34/-10.7	-10.28/-14.05	-18.31/-13.53	-12.63/-13.95	-18.27/-18.57	-13.81/-12.76	-16.94/-14.54	-15.06/-13.85	-9.59/-7.69	-7.07/-10.72	-12.19/-6.33	-6.01/-4.77	-4.98/-9.73	
Θ(105°)	-15.58/-13.75	-10.77/-13.57	-15.29/-14.71	-16.28/-14.18	-10.69/-9.49	-9.37/-8.93	-8.48/-7.72	-8.1/-9.38	-9.54/-11.71	-13.98/-13.57	-13.26/-12.47	-14.24/-18.27	-12.81/-13.06	-9.07/-11.19	-18.59/-15.73	-16.81/-12.46	-18.49/-10.59	-10.56/-9.37	-10.23/-8.85	-13.08/-7.54	-6.66/-7.86	-13.58/-8.94	-9.95/-5.07	-5.26/-7.05
Θ(112.5°)	-12.61/-14.6	-11.67/-15.19	-18.53/-17.02	-14.12/-17.35	-11.36/-8.61	-7.54/-7.32	-7.95/-8.43	-8.74/-8.99	-10.74/-13.29	-18.1/-17.59	-17.79/-14.51	-15.85/-14.73	-18.88/-13.17	-10.75/-16.95	-17.88/-13.41	-13.26/-13.32	-17.99/-7.73	-12.13/-18.47	-8.99/-7.08	-5.91/-7.91	-5.32/-10.69	-11.52/-5.83	-8.02/-6.38	-5.65/-8.07
Θ(120°)	-9.41/-8.63	-15.02/-15.69	-18.32/-16.66	-13.51/-12.82	-14.53/-10.28	-9.1/-9.7	-11.53/-14.1	-14.12/-12.5	-9.91/-12.06	-17.96/-18.1	-18.64/-16.01	-18.31/-13.53	-13.67/-11.79	-19.19/-14.42	-18.13/-11.41	-18.11/-6.06	-8.09/-18.05	-8.59/-5.3	-4.77/-8.13	-8.97/-16.76	-12.59/-6.28	-8.07/-6.68	-6.04/-6.97	
Θ(127.5°)	-9.73/-17.55	-18.51/-17.18	-19.31/-17.94	-14.55/-13.46	-13.61/-14.69	-12.39/-11.84	-12.42/-14.9	-16.76/-12.89	-18.49/-18.59	-15.95/-12.86	-18.99/-15.53	-18.35/-15.79	-17.99/-16.18	-18.92/-16.46	-11.58/-7.95	-12.98/-17.39	-13.08/-7.54	-5.98/-9.19	-8.87/-13.41	-12.08/-7.02	-7.08/-6.94	-6.69/-8.19		
Θ(135°)	-13.12/-18.51	-19.26/-18.44	-17.9/-18.29	-16.53/-12.62	-11.11/-9.57	-9.09/-10.75	-12.3/-13.72	-14.48/-16.96	-18.31/-18.97	-18.45/-17.98	-18.64/-17.22	-17.57/-15.59	-18.41/-17.08	-18.87/-17.5	-15.88/-18.53	-17.79/-18.9	-18.77/-13.78	-16.73/-18.7	-13.13/-9.76	-8.35/-11.86	-12.01/-15.81	-13.61/-14.58	-10.16/-11.02	-8.5/-11.39
Θ(142.5°)	-18.1/-18.43	-18.08/-17.47	-18.19/-15.87	-13.01/-11.53	-11.18/-13.13	-13.24/-13.87	-18.73/-17.72	-17.32/-15.67	-14.35/-14.44	-16.15/-18.1	-17.79/-16.51	-17.47/-17.62	-14.51/-12.44	-15.82/-15.18	-14.22/-11.33	-14.83/-18.66	-17.42/-18.13	-18.97/-17.54	-18.58/-13.16	-10.13/-16.16	-9.51/-9.61	-13.13/-12.7	-12.88/-15.36	
Θ(150°)	-18.57/-19.19	-18.54/-17.97	-17.29/-19.12	-17.03/-13.13	-10.11/-10.1	-11.7/-10.33	-11.95/-14.78	-17.81/-18.49	-18.26/-18.62	-18.68/-18.36	-16.97/-16.34	-15.76/-17.19	-18.81/-12.5	-16.18/-89	-18.57/-16.38	-17.27/-17.97	-11.52/-12.15	-16.82/-17.72	-14.49/-11.2	-10.33/-11.06	-10.55/-10.53	-8.14/-10.16	-9.25/-9.68	-12.29/-16.04
Θ(157.5°)	-14.19/-18.78	-18.56/-19.23	-18.1/-18.27	-17.03/-13.97	-11.91/-11.05	-11.57/-13.57	-15.99/-17.51	-17.65/-17.75	-17.91/-18.4	-17.97/-16.98	-14.47/-14.36	-16.14/-18.67	-18.59/-16.98	-16.71/-18.24	-17.99/-17.72	-14.23/-13.21	-13.49/-16.07	-18.15/-18.74	-13.64/-11.11	-10.85/-11.39	-10.96/-10.17	-10.45/-10.27	-9.33/-9.37	-10.21/-11.64
Θ(165°)	-16.91/-17.91	-17.76/-17.98	-18.46/-19.28	-18.61/-19.09	-18.21/-18.1	-17.75/-18.14	-18.41/-15.59	-13.59/-12.62	-12.73/-14.2	-16.65/-18.34	-18.82/-18.47	-19.07/-17.66	-18.55/-18.35	-16.87/-17.55	-18.3/-17.49	-18.49/-18.4	-18.95/-16.84	-13.07/-10.7	-9.5/-10.66	-11.67/-13.92	-13.35/-11.68	-10.71/-10.29	-9.96/-10.71	-13.01/-14.9
Θ(172.5°)	-15.68/-15.69	-15.01/-13.79	-13.15/-13.08	-13.29/-13.97	-14.81/-15.61	-15.83/-16	-15.99/-15.53	-15.62/-15.62	-16.35/-17.24	-17.35/-18.14	-18.95/-19.05	-18.57/-17.9	-19.04/-16.41	-17.77/-16.84	-16.62/-15.96	-14.31/-12.93	-11.42/-10.74	-10.28/-9.97	-10.06/-10.48	-11.2/-12.91	-11.99/-11.78	-12.13/-13.21	-13.34/-12.79	-12.95/-13.93
Θ(180°)	-17.46/-17.28	-17.26/-18.35	-18.11/-18.31	-18.74/-18.13	-18.53/-18.42	-18.44/-18.38	-18.53/-17.47	-19.16/-17.92	-18.79/-17.27	-18.4/-18.43	-18.47/-16.84	-16.43/-17.44	-14.85/-15.73	-16.43/-17.66	-18.84/-17.46	-17.51/-19.35	-16.84/-18.94	-17.47/-17.82	-19.05/-17.52	-16.94/-17.15	-17.94/-19.39	-18.11/-17.49	-18.75/-17.81	
Freq(Pol)	5.3GPol	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°)	2.19/-2.42	2.49/-2.51	2.35/-1.94	1.46/0.77	0.02/-0.91	-2.09/-3.68	-6.25/-10.19	-17.63/-19.23	-13.81/-8.62	-5.45/-3.05	-1.45/-0.21	7.05/-1.45	1.95/2.3	2.57/2.66	2.54/2.18	1.67/1.04	0.19/-0.94	-2.54/-4.74	-8.03/-13.13	-18.08/-15.54	-5.91/-5.84	-3.67/-1.84	-0.54/0.41	1.04/1.71
Θ(7.5°)	0.49/0.7	0.92/1.06	0.83/0.17	-0.64/-1.83	-3.12/-4.53	-5.8/-7.13	-9.15/-10.37	-18.03/-14.96	-12.92/-8.57	-5.53/-4.07	-1.37/-0.01	0.93/-1.67	2.21/2.65	2.82/2.86	2.67/2.15	1.60/0.94	0.14/-0.99	-2.65/-5.3	-8.69/-13.25	-17.49/-13.28	-8.46/-5.5	-3.67/-3.28	-1.29/-0.51	-0.12/0.26
Θ(15°)	-1.38/-1.43	-1.3/-1.41	-1.84/-2.69	-3.68/-4.5	-5.02/-5.46	-6.03/-7.17	-9.36/-12.04	-19.08/-18.96	-18.05/-12.39	-8.15/-6.46	-2.11/-0.45	0.55/1.13	1.57/1.93	2.09/1.92	1.35/0.56	-0.19/-1.04	-1.89/-2.99	-4.67/-7.23	-11.34/-18.32	-19.37/-15.52	-10.06/-6.5	-4.49/-3.46	-2.77/-2.1	-1.53/-1.26
Θ(22.5°)	-3.87/-4.56	-5/-5.59	-6.6/-7.47	-7.33/-6.72	-6.05/-5.77	-5.79/-6.26	-7.51/-9.87	-14.52/-17.73	-17.97/-16.14	-12.92/-8.35	-3.96/-1.34	-0.04/0.53	0.74/0.72	0.31/-0.52	-1.31/-1.72	-1.61/-1.2	-1.04/-1.39	-2.06/-3.39	-5.25/-7.81	-11.54/-16.98	-19.01/-15.86	-9.32/-6.51	-5.15/-4.12	-3.41/-3.3
Θ(30°)	-6.14/-8.38	-11.4/-13.64	-13.03/-10.71	-8.7/-4.1	-7.12/-7.07	-7.3/-8.18	-9.94/-12.72	-15.1/-16.11	-16.06/-15.54	-16.71/-15.5	-9.07/-4.54	-2.06/-1.07	-1.1/-1.63	-2.67/-3.56	-3.16/-2.39	-1.21/-0.53	-0.32/-0.29	-0.06/-0.26	-1.35/-3.29	-5.76/-8.55	-9.91/-11.46	-11.6/-8.17	-6.11/-5.59	
Θ(37.5°)	-4.93/-6.19	-10.59/-18.95	-17.93/-11	-8.39/-6.72	-6.39/-7.15	-8.77/-10.33	-11.67/-13.05	-16.13/-17.95	-14.32/-11.93	-14.86/-18.42	-13.63/-7.5	-4.29/-3.03	-3.16/-3.88	-5.01/-5.62	-4.63/-4.06	-3.11/-2.34	-0.91/0.86	1.94/-1.94	0.92/-1.09	-4.32/-6.42	-6.12/-5.38	-6.19/-13.29	-17.54/-11.45	-7.18/-5.66
Θ(45°)	-2.74/-3.4	-6.91/-14.46	-14.94/-8.69	-6.31/-5.3	-5.36/-6.48	-8.29/-11.31	-13.66/-14.21	-15.06/-14.01	-12.2/-9.34	-8.23/-12.2	-15.67/-9.78	-5.91/-4.66	-4.25/-5.09	-5.81/-6.11	-5.89/-5.33	-4.57/-3.06	-1.13/0.74	1.72/2.22	2.42/-7.2	-8.63/-5.08	-5.13/-3.04	-2.93/-4.34	-8.07/-15.79	-7.92/-4.26
Θ(52.5°)	-2.32/-3.49	-6.83/-12.52	-10.54/-6.72	-4.76/-4.17	-4.69/-5.67	-8.03/-10.46	-12.18/-12.91	-12.08/-9.71	-7.46/-6.67	-5.97/-9.66	-11.73/-8.78	-4.93/-4.4	-4.73/-4.77	-5.35/-3.42	-5.35/-5.15	-6.15/-5.33	-3.66/-1.81	-0.25/-1.16	1.77/-1.16	-0.52/-3.76	-6.54/-3.27	-2.14/-1.85	-4.71/-11	-7.63/-4.29
Θ(60°)	-2.78/-5.13	-6.57/-8.58	-6.39/-9.44	-4.53/-4.82	-5.17/-6.46	-7.83/-8.4	-8.63/-7.8	-6.77/-6.37	-6.32/-5.96	-6.55/-6.41	-7.87/-6.39	-4.47/-3.43	-4/-3.61	-2.92/-1.59	-3.15/-4	-7.53/-8.06	-5.65/-2.9	-2.12/-1.45	-0.62/0.5	0.39/-1.49	-3.88/-1.93	0.21/0.23	-1.3/-6.35	-5.73/-3.69
Θ(67.5°)	-3.09/-6.75	-8.51/-7.78	-5.37/-4.36	-4.3/-5.69	-7.29/-9.71	-9.62/-9.65	-8.82/-7.56	-6.42/-5.58	-5.44/-4.24	-4.97/-5.37	-6.35/-5.57	-3.94/-3.4	-4.22/-3.48	-2.31/-1.51	-3.93/-4.52	-10.88/-10.45	-5.44/-3.57	-2.87/-0.8	-0.04/0.68	1.5				



Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix A

Θ(67.5°)	-4.09/-3.1	-5.36/-10.54	-13.81/-11.61	-13.11/-7.45	-6.5/-7.78	-6.82/-4.79	-4.2/-4.6	-5.52/-5.06	-4.26/-4.64	-5.21/-5.03	-5.99/-6.61	-8.26/-11.95	-5.49/-7.47	-16.24/-14.83	-11.27/-8.81	-14.09/-10.81	-5.46/-2.81	-2.69/-2.28	-3.32/-3.06	-1.28/-0.22	-3.56/-5.23	-5.06/-9.87	-18.35/-17.03	-8.82/-5.92
Θ(75°)	-5.68/-3.04	-4.62/-10.99	-18.99/-11.41	-14.55/-9.21	-6.14/-6.12	-6.8/-5.43	-4.25/-5.29	-7.45/-7.82	-6.31/-5.92	-6.35/-6.6	-7.76/-7.41	-9.25/-12.38	-4.71/-7.24	-14.06/-12.14	-12.6/-12.6	-16.02/-7.01	-6.64/-7.83	-6.76/-3.93	-2.72/-2.78	-3.55/-1.48	-2.83/-8.28	-6.24/-9.66	-9.82/-15.64	-10.67/-7.37
Θ(82.5°)	-6.94/-3.55	-4.54/-12.99	-18.68/-12.72	-18.08/-10.5	-7.39/-7.23	-6.12/-6.65	-3.88/-7.23	-9.3/-7.12	-6.39/-8.03	-7.74/-7.77	-9.52/-6.69	-10.7/-10.41	-5.83/-9.53	-10.1/-10.38	-14.42/-16.44	-12.11/-7.2	-8.42/-11.66	-9.67/-7	-4.02/-2.4	-3.07/-3.34	-4.57/-10.09	-8.66/-5.27	-6.8/-16.04	-10.04/-8.8
Θ(90°)	-7.57/-4.33	-4.63/-10.79	-17.79/-14.14	-18.38/-18.11	-11.01/-9.32	-5.66/-3.56	-4.32/-6.22	-8.93/-9.46	-8.89/-8.78	-8.42/-9.01	-9.52/-7.86	-12.8/-14.91	-9.03/-12.7	-8.98/-11.01	-18.64/-17.65	-16.79/-8.81	-10.31/-12.69	-17.04/-11.88	-9.38/-3.7	-3.58/-5.43	-5.56/-9.01	-11.64/-9.46	-9.89/-14.24	-9.57/-8.82
Θ(97.5°)	-9.28/-4.46	-4.73/-9.47	-16.67/-13.3	-15.8/-8.1	-13.61/-8.61	-4.7/-2.34	-3.91/-8.1	-10.09/-12.4	-15.64/-13.39	-10.15/-11.72	-11.64/-9.91	-18.5/-13.82	-10.22/-8.06	-9.34/-17.67	-18.69/-18.45	-15.72/-9.19	-12.02/-13.25	-18.07/-15.07	-9.12/-2.84	-3.33/-4.59	-8.9/-11.45	-13.2/-10.39	-13.71/-18.67	-11.07/-8.3
Θ(105°)	-11.19/-6.59	-6.45/-7.92	-14.1/-12.28	-12.27/-13.74	-18.27/-11.02	-8.42/-4.1	-2.39/-4.01	-8.89/-18.41	-15.69/-13.43	-18.27/-11.82	-13.49/-18.06	-18.13/-15.3	-12.31/-9.57	-12.93/-14.96	-18.07/-17.5	-9.64/-8.59	-9.58/-9.37	-11.13/-18.01	-7.68/-6.33	-3.77/-4.86	-11.33/-13.24	-10.29/-12.98	-14.36/-18.75	-17.64/-12.85
Θ(112.5°)	-11/-8.95	-6.93/-8.62	-14.59/-18.43	-10.35/-8.12	-11.4/-13.96	-8.55/-6.01	-5.37/-6.33	-8.31/-7.97	-13.85/-16.08	-19.09/-15.93	-17.81/-17.18	-13.62/-17.84	-10.48/-12.34	-18.64/-10.72	-10.64/-18.94	-9.73/-8.94	-14.61/-3.82	-9.94/-18.9	-7.82/-2.9	-3.17/-4.29	-10.72/-18.45	-11.59/-12.72	-17.44/-17.33	-18.81/-14.23
Θ(120°)	-15.06/-15.23	-15.17/-10.78	-13.54/-18.34	-13.5/-9.24	-8.97/-13.88	-14.86/-9.53	-7.56/-8.27	-9.19/-13.73	-18.24/-18.53	-13.63/-11.35	-13.1/-10.63	-11.42/-18.2	-13.66/-14.33	-16.08/-7.85	-8.8/-16.95	-10.18/-12.44	-14.51/-5.26	-12.19/-16.01	-4.07/-3.83	-4.46/-14.95	-17.78/-18.84	-18.71/-10.39	-12.23/-18.64	-18.94/-15.96
Θ(127.5°)	-16.65/-11.8	-9.53/-10.72	-13.8/-14.74	-16.98/-12.16	-8.87/-7.65	-10.03/-12.57	-11.83/-11	-14.17/-18.58	-18.5/-19.14	-18.56/-17.34	-14.4/-9.77	-11.43/-18.03	-19.15/-15.02	-12.31/-7.52	-12.39/-18.36	-19/-10.24	-18.27/-6.08	-13.82/-18.24	-10.96/-11.04	-9.43/-18.5	-13.25/-17.74	-16.8/-7.37	-10.15/-12.32	-16.82/-18.9
Θ(135°)	-12.55/-10.28	-9.08/-10.56	-12.01/-19.26	-17.98/-11.19	-8.24/-6.3	-6.4/-9.48	-13.13/-16.92	-18.96/-13.98	-13.47/-18.43	-18.19/-17.91	-18.35/-16.04	-15.84/-17.72	-15.69/-10.24	-12.05/-18.69	-12.92/-7.67	-14.14/-18.08	-18.12/-11.27	-16.09/-17.54	-19.33/-15.64	-11.75/-18.99	-16.46/-18.56	-13.41/-15.32	-9.68/-18.29	-17.99/-13.04
Θ(142.5°)	-14.86/-16	-11.85/-14.33	-12.06/-13.3	-15.36/-17.47	-18.03/-15.03	-12.26/-11.38	-11.49/-11.23	-10.1/-11.18	-15.95/-17.78	-18.25/-18.7	-14.5/-13.38	-17.93/-18.55	-16.97/-11.15	-18.03/-15.92	-9.36/-9.97	-16.66/-16.15	-11.61/-17.89	-18.02/-15.9	-18.8/-19.12	-17.83/-17.73	-8.62/-9.44	-12.5/-16.82	-10.85/-12.98	-16.92/-19.08
Θ(150°)	-10.02/-9.82	-12.1/-16.26	-18.51/-11.02	-9.31/-9.14	-10.23/-12.43	-15.86/-18.48	-18.94/-17.61	-15.86/-15.52	-17.61/-19.09	-13.71/-10.06	-8.86/-8.76	-9.9/-11.55	-11.23/-11.42	-14.31/-19.53	-16.28/-12.81	-15.05/-17.92	-11.89/-9.32	-12.25/-16.36	-15.57/-18.5	-17.37/-11.73	-8.03/-8.59	-14.1/-16.56	-17.49/-16.59	-14.07/-13.08
Θ(157.5°)	-11.06/-9.22	-10/-11.85	-12.12/-16.11	-18.88/-18.24	-16.28/-16.15	-17.72/-17.89	-15.42/-14.05	-13.96/-15.84	-17.7/-18.33	-17.85/-14.34	-12.86/-12.52	-11.97/-12.43	-13.8/-15.71	-15.53/-13.03	-11.06/-12.6	-17.88/-17.39	-13.64/-13.63	-16.11/-18.78	-17.61/-18.39	-12.39/-9.66	-9.22/-10.27	-13.92/-18.46	-19.02/-16.64	-18.89/-16.11
Θ(162.5°)	-12.59/-11.42	-9.74/-7.88	-9.91/-16.8	-14.1/-14.26	-12.85/-11.82	-10.66/-10.53	-10.89/-11.64	-12.16/-13.73	-16.19/-18.24	-18.21/-18.53	-18.2/-17.44	-15.97/-15.3	-15.28/-15.6	-14.43/-13.12	-12.83/-15.01	-17.75/-18.8	-18.85/-18.7	-15.55/-16.95	-18.53/-17.29	-16.04/-16.03	-15.82/-16.82	-16.43/-16.81	-16.81/-14.89	-16.92/-19.08
Θ(172.5°)	-12.21/-9.86	-9.49/-9.88	-11.84/-13.18	-12.95/-12.67	-12.82/-12.16	-11.71/-11.48	-12/-13.81	-16.6/-17.97	-17.59/-17.99	-17.93/-18.38	-18.25/-18.18	-17.59/-18.06	-17.46/-17.84	-17.95/-18.35	-18.48/-18.45	-16.02/-13.44	-11.88/-11.03	-11.3/-12.41	-14.02/-16.34	-17.9/-18.87	-18.11/-19.26	-18.51/-17.91	-16.89/-16.29	-15.86/-14.82
Θ(180°)	-18.61/-15.15	-14.54/-15.04	-14.97/-15.63	-16.53/-17.75	-17.33/-16.26	-15.42/-14.32	-13.78/-15.05	-17.53/-18.54	-18.04/-17.34	-18.22/-17.85	-18.67/-18.52	-17.44/-18.4	-17.69/-17.51	-17.52/-18.97	-17.97/-18.85	-17.63/-16.16	-14.75/-13.8	-13.41/-13.13	-12.99/-12.9	-13.37/-15.24	-17.25/-18.38	-17.77/-18.9	-19.02/-18.54	-18.89/-18.34
Freq(Hz)	5.785GPol.	ThetaAnt. 2	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	1.88/-1.56	1.040/3	0.49/-0.09	-0.96/-2.21	-3.85/-6.02	-9.11/-14.24	-18.21/-18.03	-10.93/-7.24	-4.62/-2.73	-1.28/-0.23	0.47/-1.04	1.38/-1.53	1.71/-7.7	1.63/-1.21	0.63/-0.16	-0.99/-2.12	-3.86/-6.62	-10.81/-17.93	-18.65/-12.12	-8.14/-5.51	-3.58/-1.91	-0.880/0.7	0.92/-1.56	1.96/-1.99
Θ(7.5°)	1.63/-1.4	0.780/0.7	-0.31/-0.62	-1.07/-1.43	-2.16/-3.28	-5.04/-7.22	-10.33/-16	-18.79/-17.71	-10.9/-7.2	-4.71/-2.95	-1.67/-0.56	0.180/5.4	0.790/7.4	0.650/4.5	0.07/-0.4	-0.89/-1.68	-2.76/-2.49	-5.84/-7.45	-8.82/-8.94	-8.39/-6.77	-4.92/-3.27	-1.85/-0.52	0.51/-1.	1.56/-1.8
Θ(15°)	-0.10/-2	-0.56/-1.24	-1.74/-1.93	-2.05/-2.3	-3.05/-3.89	-4.78/-5.78	-7.01/-8.54	-10.08/-11.52	-12.45/-12.06	-10.53/-8.71	-6.87/-9.41	-3.88/-1.97	-0.780/2.9	1.13/-1.58	1.54/-1.11	0.41/-0.38	-1.26/-2.14	-3.29/-4.7	-6.96/-10.76	-16.92/-17.07	-9.67/-11.74	-5.17/-3.29	-1.88/-0.69	-1.88/-0.69
Θ(22.5°)	-4.11/-2.99	-2.83/-2.85	-2.42/-3.11	-4.68/-7.41	-6.68/-8.83	-8.16/-8.37	-9.07/-10.88	-11.2/-9.53	-7.51/-6.37	-5.37/-5.07	-6.18/-7.09	-6.46/-4.52	-1.570/8.1	1.59/-1.15	0.03/-1.22	-2.15/-2.31	-2.06/-2.07	-2.73/-3.75	-5.5/-8.04	-14.53/-15.63	-7.43/-4.28	-3.21/-3.44	-4.07/-5	-6.51/-6.4
Θ(30°)	-13.15/-8.19	-6.06/-4.26	-3.17/-4.65	-7.47/-10.17	-11.1/-10.7	-9.45/-8.36	-8.33/-9.93	-12.64/-11.53	-10.05/-7.05	-5.44/-3.5	-3.48/-5.27	-4.88/-4.26	-3.23/-0.97	-0.66/-2.3	-3.45/-2.52	-1.61/-0.72	-0.14/-0.06	-0.12/-0.44	-1.55/-3.69	-6.09/-14.09	-13.16/-6.02	-2.73/-1.68	-2.26/-3.13	-5.45/-9.97
Θ(37.5°)	-12.95/-18.14	-9.63/-6.13	-5.28/-6.76	-9.08/-11.75	-11.56/-7.7	-4.27/-2.56	-2.81/-4.22	-6.55/-7.35	-7.9/-7.26	-7.35/-9.14	-6.68/-7.48	-2.63/-1.79	-2.31/-2.52	-3.47/-3.98	-2.86/-1.47	-1.56/-1.45	-1.17/-0.58	0.040/5.3	-0.4/-1.78	-3.83/-6.24	-8.16/-13.67	-19.08/-10.54	-10.43/-8.18	-7.54/-8.17
Θ(45°)	-6.99/-8.46	-8.3/-8.46	-4.08/-5.57	-8.35/-13.48	-11.85/-6.99	-3.8/-2.48	-2.52/-3.69	-5.33/-6.88	-1.71/-3.37	-5.98/-6.57	-8.6/-6.65	-1.770/3.	-0.173/-3.04	-3.78/-4.15	-3.2/-2.02	-1.69/-0.88	-0.610/26	0.970/7.1	0.42/-0.29	-0.93/-0.64	-0.71/-0.99	-19.98/-6.25	-10.91/-15.79	-17.49/-7.6
Θ(52.5°)	-6.02/-5.52	-5.41/-2.09	-1.43/-2.18	-5.29/-7.9	-5.65/-3.35	-2.06/-2.22	-3.17/-4.31	-4.88/-5.64	-6.21/-5.4	-3.95/-3.4	-5.97/-6.51	-1.020/3.	-0.41/-3.08	-1.32/-2.71	-2.33/-2.44	-2/-3.23	-4.57/-2.17	-1.1/-1.1	-1.83/-2.14	-2.21/-0.82	1.372/3.7	1.220/3.	-2.52/-3.28	-7.59/-7.28
Θ(60°)	-4.27/-3.24	-2.93/-7.07	-0.76/-1.18	-4.87/-5.2	-4.21/-2.23	-1.78/-2.96	-5.26/-6.51	-6.71/-6.4	-6.63/-6.48	-3.84/-1.52	-3.14/-5.99	-3.11/-7.1	-1.38/-2.04	-0.58/-4.21	-4.39/-4.95	-2.7/-6.75	-2.230/36	-0.35/-1.91	-2.12/-1.83	0.912/5.8	1.250/7.3	-0.76/-0.89	-3.29/-4.27	-3.29/-4.27
Θ(67.5°)	-3.21/-4.07	-3.41/-2.1	-1.44/-3	-5.05/-3.77	-2.42/-0.96	-1.68/-4.28	-10.06/-12.47	-10.13/-4.7	-6.09/-6.31	-4.22/-1.82	-2.99/-4.99	-4.78/-1.69	-0.560/23.	-1.28/-6.3	-6.14/-3.02	-4.97/-5.39	-0.65/-2.72	1.88/-1.85	2.05/-1.84	1.04/-0.35	0.871/95	0.49/-0.08	-1.14/-0.01	-1.95/-2.58
Θ(75°)	-1.89/-2.27	-2.39/-3.21	-2.77/-5.71	-5.84/-4.36	-2.07/-1.06	-2.87/-6.36	-11.44/-15.81	-11.74/-6.92	-4.14/-4.51	-3.94/-3.	-3.21/-6.24	-7.63/-0.58	0.82/-1.38	-3.45/-7.61	-3.24/-3.02	-6.72/-4.92	1.233/0.7	2.593/2.7	3.573/0.6	1.85/-0.8	-0.60/86	0.06/-1.38	-3.25/-1.48	-2/-4.08
Θ(82.5°)	-2.3/-1.25	-1.88/-3.24	-3.33/-7.05	-8.02/-7.17	-3.27/-2.35	-3.52/-5.96	-9.85/-14.04	-14.24/-10.15	-5.78/-5.6	-4.29/-3.67	-3.36/-8.15	-7.860/4.2	0.88/-1.11	-4.79/-3.42	-1.97/-3.87	-10.17/-3.88	1.592/35	2.15/-1.44	2.032/28	1.8/-1.1	-2.14/-0.21	-1.15/-1.92	-3.54/-3.4	-1.56/-4.94
Θ(90°)	-4.65/-1.63	-2.99/-3.58	-5.12/-5.99	-6.92/-8.81	-4.12/-2.69	-3.34/-6.88	-13.88/-17.59	-16.16/-11.63	-5.96/-6.26	-7.64/-5.45	-3.33/-6.7	-6.43/-1.73	-0.13/-3.74	-3.93/-2.53	-3.16/-6.92	-7.36/-2.99	0.49/-1.55	-1.33/-2.17	-0.730/9	2.08/-1.37	-3.99/-1.14	-2.8/-2.2	-3.25/-5.55	-2.44/-5.63
Θ(97.5°)	-8.03/-1.55	-2.47/-3.47	-6.02/-6.22	-5.81/-7.88	-5.6/-6.02	-4.84/-5.24	-8.69/-10.87	-13.52/-11.1	-8.05/-9.92	-8.1/-5.1	-4.73/-6.72	-4.25/-3.28	-3.36/-3.97	-3.46/-5.25	-6/-11.43	-7.58/-4.72	-2.38/-0.9	-4.53/-5.83	-3.22/-0.57	1.53/-1.95	-6.97/-3.17	-3.86/-2.73	-3.72/-5.91	-4.47/-6.18
Θ(105°)	-8.98/-5.57	-4.4/-3.18	-6.3/-5.66	-6.84/-5.96	-7.36/-5.44	-6.82/-5.72	-10.87/-13.3	-10.32/-8.32	-10.49/-13.82	-5.94/-3.99	-6.65/-9.42	-7.05/-6.37	-2.83/-3.22	-4.05/-11.6	-8.83/-10.17	-11.56/-6.58	-10.75/-9.1	-4.43/-6.98	-8.8/-4.55	-1.14/-3.4	-11.45/-8.64	-4.82/-5.46	-6.04/-7.16	-10.3/-9.33
Θ(112.5°)	-8.65/-8.71	-5.24/-4.28	-5.35/-6.47	-5.28/-5.08	-5.74/-6.48	-7.57/-7.16	-5.32/-4.14	-4.09/-4.61	-7.44/-6.58	-5.28/-8.96	-1.71/-9.67	-8.83/-8.58	-3.75/-4.6	-11.7/-13.21	-8.88/-6.52	-13.43/-17.83	-11.05/-10.89	-4.28/-6.49	-9.44/-7.82	-4.8/-4.6	-10.33/-11.99</			



Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix A

Θ(120°)	-13.23/-16.81	-14.19/-17.9	-15.11/-9.91	-12.08/-17.63	-11.11/-10.04	-18.78/-18.82	-14.35/-18.54	-18.92/-13.83	-8.43/-5.29	-4.76/-4.77	-7.66/-6.8	-5.6/-6.29	-11.17/-18.9	-13.05/-14.19	-7.62/-12.3	-17.54/-11.19	-11.51/-8.95	-6.09/-5.58	-10.2/-12.77	-5.79/-4.32	-15.22/-10.53	-13.72/-13.23	-18.84/-17.53	-10.39/-17
Θ(127.5°)	-14.65/-18.14	-15.28/-19.03	-17.78/-15.69	-12.95/-15.74	-14.46/-13.46	-16.32/-17.21	-14.75/-14.57	-14.38/-11.04	-9.14/-9.27	-9.22/-12	-11.41/-9.4	-8.2/-9.55	-14.5/-13.4	-18.98/-12.17	-10.23/-10.47	-19.14/-10.48	-16.16/-7.86	-6.43/-6.35	-14.49/-13.2	-7.23/-9.41	-11.34/-14.08	-12.34/-14.12	-15.1/-17.68	-12.97/-11.22
Θ(135°)	-11.32/-16.17	-18.17/-14.37	-12.61/-9.33	-12.81/-9.33	-12.86/-10.64	-13.46/-10.46	-11.44/-14.93	-11.76/-10.24	-8.53/-7.45	-8.41/-8.08	-7.77/-8.89	-6.5/-14.39	-18.14/-16.58	-15.52/-19	-17.83/-18.47	-17.22/-12.81	-15.39/-8	-10.62/-13.35	-18.62/-10.97	-8.72/-10.43	-18.64/-14.51	-11.95/-9.77	-10.68/-17.39	-17.53/-13.32
Θ(142.5°)	-10.8/-10.32	-16.41/-18.48	-16.58/-9.74	-7.38/-8.58	-14.22/-16.84	-13.48/-12.59	-12.95/-13.91	-12.98/-9.61	-6.88/-5.78	-5.62/-6.47	-7.53/-8.08	-11.21/-16.7	-18.34/-18.4	-18.59/-18.96	-14.71/-14.8	-14.9/-18.93	-14.18/-10.66	-13.94/-19.28	-18.84/-12.32	-9.57/-13.48	-17.54/-15.95	-14.09/-12.11	-9.95/-12.33	-17.81/-17.36
Θ(150°)	-17.35/-11.53	-11.43/-13.82	-14.8/-10.7	-7.65/-7.59	-10.98/-16.66	-14.18/-8.88	-8.61/-9.57	-12.23/-18.66	-12.79/-11.17	-9.54/-8.87	-8.74/-13.7	-13.46/-16.46	-17.74/-14.89	-19.49/-14.77	-14.63/-17.3	-18.32/-14.55	-11.03/-9.9	-11.13/-13.81	-16.58/-15.36	-13.25/-15.72	-17.87/-13.49	-8.96/-1.95	-7.93/-9.31	-12.99/-18.55
Θ(157.5°)	-18.73/-15.33	-14.25/-13.15	-11.52/-10.3	-9.86/-11.04	-14.03/-19.03	-18.19/-14.69	-12.76/-12.54	-13.57/-13.77	-14.45/-14.62	-13.52/-11.86	-10.06/-10.32	-12.16/-13.52	-12.65/-12.98	-14.09/-17.87	-14.59/-19.06	-16.68/-15.64	-13.95/-12.88	-13.76/-16.7	-19.22/-18.59	-16.47/-17.52	-17.82/-17.63	-16.1/-14.87	-12.94/-11.46	-12.84/-18.56
Θ(165°)	-15.1/-13.15	-13.19/-14.88	-15.08/-13.8	-12.82/-12.68	-13.85/-16.68	-16.92/-14.08	-11.64/-10.04	-9.39/-8.79	-8.04/-7.32	-6.92/-6.63	-6.43/-6.4	-6.71/-7.29	-8.39/-10.19	-13.72/-15.89	-14.61/-13.46	-13.43/-14.86	-16.83/-18.53	-17.51/-18	-19/-18.95	-18.65/-18.55	-16.51/-14.43	-13.3/-13.53	-14.77/-17.04	-18.91/-17.75
Θ(172.5°)	-11.47/-11.4	-11.25/-11.59	-11.4/-11.27	-11.35/-11.88	-12.02/-12.01	-12.2/-12.22	-11.14/-10.32	-10.03/-8.9	-9.27/-8.97	-9.29/-9.95	-10.37/-11.36	-12.75/-14.35	-16.67/-17.85	-17.73/-18.5	-18.45/-18.08	-18.18/-18.82	-18.95/-18.64	-18.2/-15.56	-13.66/-12.84	-12.49/-12.47	-12.8/-13.46	-14.96/-18.37	-17.66/-18.01	-16.34/-12.6
Θ(180°)	-12.36/-13.23	-14.06/-14.69	-14.53/-14.38	-14.4/-15.39	-17.15/-18.19	-18.31/-18.63	-18.57/-17.6	-17/-16.72	-16.76/-16.78	-17.35/-18.51	-17.5/-18.91	-18.43/-17.58	-18.39/-18.42	-18.85/-18.03	-19.31/-18.45	-19.26/-17.78	-17.54/-17.48	-18.64/-17.67	-17.9/-16.37	-14.47/-13.02	-11.76/-10.85	-10.36/-10.7	-11.38/-12.07	
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°)	-18.38/-11.39	-7.28/-6.51	-4.38/-3.18	-1.87/-0.9	-0.48/-0.04	0.4/0.7	0.65/0.56	0.44/0.09	-0.47/-1.39	-2.51/-3.97	-6.15/-9.42	-13.74/-18.18	-18.66/-11.03	-7.32/-4.9	-3.21/-1.98	-0.80/-16	0.73/0.1	0.92/0.5	-0.05/-0.74	-1.46/-2.44	-3.58/-5.33	-7.64/-10.88	-14.97/-17.47	
Θ(7.5°)	-15.68/-9.9	-6.31/-4.66	-3.82/-3.04	-1.82/-1.07	-0.64/-0.34	-0.05/0.11	0.08/-0.34	-0.82/-1.53	-2.33/-3.39	-4.24/-5.33	-7.25/-10.84	-16.86/-18.05	-14.23/-8.53	-5.13/-2.98	-1.43/-0.11	1.05/1.85	2.24/2.25	2.07/1.85	1.38/0.58	-0.39/-1.55	-2.77/-3.94	-5.39/-7.31	-9.59/-12.79	-15.67/-17.8
Θ(15°)	-16.29/-10.63	-6.98/-5.01	-4.11/-3.44	-2.56/-1.99	-1.45/-0.92	-0.62/-0.52	-0.85/-1.25	-1.76/-2.53	-3.6/-4.81	-5.92/-7.3	-9.42/-12.45	-17.28/-19.04	-14.13/-8.67	-5.34/-3.09	-1.46/0.1	1.31/2.15	2.62/2.75	2.73/2.55	2.28/1.82	1.29/0.56	-0.36/-1.67	-3.66/-6.32	-8.92/-14.1	-17.76/-18
Θ(22.5°)	-18.14/-16.54	-10.49/-7.34	-5.53/-4.65	-4.12/-3.8	-3.45/-2.78	-2.3/-2.1	-2.21/-2.2	-2.51/-3.13	-3.88/-4.94	-6.62/-8.31	-10.26/-12.92	-14.98/-17.55	-17.12/-10.72	-6.93/-4.57	-2.7/-1.09	0.19/0.89	1.1/1.04	1.22/1.59	1.99/2.21	2.17/1.83	1.21/0.27	-1.2/-3.1	-5.76/-8.33	-10.52/-15.25
Θ(30°)	-11.04/-18.33	-18.53/-13.08	-11.53/-11.01	-9.83/-8.69	-7.85/-7.13	-6.23/-5.24	-4.49/-3.72	-3.2/-3.03	-3.27/-3.94	-5.23/-6.67	-7.6/-8.43	-9.4/-11.85	-18.85/-15.78	-11.17/-8.91	-6.63/-4.66	-3.48/-3.23	-2.88/-1.67	-1.11/-0.95	-0.78/-0.09	0.47/0.76	0.7/0.53	0.18/-0.76	-2.41/-4.81	-6.68/-8.26
Θ(37.5°)	-6.88/-6.86	-18.03/-17.17	-18.82/-17.32	-17.45/-16.34	-13.54/-11.55	-9.58/-7.71	-6.32/-6.43	-3.55/-3.19	-3.09/-3.28	-4.25/-5.47	-4.91/-4.85	-6.23/-8.81	-15.98/-16.73	-13.63/-12.4	-10.21/-9.86	-9.65/-10.92	-4.1/-3.09	-2.92/-2.01	-1.28/-1.36	-1.71/-167	-1.51/-11.7	-0.76/-4.74	-1.27/-2.23	-4.16/-6.26
Θ(45°)	-5.55/-5.51	-6.1/-7.33	-8.27/-11.44	-15.1/-18.64	-18.27/-14.48	-11.83/-10.6	-9.21/-6.45	-4.54/-3.43	-3.15/-3.09	-3.38/-4.39	-4.2/-3.43	-10.17/-8.57	-13.41/-12.08	-13.61/-14.01	-10.61/-7.94	-8.19/-6.76	-5.23/4	-3.07/-2.6	-3/-3.93	-3.75/-2.29	-0.86/-0.44	-0.67/-1.49	-3.39/-4.66	
Θ(52.5°)	-3.86/-3.08	-3.3/-3.45	-4.4/-6.54	-10.38/-17.54	-15.96/-11.23	-7.75/-6.65	-6.27/-5.37	-4.47/-3.63	-3.02/-2.99	-3.27/-3.67	-3.57/-3.27	-3.5/-6.59	-8.34/-10.18	-14.14/-18.69	-13.11/-12.47	-14.19/-13.32	-10.95/-7.24	-5.73/-4.07	-3.26/-4.3	-6.62/-7.78	-5.6/-3.25	-0.97/-0.58	-1.01/-1.38	-1.86/-3.22
Θ(60°)	-2.34/-2.02	-2.27/-2.32	-2.76/-3.83	-7.23/-9.2	-8.93/-6.87	-6.03/-6.58	-5.77/-5.97	-5.08/-3.9	-3.19/-2.9	-3.34/-3.83	-3.41/-3.62	-4.05/-5.96	-8.27/-10.4	-10.31/-10.7	-12.59/-13.67	-14.75/-16.2	-2.95/-2.22	-2.29/-2.66	-4.54/-5.36	-4.18/-2.96	-1.53/-0.88	-0.38/-0.95	-0.74/-1.27	
Θ(67.5°)	-2.03/-2.01	-2.23/-2.14	-2.58/-2.62	-5.53/-6.47	-6.8/-6.27	-6.78/-5.68	-5.23/-5.45	-6.43/-5.29	-4.12/-3.63	-3.45/-4.41	-3.62/-3.8	-4.34/-4.91	-5.34/-5.75	-8.81/-13.46	-10.36/-8.4	-10.34/-12.93	-8.54/-2.67	-0.56/-0.85	-1.26/-1.78	-2.02/-2.28	-2.56/-1.85	-0.84/-0.46	-0.38/-1.17	
Θ(75°)	-4.38/-4.41	-2.83/-2.7	-3.27/-2.03	-2.89/-4.6	-3.94/-4.69	-6.63/-5.51	-4.5/-5.24	-7.01/-6.33	-4.36/-3.75	-3.14/-4.89	-4.62/-4.81	-4.3/-6.34	-5.83/-5.83	-6.09/-8.58	-9.46/-9.99	-11.91/-9.97	-5.56/-1.11	1.16/0.25	-0.31/-0.94	-0.91/-1.17	-2.25/-2.84	-2.35/-2.2	-1.37/-1.36	-0.92/-3
Θ(82.5°)	-6.58/-6.22	-3.22/-2.45	-3.83/-3.18	-2.97/-3.48	-2.87/-4.98	-7.09/-6.16	-4.12/-4.26	-6.93/-7.83	-5.67/-5.2	-4.18/-5.58	-5.32/-5.8	-4.97/-9.12	-7.82/-7.98	-6.16/-9.8	-9/-9.62	-10.36/-9.08	-5.58/-3.11	1.01/0.3	-0.71/-122	-0.35/-1.95	-3.35/-3.65	-2.58/-2.6	-3.27/-3.91	-3.93/-4.63
Θ(90°)	-6.56/-6.4	-3.3/-1.3	-3.36/-4.64	-4.56/-5.88	-4.05/-5.22	-6.96/-8.25	-5.9/-4.53	-6.02/-8.93	-7.88/-6.46	-4.75/-6.76	-7.44/-9.02	-6.92/-11.57	-7.05/-7.58	-5.64/-9.6	-10.65/-9.67	-8.74/-7.11	-6.81/-3.11	-0.21/-1.68	-2.15/-2.55	-1.38/-1.47	-6.25/-6.26	-4.35/-4.54	-5.03/-6.59	-9.94/-6.81
Θ(97.5°)	-5.09/-4.62	-3.9/-1.76	-3.86/-7.09	-5.71/-6.67	-4.36/-5.28	-5.73/-7.65	-5.46/-3.95	-4.49/-6.87	-6.59/-8.27	-6.45/-8.14	-10.63/-16.14	-13.38/-15.06	-7.83/-7.19	-5.94/-9.58	-11.96/-9.78	-8.64/-8.27	-9.47/-4.25	-7.28/-4.74	-6.68/-4.19	-4.01/-8.04	-7.19/-6.88	-7.09/-7.06	-9.51/-13.19	-16.88/-6.57
Θ(105°)	-5.54/-3.7	-5.41/-3.48	-4.45/-6.17	-7.82/-10.5	-6.35/-6.54	-5.57/-5.05	-5.12/-4.88	-4.96/-6.14	-8.14/-8.54	-6.23/-6.65	-8.66/-15.67	-16.67/-12.51	-7.47/-6.1	-5.53/-4.79	-12.15/-11.37	-7.9/-1.8	-13.95/-8.57	-6.57/-9.41	-7.84/-6.63	-10.57/-10.64	-6.91/-7.74	-8.79/-8.26	-10.06/-11.35	-13.87/-6.73
Θ(112.5°)	-7.14/-4.15	-6.51/-6.6	-7.12/-6.18	-6.94/-7.54	-6.8/-7.8	-7.12/-5.4	-4.84/-5.99	-7.34/-9.87	-10.95/-9.96	-8.56/-6.22	-8.65/-12.1	-15.98/-10.78	-9.35/-6.7	-6.95/-11.09	-9.31/-8.56	-10.33/-12.69	-14.75/-12.7	-8.3/-8.34	-5.8/-6.28	-14.81/-9.36	-9.51/-7.36	-9.51/-8.39	-9.45/-8.9	-9.9/-6.47
Θ(120°)	-9.97/-5.63	-5.34/-7.37	-12.96/-8.46	-7.8/-7.35	-6.22/-6.38	-8.6/-9	-6.5/-16	-6.82/-9.17	-10.57/-13.79	-10.84/-8.1	-9.43/-13.29	-13.03/-11.06	-8.27/-18	-7.72/-8.68	-9.54/-10.81	-18.01/-15.86	-18.54/-16.06	-6.22/-6.69	-6/-11.66	-19.22/-10.34	-7.89/-16.08	-1.006/-9	-6.68/-7.83	-8.42/-8.29
Θ(127.5°)	-7.98/-6.18	-5.72/-7.02	-11.42/-14.11	-8.94/-8.16	-7.36/-7.08	-8.1/-9.79	-8.7/-8.65	-5.7/-5.8	-7.26/-9.33	-14.12/-17.58	-15.61/-13.78	-9.43/-10.48	-7.14/-7.65	-8.19/-6.56	-11.61/-18.56	-11.14/-10.32	-13.08/-14.19	-10.87/-13.25	-14.74/-18.4	-9.01/-8.78	-12.64/-16.15	-16.13/-13.23	-10.85/-8.71	-8.72/-5.27
Θ(135°)	-10.05/-11.71	-7.85/-7.85	-11.79/-18.23	-16.59/-10.81	-10.14/-8.71	-8.06/-8.99	-9.8/-8.66	-7.31/-6.8	-7.02/-8.84	-12.66/-14.12	-18.3/-15.48	-11.38/-11.21	-8.34/-8.08	-9.66/-14.25	-15.6/-18	-9.99/-9.2	-10.5/-10.7	-19.12/-18	-19.31/-12.66	-8.46/-7.79	-10.7/-11.11	-12.61/-18.06	-14.04/-14.99	-11.31/-8.15
Θ(142.5°)	-12.07/-14.49	-15.24/-16.31	-17.75/-18.1	-18.03/-16.84	-15.44/-14.31	-11.84/-11	-10.56/-9.67	-9.37/-10.34	-12.39/-15.3	-18.13/-18.03	-17.41/-12.1	-11.95/-10.64	-7.64/-8.63	-13.36/-13.1	-18.22/-17.53	-11.5/-11.78	-12.31/-13.95	-17.69/-16.55	-10.98/-8.21	-8.02/-8.62	-10.14/-12.11	-13.25/-13.48	-11.06/-13.19	-14.42/-11.72
Θ(150°)	-18.03/-17.63	-18.57/-19.07	-19.3/-19.07	-17.73/-15.4	-14.07/-13.31	-13.95/-13.82	-12.46/-11.36	-11.03/-12.45	-14.32/-14.04	-13.42/-13.93	-16.18/-16.12	-12.75/-9.46	-8.89/-11.28	-13.22/-14.2	-15.5/-13.82	-16.59/-18.21	-14.93/-14.2	-17.17/-17.78	-18.99/-18.63	-14.76/-11.91	-12.54/-14.43	-15.61/-18.78	-17.72/-17.57	-16.74/-16.58
Θ(157.5°)	-18.42/-17.94	-15.64/-13.74	-16.55/-18.25	-18.89/-14.86	-13.3/-13.23	-14.44/-15.65	-15.95/-14.33	-12.07/-10.19	-8.21/-9.34	-10.26/-11.92	-12.65/-12.87	-12.13/-11.62	-12.08/-13.01	-13.81/-14.46	-15.29/-16.8	-18.83/-15.64	-13.84/-15.51	-18.41/-18.65	-17.98/-18.25	-18.6/-18.08	-17.89/-17.69	-18.32/-17.49	-17.32/-17.07	-14.84/-14.87
Θ(165°)	-16.19/-19.08	-18.43/-17.94	-18.83/-17.23	-15.85/-13.61	-11.31/-9.98	-9.27/-9.58	-10.42/-11.51	-11.45/-11.2	-11.09/-10.86	-11.14/-11.46	-11.91/-12.45	-12.35/-12.1	-11.39/-11.22	-11.39/-12.59	-14.92/-18.17	-17.29/-17.42	-18.44/-17.59	-15.81/-13.28						



Radiated Composite Gain of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix A

Θ(157.5°)	-18.52/-16.21	-14.86/-11.85	-11/-10.57	-10.61/-13.09	-19/-17.31	-12.52/-9.83	-9.33/-10.9	-14.43/-17.68	-19.11/-16.73	-13.65/-11.56	-10.56/-10.39	-10.61/-12.13	-16.14/-18.06	-18.79/-15.71	-12.08/-12.19	-12.84/-12.04	-11.39/-11.63	-13.2/-15.31	-18.95/-18.43	-19.02/-17.48	-14.17/-14.12	-18.83/-14.3	-10.17/-9.83	-12.03/-18.27
Θ(165°)	-12.36/-11.33	-11/-12.06	-12.94/-14.7	-17.91/-19.26	-19/-18.16	-17.7/-15.99	-13.83/-12.58	-11.7/-11.15	-11.04/-10.59	-9.55/-8.51	-7.89/-7.38	-7.25/-8	-9.47/-12.61	-16.73/-13.94	-10.08/-8.41	-7.75/-8.34	-9.9/-13.53	-18.68/-18.01	-18.09/-17.78	-18.32/-18.12	-18.15/-18.23	-17.47/-14.96	-16.72/-18.62	-18.79/-15.87
Θ(172.5°)	-9/8.7	-9.14/-10.14	-11.61/-12.12	-13.34/-15.19	-18.12/-18.07	-18.55/-16.86	-12.95/-11.14	-10.68/-10.34	-10.01/-9.48	-8.25/-7.21	-6.39/-7.88	-12.16/-13.03	-13.45/-12.1	-10.89/-10.48	-10.59/-11.92	-14.6/-18.25	-18.88/-19.07	-17.75/-18.69	-17.99/-18.75	-18.17/-16.79	-15.04/-14.63	-12.28/-10.92	-10.42/-9.69	
Θ(180°)	-12.9/-12.9	-13.65/-13.27	-12.58/-12.31	-12.44/-12.11	-12.19/-12.28	-12.48/-12.7	-11.7/-11.76	-12.12/-11.97	-12.35/-13.08	-14.76/-16.61	-18.31/-17.95	-17.45/-18.52	-18.84/-18.36	-18.56/-19.2	-18.18/-16.15	-14.56/-13.67	-12.22/-12.14	-13.14/-14.05	-14.79/-14.31	-15.49/-15.16	-13.25/-12.02	-10.89/-10.66	-10.44/-11.36	-13.12/-13.42
Freq(Hz)	5.6GPol.	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°)	-5.45/-3.85	-2.04/-0.9	-0.240/0.2	0.62/0.12	1.13/1.07	0.87/0.7	0.32/0.38	-1.17/-2.15	-3.5/-5.41	-7.99/-10.96	-12.37/-10.83	-8.93/-7.33	-5.61/-3.99	-2.67/-1.41	-0.53/0.12	0.57/0.88	1.04/1.05	0.89/0.67	0.3/-0.15	-1.05/-2.15	-3.62/-5.33	-7.57/-9.65	-10.36/-9.53	-8.33/-7.2
Θ(7.5°)	-6.18/-4.73	-2.8/-1.26	-0.480/0.1	0.44/0.77	0.81/0.73	0.55/0.24	-0.28/-1.06	-1.7/-2.59	-3.7/-5.04	-6.67/-9.12	-13.55/-17.31	-14.47/-11.29	-9.52/-8.54	-7.01/-4.97	-3.06/-1.43	-0.11/0.75	1.35/1.51	1.61/1.53	1.51/-2.6	0.84/0.15	-0.78/-1.85	-3.12/-4.6	-6.53/-8.91	-9.29/-8.06
Θ(15°)	-11.68/-7.6	-5.33/-3.69	-3.09/-2.54	-1.98/-1.8	-2/-2.29	-2.28/-2.57	-2.53/-2.88	-3.15/-3.87	-4.64/-5.34	-6.25/-7.33	-8.92/-9.78	-9.21/-8.59	-10.08/-15.18	-16.09/-8.56	-4.11/-1.48	0.22/1.12	1.45/1.57	1.71/2.05	2.06/1.83	1.49/0.91	0.17/-0.7	-1.79/-2.9	-5.15/-9.33	-17.76/-18.65
Θ(22.5°)	-6.79/-4.69	-4.4/-3.92	-3.63/-4.2	-4.88/-5.71	-6.95/-7.15	-7.31/-6.8	-5.71/-4.94	-3.85/-3.43	-3.44/-4.23	-5.62/-7.65	-9.79/-9.34	-7.09/-6.63	-8.14/-12.73	-17.2/-9.02	-4.8/-2.88	-1.63/-1.04	-0.44/0.46	1.52/2.01	2.34/-2.28	2.25/1.79	1.07/-0.3	-1.99/-3.53	-5.18/-7.47	-9.27/-10.13
Θ(30°)	-7.32/-5.21	-4.1/-1.11	-4.48/-5.29	-6.99/-9.09	-10.28/-12.52	-14.42/-14.31	-10.87/-7.86	-5.57/-3.68	-2.38/-2.26	-3.29/-4.8	-6.77/-8.38	-8.82/-10.41	-14.18/-15.69	-11.21/-7.06	-5.14/-5.36	-6.71/-6.91	-4.25/-1.89	-0.39/0.37	0.55/0.95	0.96/0.89	0.76/0.39	-1.17/-3.94	-6.74/-7.89	-6.52/-7.48
Θ(37.5°)	-9.88/-8.49	-7.78/-8.98	-9.49/-9.56	-10.33/-9.01	-8.31/-8.95	-12.13/-15.37	-13.4/-8.56	-4.89/-2.57	-1.01/-0.71	-1.25/-2.11	-3.52/-5.22	-7.99/-13.59	-17.34/-11.76	-7/-6.72	-7.48/-10.19	-17.73/-13.7	-6.86/-3.28	-1.32/-1.23	-1.25/-1.31	-1.53/-2.11	-3.2/-3.44	-2.86/-3.44	-4.18/-5.94	-7.36/-8.34
Θ(45°)	-5.27/-5.78	-7.73/-11.5	-18.82/-18.95	-11.85/-7.88	-7.1/-8.31	-9.59/-9.12	-8.07/-6.58	-4.92/-3.65	-2.32/-1.62	-2.36/-2.82	-3.42/-3.72	-4.33/-6.93	-11.34/-12.13	-9.02/-9.36	-11.68/-12.77	-17.97/-13.32	-5.82/-2.3	-1.71/-2.19	-2.37/-3	-2.85/-2.16	-1.92/-1.57	-0.33/-0.03	-0.69/-2.23	-3.61/-4.83
Θ(52.5°)	-0.8/-0.77	-2.3/-3.43	-7.39/-11.98	-5.9/-3.12	-3.27/-5.34	-6.36/-4.03	-3.12/-4.12	-5.72/-5.78	-4.79/-3.04	-3.08/-3.48	-3.21/-2.8	-3.16/-5.63	-9.48/-15.87	-18.16/-13.41	-15.26/-18.31	-18.3/-8.92	-3.77/-1.97	-2.37/-4.27	-5.47/-3.32	-2.63/-2.78	-2.1/-0.46	1.23/2.19	2.07/0.06	-1.38/-1.59
Θ(60°)	0.62/0.28	-0.42/-0.99	-3.87/-6.16	-1.55/0.24	-0.21/-3.95	-7.21/-3.93	-2.16/-3.26	-6.24/-6.7	-5.88/-5.67	-4.64/-4.73	-3.74/-3.14	-3.22/-5.71	-9.9/-19.01	-15.84/-9.38	-12.53/-16.17	-10/-3.56	-2.09/-1.14	-2.92/-5.77	-4.75/-2.48	-2.99/-3.28	-2.17/0.09	2.25/2.92	2.81/3.1	0.34/0.04
Θ(67.5°)	0.19/0.28	-0.68/-0.2	-1.51/-3.73	-0.48/-1.42	0.98/-3.17	-9.37/-4.39	-1.82/-2.14	-5.95/-8.24	-6.23/-6.05	-5.87/-6	-4.46/-3.34	-2.6/-5.19	-7.88/-16.41	-9.05/-8.53	-17.7/-9.54	-4.84/-2.41	-2.14/-1.67	-3.38/-2.17	-0.74/-0.05	-3.15/-5.01	-2.34/-0.57	1.22/2	2.81/8.5	0.71/0.71
Θ(75°)	-0.66/-0.53	-3.15/-1.74	-1.05/-3.07	-0.18/-1.64	1.08/-2.77	-7.65/-4.94	-2.36/-2.61	-5.79/-8.63	-7.7/-6.29	-6.93/-6.68	-5.64/-3.61	-3.15/-4.92	-8.44/-10.55	-6.51/-8.9	-12.17/-6.85	-5.39/-2.42	-0.52/0.2	0.56/1.73	1.65/0.21	-1.24/-1.22	-0.53/0.14	0.67/1.51	2.47/2.35	0.84/1.09
Θ(82.5°)	-3.17/-1.14	-5.28/-3.79	-0.92/-1.56	-1.41/0.88	-0.37/-4.77	-7.45/-4.62	-2.53/-2.25	-4.08/-5.64	-6.01/-5.69	-7.59/-7.98	-6.27/-3.62	-4.43/-7.4	-6.68/-7.31	-7.11/-8.3	-7.11/-6.34	-6.11/-2.61	-0.76/0.48	2.63/1.09	2.43/0.95	0.89/0.6	-0.25/-0.47	0.81/4.7	2.13/2.23	-0.49/0.16
Θ(90°)	-7.35/-3.43	-4.69/-4.17	-2.04/-1.76	-1.17/0.09	-1.34/-5.87	-5.92/-2.47	-1.47/-2.44	-4.28/-5.41	-6.38/-9.1	-12.13/-6.41	-5.1/-2.42	-5.6/-7.18	-7.32/-9.87	-3.25/-5.37	-5.9/-7.61	-7.25/-3.89	-2.52/0.14	2.79/2.57	1.99/0.35	1.23/0.28	-1.3/-3.27	-0.98/0.06	0.42/-0.22	-2.28/-2.46
Θ(97.5°)	-8.68/-3.67	-3.9/-4.57	-3.54/-2.06	-3.23/-1.96	-2.38/-5.98	-7.17/-2.17	-0.89/-2.71	-7.43/-7.78	-8/-9.99	-9.77/-6.05	-5.87/-4.19	-7.47/-12.1	-5.77/-9.79	-2.12/-6.9	-8.86/-8.17	-5.7/-6.73	-5.64/-1.76	-0.69/-1.14	-0.93/-3.09	-1.34/-5.03	-6.94/-7.44	-3.29/-2.16	-2.1/-4.32	-5.98/-6
Θ(105°)	-5.08/-5	-4.89/-4.19	-3.99/-4.65	-5.36/-3.49	-3.01/-4.51	-9.99/-4.7	-1.74/-3.14	-7.89/-9.96	-10.08/-9.28	-10.72/-8.98	-8.55/-5.48	-6.74/-9.21	-8.01/-6.46	-3.51/-6.42	-11.43/-5.86	-4.41/-10.96	-9.11/-5.55	-6.55/-4.42	-4.38/-4.28	-5.53/-10.59	-9.79/-8.83	-5.12/-3.73	-6.83/-15.03	-16.23/-7.61
Θ(112.5°)	-4.27/-4.28	-6.13/-7.48	-5.61/-4.92	-6.15/-7.57	-6.33/-5.92	-6.37/-5.24	-2.6/-1.96	-3.5/-6.88	-8.43/-8.23	-7.26/-7.18	-7.26/-6.89	-11.01/-16.76	-7.63/-4.77	-6.51/-5.62	-10.9/-4.91	-5.31/-18.08	-10.51/-7.23	-17.26/-8.4	-9.55/-6.79	-10.02/-8.39	-5.51/-6.69	-3.88/-4.4	-11.45/-14.46	-14.3/-13.81
Θ(120°)	-4.16/-3.87	-5.56/-8.31	-6.46/-4.71	-4.79/-4.92	-8.24/-9.12	-7.86/-5.65	-4.14/-3.36	-4.98/-7.85	-9.5/-6.39	-5.2/-5.93	-9.17/-11.05	-17.87/-11.6	-8.59/-3.86	-6.67/-4.22	-8.65/-5.09	-6.63/-8.11	-16.32/-17.66	-7.1/-4.89	-1.55/-5.18	-6.15/-9.87	-6.78/-7.56	-7.04/-9.26	-8.69/-8.49	-9.24/-7.8
Θ(127.5°)	-6.24/-2.76	-3.96/-7	-15/-9.22	-8.79/-7.15	-9.41/-9.81	-8.77/-63	-4.19/-3.74	-5.1/-7.6	-8.56/-7.44	-6.99/-7.92	-11.31/-15.08	-14.37/-7	-3.09/-2.12	-5.25/-6.71	-9.9/-6.4	-11.43/-12.97	-10.87/-8.83	-6.51/-9.11	-11.03/-15.02	-12.54/-7.2	-10.5/-18.07	-6.78/-7.65	-6.72/-7.69	-5.83/-5.59
Θ(135°)	-7.42/-5.3	-5.67/-8.15	-13.87/-18.39	-12.39/-9.65	-8.44/-8.26	-8.54/-7.78	-6.05/-5.07	-5.24/-7.07	-10.57/-11.66	-10.45/-12.7	-13.84/-18.71	-9.51/-6.18	-4.65/-4.31	-10.99/-9.04	-8.8/-6.77	-13.71/-9.08	-10.56/-8.16	-8.75/-10.48	-9.7/-10.99	-9.49/-6.45	-9.24/-15.92	-17.62/-17.94	-11.92/-9.14	-6.49/-4.95
Θ(142.5°)	-10.64/-11.97	-12.03/-11.91	-15.09/-18.04	-13.97/-17.13	-12.08/-8.72	-7.74/-7.81	-7.49/-6.97	-7.33/-7.84	-1.33/-13.8	-15.58/-17.86	-18.57/-15.6	-10.26/-9.94	-11.35/-10.93	-13.1/-8.74	-5.51/-9.85	-9.7/-9.1	-7.06/-7.33	-6.66/-12.53	-10.08/-7.1	-6.05/-6.27	-6.51/-9.38	-11.71/-10.52	-10.52/-12.3	-9.24/-7.8
Θ(150°)	-16.11/-16.52	-17.2/-18.18	-17.94/-18.8	-19.51/-16.35	-14.31/-14.18	-13.09/-10.89	-8.83/-7.55	-7.33/-9.14	-13.35/-17.79	-17.22/-18.25	-18.91/-15.51	-14.86/-14.5	-10.57/-9.91	-11.9/-9.15	-9.67/-12.36	-11.25/-13.98	-14.04/-10.88	-13.81/-17.76	-18.12/-16.91	-18.12/-16.91	-16.88/-18.27	-17.26/-13.35	-11.21/-12.58	
Θ(157.5°)	-13.57/-14.93	-17.19/-18.97	-17.96/-19.3	-17.45/-13.22	-10.82/-8.11	-7.1/-6.56	-6.67/-6.61	-6.55/-7.33	-9.49/-11.96	-13.3/-15.2	-17.31/-16.51	-12.34/-9.62	-8.57/-9.4	-10.12/-9.08	-8.57/-8.82	-9.71/-9.93	-9.51/-9.77	-12.12/-16.86	-18/-18.4	-15.8/-13.32	-12.51/-11.92	-12.1/-13.85	-17.9/-18.36	-18.41/-14.89
Θ(165°)	-17.96/-19.09	-18.48/-18.81	-18.19/-14.28	-12.58/-10.46	-9.87/-9.75	-10.67/-12.36	-13.59/-14.23	-13.64/-11.59	-10.35/-10.17	-10.81/-13.19	-16.04/-15.43	-12.95/-10.95	-9.21/-8.71	-7.04/-7.38	-9.33/-13.5	-18.02/-19.05	-18.48/-18.41	-14.02/-10.48	-9.01/-7.97	-8.27/-8.77	-9.76/-11.81	-1.41/-5.52	-14.24/-13.49	-14.49/-15.66
Θ(172.5°)	-17.78/-14.86	-14.04/-13.59	-12.43/-12.07	-12.46/-12.03	-10.82/-9.63	-8.63/-8.62	-9.02/-9.81	-10.85/-11.5	-11.63/-11.82	-11.78/-12.59	-14.12/-14.59	-13.15/-11.56	-10.89/-11.28	-13.06/-16.89	-17.94/-18.93	-14.57/-11.61	-10.77/-10.65	-10.55/-11.06	-12.42/-15.29	-18.67/-17.98	-18.28/-18.17	-17.89/-19.16	-18.9/-17.77	-18.19/-18.81
Θ(180°)	-12.8/-12.59	-13.14/-12.47	-11.28/-11.05	-12.02/-12.89	-12.62/-11.67	-11.37/-11.66	-12.77/-13.86	-15.53/-16.23	-15.78/-14.52	-12.61/-11.75	-13.27/-11.89	-12.15/-12.05	-12.02/-12.02	-12.17/-12.54	-12.3/-12.16	-11.67/-11.98	-13.55/-16.5	-18.8/-18.57	-16.11/-13.75	-11.58/-10.48	-10.06/-10.16	-10.77/-12.06	-13.11/-13.3	-13.82/-13.49
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°)	-1.17/-2.26	-3.83/-5.48	-7.21/-9.92	-15.58/-17.7	-18.96/-12.9	-9.01/-6.8	-5.08/-3.76	-2.64/-1.79	-1.09/-0.49	0.02/0.34	0.36/0.14	-0.18/-0.74	-1.66/-2.89	-4.5/-6.18	-8.28/-11.3	-16.58/-18.78	-17.86/-12.22	-8.84/-5.79	-4.03/-2.81	-1.9/-1.02	-0.38/0.16	0.32/0.13	-0.28/-0.08	-0.07/-0.57
Θ(7.5°)	-1.41/-2.37	-4.36/-6.23	-8.53/-12	-17.88/-17.4	-13.44/-9.22	-6.82/-4.9	-3.57/-2.8	-																



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Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.46	3.21	4.02	4.34
Ant. 2 Max Gain (dBi)	5.41	5.51	4.75	4.05
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/60/45	Theta/37.5/202.5	Theta/37.5/315	Theta/75/315
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/45/315	Theta/75/292.5	Theta/37.5/307.5	Theta/30/307.5
Max Gain (dBi)	5.41	5.51	4.75	4.34
DG [1SS] (dBi)	7.13	7.06	7.32	6.06
DG [2SS] (dBi)	5.41	5.51	4.75	4.34



Radiated Composite Gain of Radio 0 (6GHz)

Appendix B

DG 1SS Result

Freq(Hz)	6.175GPol.	PhiL	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
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°)	-2.1/-1.67	-2.14/-2.22	-2.47/-2.22	-2.94/-3.34	-3.51/-4.11	-3.68/-4.32	-2.49/-3.75	-4.77/-4.45	-3.82/-3.37	-3.09/-2.75	-2.11/-1.16	-0.74/-0.47	-0.55/-0.77	-0.97/-0.97	-1.31/-2.02	-2.85/-3.27	-3.43/-4.25	-4.28/-3.99	-4.31/-5.37	-5.31/-6.53	-4.82/-3.06	-2.26/-2.34	-2.32/-1.9	
Θ(7.5°)	-2.69/-2.25	-1.92/-1.4	-1.79/-2.01	-2.41/-2.96	-3.6/-3.72	-3.71/-3.94	-3.94/-4.12	-4.23/-4.25	-4.27/-3.65	-3.02/-2.51	-2.08/-1.49	-0.95/-0.58	-0.68/-0.64	-1.23/-1.25	-1.49/-2.25	-3.52/-4.64	-4.94/-5.36	-5.74/-6.08	-6.93/-7.86	-8.17/-7.99	-7.94/-7.78	-7.21/-7.46	-2.99/-2.42	-2.43/-2.57
Θ(15°)	-1.66/-1.75	-1.6/-1.94	-2.62/-2.85	-2.95/-3.36	-3.73/-4.59	-5.68/-5.41	-6.19/-6.98	-6.87/-6.57	-5.05/-3.39	-2.24/-0.23	-2.02/-0.26	-1.34/-0.98	-1.08/-1.64	-2.05/-2.36	-3.04/-3.37	-3.72/-4.28	-4.87/-4.67	-3.76/-3.78	-4.28/-5.39	-7.44/-9.25	-9.16/-8.46	-6.57/-4.15	-3.11/-2.68	-2.22/-1.8
Θ(22.5°)	-1.64/-3.28	-4.7/-5.88	-5.85/-5.17	-4.29/-3.69	-3.81/-4.87	-4.98/-5.3	-5.83/-5.07	-3.96/-2.14	-1.13/-1.63	-2.91/-3.76	-3.68/-2.38	-1.16/-0.85	-1.16/-1.82	-2.22/-2.06	-1.74/-1.66	-1.94/-2.74	-4.23/-4.82	-4.21/-3.44	-5.81/-10.5	-12.89/-6.86	-2.46/-0.96	-0.79/-1.17	-1.06/-1.2	
Θ(30°)	-2.96/-5.24	-7.24/-6.91	-6.79/-6.86	-5.5/-3.77	-3.48/-4.36	-5.85/-5.84	-5.46/-2.88	-0.69/0.01	0.24/-0.37	-1.96/-3.98	-5.92/-4.62	-1.18/0.23	-0.23/-1.62	-2.54/-1.8	-0.39/-0.13	-1.06/-2.65	-5.5/-7.36	-6.27/-4.78	-4.13/-4.63	-5.66/-6.7	-6.94/-4.6	-1.57/-0.09	-0.05/-1.05	-1.45/-2.09
Θ(37.5°)	-4.03/-4.07	-3.38/-4.1	-3.94/-5.13	-7.01/-4.63	-2.91/-3.2	-6.07/-9.15	-7.35/-3.06	-0.69/-0.17	-1.18/-2.26	-1.91/-1.57	-2.73/-4.04	-2.01/-0.54	-0.05/-0.5	-1.57/-1.08	-0.18/-1.61	-3.8/-5.1	-8.12/-9.33	-7.86/-7.03	-6.34/-7.57	-6.01/-6.5	-5.24/-3.98	-1.53/0.46	0.31/-0.88	-2.34/-4.05
Θ(45°)	-2.84/-0.74	-0.67/-1.87	-2.62/-3.21	-5.28/-6.05	-5.02/-4.68	-5.89/-5.54	-4.74/-3.78	-2.21/-0.7	-1.91/-3.7	-3.41/-1.8	-2.13/-2.53	-1.47/-1.02	-0.67/-0.65	-1.99/-2.95	-2.9/-4.93	-6.51/-7.01	-9.08/-10.09	-12.89/-8.44	-6.86/-6.75	-5.9/-5.3	-4.31/-3.82	-3.44/-1.36	-1.46/-3.58	-4.08/-3.86
Θ(52.5°)	-1.07/0.05	-1.49/-3.96	-2.55/-3.68	-6.78/-6.48	-7.21/-7.55	-7.58/-5.18	-3.2/-3.66	-3.92/-2.54	-2.88/-7.18	-7.06/-4.91	-3.52/-3.66	-1.77/-1.13	-1.45/-1.3	-2.21/-4.63	-5.8/-7.29	-10.21/-8.17	-7.24/-7.59	-9.98/-10.27	-7/-5.99	-6.66/-7.15	-5.93/-5.99	-5.78/-3.59	-1.47/-2.36	-2.31/-2.71
Θ(60°)	-3.09/-2.8	-5.85/-7.92	-5.61/-6.02	-5.54/-7.08	-9/-7.64	-1.75/-1.04	-5.16/-5.3	-4.14/-8.08	-12.26/-9.09	-4.36/-4.94	-2.76/-2.23	-3.34/-3.4	-5.04/-8.7	-6.84/-7.49	-8.78/-6.98	-5.39/-4.4	-8.63/-13.19	-7.92/-8.55	-7.68/-6.48	-6.47/-8.71	-8.85/-5.12	-4.68/-3.93	-2.26/-3.92	
Θ(67.5°)	-5.92/-6.4	-11.61/-8.84	-8.79/-12.82	-9.07/-9.5	-9.34/-5.89	-4.96/-10.89	-3.16/-1.15	-4.85/-6.42	-5.41/-10.92	-14.01/-10.96	-4.22/-5.28	-3.68/-4.89	-5.58/-5.56	-10.5/-12.7	-11.2/-8.7	-10.64/-6.93	-5.53/-4.03	-7.97/-11.08	-6.99/-8.45	-8.49/-7.45	-8.43/-10.04	-8.95/-6.34	-4.96/-6.32	-5.73/-6.17
Θ(75°)	-9.84/-8.45	-7.23/-6.18	-7.08/-11.74	-15.78/-12.06	-10.37/-7.12	-3.37/-7.12	-5.57/-2.6	-5.26/-6.65	-7.78/-10.8	-13.55/-12.33	-6.55/-8.59	-6.29/-6.41	-9.22/-7.69	-10.52/-15.26	-10.51/-8.83	-9.32/-10.58	-6.84/-5.42	-8.88/-10.43	-7.78/-7.13	-8.5/-10.03	-11.04/-9.08	-6.94/-4.93	-3.74/-8.06	-13.38/-9.94
Θ(82.5°)	-14.75/-7.71	-4.91/-5.09	-7.18/-10.86	-12.62/-10.43	-8.64/-12.81	-6.59/-9.08	-6.52/-4.65	-9.59/-8.84	-10.39/-11.02	-11.12/-13.38	-8.13/-8.97	-6.7/-8.37	-13.41/-10.95	-13.58/-14.97	-10.56/-10.5	-10.58/-10.5	-8.82/-8.19	-9.71/-9.38	-7.56/-8.67	-11.51/-11.21	-10.56/-8.71	-8.93/-11.22	-7.62/-8.35	-14.1/-14.98
Θ(90°)	-11.81/-7.1	-5.65/-6.71	-8.52/-10.87	-13.04/-10.57	-7.46/-10.28	-9.09/-9.3	-8.44/-7.6	-8.5/-10.36	-10.26/-14.32	-9.78/-14.32	-8.59/-8.08	-10.21/-6.19	-13.43/-8.34	-11.46/-13.91	-9.82/-9.88	-11.45/-10.98	-10.55/-12.41	-12.85/-11.73	-8.31/-8.55	-13.65/-9.05	-7.95/-11.67	-12.88/-11.09	-6.72/-5.17	-12.35/-12.57
Θ(97.5°)	-15.24/-7.92	-7.5/-6.52	-9.71/-12.3	-9.92/-15.34	-10.84/-10.05	-13.37/-9.67	-9.64/-11.19	-12.35/-12.75	-7.8/-15.12	-7.91/-13.63	-8.51/-10.06	-8.8/-8.09	-9.96/-8.37	-14.47/-11.54	-15.02/-10.52	-9.55/-11.16	-11.43/-15.38	-13.84/-13.21	-10.74/-9.98	-13.82/-7.93	-11.47/-14.23	-7.3/-10	-6.4/-6.21	-8.1/-11.14
Θ(105°)	-13.71/-10.28	-9.16/-10.29	-16.05/-14.24	-10.94/-11.87	-6.01/-7.01	-15.11/-8.92	-10.07/-10.6	-4.71/-9.54	-7.19/-9.57	-10.88/-9.98	-10.17/-10.64	-10.77/-9.74	-11.06/-9.02	-11.13/-12.75	-14.49/-13.14	-12.78/-13.14	-13.06/-12.23	-13.06/-7.86	-10.34/-15.14	-10.33/-11.16	-7.57/-7.6	-1.35/-9.27	-8.31/-6.68	
Θ(112.5°)	-13.73/-10.98	-8.36/-9.81	-15.55/-14.16	-8.98/-8.24	-13.55/-11.71	-9.8/-9.7	-8.23/-12.02	-9.36/-13.44	-10.37/-12.66	-11.37/-12.78	-11.44/-7.18	-7.32/-9.09	-14.28/-9.19	-11.44/-10.96	-8.9/-10.17	-9.39/-6.69	-10.05/-11.69	-10.7/-7.7	-13.57/-9.65	-6.08/-9.26	-5.64/-7.37	-11.61/-8.02		
Θ(120°)	-12.54/-12.83	-8.26/-8.89	-10.1/-13.47	-8.58/-7.83	-6.24/-8.21	-10.41/-9.2	-10.73/-12.21	-11.86/-9.56	-6.71/-6.13	-9.96/-13.52	-10.31/-12.03	-14.96/-14.93	-14.18/-7.34	-7.14/-10.19	-13.05/-11.15	-8.94/-11.38	-6.68/-10.4	-9.99/-12.06	-12.65/-16.03	-11.59/-9.85	-13.14/-7.4	-7.65/-7.48	-5.96/-8.11	-8.85/-10.16
Θ(127.5°)	-10.26/-12.63	-11.72/-8.15	-9.86/-9.71	-9.66/-9.03	-6.55/-6.95	-8.14/-6.49	-10.08/-10.87	-6.57/-6.62	-13.32/-13.72	-10.47/-14.6	-12.01/-9.61	-15.43/-13.54	-14.12/-10.86	-8.82/-13.6	-9.26/-5.06	-12.45/-6.66	-8.21/-15.25	-9.34/-10.73	-13.99/-15.96	-12.63/-8.98	-14.23/-11.46	-8.47/-8.25	-12.57/-12.3	-12.34/-10.73
Θ(135°)	-8.05/-10.79	-12.51/-9.97	-8.59/-12.5	-12.43/-11.72	-12.59/-11.26	-8.04/-5.37	-7.27/-15.45	-9.67/-3.7	-12.08/-15.51	-12.46/-14.5	-6.11/-7.89	-11.66/-11.89	-11.3/-10.4	-8.71/-11.53	-11.73/-13.69	-7.101/-7.83	-13.77/-14.51	-14.88/-15.01	-15.08/-14.67	-9.84/-9.53	-9.75/-8.49	-15.17/-15.54	-11.77/-8.57	
Θ(142.5°)	-9.92/-11.8	-12.12/-11.79	-11.44/-12.02	-10.72/-11.81	-15.19/-12.54	-8.89/-10.78	-13.78/-12.13	-9.62/-10.05	-14.04/-15.11	-15.7/-12.89	-9.24/-8.62	-15.67/-12.99	-14.92/-14.38	-12.45/-11.32	-14.19/-13.68	-11.18/-15.3	-14.91/-12.09	-8.88/-12.94	-12.6/-13.92	-12.96/-11.01	-13.7/-6.54	-7.21/-8.18	-7.86/-8.66	-10.81/-14.77
Θ(150°)	-11.36/-11.4	-14.29/-15.58	-15.72/-15.21	-15.85/-10.97	-7.53/-6.65	-7.08/-9.35	-13.51/-15.59	-14.04/-13.66	-13.35/-13.21	-11.65/-10.93	-10.77/-10.81	-12.19/-11.09	-9.56/-10.46	-8.9/-8.54	-11.15/-11.4	-11.68/-8.46	-8.37/-14.39	-15.33/-15.46	-12.87/-13.75	-13.84/-11.44	-14.8/-15.13	-12.55/-12.98	-15.45/-14.96	-14.58/-12.97
Θ(157.5°)	-9.87/-15.16	-15.18/-13.53	-12.58/-10.74	-8.63/-7.76	-7.5/-8.37	-10/-13.8	-15.61/-15.88	-15.34/-16.01	-14.52/-13.09	-11.05/-9.12	-10.15/-13.27	-12.08/-11.63	-11.54/-10.77	-10.83/-10.02	-8.02/-8.54	-8.61/-7.22	-7.5/-9.63	-13.18/-12.59	-11.93/-11.76	-11.59/-11.34	-11.15/-10.85	-11.11/-13.61	-14.48/-9.82	-7.76/-7.46
Θ(165°)	-10.06/-9.23	-8.57/-8.87	-10.37/-10.8	-10.62/-11.12	-11.48/-12.46	-15.63/-15.82	-15.53/-15.13	-15.19/-15.56	-14.56/-13.82	-14.56/-13.04	-11.64/-11.38	-11.63/-10.25	-10.81/-7.06	-6.45/-6.08	-6.14/-5.81	-9.4/-9.73	-5.74/-7.94	-8.95/-9.15	-9.08/-9.06	-8.89/-8.77	-7.82/-8.57	-10.8/-12.12	-1.135/-9.27	-9.21/-9.74
Θ(172.5°)	-8.59/-4.4	-11.81/-13.09	-15.52/-13.78	-12.47/-12.56	-12.56/-12.44	-12.12/-11.53	-13.17/-14.44	-15.24/-14.57	-14.49/-15.45	-14.96/-15.4	-15.23/-14.9	-12.58/-11.55	-9.98/-9.13	-8.36/-8.25	-8.1/-8.32	-8.25/-8.26	-8.22/-9.1	-10.31/-11.41	-13.48/-14.58	-14.17/-12.88	-12.4/-12.87	-13.05/-13	-12.69/-11.34	-9.41/-8.56
Θ(180°)	-14/-14.52	-16.03/-13.61	-12.33/-13.78	-11.81/-13.04	-14.09/-15.47	-15.6/-15.44	-15.26/-15.42	-14.87/-14.89	-15.12/-15.84	-15.27/-15.73	-16.31/-15.29	-14/-12.73	-12.26/-11.93	-12.45/-13.19	-13.61/-13.03	-12.97/-13.48	-13.23/-12.25	-12.55/-13.45	-14.16/-14.13	-16.01/-15.53	-14.67/-13.57	-12.28/-11.79	-12.3/-12.99	-14.61/-14.69
Freq(Hz)	6.175GPol.	ThetaL	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
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°)	-5.18/-5.48	-4.92/-4.4	-4.54/-4.52	-4.02/-3.16	-2.43/-1.83	-1.39/-1.13	-1.1/-1.5	-1.61/-1.81	-1.74/-1.97	-2.73/-3.28	-3.87/-4.29	-4.21/-4.41	-4.82/-5.25	-5.34/-5.22	-4.84/-4.57	-3.95/-2.52	-1.88/-1.48	-1.29/-1.2	-0.82/-0.84	-0.57/-0.71	-1.33/-2.26	-3.05/-2.87	-3.06/-3.66	-4.26/-4.92
Θ(7.5°)	-2.78/-4.03	-5.51/-6.48	-7.17/-8.27	-8.77/-8.95	-7.57/-6.38	-5.49/-4.84	-4.59/-4.55	-4.73/-5.19	-5.72/-5.61	-5.21/-4.48	-3.83/-3.46	-2.98/-2.56	-2.28/-1.97	-1.49/-0.97	-0.44/0.13	0.821/-4.9	2.09/2.14	1.69/1.73	1.71/1.58	1.09/1.43	0.05/-0.32	-0.47/-0.83	-1.42/-2.39	
Θ(15°)	-0.64/-1.68	-2.75/-3.48	-4.03/-4.47	-5.85/-7	-7.8/-8.69	-8.33/-9.19	-7.62/-7.62	-7.73/-8.73	-9.88/-8.04	-6.31/-4.74	-3.38/-2.28	-1.21/-0.3	0.13/0.15	-0.06/0.13	0.84/1.75	2.52/0.1	2.36/3.17	2.81/2.71	2.76/2.67	2.31/1.79	1.49/0.98	0.74/0.55	0.27/0.26	0.14/-0.19
Θ(22.5°)	0.89/0.12	-0.71/-96	-2.9/-4.4	-6.63/-7.39	-7.68/-8.28	-9.14/-9.96	-10.61/-10.96	-9.87/-7.8	-5.05/-3.62	-3.44/-3.16	-2.21/-0.57	0.92/1.8	1.89/1.12	0.05/0.44	2.08/3.73	4.524/7.8	4.954/8.9	4.714/55	4.344/26	3.96/3.76	3.41/3.16	2.922/25	1.571/28	1.371/33
Θ(30°)	1.911/35	0.28/-0.94	-1.84/-1.41	-1.44/-1.9	-2.74/-4.18	-6.19/-7.3	-6.54/-6.3	-3.04/-1.4	-0.03/0.31	0.34/0.26	-0.39/0.17	1.622/7.8	2.761/8.2	0.891/91	4.375/9	6.24/22	5.925/45	5.124/97	4.834/77	4.764/95	5.25/49	5.394/57	3.31/25	1.961/99
Θ(37.5°)	1.691/75	1.511/47	2.29/26	1.14/-0.08	-0.94/-2.79	-5.53/-5.3	-6.2/-3.9	-1.12/0.16	0.34/0.54	2.06/2.99	1.981/27	2.41/3.35	3.03/2.99	3.364/17	5.7/6.82	6.79/6.29	5.554/82	4.27/3.						



Radiated Composite Gain of Radio 0 (6GHz)

Appendix B

Θ(22.5°)	-2.46/-3.81	-6.82/-7.53	-5.97/-4.3	-4.06/-4.34	-5.28/-5.25	-4.91/-4.87	-5.03/-5.36	-6.2/-5.86	-5.02/-5.12	-5.24/-5.26	-4.63/-3.86	-2.93/-2.41	-1.66/-1.05	-1.15/-1.61	-2.62/-3.96	-5.93/-8.42	-9.53/-9	-8.58/-7.1	-5.15/-4.02	-3.93/-4.57	-5.63/-6.2	-7.46/-7	-4.76/-2.83	-2.07/-2.16
Θ(30°)	-1.5/-3.79	-5.09/-5.01	-5.6/-6.09	-6.31/-5.77	-5.82/-5.25	-5.2/-5.25	-5.49/-4.76	-3.56/-3.31	-4.17/-6.34	-8.69/-8.95	-7.08/-4.7	-3.11/-2.6	-2.05/-1.16	-1.08/-1.65	-2.55/-4.76	-7.61/-8.19	-8.76/-10.92	-11.59/-8.92	-6.64/-5.18	-4.17/-4.55	-5.63/-6.64	-6.17/-5.41	-5.31/-3.1	-1.34/-0.85
Θ(42.5°)	-1.98/-3.35	-5.27/-7.7	-6.69/-5.38	-6.2/-5.84	-5.25/-3.94	-4.13/-5.92	-6.69/-4.35	-2/-1.69	-2.71/-5.48	-8.9/-8.43	-8.06/-5.25	-1.89/-0.73	-1.36/-1.56	-1.21/-1.6	-2.94/-5.16	-8.48/-8.22	-8.37/-10.31	-13.99/-13.86	-8.41/-6.76	-5.41/-5.82	-6.56/-6.48	-6.33/-3.82	-1.82/-1.02	-0.88/-1.38
Θ(45°)	-5.3/-5.31	-5.59/-6.95	-6.79/-6.6	-5.99/-7.07	-8.14/-6.95	-4.41/-5.63	-7.12/-4.68	-1.89/-1.34	-3.19/-6.29	-5.65/-4.88	-5.19/-6.72	-3.89/-1.77	-2.31/-2.31	-1.21/-1.48	-3.48/-5.79	-10.46/-10.53	-9.41/-10.65	-11.73/-14.83	-13.47/-7.7	-7.2/-8.71	-12.91/-10.32	-4.27/-1.9	-0.050/-12	-0.96/-3.03
Θ(52.5°)	-4.87/-4.63	-5.72/-6.79	-5.72/-7.31	-5.52/-4.59	-6.52/-7.99	-4.81/-3.13	-4.44/-4.8	-2.98/-3.96	-5.76/-6.59	-5.59/-5.09	-4.15/-5.11	-3.89/-2.9	-4.12/-4.77	-4.48/-3.75	-3.96/-6.81	-13.21/-13.34	-11.14/-7.69	-8.18/-11.84	-11.76/-8.87	-9.4/-13.24	-12.49/-9.83	-4.39/-3.04	-2.42/-2.17	-2.86/-4.31
Θ(60°)	-3.87/-2.44	-3.3/-6.32	-4.99/-5.27	-5.22/-6.06	-7.55/-8.1	-4.55/-3.37	-3.57/-3.54	-2.9/-4.79	-8.42/-11.01	-10.06/-7.41	-5.04/-3.4	-4.53/-4.15	-3.75/-5.36	-6.55/-5.31	-7.64/-9.45	-12.33/-11.56	-8.79/-6.29	-5.99/-11.54	-12.78/-9.63	-14.99/-10.16	-8.62/-8.04	-5.2/-6.13	-5.78/-5.95	-3.85/-3.74
Θ(67.5°)	-4.54/-3.46	-3.35/-5.48	-6.62/-6.79	-8.42/-7.82	-8.39/-7.47	-6.65/-4.53	-3.47/-3.75	-5.04/-5.96	-11/-14.97	-15.82/-11.88	-7.36/-4.55	-5.39/-6.49	-5.9/-7.41	-9.12/-9.07	-10.31/-13.03	-9.34/-9.89	-8.5/-5.72	-7.22/-11.78	-14.22/-9.28	-13.23/-7.49	-7.3/-9.89	-7.51/-8.3	-8.45/-5.23	-3.89/-3.84
Θ(75°)	-6.4/-3.49	-5.86/-5.85	-7.83/-8.73	-10.6/-9.49	-7.32/-10.05	-9.36/-6.7	-6.3/-6.06	-11.94/-11.71	-11.55/-16.07	-15.16/-13.12	-10.57/-7.61	-6.6/-9.14	-9.14/-10.19	-12.94/-10.15	-13.13/-8.79	-7.13/-10.64	-9.64/-6.37	-7.67/-12.53	-10.26/-7.42	-12.98/-8.41	-8.13/-13.74	-9.97/-14.75	-12.21/-11	-9.12/-8.63
Θ(82.5°)	-5.97/-4.16	-6.72/-7.27	-7.54/-10.85	-14.18/-12.52	-7.65/-9.61	-10.03/-7.65	-8.68/-6.69	-7.84/-11.73	-13.43/-12.08	-14.93/-11.15	-9.36/-11.56	-7.02/-10.27	-7.63/-14.62	-14.22/-15.92	-12.44/-7.72	-6.77/-11.65	-10.67/-8.55	-9.35/-14.51	-14.21/-9.01	-10.75/-9.59	-7.12/-11.65	-12.06/-15.17	-15.7/-13.22	-12.65/-10.47
Θ(90°)	-6.7/-5.05	-7.47/-8.08	-7.71/-11.66	-15.28/-15.84	-9.18/-8.8	-10.33/-10.06	-8.15/-11.41	-5.51/-10.3	-10.21/-12.49	-12.46/-12.32	-5.64/-10	-6.92/-9.84	-10.14/-13.19	-14.23/-14.11	-14.15/-11.39	-9.67/-13.49	-11.34/-10.9	-12.28/-13.58	-15.05/-12.93	-11.53/-12.06	-7.19/-10.89	-12.89/-14.79	-11.73/-11.47	-11.54/-10.27
Θ(97.5°)	-5.69/-6.03	-6.85/-10.06	-9.81/-15.04	-14.62/-15.7	-10.24/-11.96	-11.16/-12.19	-8.12/-10.17	-6.1/-11.23	-8.5/-11.39	-9.29/-13.57	-6.06/-9.74	-7.29/-14.27	-9.1/-9.41	-10.95/-13.18	-9.28/-9.55	-8.67/-15.27	-11.3/-11.38	-16.32/-15.21	-15.67/-15.74	-11.72/-12.98	-8.68/-10.37	-12.45/-11.91	-8.43/-7.03	-9.39/-11.08
Θ(105°)	-7/-9.13	-9.95/-11.78	-12/-14.55	-13.47/-12.45	-9.75/-8.78	-10.66/-12.85	-8.79/-12.18	-8.62/-9.9	-9.65/-12.9	-9.02/-14.07	-9.55/-13.69	-8.79/-14.45	-10.24/-12.67	-12.44/-8.36	-9.88/-13.1	-10.88/-11.08	-13.65/-15.89	-14.9/-13.81	-14.31/-12.29	-10.61/-12.54	-10.75/-10.11	-8.58/-7.75	-8.12/-11.3	
Θ(112.5°)	-9.24/-9.31	-12.34/-10.44	-11.89/-13.51	-9.48/-8.39	-7.66/-12.84	-11.64/-13.04	-12.41/-11.86	-15.95/-14.07	-9.74/-10.75	-11.39/-11.69	-10.14/-13.27	-13.46/-12.12	-7.44/-7.19	-9.95/-11.52	-9.1/-11.05	-8.18/-11.9	-14.17/-15.62	-12.84/-10.63	-12.47/-10.31	-15.57/-13.65	-11.85/-10.36	-7.15/-9.12	-8.86/-7.26	-7.94/-12.99
Θ(120°)	-10.33/-10.58	-15.24/-10.07	-10.71/-13.52	-8.01/-9.26	-9.09/-10.3	-13.98/-10.14	-9.84/-9.97	-7.13/-8.59	-12.91/-10.08	-9.82/-11.95	-15.65/-15.1	-10.72/-8.42	-6.84/-12.98	-13/-15.53	-16.01/-15.36	-9.03/-10.4	-11.21/-11.29	-13.83/-15.46	-10.91/-9.12	-6.94/-6.73	-8.84/-8.23	-12.14/-12.16	-6.97/-5.81	
Θ(127.5°)	-10.28/-11.62	-14.41/-13.74	-9.52/-9.26	-8.66/-9.74	-9.86/-10.52	-8.81/-7.11	-10.93/-10.47	-5.99/-8.85	-13.57/-9.85	-10.54/-13.87	-13.57/-14.65	-10.54/-8.78	-6.72/-10.89	-12.12/-6.35	-11.58/-10.4	-11.67/-10.22	-7.69/-10.69	-10.56/-15.51	-11.58/-10.36	-15.24/-10.03	-5.8/-9.86	-9.5/-11.88	-9.12/-7.78	
Θ(135°)	-11.34/-10.92	-8.73/-14.15	-11.69/-12.3	-15.29/-9.79	-7.65/-11.32	-11.3/-8.18	-9.42/-10.59	-6.1/-7.18	-8.2/-10.15	-12.78/-15.7	-15.6/-14.83	-14.48/-16.09	-13.7/-9.81	-7.56/-13.01	-9.59/-9.5	-12.1/-7.86	-11.45/-10.96	-11.39/-13.46	-10.58/-14.79	-13.45/-10.55	-11.54/-11.4	-11.11/-9.14	-13.89/-10.54	-8.42/-10.93
Θ(142.5°)	-14.18/-15.14	-15.76/-15.41	-12.44/-13.39	-14.93/-13.88	-14.16/-14.23	-11.37/-12.43	-12.5/-10.81	-9.43/-9.32	-9.64/-9.69	-11.48/-15.96	-16.16/-15.47	-15.7/-13.47	-13.77/-8.67	-8.49/-11.59	-12.8/-15.43	-14.51/-13.72	-9.95/-11.53	-13.03/-14.89	-11.83/-12.98	-14.58/-10.27	-12.58/-9.75	-7.95/-8.74	-12.14/-12.16	-6.97/-5.81
Θ(150°)	-14.79/-10.22	-13.61/-14.37	-15.5/-13.66	-10.05/-9.33	-8.98/-9.35	-8.5/-10.3	-12.95/-13.46	-11.31/-11.51	-14.98/-14	-12.6/-10.29	-9.9/-13.15	-14.78/-12.96	-7.81/-9.02	-15.85/-13.87	-13.51/-12.69	-11.95/-11.99	-12.42/-13.33	-9.44/-10.1	-14.31/-12.8	-14.61/-10.29	-6.31/-8.91			
Θ(157.5°)	-11.15/-13.68	-13.62/-10.3	-12.21/-14.01	-11.38/-8.77	-7.66/-8.02	-8.47/-10.27	-13.65/-15.28	-15.11/-15.27	-15.01/-15.35	-14.3/-14.82	-15.08/-14.88	-12.57/-9.53	-8.3/-8.5	-9.76/-10.29	-10.25/-8.62	-7.37/-9.35	-11.4/-12.33	-13.98/-12.59	-13.95/-13.69	-12.77/-12.45	-8.6/-8.5	-11.3/-13.91	-13.39/-12.11	-10.88/-10.62
Θ(165°)	-13.4/-11.43	-10.98/-12.3	-15.61/-13.99	-13.36/-10.84	-10.22/-10.37	-11.81/-14.56	-15.31/-15.66	-13.74/-13.24	-13.08/-14.41	-14.13/-13.93	-14.55/-14.54	-15.99/-14.72	-12.04/-10.57	-9.61/-8.69	-7.88/-7.52	-7.17/-8.31	-9.65/-11.03	-10.28/-9.58	-11.27/-13.78	-13.77/-11.48	-11.67/-14.75	-15.67/-14.24	-13/-13.07	-14.03/-14.52
Θ(172.5°)	-7.07/-7.93	-8.72/-11.66	-13.17/-14.55	-14.81/-14.89	-14.72/-14.97	-15.67/-14.84	-15.64/-15.17	-15.26/-15.05	-16.18/-14.82	-13.89/-12.48	-11.47/-9.09	-7.2/-6.19	-5.67/-5.21	-4.68/-5.44	-4.85/-5.35	-6.33/-7.71	-9.72/-11.88	-13.5/-14.72	-15.45/-14.72	-13.12/-11.94	-13.82/-13.35	-14.21/-15.1	-13.98/-11.32	-9.03/-6.86
Θ(180°)	-15.38/-14.84	-15.61/-14.64	-13.27/-12.06	-11.24/-11.13	-12.51/-14.23	-14.88/-15.92	-15.9/-14.77	-14.91/-15.53	-15.96/-15.76	-15.04/-15.46	-15.12/-15.21	-13.73/-13.14	-13.72/-13.41	-12.93/-13.06	-13.57/-13.68	-14.25/-14.11	-13.43/-13.42	-14.85/-15.41	-14.91/-14.57	-14.89/-13.71	-13.71/-13	-13.46/-13.35	-13.06/-13.96	-13.78/-14.95
Freq(Hz)	6.995GPol.	Theta	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi	Phi
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-5.05/-5.27	-4.8/-3.58	-2.71/-2.08	-1.49/-1.1	-0.81/-0.39	0.330/-29	0.330/-02	-0.39/-1	-1.4/-2.08	-3.09/-4.06	-4.75/-6.11	-5.87/-5.83	-5.7/-5.24	-4.69/-3.85	-3.14/-2.46	-1.45/-0.33	0.360/-33	0.290/-43	0.490/-46	0.28/-0.45	-1.49/-2.65	-3.39/-4.06	-4.69/-5.33	-5.2/-5.05
Θ(7.5°)	-6.77/-7.47	-7.43/-7.18	-7.71/-8.44	-8.77/-7.9	-6.38/-5.23	-4.67/-4.55	-4.24/-4.54	-4.46/-4.92	-4.98/-5.16	-5.74/-5.67	-5.27/-4.68	-3.87/-2.9	-1.85/-0.91	-2.30/-3.4	0.91/-36	1.49/-127	1.040/-98	0.760/-34	-0.02/-0.69	-1.2/-1.96	-2.26/-2.7	-3.61/-4.21	-5.15/-5.61	
Θ(15°)	-1.04/-1.96	-3.49/-4.03	-5.11/-6.75	-9.22/-11.04	-11.52/-8.98	-6.49/-5.31	-5.03/-5.47	-6.03/-6.72	-6.61/-5.99	-5.12/-4.03	-3/-1.9	-1.15/-0.36	0.49/-127	1.84/-15	2.41/-23	2.95/-2	3.383/-38	3.182/-82	2.31/-7	1.290/-84	0.35/-0.03	-0.24/-0.19	-0.10	-0.23/-0.41
Θ(22.5°)	2.471/-56	0.520/-17	-0.45/-1.55	-3.94/-7.17	-13.08/-15.46	-14.06/-12.26	-10.13/-8.68	-7.24/-4.95	-2.74/-1.14	0.381/-51	2.282/-53	2.692/-72	2.993/-42	3.84/-26	4.594/-74	4.895/-12	5.425/-38	4.864/-19	3.64/-337	3.713/-86	4.04/-63	2.762/-14	2.032/-38	2.662/-91
Θ(30°)	3.332/-64	1.942	1.830/-88	-0.68/-1.83	-3.52/-4.68	-6.69/-8.42	-7.21/-4.37	-2.09/-0.34	1.26/-1.4	2.883/-34	3.563/-26	3.183/-04	2.942/-49	3.29/-37	5.465/-85	5.815/-93	6.015/-91	5.294	3.123/-29	4.225/-39	6.216/-31	5.714/-99	3.792/-86	2.373/-01
Θ(37.5°)	2.542/-59	1.531/-62	2.562/-31	1.530/-85	-0.78/-2.5	-4.72/-6.68	-5.01/-4.83	0.642/-13	3.13/-85	4.063/-82	3.142/-07	1.611/-82	0.93/-0.02	1.814/-39	5.795/-93	5.625/-02	4.524/-86	4.613/-5	2.853/-39	4.425/-51	6.717/-32	7.126/-61	5.633/-89	1.951/-69
Θ(45°)	0.951/-07	0.841/-83	3.093/-71	3.481/-99	0.03/-1.81	-5.98/-9.17	-11.14/-5.76	-0.771/-85	2.963/-22	3.3/-05	2.421/-77	1.142/-12	1.440/-42	1.823/-9	4.654/-18	3.922/-89	2.913/-92	3.462/-65	1.822/-06	3.984/-59	5.136/-48	6.656/-51	5.944/-26	1.80/-35
Θ(52.5°)	0.570/-24	0.007/-97	3.133/-91	3.72/-05	0.82/-1.05	3.897/-04	-9.39/-6.36	-2.060/-88	2.583/-88	4.432/-88	1.942/-03	1.662/-75	2.162/-02	3.583/-99	2.992/-65	1.711/-87	2.293/-51	3.43/-15	1.430/-96	3.614/-59	4.55/-62	5.645/-72	5.864/-55	1.710/-52
Θ(60°)	1.370/-79	0.392/-05	2.593/-46	3.972/-36	0.810/-1	-0.98/-3.74	-5.82/-3.53	-0.880/-82	1.43/-29	5.053/-84	1.211/-47	1.462/-59	2.45/-2.7	3.774/-11	2.842/-72	3.692/-44	3.184/-26	3.823/-19	1.51/-184	4.115/-02	4.485/-94	5.724/-7	4.843/-99	2.11/-45
Θ(67.5°)	1.851/-78	-0.072/-16	1.852/-59	3.321/-59	2.211/-46	-1.413/-0.36	-5.84/-53	-1.021/-94	2.922/-41	3.763/-35	-0.38/-1.12	0.992/-32	2.493/-4	3.714/-08	2.613/-07	4.093/-15	4.434/-37	4.093/-9	2.482/-43	3.194/-9	4.695/-42	4.913/-75	4.363/-34	2.482/-54
Θ(75°)	1.132/-05	-0.411/-74	1.341/-79	2.891/-04	2.810/-49	-3.295/-4.8	-7.32/-4.84	-5.910/-36	4.05/-25	1.41/-44	-0.73/-1.84	-1.12/-53	1.762/-88	2.52/-09	2.162/-16	3.74/-28	4.924/-59	3.533/-05	2.612					



Appendix B

Freq(Hz)	6.175GPol.	PhiAnt.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)	
Θ(0°)	-7.5-8.55	-11.19-14.03	-17.60-16.25	-16.39-19.04	-17.28-17.47	-11.3-10.43	-8.35-8.14	-7.38-6.49	-5.7-4.61	-4.32-6.43	-4.5-4.68	-4.87-5.24	-6.05-7.38	-6.89-9.36	-10.62-12.14	-15.77-18.23	-18.15-18.16	-15.05-11.67	-9.743-8.47	-8.18-8.28	-7.69-7.33	-7.04-6.43	-5.91-6.29	-6.24-6.51	
Θ(7.5°)	-8.61-9.77	-11.05-13.01	-15.35-18.03	-17.8-18.34	-19.05-14.64	-10.69-7.83	-8.88-5.18	-4.31-3.61	-2.71-2.11	-2.07-2.28	-2.43-2.55	-2.77-3.1	-4.09-5.56	-7.27-7.9	-8.44-10.11	-13.53-16.54	-15.18-13.85	-12.98-11.17	-10.2-9.4	-9.74-11.13	-13.19-14.43	-15.71-13.02	-10.57-8.95	-8.05-7.93	
Θ(15°)	-4.55-9.46	-6.2-3.86	-12.11-14.59	-13.5-14.22	-16.48-18.32	-18.13-10.58	-7.76-6.14	-5.7-5.13	-4.06-3.54	-3.43-3.66	-3.93-4.19	-4.11-4.23	-5.15-7.01	-6.93-11.41	-13.4-14.55	-14.19-13.53	-12.23-8.95	-6.18-4.88	-4.79-5.08	-6.6-9.02	-12.96-19.03	-17.67-10.76	-7.93-6.11	-5.08-6.49	
Θ(22.5°)	-4.23-6.5	-10.19-13.2	-14.92-13.68	-14.04-13.91	-17.8-15.73	-11.79-8.25	-5.52-3.53	-2.81-2.36	-2.13-3.06	-4.71-6.31	-7.76-7.26	-6.07-5.87	-7.11-9.29	-10.91-12.34	-13.7-13.91	-12.71-11.23	-11.28-9.91	-6.02-3.94	-3.27-3.73	-5.96-10.17	-16.4-12.01	-6.43-4.13	-3.13-2.51	-2.55-3.26	
Θ(30°)	-6.08-10.86	-15.66-13.73	-12.72-15.44	-17.1-13.06	-12.05-13.16	-13.24-7.89	-4.04-1.53	-0.4-0.22	-0.1-0.61	-2.22-4.99	-9.85-11.96	-8.56-7.27	-8.37-9.96	-10.26-9.59	-8.69-8.64	-8.66-8.49	-10.26-11.16	-8.39-5.96	-4.9-4.95	-5.38-6.28	-7.79-6.47	-3.5-1.82	-1.57-2.45	-2.84-3.83	
Θ(37.5°)	-6.17-7.73	-5.91-5.35	-6.92-11.6	-15.67-10.23	-7.6-7.08	-9.05-10.3	-6.47-2.05	0.20-52	-0.51-0.22	-2.71-4.08	-8.23-13.25	-10.23-9.73	-9.57-7.93	-7.75-8.16	-7.32-8.52	-9.76-12.32	-13.7-12.14	-9.8-7.37	-5.13-4.53	-4.75-5.38	-5.32-3.97	-1.58-0.33	-1.26-3.44	-4.27-9.44	
Θ(45°)	-3.21-8.89	-1.75-2.3	-4.12-5.31	-7.93-10.67	-10.81-8.41	-7.53-7.01	-7.24-5.46	-1.820-31	-0.47-4.08	-5.01-5.27	-10.35-14.01	-10.15-10.54	-10.28-6.86	-7.87-8.01	-8.93-11.24	-13.96-10.95	-17.62-18.17	-17.38-9.87	-1.67-6.76	-5.83-4.5	-3.42-3.21	-2.62-2.2	-1.42-10.8	-7.35-2.92	
Θ(52.5°)	-0.95-1.39	-2.7-4.09	-3.9-5.11	-8.83-13.05	-17.89-14.44	-12.87-8.12	-5.09-5.67	-4.5-7.06	-1.01-6.4	-8.82-6.78	-9.58-12.87	-12.29-15.82	-9.79-6.78	-8.15-9.57	-10.06-13.39	-15.79-13.23	-12.13-12.65	-18.84-14.79	-7.08-6.32	-7.39-5.89	-6.42-6.66	-4.48-4.42	-4.79-9.74	-4.84-1.39	
Θ(60°)	-2.57-4.06	-8.12-11.71	-7.99-7.16	-7.61-8.67	-13.72-11.32	-10.77-14.74	-4.73-4.44	-9.44-0.02	-2.48-7.36	-16.29-10.41	-10.23-14.44	-11.12-16.52	-9.9-8.92	-12.9-13.15	-10.67-9.75	-14.13-10.93	-8.4-6.27	-12.17-16.75	-8.64-8.45	-7.87-5.17	-12.7-10.9	-12.7-3.03	-9.04-9.76	-3.24-3.31	
Θ(67.5°)	-6.51-9.78	-13.48-12.95	-11.28-18.33	-11.63-10.55	-14.53-9.11	-10.79-18.28	-5.68-3.62	-5.97-5.67	-7.23-10.88	-17.18-10.78	-9.2-12.8	-11.42-18.35	-10.98-16.												



Radiated Composite Gain of Radio 0 (6GHz)

Appendix B

Θ(22.5°)	-5.35/-7.87	-14.75/-18.71	-15.27/-13.68	-15.07/-17.96	-19.41/-15.84	-11.59/-8.84	-6.8/-5.17	-4.8/-1.503	-5.55/-5.85	-5.86/-6.03	-6.21/-6.83	-7.27/-7.08	-6.02/-5.37	-5.99/-7.39	-8.9/-9.92	-11.27/-13.36	-13.69/-11.38	-9.34/-7.59	-5.82/-4.25	-3.64/-4	-5.31/-6.94	-9.49/-9.52	-6.85/-5.09	-4.25/-4.4
Θ(30°)	-2.36/-4.95	-8.1/-10.26	-12.94/-16.77	-18.47/-16.32	-13.91/-12.69	-11.41/-9.37	-5.92/-3.28	-2.45/-3.37	-5.26/-7.57	-9.27/-9.33	-8.04/-6.92	-7.27/-8.76	-7.93/-6.1	-6.53/-9.14	-10.66/-12.38	-14.1/-11.2	-10.87/-13.79	-12.03/-8.33	-5.28/-3.42	-2.45/-2.82	-4.35/-7.18	-7.81/-6.61	-5.91/-3.74	-1.87/-1.36
Θ(35°)	-1.97/-2.64	-5.65/-9.63	-12.29/-13.98	-16.38/-18.96	-15.41/-11.28	-9.77/-8.98	-6.86/-3.42	-1.46/-1.67	-2.93/-5.07	-8.35/-12.07	-12.4/-9.79	-7.16/-5.82	-6.64/-7.16	-7.42/-8.99	-9.9/-11.55	-10.43/-11.9	-10.45/-10.38	-15.91/-15.8	-7.74/-5.3	-4.06/-4.45	-5.76/-6.76	-5.45/-3.14	-2.17/-1.98	-1.44/-1.56
Θ(45°)	-4.45/-4.71	-7.8/-12.23	-11.61/-11.55	-13.13/-14.93	-18.13/-17.66	-8.26/-6.86	-7.97/-5.08	-2.11/-1.37	-3.17/-5.64	-6.93/-9.3	-13.1/-16.29	-12.42/-8.18	-7.52/-9.08	-9.34/-8.62	-10.06/-13.27	-16.16/-11.64	-10.45/-12.44	-13.34/-18.18	-14.43/-6.95	-6.28/-8.22	-13.75/-10.08	-3.61/-1.21	-0.13/-0.97	-2.41/-3.69
Θ(52.5°)	-4.51/-3.29	-5.12/-7.57	-7.87/-12.31	-13.21/-10.26	-13.26/-18.85	-8.45/-4.81	-6.23/-8.78	-4.26/-3.3	-4.4/-6.65	-7.89/-6.68	-10.25/-13.07	-14.84/-10.88	-11.06/-17.71	-16.31/-9.96	-12.21/-14.98	-18.87/-14.33	-12.37/-9.6	-10.79/-17.46	-17.56/-10.47	-10.43/-14.75	-13.81/-8.91	-4.01/-2.06	-2.89/-4	-5.21/-5.89
Θ(60°)	-3.63/-1.38	-2.15/-5.4	-6.1/-9.83	-10.35/-8.7	-10.97/-18.57	-10.68/-6.57	-6.62/-7.28	-5.81/-5.04	-7.39/-11.34	-12.31/-10.22	-10.04/-9.91	-16.92/-11.35	-9.71/-14.25	-14.81/-11.82	-12.86/-16.26	-17.72/-10.46	-14.51/-9.68	-10.43/-14.75	-8.08/-8.78	-5.73/-5.34	-5.6/-8.88	-6.23/-4.13		
Θ(67.5°)	-3.01/-2.48	-2.07/-5.95	-7.26/-10.56	-12.39/-9.58	-10.55/-12.48	-13.04/-7.9	-7.15/-8.56	-9.82/-6.73	-10.82/-18.04	-18.38/-16.14	-11.88/-10.66	-18.03/-15.53	-14.37/-19.8	-17.98/-11.51	-12.01/-18.1	-16.27/-13.59	-13.84/-8.64	-8.01/-12.14	-16.21/-10.62	-14.59/-6.4	-6.2/-9.6	-9.59/-10.13	-9.33/-7.44	-4.63/-2.29
Θ(75°)	-5.87/-3.37	-4.31/-7.94	-9.38/-12.86	-12.68/-10.46	-7.18/-11.69	-14.6/-9.22	-8.98/-14.47	-17.76/-13.55	-14.04/-19.09	-18.2/-16.82	-17.35/-11.57	-13.77/-15.67	-13.89/-18.1	-18.48/-14.08	-14/-18.54	-12.79/-16.26	-14.36/-8.4	-8.33/-13.97	-15.51/-10.34	-17.14/-7.43	-7.18/-15.54	-15.17/-19.78	-12.41/-12.57	-9.53/-5.71
Θ(82.5°)	-9.07/-5.75	-5.82/-8.08	-10.86/-18.1	-17.65/-13.94	-7.79/-12.66	-17.63/-10.84	-14.17/-13.34	-14.01/-18.54	-18.71/-17.41	-19.28/-11.29	-13.81/-15.17	-13.97/-14.67	-11.49/-18.69	-18.95/-19.13	-13.78/-18.29	-12.24/-16.26	-17.22/-10.8	-12.42/-16.42	-18.81/-10.25	-15.15/-10.03	-7.32/-12.27	-17.61/-18.15	-18.74/-16.64	-16.05/-11.13
Θ(90°)	-12.51/-7.21	-7.17/-8.11	-8.42/-14.66	-18.95/-19.03	-9.01/-10.55	-15.08/-13.31	-14.27/-16.95	-10.15/-16.08	-18.92/-14.17	-17.8/-12.89	-9.66/-14.1	-17.63/-19.81	-19.15/-17.11	-16.39/-16.39	-17.81/-15.8	-12.64/-18.4	-12.77/-13.32	-17.59/-18.42	-18.52/-18.27	-17.71/-13.96	-8.01/-10.49	-19.38/-17.37	-17.58/-19.21	-17.13/-18.55
Θ(97.5°)	-15.26/-10.32	-8.25/-9.64	-9.57/-18.67	-19/-16.07	-10.96/-12.78	-14.05/-16.09	-11.85/-17.1	-12.53/-14.86	-15.11/-11.63	-17.17/-15.02	-11.57/-15.53	-19.4/-18.05	-19.01/-13.31	-12.63/-14.45	-10.95/-12.76	-13.88/-18	-11.38/-15.72	-18.94/-18.4	-15.44/-15.08	-10.02/-11.8	-18.3/-14.38	-12.22/-11.4	-12.64/-18.96	
Θ(105°)	-18.08/-18.52	-11.62/-17.6	-12.19/-17.7	-17.51/-14.07	-9.42/-12.84	-13.1/-14	-11.01/-17.92	-11.55/-12.63	-16.15/-14.79	-18.4/-18.59	-18.3/-17.79	-17.99/-18.68	-18.85/-10.28	-12.46/-13.91	-12.94/-14.69	-16.42/-18.3	-11.91/-14.15	-16.07/-19.1	-17.34/-17.01	-18.94/-13.08	-11.13/-9.95	-13.47/-12.38	-13.76/-15.09	-9.83/-15.42
Θ(112.5°)	-18.71/-17.64	-12.71/-12.08	-12.25/-18.43	-9.98/-14.92	-13.37/-17.09	-17.73/-17.82	-13.22/-15.1	-18.57/-16.96	-12.59/-14.32	-15.64/-11.55	-17.19/-14.2	-19/-15.7	-13.09/-11.8	-15.59/-15.61	-15.89/-15.62	-14.98/-14.24	-15.88/-19.25	-18.38/-18.11	-18.48/-12.69	-18.83/-14.75	-14.04/-11.59	-8.27/-10.88	-14.75/-12.88	-10.34/-17.88
Θ(120°)	-17.86/-19.13	-18.27/-12.79	-10.48/-19.41	-10.1/-17.51	-18.35/-15.64	-19.19/-14.09	-16.46/-10	-9.8/-10.24	-13.84/-9.82	-12.28/-13.77	-18.37/-16.92	-18.53/-18.45	-11.37/-16.69	-18.21/-18.45	-18.51/-17.67	-18.94/-18.36	-18.13/-18.76	-18.55/-16.38	-19.19/-19.76	-14.69/-8.56	-10.3/-10.48	-17.8/-9.96	-14.8/-15.96	-6.84/-10.86
Θ(127.5°)	-18.31/-18.98	-15.98/-16.07	-9.58/-13.75	-18.52/-13.67	-18.54/-18	-13.74/-13.26	-17.09/-10.46	-9.24/-13.52	-10.58/-9.78	-18.78/-17.24	-14/-16.25	-16.33/-12.23	-12.84/-10.49	-8.04/-16.45	-19.34/-18.82	-19.18/-18.21	-13.99/-16.53	-15.63/-17.89	-18.66/-18.77	-12.02/-12.53	-17.91/-11.2	-6.51/-14.51	-14.8/-15.09	-8.42/-12.09
Θ(135°)	-17.58/-16.86	-15.63/-17.75	-12.05/-15.33	-18.02/-14.52	-16.69/-17	-13.85/-18.3	-17.17/-10.4	-9.83/-16.58	-13.79/-10.31	-15.1/-19.5	-18.89/-18.21	-17.22/-18.82	-19.22/-17.15	-14.52/-17.63	-15.21/-18.23	-17.3/-15.71	-15.61/-15.52	-16.49/-19.08	-18.44/-16.78	-14.91/-10.94	-12.11/-12.48	-11.11/-8.41	-18.61/-12.67	-17.71/-12
Θ(142.5°)	-18.01/-17.79	-18.68/-18.96	-12.9/-16.1	-15.06/-15.52	-18.41/-16.84	-14.74/-17.45	-14.27/-10.7	-12.3/-15.78	-12.92/-12.21	-15.22/-16.84	-18.9/-16.58	-18.49/-17.25	-12.62/-12.5	-14.47/-18.43	-16.62/-15.24	-12.72/-11.6	-16.38/-18.53	-18.38/-16.06	-18.14/-14.81	-17.92/-9.63	-7.59/-9.76	-17.71/-13.26	-5.84/-7.1	
Θ(150°)	-17.75/-11.54	-14.32/-16.44	-18.06/-17.71	-18.09/-11.57	-15.81/-17.69	-18.15/-15.59	-15.1/-15.97	-18.89/-17.88	-17.66/-17.6	-15.85/-16.66	-18.51/-18.94	-13.77/-17.09	-19.6/-15.91	-12.45/-14.86	-17.47/-19.11	-17.88/-18.65	-19.81/-18.59	-17.54/-18.34	-18.85/-18.62	-19.15/-14.98	-9.53/-11.39	-16.71/-9.99	-16.64/-11.63	-7.8/-9.7
Θ(157.5°)	-11.85/-15.12	-15.88/-14.76	-17.88/-17.37	-15.62/-15.34	-16.18/-17.97	-17.82/-18.29	-18.88/-17.68	-18.03/-18.05	-17.88/-18.63	-16.47/-17.78	-18.03/-17.54	-13.14/-9.39	-7.69/-8.86	-11.3/-14.42	-17.55/-15.66	-12.62/-12.71	-12.94/-14.25	-16.52/-16.01	-18.17/-17.32	-19.82/-18.72	-9.83/-9.64	-13.61/-15.89	-14.73/-12.67	-10.89/-10.84
Θ(165°)	-18.19/-17.61	-17.74/-17.61	-18.26/-17.35	-17.64/-15.6	-16.63/-18.36	-18.93/-18.1	-18.34/-18.45	-17.42/-18.65	-18.07/-18.59	-16.03/-15.12	-17.03/-18.7	-19.89/-16.58	-12.69/-10.74	-10.7/-10.27	-14.46/-18.88	-18.42/-19.07	-17.6/-18.3	-15.32/-15.56	-17.6/-18.3	-17.19/-16.68	-15.71/-17.19	-19.06/-18.33	-16.93/-17.02	-17.21/-18.82
Θ(172.5°)	-10.27/-11.3	-10.1/-12.08	-14/-17.07	-18.48/-16.96	-17.89/-18.12	-18.88/-18.11	-18.42/-18.69	-18.41/-18.31	-19.32/-17.25	-18.78/-17.71	-16.71/-13.17	-11.28/-10.28	-9.72/-9.74	-9.8/-10.09	-10.98/-12.4	-14.03/-14.76	-16.46/-18.37	-19.23/-19.23	-18.55/-17.87	-17.23/-16.34	-15.32/-15.29	-16.6/-17.4	-16.2/-13.22	-10.82/-9.47
Θ(180°)	-18.05/-17.54	-18.62/-17.27	-15.01/-14.38	-13.76/-12.88	-13.3/-15.94	-17.78/-18.64	-18.46/-18.04	-18.23/-18.51	-18.57/-18.66	-17.89/-18.04	-17.83/-19.22	-18.17/-17.53	-18.14/-17.21	-16.67/-17.72	-19.01/-18.47	-19.21/-18.95	-18.12/-18.71	-17.37/-18.69	-18.55/-18.73	-17.74/-15.1	-15.72/-15.41	-17.1/-19.11	-17.5/-18.88	-17.72/-17.68
Freq(Hz)	6.995GPol.	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.4/-6.3	-5.43/-4.11	-3.46/-3	-2.96/-3.04	-3.33/-3.39	-2.89/-3.3	-3.99/-5.01	-6.05/-7.8	-9.36/-11.4	-14.42/-17.46	-17.28/-18.81	-13.06/-10.21	-8.16/-6.3	-4.89/-4.03	-3.77/-3.56	-2.89/-2.25	-2.27/-2.85	-3.37/-3.5	-3.83/-4.15	-5.62/-7.8	-17.77/-12.37	-14.95/-17.99	-17.71/-16.97	-12.11/-9.54
Θ(7.5°)	-15.73/-14.28	-11.22/-9.82	-9.38/-13.9	-9.12/-8.4	-7.4/-7.12	-7.33/-7.73	-8.29/-9.03	-9.71/-11.48	-12.71/-13.24	-13.42/-12.35	-11.19/-8.89	-7.12/-6.59	-4.43/-3.31	-2.55/-1.93	-1.53/-1.2	-0.82/-0.7	-0.94/-1.53	-1.89/-2.5	-3.57/-4.9	-5.96/-7.22	-8.49/-10.18	-11.49/-12.57	-14.59/-15.65	-17.6/-18.13
Θ(15°)	-4.46/-4.92	-6.2/-6.93	-8.08/-9.61	-10.88/-12.46	-11.73/-9.99	-7.9/-6.56	-6.05/-6.32	-6.77/-6.76	-5.89/-5.53	-4.72/-6.33	-3.23/-2.63	-2.07/-1.06	-0.090.74	1.28/-1.47	1.46/-1.55	1.59/-1.52	1.35/-1.07	0.58/-0.2	-1.13/-2.42	-3.43/-4.14	-5.15/-5.59	-6.34/-6.42	-5.45/-4.75	-4.79/-4.34
Θ(22.5°)	-1.29/-2.16	-2.89/-3.15	-3.66/-5.1	-7.84/-11.65	-19.18/-18.77	-16.29/-13.63	-10.12/-7.86	-6.52/-5.76	-3.38/-2.68	-1.04	0.71/-1	1.31/-71	2.26/-76	2.96/-97	2.84/-74	2.67/-26	2.73/-24	1.49/-42	-0.43/-0.91	-0.65/-0.52	-0.03/-0.33	-1.24/-2.03	-1.98/-1.34	-1.16/-0.83
Θ(30°)	-1.8/-3.1	-4.37/-3.35	-2.83/-3.43	-4.62/-4.64	-5.42/-7.11	-10.47/-12.96	-10.07/-6.01	-3.63/-2.52	-1.87/-0.86	-0.170.33	1.15/-16	2.2/-39	2.48/-38	2.54/-91	3.15/-23	3.28/-54	3.71/-63	2.86/-108	-0.96/-1.72	-0.850.56	1.74/-24	2.27/-75	0.59/-48	-1.33/-1.43
Θ(37.5°)	-2.56/-2.97	-4.59/-3.77	-2.08/-2.41	-2.71/-1.9	-2.76/-5.57	-10.57/-14.89	-9.78/-5	-1.99/-3.08	0.43/-1.32	1.68/-144	1.070.76	1.04/-179	1.64/-106	1.46/-243	2.972.78	2.59/-244	2.353.06	2.570.63	-0.86/-1.18	-0.71	2.87/-84	4.023.53	2.49/-102	-1.77/-3.23
Θ(45°)	-3.42/-3.41	-4.32/-3.78	-1.85/-1.18	-0.68/-0.4	-2.06/-5.48	-13.26/-17.14	-16.83/-9.6	-3.5/-0.5	-0.67/-1.78	2.38/-174	1.010.39	1.81/-102	0.63/-0.29	0.39/-167	1.920.48	0.12/-255	-0.25/-1.35	0.73/-0.9	-3.25/-3.07	0.050.81	1.12/-55	3.28/-22	3.03/-71	-1.36/-3.84
Θ(52.5°)	-5.14/-4.28	-4.93/-2.79	-1.14/-1.5	0.520.43	-1.94/-6.72	-12.89/-16	-15.07/-7.69	-2.390.21	1.12/-12	2.80/-65	-1.11/-10.46	-0.27/-1.25	0.35/-0.9	0.63/-14	0.95/-167	-0.83/-1.72	-0.74/-1.15	1.090.01	-4.18/-5.07	-0.660.82	0.31/-164	2.33/-32	3.33/-23	-1.15/-3.77
Θ(60°)	-4.68/-3.23	-3.71/-6.24	-0.98/-0.35	1.120.96	-2.02/-6.04	-8.42/-8.96	-11.05/-5.53	-0.790.77	-0.080.18	2.430.77	-2.26/-0.47	-0.10.82	0.57/-1.35	0.53/-105	0.48/-2.66	0.882.28	1.620.66	-3.45/-3.09	-0.110.56	0.82/-54	3.14/-126	1.96/-132	-0.98/-2.32	
Θ(67.5°)	-4.74/-1.8	-4.35/-2.78	-1.92/-1.44	0.720.17	-2.05/-5.03	-6.59/-5.84	-11.25/-6.83	-2.420.79	1.0/-57	1.140.45	-3.56/-1.9	0.100.84	0.97/-0.72	0.340.3	1.84/-11	-2.52/-2.04								



Radiated Composite Gain of Radio 0 (6GHz)

Appendix B

Θ(67.5°)	-12.31/-11.12	-15.94/-10.87	-12.35/-13.89	-12.55/-15.05	-10.61/-8.7	-10.88/-11	-6.68/-4.73	-6.43/-13.42	-9.79/-18.67	-16.87/-19.07	-5.63/-5.34	-3.62/-3.29	-6.72/-6.88	-11.25/-13.69	-17.64/-12.28	-10.7/-9.61	-9.73/-11.25	-12.13/-12.56	-10.84/-13	-16.85/-19.1	-15.13/-9.76	-9.07/-11.4	-8.92/-7.73	-9.95/-15.29
Θ(75°)	-15.85/-12.1	-12.11/-13.29	-11.54/-14.52	-19.01/-19.15	-13.98/-10.97	-9.82/-9.67	-8.26/-7.47	-7.5/-9.51	-10.33/-17.56	-15.85/-19.1	-8.37/-8.01	-6.28/-5.4	-10.87/-7.4	-13/-19.27	-18.77/-10.65	-8.81/-10.61	-14.23/-17.63	-13.67/-10.43	-8.29/-8.62	-13.35/-19.12	-15.52/-9.12	-7.67/-9.14	-9.36/-11.69	-16.98/-13.99
Θ(82.5°)	-17.33/-12.99	-8.77/-10.87	-12.25/-17.35	-16.52/-13.5	-12.67/-12.43	-8.43/-9.47	-10.31/-13.53	-12.1/-15.74	-11.83/-18.68	-8.7/-8.18	-6.98/-8.02	-15.19/-11.88	-18.75/-18.72	-17.66/-17.1	-11.51/-9.05	-10.86/-13.35	-17.66/-17.1	-11.51/-9.05	-6.52/-8.68	-15.59/-16	-14.86/-9.99	-9.13/-14.76	-13.08/-13.8	-15.59/-17.96
Θ(90°)	-12.89/-15.43	-10.02/-11.72	-15.59/-17.91	-18.98/-14.86	-14.75/-13.18	-13.33/-12.59	-9.06/-11.64	-8.6/-10.07	-11.49/-16.6	-10.3/-16.22	-7.67/-17.29	-10.73/-6.45	-14.25/-10.87	-16.36/-16.91	-15.43/-9.41	-11.49/-11.61	-17.12/-14.17	-13.09/-12.62	-7.52/-8.23	-15.17/-12.06	-13.27/-12.11	-13.11/-19.01	-13.21/-11.65	-13.48/-13.79
Θ(97.5°)	-18.88/-15.53	-12.45/-10.1	-17.07/-19.86	-16.04/-18.65	-18.29/-14.15	-14.29/-12.5	-12.71/-15.84	-8.61/-18.66	-9.26/-18.15	-12.71/-10.73	-9.51/-10.73	-16.69/-11.68	-17.99/-10.26	-10.84/-12.34	-13.61/-18.27	-15.11/-14.74	-10.79/-9.84	-15.47/-11.81	-14.87/-15.76	-11.81/-18.93	-11.81/-18.93	-11.63/-12.88	-14.22/-11.01	-12.42/-11.01
Θ(105°)	-14.96/-15.78	-14.96/-16.27	-19.31/-18.69	-17.87/-16.16	-10.78/-13.36	-17.15/-11.32	-10.58/-13.27	-12.84/-10.51	-8.41/-14.37	-10.92/-12.1	-13.37/-11.16	-10.88/-9.38	-11.93/-8.72	-14.88/-15.47	-13.29/-13.28	-11.19/-13.36	-16.12/-16.42	-13.47/-14.69	-12.49/-12.88	-18.64/-13.2	-13.16/-18.88	-16.71/-15.69	-7.91/-15.12	-13.52/-9.16
Θ(112.5°)	-15.65/-13.43	-10.8/-12.1	-18.94/-17.98	-7.82/-8.67	-13.66/-12.92	-15/-18.66	-14.78/-13.72	-11.73/-18.2	-9.57/-12.64	-13.07/-18.22	-16.12/-14.04	-11.59/-14.21	-12.15/-6.64	-9.26/-10.57	-16.88/-9.95	-13.71/-10.75	-10.8/-14.06	-10.12/-9.18	-11.11/-11.82	-18.53/-14.02	-16.67/-19.38	-16.6/-17.7	-10.69/-18.1	-14.07/-8.76
Θ(120°)	-13.72/-14.37	-8.57/-10.6	-11.94/-15.9	-11.13/-6.73	-9.66/-11.07	-10.31/-11.84	-19.25/-13.63	-18.16/-12.96	-5.32/-10.59	-17.85/-17.8	-10.19/-12.7	-18.12/-16.74	-19.24/-6.49	-11.31/-15.69	-15.21/-13.57	-8.62/-11.52	-8.33/-11.23	-10.97/-12.23	-14.66/-19	-18.84/-17.36	-18.72/-12.89	-15.56/-13.33	-9.88/-18.35	-17.6/-9.73
Θ(127.5°)	-10.17/-13.37	-12.34/-11.47	-11.46/-13.18	-13.29/-8.38	-8.31/-9.74	-7.53/-9.77	-18.77/-10.6	-10.18/-13.04	-17.13/-18.75	-12.86/-17.1	-12.39/-9.8	-18.32/-14.89	-16.8/-10.77	-8.08/-16.94	-10.02/-5.24	-15.03/-7.7	-9.2/-17.47	-8.99/-11.93	-15.35/-18.71	-17.3/-12.2	-17.71/-17.85	-19.14/-11.98	-13.52/-17.91	-14.46/-11.35
Θ(135°)	-10.78/-11.49	-12.96/-11.73	-11.96/-13.19	-12.93/-12.41	-15.62/-12.81	-8.41/-7.87	-11.36/-18.99	-13.54/-11.98	-15.23/-18.6	-16.27/-16.61	-7.41/-11.34	-18.62/-15.21	-11.74/-10.51	-7.71/-12.97	-12.17/-18.13	-5.79/-8.09	-15.38/-19.37	-8.52/-12.63	-18.24/-18.13	-16.92/-17.53	-14.07/-18.84	-15.18/-16.62	-17.52/-18.17	-18.66/-13.53
Θ(142.5°)	-17.88/-17.16	-14.56/-12.39	-14.24/-16.62	-10.62/-10.68	-18.22/-14.51	-11.5/-16.27	-18.01/-13.13	-9.99/-11.28	-17.91/-18.75	-16.43/-17.38	-11.17/-10.03	-18.69/-13.89	-17.8/-17.43	-18.79/-14.7	-16.53/-14.95	-11.59/-19.02	-18.26/-12.64	-9.33/-17.77	-15.3/-15.9	-14.4/-13.46	-15.27/-11.55	-16.88/-18.18	-18.3/-17.96	-19.18/-19.21
Θ(150°)	-18.9/-15.72	-16.16/-18.61	-18.78/-17.38	-18.68/-14.52	-10.33/-8.82	-8.77/-10.37	-15.3/-19.12	-15.58/-17.97	-14.7/-14.65	-11.72/-13.01	-10.16/-11.97	-17.62/-13.08	-12.11/-17.97	-9.2/-18.34	-17.55/-18.65	-18.34/-18.65	-15.26/-14.86	-19.06/-17.1	-17.75/-17.76	-18.47/-17.86	-16.17/-16.49	-18.47/-17.86	-16.17/-16.49	-18.47/-17.86
Θ(157.5°)	-13.52/-18.09	-19.16/-14.55	-16.2/-12.87	-9.75/-9.17	-8.95/-9.98	-13.73/-18.62	-17.79/-18.53	-18.5/-18.88	-17.79/-18.95	-17.7/-15.07	-14.23/-19.56	-17.88/-13.9	-12.94/-11.96	-11.82/-10.12	-7.39/-7.44	-8.49/-7.56	-8.3/-11.67	-16.98/-13.95	-12.49/-12.46	-11.97/-11.83	-14.74/-15.24	-13.51/-15.2	-17.19/-13.85	-11.54/-11.09
Θ(165°)	-13.12/-12.54	-11.69/-12.04	-12.73/-10.51	-13.23/-11.73	-12.02/-12.75	-17.09/-18.42	-18.6/-18.52	-19.17/-18.92	-16.27/-16.09	-17.77/-15.65	-13.5/-14.13	-15.88/-13.39	-9.58/-7.47	-5.79/-4.84	-4.72/-4.97	-4.66/-4.57	-5.25/-7.08	-8.6/-8.75	-8.73/-8.54	-8.27/-8.86	-13.81/-11.67	-15.99/-17.74	-18.04/-15.71	-14.04/-13.25
Θ(172.5°)	-12.52/-13.25	-17.47/-17.36	-19.06/-16.53	-13.25/-13.42	-13.58/-13.23	-12.61/-12.29	-14.22/-16.42	-17.57/-16.7	-14.71/-18.25	-18.26/-18.75	-17.9/-18.33	-9.92/-8.57	-7.66/-7.31	-7.47/-7.56	-7.37/-7.19	-7.43/-8.49	-9.91/-11.85	-14.88/-16.76	-15.88/-16.02	-16.98/-18.72	-14.92/-18.45	-18.3/-18.04	-14.87/-13.42	-18.47/-13.42
Θ(180°)	-17.66/-18.34	-19.63/-15.55	-13.23/-11.91	-12.18/-14.42	-16.48/-17.98	-19.12/-19.5	-17.93/-18.12	-16.86/-17.15	-18.95/-18.25	-18.16/-18.85	-19.64/-18.39	-16.41/-15.15	-14.88/-14.69	-15.61/-16.5	-17.42/-15.92	-15.4/-14.85	-14.03/-13.39	-13.19/-14.51	-15.9/-15.55	-18.79/-18.32	-17.79/-17.94	-18.36/-18.5	-19.07/-17.97	-18.89/-18.13
Freq(GHz)	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°)	-6.53/-8.75	-10.21/-9.74	-10.13/-10.18	-9.28/-7.49	-6.09/-4.9	-3.81/-2.83	-2.19/-1.8	-1.56/-1.17	-0.89/-0.79	-1.05/-1.49	-2.17/-2.6	-3.34/-4.43	-5.64/-7.22	-8.79/-9.99	-9.92/-9.53	-8.6/-6.99	-5.17/-4	-3.05/-2.37	-1.59/-1.19	-0.63/-0.43	-0.55/-0.87	-1.03/-1.04	-1.14/-1.8	-3.02/-4.74
Θ(7.5°)	-3.84/-6.01	-8.29/-9.91	-11.85/-14.84	-17.58/-19.28	-14.93/-12.17	-10.61/-9.25	-8.1/-7.11	-6.72/-6.49	-6.75/-6.61	-6.39/-6.27	-6.24/-6.66	-6.88/-7.12	-7.23/-7.47	-7.45/-6.86	-5.95/-4.77	-3.74/-2.69	-1.79/-1.17	-0.68/-0.43	-0.11/-0.5	0.620/73	0.440/-1	-0.3/-0.35	-0.24/-0.59	-1.31/-2.72
Θ(15°)	-3.36/-4.98	-6.16/-8.04	-9.67/-10.75	-13.85/-14.49	-15.02/-17.64	-18.17/-18.57	-14.28/-13.85	-14.28/-17.02	-18.73/-16.37	-12.24/-9.22	-6.96/-6.01	-5.16/-4.62	-4.55/-4.74	-5.19/-4.88	-3.98/-3.07	-2.52/-2.26	-2.05/-2.09	-1.21/-1.28	0.08/7	1.241/18	0.910/33	-0.13/-0.39	-0.82/-1.42	-1.91/-2.77
Θ(22.5°)	-2.15/-3.27	-3.74/-4.71	-5.34/-5.82	-7.11/-7.47	-7.79/-9.79	-12.05/-14.16	-16.79/-17.58	-15.04/-11.27	-7.76/-6	-5.75/-5.58	-4.47/-3.37	-2.97/-3.06	-3.32/-4.28	-5.6/-4.71	-2.2/-0.24	0.520/61	0.650/74	0.690/86	0.951/55	2.11/2.72	2.822/64	2.211/43	0.830/38	-0.05/-1.14
Θ(30°)	0.70/56	0.44/-0.16	-1.14/-1.77	-2.71/-3.44	-4.5/-5.99	-7.93/-9.04	-8.94/-7.92	-6.56/-4.16	-1.52/-4.04	-1.14/-2.62	-3.89/-4.18	-3.7/-3.18	-3.82/-5.54	-6.83/-4.28	-0.082/19	3.083/45	3.493/12	2.361/89	1.731/95	2.292/97	3.744/04	3.512/59	1.71/23	1.050/96
Θ(37.5°)	2.042/4	2.161/77	1.760/6	-1.21/-3.88	-4.59/-6.02	-8.14/-9.31	-7.52/-6.12	-4.59/-3.64	-2.91/-2.22	-0.33/-4.08	-2.91/-4.63	-3.26/-2.42	-3.09/-2.81	-2.71/-2.18	1.683/46	3.944/06	3.642/5	1.460/86	2.160/8	2.160/5	4.545/29	4.843/86	3.392/95	2.341/65
Θ(45°)	1.93/1.92	2.193/42	3.51/43	-1.39/-2.86	-3.37/-3.94	-5.14/-6.87	-8.41/-8	-6.2/-4.13	-2.1/-1.27	-0.480/56	0.03/-1.98	-1.53/-1.23	-3.03/-1.35	0.291/12	2.1/2.66	2.362/33	2.431/15	-1.81/-2.74	-1.580/-12	1.93/05	3.694/99	5.414/66	3.892/96	1.91/1.71
Θ(52.5°)	0.391/25	1.972/81	3.561/93	-0.57/-0.78	0.06/-0.23	-2.15/-5.8	-8.92/-97	-4.84/-4.52	-0.730/73	1.040/-2	0.14/-2.08	-0.77/-0.94	-2.89/-2.09	2.382/35	1.91/4	0.520/75	0.29/-0.87	-1.02/-1.58	-1.10/-13	1.873/41	3.571/63	4.480/59	3.692/85	1.60/33
Θ(60°)	-1.81/-0.78	0.572/22	3.212/66	1.190/94	1.730/79	-1.69/-5.12	1.21/-4.21	-2.73/-0.38	-0.40/-9.2	2.081/95	0.592/18	0.290/27	1.060/72	0.971/33	0.830/46	2.183/69	3.454/12	4.192/88	2.641/74	1.260/-28	2.641/74	1.260/-28	2.641/74	1.260/-28
Θ(67.5°)	-2.61/-1.46	-0.680/59	1.672/67	1.051/44	1.11/-0.09	-0.64/-2.11	-3.26/-5.06	-8.89/-7.47	-1.62/-1.17	1.9/-0.56	-1.36/-3.63	-2.37/-0.49	0.41/-0.14	1.28/-0.04	0.171/99	0.791/64	1.061/72	3.343/53	1.91/32	2.54/2	3.653/9	2.880/91	0.530/61	-0.02/-1.22
Θ(75°)	-3.57/-5.06	-2.52/-0.45	0.531/57	-0.15/-0.05	-0.330/-18	0.46/-1.72	-4.08/-2.74	-5.15/-6.46	-4.17/-0.3	0.94/-0.35	-1.89/-2.61	-1.2/-4.5	0.20/-97	-0.88/-1.21	-0.891/66	1.26/2	1.32/2	3.933/82	2.381/88	3.354/34	3.813/77	2.411/-58	-1.33/-1.19	-1.38/-3.53
Θ(82.5°)	-4.73/-6.38	-5.25/-2.71	-1.291/06	-1.07/-1.71	-2.69/-1.09	-0.813/53	-6.43/-4.84	-7.73/-7.75	-6.17/-1.21	0.370/-0.1	-0.87/-3.34	-2.21/-3.12	-2.50/96	-2.41/-2.74	-1.010/49	0.881/58	0.691/2	2.22/33	1.690/56	2.913/37	3.013/34	1.441/-197	-2.47/-2.45	-1.97/-7.59
Θ(90°)	-6.56/-5.48	-8.9/-5.42	-3.880/47	-1.41/-3.65	-5.24/-2.04	-1.93/-6.65	-10.5/-61	-7.94/-18.9	-13.39/-3.37	-1.33/-2.55	-5.41/-5.68	-7.25/-4.41	-9.93/-1.62	-1.63/-4.38	-2.75/-2.7	-0.84/-1.77	-2.35/-1.66	-1.17/-0.52	-0.57/-2.54	0.680/72	1.611/77	-0.61/-3.36	-3.25/-2.92	-2.42/-10.85
Θ(97.5°)	-5.94/-3.37	-9.35/-5.73	-4.35/-0.27	-2.25/-6.02	-6.34/-2.32	-2.88/-7.34	-7.47/-5.51	-5.09/-9.78	-16.03/-4.6	-3.58/-6.66	-12.03/-10.85	-15.83/-8.75	-17.73/-4.01	-2.72/-8.13	-7.55/-4.47	-3.42/-7.73	-7.34/-5.09	-5.37/-4.25	-3.11/-7.21	-3.94/-2.78	-0.110/-42	-1.84/-3.37	-2.6/-2.95	-2.2/-7.31
Θ(105°)	-3.62/-3.06	-7.56/-5.63	-4.19/-0.76	-1.88/-10.64	-7.84/-5.63	-5.64/-6.06	-7.69/-8.58	-7.58/-6.15	-5.67/-3.76	-4.37/-9.19	-11/-11.67	-11.47/-8.01	-7.22/-7.51	-4.34/-6.14	-6.21/-7.27	-3.33/-8.94	-12.42/-4.87	-3.61/-2.92	-2.36/-7.28	-4.21/-3.23	-0.1/-1.83	-3.54/-5.52	-1.23/-0.66	-2.49/-5.15
Θ(112.5°)	-2.78/-3.14	-5.96/-6.14	-5.34/-2.5	-3.24/-6.76	-6.88/-11.46	-10.64/-7.17	-10.61/-14.12	-13.15/-10.8	-7.61/-4.82	-8.66/-12.5	-16.48/-13.14	-11.1/-10.21	-6.88/-4.33	-6.32/-8.95	-6.88/-5.82	-4.913/-16	-7.85/-9.57	-5.76/-9.08	-5.5/-1.25	0.26/-1.27	-2.68/-6.81	-0.81/-0.76	-2.67/-4.78	-



Radiated Composite Gain of Radio 0 (6GHz)

Appendix B

Θ(120°)	-10.38/-10.23	-18.23/-13.38	-18.96/-14.37	-12.04/-9.02	-8.5/-11.47	-11.48/-14.51	-17.56/-18.16	-17.61/-17	-11.01/-13.1	-18.66/-18.38	-13.42/-16.35	-18.96/-19.49	-10.66/-7.6	-8.56/-13.93	-14.26/-18.64	-18.41/-12.9	-19.11/-18.39	-8.49/-10.13	-11.34/-12.63	-14.99/-19.02	-13.22/-18.28	-9.61/-9.05	-8.35/-12.74	-15.81/-14.14
Θ(127.5°)	-10.13/-11.75	-19.14/-17.48	-17.04/-11	-9.21/-10.21	-9.61/-10.59	-10.25/-7.82	-11.63/-18.15	-8.76/-10.47	-18.82/-17.68	-14.83/-18.1	-13.13/-17.56	-19.25/-18.01	-13.97/-7.1	-11.83/-13.91	-12.31/-4.94	-11.6/-16.34	-15.43/-11.36	-7.58/-10.89	-10.38/-18.28	-18.25/-14.3	-18.6/-15.39	-9.83/-10	-10.7/-14.69	-18.74/-9.66
Θ(135°)	-12/-11.74	-9.07/-16.61	-18.53/-15.3	-18.58/-11.37	-7.14/-12.29	-14.8/-7.34	-9.38/-18.74	-8.44/-6.55	-9.23/-17.44	-16.53/-17.98	-18.33/-17.49	-17.76/-19.4	-14.77/-9.94	-7.87/-14.66	-10.59/-9.09	-13.37/-7.78	-13.44/-12.65	-12.72/-14.46	-10.49/-18.95	-18.35/-17.33	-17.95/-16.9	-18.75/-18.88	-15.47/-14.52	-18.08/-16.43
Θ(142.5°)	-16.44/-18.53	-18.86/-17.91	-19.09/-16.71	-17.7/-15.52	-18.08/-17.65	-14.03/-13.81	-16.96/-18.75	-12.58/-9.87	-12.38/-13.23	-13.82/-19.1	-19.44/-18.71	-18.93/-17.84	-15.23/-9.08	-10.5/-17.37	-17.39/-18.45	-18.52/-16.28	-13.21/-19.03	-14.2/-17.32	-12.48/-18.53	-17.07/-15	-13.75/-17.7	-16.55/-18.82	-18.55/-17.89	-18.2/-18.35
Θ(150°)	-17.86/-15.32	-18.39/-18.44	-18.99/-15.63	-17.54/-18.79	-12.38/-9.06	-7.9/-8.53	-9.59/-11.27	-13.78/-15.26	-18.65/-16.9	-11.18/-11.31	-11.84/-16.12	-18.11/-16.93	-12.88/-11.29	-13.39/-17.7	-17.92/-13.67	-6.98/-8.32	-18.01/-15.45	-15.61/-13.68	-12.28/-12.46	-12.83/-17.96	-16.88/-15.27	-16.7/-14.07	-18.72/-15.13	-11.16/-14.92
Θ(157.5°)	-17.33/-18.61	-17.45/-12.07	-13.18/-16.69	-13.31/-9.26	-7.33/-7.22	-7.85/-10.12	-14.89/-18.95	-18.21/-18.52	-18.16/-18.1	-18.25/-17.88	-18.16/-18.25	-18.98/-17.52	-17.62/-15.34	-14.53/-12.31	-10.4/-8.89	-8.6/-12.03	-16.19/-16.59	-17.48/-15.2	-15.89/-16.13	-13.03/-13.09	-13.86/-13.89	-15.08/-18.08	-18.47/-18.54	-18.51/-17.76
Θ(165°)	-14.93/-12.12	-11.38/-13.5	-19/-16.66	-15.26/-12.4	-10.79/-10.23	-12.04/-17.08	-18.31/-18.9	-16.12/-14.37	-14.48/-16.39	-18.41/-19.24	-18.12/-18.75	-18.19/-19.05	-18.3/-17.82	-15.08/-11.34	-8.37/-6.35	-6.03/-7.29	-9.53/-11.77	-11.64/-10.38	-11.88/-15.5	-16.38/-12.75	-13.76/-17.62	-18.31/-16.29	-15.18/-15.2	-16.87/-16.4
Θ(172.5°)	-9.9/-10.6	-13.74/-18.39	-19.1/-18.09	-17.21/-16.87	-17.57/-17.84	-18.49/-17.6	-18.89/-17.7	-18.13/-17.81	-19.06/-18.45	-15.35/-14.25	-12.71/-11.15	-9.26/-8.24	-7.76/-6.92	-6/-5.59	-5.57/-5.61	-6.31/-7.97	-10.13/-12.41	-14.44/-16.46	-18.37/-17.59	-15.16/-13.75	-18.65/-17.58	-18.64/-18.89	-17.87/-15.6	-13.46/-10.3
Θ(180°)	-18.75/-18.18	-18.62/-18.04	-17.77/-15.83	-14.77/-15.62	-18.52/-18.78	-17.4/-19.24	-19.39/-17.52	-17.63/-18.57	-19.38/-18.88	-18.21/-18.92	-18.44/-17.33	-15.51/-14.96	-15.51/-15.82	-15.27/-14.68	-14.69/-15.22	-15.67/-15.61	-17.38/-18.15	-17.52/-16.56	-18.06/-18.72	-17.85/-16.66	-15.89/-14.28	-14.85/-15.41	-15.95/-18.24	
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°)	-8.77/-10.86	-11.11/-10.07	-8.78/-7.84	-6.37/-5.32	-4.34/-3.42	-2.47/-2.18	-1.54/-1.36	-1.38/-1.38	-1.27/-1.47	-1.93/-2.47	-3.33/-4.66	-6.07/-7.65	-9.3/-10.76	-11.89/-11.1	-9.45/-7.93	-6.38/-4.59	-3.05/-2.52	-2.11/-1.74	-1.39/-1.2	-0.56/-0.58	-1.25/-1.92	-2.18/-2.38	-3.18/-4.1	-5.53/-6.79
Θ(7.5°)	-6.28/-7.84	-9.72/-10.58	-12.31/-14.64	-15.7/-14.45	-11.97/-9.52	-8.05/-7.39	-6.33/-6.28	-5.75/-4.2	-4.95/-4.99	-5.73/-6.11	-6.84/-8.29	-9.62/-10.3	-10.32/-9.65	-8.03/-6.5	-5.38/-4.43	-3.62/-2.72	-2.14/-1.95	-2.05/-1.58	-1.11/-0.89	-0.84/-1.21	-1.36/-1.73	-1.68/-1.93	-2.54/-3.02	-3.75/-4.67
Θ(15°)	-3.66/-5.02	-6.82/-7.15	-8.17/-9.91	-13.82/-16.91	-18.68/-14.6	-11.46/-10.52	-10.63/-11.37	-12.12/-14.28	-16.3/-15.43	-13.83/-12.18	-10.11/-8	-6.91/-6.53	-5.9/-5.22	-4.6/-4.05	-3.32/-2.6	-2.09/-1.37	-0.73/-0.4	-0.24/-0.19	-0.3/-0.32	-0.29/-0.56	-0.73/-0.89	-0.91/-0.86	-1.27/-1.56	-1.92/-2.59
Θ(22.5°)	-1.5/-0.8	-2.1/-2.54	-3.26/-4.05	-6.15/-8.92	-13.81/-18.19	-17.92/-18.29	-17.8/-18.69	-16.93/-10.91	-7.38/-5.91	-4.65/-3.38	-2.46/-2.26	-2.31/-2.89	-3.13/-2.81	-2/-0.9	0.10/-58	1.02/-138	2.072.34	2.21/87	1.872/04	0.97/4.36	1.872/04	0.84/0.16	-0.080/0.2	0.390/57
Θ(30°)	2.02/1.7	1.31/0.83	0.21/-1	-2.85/-5.05	-7.8/-8.32	-8.99/-10.13	-10.37/-9.01	-6.86/-4.27	-2.06/-0.88	-0.10/33	-0.1/-1.36	-2.16/-3.22	-5.13/-4.89	-2.78/-0.52	1.682/44	2.3/2.26	2.23/2.1	1.660/89	1.06/1.9	2.883/88	4.454/12	3.1/2.21	0.960/16	-0.01/1.22
Θ(37.5°)	1.21/1.55	0.80/48	0.92/0.72	-0.4/-2.4	-4.97/-5.46	-5.59/-6.46	-6.56/-4.69	-2.76/-1.42	-0.26/0.34	0.40/13	-0.93/-0.35	-4.81/-5.75	-8.74/-11.03	-5.04/-0.18	2.583/06	2.62/1.56	0.59/0.45	0.51/0.35	0.48/1.7	3.11/3.78	4.464/75	4.193/67	2.750/73	-0.41/0.25
Θ(45°)	-0.89/-0.69	-0.45/-0.82	1.66/-2.24	-1.49/-1.69	-4.02/-4.2	-6.14/-9.04	-11.09/-8.1	-4.07/-1.87	-0.94/-1.71	-2.47/-2.07	-2.55/-3.25	-4.57/-3.35	-4.52/-5.73	-3.13/0.03	1.35/1.81	1.630/28	0.05/0.45	0.15/0.15	0.47/0.76	1.8/2.28	3.04/4.3	3.983/78	2.830/78	-1.07/-1.62
Θ(52.5°)	-0.38/-1.49	-1.33/0.42	1.19/1.84	0.85/-2.62	-2.45/-2.03	-3.25/-6.55	-10.36/-11.45	-8.98/-5.35	-2.31/-0.59	-0.23/-0.98	-1.03/-1.54	-2.59/-2.1	-2.25/-1.08	0.50/53	-1.11/0.77	1.04/-0.6	-0.71/-0.21	-0.38/0.26	0.41/0.19	1.72/28	2.523/49	2.913/08	2.340/71	-1.46/-1.38
Θ(60°)	0.6/-1.32	-1.66/0.44	0.1/-1.18	0.79/-2.62	-2.39/-0.62	-1.07/-4.47	-7.06/-7.69	-8.76/-6.7	-3.47/0.38	1.64/0.89	-1.37/-2.76	-3.29/-1.86	-1.86/0.62	0.99/1.15	0.131/57	1.69/-0.11	-0.6/0.7	-0.09/-0.32	0.09/0.4	2.163/26	2.1/3	2.262/09	1.70/62	-0.85/-0.86
Θ(67.5°)	1.36/-0.69	-1.980/73	-0.47/0.49	-0.12/-2.88	0.29/0.93	-6.26/-6.93	-6.01/-3.44	-1.34/-0.63	0.35/0.23	-3.23/-1.14	-4.86/-2.55	-2.331/37	1.04/1.78	1.162/57	2.960/99	0.66/0.24	0.25/0.68	1.08/0.67	1.332/76	0.92/153	0.62/0.52	1.09/0.37	-0.61/0.65	
Θ(75°)	0.84/-0.35	-1.180/56	-0.3/-1.09	-0.19/-2.06	0.59/-0.68	-5.24/-7.64	-9.86/-12.19	-9.66/-3.45	0.61/-2.19	-2.36/-2.74	-5.45/-7.91	-10.5/-1.55	-3.78/0.31	-0.35/-1.71	0.74/2	2.37/1.81	1.46/1.11	0.57/-0.02	-0.23/-0.7	1.06/2.68	1.520/81	-0.61/-1.11	1.230/3	-1.19/-0.62
Θ(82.5°)	-0.06/-2.92	-1.66/-1.59	-2.05/-2.32	-1.37/-3.13	-0.49/-4.41	-5.55/-5.96	-9.53/-11	-13.55/-6.24	-0.2/-3.76	-1.24/-3.04	-7.05/-5.51	-4.49/-0.97	-2.37/-6.01	-1.12/-0.68	1.19/1.42	-0.29/0.31	0.05/-0.39	-1.72/-1.96	0.4/1.38	1.07/-2.05	-1.55/-4.36	-1.41/-0.36	-3.03/-2.16	
Θ(90°)	-2.19/-6.24	-1.553/-3.67	-3.01/-3.73	-2.33/-3.25	-2.18/-6.91	-10.04/-10.43	-15.16/-17.03	-5.22/-8.66	-5.08/-2.46	-10.03/-4.65	-8.61/-3.18	-4.93/-1.8	-4.21/-1.76	-4.82/-3.86	-1.81/-1.64	-5.59/-1.36	-3.09/-0.6	-5.4/-6.99	-1.27/-0.55	-0.29/-3.5	-5.62/-3.87	-2.88/-2.72	-4.54/-4.03	
Θ(97.5°)	-6.89/-14.98	-3.78/-5.1	-5.43/-3.61	-3.27/-4.08	-2.99/-6.51	-6.59/-5.82	-9.91/-7.35	-16.76/-13.95	-13.19/-6.15	-0.77/-5.04	-10.9/-6.37	-7.99/-5.66	-6.61/-5.07	-5.42/-9.29	-7.47/-8.41	-6.37/-6.48	-8.58/-1.8	-7.53/-8.9	-6.5/-8.82	-5.35/-2.61	-1.69/-5.77	-7.18/-6.78	-5.96/-5.34	-7.53/-8.15
Θ(105°)	-11.16/-11.1	-7.86/-6.83	-6.19/-4.62	-4.6/-6.11	-5.17/-5.23	-7.37/-8.91	-7.38/-8.87	-9.72/-10.23	-7.91/-5.64	-4.43/-1.78	-18.36/-13.5	-11.23/-10.58	-11.03/-6.73	-8.07/-6.73	-5.47/-5.95	-12.15/-9.09	-9.91/-3.35	-8.54/-5.27	-6.01/-9.46	-4.23/0.08	-0.98/-6.05	-14.76/-7.81	-5.24/-6.3	-7.55/-9.82
Θ(112.5°)	-6.94/-6.07	-7.59/-6.39	-4.99/-6.67	-4.32/-13.45	-12.21/-4.6	-10.01/-9.59	-8.32/-10.51	-10.02/-10.08	-8.15/-6.88	-11.1/-11.92	-17.72/-18.28	-9.64/-9.07	-6.63/-4.18	-6.17/-13.07	-1.95/-6.11	-7.54/-9.72	-9.41/-6.25	-5.01/-4.2	-5.9/-19.19	-8.3/-1.37	-11.08/-0.02	-11.37/-1.87	-4.73/-5.45	-7.5/-5.2
Θ(120°)	-8.15/-7.67	-7.36/-7.55	-5.21/-5.55	-7.38/-10.59	-10.87/-15.17	-17.91/-14.5	-18.14/-17.53	-11.79/-12.78	-12.25/-8.94	-7.21/-12.41	-19.02/-13.81	-10.88/-5.72	-5.06/-3.29	-5.35/-10.57	-7.23/-4.88	-5.32/-11.97	-6.62/-6.47	-5.89/-5.35	-6.96/-15.23	-14.6/-1.91	-4.13/-4.89	-7.08/-5.7	-0.03/-3.8	-6.07/-4.01
Θ(127.5°)	-4.42/-6.55	-5.09/-1.11	-5.01/-4.73	-5.58/-7.13	-10.6/-13.6	-19.05/-17.9	-15.28/-11.84	-11.32/-10.64	-10.26/-6.38	-7.06/-11.86	-18.82/-17.29	-12.45/-15.29	-6.79/-6.11	-12.9/-9.65	-12.44/-3.95	-9.48/-10.49	-6.03/-5.06	-5.52/-3.29	-8.12/-12.78	-13.38/-1.92	-5.98/-2.59	-9.55/-4.3	-0.8/-2.7	-6.51/-7.9
Θ(135°)	-5.02/-6.78	-6.15/-9.68	-9.99/-6.15	-7.19/-9.71	-11.78/-12.87	-18.14/-18.7	-17.77/-17.06	-9.8/-8.84	-10.22/-15.06	-18.47/-19.09	-13.57/-8.85	-8.64/-13.18	-17.86/-17.8	-17.78/-6.67	-17.65/-12.11	-13.25/-12.58	-8.55/-13.26	-4.4/-3.1	-12.78/-18.83	-8.07/-11.73	-5.95/-9.73	-6.46/-5.32	-2.98/-5.56	-7.36/-5.42
Θ(142.5°)	-8.59/-9.05	-7.77/-1.74	-10.21/-11.99	-10.67/-9.65	-10.98/-12.91	-14.9/-18.3	-17.35/-12.86	-11.28/-12.01	-14.42/-14.56	-14.28/-12.62	-11.33/-11.2	-9.82/-10.31	-12.67/-15.4	-12.87/-18.38	-17.12/-17.78	-14.03/-15.45	-18.37/-14.03	-4.99/-7.23	-17.41/-18.34	-8.34/-9.87	-5.87/-5.57	-8.51/-6.47	-5.9/-6.41	-9.83/-9.84
Θ(150°)	-9.27/-9.38	-8.43/-9.29	-10.92/-9.68	-8.08/-7.27	-7.55/-10.23	-13.61/-15.43	-16.7/-19.21	-15.42/-13.39	-15.58/-18.54	-18.17/-18.45	-18.38/-19.17	-13.69/-12.2	-14.47/-16.37	-18.28/-17.94	-17.27/-11.49	-12.37/-15.75	-14/-7.87	-5.14/-8.26	-18.62/-18.78	-11.03/-8.73	-12.37/-1.65	-6.6/-6.46	-3.62/-3.08	-4.76/-7.9
Θ(157.5°)	-11.41/-9.84	-7.6/-7.35	-7.96/-8.19	-9.09/-10.88	-12.42/-15.77	-19.19/-19.22	-19.44/-16.49	-15.06/-14.62	-14.75/-12.58	-9.67/-7.74	-8.5/-10.92	-14.46/-14.92	-10.24/-7.45	-6.33/-5.58	-6.75/-8.54	-14.29/-17.55	-15.43/-10.95	-9.48/-14.23	-18.45/-19.11	-11.69/-8.45	-8.29/-9.1	-7.07/-6.44	-7.27/-6.66	-8.58/-9.88
Θ(165°)	-7.92/-8.11	-9.2/-11.98	-14.34/-14.33	-11.72/-11.72	-13.4/-14.31	-16.45/-18.35	-17.32/-14.1	-12.48/-13.63	-14.3/-12.55	-11.25/-12.18	-14.93/-18.72	-16.63/-15.11	-13.2/-13	-12.94/-13.03	-13.31/-12.8	-12.12/-11.14	-9.91/-9.83	-11.02/-13.38	-18.16/-18.77	-19.01/-14.04	-10.56/-8.76	-8.83/-10.01	-10.23/-9.88	-11.0/-19.32
Θ(172.5°)	-14.09																							



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Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	2.75	2.98	2.89	3.07	2.33	2.96	4.13	2.21	4.07
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/37.5/0	Theta/60/75	Theta/52.5/75	Theta/52.5/0	Theta/37.5/82.5	Theta/52.5/135	Theta/45/135	Theta/37.5/135	Theta/67.5/30



Radiated Composite Gain of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix C

Gain Result

Freq(Hz)	2.45GPol.	PhiAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)		
Θ(0°)	-4.03/-4.3	-4.8/-5.39	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	-6.13/-7.05	
Θ(7.5°)	-3.89/-4.4	-5.14/-6.07	-7.18/-8.46	-9.89/-11.52	-13.32/-14.97	-15.97/-15.88	-14.42/-12.36	-10.57/-9.12	-8.01/-7.19	-6.53/-6.05	-5.67/-5.41	-5.16/-4.96	-4.81/-4.73	-4.73/-4.8	-5/-5.37	-6.04/-7.08	-8.54/-10.52	-13.3/-16.94	-18.01/-14.75	-11.4/-8.93	-7.13/-5.97	-5.04/-4.33	-3.83/-3.63	-3.55/-3.64		
Θ(15°)	-4.16/-4.94	-5.99/-7.18	-8.57/-10.07	-11.58/-13.34	-14.73/-15.48	-15.87/-15.15	-13.18/-11	-9.37/-8.14	-7.27/-6.74	-6.44/-6.32	-6.3/-6.22	-6.17/-5.97	-5.67/-5.29	-4.85/-4.43	-4.19/-4.13	-4.38/-4.98	-6.06/-7.65	-10.04/-13.66	-17.1/-14.64	-10.86/-8.07	-6.23/-4.98	-4.06/-3.39	-3.1/-3.08	-3.28/-3.67		
Θ(22.5°)	-4.92/-6.05	-7.42/-8.84	-10.35/-12.01	-13.79/-15.68	-17.07/-17.78	-17.85/-16.4	-13.52/-10.86	-8.83/-7.5	-6.67/-6.24	-6.2/-6.41	-6.75/-7.07	-7.19/-7.02	-6.47/-5.68	-4.85/-4.07	-3.5/-3.26	-3.37/-3.87	-4.87/-6.45	-8.8/-12.38	-16.68/-15.3	-11.09/-7.94	-6.16/-2.55	-2.4/-2.68	-3.25/-4.06			
Θ(30°)	-5.66/-7.04	-8.65/-10.11	-11.57/-13.32	-15.07/-17.26	-19.32/-17.93	-18.29/-17.78	-17.12/-12.93	-10.14/-8.22	-6.95/-6.35	-6.28/-6.57	-7.14/-7.66	-8.03/-7.93	-7.36/-6.42	-5.31/-4.39	-3.89/-3.38	-3.45/-3.94	-4.94/-6.46	-8.63/-11.83	-16.53/-17.74	-12.57/-8.62	-5.81/-3.9	-2.63/-1.95	-1.85/-2.27	-3.2/-4.44		
Θ(37.5°)	-6.66/-8.34	-10.09/-11.4	-12.62/-13.94	-15.07/-16.16	-17.18/-18.61	-17.81/-18.76	-19.42/-14.41	-10.87/-8.54	-7.04/-6.32	-6.31/-6.93	-7.9/-8.93	-9.64/-9.65	-8.79/-7.38	-5.98/-4.78	-4.06/-3.77	-3.95/-4.6	-5.69/-7.15	-9.23/-11.67	-15.25/-18.5	-14.43/-9.75	-6.54/-3.46	-2.9/-2.14	-1.98/-2.46	-3.57/-5.08		
Θ(45°)	-7.73/-9.72	-11.66/-12.68	-13.09/-13.19	-12.99/-12.8	-12.96/-14.05	-17.21/-19.36	-18.4/-14.59	-10.79/-8.47	-7.06/-6.36	-6.46/-7.42	-9.11/-11.13	-12.71/-12.87	-8.1/-9.31	-6.9/-5.33	-4.44/-4.22	-4.63/-5.59	-7.08/-8.84	-10.95/-12.63	-14.59/-16.23	-14.27/-10.41	-7.36/-5.13	-3.54/-2.77	-2.56/-3.01	-4.18/-5.91		
Θ(52.5°)	-9.01/-11.25	-12.98/-13.03	-12.31/-11.64	-11.05/-10.65	-10.66/-11.59	-14.41/-18.05	-18.66/-14.38	-10.51/-8.52	-7.5/-7.09	-7.46/-8.84	-11.41/-14.69	-16.88/-16.1	-13.14/-9.87	-7.32/-5.7	-4.96/-5.08	-6.03/-7.81	-10.46/-13.76	-16.56/-17.7	-17.73/-16.57	-13.53/-10.1	-7.3/-5.3	-4.15/-3.58	-3.49/-4.03	-5.27/-7.11		
Θ(60°)	-12.91/-15.24	-17.01/-16.06	-14.61/-14.11	-13.97/-13.81	-13.79/-14.59	-17.78/-17.71	-18.73/-13.35	-9.93/-8.05	-7.14/-6.91	-7.34/-8.56	-10.7/-12.8	-13.48/-13.4	-12.89/-11.09	-8.83/-7.3	-6.28/-6.35	-7.52/-9.77	-12.95/-16.89	-18.01/-18.28	-17.95/-18.66	-16.3/-12.21	-9.37/-7.4	-6.62/-6	-4.17/-6.97	-8.46/-10.42		
Θ(67.5°)	-14.52/-15.91	-18.14/-19.16	-19.05/-17.97	-17.2/-15.68	-14.29/-13.84	-15.27/-18	-18.36/-19.17	-14.84/-11.71	-9.94/-9.19	-9.31/-10.1	-11.31/-11.5	-10.96/-11.09	-11.68/-11.4	-9.96/-8.51	-7.87/-8.29	-9.86/-12.09	-14.8/-17.29	-17.46/-18.92	-17.46/-18.17	-18.19/-18.72	-14.42/-11.68	-9.84/-9.1	-9.24/-10.12	-11.59/-13.15		
Θ(75°)	-10.44/-11.23	-12.49/-13.69	-13.67/-13.44	-13.52/-12.88	-12.16/-12.49	-14.42/-16.82	-16.8/-15.17	-14.25/-14.03	-13.53/-12.6	-11.73/-11.35	-10.95/-9.78	-8.99/-9.48	-11.04/-12.61	-12.8/-12.08	-12.17/-14.03	-17.9/-17.25	-18.87/-18.78	-18.37/-19.16	-17.74/-18.67	-17.62/-16.69	-13.47/-10.94	-9.23/-8.4	-8.04/-8.47	-9.19/-9.93		
Θ(82.5°)	-10.58/-11.28	-13.03/-15.29	-16.06/-16.55	-17.54/-15.71	-13.15/-12.44	-14.4/-18.6	-18.37/-16.27	-14.11/-13.81	-14.03/-13.62	-12.5/-11.19	-9.72/-8.1	-18.13/-10.5	-9.9/-11.99	-13.12/-13.47	-14.79/-17.7	-18.31/-19.03	-18.33/-18.7	-18.44/-18.38	-19.38/-18.32	-18.74/-16.55	-13.27/-11.54	-10.82/-10.58	-10.88/-10.9	-10.65/-10.42		
Θ(90°)	-8.65/-9.04	-10.63/-13.2	-15.75/-17.65	-17.41/-16.93	-13.41/-11.93	-12.31/-13.97	-15.78/-15.32	-13.93/-13.55	-14.29/-15.58	-16.12/-14.92	-12.41/-10.01	-9.04/-10.07	-12.89/-16.58	-17.25/-15.35	-15.65/-14.88	-17.72/-18.51	-18.12/-18.04	-18.25/-18.85	-16.17/-15.35	-15.49/-14.73	-13.19/-12.44	-12.67/-13.23	-13.12/-11.69	-10.06/-9.13		
Θ(97.5°)	-11.04/-11.15	-12.88/-16.89	-18.73/-18.03	-18.42/-19.13	-16.03/-15.33	-16.97/-18.38	-17.15/-14.81	-12.68/-11.6	-11.45/-12.08	-12.92/-12.34	-10.25/-8.31	-8.08/-10.06	-14.53/-18.58	-18/-16.89	-16.61/-18.03	-18.49/-18.02	-18.38/-17.41	-17.62/-18.83	-16.16/-15.28	-15.21/-14.59	-13.77/-13.69	-15.26/-18.05	-18.5/-18.56	-14.22/-11.93		
Θ(105°)	-8.56/-8.98	-10.51/-12.37	-17.9/-13.13	-18.79/-13.43	-12.07/-11.56	-13.35/-15.68	-15.06/-12.85	-10.02/-10.08	-10.15/-14.8	-13.81/-15.21	-9.72/-8.1	-18.13/-10.5	-9.9/-11.99	-13.12/-13.47	-14.79/-17.7	-18.31/-19.03	-18.33/-18.7	-18.44/-18.38	-19.38/-18.32	-18.74/-16.55	-13.27/-11.54	-10.82/-10.58	-10.88/-10.9	-10.65/-10.42		
Θ(112.5°)	-8.64/-8.79	-9.61/-12.37	-18.14/-18.36	-17.51/-18.66	-16.77/-17.92	-15.78/-12.08	-9.5/-8.44	-8.64/-10.03	-11.93/-12.95	-12.22/-11.04	-11.52/-13.69	-15.22/-15.96	-14.74/-12.28	-11.97/-14.96	-16.75/-18.88	-19/-18.87	-17.85/-18.5	-16.28/-15.93	-12.67/-13.04	-14.19/-16.09	-17.46/-18.89	-17.93/-16.16	-11.73/-9.33			
Θ(120°)	-12.7/-13.59	-14.49/-17.76	-17.55/-13.47	-10.84/-10.86	-11.13/-11	-12.28/-16.77	-17.38/-18.81	-14.19/-12.59	-13.01/-14.67	-16.87/-18.06	-14.76/-11.77	-11.18/-11.81	-12.88/-16.03	-18.2/-18.44	-17.99/-18.71	-19.09/-16.9	-15.89/-15.07	-15.18/-16.74	-17.37/-15.27	-13.79/-14.35	-16.58/-18.93	-18.27/-18.2	-18.58/-17.45	-15.22/-12.88		
Θ(127.5°)	-12.18/-13.56	-15.51/-18.7	-17.68/-13.55	-10.27/-9.88	-10.68/-10.98	-11.77/-14.73	-19.06/-18.44	-13.3/-10.86	-9.39/-8.72	-9.53/-12.69	-16.65/-16.61	-18.49/-18.64	-18.71/-17.23	-17.61/-18.71	-18.19/-17.72	-17.21/-15.19	-15.22/-14.58	-14.66/-15.02	-13.53/-11.22	-9.93/-10.09	-11.35/-13.41	-15.41/-15.21	-13.87/-12.4	-11.51/-10.96		
Θ(135°)	-16.57/-17.87	-17.88/-17.65	-15.1/-10.85	-8.2/-8.73	-8.71/-10.74	-12.7/-15.46	-19.19/-17.36	-11.95/-8.71	-6.62/-5.6	-5.92/-7.67	-10.84/-14.98	-19.03/-18.55	-18.37/-18.69	-18.85/-19.12	-18.56/-18.49	-15.99/-15.7	-14.8/-14.7	-16.06/-18.14	-18.33/-13.68	-11.8/-11.3	-12.32/-14.11	-16.32/-16.67	-15.19/-14.61	-14.96/-15.68		
Θ(142.5°)	-17.56/-18.95	-17.97/-17.57	-13.5/-9.94	-7.65/-6.86	-7.63/-8.99	-13.67/-18.04	-14.24/-14.54	-9.89/-7.19	-5.47/-4.82	-5.2/-6.61	-8.85/-11.68	-14.42/-16.56	-17.81/-18.62	-16.96/-18.11	-18.61/-16.59	-17.97/-14.75	-14.78/-14.75	-16.97/-18.37	-19.09/-19.65	-18.27/-18.62	-17.86/-18.08	-18.42/-15.21	-13.13/-12.13	-12.96/-15.43		
Θ(150°)	-17.1/-18.97	-18.47/-17.73	-14.17/-11.32	-9.2/-8.11	-8.35/-10.02	-13.44/-18.73	-18.47/-15.63	-10.88/-8.33	-6.92/-6.47	-6.8/-7.88	-9.54/-11.61	-13.71/-15.61	-17.37/-18.25	-18.26/-18.17	-17.72/-18.64	-17.72/-18.19	-18.87/-18.33	-18.72/-18.09	-19.1/-17.58	-16.87/-16.69	-16.38/-15.59	-13.97/-12.49	-10.85/-10.33	-10.96/-12.99		
Θ(157.5°)	-17.57/-18.79	-17.45/-18.17	-15.77/-13.85	-12.22/-11.29	-11.49/-12.97	-16.01/-17.99	-18.29/-17.66	-15.23/-12.99	-11.83/-11.57	-12.02/-13.12	-14.78/-16.71	-18.63/-18.15	-19.32/-17.68	-16.63/-18.14	-18.17/-18.3	-17.79/-17.68	-18.82/-18.03	-18.06/-17.89	-18.51/-17.48	-19.45/-18.78	-17.83/-16.59	-14.69/-13.21	-12.28/-11.94	-12.78/-14.88		
Θ(165°)	-17.88/-18.36	-19.25/-18.23	-18.08/-17.38	-16.75/-16.35	-17.11/-19.27	-18.49/-18.11	-16.94/-17.9	-18.07/-18.19	-17.99/-18.23	-17.18/-18.68	-16.63/-18.73	-18.63/-18.5	-17.42/-18.69	-18.89/-17.64	-17.55/-18.54	-17.99/-18.95	-18.05/-19.22	-18.51/-17.35	-18.84/-18.78	-19.19/-18.34	-17.78/-18.32	-18.32/-17.11	-16.33/-16.38	-17.47/-18.08		
Θ(172.5°)	-18.3/-18.62	-18.61/-17.25	-18.89/-18.38	-18.06/-18.53	-18/-17.78	-17.86/-18.72	-17.91/-17.5	-17.95/-17.05	-16.48/-16.38	-16.79/-17.29	-17.91/-18.5	-19.08/-18.16	-18.6/-18.93	-17.64/-18.54	-16.97/-15.97	-15.66/-16.04	-15.66/-17.4	-18.02/-17.49	-17.42/-18.37	-18.78/-18.18	-18.64/-17.78	-17.55/-17.85	-18.33/-18.29	-18.21/-17.85		
Θ(180°)	-16.34/-17.36	-18.39/-18.56	-17.59/-18.37	-17.8/-18.07	-17.67/-18.51	-18.18/-19.3	-17.94/-18	-19.03/-18.09	-18.63/-18.34	-18.57/-19	-18.13/-18.14	-19.26/-17.58	-19.39/-19.1	-19.3/-17.38	-15.88/-14.88	-14.37/-14.37	-14.63/-15.09	-15.85/-16.49	-16.41/-15.74	-14.77/-13.76	-13.23/-13.01	-13.2/-13.88	-14.3/-14.72	-14.73/-14.86		
Freq(Hz)	2.45GPol.	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°)	-18.58/-16.53	-14.57/-13.05	-11.64/-10.09	-9.49/-8.76	-8.2/-7.78	-7.53/-7.47	-7.48/-7.47	-7.7/-8.19	-8.91/-9.76	-10.85/-12.36	-14.47/-17.07	-19.09/-18.29	-19.29/-18.39	-16.84/-14.78	-13.08/-11.7	-10.47/-9.47	-8.65/-8.19	-8/-7.97	-8.05/-8.21	-6.88/-9.36	-10.18/-11.15	-12.38/-13.92	-15.96/-18.23	-17.48/-19.48		
Θ(7.5°)	-7.62/-6.74	-6.04/-5.47	-5.05/-4.66	-4.37/-4.14	-4.02/-4	-4.05/-4.15	-4.31/-4.46	-4.75/-5.13	-5.6/-6.13	-6.73/-7.46	-8.19/-9	-8.84/-10.79	-11.83/-13.16	-14.89/-17.31	-18.88/-19.03	-18.07/-18.18	-17.15/-15.06	-15.97/-13.32	-13.16/-13.19	-13.72/-14.83	-16.03/-16.86	-16.77/-15.45	-13.63/-11.81	-10.16/-8.78		
Θ(15°)	-2.84/-2.4	-2.1/-1.94	-1.85/-1.78	-1.68/-1.62	-1.61/-1.67	-1.77/-1.87	-2.02/-2.2	-2.48/-2.85	-3.28/-3.75	-4.24/-4.68	-5.09/-5.35	-5.53/-6.67	-5.87/-6.16	-6.6/-7.33	-8.53/-10.18	-12.52/-15.37	-18.72/-19.16	-18.29/-18.39	-19.02/-18.2	-17.43/-16.03	-14.19/-12.1	-10.04/-8.2	-5.68/-5.32	-4.27/-4.36		
Θ(22.5°)	-0.31/-0.13	-0.12/-0.22	-0.36/-0.48	-0.54/-0.59	-0.61/-0.67	-0.7/-0.72	-0.81/-0.98	-1.04/-1.58	-2.07/-2.54	-3/-3.33	-3.53/-3.56	-3.47/-3.33	-3.25/-3.1	-3.57/-4.13	-5.1/-6.43	-8.19/-10.1	-12.08/-13.89	-15.17/-15.47	-15.16/-14.04	-12.88/-11.26	-9.46/-7.83	-5.96/-4.43	-3.11/-2.06	-1.26/-0.7		
Θ(30°)	1.02/1																									



Radiated Composite Gain of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix C

Θ(22.5°)	-1.48/-1.69	-1.53/-1.26	-1.22/-1.49	-1.94/-1.76	-1.26/-1.13	-0.89/-1.63	-2.83/-4.02	-5.26/-5.4	-4.53/-3.48	-2.81/-2.64	-2.73/-2.78	-2.64/-2.18	-1.77/-1.64	-2.07/-2.02	-3.61/-1.48	-4.79/-5.2	-4.77/-3.83	-2.65/-1.78	-1.39/-0.8	-0.43/-0.12	0.06/-0.35	-0.45/-0.97	-1.6/-2.3	-2.34/-1.85
Θ(30°)	-2.46/-2.88	-3.05/-2.96	-3.14/-3.47	-3.23/-2.15	-1.23/-0.77	-0.51/-1.08	-2.08/-3.77	-5.88/-6.74	-5.69/-3.98	-2.77/-2.29	-2.43/-2.85	-3.07/-2.74	-2.22/-1.67	-1.58/-2.01	-2.55/-3.03	-3.62/-4.14	-4.24/-3.83	-3.21/-2.27	-1.18/-0.26	0.31/-0.79	1.19/-1.1	0.86/-0.67	0.2/-0.82	-1.84/-2.4
Θ(35°)	-2.22/-2.88	-2.92/-2.59	-2.75/-3.73	-3.37/-2.4	-1.44/-0.69	-0.71/-1.17	-2.44/-5.16	-8.14/-10.15	-8.32/-5.71	-3.89/-2.65	-2.89/-3.54	-3.49/-2.38	-1.55/-1.37	-1.61/-1.88	-2.02/-1.78	-1.61/-2.32	-3.53/-4.64	-4.21/-3.05	-1.31/-0.05	0.78/0.54	0.21/0.33	0.85/-1.01	0.62/-0.09	-1.27/-1.87
Θ(45°)	-3.16/-4.13	-3.97/-3.16	-3.58/-4.47	-4.84/-4.47	-2.92/-1.91	-2.41/-3.46	-4.36/-6.07	-10.01/-18.12	-12.94/-7.15	-4.8/-4.04	-4.37/-4.65	-4.23/-2.84	-1.85/-2	-1.86/-1.37	-1.47/-1.1	-1.37/-2.72	-4.1/-5.75	-6.22/-4.7	-2.35/-0.72	0.1/0.28	-0.12/-0.8	-0.62/-0.29	-0.34/-0.44	-1.16/-2.58
Θ(52.5°)	-2.19/-3.05	-3.51/-3.34	-3.92/-4.09	-4.7/-4.45	-3.84/-4.87	-6.31/-6.66	-7.02/-8.77	-11.33/-18.42	-14.87/-8.36	-5.72/-6.11	-6.66/-5.85	-4.45/-2.66	-1.93/-2.61	-3.12/-3.27	-3.12/-2.88	-2.82/-3.56	-8.4/-11.33	-13.5/-9.83	-5.95/-5.28	-1.02/-1.52	-2.31/-3.31	-3.81/-3.52	-3.09/-2.87	-2.63/-2.24
Θ(60°)	-4.02/-4.59	-5.53/-5.17	-5.01/-5.04	-6.73/-5.85	-6.44/-8.59	-10.61/-11.9	-10.39/-9.72	-11.18/-17.52	-18.31/-11.41	-7.55/-7.11	-8.74/-8.85	-5.53/-3.09	-2.87/-3.89	-4.97/-4.4	-6.05/-9.76	-6.43/-5.44	-8.43/-4.08	-6.05/-9.76	-8.15/-11.39	-8.4/-5.28	-3.66/-4.85	-6.83/-7.09	-6.63/-6.56	-5.39/-3.95
Θ(67.5°)	-3.87/-4.33	-7.35/-7.71	-8.11/-7.92	-9.22/-8.39	-9.68/-11.75	-17.43/-18.87	-16.06/-12.18	-11.35/-14.96	-15.65/-9.58	-7.96/-9.1	-12.58/-11.67	-6.43/-3.71	-3.66/-6.21	-7.74/-7.11	-7.2/-6.52	-4.46/-4.24	-6.28/-10.78	-10.54/-12.13	-9.2/-4.91	-3.01/-4.61	-10.16/-12.05	-9.24/-8.67	-9.36/-8.59	-7.14/-4.56
Θ(75°)	-5.47/-7.09	-11.48/-10.79	-10.53/-9.24	-10.61/-11.05	-11.64/-11.47	-12.51/-15.99	-19.45/-14.18	-11.51/-13.83	-17.64/-11.41	-9.06/-10.14	-13.56/-14.61	-8.59/-5.68	-4.94/-8.38	-10.53/-9.49	-10.94/-9.72	-5.62/-4.28	-6.43/-9.46	-8.37/-11.72	-10.74/-6.1	-3.14/-4.78	-10.55/-17.98	-11.97/-9.99	-11.16/-12.17	-9.75/-6.5
Θ(82.5°)	-6.75/-9.71	-15.38/-18.95	-13.75/-10.82	-11.47/-15.28	-15.93/-15.09	-15.61/-14.95	-18.12/-18.58	-14.21/-13.36	-15.68/-12.27	-10.15/-11.9	-13.05/-15.69	-10.53/-7.53	-6.13/-9.58	-11.61/-11.87	-7.74/-13.4	-6.79/-7.34	-7.71/-10.83	-7.04/-10.34	-4.93/-7.6	-1.168/-1.79	-12.8/-10.32	-9.39/-12.21	-10.86/-8.72	
Θ(90°)	-9.66/-12.35	-15.11/-17.3	-14.68/-10.85	-10.33/-16.45	-17.5/-18.71	-18.27/-18.74	-18.18/-18.41	-11.56/-12.46	-17.88/-15.18	-14.15/-12.67	-13.25/-18.24	-13.38/-12.69	-7.09/-9.2	-13.56/-11.93	-15.46/-17.75	-9.42/-8.01	-12.61/-13.28	-7.17/-9.91	-11.66/-9.58	-6.4/-9.77	-15.48/-17.13	-11.85/-10.81	-10.51/-11.92	-11.96/-12.92
Θ(97.5°)	-15.07/-19.37	-18.35/-19.32	-15.13/-12.37	-11.48/-14.93	-17.84/-17.99	-18.37/-18.59	-18.71/-17.27	-13.54/-14.26	-17.56/-18.5	-14.18/-12.48	-12.22/-17.93	-17.35/-13.4	-8.09/-10.35	-15.29/-15.57	-18.15/-17.58	-11.65/-14.49	-18.55/-13.33	-8.35/-12.18	-13.2/-13.63	-11.16/-16.39	-16.62/-19.02	-14.14/-12.57	-13.51/-17.66	-15.24/-13.12
Θ(105°)	-14.82/-17.74	-18.89/-17.75	-18.3/-16.51	-14.17/-17.85	-19.11/-17.81	-14.09/-17.27	-9.89/-18.29	-11.41/-12.09	-17.64/-18.15	-14/-10.71	-11.06/-14.27	-11.25/-13.29	-8.7/-11.01	-11.76/-17.71	-19.25/-17.27	-13.24/-14.83	-17.58/-9.13	-8.15/-11.74	-16.48/-19.64	-12.77/-18.23	-18.87/-18.7	-11.69/-11.7	-13.03/-13.12	-15.59/-12.82
Θ(112.5°)	-17.09/-16.18	-17.67/-18.48	-16.07/-16.65	-13.01/-19.42	-17.81/-17.6	-16.05/-15.36	-19.27/-11.94	-11.25/-15.22	-18.31/-15.7	-9.02/-8.92	-10.85/-15.19	-15.78/-10.76	-12.61/-19.07	-17.43/-18.61	-17.67/-17.38	-16.4/-18.88	-16.38/-8.03	-8.57/-13.38	-17.82/-17.2	-14.32/-19.17	-18.16/-14.28	-12.29/-12.42	-15.67/-18.99	-13.84/-18.33
Θ(120°)	-18.07/-18.07	-18.36/-18.16	-18.71/-16.61	-17.24/-19.14	-18.25/-17.32	-18.41/-18.42	-18.66/-18.06	-15.54/-15.66	-18.28/-14.83	-9.81/-7.99	-15.75/-17.88	-15.43/-10.67	-11.58/-14.51	-18.95/-19.01	-16.03/-17.84	-18.73/-17.48	-12.74/-4.17	-7.77/-15.83	-9.91/-14.12	-14.02/-11.86	-9.47/-17.21	-15.11/-16.46	-19.02/-18.13	
Θ(127.5°)	-17.81/-18.34	-16.36/-16.74	-14.07/-16.08	-14.98/-17.98	-18.48/-14.56	-13.69/-13.55	-17.95/-17.31	-13.71/-11.7	-14.63/-14.69	-8.78/-9.56	-11.76/-16.07	-14.69/-11.7	-12.83/-18.22	-18.93/-14.56	-17.02/-14.79	-18.96/-16.38	-12.36/-6.42	-13.5/-15.1	-17.88/-12.77	-8.71/-10.98	-14.28/-10.98	-13.37/-12.01	-17.61/-18.69	-19.37/-18.95
Θ(135°)	-17.74/-19.35	-15.78/-18.74	-15.31/-15.18	-15.04/-18.09	-12.9/-11.38	-12.75/-18.91	-18.22/-13.02	-8.28/-7.82	-11.71/-19.07	-13.87/-14.31	-11.71/-7.6	-9.15/-18.74	-18.25/-18.95	-15.13/-18.93	-18.23/-16.77	-16.15/-12.13	-14.72/-11.55	-18.57/-15.09	-19.01/-15.28	-10.68/-8.83	-17.88/-9.84	-12.71/-13.57	-18.95/-17.88	-18.05/-17.97
Θ(142.5°)	-15.82/-18	-15.5/-14.56	-16.07/-14.2	-13.01/-18.88	-13.01/-18.8	-8.06/-10.76	-18.05/-12.65	-8.07/-8.43	-11.06/-19.18	-16.54/-11.42	-8.95/-8.06	-9.81/-12.19	-18.76/-18.68	-18.07/-18.36	-18.56/-17.68	-14.38/-13.18	-18.15/-18.52	-18.29/-19.27	-18.31/-18.94	-13.51/-10.61	-17.64/-16.08	-15.55/-17.74	-14.17/-12.55	-14.22/-16.78
Θ(150°)	-17.92/-14.18	-14.54/-17.54	-18.69/-19	-16.13/-17.61	-18.34/-19.37	-16.91/-19.33	-8.77/-8.6	-11.99/-15.81	-18.68/-18.31	-17.56/-14.07	-14.33/-16.3	-18.22/-17.88	-17.71/-18.82	-18.82/-18.21	-17.71/-18.02	-17.87/-19.37	-17.75/-18.16	-18.21/-18.22	-18.21/-18.22	-17.75/-18.16	-18.21/-18.22	-17.75/-18.16	-18.21/-18.22	-17.75/-18.16
Θ(157.5°)	-16.36/-13.56	-15.28/-18.5	-18.34/-18.94	-16.46/-14.51	-15.63/-18.06	-18.1/-18.43	-18.37/-18.96	-18.02/-16.12	-14.26/-13.3	-14.17/-16.32	-16.05/-12.93	-10.79/-10.96	-14.22/-17.65	-17.77/-18.42	-18.74/-15.9	-14.56/-15.46	-18.43/-18.09	-17.65/-17.76	-18.97/-17.51	-19.67/-18.14	-18.83/-17.45	-16.64/-18.01	-17.91/-17.72	-19.21/-18.56
Θ(165°)	-18.32/-18.28	-18.9/-17.64	-15.56/-13.04	-11.7/-11.36	-11.71/-13.42	-15.39/-13.73	-18.81/-18.8	-18.71/-17.42	-14.96/-13.55	-13.42/-13.21	-13.47/-14.11	-14.93/-16.55	-19.16/-18.92	-18.78/-18.19	-18.63/-15.91	-14.84/-15.14	-16.42/-18.51	-18.23/-18.18	-18.81/-16.33	-15.19/-16.1	-17.44/-19.04	-17.81/-17.7	-18.2/-18.02	-18.02/-18.94
Θ(172.5°)	-17.92/-19.02	-17.06/-16.55	-16.01/-14.64	-14.68/-15.49	-17.32/-19.07	-19.03/-19.16	-18.85/-17.05	-15.18/-13.17	-11.66/-10.97	-11.21/-11.61	-12.38/-13.27	-14.78/-16.65	-16.95/-16.63	-15.71/-14.53	-13.42/-12.79	-12.53/-13.52	-13.62/-14.88	-16.25/-17.09	-17.33/-17.81	-17.48/-16.29	-15.65/-15.69	-15.31/-15.07	-15.47/-19.13	-18.16/-18.69
Θ(180°)	-17.62/-18.23	-19.18/-18.47	-18.94/-19.14	-18.44/-18.1	-17.75/-19	-19.31/-18.08	-18.82/-17.66	-18.73/-17.33	-18.37/-17.67	-19.2/-18.07	-18.97/-18.52	-19.28/-19.38	-19.13/-17.92	-18.92/-18.79	-18.85/-19.28	-19.15/-18.75	-18.13/-17.48	-18.31/-18.73	-18.32/-18.82	-17.53/-18.28	-18.64/-18.89	-18.15/-18.03	-18.79/-18.76	
Freq(Pol)	5.3GPol	ThetaAnt. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.3/-8.27	-8.56/-8.61	-8.7/-7.96	-7.07/-5.86	-5.17/-4.38	-3.82/-3.5	-3.29/-3.09	-2.88/-2.75	-2.87/-3.09	-3.54/-3.87	-4.4/-5.03	-6.03/-6.97	-8.05/-8.83	-9.1/-8.97	-8.28/-7.43	-6.89/-6.31	-5.41/-4.49	-3.85/-3.38	-2.97/-2.61	-2.53/-2.6	-2.78/-3.02	-3.36/-3.63	-4.29/-4.97	-6.88/-5.66
Θ(7.5°)	-4.36/-4.96	-5.65/-6.34	-7.36/-7.79	-7.88/-7.08	-6.36/-5.41	-4.62/-3.95	-3.57/-3.23	-3.18/-3.2	-3.52/-3.91	-4.6/-5.23	-6.15/-7.12	-8.14/-8.09	-9.54/-9.36	-8.73/-7.67	-7.6/-31	-6.06/-5.64	-5.18/-4.8	-4.53/-4.37	-4.04/-3.52	-3.09/-2.67	-2.45/-2.27	-2.16/-1.99	-2.17/-2.74	-3.47/-3.87
Θ(15°)	-2.41/-2.79	-2.09/-3.57	-4.27/-5.43	-6.56/-7.31	-5.79/-5.09	-4.06/-3.11	-2.5/-2.17	-2.2/-2.27	-2.89/-3.25	-3.94/-5.7	-5.35/-6.48	-7.91/-9.38	-10.91/-12.09	-11.62/-10.01	-8.64/-7.51	-6.66/-6	-5.65/-5.58	-5.92/-6.23	-6.41/-6.29	-5.63/-4.71	-3.63/-2.62	-1.63/-0.86	-0.52/-0.55	-1.1/-1.76
Θ(22.5°)	-1.78/-1.91	-2.3/-3.01	-3.59/-4.04	-4.28/-4.04	-4.2/-4.45	-4.28/-3.57	-2.85/-2.01	-1.53/-1.13	-1.42/-1.88	-2.64/-3.16	-3.57/-4.1	-4.97/-6.29	-8.25/-11.48	-16.69/-18.86	-16.04/-11.03	-7.87/-6.26	-5.28/-4.74	-4.37/-4.56	-5.4/-6.38	-7.1/-6.86	-5.9/-4.97	-3.66/-2.38	-1.37/-0.75	-0.73/-1.22
Θ(30°)	-1.93/-2.08	-2.02/-2.37	-2.37/-1.62	-1.16/-1.14	-1.57/-2.02	-2.22/-1.6	-0.98/-0.25	0.07/0.43	0.33/0.05	-0.53/-0.96	-0.96/-0.84	-1.1/-1.74	-2.47/-3.58	-6.22/-10.29	-16.84/-17.98	-11.78/-8.57	-5.93/-4.59	-4.82/-6.37	-7.33/-7.35	-6.53/-6.14	-5.2/-4.23	-4.42/-4.54	-3.7/-2.42	-1.75/-1.59
Θ(37.5°)	-1.54/-1.37	-0.85/-1.29	-1.29/-0.22	0.02/0.24	0.41/0.2	-0.14/-0.12	0.11/0.57	1.02/-1.26	0.98/0.48	-0.03/-0.21	0.05/0.81	1.16/0.66	0.0/-85	-3.07/-6.48	-9.88/-14.43	-18.17/-15.34	-8.98/-6.96	-7.16/-7.06	-6.51/-5.13	-3.45/-2.6	-2.42/-2.24	-3.08/-4.39	-4.89/-3.74	-2.01/-1.25
Θ(45°)	-1.0/-1.67	-0.85/0.02	-0.07/0.34	0.37/1.45	1.98/1.84	1.75/-1.68	1.48/-1.43	1.61/-77	1.75/95	0.22/0.31	0.42/1.07	1.61/-219	0.62/-0.63	-2.68/-5.19	-5.58/-6.13	-10.29/-12.07	-10.38/-8.68	-7/-5.29	-4.41/-4.06	-3.49/-2.16	-1.4/-1.34	-1.9/-2.94	-3.99/-3.49	-1.03/-0.53
Θ(52.5°)	1.06/1.66	1.58/0.51	0.09/-0.22	0.38/1.49	1.96/2.6	2.89/-2.42	1.58/1.08	1.18/1.18	0.86/0.23	-0.75/-0.31	0.26/1.17	1.54/-1.02	0.21/-1.86	-3.81/-4.79	-3.41/-3.94	-5.92/-7.3	-8.32/-5.64	-4.08/-3.78	-3.37/-2.6	-1.68/-1	-0.47/-0.55	-1.37/-1.76	-2.64/-2.23	-1.06/0.06
Θ(60°)	1.61/64	1.97/0.46	-0.95/-2.31	-1.27/-0.57	1.392/83	2.832/03	0.92/0.26	0.51/0.95	0.47/-0.18	-0.97/-1.34	-0.08/0.87	1.66/0.57	0.06/-2.54	-4.29/-3.84	-2.58/-1.71	-3.05/-4.02	-4.93/-4.02	-4.41/-4	-3.52/-3.94	-2.52/-0.38	0.86/0.64	-0.26/0.28	-0.54/-0.73	-0.78/0.57
Θ(67.5°)	0.86/0.71	1.15/-0.96	-2/-4.35	-2.73/-2.37	1.12/0.9	1.92/80.2	-0.75/-1.53	-1.28/-0.54	-0.77/-2.54	-2.95/-3.61	-1.63/-0.58	0.85/-0.96	-0.93/-4.46	-5.1/-4	-2.57/-2.05									



Radiated Composite Gain of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix C

Θ(75°)	-4.74/-6.57	-7.34/-9.1	-9.99/-12.25	-11.09/-11.14	-10.76/-16.19	-18.5/-17.59	-18.87/-14.41	-12.36/-11.51	-9.32/-8.41	-8.62/-8.43	-8.98/-9.4	-6.67/-5.82	-5.47/-6	-6.08/-5.51	-6.82/-9.58	-8.96/-5.19	-5.58/-8.46	-14.8/-10.99	-8.4/-5.29	-3.03/-4.52	-5.82/-5.16	-4.67/-4.5	-4.4/-4.77	-4.93/-4.35
Θ(82.5°)	-7.17/-7.66	-9.22/-11.18	-11.27/-11.65	-10.7/-12.48	-12.65/-17.3	-18.36/-18.7	-17.02/-14.26	-12.54/-13.32	-11.07/-9.42	-10.84/-11.2	-10.86/-10.99	-8.66/-7.58	-7.08/-7.84	-7.33/-6.95	-9.96/-13.01	-11.11/-6.19	-6.05/-7.17	-12.63/-16.28	-9.52/-6.58	-4.73/-6.45	-8.08/-7.1	-6.57/-6.68	-6.01/-6.11	-7.2/-6.69
Θ(90°)	-9.48/-9.42	-11.96/-12.73	-13.01/-11.47	-11.4/-15.29	-16.54/-18.69	-18.34/-18.24	-18.18/-16.13	-14.15/-14.15	-11.33/-14.4	-11.03/-11.92	-15.24/-12.76	-8.36/-8.39	-6.35/-8.92	-10.01/-9.52	-13.09/-14.41	-12.82/-10.69	-8.16/-9.92	-14.71/-17.49	-13.16/-10.12	-6.12/-9.41	-10.67/-12.11	-9.83/-8.49	-7.68/-8	-9.67/-9
Θ(97.5°)	-10.58/-11.12	-14.58/-14.74	-15.08/-12.39	-11.61/-12.24	-17.5/-18.34	-17.16/-18.05	-17.7/-18.65	-14.22/-14.22	-11.77/-8.95	-12.4/-14.53	-14.82/-11.39	-11.31/-10.94	-10.89/-9.46	-10.05/-9.44	-11.91/-18.48	-18.26/-11.21	-12.68/-12.15	-14.32/-17.16	-16.76/-14.18	-10.33/-12.91	-14.49/-12.92	-11.87/-11.54	-10.05/-10.38	-11.27/-12.14
Θ(105°)	-11.57/-10.28	-16.51/-15.32	-16.94/-13.1	-11.62/-9.93	-17.49/-18.27	-19.61/-17.11	-17.28/-14.28	-13.93/-16.21	-10.96/-9.56	-14/-15.82	-16.71/-12.95	-16.17/-15.91	-14.75/-11.47	-11.25/-14.66	-14.48/-18.76	-18.92/-17.04	-14.08/-18.98	-17.05/-18.08	-18.59/-18.76	-12.72/-13.49	-13.19/-16.34	-14.7/-12.63	-11.54/-14.76	-11.91/-12.63
Θ(112.5°)	-13.41/-13.1	-14.49/-18.16	-18.52/-18.84	-15.39/-12.7	-18.23/-18.61	-18.23/-19.21	-18.68/-13.87	-12.66/-16.22	-12.6/-14.15	-19.25/-17.86	-17.27/-15	-14.96/-17.09	-14.7/-11.43	-13.99/-14.13	-16.51/-18.63	-18.91/-18.06	-18.86/-14.57	-14.82/-18.16	-18.21/-18.01	-13.27/-11.03	-13.47/-15.01	-18.12/-18.66	-18.14/-15.02	-16.7/-15.72
Θ(120°)	-13.86/-12.51	-17.1/-17.86	-18.55/-19.32	-15.54/-18.54	-18.2/-18.77	-12.85/-13.46	-17.5/-14.16	-12.13/-16.1	-19.32/-19.05	-16.91/-17.61	-16.73/-14.89	-17.06/-15.19	-12.82/-12.91	-12.58/-18.21	-17.4/-13.49	-18.41/-17.89	-18.94/-10.39	-10.94/-17.14	-18.36/-17.42	-15.69/-14.92	-18.58/-15.75	-18.14/-17.99	-18.31/-17.53	-11.57/-18.01
Θ(127.5°)	-12.87/-11.32	-15.08/-18.83	-19/-14.73	-16.34/-18.35	-18.57/-17.47	-16.92/-17.48	-19.1/-16.97	-14.43/-18.33	-18.56/-18.32	-13.79/-12.37	-18.36/-18.66	-17.81/-14.78	-12.65/-12.69	-17.88/-18.21	-16.84/-17.8	-15.82/-17.84	-19.1/-8.73	-13.67/-15.16	-18.35/-18.89	-9.57/-14.9	-17.4/-18.58	-19.01/-12.74	-18/-19.5	-18.92/-13.99
Θ(135°)	-18.93/-18.3	-18.8/-18.02	-16.99/-14.94	-14.45/-18.77	-18.48/-18.82	-17.67/-18.47	-17.88/-15.43	-14.5/-12.81	-14.65/-17.98	-14.99/-15.54	-14.92/-17.37	-17.67/-14.56	-15.08/-18.6	-16.57/-18.69	-18.61/-12.54	-17.76/-17.99	-16.44/-11.86	-16.48/-17.45	-19.21/-18.17	-15.61/-13.95	-13.15/-17.4	-17.97/-15.03	-17.97/-18.23	-18.36/-19
Θ(142.5°)	-18.89/-18.47	-18.38/-17.4	-19.58/-17.26	-15.18/-18.15	-17.81/-12.73	-12.72/-19.01	-18.05/-13.8	-10.44/-10.45	-14.13/-18.14	-18.83/-19.35	-18.88/-16.88	-15.7/-18.23	-19.21/-16.85	-18.15/-18.32	-18.87/-17.06	-12.16/-11.93	-18.22/-17.52	-19.03/-18.2	-19.29/-18.67	-13.99/-14.82	-17.11/-17.29	-17.95/-18.66	-17.52/-17.73	-14.65/-14.22
Θ(150°)	-16.86/-16.03	-14.96/-18.09	-18.71/-18.41	-16.04/-18.63	-18.28/-16.98	-14/-15.31	-19.75/-16.09	-12.46/-12.94	-17.17/-17.36	-17.39/-18.34	-17.58/-18.28	-16.46/-15.8	-17.26/-17.12	-15.43/-15.25	-17.71/-17.72	-17.62/-18.03	-18.22/-18.61	-18.47/-18.52	-18.01/-18.69	-19.22/-18.69	-18.48/-18.86	-19.26/-19.01	-16.35/-14.91	-16.58/-17.59
Θ(157.5°)	-15.53/-13.5	-14.7/-19.24	-18.81/-17.9	-17.28/-19.67	-19.01/-18.97	-17.77/-18.99	-16.57/-17.65	-17.37/-18.98	-18.91/-18.49	-16.87/-16.49	-16.1/-14.57	-12.6/-11.92	-18.84/-18.4	-18.84/-19.51	-17.67/-18.69	-18.68/-17.83	-18.78/-17.93	-19.13/-19.21	-17.88/-18.27	-18.98/-18.96	-15.49/-12.07	-13.32/-13.05	-14.09/-17.45	-18.66/-16.41
Θ(165°)	-18.98/-18.19	-18.59/-19.03	-17.53/-18.23	-18.43/-18.1	-19.14/-19.11	-18.27/-17.98	-18.07/-18.37	-19.1/-17.56	-18.06/-17.12	-18.45/-18.12	-18.6/-19.18	-19.1/-18.71	-18.73/-18.24	-18.07/-18.31	-18.68/-17.78	-18.61/-18.98	-17.92/-17.59	-17.42/-17.89	-17.87/-18.55	-18.23/-18.98	-15.57/-14	-14.98/-18.84	-17.97/-17.99	-19.1/-17.86
Θ(172.5°)	-17.84/-17.73	-18.81/-18.41	-18.49/-16.86	-16.73/-16.51	-17.07/-17.32	-16.71/-16.27	-17.12/-18.85	-18.45/-18.63	-18.89/-18.34	-18.71/-17.6	-19.21/-18.67	-18.62/-19.29	-18.91/-18.73	-17.81/-17.42	-16.67/-14.44	-17.17/-17.68	-18.5/-19.1	-17.38/-17.69	-18.89/-16.86	-14.96/-14.03	-13.34/-13.61	-13.96/-15.45	-16.17/-16.21	-18.12/-19.7
Θ(180°)	-18.37/-18.25	-18.02/-18.07	-18.68/-18.59	-17.91/-17.89	-18.23/-18.26	-18.17/-17.2	-17.81/-19.23	-18.97/-18.28	-19.56/-18.36	-17.68/-16.71	-15.84/-14.96	-14.47/-14.12	-14.02/-13.82	-13.83/-14.39	-15.13/-15.99	-17.2/-17.83	-18.37/-18.13	-17.32/-16.7	-15.65/-14.53	-14.52/-15.13	-15.59/-16.27	-16.65/-18.13	-19.34/-17.29	-19.13/-18.83
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°)	-4.53/-4.47	-4.36/-3.92	-3.49/-3.01	-2.25/-1.64	-0.96/-0.78	-0.87/-1.16	-1.27/-1.45	-1.85/-2.28	-2.77/-3.25	-3.79/-4.13	-4.47/-4.72	-4.73/-4.49	-4.08/-3.71	-3.25/-2.91	-2.39/-1.96	-1.71/-1.44	-1.36/-1.27	-1.17/-1.08	-1.16/-1.22	-1.47/-1.72	-2.17/-2.62	-3.3/-3.86	-4.32/-4.54	
Θ(7.5°)	-4.91/-4.99	-5.12/-4.93	-4.65/-4.16	-3.01/-2.17	-1.72/-1.25	-0.74/-0.32	-0.18/-0.13	-0.12/-0.23	-0.48/-0.84	-1.26/-2.02	-2.74/-3.32	-3.73/-3.92	-3.76/-3.22	-2.63/-2.13	-1.71/-1.52	-1.43/-1.53	-1.62/-1.91	-2.26/-2.6	-2.84/-3.2	-3.48/-3.87	-4.18/-4.54	-5.03/-5.3	-5.58/-5.48	-5.01/-5.01
Θ(15°)	-5.18/-4.63	-4.49/-4.63	-4.4/-3.67	-2.72/-2.17	-1.96/-1.47	-1.26/-0.97	-0.76/-0.68	-0.61/-0.72	-0.87/-1.09	-1.4/-1.95	-2.46/-3.02	-3.72/-4.15	-4.29/-3.95	-3.2/-2.49	-1.95/-1.63	-1.46/-1.56	-2.01/-2.7	-3.57/-4.71	-5.65/-6.24	-6.07/-5.42	-4.71/-4.42	-4.37/-4.49	-5.14/-6.16	-6.78/-6.59
Θ(22.5°)	-4.62/-3.4	-1.27/-1.36	-2.99/-1.8	-1.27/-1.36	-1.05/-0.63	-0.37/-0.29	-0.23/-0.4	-0.36/-0.6	-0.8/-1.02	-1.36/-1.22	-2.01/-2.39	-3.11/-4.45	-6.27/-9.3	-8.25/-7.48	-6.38/-5.27	-4.3/-3.5	-2.71/-2.24	-2.13/-2.49	-3.43/-4.27	-5.79/-6.86	-6.56/-6.18	-5.23/-3.88	-3.21/-3.73	-5.35/-9.4
Θ(30°)	-3.17/-2.11	-1.89/-2.11	-1.07/-0.23	-0.21/-0.34	0.54/-0.4	1.01/-1.11	1.12/-1.01	0.64/-0.7	-0.34/-0.88	-1.08/-1.11	-1.48/-1.75	-1.86/-3.15	-5.51/-8.26	-12.08/-16.77	-15.02/-11.48	-8.11/-4.91	-2.77/-1.81	-1.47/-1.18	-0.87/-0.43	-0.49/-1.09	-2.02/-3.6	-5.15/-5.38	-3.89/-2.58	-2.36/-2.87
Θ(37.5°)	-0.24/-0.17	-0.35/-0.63	-0.23/-0.45	0.89/-1.7	2.15/-2.11	2.21/-2.33	2.29/-1.92	1.45/-0.86	0.29/-0.31	-0.86/-0.94	-1.07/-1.69	-1.32/-1.95	-2.86/-3.46	-3.07/-11.08	-14.1/-16.95	-18.97/-11.7	-7.72/-4.55	-1.58/-0.3	0.72/-0.76	0.82/-0.95	0.55/-0.7	-2.12/-3.19	-3.04/-1.64	-0.62/-0.4
Θ(45°)	0.25/-0.5	-0.03/-0.96	-0.65/-0.43	0.51/-2	1.27/-1.45	1.37/-1.19	0.95/-1.2	0.81/-0.57	-0.02/-0.51	-1.41/-1.88	-1.59/-1.77	-1.93/-2.43	-4.83/-7.09	-7.96/-8.19	-9.72/-11.72	-10.57/-5.48	-3.13/-2.5	-2.05/-1.11	-0.07/-0.35	-0.71/-1.05	-1.74/-2.12	-2.08/-1.1	-0.81/-0.01	
Θ(52.5°)	0.19/-0.06	-0.29/-1.99	-1.67/-1.55	-0.59/-0.38	0.91/-0.2	-0.02/-1.1	-1.33/-0.37	0.73/-1.38	1.37/-1.03	0.98/-0.22	-0.51/-1.97	-1.63/-2.11	-1.84/-2.12	-4.79/-4.92	-5.51/-3.91	-4.52/-6.68	-6.3/-4.62	-2.57/-2.28	-2.44/-2.17	-1.17/-0.44	-0.41/-1.44	-0.56/-0.15	-0.05/-0.44	-0.69/-0.47
Θ(60°)	-0.85/-0.45	-1.5/-2.97	-2.83/-2.94	-2.72/-1.8	-0.07/-0.55	-2.33/-4.68	-5.11/-3.05	-0.77/-0.35	1.09/-0.4	1.01/-0.67	-0.44/-1.77	-2.36/-2.44	-3.01/-2.22	-5.21/-4.25	-5.09/-2.24	-2.95/-3.16	-3.84/-2.4	-2.39/-2.6	-2.07/-2.26	-1.24/-4.08	-0.59/-1.57	-0.58/-1.44	1.12/-1.22	-0.66/-0.3
Θ(67.5°)	-1.74/-1.42	-4.16/-4.66	-6.19/-5.44	-5.68/-3.04	-1.53/-2.7	-5.38/-7.78	-5.66/-3.52	-2.98/-1.46	-0.09/-1.4	-1.04/-0.22	-1.61/-2.29	-3.39/-3.34	-4.3/-3.24	-6.31/-4.11	-4.6/-1.81	-2.53/-2.13	-1.8/-0.96	-1.48/-1.55	-0.98/-1.02	0.05/-0.1	0.57/-1.22	-0.31/-2.8	1.82/-1.67	-0.47/-0.05
Θ(75°)	-3.16/-2.48	-6.26/-5.61	-7.51/-6.81	-7.57/-4.93	-4.09/-5.33	-6.25/-6.6	-6.78/-6.52	-5.08/-3.89	-1.92/-0.74	-1.07/-0.75	-2.22/-2.37	-4.23/-3.8	-5.04/-3.87	-5.84/-3.51	-4.34/-2.76	-2.87/-1.55	-0.28/-0.5	-0.89/-0.63	1.06/-0.32	0.84/-1.67	1.33/-0.37	-2.03/-63	1.61/-1.52	-0.81/-0.62
Θ(82.5°)	-4.48/-4.6	-8.16/-8.05	-10.01/-10.8	-9.56/-7.37	-6.48/-8.49	-6.59/-8.69	-8.45/-8.62	-7.36/-6.49	-3.86/-2.45	-2.43/-2.69	-3.48/-3.78	-5.22/-4.73	-5.13/-4.11	-5.66/-3.14	-4.61/-4.34	-2.87/-1.86	0.22/-0.36	-1.25/-1.74	0.22/-0.27	1.27/-1.53	0.74/-1.1	-2.44/-3.57	0.60/-52	-1.99/-2.09
Θ(90°)	-6.15/-5.78	-8.97/-9.13	-11.33/-10.48	-10.51/-7.2	-6.37/-10.02	-6.73/-7.86	-8.26/-10.49	-9.82/-8.76	-5.11/-3.01	-3.34/-5.3	-5.25/-6.5	-6.52/-5.9	-6.73/-5.69	-7.57/-5.12	-4.89/-7.03	-3.35/-2.96	-0.36/-0.28	-2.72/-3.47	-0.29/-1.77	0.80/-3	0.12/-2.3	-2.19/-1.57	-0.62/-1.73	-3.89/-3.67
Θ(97.5°)	-7.89/-7.55	-9.94/-10.59	-11.05/-12.55	-11.19/-8.14	-6.65/-10.82	-9.02/-9.85	-11.24/-14.17	-11.19/-9.42	-6.14/-4.65	-5.17/-4.66	-7.15/-7.23	-9.03/-7.16	-8.05/-6.96	-9.25/-7.1	-5.63/-3.22	-6.28/-4.87	-2.85/-3.24	-7.52/-7.13	-2.96/-6.18	-2.26/-2.84	-2.93/-5.01	-3.79/-4.67	-2.98/-4.52	-6.66/-5.55
Θ(105°)	-7.21/-8.79	-12.18/-12.35	-11.37/-10.62	-12.48/-8.19	-5.73/-4.49	-11.89/-13.27	-15.31/-17.86	-12.07/-9.25	-6.02/-5.5	-6.34/-7.84	-9.4/-11.5	-12.27/-9.54	-9.85/-9.04	-12.05/-12.15	-7.3/-10.64	-9.14/-7.92	-5.99/-5.44	-10.81/-8.84	-4.23/-8.54	-6.18/-5.15	-4.69/-6.53	-5.02/-7.16	-4.85/-7.29	-8.57/-6.11
Θ(112.5°)	-6.78/-7.33	-9.14/-11.32	-11.59/-13.05	-16.03/-12.48	-8.6/-9.42	-13.18/-19.19	-18.29/-16.71	-11.11/-9.32	-9.42/-9.75	-10.51/-9.89	-9.66/-11.59	-11.5/-9.93	-12.3/-9.4	-11.32/-14.11	-8.56/-11.7	-9.85/-9	-6.43/-4.93	-8.53/-6.88	-4.45/-10.27	-7.72/-4.59	-5.04/-6.39	-6.15/-5.89	-5.67/-8.47	-7.96/-5.34
Θ(120°)	-5.38/-7.3	-9.14/-11.33	-12.68/-10.37	-12.77/-13.06	-9.77/-10.25	-13.51/-14.18	-13.85/-13.65	-12.11/-9.31	-9.61/-12.61	-12.97/-10.98	-10.86/-10.54	-12.65/-12.88	-14.3/-9.7	-9.22/-12.61</										



Radiated Composite Gain of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix C

Θ(120°)	-15.27/-18.27	-17.17/-16.68	-18.99/-16.48	-12.95/-9.59	-10/-13	-18.26/-18.72	-13.81/-11.18	-8.83/-7.98	-10.01/-12.69	-15.48/-15.97	-17.96/-11.77	-11.01/-14.66	-18.55/-12.5	-11.17/-16.95	-18.95/-11.64	-18.49/-17.03	-16.15/-10.23	-12.52/-16.96	-14.55/-18.44	-18.98/-13.15	-11.82/-19.11	-16.46/-11.01	-12.53/-12.34	-6.87/-10.45
Θ(127.5°)	-10.76/-18.58	-17.92/-14.81	-17.48/-18.24	-18.47/-13.58	-12.11/-14.46	-16.51/-17.1	-18.33/-10.82	-7.26/-57.2	-11.92/-18.31	-18.4/-18.99	-18.85/-18.9	-14.62/-16.7	-12.24/-14.09	-9.73/-17.08	-13.64/-15.35	-17.65/-16.56	-16.13/-8.87	-18.57/-19.18	-14.37/-12.94	-10.85/-14.58	-10.55/-10.25	-11.93/-10.55	-9.09/-10.6	-5.67/-10.59
Θ(135°)	-15.42/-13.49	-17.77/-14.81	-18.13/-18.16	-17.92/-18.48	-18.44/-15.12	-11.57/-11.81	-18.06/-18.21	-10.03/-9.45	-11.33/-13.38	-19.11/-14.82	-12.93/-15.87	-18.81/-13.28	-19.06/-11.47	-15.18/-17.31	-17.87/-15.99	-17.07/-18.28	-14.43/-13.84	-19.12/-11.7	-16.2/-7.68	-8.61/-13.38	-18.18/-11.7	-15.02/-16.74	-9.96/-12.12	
Θ(142.5°)	-19.19/-18.88	-18.83/-17.77	-18.16/-16.5	-19.17/-18.54	-17.59/-17.76	-17.1/-15.6	-17.2/-17.58	-14.86/-9.97	-10.76/-14.71	-17.59/-15.12	-13.96/-14.05	-17.66/-15.47	-13.76/-17.89	-16.31/-17.75	-19.17/-17.94	-17.65/-13.3	-16.47/-19.12	-13.9/-14.25	-17.54/-18.17	-16.84/-17.63	-16.4/-12.78	-13.35/-18.58	-19.25/-12.56	-14/-18.55
Θ(150°)	-18.36/-18.64	-18.15/-18	-17.88/-17.91	-18.17/-18.37	-15/-10.9	-9.49/-12.03	-13.9/-18.1	-18.85/-16.34	-15.19/-19.16	-18.73/-15.81	-18.71/-17.78	-18.22/-13.53	-10.69/-12.87	-15.85/-17.46	-18.15/-17.95	-14.72/-15.08	-18.28/-18.5	-13.6/-12.41	-13.91/-12.56	-10.63/-11.37	-14.08/-18.72	-12.44/-9.99	-10.04/-11.03	-12.06/-14.6
Θ(157.5°)	-12.62/-16.77	-18.42/-13.98	-18.91/-18.98	-18.25/-18.02	-18.89/-16.88	-15.43/-16.93	-17.18/-18.4	-19.12/-18.65	-18.18/-18.75	-18.97/-18.94	-18.95/-17.99	-18.9/-13.93	-17.97/-19.17	-17.97/-19.17	-18.79/-18.45	-18.43/-16.52	-15.99/-17.92	-17.53/-17.46	-13.82/-16.28	-18.3/-12.97	-10.85/-11.09	-13.02/-14.39	-14.08/-13.37	-14.43/-12.88
Θ(165°)	-18.16/-18.44	-18.15/-16.53	-17.99/-18.04	-18.78/-18.22	-19.95/-18.57	-17.63/-18.78	-18.86/-17.57	-16.77/-15.83	-14.85/-15.49	-17.43/-18.29	-17.42/-18.36	-18.48/-18.41	-18.82/-18.93	-14.85/-11.5	-10.69/-12.41	-15.49/-18.15	-19.25/-18.42	-18.98/-18.55	-17.38/-18.92	-18.31/-15.92	-16.52/-15.52	-13.24/-13.55	-15.78/-19.47	-18.23/-18.21
Θ(172.5°)	-18.77/-18.82	-18.05/-18.9	-18.71/-18.04	-18.23/-18.15	-18.85/-18.97	-18.53/-19.73	-18.96/-19.18	-18.75/-18.4	-18.97/-18.32	-19.8/-18.85	-18.43/-16.58	-15.02/-14.29	-14.21/-14.72	-16.4/-18.43	-18.54/-18.11	-16.92/-15.11	-14.63/-16.07	-16.59/-16.75	-16.36/-15.78	-14.44/-13.2	-13.4/-14.62	-15.06/-15.2	-15.97/-17.95	-18.22/-17.61
Θ(180°)	-12.73/-14.44	-14.02/-15.46	-18.01/-17.93	-17.13/-17.91	-18.74/-19.22	-18.95/-17.38	-18.05/-18.26	-19.2/-17.02	-16.04/-15.27	-14.71/-14.82	-14.63/-14.72	-14.83/-15.79	-16.78/-18.12	-19.57/-18.42	-17.73/-18.01	-18.79/-19.15	-16.49/-14.04	-12.49/-11.75	-16.49/-14.04	-10.83/-10.03	-10.42/-11.08	-11.65/-12.09	-12.88/-13.26	-12.6/-14
Freq(Hz)	6.475GPol.	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°)	0.010/22	0.310/44	0.350/26	0.010	-0.11/-0.39	-0.6/-1	-0.89/-1.14	-1.27/-1.26	-1.2/-0.83	-0.57/-0.19	0.050/28	0.460/68	0.833/99	0.951/02	0.860/61	0.540/23	-0.14/-0.45	-0.67/-0.96	-1.12/-1.49	-1.65/-1.73	-1.63/-1.43	-1.14/-0.93	-0.84/-0.58	-0.37/-0.03
Θ(7.5°)	-2.15/-1.61	-1.3/-1.22	-0.92/-0.84	-0.73/-0.66	-0.71/-0.99	-1.39/-1.54	-1.49/-1.74	-1.77/-1.62	-1.24/-0.7	-0.330/14	0.440/89	1.25/-1.48	1.82/-1.94	1.94/-1.72	1.47/-1.19	0.680/17	-0.45/-1.01	-1.57/-1.99	-2.82/-3.52	-4.38/-4.64	-4.94/-4.83	-4.37/-3.67	-3.17/-2.74	-2.51/-2.14
Θ(15°)	-3.4/-3.43	-2.74/-1.67	-1.16/-1.24	-1.24/-1.27	-1.14/-1.15	-1.16/-1.09	-1.03/-1.02	-1.05/-0.87	-0.77/-0.75	-0.65/-0.57	-0.57/-0.46	-0.290/07	0.540/85	0.96/-0.1	0.920/76	0.4/-0.15	-0.99/-1.99	-2.85/-3.4	-3.66/-3.9	-3.87/-4.14	-4.56/-5.76	-7.59/-8.4	-6.78/-4.73	-3.3/-3.03
Θ(22.5°)	-1.04/-1.24	-0.890/06	0.11/-0.76	-0.13/-0.83	-0.81/-1.14	-1.08/-1.01	-0.89/-0.86	-0.83/-0.55	-0.20/-0.05	-0.07/-0.52	-1.29/-2.32	-3.08/-2.9	-1.95/-1.06	-0.79/-0.92	-0.81/-0.59	-0.53/-1.2	-2.3/-3.57	-4.73/-5.75	-6.31/-5.41	-4.95/-4.53	-4.25/-4.33	-6.83/-5.08	-5.61/-5.33	-3.58/-1.67
Θ(30°)	0.790/95	0.61/-1.26	0.62/-0.6	-0.43/-0.47	-1.36/-2.3	-2.86/-3.01	-2.75/-1.51	-0.160/9	1.762/08	1.540/19	-1.47/-4.01	-7.13/-7.69	-6.11/-5.2	-5.14/-5.12	-4.36/-3.3	-2.78/-2.71	-2.1/-1.74	-1.79/-1.54	-1.68/-2.31	-3.27/-4.88	-6.85/-6.55	-5.74/-3.99	-2.44/-1.84	-1.55/-0.32
Θ(37.5°)	1.14/-1.27	0.76/-1.18	0.38/-0.05	-0.79/-4.23	-3.86/-4.82	-6.33/-5.5	-3.18/-1.22	0.361/39	2.51/-33	3.34/-81	-1.23/-4.68	-8.69/-9.6	-7.58/-7.51	-7.48/-7.85	-10.11/-9.96	-6.67/-4.47	-2.79/-1.39	-0.52/-0.08	-0.19/-0.75	-2.09/-2.81	-3.86/-5.48	-4.76/-3.2	-1.79/-0.47	0.770/92
Θ(45°)	0.420/26	-1.10/44	0.75/-1	-0.94/-3.22	-4.43/-5.98	-5.6/-3.64	-1.42/-0.07	1.142/18	3.294/1	4.133/14	-5.02/-6.23	-7.53/-8.9	-7.2/-5.77	-5.02/-6.07	-11.94/-16.45	-7.79/-5.43	-4.24/-2.95	-1.83/-1.57	-2.13/-2.42	-2.65/-2.69	-2.81/-1.67	-1.47/-1.5	-0.64/-0.87	0.93/-21
Θ(52.5°)	-0.55/-2.2	-3.48/-1.43	1.27/-1.39	-1.04/-2.72	-5.33/-5.51	-3.08/-0.98	0.060/6	1.01/-1.54	2.683/95	3.712/77	-0.28/-4.82	-7.1/-7.26	-5.65/-4.2	-3.07/-3.75	-6.9/-7.39	-5.3/-5.15	-4.9/-4.13	-3.47/-4.32	-4.54/-3.87	-4.2/-4.81	-3.11/-0.96	0.79/-0.49	-0.46/-2.27	0.310/07
Θ(60°)	-1.49/-3.95	-6.52/-2.74	1.340/86	0.57/-2.1	-4.3/-2.63	-0.97/-0.94	-1.13/-0.73	0.210/8	0.82/03	2.892/02	-0.23/-4.5	-6.28/-6.44	-4.61/-3.55	-2.23/-2.78	-2.99/-4.4	-3.17/-3.29	-2.85/-3.87	-4/-3.06	-2.91/-3.85	-4.3/-3.84	-3.19/-11.7	0.99/-0.92	-0.87/-9.3	-1.13/-0.8
Θ(67.5°)	-2.49/-4.55	-7.19/-3.2	0.140/96	0.72/-2.61	-2.83/-1.96	-0.66/-0.24	-0.81/-1.26	-0.78/-0.79	-0.74/-0.84	1.230/19	-1.76/-18	-6.79/-6.14	-4.53/-3.63	-1.25/-2.31	-1.54/-3.06	-2.54/-1.28	-1.57/-2.74	-2.34/-1.02	-0.55/-1.37	-1.94/-2.02	-0.62/-0.18	1.79/-2.51	-3.73/-8.26	-3.32/-1.97
Θ(75°)	-3.26/-4.85	-6.1/-4.04	-1.040/89	0.15/-3.34	-2.99/-3.29	-0.79/-0.22	-0.6/-1.49	-1.84/-0.6	-0.86/-0.98	-2.9/-4.68	-6.98/-5.82	-4.27/-2.87	-1.98/-1.97	-1/-3.74	-2.58/-0.82	-1.21/-2.26	-2.130/02	1.45/-0.25	-1.63/-1.74	-0.25/-0.62	0.72/-3.58	-6.28/-12.93	-5.06/-3.01	
Θ(82.5°)	-6.25/-37.7	-6.21/-4.95	-2.69/-0.96	-2.27/-4.05	-4.53/-4.01	-1.73/-2.74	-3.74/-3.68	-2.35/-1.4	-5.51/-6.95	-2.82/-1.93	-4.19/-8.79	-8.2/-5.46	-4.65/-2.85	-4.19/-2.86	-1.62/-2.71	-1.34/-2.56	-2.38/-0.23	2.01/-0.78	-3.14/-0.87	-0.35/-0.17	-1.25/-6.78	-9.73/-18.68	-7.31/-5.24	
Θ(90°)	-12.27/-12.75	-8.32/-6.19	-2.72/-2.24	-3.87/-4.53	-5.97/-4.62	-3.12/-5.67	-4.47/-7.05	-3.84/-5.06	-6.17/-6.65	-0.88/-2.79	-4.87/-11.1	-9.52/-6.1	-5.73/-17	-6.92/-3.71	-3.74/-9.37	-5.53/-3.06	-3.01/-3.62	-2.23/-1.93	-0.41/-2.68	-4.15/-1.37	-1.31/-1.17	-3.79/-55	-11.94/-15.62	-11.86/-1.74
Θ(97.5°)	-15.16/-15.93	-13.26/-8.21	-3.09/-2.05	-3.75/-6.38	-7.53/-6.9	-5.53/-9.52	-10.13/-9.54	-5.4/-6.52	-7.5/-8.16	-6.19/-5.01	-6.59/-14.15	-11.58/-6.84	-9.05/-5.37	-8.09/-3.84	-3.95/-8.58	-7.37/-7.36	-5.7/-6.87	-5.34/-5.56	-3.55/-8.38	-7.88/-4.01	-2.97/-2.99	-6.79/-6.83	-11.92/-14.96	-14.06/-8.7
Θ(105°)	-9.72/-8.68	-15.3/-12.47	-4.44/-3.17	-3.1/-5.65	-7.98/-12.81	-9.13/-10.08	-8.67/-8.91	-8.71/-14.51	-9.25/-8.97	-7.74/-9.1	-9.38/-14.08	-13.35/-9.43	-10.47/-5.92	-5.56/-5.32	-5.39/-6.82	-9.85/-5.3	-6.52/-10.24	-7.64/-7.21	-5.41/-10.25	-11.3/-8.3	-4.62/-4.38	-9.11/-8.27	-11.24/-17.97	-12.26/-6.61
Θ(112.5°)	-7.43/-7.51	-11.62/-12.45	-6.25/-2.55	-3.57/-5.89	-8.11/-11.59	-15.08/-14.28	-13.45/-11.11	-13.43/-10.39	-10.48/-8.08	-9.48/-9.2	-9.36/-15.88	-18.54/-14.27	-9.18/-6.69	9.01/-10.1	-8.41/-10.35	-7.27/-4.16	-6.68/-6.64	-10.52/-5.26	-11.44/-9.5	-1.16/-5.4	-9.17/-8.83	-17.31/-16.52	-11.94/-16.64	
Θ(120°)	-5.59/-6.78	-9.87/-11.29	-9.7/-6.2	-5.77/-4.29	-5.82/-7.53	-10.5/-15.82	-17.73/-17.6	-12.68/-9.82	-9.88/-9.92	-10.15/-8.38	-11.94/-16.66	-18.34/-19.06	-9.76/-9.31	-8.02/-11.74	-13.09/-7.01	-9.29/-7.82	-9.44/-2.9	-9.73/-12.44	-7.59/-14.15	-11.92/-4.85	-6.97/-13.29	-9.29/-12.84	-16.24/-17.17	-10.62/-5.58
Θ(127.5°)	-4.4/-7.08	-8.05/-12.66	-15.88/-11.11	-9.2/-6.83	-5.88/-6.48	-8.47/-1.47	-19.18/-19.09	-15.29/-12.7	-8.98/-12.06	-13.46/-19.2	-14.83/-15.22	-13.76/-16	-10.27/-12.42	-7.64/-12.7	-7.74/-6.85	-10.99/-6.86	-7.96/-9.22	-18.36/-9.49	-5.56/-12.83	-13.79/-12.48	-10.02/-15.49	-9.75/-13.68	-12.86/-15.6	-6.37/-6.2
Θ(135°)	-5.59/-6.1	-8.54/-12.43	-15.22/-19.4	-13.65/-10.98	-10.76/-8.94	-8.94/-11.24	-14.13/-14.72	-17.27/-16.72	-13.30/-137	-12.08/-11.9	-14.41/-15.81	-17.93/-15.23	-15.48/-11.31	-9.39/-7.04	-11.04/-7.47	-12.21/-16.37	-7.25/-6.89	-18.6/-8.08	-5.1/-14.1	-18.1/-11.58	-18.96/-18.08	-14.43/-10.63	-16.78/-12.25	-7.25/-6.11
Θ(142.5°)	-9.41/-11.22	-11.95/-14.81	-16.1/-13.93	-12.37/-10.81	-10.21/-11.18	-12.33/-12.15	-13.3/-15.13	-17.73/-18.86	-16.31/-15.44	-14.87/-17.08	-15.87/-16.65	-18.34/-16.67	-16.11/-11.16	-7.72/-10.19	-13.69/-17.32	-16.03/-18.31	-13.03/-14.68	-16.02/-19.25	-14.5/-18.46	-18.28/-17.37	-14.13/-19.36	-18.15/-18.74	-17.49/-18.49	-11.23/-10.31
Θ(150°)	-12.5/-13.22	-16.35/-17.3	-18.27/-18.83	-18.97/-19.16	-15.09/-12.04	-10.73/-11.76	-13.26/-14.93	-16.91/-19.38	-17.92/-18.53	-19.87/-17.68	-18.91/-17.4	-17.86/-16.99	-17.13/-14.59	-12.98/-14.79	-17.42/-18.09	-17.72/-18.07	-18.73/-18.36	-12.78/-13.83	-17.19/-17.96	-15.13/-15.72	-17.71/-15.99	-17.18/-18.76	-18.92/-17.5	-15.93/-14.18
Θ(157.5°)	-11.76/-13.77	-17.16/-17.16	-16.82/-14.89	-15.16/-17.4	-16.16/-16.75	-17.63/-17.29	-18.7/-18.01	-18.46/-16.68	-18.23/-18.37	-18.55/-17.22	-18.15/-18.22	-19.38/-18.84	-13.97/-12.48	-14.54/-16.93	-16.88/-17.57	-17.93/-18.86	-18.35/-18.64	-15.24/-12.87	-12.74/-13.78	-16.02/-19.92	-18.28/-13.31	-12.5/-16.62	-15.4/-12.42	-12.14/-11.99
Θ(165°)	-11.31/-12.85	-16.15/-17.22	-16.79/-14.11	-11.98/-11.15	-12.64/-14	-14.52/-15.25	-16.12/-17.04	-18.65/-19.08	-18.01/-18.99	-16.87/-16.34	-18.81/-18.65	-18.39/-18.13	-17.51/-14.97	-15.13/-18.58	-19.12/-17.59	-16.03/-18.2	-18.57/-17.51	-15.						



Radiated Composite Gain of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix C

Θ(165°)	-9.01/-10.4	-12.35/-15.89	-17.46/-16.76	-18.92/-18.1	-17.19/-18.08	-18.44/-17.85	-18/-18.37	-18.75/-18.32	-17.71/-15.77	-13.93/-13.68	-13.16/-12.39	-11.69/-11.93	-12.81/-14.02	-15.07/-14.81	-14.81/-17.41	-18.8/-19.1	-19.13/-17.52	-16.3/-14.95	-13.98/-13.54	-14.39/-15.46	-16.99/-16.11	-13.91/-12.06	-11.2/-10.79	-10.96/-9.57
Θ(172.5°)	-15.72/-18.78	-18.31/-18.36	-18.67/-18.57	-18.01/-17.87	-17.73/-17.65	-18.45/-18.7	-18.9/-18.05	-17.7/-18.22	-17.81/-18.6	-17.63/-17.34	-17.92/-18.44	-18.66/-17.92	-18.95/-17.77	-18.57/-18.45	-18.25/-18.24	-18.39/-17.68	-18.09/-19.09	-18.89/-16.77	-15.73/-15.44	-15.33/-15.4	-15.31/-13.95	-13.58/-13.45	-13.44/-13.78	-15.96/-16.4
Θ(180°)	-15.11/-13.63	-13.61/-13.76	-13.22/-13.22	-13.7/-17.21	-18.59/-19.22	-18.97/-18.25	-18.44/-17.56	-17.44/-16.83	-15.94/-15.2	-15.63/-16.04	-16.11/-15.82	-15.82/-15.25	-14.64/-14.21	-14.58/-14.57	-15.08/-16.27	-18.17/-17.87	-18.92/-17.29	-18.59/-17.94	-18.48/-18.51	-18.08/-18.36	-19.21/-19.38	-17.48/-16.71	-15.21/-13.75	-14.59/-13.35
Freq(Hz)	6.995G/Pol.	Theta/Ant. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-0.73/-1.08	-0.95/-0.64	-0.83/-0.99	-1.08/-1.25	-1.32/-1.45	-1.61/-1.44	-1.43/-1.38	-1.35/-1.31	-1.11/-1.07	-1.02/-0.78	-0.75/-0.62	-0.61/-0.64	-0.62/-0.61	-0.73/-0.8	-1.09/-1.2	-1.07/-1.09	-1.15/-1.22	-1.03/-1.08	-1.18/-1.08	-1.02/-0.86	-0.74/-0.82	-0.71/-0.65	-0.66/-0.71	-0.6/-0.61
Θ(7.5°)	-1.6/-1.81	-2.42/-2.9	-3.29/-3.93	-4.27/-4.1	-3.59/-2.69	-1.81/-1.29	-0.67/-0.52	-0.31/-0.26	-0.17/-0.25	-0.12/0.04	-0.01/0.32	0.43/0.46	0.41/0.27	0.22/-0.18	-0.57/-1	-1.63/-2.51	-3.61/-4.2	-4.99/-5.23	-4.89/-4.4	-3.61/-2.72	-1.88/-1.36	-0.91/-0.82	-0.75/-0.9	-1.08/-1.25
Θ(15°)	-1.91/-1.94	-1.83/-2.24	-4.03/-6.96	-9.61/-11.13	-11.28/-9	-6.58/-4.39	-2.89/-1.78	-1.32/-1.28	-1.43/-1.37	-1.13/-0.69	-0.07/0.54	0.67/0.26	0.1/-0.36	-0.75/-1.28	-1.79/-2.66	-3.92/-5.27	-6.82/-8.13	-7.95/-7.6	-7.03/-6.33	-5.63/-4.81	-4.17/-3.59	-2.77/-1.48	-0.48/-0.16	-0.44/-1.2
Θ(22.5°)	-0.24/-0.54	-0.62/-1.58	-3.83/-5.53	-7.27/-9.62	-13.88/-17.66	-15.05/-9.07	-5.24/-2.65	-0.89/-0.02	0.03/-0.34	-1/-0.8	-0.04/0.76	0.6/-0.33	-1.25/-2.1	-2.89/-3.8	-4.5/-5.12	-5.42/-5.87	-6.89/-8.5	-10.29/-9.77	-8.08/-6.31	-4.77/-3.66	-3.17/-3.26	-3.34/-3.51	-2.66/-1.61	-0.45/0.07
Θ(30°)	-0.29/-1.02	-0.9/-1.86	-3.65/-4.29	-6.92/-10.3	-12.32/-12.6	-10.48/-7.13	-4.61/-2.9	-1.32/-0.32	0.19/0.22	0.16/0.26	0.72/1.54	1.14/-0.64	-2.62/-3.97	-5.46/-5.74	-5.29/-4.77	-4.17/-4.04	-4.46/-4.78	-4.85/-5.24	-5.89/-6.52	-6.96/-8.29	-7.34/-4.48	-2.45/-1.35	-2.11/-3.11	-2.28/-0.84
Θ(37.5°)	-1.24/-2.19	-3.02/-3.24	-3.19/-3.48	-5.72/-6.95	-6.76/-5.1	-3.39/-1.75	-0.92/-0.45	0.11/0.54	0.77/0.51	0.28/0.63	1.09/1.7	1.19/-1.1	-3.48/-6.45	-7.44/-7	-6.05/-5.77	-5.24/-3.92	-3.05/-2.25	-2.39/-3.15	-3.05/-2.44	-2.42/-1.99	-3.47/-4.02	-3.4/-1.77	-1.42/-1.53	-1.51/-2.21
Θ(45°)	-2.89/-4.48	-3.35/-2.23	-0.17/-0.46	-1.74/-3.77	-4.93/-2.99	-0.46/1.24	1.69/1.58	1.4/0.99	0.48/0.7	0.58/0.64	1.29/1.54	1.12/-1.28	-3.4/-7.27	-7.75/-8.82	-9.29/-12.01	-10.1/-7.41	-5.3/-4.9	-5.35/-6.4	-7.07/-5.86	-3.94/-3.51	-3.09/-1.49	-0.38/0.51	0.27/-0.02	-0.16/-2.72
Θ(52.5°)	-2.61/-3.84	-1.65/0.05	1.93/1.19	0.65/-1.38	-1.75/-0.61	0.18/1.21	1.76/1.66	1.2/1	0.38/-0.31	-0.05/-0.15	0.75/0.88	0.76/-0.75	-2.42/-6.1	-7.37/-9.18	-12.82/-18	-12.89/-11.31	-9.63/-7.4	-8.56/-7.02	-5.77/-5.59	-6.67/-6.46	-5.91/-2.46	-1.35/0.86	0.53/-0.06	-0.23/-2.57
Θ(60°)	-2.63/-2.51	-0.19/1.52	3.17/2.87	1.46/-0.21	-0.3/-0.38	0.24/0.91	1.49/1.76	1.07/-0.2	-0.77/-1.73	-1.33/-0.77	-0.17/0.04	0.27/-0.68	-1.98/-5.14	-6.07/-8.85	-9.34/-13.91	-6.91/-10.05	-11.5/-10.6	-6.82/-3.54	-1.59/-2.13	-3.52/-5.85	-6.6/-3.84	-2.24/-0.48	-0.66/-0.98	-1.13/-2.41
Θ(67.5°)	-2.56/-0.76	1.32/2.75	4.07/3.2	1.16/0.86	-0.28/0.7	-0.18/-2.49	-2.52/-0.9	0.05/-0.02	-2.12/-1.89	-2.79/-1.61	-0.61/-1.53	-1.92/-2.95	-4.12/-4.89	-5.78/-7.48	-7.28/-9.31	-3.8/-7.94	-9.37/-10.88	-4.67/-0.86	0.54/-0.4	-1.95/-3.17	-6.09/-4.76	-3.09/-1.78	-1.96/-2.41	-3.04/-3.3
Θ(75°)	-2.04/-0.09	1.52/2.69	3.29/2.7	1.27/0.64	-0.44/1.68	-1.76/-2.28	-1.71/-1.07	-1.26/-1.22	-2.14/-2.59	-3.82/-3	-2.09/-3.02	-5.58/-7.13	-6.27/-5.26	-4.65/-7.69	-6.57/-8.3	-3.27/-4.63	-7/-5.83	-3.33/-0.27	0.45/-0.34	0.07/-1.68	-3.34/-3.91	-3.64/-2.7	-2.31/-4.13	-4.01/-3.55
Θ(82.5°)	-0.35/-0.78	-0.11/0.79	0.96/1.37	-0.94/-1.4	-0.37/0.36	-1.82/-2.02	-2.88/-1.41	-1.78/-4.8	-3.78/-6.06	-6.63/-4.8	-3.57/-4.12	-8.64/-13.29	-7.24/-6.76	-5.69/-8.32	-5.05/-8.23	-3.79/-3.79	-4.68/-3.4	-3.6/-2.81	-1.77/-0.3	1.14/-1.05	-3.44/-4.22	-5.78/-5.17	-3.88/-5.57	-3.29/-2.13
Θ(90°)	-0.03/-2.22	-2.53/-1.95	-1.97/-1.12	-2.74/-2.65	-1.79/-1.41	-1.86/-1.7	-4.99/-4.9	-3.81/-9.26	-5.66/-8.38	-7.28/-5.01	-5.31/-5.41	-9.16/-15.63	-7.78/-7.93	-6.68/-8.85	-3.95/-6.38	-5.6/-4.45	-4.46/-5.86	-8.12/-6.88	-4.2/-3.19	-1.35/-3.01	-6.7/-5.29	-10.83/-6.73	-4.28/-6.84	-2.65/-2.49
Θ(97.5°)	-1.84/-4.4	-4.21/-4.07	-5.59/-3.82	-4.2/-4.91	-4.48/-2.18	-2.39/-1.9	-5.8/-7.44	-5.77/-8.04	-7.47/-9	-6.81/-4.28	-8.44/-7.96	-8.69/-17.43	-10.77/-5.96	-5.98/-6.63	-6.21/-8.34	-6.6/-7.2	-8.4/-12.15	-11.62/-13.37	-6.46/-6.3	-8.78/-8.51	-9.93/-6.56	-13.97/-8.25	-5.12/-6.51	-2.22/-3.26
Θ(105°)	-4.09/-5.57	-4.22/-4.27	-4.19/-3.34	-5.08/-6.35	-9.01/-3.8	-4.58/-5.19	-11.38/-16.91	-11.17/-7.83	-8.13/-11.33	-10.43/-7	-9.85/-11.71	-11.55/-15.2	-10.33/-9.23	-7.2/-9	-9.72/-8.04	-11.32/-8.32	-9.4/-8.76	-7.94/-9.69	-10.69/-8.52	-8.9/-8.03	-10.45/-9.14	-7.68/-5.49	-6.92/-5.62	-4.77/-4.79
Θ(112.5°)	-9.46/-7.71	-5.95/-4.72	-3.35/-2.92	-2.94/-5.92	-7/-7.45	-4.17/-4.93	-7.86/-11.59	-15.01/-10.41	-14.77/-10.72	-9.8/-7.04	-9.39/-10	-8.82/-11.09	-13.45/-12.91	-11.2/-16.68	-9.41/-7.96	-11.41/-5.55	-5.23/-7.96	-10.31/-9.59	-4.39/-8.51	-7/-8.39	-4.5/-4.68	-9.87/-7.48	-8.27/-7.5	-9.26/-10.84
Θ(120°)	-15.86/-10.03	-8.07/-5.44	-3.97/-3.98	-4.4/-5.06	-5.28/-7.72	-11.32/-7.94	-7.48/-9	-11.03/-13.08	-13.42/-13.21	-7.55/-9.65	-16.04/-18.46	-13.57/-19.28	-18.39/-16.69	-13.84/-18.01	-8.87/-10.26	-12.54/-12.33	-10.9/-19.2	-13.24/-13.66	-7.43/-14.48	-16.66/-11.16	-7.19/-9.14	-5.77/-5.33	-8.99/-9.65	-16.78/-17.74
Θ(127.5°)	-8.18/-8.85	-8.04/-6.65	-5.73/-5.47	-5.94/-3.74	-3.38/-6.17	-11.81/-19.05	-12.66/-10.01	-9.04/-8.9	-12.09/-17.86	-14.84/-10.83	-13.23/-18.38	-12.33/-15.36	-10.79/-11.74	-9.65/-13.4	-12.98/-16.97	-14.63/-8.72	-17.19/-5.07	-12.85/-18.56	-10.24/-12.54	-12.9/-6.31	-4.35/-19.27	-9.9/-7.38	-12.99/-15.01	-18.08/-11.57
Θ(135°)	-6.3/-8.22	-6.69/-8.78	-8.21/-6.57	-5.53/-4.45	-3.91/-5.48	-10.12/-18.45	-18.86/-16.77	-11.5/-7.85	-7.05/-10.09	-15.07/-18.02	-16.81/-12.08	-8.64/-10.02	-7.34/-13.71	-13.54/-17.06	-17.91/-8.74	-9.15/-18.91	-14.87/-19.24	-6.65/-6.97	-6.47/-10.77	-16.48/-8.66	-17.94/-16.26	-9.39/-14.74	-17.16/-18.68	-13.52/-11.36
Θ(142.5°)	-9.76/-9.07	-9.28/-9.18	-8.98/-6.95	-5.94/-4.99	-5.65/-8.47	-12.3/-14.09	-13.11/-16.58	-15.68/-10.39	-8.15/-8.48	-11.34/-14.63	-14.28/-15.23	-14.78/-12.8	-16.36/-17.99	-18.12/-15.5	-19.24/-17.05	-16.73/-18.97	-10.04/-11.56	-14.9/-11.95	-12.73/-17.81	-16.91/-14.93	-16.43/-16.23	-15.45/-18.39	-18.97/-19.04	-14.92/-11.41
Θ(150°)	-10.83/-15.57	-14.2/-13.01	-14.4/-10.67	-7.44/-7.03	-6.22/-7.08	-9.43/-12.34	-14.55/-18.03	-18.12/-18.63	-15.56/-15.14	-18.56/-16.83	-19.06/-18.35	-19/-17.56	-17.13/-18	-16.6/-16.66	-17.6/-19.05	-14.69/-9.11	-8.24/-15.88	-18.19/-14.46	-14.48/-18.65	-18.62/-18.84	-17.68/-18.12	-18.46/-18.09	-17.43/-16.55	-12.46/-10.66
Θ(157.5°)	-10.63/-11.01	-11.75/-12.46	-12.99/-12.62	-11.1/-8.78	-8.11/-7.84	-8.27/-9.75	-12.24/-14.43	-16.82/-18.47	-17.68/-16.68	-14.24/-14.32	-18.88/-17.38	-16.36/-18.22	-17.32/-14.29	-15.11/-17.38	-18.3/-17.82	-16.54/-15.67	-18.09/-15.91	-12.57/-12.44	-15.67/-18	-18.86/-18.77	-18.71/-18.57	-17.74/-15.31	-17.18/-13.43	-10.29/-9.32
Θ(165°)	-17.07/-15.43	-14.26/-14.24	-14.84/-13.44	-12.51/-11.84	-10.87/-10.64	-10.74/-11.66	-13.4/-16.34	-18.81/-18	-18.41/-18.06	-16.66/-16.92	-16.21/-13.84	-12.36/-11.72	-11.25/-12.37	-15.59/-17.91	-18.76/-15.55	-12.2/-10.25	-10.59/-11.82	-12.67/-13.67	-15.27/-17.48	-17.49/-17.86	-19.75/-18.17	-19.12/-18.07	-16.24/-16.82	-15.91/-16.14
Θ(172.5°)	-14.62/-15.17	-17.32/-14.74	-14.44/-16.15	-15.07/-13.76	-13.63/-14.7	-16.18/-17.09	-16.49/-16.25	-17.74/-18.06	-19.24/-18.19	-19.1/-18.82	-17.73/-17.12	-19.11/-18.22	-18.34/-18.96	-17.3/-17.61	-18.66/-19.38	-19.16/-18.21	-17.16/-18.55	-18.24/-18.94	-17.91/-18.97	-18.42/-18.67	-17.86/-18.84	-18.42/-18.28	-19.12/-18.52	-18.36/-17.97
Θ(180°)	-18.41/-18.52	-18.34/-17.87	-17.51/-16.68	-16.26/-18.31	-18.89/-17.44	-15.39/-14.33	-14.92/-15.54	-16.8/-17.8	-18.38/-18.48	-18.43/-18.5	-18.65/-19.16	-19.22/-18.62	-18.07/-18.15	-18.88/-17.38	-16.73/-15.7	-15.52/-14.06	-13.73/-13.21	-13.2/-13.43	-14.35/-15.53	-16.14/-17.96	-18.65/-17.76	-18.34/-19.02	-19.07/-18.21	-18.75/-18.16



Sporton International Inc. Hsinchu Laboratory



Antenna Pattern of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix D

Θ(22.5°)	-3.48/-2.59	-2.48/-2.62	-2.19/-2.58	-3.41/-4.81	-4.70/-4.18	-3.15/-1.90	-0.91/-0.24	0.23/0.49	0.82/0.99	0.70/-0.63	-3.05/-4.35	-5.79/-4.33	-1.48/0.89	1.97/2.00	1.35/0.36	-0.47/-0.59	-0.18/0.15	0.16/0.27	0.49/0.79	0.72/0.43	0.14/-0.43	-0.98/-1.35	-1.77/-2.78	-4.54/-5.22
Θ(30°)	-8.58/-6.25	-5.55/-4.12	-2.82/-3.19	-3.51/-3.36	-3.42/-3.44	-2.52/-1.23	-0.11/-0.60	1.04/-1.19	1.02/0.82	0.68/0.30	-1.49/-4.35	-4.08/-3.46	-2.87/-0.88	-0.30/-1.17	-2.21/-1.67	-0.45/0.86	1.78/-197	2.04/2.28	2.51/2.63	2.77/2.29	1.44/0.75	-0.21/-0.91	-1.83/-3.27	-4.00/-7.03
Θ(37.5°)	-8.66/-9.84	-8.61/-5.86	-4.85/-4.44	-3.13/-2.96	-3.54/-3.24	-1.36/0.39	1.48/2.01	1.98/1.46	0.35/-0.17	-0.51/-1.34	-2.44/-3.74	-1.88/-1.28	-1.86/-2.38	-3.21/-3.65	-2.72/-0.80	0.44/1.45	1.92/2.51	3.28/3.37	3.15/3.00	2.79/2.58	2.70/0.45	-1.92/-4.75	-6.63/-7.79	-6.66/-9.83
Θ(45°)	-6.71/-8.11	-7.90/-5.29	-3.26/-3.14	-3.74/-4.51	-4.49/-3.64	-1.88/-0.42	0.65/1.05	1.09/0.92	0.13/-1.07	-0.90/-1.61	-3.57/-4.43	-1.09/0.94	0.55/-2.34	-3.49/-3.93	-2.87/-0.89	0.13/1.55	2.71/3.75	4.14/3.52	2.79/2.32	2.43/2.81	2.47/1.75	-0.34/-3.58	-7.91/-11.88	-15.72/-7.26
Θ(52.5°)	-4.51/-4.71	-4.55/-1.98	-1.20/-1.25	-3.45/-4.42	-3.30/-2.27	-1.33/-0.91	-0.18/0.51	0.89/0.71	0.11/-1.20	-0.98/-0.30	-2.10/-3.63	-0.45/0.71	0.22/-1.80	-0.91/-2.35	-1.89/-1.51	-0.19/-0.38	-0.40/1.98	2.80/0.80	1.81/1.30	0.98/1.40	2.87/3.56	2.16/0.84	-2.10/-2.82	-5.87/-5.97
Θ(60°)	-3.03/-2.16	-2.08/-0.58	-0.48/-0.63	-3.99/-2.94	-1.99/-1.20	-1.05/-1.00	-0.55/-0.19	-0.98/-1.75	-1.76/-2.10	-1.31/0.25	-1.14/-3.30	-1.91/-1.10	-0.23/-0.69	-0.35/-3.81	-3.86/-2.83	-1.55/-4.83	-0.72/2.00	2.18/1.30	0.71/0.79	1.45/2.05	2.32/1.16	-0.68/-0.76	-2.46/-3.39	-5.86/-3.39
Θ(67.5°)	-0.62/-0.55	-1.27/-1.52	-1.20/-2.44	-5.27/-2.22	-0.99/-0.14	-0.52/-1.52	-3.20/-3.94	-4.23/-3.09	-2.07/-2.38	-1.68/-0.12	-1.23/-2.71	-3.13/-1.30	0.65/0.91	-1.14/-6.87	-4.98/-2.00	-4.47/-4.29	1.60/3.84	3.18/3.27	3.16/3.06	3.04/2.73	2.21/2.71	1.56/0.35	-1.06/0.08	-1.14/-0.93
Θ(75°)	-0.37/0.37	-0.35/-2.54	-2.67/-4.67	-5.29/-3.13	-0.63/0.12	-1.39/-2.86	-3.49/-4.92	-0.68/-4.34	-2.08/-2.17	-1.97/-1.50	-1.90/-3.78	-5.35/-0.30	1.89/1.94	-3.09/-6.30	-2.76/-2.57	-6.24/-2.83	1.89/3.41	3.07/4.03	4.494/-0.07	2.95/1.88	1.44/-1.36	0.97/-0.32	-2.39/-1.32	-1.45/-2.41
Θ(82.5°)	-1.02/0.76	-0.13/-2.80	-3.21/-6.01	-7.61/-5.51	-1.85/-1.13	-1.62/-1.64	-2.90/-6.41	-8.09/-5.37	-3.06/-3.64	-2.67/-2.24	-2.42/-4.35	-6.04/-0.76	1.72/-0.53	-3.65/-2.62	-1.73/-3.64	-8.02/-2.22	2.00/2.52	2.43/2.02	2.994/-0.1	3.02/0.93	-0.18/0.21	-0.44/-0.27	-1.86/-3.17	-0.98/-3.44
Θ(90°)	-2.86/0.24	-0.72/-2.82	-4.89/-5.37	-6.62/-8.33	-3.31/-1.84	-1.34/-1.90	-3.86/-5.91	-8.18/-7.40	-3.90/-4.33	-5.00/-3.86	-2.39/-4.23	-5.53/-1.53	0.40/-3.22	-2.75/-1.95	-3.02/-6.61	-6.89/-1.98	0.84/1.71	-1.21/-1.73	-0.172/-1.19	3.12/0.07	-1.68/-0.48	-2.27/-1.45	-2.40/-5.00	-1.67/-3.93
Θ(97.5°)	-5.60/0.24	-0.44/-2.50	-5.66/-4.58	-5.40/-7.45	-4.96/-4.11	-1.76/-0.54	-2.66/-6.26	-8.46/-8.76	-7.35/-8.31	-5.99/-4.24	-3.92/-5.02	-4.09/-2.91	-2.55/-2.54	-2.46/-5.01	-5.77/-10.64	-6.96/-3.39	-1.93/-0.65	-4.34/-5.34	-2.23/-1.45	2.76/-0.06	-4.82/-2.57	-3.38/-2.28	-3.31/-5.69	-3.61/-4.88
Θ(105°)	-6.94/-3.04	-2.29/-1.92	-5.63/-6.30	-5.59/-5.29	-7.02/-4.38	-4.54/-1.77	-1.31/2.85	-6.54/-7.91	-9.21/-10.61	-5.29/-3.85	-5.83/-8.86	-2.37/-2.51	-3.52/-9.65	-6.34/-9.46	-7.12/-5.57	-3.89/-4.46	-7.12/-5.57	-5.19/-2.34	0.75/-1.06	-8.36/-7.35	-3.69/-4.15	-5.44/-6.87	-9.56/-7.73	
Θ(112.5°)	-6.66/-5.82	-2.99/-2.92	-4.86/-6.20	-4.10/-3.33	-4.70/-5.77	-5.12/-3.54	-2.33/-2.09	-2.70/-2.96	-6.55/-6.12	-5.10/-8.16	-14.43/-8.96	-7.59/-5.54	-2.91/-3.92	-10.90/-8.78	-6.66/-6.28	-8.19/-8.41	-9.46/-3.04	-3.24/-6.25	-5.54/-1.69	-0.90/-1.43	-7.66/-11.11	-6.35/-9.41	-8.70/-7.31	-11.78/-9.40
Θ(120°)	-11.01/-4.37	-5.27/-4.26	-2.99/-4.98	-4.65/-3.35	-3.51/-5.16	-7.88/-7.36	-5.62/-4.62	-4.42/-4.62	-5.09/-4.49	-6.33/-9.03	-9.18/-8.01	-10.38/-6.91	-4.64/-2.74	-9.34/-4.75	-4.34/-5.11	-7.25/-3.22	-5.64/-6.73	-1.52/-1.90	-2.34/-10.32	-7.19/-6.87	-9.29/-7.34	-10.64/-8.74		
Θ(127.5°)	-12.55/-4.35	-4.51/-4.01	-4.57/-6.59	-7.51/-3.70	-5.30/-4.67	-1.81/-8.32	-9.25/-9.00	-9.69/-8.44	-7.26/-7.41	-9.35/-11.51	-8.92/-8.64	-10.71/-10.64	-9.10/-11.35	-3.09/-5.38	-8.39/-8.51	-12.24/-8.02	-14.83/-5.01	-8.38/-7.62	-3.83/-5.01	-5.94/-7.69	-12.14/-13.94	-6.39/-6.53	-7.59/-6.10	-11.05/-6.27
Θ(135°)	-8.95/-5.27	-4.43/-2.58	-4.39/-7.94	-14.65/-10.19	-7.09/-5.25	-5.05/-6.41	-8.27/-11.28	-13.88/-11.63	-11.10/-12.63	-12.13/-8.55	-9.57/-12.30	-10.62/-8.88	-8.43/-7.74	-5.45/-8.96	-9.14/-5.89	-10.19/-12.79	-10.35/-6.07	-8.57/-9.92	-7.93/-8.30	-9.96/-14.19	-9.52/-8.94	-6.02/-10.98	-6.84/-9.45	-9.26/-5.33
Θ(142.5°)	-8.51/-7.87	-7.87/-7.68	-7.24/-9.54	-11.76/-14.97	-14.02/-9.88	-7.41/-6.61	-6.92/-7.67	-8.52/-10.40	-13.75/-13.32	-10.85/-9.80	-10.11/-11.17	-10.87/-8.96	-9.17/-8.59	-11.02/-12.76	-8.85/-9.44	-8.45/-5.75	-7.67/-13.28	-13.59/-9.12	-10.06/-15.89	-11.67/-11.86	-4.21/-5.02	-9.26/-1.67	-7.25/-8.93	-12.96/-8.74
Θ(150°)	-8.05/-7.08	-6.89/-7.09	-6.41/-5.98	-5.57/-6.40	-7.93/-9.64	-11.78/-12.81	-12.85/-11.69	-9.87/-7.96	-8.77/-6.96	-6.80/-7.13	-8.44/-9.91	-9.61/-9.75	-7.46/-6.69	-8.16/-9.44	-13.80/-15.27	-10.77/-8.61	-10.51/-10.95	-9.85/-10.20	-10.32/-9.89	-7.07/-6.62	-8.98/-9.83	-10.20/-12.35	-11.16/-9.73	
Θ(157.5°)	-7.39/-7.20	-8.00/-9.04	-9.16/-11.06	-13.76/-14.86	-13.96/-13.85	-14.62/-14.05	-11.81/-10.52	-10.53/-11.42	-12.41/-13.79	-14.59/-12.61	-11.86/-11.55	-11.01/-11.40	-10.87/-10.16	-8.87/-7.39	-7.24/-9.88	-14.07/-14.31	-12.41/-12.14	-11.70/-10.70	-9.31/-8.91	-7.29/-6.12	-6.25/-6.73	-7.57/-8.72	-12.33/-10.23	-8.42/-7.75
Θ(165°)	-7.71/-8.21	-8.39/-8.04	-9.03/-9.84	-11.92/-12.82	-11.61/-10.96	-9.91/-9.18	-9.14/-9.34	-9.20/-9.75	-10.36/-10.96	-11.04/-11.19	-11.19/-11.32	-11.45/-11.03	-9.12/-9.64	-5.37/-4.91	-5.71/-8.00	-10.84/-13.17	-15.20/-15.99	-14.79/-13.88	-11.86/-10.16	-8.33/-6.71	-7.57/-8.46	-10.18/-11.17	-13.85/-14.38	-12.11/-9.31
Θ(172.5°)	-10.70/-9.21	-8.93/-9.23	-10.99/-11.76	-11.99/-11.54	-11.61/-11.14	-10.88/-10.64	-10.32/-10.44	-10.44/-14.43	-10.58/-12.13	-12.97/-13.97	-14.44/-14.43	-13.32/-12.47	-11.58/-11.45	-11.83/-12.32	-13.34/-14.40	-14.11/-12.98	-11.11/-10.21	-9.47/-9.08	-8.30/-7.97	-7.83/-7.59	-7.61/-8.66	-10.26/-11.15	-12.14/-13.54	-13.30/-12.39
Θ(180°)	-10.54/-9.32	-9.33/-9.55	-10.71/-11.61	-12.44/-14.04	-14.71/-13.90	-13.52/-12.86	-12.52/-13.43	-15.18/-15.75	-15.51/-14.60	-15.35/-15.11	-15.10/-15.17	-14.72/-14.97	-13.76/-13.29	-13.05/-13.21	-12.95/-13.65	-13.88/-13.22	-12.71/-12.47	-12.34/-12.14	-11.90/-11.90	-12.11/-13.45	-13.60/-13.43	-12.79/-11.81	-11.85/-11.99	-11.30/-11.57
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°)	-4.20/-4.42	-4.65/-4.70	-4.61/-4.44	-4.17/-3.84	-3.51/-3.16	-2.78/-2.47	-2.24/-2.07	-2.00/-2.04	-2.21/-2.46	-2.74/-3.04	-3.39/-3.71	-4.09/-4.38	-4.58/-4.62	-4.51/-4.30	-3.99/-3.65	-3.28/-2.97	-2.66/-2.31	-1.99/-1.83	-1.78/-1.73	-1.68/-1.72	-1.77/-1.91	-2.12/-2.44	-2.87/-3.29	-3.64/-4.00
Θ(7.5°)	-3.84/-4.02	-4.06/-3.86	-3.52/-3.17	-2.81/-2.48	-2.19/-1.94	-1.77/-1.67	-1.68/-1.74	-1.88/-2.08	-2.34/-2.57	-2.77/-2.96	-3.22/-3.51	-3.81/-4.15	-4.41/-4.52	-4.49/-4.32	-4.01/-3.70	-3.33/-2.96	-2.57/-2.20	-1.86/-1.61	-1.41/-1.21	-1.05/-0.98	-1.10/-1.25	-1.48/-1.84	-2.31/-2.76	-3.23/-3.60
Θ(15°)	-3.16/-3.29	-3.22/-2.86	-2.39/-1.97	-1.56/-1.21	-1.01/-0.92	-0.95/-1.02	-1.20/-1.42	-1.69/-1.96	-2.12/-2.34	-2.42/-2.50	-2.83/-2.84	-3.13/-3.46	-3.78/-3.98	-4.02/-3.86	-3.56/-3.15	-2.68/-2.22	-1.74/-1.30	-0.90/-0.57	-0.30/-0.08	0.01/0.05	-1.00/-1.19	-0.52/-0.97	-1.48/-2.01	-2.49/-2.90
Θ(22.5°)	-2.51/-2.48	-2.28/-1.91	-1.52/-1.16	-0.81/-0.53	-0.43/-0.52	-0.70/-0.93	-1.24/-1.56	-1.92/-2.17	-2.28/-2.23	-2.14/-2.06	-2.11/-2.25	-2.49/-2.79	-3.04/-3.25	-3.33/-3.18	-2.83/-2.36	-1.88/-1.40	-0.93/-0.53	-0.16/0.19	0.51/0.80	1.02/1.14	1.05/0.78	0.37/-0.19	-0.92/-1.60	-2.07/-2.38
Θ(30°)	-2.18/-1.83	-1.43/-1.11	-0.83/-0.64	-0.45/-0.30	-0.37/-0.55	-0.79/-1.11	-1.51/-2.00	-2.44/-2.74	-2.82/-2.66	-2.38/-2.19	-2.07/-2.04	-2.06/-2.08	-2.16/-3.22	-2.56/-2.65	-2.42/-1.97	-1.48/-1.01	-0.58/-0.28	-0.03/0.30	0.73/1.25	1.66/1.86	1.77/1.43	0.85/0.09	-0.87/-1.73	-2.27/-2.37
Θ(37.5°)	-2.74/-1.91	-1.16/-0.67	-0.41/-0.30	-0.15/-0.03	-0.11/-0.34	-0.58/-1.01	-1.58/-2.24	-2.86/-3.31	-3.47/-3.37	-3.11/-2.82	-2.53/-2.28	-2.04/-1.80	-1.73/-1.99	-2.45/-2.71	-2.47/-1.92	-1.29/-0.78	-0.46/-0.33	-0.18/0.19	0.80/1.41	1.85/2.01	2.79/1.39	0.51/-0.54	-1.80/-2.94	-3.55/-3.40
Θ(45°)	-3.71/-2.64	-1.55/-0.80	-0.43/-0.19	-0.10/0.44	0.51/0.35	0.07/-0.43	-1.10/-1.90	-2.70/-3.32	-3.77/-3.95	-3.91/-3.60	-3.13/-2.67	-2.21/-1.85	-1.72/-1.95	-2.41/-2.57	-2.29/-1.52	-0.80/-0.36	-0.23/-0.26	-0.24/0.09	0.57/0.99	1.30/1.47	1.38/0.86	-0.08/-1.32	-2.56/-3.62	-4.27/-4.30
Θ(52.5°)	-3.89/-3.39	-2.49/-1.74	-1.25/-0.84	-0.22/0.31	0.54/0.53	0.34/-0.09	-0.67/-1.40	-2.19/-2.84	-3.33/-3.76	-4.02/-3.93	-3.39/-2.74	-2.23/-1.78	-1.56/-1.69	-2.04/-2.08	-1.66/-0.94	-0.36/-0.14	-0.18/-0.33	-0.45/-0.35	-0.11/0.11	0.38/0.67	0.76/0.45	-0.33/-1.45	-2.61/-3.45	-3.92/-4.17
Θ(60°)	-4.62/-4.00	-3.58/-3.29	-2.94/-2.41	-1.57/-0.88	-0.58/-0.40	-0.46/-0.76	-1.25/-1.87	-2.51/-2.97	-3.19/-3.33	-3.63/-3.82	-3.39/-2.64	-2.00/-1.52	-1.33/-1.54	-2.05/-2.17	-1.73/-0.97	-0.34/-0.06	-0.05/-0.26	-0.47/-0.62	-0.72/-0.76	-0.63/-0.58	-0.79/-1.31	-2.18/-3.04	-4.60/-5.45	-5.88/-5.33
Θ(67.5°)	-5.31/-4.27	-4.01/-4.21	-4.02/-3.13	-1.89/-1.18	-0.97/-0.79	-0.76/-1.15	-1.82/-2.72	-3.58/-3.96	-3.74/-3.39	-3.46/-3.85	-3.63/-2.71	-1.90/-1.40	-1.36/-1.60	-1.97/-1.92	-1.38/-0.66	-0.09/0.08	-0.07/-0.43	-0.91/-1.42	-1.83/-1.96	-1.91/-2.14	-3.06/-4.81	-6.92/-8.59	-9.93/-9.71	-8.59/-7.07
Θ(75°)	-6.11/-4.61	-4.12/-4.55	-4.82/-3.90	-2.52/-1.73	-1.49/-1.00	-0.66/-0.90	-1.62/-2.69	-3.95/-4.57	-4.19/-3.53	-3.42/-4.03	-4.20/-3.06	-1.95/-1.52	-1.56/-1.69	-1.93/-2.03	-									

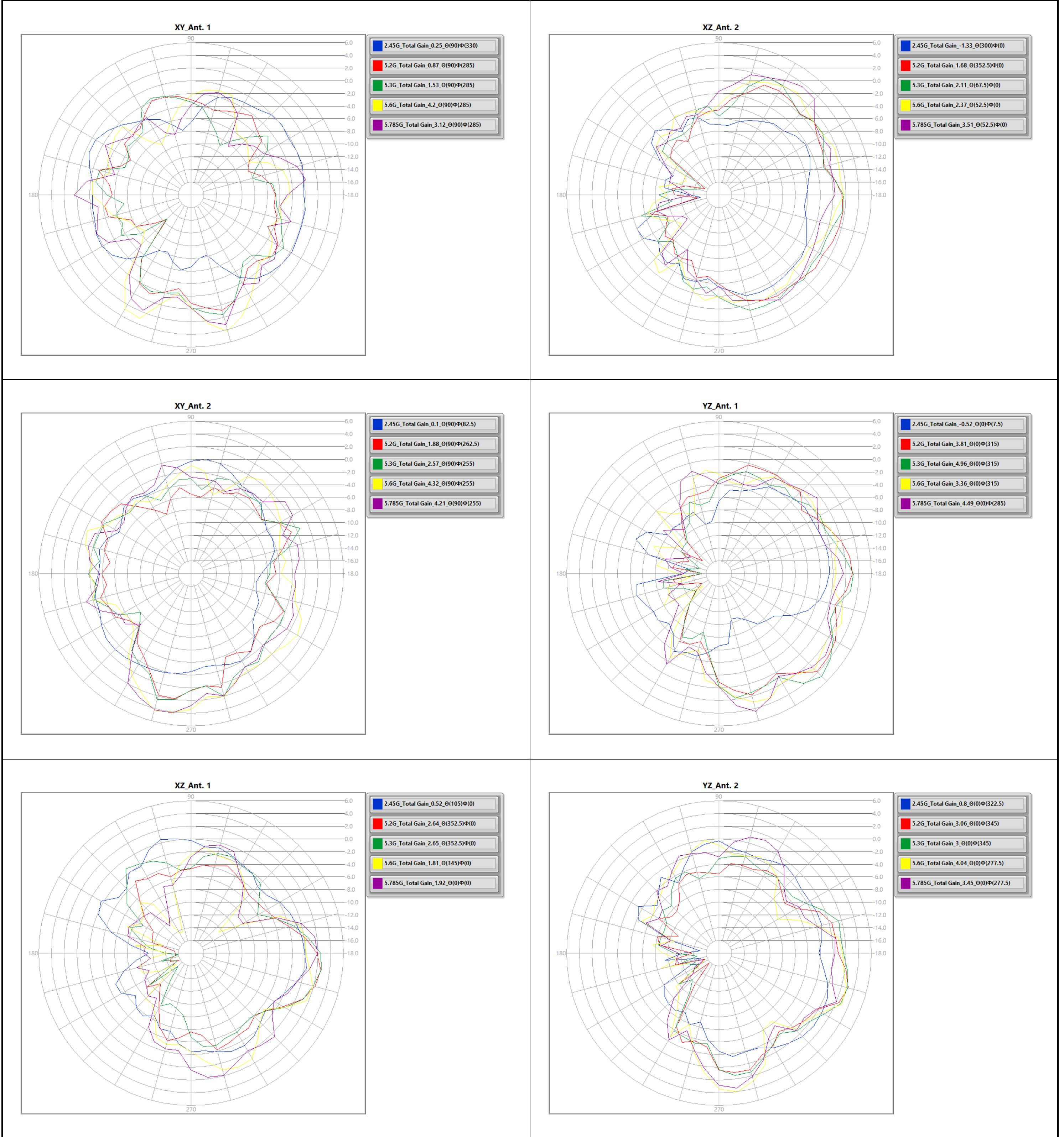


Antenna Pattern of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix D

Θ(67.5°)	1.25/1.66	1.02/0.57	-1.27/-3.33	-0.24/-1.63	1.41/-2.25	-7.78/-4.15	-1.51/-2.04	-4.95/-4.47	-2.39/-2.35	-2.89/-2.12	0.31/-1.32	0.51/-0.39	0.10/-2.32	-4.85/-6.74	-8.25/-6.83	-4.14/-1.58	-0.96/-0.29	-0.72/0.20	1.00/0.65	-3.04/-4.22	-1.00/-1.21	3.29/4.19	4.44/3.38	2.17/2.05
Θ(75°)	0.46/0.60	-1.15/-0.79	-0.63/-2.20	0.25/1.95	1.69/-1.95	-7.29/-4.44	-2.25/-2.50	-5.60/-7.34	-5.20/-3.18	-3.28/-2.25	-0.58/0.58	0.06/-0.84	-0.84/-3.34	-3.72/-6.68	-7.38/-5.75	-4.84/-0.59	1.15/2.39	2.99/3.49	2.88/1.00	-1.15/-1.12	0.22/1.50	2.39/3.30	3.87/3.07	1.70/2.25
Θ(82.5°)	-1.60/-0.64	-2.78/-2.29	-0.52/-0.73	-0.42/-1.29	0.49/-3.05	-6.11/-3.56	-2.25/-2.11	-3.30/-4.59	-4.31/-2.91	-3.43/-3.24	-2.29/-0.56	-0.29/-1.26	-0.95/-2.72	-3.25/-6.31	-6.27/-6.03	-4.53/-0.33	1.72/3.14	4.65/4.82	4.04/-1.99	1.28/0.67	0.82/1.55	1.55/2.30	3.15/3.07	0.72/1.60
Θ(90°)	-3.79/-2.93	-3.65/-2.91	-1.72/-0.95	-0.24/0.54	-0.43/-3.67	-5.11/-1.77	-0.97/-2.34	-3.57/-4.71	-4.94/-3.55	-4.30/-3.18	-2.78/-0.27	-0.78/-2.37	-2.03/-2.77	-1.90/-5.10	-5.55/-6.06	-5.28/-1.74	0.63/2.32	4.32/4.05	3.39/1.54	2.10/0.33	-0.29/0.02	-0.15/0.70	1.39/0.78	-1.00/-1.43
Θ(97.5°)	-5.09/-3.31	-2.88/-3.07	-3.22/-1.56	-2.05/-1.40	-1.39/-3.08	-4.81/-1.15	-0.10/-2.57	-4.76/-4.83	-4.73/-4.27	-4.76/-3.00	-2.59/-1.81	-4.21/-6.56	-1.20/-3.91	-1.77/-5.94	-5.02/-6.10	-4.80/-5.07	-1.18/1.15	2.12/1.28	0.83/-0.90	1.31/4.05	-5.62/-2.79	-2.71/-1.52	-0.14/-1.97	-4.22/-5.43
Θ(105°)	-4.32/-3.89	-4.57/-3.26	-3.21/-3.89	-3.64/-2.68	-2.07/-2.54	-7.00/-3.99	-1.29/-3.01	-6.60/-6.67	-4.56/-4.11	-4.36/-3.57	-4.18/-3.63	-4.91/-4.96	-2.34/-3.65	-2.85/-6.14	-7.98/-4.80	-4.24/-6.82	-2.93/-1.19	-0.38/-1.05	-2.19/-2.44	-0.45/-5.28	-8.00/-4.62	-3.86/-3.27	-5.06/-7.74	-6.44/-5.46
Θ(112.5°)	-4.09/-3.83	-5.10/-6.21	-5.18/-4.43	-4.72/-4.73	-4.85/-2.85	-3.64/-4.83	-2.27/-1.68	-3.10/-4.18	-4.82/-5.29	-4.91/-3.19	-2.61/-4.22	-7.10/-8.31	-3.97/-3.68	-4.52/-5.37	-8.09/-4.49	-5.07/-10.91	-3.88/-0.94	-1.14/-2.34	-5.82/-4.39	-1.60/-3.65	-4.18/-2.92	-1.16/-4.10	-8.25/-8.61	-7.01/-4.88
Θ(120°)	-3.86/-3.57	-5.28/-8.79	-5.92/-4.54	-3.91/-3.36	-5.10/-6.21	-4.65/-4.17	-3.49/-3.00	-4.40/-5.91	-6.12/-4.85	-2.91/-2.80	-3.76/-6.40	-11.20/-8.50	-6.13/-2.91	-5.17/-4.01	-6.63/-3.58	-6.15/-15.08	-10.62/-5.84	-2.34/-1.36	-2.76/-5.28	-3.95/-2.46	-3.86/-6.05	-5.11/-5.08	-6.15/-8.75	-6.25/-4.91
Θ(127.5°)	-5.66/-2.49	-3.81/-6.68	-13.19/-7.99	-6.99/-4.45	-5.20/-7.20	-6.97/-5.40	-3.79/-3.52	-4.92/-6.54	-6.62/-4.28	-3.38/-2.41	-4.40/-8.07	-9.12/-5.14	-2.47/-1.70	-4.42/-6.36	-8.20/-5.34	-7.26/-11.41	-9.43/-4.36	-3.20/-3.82	-7.25/-12.14	-5.25/-3.32	-7.27/-6.73	-4.25/-4.98	-5.94/-6.10	-3.83/-3.57
Θ(135°)	-5.00/-4.95	-5.29/-7.34	-8.57/-9.78	-8.61/-6.25	-4.97/-4.79	-6.36/-6.45	-5.05/-4.50	-4.75/-5.33	-4.87/-4.04	-3.20/-5.03	-8.15/-10.31	-5.56/-3.51	-3.65/-3.30	-6.57/-8.47	-8.29/-5.56	-9.77/-8.50	-9.75/-4.92	-5.62/-8.25	-9.11/-8.77	-5.71/-4.38	-8.67/-11.35	-13.92/-11.69	-8.34/-8.68	-6.07/-3.97
Θ(142.5°)	-5.54/-7.55	-11.23/-10.83	-9.29/-6.87	-6.77/-8.79	-7.84/-6.49	-5.82/-5.76	-5.22/-4.56	-4.93/-5.76	-6.33/-6.65	-8.98/-12.00	-12.65/-11.06	-7.61/-8.38	-10.52/-10.22	-11.97/-8.31	-5.14/-7.69	-7.99/-8.05	-6.74/-3.29	-5.89/-11.00	-9.49/-6.33	-4.37/-4.98	-5.22/-7.68	-10.84/-8.27	-7.37/-9.45	-8.77/-6.67
Θ(150°)	-11.60/-10.11	-13.30/-13.25	-11.75/-8.85	-8.15/-8.71	-10.37/-11.35	-9.89/-7.41	-6.08/-5.48	-5.70/-6.64	-7.38/-8.31	-9.24/-8.84	-7.62/-7.34	-9.73/-12.98	-9.83/-9.19	-11.13/-8.67	-7.47/-8.22	-9.14/-12.55	-12.83/-9.54	-12.02/-14.99	-15.11/-13.28	-12.75/-14.17	-13.06/-13.14	-14.80/-10.57	-8.60/-7.58	-8.28/-11.71
Θ(157.5°)	-12.36/-12.51	-12.86/-11.08	-10.20/-10.02	-9.79/-10.14	-10.21/-7.62	-6.00/-4.88	-4.79/-5.24	-5.89/-6.95	-9.04/-10.71	-10.46/-10.01	-9.73/-9.44	-8.38/-7.69	-7.87/-8.85	-9.57/-8.23	-6.97/-7.18	-7.99/-7.85	-7.34/-7.59	-9.62/-13.01	-15.44/-15.40	-14.11/-11.91	-10.25/-9.87	-11.26/-11.06	-9.49/-9.26	-11.13/-13.25
Θ(165°)	-11.30/-10.66	-10.29/-11.23	-11.81/-11.47	-11.46/-9.92	-9.37/-9.16	-9.88/-10.80	-10.70/-10.32	-9.55/-8.35	-7.67/-7.36	-7.12/-7.24	-7.27/-6.75	-6.21/-6.22	-6.33/-6.57	-6.60/-6.50	-6.68/-7.24	-7.36/-7.99	-9.34/-12.31	-12.74/-9.77	-8.50/-7.54	-7.86/-8.29	-9.17/-10.92	-12.39/-12.22	-12.30/-12.33	-13.12/-12.75
Θ(172.5°)	-8.46/-7.76	-7.92/-8.52	-8.99/-9.08	-9.87/-10.32	-10.08/-9.05	-8.21/-8.01	-7.54/-7.41	-7.75/-7.87	-7.73/-7.48	-6.66/-6.17	-5.58/-5.36	-5.56/-6.33	-7.50/-9.06	-10.24/-10.86	-10.11/-9.90	-9.13/-8.75	-9.27/-9.95	-9.95/-10.42	-11.30/-13.66	-15.31/-15.34	-15.48/-14.42	-13.22/-13.32	-11.42/-10.10	-9.75/-9.19
Θ(180°)	-9.84/-9.73	-10.38/-9.84	-8.87/-8.62	-9.21/-9.47	-9.39/-8.95	-8.88/-9.14	-9.19/-9.67	-10.49/-10.59	-10.72/-10.73	-10.67/-10.52	-10.64/-10.83	-11.03/-11.17	-11.16/-11.11	-11.27/-11.69	-11.30/-10.70	-9.87/-9.73	-9.82/-10.78	-12.10/-12.74	-12.39/-11.01	-10.10/-9.21	-8.36/-7.98	-7.78/-8.29	-8.56/-9.21	-10.45/-10.44
Freq(Hz)	5.785/5.785	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°)	0.27/0.15	0.29/0.18	0.37/0.27	0.41/0.75	0.71/0.60	0.47/0.41	0.30/0.26	0.12/0.09	0.02/0.07	0.20/0.40	0.42/0.35	0.34/0.26	0.04/-0.15	-0.30/-0.16	-0.07/0.04	0.07/0.10	0.01/0.10	0.19/0.42	0.52/0.50	0.34/0.35	0.40/0.53	0.45/0.20	-0.12/0.39	0.71/0.46
Θ(7.5°)	0.19/0.09	-0.25/-0.17	0.20/0.29	0.51/0.76	0.71/0.68	0.42/0.49	0.44/0.27	0.25/0.08	-0.22/-0.46	-0.69/-0.79	-0.90/-0.72	-0.57/-0.59	-0.96/-1.31	-1.71/-1.92	-1.71/-1.46	-1.35/-1.20	-1.08/-0.76	-0.43/-0.23	-0.10/0.03	0.03/0.02	0.02/0.35	0.59/0.53	0.23/0.28	0.52/0.41
Θ(15°)	0.11/-0.94	-1.51/-1.58	-1.58/-1.75	-1.59/-1.99	-2.35/-2.56	-2.18/-1.97	-1.90/-1.94	-1.97/-1.85	-1.90/-1.67	-1.50/-1.29	-1.14/-1.05	-1.19/-1.46	-1.55/-1.62	-2.42/-2.61	-2.24/-2.06	-5.04/-4.66	-4.28/-4.87	-5.18/-3.48	-1.98/-1.84	-1.18/-0.15	1.10/1.52	1.94/2.87	3.68/4.31	4.36/3.42
Θ(22.5°)	1.06/0.44	-0.97/-2.02	-3.44/-5.08	-5.92/-6.38	-5.68/-4.10	-3.37/-3.17	-3.36/-3.25	-2.83/-2.11	-1.57/-1.27	-1.05/-0.79	-0.33/-0.20	-0.56/-0.97	-1.26/-1.68	-1.90/-2.10	-2.00/-1.76	-1.23/-1.00	-0.95/-0.86	-0.40/0.62	2.00/3.01	3.42/3.51	3.33/2.95	2.19/1.41	0.60/0.14	0.42/1.02
Θ(30°)	0.42/-0.69	-1.22/-2.54	-5.60/-8.48	-8.26/-7.87	-6.27/-5.58	-5.68/-4.96	-3.40/-2.02	-1.32/-0.89	-0.43/-0.04	0.27/0.67	1.24/1.37	0.86/-0.03	-0.95/-1.84	-2.24/-2.35	-2.01/-1.64	-1.89/-2.61	-4.06/-5.34	-3.64/-1.68	-0.37/0.96	2.08/3.20	3.89/4.28	4.08/3.49	2.33/1.37	1.19/1.01
Θ(37.5°)	0.96/-0.52	-2.77/-5.66	-9.68/-12.42	-9.86/-8.91	-7.97/-8.02	-9.78/-7.93	-4.63/-1.80	-0.24/0.31	0.47/0.32	0.38/1.04	1.60/1.94	1.43/0.27	-0.45/-1.77	-2.73/-3.59	-5.04/-4.66	-4.28/-4.87	-5.18/-3.48	-1.98/-1.84	-1.18/-0.15	1.10/1.52	1.94/2.87	3.68/4.31	4.36/3.42	1.93/1.42
Θ(45°)	3.38/1.52	-1.29/-5.98	-10.64/-12.99	-13.61/-9.19	-6.76/-6.81	-7.89/-6.38	-3.53/-1.32	-0.39/-0.52	-0.83/-1.01	-0.74/0.41	1.14/1.63	1.77/0.85	0.31/-0.64	-2.44/-5.39	-8.97/-6.97	-5.78/-6.27	-6.00/-3.76	-2.11/-1.39	-0.74/-0.50	-0.54/0.11	0.27/0.56	1.69/3.43	4.57/4.39	3.45/3.22
Θ(52.5°)	3.51/2.51	0.78/-2.08	-5.40/-7.18	-6.91/-5.57	-4.55/-5.69	-4.45/-2.26	-1.12/-1.14	-0.97/-0.48	-0.71/-0.63	-0.02/0.44	0.97/1.00	0.96/0.57	0.78/-0.37	-3.94/-6.81	-7.32/-6.15	-4.94/-4.38	-3.30/-2.26	-2.08/-3.04	-3.61/-1.31	0.09/-0.33	-2.04/-1.62	1.10/3.25	3.99/4.01	3.60/2.69
Θ(60°)	2.86/3.29	2.42/-0.21	-2.24/-3.06	-1.64/-1.98	-2.34/-4.68	-3.79/-0.43	0.51/-0.39	-1.45/-1.04	-0.30/-0.54	-0.37/-0.14	0.49/0.80	0.99/0.97	1.16/-0.12	-3.48/-4.28	-4.76/-7.41	-5.17/-2.76	-2.21/-0.55	-0.28/-1.17	-2.40/-1.95	-1.36/-1.23	-2.23/-1.05	1.57/3.52	4.44/3.64	2.06/1.70
Θ(67.5°)	1.99/3.27	2.43/0.83	-0.87/-1.22	0.15/0.31	-0.57/-4.94	-3.73/-0.04	1.26/-0.32	-3.00/-2.78	-1.14/-1.02	-1.37/-0.65	0.45/1.18	0.43/0.14	-0.09/-1.26	-2.67/-2.42	-3.97/-4.19	-3.47/-2.08	-0.69/2.04	1.99/1.11	0.25/-0.95	-2.94/-2.74	-1.40/0.37	2.04/3.25	3.74/2.20	1.46/1.50
Θ(75°)	1.59/3.32	2.20/1.30	0.36/-0.43	-0.48/0.29	-1.06/-5.70	-4.29/-0.54	0.93/0.33	-1.99/-2.92	-1.33/-1.25	-2.02/-1.29	-0.50/-0.39	-0.30/-0.17	-0.79/-2.32	-2.26/-2.30	-4.12/-4.44	-3.99/-2.27	1.17/3.50	3.65/3.33	2.12/-0.01	-2.61/-1.72	-0.24/1.10	1.81/2.01	2.62/1.50	-0.04/1.93
Θ(82.5°)	-0.43/1.22	1.13/-0.12	1.06/0.14	-2.02/-1.12	-2.32/-5.09	-4.10/-1.92	-0.38/-0.08	-0.99/-3.18	-2.79/-2.60	-3.49/-3.08	-1.85/-0.37	-0.26/-0.52	-1.22/-2.76	-1.40/-3.27	-4.26/-3.86	-5.64/-0.96	3.15/4.36	4.24/4.08	3.45/1.44	0.79/0.58	0.67/1.50	0.31/-0.45	1.42/1.75	-0.70/1.46
Θ(90°)	-1.68/-0.81	-0.63/-2.36	0.46/0.64	-2.06/-2.05	-2.55/-3.97	-3.03/-2.90	-2.82/-1.22	-0.28/-2.84	-3.31/-2.69	-3.50/-4.67	-4.44/-1.56	-1.30/-1.92	-3.57/-3.16	-0.89/-2.62	-5.01/-4.96	-6.77/-2.91	1.88/3.14	4.21/0.18	2.79/1.03	1.91/0.50	-1.00/-0.93	-2.00/-1.46	-0.60/-0.56	-1.51/-1.40
Θ(97.5°)	-3.81/-4.26	-0.73/-2.46	-1.11/0.07	-1.88/-3.92	-4.35/-6.23	-3.77/-2.76	-2.04/-1.68	-0.76/-3.58	-4.00/-2.44	-2.40/-3.55	-4.88/-1.47	-2.52/-3.52	-2.36/-2.53	-1.19/-4.13	-7.48/-6.07	-5.87/-4.66	-0.52/1.13	2.56/1.75	0.23/-0.11	1.87/1.88	-5.09/-5.03	-4.85/-3.14	-2.26/-3.38	-3.10/-5.81
Θ(105°)	-4.94/-5.99	-2.42/-3.09	-4.17/-1.81	-2.98/-3.33	-3.07/-5.70	-6.25/-2.78	-1.78/-2.85	-4.04/-5.51	-4.48/-3.71	-3.52/-4.29	-4.71/-1.55	-1.92/-3.04	-4.18/-3.92	-4.42/-4.81	-9.24/-8.31	-7.27/-6.95	-3.73/-1.53	1.22/-0.15	-2.43/-3.03	-0.43/-4.26	-10.19/-6.59	-5.89/-5.38	-6.16/-6.38	-4.33/-8.44
Θ(112.5°)	-4.61/-5.52	-3.15/-4.28	-4.85/-4.24	-4.90/-7.29	-4.90/-4.18	-5.31/-3.43	-1.46/-1.88	-3.87/-3.68	-4.55/-4.67	-4.46/-4.81	-3.88/-2.67	-4.56/-7.18	-5.04/-2.76	-6.19/-6.48	-8.17/-6.86	-8.14/-8.36	-5.67/-0.40	0.20/-2.09	-4.80/-3.81	-1.39/-3.81	-6.73/-3.43	-2.90/-4.54	-11.03/-10.83	-8.80/-8.09
Θ(120°)	-5.87/-3.10	-5.91/-6.27	-5.40/-4.72	-4.22/-5.07	-8.24/-7.24	-4.86/-4.49	-3.16/-2.78	-3.15/-2.93	-3.94/-5.76	-5.73/-4.14	-3.32/-4.56	-7.03/-15.83	-8.01/-3.33	-4.21/-4.09	-8.58/-5.									

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





Antenna Pattern of Radio 0 (6GHz)

Appendix E

Total Gain Data

Freq(Hz)	6.175GPol.	TotalAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-		
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°)	-5.65<3.58	-4.95<5.00	-5.30<5.15	-4.93<4.86	-4.60<4.56	-4.11<4.14	-4.21<4.75	-5.26<5.24	-4.76<4.07	-4.07<4.43	-4.31<4.50	-4.41<4.41	-4.79<4.58	-5.29<4.86	-4.84<5.05	-5.19<4.64	-4.43<4.80	-5.28<5.35	-4.94<5.05	-5.11<5.66	-6.09<6.59	-6.80<6.12	-5.68<6.05	-5.80<5.63
Θ(7.5°)	-5.44<5.92	-6.74<7.61	-7.92<8.27	-7.87<7.65	-7.39<6.56	-5.32<4.18	-3.45<3.36	-3.01<2.77	-2.15<1.61	-1.49<1.43	-1.25<1.02	-0.89<0.63	-0.88<1.11	-1.09<0.86	-0.71<0.79	-0.64<0.38	0.00<0.38	-1.10<1.70	-2.10<2.26	-2.81<3.50	-4.64<5.57	-6.27<6.75	-5.54<6.02	-5.54<5.55
Θ(15°)	-1.23<1.67	-2.55<3.36	-4.25<4.65	-5.03<6.30	-7.41<7.81	-7.20<5.69	-4.76<4.07	-3.78<3.48	-2.66<2.15	-1.89<1.84	-1.77<1.39	-0.71<0.07	0.07<0.28	-0.67<0.86	-0.450<37	1.28<1.92	2.22<2.28	2.07<1.67	0.87<0.09	-1.57<3.23	-4.29<5.09	-4.88<4.12	-3.36<2.11	-1.46<1.13
Θ(22.5°)	-0.02<1.07	-2.85<4.60	-5.93<7.99	-10.12<11.34	-12.41<11.21	-9.01<6.70	-4.50<2.83	-2.22<1.72	-1.20<1.68	-2.77<3.54	-3.81<2.18	-0.05<1.26	1.310<47	-0.52<0.56	0.34<1.71	2.55<2.96	3.23<3.16	2.90<2.21	0.67<1.20	-0.73<2.81	-1.53<0.90	-0.76<0.39	-0.020<28	-0.020<28
Θ(30°)	-1.51<3.71	-7.11<9.04	-9.04<7.50	-6.25<5.79	-5.99<7.28	-8.78<6.41	-3.10<5.02	0.76<1.11	1.140<55	-0.13<0.80	-2.13<1.29	0.952<45	2.63<1.99	1.24<1.56	2.90<3.79	3.64<3.27	2.52<1.93	2.26<2.66	2.72<2.44	2.04<1.56	0.93<1.35	2.37<2.43	1.540<44	-0.30<0.70
Θ(37.5°)	-3.50<4.70	-3.80<3.07	-2.35<1.85	-1.47<1.71	-1.96<3.26	-6.00<8.05	-5.24<1.02	1.68<2.44	1.450<14	0.88<1.74	1.06<0.60	1.73<2.69	2.57<2.50	2.99<3.39	3.93<4.37	3.81<2.65	1.43<1.21	1.39<1.41	1.53<1.73	1.66<1.64	2.15<3.36	4.37<4.70	3.69<1.27	-0.65<2.31
Θ(45°)	-0.490<95	0.940<27	0.69<1.01	0.72<0.30	-1.38<2.67	-3.76<4.02	-3.57<2.50	0.082<49	2.540<02	0.312<60	3.172<26	1.902<39	2.272<10	2.71<3.09	3.123<34	3.15<1.76	1.080<73	-0.08<1.01	0.830<04	-0.13<1.38	2.50<3.31	3.75<6.09	3.142<20	0.75<0.50
Θ(52.5°)	1.602<86	2.02<1.25	2.69<3.06	2.98<1.41	-1.46<5.59	-8.60<6.10	-2.24<1.25	-1.13<1.84	3.280<91	-0.722<15	3.212<23	1.080<14	0.39<1.23	1.51<1.73	1.35<1.69	2.06<1.27	-0.650<34	1.540<83	-1.040<17	2.032<34	2.692<57	2.883<20	2.883<20	2.28<1.13
Θ(60°)	0.880<83	0.240<09	2.64<3.78	4.722<85	-0.91<6.22	-8.39<9.75	-2.52<0.59	-2.10<0.78	2.422<04	0.341<57	1.650<64	0.07<0.86	-0.60<0.17	-0.16<1.12	1.33<1.12	1.76<1.24	2.912<12	-0.82<0.14	2.232<04	1.202<27	2.22<1.53	2.112<82	3.113<59	2.09<1.04
Θ(67.5°)	-1.31<1.60	-2.24<2.15	0.412<27	3.48<1.90	-1.38<3.85	-3.13<5.34	-2.53<0.43	-1.40<1.18	-0.350<42	0.820<84	-1.01<1.91	-1.31<1.23	-1.07<1.56	-0.63<1.41	0.85<0.24	-0.280<42	3.352<36	-0.22<0.12	1.982<79	2.912<07	0.710<93	3.03<3.28	2.972<07	-0.18<0.57
Θ(75°)	-4.46<2.95	-3.66<2.47	-1.580<21	0.750<96	-2.00<4.01	-1.63<2.36	-2.50<1.46	-2.59<1.55	-2.36<2.33	-0.58<1.07	-2.66<4.51	-3.18<1.75	-1.35<3.57	-1.610<90	-0.70<2.00	-0.190<76	3.342<53	0.390<22	1.003<06	3.38<1.07	0.35<2.19	3.899<27	2.48<1.14	-2.37<1.03
Θ(82.5°)	-6.01<1.85	-2.34<1.67	-3.36<1.28	-1.42<0.40	-2.88<3.77	-4.07<5.80	-4.31<2.54	-6.10<2.38	-3.74<5.36	-2.29<1.47	-2.58<4.63	-5.49<2.18	-2.64<4.85	-1.790<31	-2.64<2.22	0.240<73	1.86<1.45	-0.21<0.79	-0.722<34	2.57<1.53	1.05<3.19	2.66<1.28	-1.02<5.17	-2.65<0.32
Θ(90°)	-4.94<1.17	-3.25<2.24	-3.80<2.78	-1.17<0.43	-3.05<5.52	-7.18<9.72	-8.79<4.46	-6.46<7.58	-3.78<5.41	-5.680<51	-3.16<4.56	-9.06<4.74	-4.55<5.56	-3.85<0.97	-3.62<3.42	-0.94<0.58	-0.760<20	-3.70<2.81	-3.180<16	-0.43<5.72	0.03<1.54	-0.55<1.58	-3.64<5.22	-2.59<0.17
Θ(97.5°)	-4.81<2.11	-4.50<3.30	-5.23<5.39	-1.45<1.72	-5.94<8.29	-12.37<7.30	-10.53<4.89	-3.19<1.30	-3.83<4.76	-6.25<1.31	-4.54<7.35	-11.04<6.38	-7.23<5.56	-5.23<3.05	-5.14<5.38	-3.49<2.53	-3.43<2.63	-9.75<4.92	-4.87<1.72	-3.33<1.86	-3.79<1.37	-2.33<3.75	-4.92<5.68	-1.89<2.13
Θ(105°)	-4.51<6.64	-5.57<8.44	-12.78<8.68	-2.53<1.75	-5.10<6.11	-10.08<7.91	-8.10<5.64	-3.17<7.88	-7.89<5.24	-7.92<4.55	-7.47<11.05	-14.69<10.42	-10.97<11.42	-7.74<3.99	-6.30<5.92	-9.47<3.03	-4.20<4.90	-9.99<4.10	-2.65<2.74	-4.12<7.42	-6.33<4.11	-3.75<4.34	-10.37<4.37	-2.50<4.14
Θ(112.5°)	-6.97<9.68	-8.25<10.08	-14.84<10.76	-4.88<4.13	-3.82<6.01	-9.02<10.11	-8.47<7.61	-7.33<9.88	-12.74<8.86	-7.53<6.52	-10.22<15.23	-15.58<13.18	-15.01<9.65	-6.56<6.35	-9.11<7.42	-4.13<3.14	-1.18<6.05	-5.23<5.09	-3.89<3.89	-7.48<5.72	-5.07<2.03	-0.90<5.30	-5.83<3.94	-5.08<5.68
Θ(120°)	-9.44<9.29	-7.53<10.31	-12.88<9.97	-6.62<3.76	-3.41<7.01	-11.27<10.97	-9.80<14.70	-11.68<11.29	-11.68<7.36	-8.75<9.49	-8.57<13.24	-14.28<12.47	-10.85<11.33	-3.37<2.61	-3.24<5.85	-6.37<5.87	-2.74<6.61	-6.57<8.71	-7.81<3.04	-9.85<8.13	-4.47<3.40	-3.83<5.50	-6.77<4.22	-3.87<4.91
Θ(127.5°)	-12.24<10.50	-9.84<7.88	-12.97<11.20	-8.90<8.97	-7.89<8.10	-7.55<9.29	-8.58<14.78	-10.46<6.79	-11.58<11.57	-12.00<10.96	-15.22<11.67	-9.75<10.14	-10.16<8.87	-4.94<2.04	-4.27<9.83	-12.92<3.51	-0.89<8.30	-8.92<11.58	-4.96<0.88	-7.77<7.41	-6.53<8.35	-4.43<3.68	-1.98<7.66	-4.27<8.86
Θ(135°)	-9.15<14.34	-13.58<10.96	-10.20<15.89	-15.82<11.99	-12.16<13.81	-10.00<6.59	-7.16<12.20	-10.92<8.46	-13.04<15.77	-11.87<11.58	-9.28<9.81	-10.94<11.90	-15.45<15.10	-15.99<11.87	-15.42<12.00	-7.56<2.29	-8.01<8.67	-10.98<10.61	-5.06<1.68	-14.16<10.79	-5.62<5.66	-10.15<6.87	-11.87<15.58	-7.60<6.04
Θ(142.5°)	-9.13<11.78	-15.46<12.55	-12.99<12.40	-14.85<15.22	-15.38<14.19	-10.29<9.37	-11.30<12.05	-11.61<12.93	-13.75<15.02	-12.30<8.80	-10.21<12.46	-14.73<12.64	-14.82<10.36	-6.05<6.36	-7.86<7.65	-8.14<13.16	-13.59<13.11	-13.77<11.61	-6.81<6.71	-15.14<12.84	-10.62<7.29	-6.15<6.97	-5.92<7.15	-9.45<13.75
Θ(150°)	-10.18<12.27	-15.40<15.37	-15.20<14.14	-15.12<12.22	-9.67<9.48	-10.59<13.53	-15.12<15.06	-13.86<9.73	-10.04<13.65	-13.29<11.16	-10.87<10.70	-14.73<12.64	-8.84<9.08	-10.22<9.22	-5.86<14.27	-14.18<8.80	-8.62<13.15	-15.77<15.92	-7.25<7.30	-14.45<16.12	-15.36<15.36	-15.36<13.20	-16.78<13.39	-16.78<13.39
Θ(157.5°)	-11.25<14.90	-14.34<16.24	-13.54<12.14	-12.19<11.39	-11.48<11.66	-11.48<13.81	-15.72<16.20	-14.95<15.35	-14.45<12.41	-10.59<10.09	-11.15<11.46	-11.85<13.65	-14.89<13.77	-12.71<11.19	-9.04<7.16	-5.82<5.82	-7.72<10.67	-13.63<14.99	-11.86<9.55	-10.74<14.57	-12.45<11.54	-13.30<14.93	-14.83<10.99	-9.43<9.33
Θ(165°)	-11.97<10.17	-10.86<10.60	-11.62<15.39	-15.39<14.40	-15.53<14.20	-11.87<12.43	-14.88<14.92	-15.65<15.14	-14.94<15.43	-15.16<14.46	-14.05<12.99	-12.03<10.76	-9.38<6.41	-8.92<9.51	-9.81<10.99	-11.96<11.52	-12.22<13.25	-14.58<14.55	-14.38<10.54	-8.35<7.81	-4.77<7.77	-8.50<7.88	-8.45<8.29	-9.16<10.91
Θ(172.5°)	-9.84<10.52	-11.57<13.47	-15.50<15.56	-15.15<14.78	-15.24<15.04	-15.37<15.27	-14.57<15.12	-16.05<15.70	-15.42<15.72	-14.77<15.14	-15.63<14.66	-14.77<15.48	-15.40<15.67	-15.50<15.67	-14.71<15.46	-14.61<15.49	-15.19<14.47	-14.31<14.94	-8.21<7.78	-7.84<8.48	-9.10<9.75	-9.78<9.21	-9.26<9.32	-9.26<9.32
Θ(180°)	-14.20<14.63	-15.81<15.12	-15.41<15.48	-14.01<14.41	-14.99<15.00	-15.06<13.45	-13.71<13.65	-13.85<14.51	-13.70<14.48	-14.54<15.25	-15.91<15.41	-15.13<14.32	-13.88<13.32	-13.55<14.21	-13.83<14.28	-14.48<14.44	-13.62<12.49	-12.48<12.14	-11.78<12.46	-12.57<12.54	-12.65<12.06	-11.16<11.08	-11.47<12.59	-14.11<14.60
Freq(Hz)	6.475GPol.	TotalAnt. 1	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
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°)	-3.34<3.04	-2.72<2.74	-3.04<3.29	-3.48<3.51	-3.14<3.18	-2.78<2.59	-2.67<2.93	-3.13<2.69	-2.45<2.18	-2.05<1.80	-1.83<2.05	-2.19<2.25	-2.21<2.32	-2.40<2.60	-3.03<3.03	-2.67<2.60	-3.08<3.44	-3.04<2.87	-2.80<2.82	-2.52<2.54	-2.84<3.39	-3.40<2.88	-2.60<2.75	-3.30<3.61
Θ(7.5°)	-4.52<4.87	-5.32<5.75	-5.59<5.77	-5.89<5.89	-5.60<6.44	-3.72<3.46	-3.65<3.56	-3.31<3.16	-2.76<2.17	-1.71<1.69	-1.63<1.60	-1.49<1.47	-1.45<1.38	-1.40<1.69	-1.75<1.78	-1.72<1.76	-2.07<2.01	-1.81<1.51	-1.54<1.62	-1.44<1.37	-1.29<1.56	-1.92<1.93	-2.31<3.23	-3.74<4.42
Θ(15°)	-4.30<4.91	-5.86<6.73	-7.75<8.19	-8.65<8.07	-7.87<8.15	-7.81<6.04	-5.06<3.85	-3.29<2.97	-2.26<1.81	-1.20<0.87	-0.190<37	0.660<77	0.720<59	0.460<47	0.540<43	0.200<18	0.260<43	0.520<0.22	-0.05<0.40	-0.69<0.97	-1.28<1.42	-1.90<3.02	-3.38<4.16	-3.38<4.16
Θ(22.5°)	-1.49<2.79	-4.19<5.22	-6.26<7.45	-9.11<11.29	-12.81<15.36	-13.51<9.24	-5.43<3.62	-2.70<2.30	-1.84<1.30	-1.03<0.94	-0.240<88	1.8												

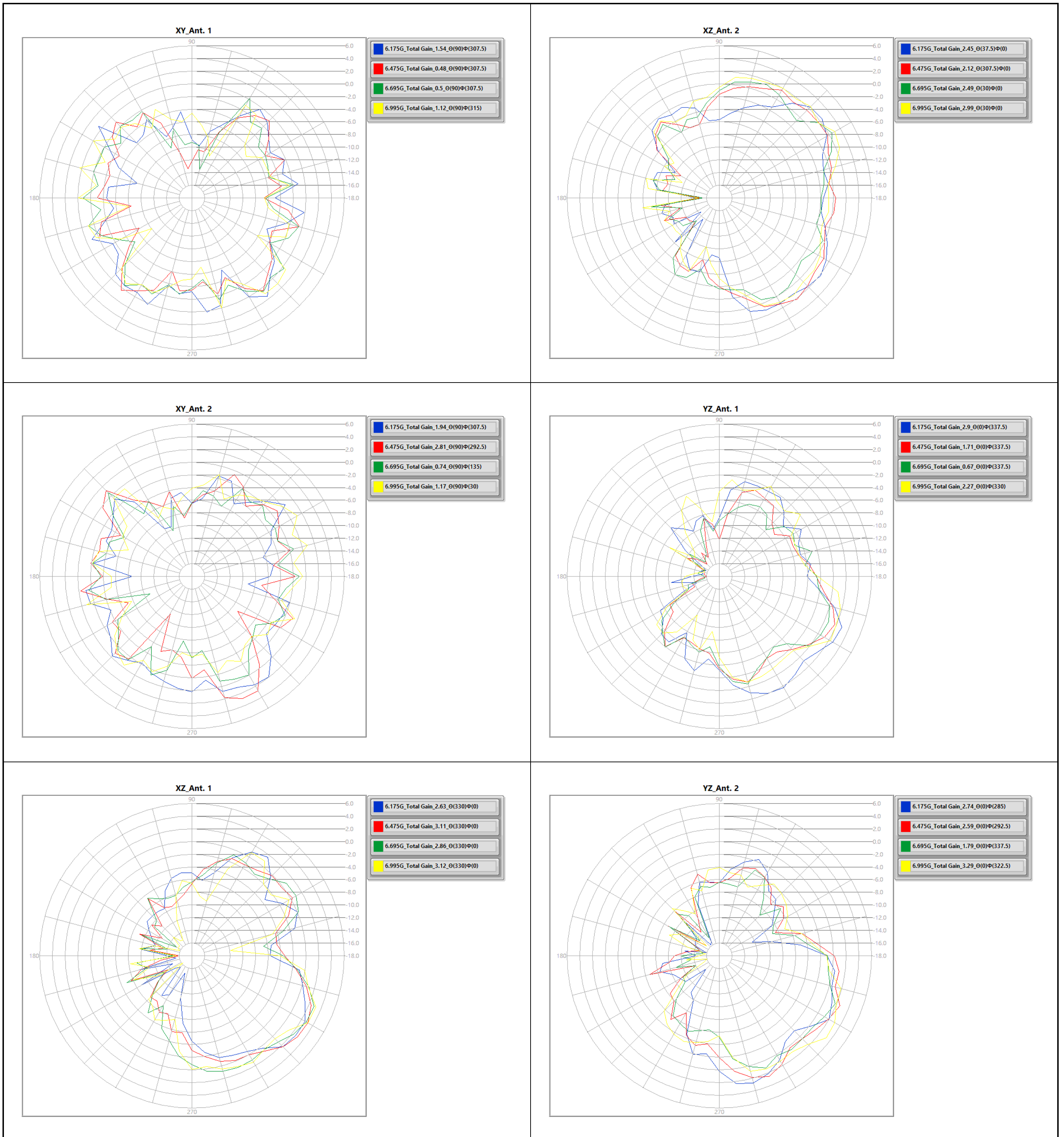


Antenna Pattern of Radio 0 (6GHz)

Appendix E

Θ(22.5°)	-0.37/-1.44	-1.61/-2.31	-2.32/-2.29	-2.18/-1.53	-1.37/-2.85	-4.52/-7.35	-12.35/-14.87	-12.14/-7.15	-4.23/-3.27	-3.45/-3.32	-2.05/-0.60	0.22/0.39	0.41/0.08	-0.30/0.42	1.78/2.74	2.82/2.36	1.79/1.44	1.17/1.20	1.24/1.74	2.24/2.75	2.88/2.99	3.03/2.56	1.94/1.23	0.95/0.28	
Θ(30°)	1.56/1.38	1.17/0.61	-0.26/-0.51	-0.41/-0.30	-0.75/-1.83	-3.82/-6.45	-8.43/-7.15	-4.64/-2.39	-0.36/0.35	-0.48/-1.82	-2.49/-1.45	0.68/1.81	1.48/0.05	-1.15/0.19	2.91/4.32	4.49/4.24	3.86/3.34	2.58/2.16	2.00/2.14	2.39/3.03	3.83/4.25	3.99/3.35	2.57/1.98	1.76/1.66	
Θ(142.5°)	2.45/2.93	2.67/2.09	2.30/1.52	-0.80/-1.67	-1.54/-2.70	-5.59/-8.17	-7.11/-5.44	-3.69/-2.72	-1.79/-0.74	0.37/0.80	0.23/-1.00	0.55/1.98	2.16/1.44	0.53/1.71	3.77/4.56	4.51/4.44	3.86/2.67	1.65/1.00	0.23/0.86	2.20/3.53	4.62/3.38	5.01/4.33	4.05/3.69	2.86/1.95	
Θ(45°)	2.23/2.78	2.78/3.69	3.83/1.98	-0.65/-1.63	-1.45/-2.21	-4.04/-5.28	-5.34/-5.16	-4.92/-3.65	-1.86/-0.78	0.21/1.77	2.18/1.37	1.78/2.24	1.77/1.67	2.01/2.58	3.12/3.27	2.86/2.73	2.75/1.48	-1.59/-2.38	-1.27/0.27	2.02/3.11	3.75/5.06	5.47/4.93	4.45/3.80	2.45/1.82	
Θ(52.5°)	0.86/2.20	2.51/2.98	3.88/2.30	-0.18/0.16	0.98/0.46	-1.30/-3.85	-5.14/-4.64	-6.29/-4.29	-0.65/0.80	1.27/0.67	1.48/0.45	2.22/2.95	1.14/1.80	3.48/2.93	2.35/1.87	0.80/1.14	0.81/-0.24	-0.45/-1.20	-0.91/0.34	2.02/3.44	3.60/4.65	4.51/3.80	4.35/3.97	2.32/0.46	
Θ(60°)	-1.43/-0.03	0.96/2.46	3.45/2.83	1.39/1.18	1.98/1.14	-1.10/-3.20	-2.83/-2.53	-5.30/-5.62	-0.84/1.45	2.28/-0.00	0.25/-1.23	0.59/2.58	1.18/0.67	2.87/2.19	1.03/2.37	1.33/0.74	1.54/1.19	1.23/1.43	0.97/0.55	2.26/3.72	3.50/4.22	4.30/3.13	3.14/2.61	1.79/-0.20	
Θ(67.5°)	-2.16/-1.01	-0.55/0.89	1.84/2.76	1.24/1.54	1.39/0.47	-0.25/-1.58	-1.63/-1.88	-4.48/-6.49	-1.00/1.21	1.96/-0.50	0.02/-1.39	0.08/1.34	1.18/0.69	1.52/0.14	0.24/2.15	1.09/1.97	1.41/1.93	3.46/3.64	2.13/1.48	2.55/4.22	3.71/4.08	3.15/1.16	1.00/1.20	0.40/-1.92	
Θ(75°)	-3.32/-4.28	-2.07/-0.23	0.79/1.68	-0.09/0.00	-0.15/0.50	0.85/-1.07	-2.68/-1.48	-3.16/-4.71	-3.23/-0.22	1.03/-0.29	-1.01/-1.51	0.13/-0.58	0.53/1.56	-0.62/-1.14	-0.82/1.91	1.67/2.23	1.44/2.05	4.00/3.98	2.74/2.25	3.44/4.36	3.86/4.03	2.82/-0.01	-0.70/-0.82	-1.26/-3.16	
Θ(82.5°)	-4.50/-5.52	-3.65/-2.09	-0.96/1.12	-0.99/-1.46	-2.51/-0.84	-0.54/-3.00	-4.31/-3.55	-5.82/-6.73	-5.18/-1.06	0.62/-0.05	-0.21/-2.11	-0.96/-1.90	-2.27/1.18	-2.31/-2.63	-0.86/0.76	1.16/1.72	0.75/1.26	2.38/2.64	2.30/1.02	2.97/3.42	3.04/3.54	1.81/-1.75	-2.11/-2.14	-1.75/-7.21	
Θ(90°)	-5.65/-5.06	-6.41/-4.51	-3.60/0.53	-1.33/-3.33	-4.78/-1.72	-1.63/-5.66	-6.49/-4.64	-5.25/-9.54	-9.33/-3.17	-0.81/-2.37	-3.38/-3.40	-5.64/-2.30	-8.56/-1.13	-1.49/-4.14	-2.52/-1.86	-0.20/-1.34	-2.21/-1.42	-0.90/-0.26	0.23/-1.50	0.79/0.94	1.75/1.94	-0.37/-3.24	-2.83/-2.37	-2.09/-9.07	
Θ(97.5°)	-5.72/-3.11	-7.62/-4.48	-4.12/-0.21	-2.07/-5.79	-6.07/-2.04	-2.58/-6.18	-6.33/-4.97	-4.40/-8.83	-7.89/-4.43	-2.54/-6.36	-6.47/-7.54	-8.00/-4.91	-8.90/-3.17	-2.55/-6.54	-7.17/-3.45	-2.70/-6.41	-6.42/-4.89	-4.93/-3.88	-2.43/-5.32	-3.64/-2.27	0.03/0.52	-1.42/-3.25	-2.09/-2.53	-1.81/-5.77	
Θ(105°)	-3.31/-2.83	-6.83/-5.45	-4.06/-0.69	-1.77/-9.65	-6.06/-4.95	-5.34/-4.93	-5.98/-7.17	-6.45/-4.79	-3.82/-3.40	-3.50/-7.40	-9.01/-8.40	-8.15/-5.63	-5.96/-5.06	-3.97/-5.90	-5.43/-6.30	-2.67/-7.66	-10.88/-4.58	-1.96/-6.22	-4.06/-1.99	0.11/-1.75	-3.34/-5.12	-0.39/-0.51	-2.16/-3.82		
Θ(112.5°)	-2.56/-2.75	-4.73/-5.16	-5.15/-2.38	-1.94/-4.60	-6.05/-9.12	-9.28/-6.87	-9.21/-10.91	-9.37/-10.07	-5.47/-5.49	-7.32/-11.47	-13.29/-10.56	-8.33/-8.75	-5.75/-2.32	-4.54/-6.67	-6.47/-4.40	-4.37/-2.46	-6.07/-8.25	-1.19/-1.56	-4.65/-7.23	-5.29/-1.03	0.35/-1.20	-2.51/-6.47	-2.15/-0.68	-2.37/-3.32	
Θ(120°)	-2.87/-3.31	-3.58/-1.56	-4.95/-3.89	-2.18/-3.15	-6.93/-10.26	-8.88/-10.11	-15.41/-12.03	-12.15/-11.22	-4.79/-5.64	-6.63/-8.64	-9.62/-11.05	-7.75/-12.19	-7.53/-1.58	-5.17/-7.98	-7.75/-6.49	-5.92/-4.30	-6.76/-10.45	-2.11/-4.10	-9.86/-8.91	-9.28/-1.85	-4.02/-2.97	-5.83/-2.94	-0.28/-1.44	-2.55/-2.30	
Θ(127.5°)	-2.48/-4.64	-3.76/-4.58	-4.67/-2.86	-4.42/-4.04	-5.92/9.11	-7.09/-9.09	-15.80/-9.38	-7.25/-8.77	-10.38/-7.20	-9.25/-9.79	-11.51/-9.33	-9.50/-12.77	-13.76/-8.21	-6.34/-13.39	-4.89/-3.29	-3.13/-2.20	-5.96/-14.86	-1.44/-2.89	-10.72/-10.34	-5.09/-2.99	-0.60/-5.11	-4.99/-6.19	-0.24/-1.06	-0.63/-2.16	
Θ(135°)	-2.97/-5.14	-5.72/-5.15	-6.74/-6.67	-5.64/-6.96	-9.26/-9.74	-7.73/-7.48	-10.54/-15.19	-9.48/-7.24	-8.49/-9.35	-10.05/-12.15	-7.02/-8.14	-7.52/-6.19	-7.89/-9.77	-6.63/-8.04	-11.34/-11.81	-3.73/-4.88	-11.69/-7.30	-0.55/-2.05	-15.09/-14.73	-4.30/-3.47	-1.11/-5.48	-9.09/-10.26	-3.93/-1.32	-4.06/-4.02	
Θ(142.5°)	-5.83/-7.58	-1.12/-0.23	-6.78/-8.95	-7.65/-8.03	-9.66/-9.96	-10.63/-13.99	-13.55/-10.59	-9.25/-10.48	-15.00/-15.28	-13.23/-12.59	-9.23/-6.54	-8.67/-9.91	-14.37/-13.50	-11.16/-12.49	-13.80/-13.43	-9.10/-15.20	-12.37/-5.66	-2.98/-5.14	-11.25/-12.41	-7.27/-6.07	-7.49/-4.94	-6.49/-5.77	-2.94/-2.85	-5.92/-7.73	
Θ(150°)	-9.98/-8.75	-7.02/-6.74	-7.49/-7.81	-8.68/-9.99	-8.22/-6.86	-7.03/-9.29	-13.56/-15.17	-11.89/-12.76	-13.19/-11.23	-11.10/-13.02	-14.31/-14.97	-12.26/-9.74	-9.78/-10.34	-9.42/-10.97	-13.73/-9.95	-7.93/-5.21	-5.42/-6.76	-6.50/-8.10	-10.84/-12.30	-9.00/-4.61	-4.53/-0.50	-3.72/-3.51	-3.22/-2.70	-4.57/-7.95	
Θ(157.5°)	-7.49/-9.40	-8.08/-5.90	-5.58/-6.57	-6.79/-7.07	-7.24/-8.21	-11.61/-14.48	-13.88/-13.60	-13.61/-14.57	-14.16/-14.13	-13.21/-11.15	-8.27/-7.21	-7.75/-9.32	-10.09/-9.32	-7.46/-5.49	-4.65/-5.60	-6.83/-5.81	-5.51/-6.22	-7.84/-9.97	-10.18/-9.82	-8.91/-6.16	-5.06/-5.27	-4.85/-4.09	-3.06/-2.70	-3.35/-5.37	
Θ(165°)	-7.20/-7.37	-7.33/-6.48	-6.52/-5.90	-6.67/-7.92	-8.45/-11.84	-14.57/-15.22	-15.85/-15.20	-13.55/-13.67	-13.11/-12.57	-13.01/-12.62	-12.11/-12.62	-13.02/-11.20	-8.65/-7.00	-5.50/-4.59	-4.45/-4.46	-3.98/-3.68	-4.08/-5.30	-6.53/-7.92	-8.29/-8.17	-7.51/-7.07	-5.70/-5.09	-4.59/-4.30	-4.67/-5.04	-6.14/-6.33	
Θ(172.5°)	-8.18/-9.32	-11.02/-11.78	-11.53/-10.27	-10.74/-11.95	-12.42/-11.99	-11.60/-11.48	-12.53/-14.55	-15.27/-14.54	-14.84/-15.13	-15.02/-15.99	-15.37/-14.94	-12.73/-10.78	-9.35/-8.09	-7.32/-6.91	-6.82/-6.74	-6.56/-6.33	-6.36/-6.95	-7.74/-8.79	-8.98/-9.60	-8.30/-7.56	-6.83/-6.49	-7.19/-6.87	-6.75/-7.44		
Θ(180°)	-14.39/-14.53	-14.19/-12.70	-11.72/-11.14	-11.30/-12.97	-13.71/-14.27	-14.84/-15.16	-14.35/-14.46	-13.74/-13.35	-12.95/-12.19	-12.41/-13.64	-14.27/-13.82	-13.21/-12.82	-12.96/-13.18	-13.96/-14.49	-6.12/-13.85	-13.67/-13.33	-12.92/-12.13	-12.18/-13.12	-14.15/-13.34	-13.93/-12.95	-11.71/-12.40	-14.38/-14.11	-13.90/-14.01	-15.35/-14.70	
Freq(Hz)	6.475GPol.	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°)	0.37/0.43	0.71/0.71	0.01/-0.16	-0.14/-0.25	-0.32/-0.28	-0.01/-0.03	0.14/0.18	-0.00/0.04	0.26/0.48	0.44/0.38	0.12/0.53	0.88/1.08	1.08/1.04	0.97/1.07	1.06/1.06	1.20/1.38	1.12/0.62	0.29/0.19	0.47/0.68	0.68/0.21	0.01/-0.02	0.23/0.22	-0.04/-0.32	-0.00/-0.22	
Θ(7.5°)	-0.53/-0.67	-0.05/-0.93	-1.95/-2.32	-2.66/-2.73	-2.72/-2.39	-2.18/-2.49	-2.65/-2.93	-3.47/-3.79	-3.53/-3.53	-3.87/-3.79	-3.05/-1.79	-0.83/-0.18	0.20/0.45	0.78/1.06	1.05/1.19	1.16/1.05	0.89/0.80	0.65/0.76	1.02/1.27	1.37/1.14	1.10/1.20	1.41/1.16	0.68/0.22	-0.02/-0.02	
Θ(15°)	0.29/-0.09	-0.41/-1.51	-1.58/-1.84	-2.04/-2.28	-2.12/-2.23	-3.14/-3.90	-4.49/-5.89	-6.77/-8.08	-9.28/-10.93	-11.25/-9.46	-7.24/-5.95	-3.72/-2.01	-0.66/0.29	0.89/1.13	1.14/0.90	0.37/0.05	0.00/0.20	0.56/0.83	0.91/0.92	1.26/1.42	1.47/1.41	1.48/1.46	1.54/1.37	1.15/1.00	
Θ(22.5°)	0.60/0.34	-0.25/-0.56	-1.09/-1.78	-2.69/-4.00	-3.85/-3.69	-4.27/-5.48	-8.42/-14.03	-14.42/-11.04	-7.54/-5.12	-3.30/-1.96	-1.42/-1.24	-0.46/0.02	-0.08/-0.31	-0.17/0.41	1.10/1.56	1.73/1.92	2.09/2.10	2.28/2.33	2.57/2.76	3.03/2.69	2.37/1.63	0.89/0.83	1.27/1.46	1.51/1.19	
Θ(30°)	1.74/1.45	0.35/-0.47	-0.27/-0.52	-1.49/-2.94	-2.30/-1.72	-1.92/-4.26	-6.37/-6.24	-4.24/-2.96	-2.69/-2.20	-1.80/-1.80	-1.71/-1.56	0.30/1.29	1.05/-0.04	-0.11/1.11	2.74/3.52	3.51/3.24	2.83/2.53	2.22/1.87	1.89/2.70	4.02/4.54	4.65/4.33	3.07/2.40	2.52/2.34	1.98/1.62	
Θ(37.5°)	1.70/1.11	0.45/1.09	1.99/1.11	-0.51/-1.71	-1.23/-0.53	-0.91/-3.26	-5.29/-3.29	-1.74/-1.28	-1.60/-2.37	-2.39/-1.57	-0.94/-1.13	0.49/1.56	1.02/0.36	0.70/2.51	3.96/4.27	3.62/2.43	1.46/0.65	-0.18/0.49	1.13/1.84	3.28/4.33	4.87/4.88	3.89/2.79	2.63/2.59	2.16/1.82	
Θ(45°)	1.54/1.44	1.16/1.08	1.72/1.85	1.05/-0.37	0.29/0.66	-0.70/-4.02	-6.55/-4.15	-3.32/-0.39	-3.24/-2.72	-1.58/-0.08	1.12/0.55	1.67/2.62	1.62/1.80	3.01/3.17	3.48/3.42	2.63/2.00	0.30/-1.76	-1.71/-0.54	0.47/1.05	2.02/2.66	3.21/4.14	3.36/2.44	2.95/3.07	2.20/1.84	
Θ(52.5°)	1.09/1.01	0.65/2.05	2.37/2.50	1.72/-1.17	0.37/0.15	-1.70/-4.23	-4.56/-2.65	-2.68/-3.94	-2.65/-8.85	1.95/1.26	2.09/1.87	2.55/2.98	2.12/2.95	4.55/4.21	2.89/2.86	2.71/1.05	-0.44/-1.68	-0.98/-0.45	0.29/1.01	2.39/2.82	1.92/1.68	2.52/2.21	2.84/2.96	2.48/1.14	
Θ(60°)	1.68/0.86	0.09/1.19	2.04/2.75	1.50/-1.83	-0.42/0.03	-1.36/-3.25	-3.67/-2.58	-3.05/-4.24	-0.59/2.65	3.55/1.70	0.52/0.28	1.11/1.22	1.28/2.63	3.89/3.42	1.80/2.86	3.34/2.43	0.33/-0.16	0.05/-0.02	1.70/2.89	4.19/4.48	2.96/2.81	2.64/2.89	3.04/3.05	2.04/0.77	
Θ(67.5°)	0.62/0.08	0.29/1.10	0.97/2.13	-0.88/-3.76	-1.37/-0.05	-0.98/-2.19	-3.12/-3.53	-4.32/-2.77	-0.66/1.35	1.81/0.65	-2.97/-3.42	-0.38/-0.73	0.60/2.16	2.00/2.16	1.12/3.98	3.93/2.33	1.27/0.83	1.30/1.55	2.59/3.29	4.29/4.85	2.77/2.33	1.36/2.10	3.58/3.29	0.53/-0.51	
Θ(75°)	0.15/-0.40	0.13/-0.44	-0.64/-0.22	-0.29/-4.12	-0.70/-4.22	-1.49/-3.41	-3.70/-3.58	-4.40/-2.57	-0.76/-0.46	0.09/0.															

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





Sporton International Inc. Hsinchu Laboratory



Antenna Pattern of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix F

Θ(22.5°)	-0.120.36	0.470.22	0.461.11	1.601.90	2.072.09	1.771.35	1.000.67	0.380.08	-0.06/-0.04	0.060.32	0.771.13	1.301.18	0.930.67	0.420.10	-0.41/-0.79	-0.87/-0.62	0.060.83	1.511.84	1.651.51	1.140.68	0.21/-0.14	-0.060.29	0.340.06	-0.45/-0.47
Θ(30°)	1.10/-1.26	1.190.87	1.272.00	2.46/-2.72	3.163.22	2.83/-2.42	1.961.57	1.120.72	0.380.05	0.050.28	0.490.83	1.251.11	0.840.83	0.70/-0.03	-1.34/-2.47	-2.68/-1.74	-0.520.42	1.12/-0.20	2.703.08	3.00/-2.52	1.901.05	0.350.20	0.781.63	1.86/-1.47
Θ(37.5°)	2.372.15	1.951.54	1.552.16	2.763.57	4.043.92	3.453.03	2.672.20	1.791.37	1.000.58	0.180.26	0.300.65	1.251.35	1.391.33	0.950.27	-0.51/-1.10	-1.85/-2.70	-2.69/-1.16	0.802.21	2.923.18	3.523.89	3.703.10	2.412.05	1.891.17	2.582.67
Θ(45°)	2.742.30	1.720.99	1.011.23	2.082.99	3.002.60	2.001.52	1.181.41	1.741.83	1.731.58	1.030.54	0.340.24	0.901.40	1.521.82	1.610.74	0.25/-0.40	-1.85/-2.68	-3.44/-2.37	-1.20/-0.79	0.091.41	2.352.27	2.492.82	2.792.56	2.212.21	2.542.99
Θ(52.5°)	2.712.33	1.850.83	0.540.28	1.111.63	2.101.59	0.36/-0.79	-1.01/-0.41	1.202.01	2.231.94	1.771.10	0.59/-0.11	0.380.83	0.921.30	0.970.85	0.58/-0.23	-0.86/-2.23	-2.95/-2.91	-1.64/-1.05	-0.530.22	1.171.91	2.282.26	3.113.22	3.243.06	2.523.16
Θ(60°)	1.881.77	0.66/-0.43	-0.92/-1.17	-0.740.19	0.890.00	-0.272.66	-1.99/-3.48	1.811.81	1.641.31	0.34/-0.51	-0.050.52	0.020.16	-0.64/-0.25	-0.86/-0.78	-1.77/-1.64	-2.08/-1.96	-0.840.09	1.351.86	2.182.03	2.953.70	3.323.00	1.872.65		
Θ(67.5°)	0.530.12	-1.82/-2.57	-3.86/-4.15	-3.95/-1.86	-0.90/-2.31	-5.17/-7.40	-7.18/-5.14	-2.42/-0.80	0.650.91	0.600.54	-0.74/-1.18	-1.31/-1.01	-1.15/-0.62	-1.26/-1.14	-1.65/-0.90	-1.11/-0.47	-0.54/-0.61	-1.38/-1.29	-0.270.34	1.561.79	2.091.24	1.712.76	3.232.92	1.621.73
Θ(75°)	-0.87/-1.05	-3.76/-4.00	-5.57/-5.72	-5.97/-4.00	-3.24/-4.99	-6.00/-6.27	-6.52/-5.87	-4.34/-3.20	-1.19/-0.05	-0.37/-0.07	-1.39/-1.58	-2.27/-1.68	-2.24/-1.80	-2.95/-1.39	-2.40/-1.94	-1.91/-1.09	0.841.06	-0.72/-0.25	1.530.88	2.332.61	2.100.87	-0.121.79	2.582.44	0.610.91
Θ(82.5°)	-2.61/-2.86	-5.65/-6.33	-7.58/-8.19	-7.08/-6.20	-5.54/-7.95	-6.31/-6.76	-7.88/-7.57	-6.23/-5.67	-3.10/-1.65	-1.84/-2.12	-2.75/-3.02	-3.60/-2.91	-2.99/-2.58	-3.40/-1.63	-3.50/-3.79	-2.26/-0.50	1.141.07	-0.94/-1.59	0.660.65	2.242.17	1.28/-0.13	-1.02/-0.40	1.461.37	-0.85/-0.80
Θ(90°)	-4.49/-4.22	-7.20/-7.56	-9.08/-7.94	-7.92/-6.57	-5.97/-9.47	-6.44/-7.48	-7.84/-9.44	-8.46/-7.66	-4.17/-2.06	-2.86/-4.44	-4.79/-4.88	-5.09/-3.96	-4.45/-4.00	-5.61/-3.77	-4.10/-6.30	-3.11/-2.28	0.310.17	-2.45/-3.30	-0.07/-1.18	1.600.74	0.47/-1.87	-1.50/-2.13	0.16/-0.81	-2.87/-2.55
Θ(97.5°)	-6.02/-5.97	-8.66/-9.18	-9.60/-9.46	-8.38/-6.71	-6.31/-10.11	-8.40/-9.24	-10.36/-12.85	-9.44/-8.18	-5.09/-3.28	-4.42/-5.83	-6.46/-5.82	-7.01/-5.64	-6.23/-5.02	-6.62/-5.21	-4.71/-8.82	-6.01/-3.96	-2.42/-2.71	-6.70/-6.72	-2.78/-5.54	-1.63/-2.43	-2.64/-4.36	-3.16/-3.86	-2.18/-3.52	-5.59/-4.69
Θ(105°)	-5.85/-7.12	-10.82/-10.58	-10.31/-8.68	-9.02/-5.96	-5.45/-8.06	-11.21/-11.77	-13.17/-12.70	-9.89/-8.45	-4.81/-4.06	-5.65/-7.20	-8.66/-9.15	-10.79/-8.64	-8.63/-6.69	-8.62/-10.22	-6.54/-10.02	-8.71/-7.42	-5.36/-5.25	-9.88/-8.35	-4.07/-8.15	-5.31/-4.56	-4.12/-5.28	-4.58/-6.08	-4.01/-6.57	-6.92/-5.24
Θ(112.5°)	-5.93/-6.31	-8.03/-10.51	-10.79/-12.03	-12.69/-9.58	-8.15/-8.93	-11.07/-16.19	-15.47/-12.05	-8.81/-7.52	-7.71/-8.40	-9.97/-9.25	-8.97/-9.96	-9.88/-9.17	-10.33/-7.29	-9.44/-11.11	-7.91/-10.90	-9.34/-8.49	-6.19/-4.48	-7.61/-6.57	-4.27/-9.59	-6.65/-3.70	-4.46/-5.83	-5.88/-5.67	-5.43/-7.60	-7.42/-4.95
Θ(120°)	-5.67/-6.16	-8.50/-10.46	-11.68/-12.51	-11.85/-11.98	-9.19/-9.68	-10.16/-10.79	-12.29/-10.89	-9.11/-8.48	-9.16/-11.72	-11.50/-10.13	-9.86/-9.18	-11.31/-10.87	-10.49/-8.00	-7.57/-14.44	-6.85/-8.08	-15.44/-8.13	-5.54/-2.34	-8.83/-7.73	-4.79/-13.79	-9.20/-2.26	-4.89/-6.50	-4.58/-7.91	-5.92/-5.11	
Θ(127.5°)	-6.25/-6.67	-8.86/-11.53	-12.75/-10.52	-9.71/-10.47	-11.01/-10.67	-11.45/-14.83	-15.62/-14.51	-11.27/-10.68	-10.54/-11.62	-9.95/-9.31	-11.55/-11.97	-10.88/-10.00	-9.61/-5.48	-11.63/-13.04	-8.50/-6.61	-11.82/-15.34	-4.77/-6.97	-9.89/-9.33	-8.56/-11.38	-8.17/-4.03	-7.00/-9.41	-16.11/-6.25	-6.24/-8.67	-9.22/-4.72
Θ(135°)	-8.65/-9.97	-12.38/-12.85	-11.40/-10.31	-8.81/-9.83	-10.91/-11.74	-13.93/-15.28	-15.03/-13.70	-13.17/-10.71	-10.72/-10.67	-10.35/-12.60	-11.91/-14.63	-15.20/-12.31	-10.51/-10.03	-11.43/-15.42	-11.05/-11.38	-13.53/-11.61	-5.62/-11.19	-9.89/-9.46	-8.60/-11.99	-11.86/-6.56	-5.38/-13.77	-10.73/-12.77	-6.81/-10.12	-10.08/-8.05
Θ(142.5°)	-13.36/-14.45	-15.03/-14.43	-15.41/-14.44	-13.25/-12.37	-12.02/-10.06	-10.56/-14.64	-15.19/-14.21	-9.47/-9.29	-12.03/-14.79	-14.68/-14.56	-15.76/-14.33	-13.43/-15.31	-12.93/-10.91	-15.11/-15.68	-15.94/-13.44	-11.34/-8.53	-11.19/-14.44	-9.60/-15.59	-15.01/-10.20	-7.05/-11.96	-12.15/-10.17	-9.96/-10.24	-10.18/-8.30	
Θ(150°)	-10.77/-11.91	-12.54/-15.30	-15.76/-15.09	-13.83/-14.12	-13.76/-14.12	-12.60/-13.74	-15.84/-13.71	-11.46/-11.81	-15.16/-14.01	-14.14/-14.57	-14.82/-15.28	-13.60/-12.66	-12.22/-10.21	-12.52/-13.40	-14.86/-15.08	-15.16/-15.85	-15.33/-15.39	-15.41/-14.74	-14.61/-14.78	-16.25/-15.48	-13.63/-13.70	-14.78/-12.94	-11.78/-11.42	-10.29/-10.11
Θ(157.5°)	-10.76/-11.32	-13.30/-15.47	-15.72/-14.29	-13.17/-13.11	-15.04/-15.63	-15.42/-15.09	-15.53/-14.80	-15.12/-15.42	-15.98/-15.41	-14.98/-14.36	-13.78/-13.06	-11.53/-11.02	-10.98/-12.21	-14.71/-16.29	-15.03/-15.13	-14.76/-14.85	-14.25/-12.96	-15.50/-14.39	-13.59/-13.46	-14.02/-14.88	-12.30/-9.21	-8.89/-9.71	-10.98/-13.28	-13.02/-11.65
Θ(165°)	-11.30/-11.42	-11.50/-12.02	-12.52/-13.72	-14.50/-14.92	-15.82/-15.99	-15.17/-15.21	-15.73/-15.77	-15.71/-14.83	-15.12/-14.93	-15.29/-15.31	-15.49/-14.48	-13.52/-12.62	-12.34/-12.76	-14.30/-14.93	-15.36/-14.90	-15.81/-15.96	-15.25/-15.17	-15.01/-15.16	-14.82/-15.08	-15.23/-15.69	-13.66/-12.79	-13.26/-15.63	-15.35/-14.18	-12.76/-13.10
Θ(172.5°)	-15.01/-14.42	-14.99/-14.76	-16.11/-14.54	-14.46/-14.51	-14.46/-14.38	-14.82/-14.14	-14.59/-15.49	-14.89/-14.88	-15.08/-15.31	-15.72/-15.39	-16.11/-15.62	-15.32/-16.12	-15.48/-15.17	-14.99/-15.06	-14.58/-14.29	-14.47/-14.91	-14.53/-14.40	-13.35/-13.32	-13.43/-12.51	-11.94/-11.49	-10.96/-11.21	-11.63/-12.73	-13.44/-14.14	-15.50/-16.59
Θ(180°)	-15.63/-15.61	-14.65/-15.23	-15.00/-15.39	-15.70/-14.81	-15.12/-14.38	-13.85/-13.06	-12.93/-13.46	-13.68/-13.84	-14.69/-14.36	-14.07/-13.76	-13.45/-13.10	-12.93/-12.88	-12.38/-12.73	-12.58/-12.86	-13.22/-13.38	-13.73/-14.82	-12.32/-12.09	-12.16/-11.75	-11.63/-11.55	-11.81/-12.56	-13.61/-14.35	-14.26/-15.21	-16.21/-14.71	-15.06/-14.92
Freq(Hz)	6.175GPol.	Total/Ant. 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	1.291.41	1.171.26	1.291.26	1.281.50	1.571.63	1.651.59	1.611.54	1.621.83	1.841.83	1.681.71	1.651.68	1.581.61	1.591.56	1.401.46	1.411.38	1.401.36	1.391.44	1.421.35	1.401.40	1.291.33	1.291.26	1.461.63	1.651.51	1.401.46
Θ(7.5°)	-0.19/-0.07	-0.29/-0.16	-0.12/-0.14	-0.020.24	0.350.42	0.490.42	0.921.22	1.421.59	1.631.89	2.062.20	2.342.47	2.552.58	2.522.50	2.432.38	2.292.21	2.091.97	1.771.63	1.471.32	1.050.99	0.830.61	0.550.52	0.440.24	0.050.02	
Θ(15°)	-0.48/-0.22	0.010.02	0.220.50	0.921.24	1.571.75	1.631.53	1.341.02	0.890.70	0.550.53	0.711.10	1.471.87	2.082.17	2.252.28	2.332.57	2.562.40	2.111.90	1.891.97	2.022.03	2.061.80	1.591.20	-0.35/-0.76	-0.98/-1.02	-1.00/-0.71	
Θ(22.5°)	0.950.76	0.620.93	1.622.24	2.773.00	3.303.32	2.922.33	1.741.37	1.121.09	0.950.59	0.380.28	0.200.30	0.861.46	1.581.55	1.521.35	1.230.80	0.220.07	0.400.76	1.061.39	1.551.73	1.681.50	1.230.70	0.42/-0.01	-0.41/-0.88	-0.680.09
Θ(30°)	2.142.20	1.481.23	1.751.87	2.242.94	3.583.58	3.182.38	1.841.39	1.321.57	1.681.56	1.511.51	1.070.19	0.350.84	0.770.78	0.840.25	-0.81/-2.04	-3.12/-3.09	-2.06/-0.62	1.072.24	2.512.35	2.201.71	0.920.25	-0.28/-0.21	0.270.52	0.571.10
Θ(37.5°)	3.513.35	2.151.16	0.700.43	1.342.26	2.492.15	1.630.89	0.271.08	0.521.79	2.883.40	3.252.56	1.63/-0.17	-0.400.62	0.721.52	1.760.56	-0.92/-2.08	-3.38/-3.23	-1.850.11	1.722.69	3.503.91	3.893.59	2.921.92	1.201.03	1.402.02	3.033.39
Θ(45°)	3.593.41	1.64/-0.74	-2.31/-2.34	-1.05/-0.27	-0.11/-0.23	-0.82/-1.68	-2.28/-2.18	-0.821.02	2.673.70	4.113.52	2.340.54	-0.970.13	0.811.64	2.441.62	0.16/-1.34	-2.77/-3.41	-3.43/-1.90	-0.110.93	1.312.22	3.063.33	3.022.93	2.852.41	2.692.65	3.173.74
Θ(52.5°)	3.123.09	0.40/-1.17	-3.14/-1.40	-1.27/-1.03	-1.40/-2.30	-2.76/-2.89	-2.58/-2.06	-1.210.33	2.273.81	4.323.94	1.820.15	-1.010.35	0.992.46	2.781.65	-0.30/-0.79	-2.79/-4.17	-5.80/-3.94	-2.69/-1.73	-0.690.13	1.192.03	2.733.26	3.763.77	3.642.55	3.313.65
Θ(60°)	1.881.18	-0.75/-2.57	-2.68/-0.81	-0.54/-0.81	-2.79/-3.72	-3.52/-1.74	-1.42/-1.09	-0.96/-0.59	0.692.81	3.463.64	1.79/-0.75	-1.07/-0.78	0.061.58	2.471.68	-0.01/-1.44	-1.88/-2.21	-3.22/-3.59	-3.31/-2.59	-1.200.34	1.532.28	3.053.07	3.702.67	3.112.49	2.972.95
Θ(67.5°)	-0.21/-1.61	-3.47/-4.04	-2.81/-2.00	-0.84/-1.32	-4.22/-4.81	-3.47/-1.99	-1.48/-1.35	-1.34/-1.07	-0.871.58	2.652.34	0.51/-1.69	-1.39/-0.35	-0.260.90	0.850.37	-1.83/-1.92	-1.66/-0.40	-1.59/-1.94	-2.22/-2.64	1.001.24	2.222.64	2.582.02	2.711.69	1.921.23	1.871.17
Θ(75°)	-2.86/-5.06	-6.49/-7.15	-4.35/-3.65	-1.01/-2.64	-5.55/-5.64	-4.23/-3.29	-3.37/-3.38	-3.20/-2.08	-2.57/-0.65	1.650.87	-0.73/-3.34	-2.59/-0.88	-1.32/-0.20	-0.90/-1.30	-2.06/-3.83	-2.590.41	0.08/-0.20	-0.78/-0.04	1.570.90	1.782.91	3.141.91	1.100.32	1.37/-0.21	0.29/-0.47
Θ(																								



Antenna Pattern of Scan Radio 3 (2.4GHz, 5GHz and 6GHz)

Appendix F

Θ (75°)	-0.07/-1.39	2.71/3.40	3.69/2.94	1.61/1.19	1.08/1.96	-0.32/-0.70	-0.63/0.51	1.41/1.12	-1.45/-1.81	-2.67/-2.05	-0.83/-1.50	-3.69/-5.57	-4.44/-3.82	-2.77/-3.18	-1.42/-2.50	-0.20/-2.02	-1.19/-0.03	0.65/2.71	3.65/3.54	3.34/2.74	2.49/2.06	-0.04/-0.88	0.24/0.28	1.33/0.02
Θ (82.5°)	0.68/0.24	0.45/0.97	1.02/1.41	-0.86/-1.12	0.19/0.96	0.05/-1.09	-2.74/-1.02	-0.49/-1.01	-3.43/-5.17	-5.14/-3.68	-2.57/-2.56	-6.29/-10.33	-5.36/-4.82	-3.37/-3.60	-1.98/-3.70	-2.10/-1.79	-0.33/0.96	-0.77/0.48	2.14/3.14	3.40/2.20	1.72/0.67	-2.51/-2.01	0.72/0.12	1.03/-0.10
Θ (90°)	0.23/-1.68	-2.40/-1.84	-1.77/-0.64	-2.24/-2.53	-1.67/-0.81	-0.46/-1.42	-4.75/-4.20	-2.99/-3.16	-4.77/-7.33	-6.75/-3.94	-4.42/-4.01	-6.70/-10.42	-6.55/-5.79	-4.85/-5.50	-2.04/-4.68	-3.90/-2.34	-1.55/-2.97	-4.04/-2.35	-0.22/-0.35	0.72/0.13	-2.59/-2.19	-5.50/-3.13	0.38/-1.63	-0.07/-1.96
Θ (97.5°)	-1.76/-4.17	-4.03/-3.48	-4.37/-2.63	-2.83/-4.54	-3.86/-2.00	-1.67/-1.69	-4.77/-6.42	-5.25/-5.05	-6.46/-7.60	-6.15/-3.23	-7.16/-6.52	-6.49/-10.11	-9.62/-4.68	-4.99/-4.53	-4.78/-7.41	-5.02/-5.83	-5.13/-9.22	-6.69/-6.19	-4.31/-5.56	-5.81/-4.80	-7.43/-4.00	-8.16/-3.72	-1.50/-2.45	-0.74/-3.00
Θ (105°)	-3.73/-5.35	-3.62/-3.45	-3.35/-2.12	-2.82/-5.35	-7.25/-3.62	-4.19/-4.83	-9.29/-10.66	-7.60/-5.48	-7.62/-9.58	-9.52/-5.05	-7.57/-9.66	-8.71/-8.45	-8.27/-6.77	-6.81/-6.84	-7.61/-5.61	-8.75/-7.94	-6.98/-5.47	-5.53/-6.18	-7.75/-6.33	-6.76/-6.40	-7.41/-5.32	-5.08/-2.81	-4.56/-3.77	-3.07/-4.37
Θ (112.5°)	-8.12/-6.73	-4.79/-3.62	-2.29/-1.76	-2.02/-4.78	-6.35/-6.25	-4.02/-4.77	-7.03/-10.03	-13.22/-9.89	-10.29/-10.02	-9.27/-5.57	-6.97/-8.38	-8.36/-8.84	-11.39/-12.01	-7.75/-12.57	-7.12/-5.14	-10.13/-4.64	-2.22/-5.61	-7.16/-8.16	-3.47/-6.33	-6.55/-5.83	-1.45/-2.83	-7.74/-6.47	-7.12/-6.28	-5.52/-7.66
Θ (120°)	-12.88/-8.20	-6.08/-4.49	-3.11/-3.14	-3.70/-4.04	-4.48/-6.96	-9.41/-7.49	-7.07/-8.53	-9.16/-7.70	-9.54/-10.72	-7.23/-9.15	-14.37/-11.78	-10.02/-16.20	-15.97/-14.60	-7.33/-12.80	-7.99/-7.22	-9.53/-8.76	-10.22/-15.73	-11.91/-12.22	-5.68/-11.76	-14.80/-9.71	-5.20/-8.40	-5.52/-3.92	-7.08/-7.89	-8.21/-11.79
Θ (127.5°)	-7.22/-7.20	-6.67/-4.82	-5.09/-5.13	-5.54/-3.27	-2.75/-4.98	-9.58/-14.57	-11.65/-8.38	-6.69/-7.23	-10.24/-15.05	-13.44/-10.18	-12.10/-10.16	-8.69/-10.47	-8.98/-10.42	-7.87/-12.18	-9.93/-13.00	-12.78/-6.06	-11.44/-2.50	-9.83/-10.14	-6.45/-9.62	-10.74/-4.87	-3.14/-12.28	-6.67/-4.11	-4.93/-8.08	-7.62/-8.46
Θ (135°)	-5.30/-7.43	-5.53/-7.47	-7.78/-6.34	-5.34/-4.28	-3.69/-4.99	-7.41/-11.47	-15.31/-14.37	-9.23/-6.19	-6.62/-9.46	-10.46/-12.05	-14.84/-10.65	-8.30/-8.45	-5.52/-12.45	-12.36/-14.33	-13.62/-8.16	-8.59/-16.03	-9.65/-5.34	-5.98/-6.65	-5.93/-8.60	-8.86/-6.00	-7.89/-10.40	-8.41/-9.21	-8.68/-9.13	-8.26/-9.66
Θ (142.5°)	-9.22/-8.65	-8.06/-8.59	-8.51/-6.59	-5.66/-4.75	-5.41/-7.19	-9.90/-11.58	-11.88/-14.39	-11.82/-8.97	-6.52/-7.74	-8.87/-9.24	-8.87/-11.02	-13.31/-11.70	-13.93/-15.38	-15.51/-12.15	-15.99/-13.86	-11.80/-13.71	-7.33/-8.53	-13.12/-11.06	-11.88/-14.61	-11.63/-9.69	-6.29/-5.18	-7.20/-11.32	-16.05/-14.65	-12.90/-10.48
Θ (150°)	-10.22/-13.89	-12.75/-11.04	-11.06/-9.52	-7.12/-6.74	-5.99/-5.85	-6.03/-7.67	-11.10/-15.58	-13.73/-9.13	-10.00/-13.16	-13.23/-10.61	-9.70/-11.40	-11.27/-11.24	-10.61/-12.20	-14.14/-14.17	-14.87/-14.61	-13.37/-8.61	-7.28/-13.31	-12.10/-10.22	-11.58/-9.47	-5.42/-4.90	-7.83/-7.46	-8.00/-9.32	-14.34/-14.17	-11.57/-9.94
Θ (157.5°)	-9.43/-9.41	-10.75/-11.58	-11.64/-11.29	-10.35/-8.38	-7.78/-7.09	-6.86/-7.91	-10.31/-11.88	-12.41/-13.42	-13.75/-13.85	-13.05/-12.78	-15.24/-12.94	-11.11/-11.85	-11.94/-11.51	-13.33/-14.55	-15.18/-14.08	-13.21/-13.74	-14.97/-13.93	-11.68/-11.39	-13.61/-11.94	-7.94/-7.13	-8.09/-8.44	-10.24/-10.87	-11.50/-10.05	-8.11/-8.25
Θ (165°)	-8.38/-9.21	-10.19/-11.98	-12.95/-11.78	-11.62/-10.92	-9.96/-9.92	-10.06/-10.72	-12.11/-14.23	-15.77/-15.15	-15.04/-13.76	-12.07/-11.99	-11.41/-10.04	-9.00/-8.81	-8.95/-10.11	-12.31/-13.08	-13.34/-13.37	-11.34/-9.72	-10.02/-10.78	-11.11/-11.25	-11.57/-12.07	-12.66/-13.49	-15.14/-14.01	-12.77/-11.09	-10.02/-9.82	-9.75/-8.71
Θ (172.5°)	-12.12/-13.60	-14.78/-13.17	-13.05/-14.18	-13.29/-12.34	-12.20/-12.92	-14.16/-14.81	-14.52/-14.05	-14.71/-15.13	-15.46/-15.38	-15.29/-15.01	-14.81/-14.72	-15.87/-15.06	-15.62/-15.31	-14.88/-15.00	-15.44/-15.76	-15.75/-14.93	-14.59/-15.80	-15.54/-14.71	-13.67/-13.85	-13.60/-13.72	-13.39/-12.73	-12.35/-12.22	-12.40/-12.52	-13.99/-14.10
Θ (180°)	-13.44/-12.41	-12.35/-12.34	-11.85/-11.60	-11.78/-14.71	-15.73/-15.23	-13.81/-12.85	-13.32/-13.42	-14.10/-14.28	-13.98/-13.53	-13.80/-14.09	-14.19/-14.17	-14.19/-13.61	-13.01/-12.74	-13.21/-12.74	-12.82/-12.97	-13.64/-12.55	-12.58/-11.78	-12.10/-12.11	-12.93/-13.76	-13.99/-15.15	-15.91/-15.48	-14.88/-14.70	-13.71/-12.42	-13.18/-12.11

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

