



Antenna Composite Gain Test Report

FCC ID	2AHBN-AP27
Equipment	Wi-Fi 7 Wireless Access Point
Brand Name	Juniper
Model Name	AP27, AP27E
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	Nov. 19, 2025
Start Test Date	Dec. 18, 2025
Final Test Date	Dec. 18, 2025

Approved by: Sam Chen

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History of this test report

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1. Operation Mode and Antenna Information

For EUT 1:

Antenna Position	RF Port	Brand Name	Model Name	Ant. Type	Connector	Modes of Operation
2G5G Ant1	2	Juniper	AP27	PIFA	I-PEX	WLAN 2.4GHz WLAN 5GHz UNII 1-3
2G5G Ant2	1	Juniper	AP27	PIFA	I-PEX	
2G6G Ant1	2	Juniper	AP27	PIFA	I-PEX	WLAN 6GHz UNII 5-8
2G6G Ant2	1	Juniper	AP27	PIFA	I-PEX	
Scan Ant1	1	Juniper	AP27, AP27E	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 Ant1 can be used as transmitting/receiving antenna.

2. Table for Multiple Listing

EUT	Model Name	6GHz	Wi-Fi Antenna	802.15.4 Antenna	BT Antenna	Scan Antenna	GPS Antenna
1	AP27	Support (Radio 0, 3)	Internal antenna (Radio 0~3)	the same (the only difference between two model is the cable length)	the same (the only difference between two model is the cable length)	The same	The same
2	AP27E	Support (Radio 3)	external antenna (Radio 0~2) Internal antenna (Radio 3)	the same (the only difference between two model is the cable length)	the same (the only difference between two model is the cable length)	The same	The same

Note1: The above information was declared by manufacturer.

Note2: This antenna report is applicable to model AP27 (Radio 0~3) and AP27E (Radio 3). Based on the differences outlined in the table above, model AP27 was selected for testing.

3. Table for Radio Function

Function Radio	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz	Bluetooth	IEEE 802.15.4	GPS
0	-	-	V (UNII 5~8) (For model AP27 only)	-	-	-
1	-	V (UNII 1-3)	-	-	-	-
2	V	-	-	-	-	-
3 (Scanning radio)	V	V (UNII 1-3)	V (UNII 5~8)	-	-	-
4	-	-	-	V	V	-
5	-	-	-	-	-	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.

Note2: The above information was declared by manufacturer.

4. Test Frequency

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

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

5. 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	Vivi	23.5-24.5 / 45-55	Dec. 18, 2025

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

6. Test Facility and Configuration

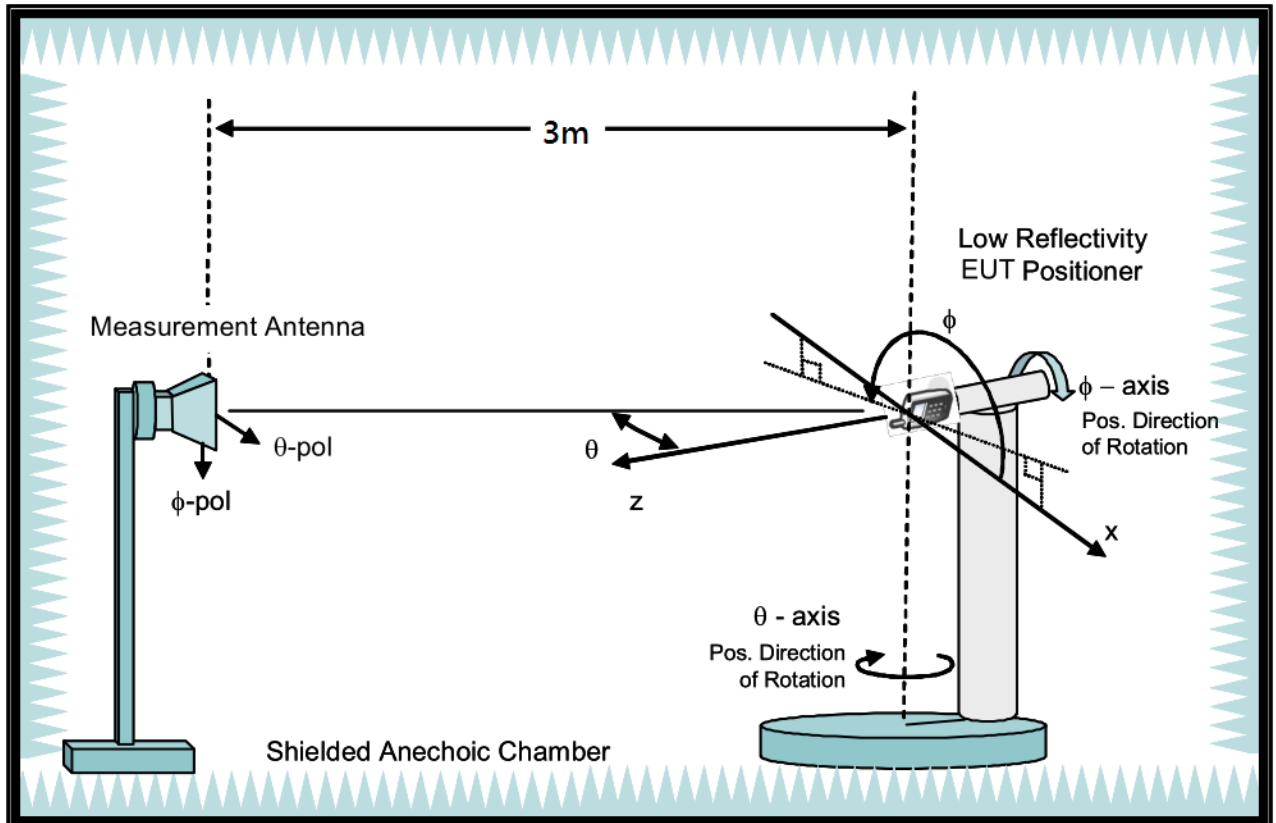
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

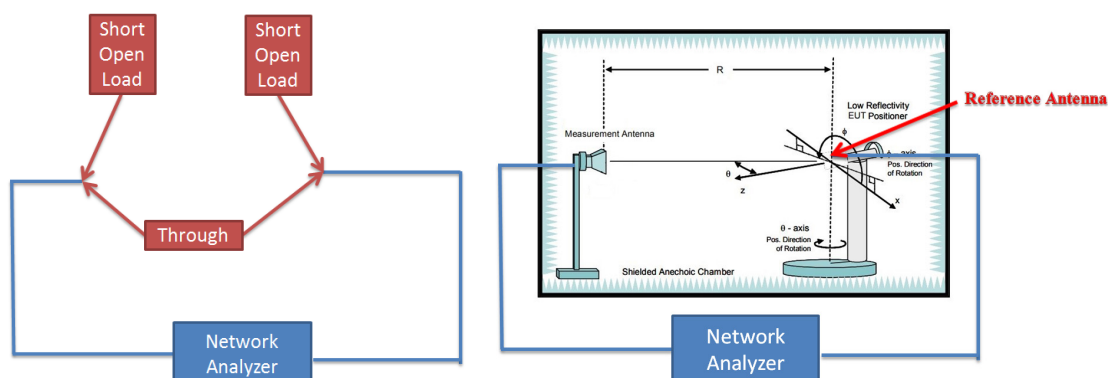
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



7. Reference Calibration

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

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



Frequency (MHz)	2400	2450	2500	5150	5200	5300	5600	5750	5800	5900	6000	6500	7000	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.

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

8. Test Method

EUT set on multi-axis positioner and adjust EUT's physical center to measurement reference center. Measurement antenna set at phi polarization and 1.5 meter height. Port 1 of Network analyzer connect to antenna 1 of EUT. Record G value every 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 9 tables.

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

9. Measured Values and Calculation of Maximum Gain Positions

For EUT 1:

DG_1SS max value position

For 2G5G Ant1~2:

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	-1.19	4.39	1.64	3.81	1.29
Ant. 2 (dBi)	3.16	0.26	3.42	2.05	4.27
DG [1SS] (dBi)	4.26	5.58	5.59	5.98	5.92
Polarization	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	75	60	45	67.5	75
$\Phi(^{\circ})$	240	120	202.5	52.5	322.5

For 2G6G Ant1~2:

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	3.41	4.42	3.3	3.05
Ant. 2 (dBi)	4	2.44	4.39	4.53
DG [1SS] (dBi)	6.72	6.5	6.87	6.83
Polarization	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	45	52.5	60	60
$\Phi(^{\circ})$	120	337.5	337.5	330

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

DG_1SS max value position calculation

For 2G5G Ant1~2:

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [$10^{(G/20)}$]	$10^{(-1.19/20)}$	$10^{(4.39/20)}$	$10^{(1.64/20)}$	$10^{(3.81/20)}$	$10^{(1.29/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(3.16/20)}$	$10^{(0.26/20)}$	$10^{(3.42/20)}$	$10^{(2.05/20)}$	$10^{(4.27/20)}$
Ant. 1 [$10^{(G/20)}$] value	0.872	1.658	1.208	1.551	1.16
Ant. 2 [$10^{(G/20)}$] value	1.439	1.03	1.483	1.266	1.635
Sum All Antenna [Amax]	2.311	2.688	2.69	2.817	2.795
DG [$10 \cdot \log(A_{\max}^2/N_{\text{ant}})$]	4.26	5.58	5.59	5.98	5.92

For 2G6G Ant1~2:

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(3.41/20)}$	$10^{(4.42/20)}$	$10^{(3.3/20)}$	$10^{(3.05/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(4/20)}$	$10^{(2.44/20)}$	$10^{(4.39/20)}$	$10^{(4.53/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.481	1.663	1.462	1.421
Ant. 2 [$10^{(G/20)}$] value	1.585	1.324	1.658	1.685
Sum All Antenna [Amax]	3.066	2.988	3.12	3.105
DG [$10 \cdot \log(A_{\max}^2/N_{\text{ant}})$]	6.72	6.5	6.87	6.83

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

10. Summary of Test Result

For EUT 1:

For 2G5G Ant1~2:

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.07	4.39	3.95	4.78	3.77
Ant. 2 Max Gain (dBi)	3.16	3.08	3.92	4.68	4.27
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/270	Theta/60/120	Theta/67.5/82.5	Theta/67.5/82.5	Theta/67.5/82.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75/240	Theta/67.5/322.5	Theta/75/315	Theta/67.5/322.5	Theta/75/322.5
Max Gain (dBi)	3.16	4.39	3.95	4.78	4.27
DG [1SS] (dBi)	4.26	5.58	5.59	5.98	5.92
DG [2SS] (dBi)	3.16	4.39	3.95	4.78	4.27

For 2G6G Ant1~2:

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.33	4.54	4.06	4.61
Ant. 2 Max Gain (dBi)	4.03	4.46	4.39	4.53
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/322.5	Theta/45/337.5	Theta/52.5/330	Theta/60/210
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/52.5/120	Theta/52.5/127.5	Theta/60/337.5	Theta/60/330
Max Gain (dBi)	4.33	4.54	4.39	4.61
DG [1SS] (dBi)	6.72	6.5	6.87	6.83
DG [2SS] (dBi)	4.33	4.54	4.39	4.61

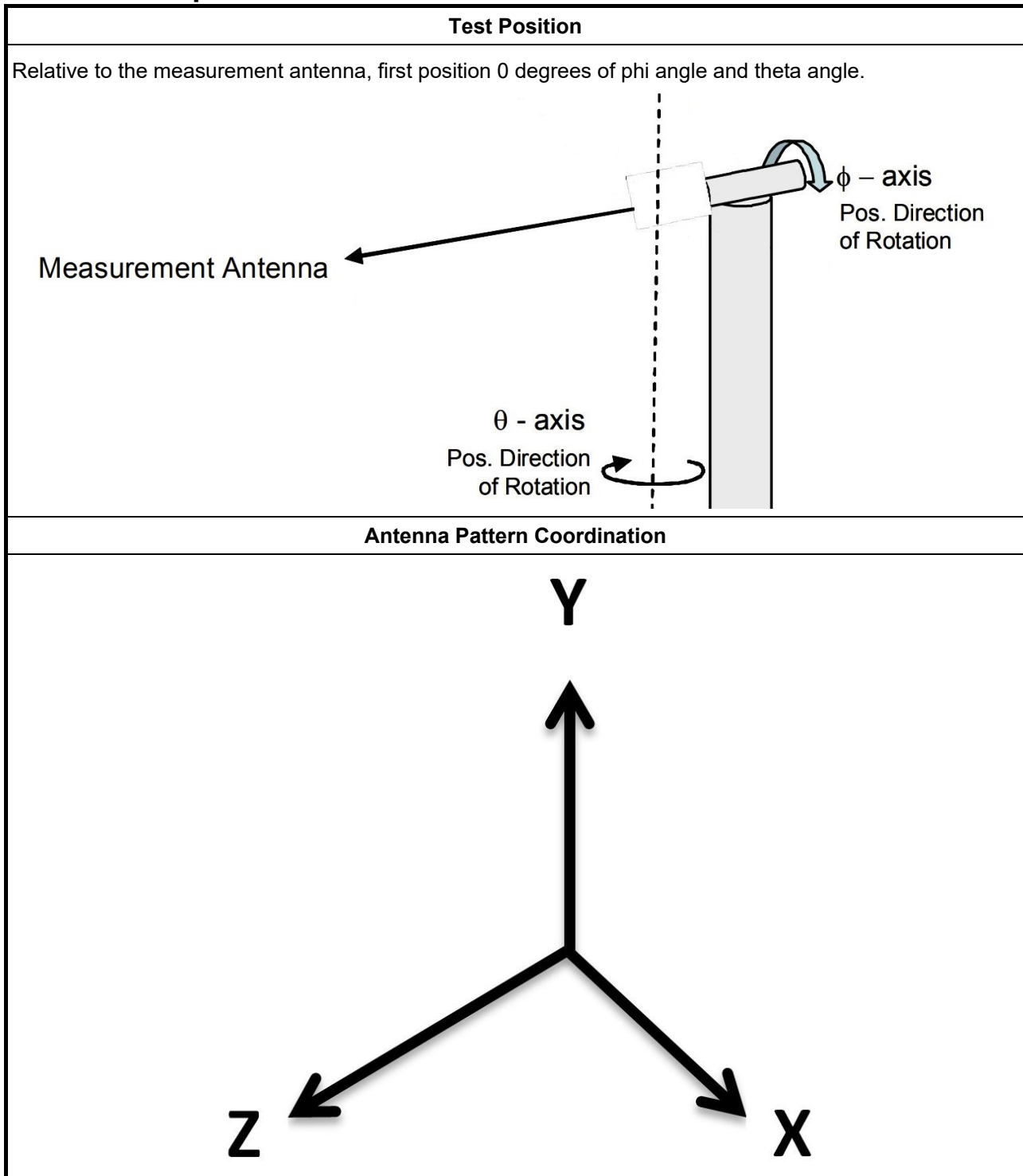
For Scan Ant 1:

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)	4.9	3.52	4.07	4.19	5.01	4.42	4.36	5.86	3.44
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/52.5/322.5	Phi/45/15	Phi/45/15	Theta/67.5/7.5	Theta/67.5/7.5	Theta/60/7.5	Theta/67.5/22.5	Theta/67.5/22.5	Theta/60/15

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.

11. Test Setup



Note:

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

**12. Test Equipment and Calibration Data**

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-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.



13. Test Results

Please refer to the appendix.

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Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.07	4.39	3.95	4.78	3.77
Ant. 2 Max Gain (dBi)	3.16	3.08	3.92	4.68	4.27
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/270	Theta/60/120	Theta/67.5/82.5	Theta/67.5/82.5	Theta/67.5/82.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75/240	Theta/67.5/322.5	Theta/75/315	Theta/67.5/322.5	Theta/75/322.5
Max Gain (dBi)	3.16	4.39	3.95	4.78	4.27
DG [1SS] (dBi)	4.26	5.58	5.59	5.98	5.92
DG [2SS] (dBi)	3.16	4.39	3.95	4.78	4.27



Radiated Composite Gain Data 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°)	-0.61-0.54	-0.671-1	-1.49/-2.2	-3.09/-4.24	-5.55/-7.09	-8.81/-10.31	-9.81/-9.32	-7.31-5.41	-3.86/-2.72	-1.83/-1.15	-0.73/-0.49	-0.4/-0.45	-0.61/-0.83	-1.09/-1.42	-1.98/-2.81	-3.88/-5.08	-6.57/-8.57	-10.38/-10.75	-10.68/-9.24	-7.65/-6.07	-4.9/-4.05	-3.16/-2.28	-1.57/-1.15	-0.95/-0.81
Θ(7.5°)	-0.61-0.54	-0.58/-0.86	-1.34/-2.04	-2.94/-4.1	-5.47/-7.13	-8.98/-10.78	-10.27/-10.09	-7.81/-5.83	-4.29/-3.16	-2.22/-1.5	-1.04/-0.91	-1.04/-1.36	-1.81/-2.3	-2.86/-3.54	-4.36/-5.26	-6.13/-6.93	-7.91/-8.72	-9.03/-8.98	-8.89/-8.15	-7.14/-6.09	-5.3/-4.64	-3.76/-2.75	-1.89/-1.29	-1.0/-1.0
Θ(15°)	-1.48/-1.41	-1.45/-1.82	-2.45/-3.29	-4.24/-5.29	-6.36/-7.52	-8.9/-10.86	-11.34/-11.86	-9.78/-7.7	-5.97/-4.64	-3.48/-2.49	-1.88/-1.7	-1.95/-2.56	-3.29/-4.11	-5.09/-6.1	-7.28/-8.35	-9.19/-9.32	-9.51/-9.63	-9.38/-9.12	-8.67/-8.13	-7.48/-6.9	-6.45/-5.88	-4.84/-3.66	-2.68/-2	-1.71/-1.6
Θ(22.5°)	-3.28/-3.32	-3.47/-4.1	-5.05/-6.04	-6.9/-7.32	-7.4/-7.7	-8.65/-10.6	-12.31/-13.77	-13.55/-10.49	-8.4/-7.37	-5.57/-4.08	-3.32/-4.24	-5.33/-6.4	-7.38/-8.37	-8.66/-9.07	-10.04/-10.96	-12.19/-12.03	-11.54/-10.56	-9.54/-9.11	-8.36/-7.81	-6.81/-5.98	-5.3/-4.5	-3.77/-3.02	-2.77/-2.98	-1.77/-2.98
Θ(30°)	-4.23/-4.93	-6.02/-7.63	-8.51/-9.41	-9.24/-8.02	-7.3/-7.19	-7.86/-9.72	-12.9/-15.83	-15.39/-12.8	-10.52/-8.69	-7.98/-6.73	-5.4/-3.1	-4.61/-5.63	-6.79/-7.46	-7.61/-7.73	-8.15/-9.1	-10.91/-12.32	-14.45/-15.28	-14.21/-12.5	-10.85/-9.47	-8.8/-7.82	-6.89/-5.97	-5.28/-5.16	-4.35/-3.56	-3.17/-3.45
Θ(37.5°)	-4.08/-5.12	-7.06/-8.8	-10.36/-10.85	-9.85/-8.06	-7.41/-7.54	-8.32/-10.05	-13.5/-15.19	-15.6/-12.82	-10.2/-9.61	-8.87/-7.82	-5.65/-4.79	-5.31/-6.77	-7.81/-7.53	-7.06/-6.9	-7.09/-7.72	-9.1/-11.43	-14.06/-15.59	-15.56/-12.63	-10.89/-9.64	-8.97/-8.01	-7.19/-6.39	-6.46/-6.16	-5.15/-4.32	-3.81/-3.78
Θ(45°)	-4.49/-5.55	-7.04/-8.45	-9.84/-9.85	-8.82/-8.02	-8.28/-9.31	-10.61/-12.14	-13.95/-13.58	-11.55/-9.84	-7.91/-8.31	-9.48/-8.33	-6.18/-5.38	-6.33/-8.4	-9.12/-8.65	-7.66/-7.33	-7.4/-7.69	-8.18/-9.24	-10.81/-13.15	-14.69/-13.17	-11.23/-10.19	-9.96/-9.81	-8.8/-8.15	-7.49/-6.4	-5.34/-5.45	-4.08/-4.09
Θ(52°)	-4.87/-6.91	-8/-8.97	-9.71/-10.64	-9.59/-8.95	-8.82/-8.86	-11.15/-12.01	-14.66/-12.8	-8.22/-5.48	-4.67/-5.48	-7.18/-7.48	-6.49/-6.73	-9.2/-10.39	-9.99/-7.76	-6.54/-6.48	-7.18/-7.84	-8.77/-8.01	-9.51/-13	-15.96/-14.64	-13.18/-11.97	-11.98/-10.59	-8.56/-6.81	-5.39/-4.28	-3.44/-2.9	-2.81/-3.48
Θ(60°)	-7.04/-8.55	-9.33/-9.94	-13.04/-16.17	-12.21/-8.95	-6.89/-7.07	-7.96/-8.84	-11.71/-14.55	-10.68/-5.86	-4.35/-4.9	-6.13/-5.97	-5.34/-6.31	-10.17/-13.37	-11.72/-8.1	-6.22/-5.9	-6.22/-6.62	-6.63/-6.74	-7.9/-10.74	-13.01/-15.07	-13.89/-13.16	-13.12/-10.7	-7.51/-4.8	-3.56/-3.16	-3.15/-3.23	-3.54/-4.76
Θ(67.5°)	-9.31/-9.76	-9.91/-10.81	-12.54/-13.31	-10.32/-6.71	-5.68/-6.74	-8.21/-8.05	-8.13/-9.53	-9.15/-6.11	-5.02/-6.42	-8.15/-6.95	-5.78/-6.74	-9.84/-10.76	-9.25/-8.4	-7.87/-7.83	-7.27/-6.24	-5.47/-5.47	-6.45/-8.75	-11.58/-12.84	-11.78/-10.8	-10.53/-9.9	-7.45/-4.63	-3.93/-4.59	-5.82/-6.71	-7.17/-8.06
Θ(75°)	-9.55/-11.33	-13.34/-13.27	-12.48/-12.98	-10.57/-7.67	-6.69/-7.67	-9.49/-8.84	-8.07/-8.68	-7.01/-4.14	-3.09/-4.59	-7.4/-8.94	-5.86/-7.04	-10/-10.98	-8.64/-7.31	-7.21/-7.59	-7.11/-6	-5.29/-5.35	-6.3/-8.54	-12.86/-15.26	-13.96/-11.1	-9.57/-9.16	-6.98/-4.98	-4.35/-4.13	-6.73/-7.87	-8.29/-8.85
Θ(82.5°)	-9.18/-12.52	-14.99/-12.37	-11.86/-13.25	-11.48/-8.33	-6.4/-6.28	-6.65/-6.63	-6.61/-7.57	-7.09/-4.21	-2.92/-4.59	-7.42/-5.07	-3.54/-4.52	-9.55/-14.98	-9.66/-6.51	-5.91/-6.71	-7.28/-6.6	-5.75/-5.75	-6.31/-8.9	-13.91/-14.78	-10.92/-10.18	-11.16/-10.07	-7.43/-4.94	-3.89/-4.51	-6.46/-8.3	-8.76/-8.58
Θ(90°)	-7.88/-10.47	-11.66/-9.95	-9.76/-11.7	-11.25/-8.64	-6.84/-7.07	-7.4/-7.14	-6.3/-6.57	-6.07/-3.49	-2.08/-3.46	-7.42/-5.84	-3.35/-3.56	-7.45/-13.86	-8.24/-4.57	-3.57/-4.13	-5.79/-7.23	-6.78/-5.6	-5.38/-7.24	-10.91/-11.15	-8.36/-8.01	-8.18/-7.63	-6.16/-6.41	-4.3/-5.86	-8.04/-8.14	-7.03/-6.65
Θ(97.5°)	-7.9/-6.61	-11.11/-8.77	-8.17/-9.89	-11.57/-9.95	-7.82/-8.72	-8.02/-7.27	-5.69/-6.2	-6.81/-4.24	-2.7/-4.28	-8.82/-5.94	-2.76/-2.25	-4.92/-11.68	-9.02/-5.25	-3.85/-3.58	-4.21/-5.34	-6.13/-6.32	-6.7/-8.69	-10.53/-9.77	-8.2/-8.33	-7.97/-7.35	-5.9/-5.1	-5.24/-5.69	-7.78/-7.38	-6.75/-6.95
Θ(105°)	-11.04/-10.71	-8.82/-6.51	-5.86/-7.05	-8.48/-8.24	-8.51/-9.4	-9.84/-7.94	-5.5/-5.24	-5.16/-3.25	-1.93/-3.18	-7.52/-9.43	-5.39/-3.56	-10.58/-8.55	-6.84/-5.8	-5.53/-5.96	-6.88/-7.92	-9.18/-10.08	-10.12/-11.14	-11.5/-10.58	-8.33/-6.07	-4.22/-3.12	-3.33/-5.01	-8.09/-10	-10.75/-10.96	-10.75/-10.96
Θ(112.5°)	-11.02/-10.4	-9.16/-7.17	-6.71/-8.03	-9.21/-7.95	-6.43/-5.98	-6.42/-5.93	-5.85/-6.85	-7.96/-5.85	-4.01/-4.3	-5.73/-5.94	-4.71/-4.57	-7.04/-11.46	-13.25/-11.46	-9.7/-8.25	-7.11/-6.66	-6.92/-7.19	-8.1/-8.82	-8.03/-6.14	-5.46/-7.09	-7.3/-5.4	-4.42/-4.04	-4.68/-4.69	-8.24/-7.98	-7.47/-8.84
Θ(120°)	-12.44/-15	-13.71/-10.8	-8.19/-7.73	-6.32/-8.33	-8.26/-7.78	-6.78/-5.64	-4.69/-4.6	-5.23/-6.1	-7.21/-8.03	-8.33/-7.33	-5.71/-5.7	-7.88/-8.72	-7.76/-6.37	-6.05/-7.35	-9.65/-9.96	-8.38/-6.64	-6.11/-5.79	-4.75/-3.84	-3.85/-5.24	-7.12/-7.05	-5.72/-4.39	-3.85/-4.03	-4.57/-5.08	-6.08/-8.74
Θ(127.5°)	-8.25/-8.98	-9.22/-9.08	-7.22/-5.62	-5.33/-6	-7.43/-9.66	-11.22/-10.87	-9.72/-7.09	-4.88/-3.66	-3.22/-4.03	-4.04/-4.85	-6.16/-6.36	-12.89/-9.46	-6.32/-4.69	-3.82/-4.03	-6.22/-6.62	-6.1/-5.05	-4.46/-4.29	-4.29/-4.5	-5.26/-5.99	-4.8/-2.82	-4.12/-2.96	-1.41/-2.56	-4.25/-5.7	-6.7/-7.13
Θ(135°)	-5.15/-5.58	-6.54/-8.38	-9.79/-8.31	-6.93/-6.34	-6.38/-6.9	-7.33/-8.57	-10.15/-9.73	-7.68/-5.64	-4.21/-3.32	-2.89/-2.82	-3.28/-5.1	-8.62/-13.32	-13.06/-11.5	-9.68/-8.27	-7.53/-7.06	-6.02/-5.09	-4.83/-5.03	-5.03/-4.83	-5.16/-4.85	-3.06/-1.6	-0.94/-1.13	-2.22/-4.06	-5.89/-6.34	-5.59/-5.02
Θ(142.5°)	-5.28/-5.82	-6.98/-8.92	-11.08/-10.99	-9.01/-7.38	-6.82/-7.14	-8.08/-8.38	-8.54/-8.34	-7.67/-7.02	-6.69/-6.37	-6.35/-5.26	-5.09/-6.02	-7.93/-10.31	-11.85/-10.56	-8.49/-6.61	-5.94/-6.07	-6.3/-6.5	-6.67/-6.39	-5.77/-5.74	-6.18/-5.81	-4.24/-3.51	-3.5/-4.3	-5.95/-7.69	-8.15/-7.18	-5.99/-5.33
Θ(150°)	-6.62/-8.28	-10.33/-11.82	-11.57/-9.46	-7.69/-6.85	-7.19/-8.59	-10.71/-11.75	-9.93/-7.54	-6.5/-7.1	-6.65/-7.91	-8.04/-7.37	-5.61/-5.94	-8.39/-9.08	-8.31/-6.37	-4.4/-3.16	-2.58/-2.56	-2.93/-3.02	-3.11/-3.13	-3.34/-3.95	-4.99/-6.63	-7.9/-9.05	-9.87/-5.66	-9.38/-7.56	-6.4/-5.87	-5.29/-5.55
Θ(157.5°)	-8.78/-11.92	-13/-13.07	-10.81/-8.27	-6.74/-6.22	-6.53/-7.39	-8.24/-8.83	-8.99/-8	-6.84/-5.75	-5.46/-5.62	-5.88/-6.26	-7/-8.32	-10/-10.43	-9.69/-7.7	-5.85/-4.53	-3.6/-3.11	-2.95/-2.94	-3.08/-3.53	-4.28/-5.27	-6.47/-7.94	-9.45/-10.35	-10.28/-8.83	-7.8/-8.62	-6.03/-5.52	-5.75/-6.82
Θ(165°)	-10.93/-11.42	-11.75/-11.1	-10.03/-8.74	-7.91/-6.72	-7.83/-8.19	-8.29/-8.26	-8.26/-9.3	-7.3/-6.62	-6.12/-5.83	-5.8/-6.1	-6.78/-9.3	-9.88/-12.38	-13.71/-14.4	-12.9/-12.7	-8.39/-7.27	-6.71/-6.62	-7.01/-7.99	-8.91/-9.96	-10.88/-11.46	-11.54/-11.3	-11.12/-9.81	-8.96/-8.47	-8.19/-8.21	-8.87/-10.16
Θ(172.5°)	-9.14/-10.98	-9.67/-10.52	-11.32/-11.89	-12.36/-12.81	-13.38/-13.47	-12.87/-11.97	-11.01/-10.25	-9.78/-9.43	-8.8/-9	-9.55/-10.61	-12.46/-13.11	-14.31/-14.67	-14.99/-13.71	-13.15/-13.43	-14.31/-14.89	-14.58/-14.29	-13.82/-13.36	-13.13/-13.06	-13.16/-12.97	-11.71/-11.46	-11.1/-10.93	-1.18/-12.97	-11.81/-10.93	-11.06/-10.17
Θ(180°)	-10.07/-9.77	-11.18/-12.54	-13.28/-15.06	-15.68/-14.49	-14.4/-13.55	-13.31/-12.63	-12.62/-12.54	-12.69/-12.89	-12.36/-12.7	-12.75/-13.25	-13.87/-14.14	-14.29/-13.82	-13.03/-12.29	-12.35/-13.18	-14.6/-15.08	-16.08/-15.14	-13.5/-12.04	-11.49/-11.26	-11.07/-11.12	-11.46/-11.91	-10.9/-10.4	-10.59/-11.32	-12.18/-12.3	-11.41/-9.88
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°)	-10.14/-9.85	-6.98/-5.21	-3.76/-2.63	-1.68/-0.8	-0.150/-0.36	0.770/-0.99	0.960/-0.64	0.24/-0.2	-0.79/-1.54	-2.57/-3.82	-5.34/-7.1	-9.01/-9.28	-8.67/-8.23	-6.69/-5.43	-4.34/-3.28	-2.26/-1.53	-1.05/-0.81	-0.6/-0.48	-0.53/-0.82	-1.11/-1.43	-1.87/-2.52	-3.43/-4.58	-5.04/-7.81	-9.6/-10.61
Θ(7.5°)	-7.49/-6.72	-6.68/-5.29	-4.24/-3.09	-2.02/-1.07	-0.320/-0.4	0.640/-0.6	0.840/-6	0.22/-0.17	-0.68/-1.34	-2.21/-3.44	-4.62/-5.63	-5.89/-5.47	-4.9/-3.6	-3.39/-3.64	-3.39/-3.07	-2.7/-2.36	-2.09/-2	-1.94/-1.91	-2/-2.16	-2.26/-2.32	-2.45/-2.8	-3.42/-3.45	-5.79/-7.39	-8.58/-8.24
Θ(15°)	-5.17/-4.13	-3.47/-3.1	-2.9/-2.83	-2.69/-2.3	-1.76/-1.31	-0.95/-0.63	-0.44/-0.41	-0.54/-0.75	-1.03/-1.04	-1.99/-2.59	-2.93/-2.76	-2.29/-1.86	-1.58/-1.49	-1.49/-1.59	-1.74/-1.87	-1.93/-1.9	-1.79/-1.75	-1.67/-1.94	-2.21/-2.41	-2.45/-2.41	-2.78/-3.45	-4.82/-6.38	-7.21/-6.47	-1.21/-6.47
Θ(22.5°)	-3.38/-2.25	-1.59/-1.29	-1.26/-1.46	-1.79/-2.08	-2.13/-2.08	-1.95/-1.61	-1.25/-1.06	-1.11/-1.27	-1.4/-1.49	-1.58/-1.53	-1.18/-0.67	-0.190/-0.8	0.110/-0.1	-0.11/-0.27	-0.42/-0.47	-0.44/-0.34	-0.27/-0.29	-0.39/-0.78	-1.31/-1.78	-2.09/-2.18	-2.11/-2.06	-2.22/-2.7	-3.66/-5.06	-5.68/-4.71
Θ(30°)	-1.55/-0.76	-0.27/-0.18	-0.51/-1.1	-1.71/-1.2	-2.24/-1.91	-1.34/-0.67	-0.160/-0.4	-0.1/-0.46	-0.79/-0.91	-0.83/-0.58	-0.180/-29	0.660/-79	0.670/-58	0.550/-64	0.750/-86	1.04/-1.7	1.16/-1.07	0.950/-84	0.05/-0.73	-1.47/-1.88	-1.97/-1.97	-2.03/-2.17	-2.47/-2.82	-2.87/-2.37
Θ(37.5°)	0.10/-45	0.470/-03	-0.92/-2.07	-2.82/-2.99	-2.49/-1.63	-0.590/-32	0.880/-98	0.640/-09	-0.42/-0.64	-0.55/-0.24	0.170/-54	0.750/-76	0.630/-6	0.81/-12	1.471/-73	1.881/-92	1.841/-78	1.950/-84	1.070/-16	-0.92/-1.68	-1.980/-1.98	-1.831/-1.59	-1.26/-0.88	-0.59/-0.27
Θ(45°)	0.93/-																							



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

Appendix A

Θ(15°)	-4.33/4.04	-3.22/-2.02	-1.62/-1.54	-1.63/-2.78	-3.49/-4.51	-4.17/-4.05	-4.16/-4.2	-4.61/-5.06	-4.77/-4.61	-4.6/-3.96	-3.1/-2.82	-3.17/-4.42	-5.61/-6.67	-7.37/-8.07	-8.66/-8.72	-8.51/-8.55	-9.15/-8.24	-7.54/-6.45	-5.95/-5.45	-5.09/-4.82	-4.07/-3.51	-3.14/-3.36	-3.75/-4.61	-4.72/-4.48
Θ(22.5°)	-2.02/-1.66	-1.36/-1.38	-1.49/-1.86	-2.45/-4.3	-4.33/-5.09	-6/-6.1	-5.7/-5.3	-5.38/-6.29	-6.68/-7.1	-5.89/-3.28	-1.24/-0.38	-1.24/-4.44	-5.34/-5.67	-5.11/-3.78	-3.32/-3.4	-3.6/-4.47	-6.7/-8.54	-6.84/-5.3	-4.67/-5.08	-6.29/-5.03	-3.22/-2.15	-2.13/-2.99	-4.06/-4.7	-3.13/-2.26
Θ(35°)	-2.67/-2.89	-3.36/-3.91	-3.8/-4.5	-6/-7.77	-9.62/-10.72	-10.36/-9.34	-8.63/-5	-4.57/-5.89	-7.06/-8.94	-7.7/-3.46	0.05/-1.49	-0.5/-2.73	-5.43/-4.4	-3.04/-3.51	-4.84/-5.45	-4.84/-4.07	-5.05/-8.28	-7.93/-3.88	-2.83/-4.44	-4.88/-4.31	-3.93/-3.39	-4.28/-7.1	-8.45/-5.37	-3.14/-2.06
Θ(37.5°)	-4.02/-5.51	-5.47/-6.39	-4.26/-4.74	-5.75/-6.17	-7.99/-8.83	-4.95/-4.6	-6.25/-4.57	-4.01/-5.82	-7.68/-8.41	-6.23/-3.69	-0.64/-0.48	-1.05/-4.24	-5.38/-3.77	-3.87/-4.54	-5.94/-7.59	-12.75/-13.38	-10.22/-12.97	-13.84/-6.49	-4.38/-4.7	-6.51/-4.95	-4.26/-4.74	-5.48/-6.6	-5.22/-1.88	-0.91/-2.48
Θ(45°)	-6.3/-6.64	-4.76/-1.85	-0.98/-1.34	-1.72/-2.3	-3.54/-3.48	-1.47/-1.42	-5.03/-2.93	-2.52/-4.73	-7.41/-5.78	-4.62/-2.97	-1.23/-0.59	-1.18/-4.04	-6.08/-5.29	-6.14/-5.31	-4.57/-4.24	-7.73/-14.3	-9.89/-10.89	-14.75/-6.98	-4.74/-7.3	-8.54/-5.26	-5.38/-5.98	-4.34/-3.97	-2.4/-2.08	0.11/-2.88
Θ(52.5°)	-5.81/-4.52	-4.19/-2.73	-2.17/-1.9	-2.09/-2.92	-3.24/-4.08	-0.40/-27	-5.71/-4.03	-3.69/-6.28	-8.62/-8.97	-4.85/-3.66	-3.47/-2.57	-2.82/-5.53	-6.27/-7.62	-6.88/-4.2	-3.61/-3.96	-5.66/-9.88	-10.84/-11.8	-15.77/-8.69	-4.46/-6.73	-9.11/-5.57	-7.03/-4.72	-2.9/-3.77	-4.41/-1.69	-0.66/-3.41
Θ(60°)	-4.74/-5.4	-4.14/-4.48	-3.17/-2.59	-4.3/-6.24	-5.27/-5.12	-0.52/0.38	-7.16/-4.69	-4.84/-7.99	-10.76/-11.66	-9.63/-4.36	-4.95/-3.98	-4.76/-7.92	-7.99/-9.24	-9.03/-7.03	-5.78/-5.29	-6.55/-8.57	-10.84/-11.07	-12.89/-11.5	-5.6/-7.41	-9.55/-6.48	-8.47/-4.12	-2.89/-3.9	-5.57/-3.98	-2.11/-2.51
Θ(67.5°)	-4.27/-5.4	-5.58/-6.61	-5.99/-5.34	-5.84/-9.47	-7.38/-5.46	-1.8/-0.46	-10.22/-5.42	-7.45/-12.36	-14.02/-10.88	-15.13/-5.61	-8.12/-5.59	-6.99/-11.73	-10.22/-9.44	-9.9/-9.25	-7.26/-6.57	-6.93/-8.34	-11.91/-12.35	-11.79/-11.9	-6.44/-7.89	-9.12/-4.7	-8.95/-3.88	-4.66/-6.33	-10.63/-9.71	-6.16/-3.91
Θ(75°)	-5.67/-6.15	-8.71/-9.26	-6.81/-6.72	-4.69/-8.51	-8.3/-5.93	-5.08/-2.23	-11.7/-6.38	-9.52/-10.33	-12.26/-7.79	-14.5/-6.61	-9.19/-7.37	-7.97/-15.32	-10.66/-9.04	-10.86/-10.39	-7.44/-6.61	-6.58/-6.37	-8.88/-12.45	-10.82/-14.76	-7.41/-8.07	-9.4/-7.63	-10.72/-4.33	-7.66/-5.69	-8.36/-12.3	-8.56/-6.81
Θ(82.5°)	-6.79/-4.56	-8.6/-14.93	-8.56/-6.2	-3.85/-7.76	-9.15/-7.29	-7.95/-3.84	-14.81/-6.2	-10.15/-7.88	-10.59/-6.56	-11.51/-6.18	-10.7/-9.13	-10.79/-15.08	-11.21/-9.69	-10.97/-9.91	-6.14/-6.27	-7.35/-6.15	-8.47/-13.06	-12.44/-15.11	-10.98/-10.92	-9.71/-8.31	-10.05/-4.78	-10.65/-5.68	-8.29/-10.76	-8.03/-8.18
Θ(90°)	-6.74/-5.39	-7.29/-11.46	-13.99/-7.04	-3.84/-6.19	-8.23/-5.65	-9.9/-4.93	-15.47/-6.64	-10.76/-5.97	-8.39/-6.44	-8.67/-8.41	-12.41/-11.22	-11.04/-14.96	-11.56/-9.42	-10.42/-11.2	-6.51/-7.21	-7.92/-6.51	-7.32/-12.98	-12.94/-12.55	-13.45/-12.91	-13.84/-10.8	-11.13/-6.51	-8.16/-4.49	-6.88/-11.35	-7.32/-9.52
Θ(97.5°)	-8.4/-5.82	-9.49/-8.47	-11.94/-8.36	-5.69/-7.3	-7.13/-6.9	-10.82/-5.59	-14.28/-5.54	-10.95/-4.9	-7.73/-5.28	-8.02/-8.67	-11.58/-10.5	-13.73/-11.27	-8.82/-9.3	-7.46/-9.26	-6.77/-7.74	-9.11/-7.03	-7.43/-12.27	-13.94/-14.21	-15.33/-11.15	-9.99/-6.43	-8.03/-4.09	-6.09/-8.82	-6.29/-6.24	
Θ(105°)	-7.02/-5.05	-8.7/-8.4	-13.29/-9.21	-5.72/-7.88	-7.5/-7.13	-11.18/-6.19	-14.36/-4.74	-10.53/-6.24	-7.02/-7.03	-7/-10.12	-10.9/-11.85	-12.62/-12.77	-9.43/-9.81	-10.12/-11.54	-8.15/-8.43	-7.91/-7.53	-9.42/-12.08	-10.28/-10.14	-13.02/-15.8	-15.8/-9.25	-12.14/-5.99	-5.53/-3.2	-4.81/-8.9	-7.38/-6.83
Θ(112.5°)	-7.82/-7.74	-6.44/-3.83	-10.05/-4.97	-8.36/-12.48	-7.93/-7.73	-12.92/-6.98	-11.26/-4.69	-9.59/-6.06	-6.71/-8.19	-8.62/-11.49	-10.65/-9.19	-11.13/-11.09	-9.5/-6.86	-5.79/-9.37	-9.75/-8.34	-7.38/-6.21	-9.45/-12.59	-11.54/-10.96	-8.27/-13.29	-15.81/-4.07	-10.76/-6.4	-7.63/-3.48	-4.98/-7.78	-3.53/-4.74
Θ(120°)	-4.91/-7.35	-9.25/-6.57	-6.91/-8.32	-13.34/-15.06	-9.16/-8.35	-9.77/-6.9	-10.69/-5.12	-8.58/-10.57	-8.23/-11.43	-11.38/-9.65	-12.65/-10.47	-11.1/-9.54	-6.7/-6.49	-7.05/-8.26	-9.45/-10.01	-6.43/-7.26	-9.71/-9.69	-11.72/-12.22	-8.01/-13.73	-15.31/-8.74	-11.32/-9.2	-9.44/-6.63	-5.83/-8.31	-5.3/-2.72
Θ(127.5°)	-6.49/-7.73	-9.13/-8.22	-7.63/-9.1	-10.99/-13.15	-9.61/-11.29	-10.48/-7.95	-10.96/-9.76	-9.13/-10.51	-10.25/-9.88	-9.35/-11.36	-12.65/-9.23	-9.65/-10.57	-7.09/-5.6	-6.89/-9.97	-12.51/-5.6	-7.66/-7.77	-8.1/-9.3	-9.64/-9.65	-8.62/-14.01	-14.91/-8.69	-7.89/-8.46	-8.46/-5.3	-10.46/-8.77	-6.91/-7
Θ(135°)	-6.63/-9.32	-14.74/-13.04	-9.47/-10.85	-10.63/-8.27	-9.7/-16.57	-11.56/-9.64	-13.13/-12.8	-11.76/-13.13	-10.14/-10.86	-12.86/-11.23	-12.98/-11.6	-9.89/-7.77	-8.03/-5.63	-7.81/-10.36	-8.37/-9.93	-8.74/-7.43	-9.71/-11.1	-12.69/-9.98	-10.56/-16.06	-13.21/-9.58	-9.28/-8	-10.52/-10.8	-8.49/-10.62	-7.7/-6.3
Θ(142.5°)	-7.12/-7.46	-10.61/-11.98	-14.06/-15.64	-13.31/-11.05	-11.77/-13.09	-14.13/-12.22	-12.85/-13.18	-13.89/-15.66	-12.89/-11.22	-14.88/-13.48	-9.38/-8.88	-9.07/-9.54	-8.82/-8.37	-9.19/-10.39	-12.18/-9.95	-8.54/-11.2	-9.15/-11.07	-9.6/-8.89	-12.89/-15.43	-14.97/-10.51	-10.21/-12.82	-10.96/-10.54	-7.97/-8.57	-10.23/-9.61
Θ(150°)	-8.28/-7.63	-9.94/-13.83	-13.44/-10.5	-7.79/-5.63	-6.09/-8.77	-11.91/-15.2	-13.79/-11.15	-11.18/-14.44	-15.86/-13.17	-15.27/-15.14	-13.39/-11.81	-10.99/-10.86	-8.61/-7.19	-7.45/-8.64	-10.07/-10.98	-12.29/-13.49	-13.71/-14.34	-11.99/-10.19	-11.83/-15.32	-12.44/-9.56	-9.55/-12.98	-14.89/-15.88	-11.02/-8.13	-7.98/-8.2
Θ(157.5°)	-7.9/-7.39	-10.21/-14.58	-15.49/-13.96	-12.48/-11.63	-10.22/-11.34	-11.76/-11.84	-11.1/-10.16	-11.76/-15.03	-15.12/-15.25	-15.56/-14.56	-12.68/-12.6	-13.26/-13.26	-9.53/-8.28	-8.92/-10.59	-11.79/-12.4	-12.49/-12.38	-11.51/-10.84	-9.49/-9.09	-11.17/-13.33	-11.74/-9.7	-9.53/-10.45	-12.15/-13.74	-14.82/-10.56	-8.56/-8.16
Θ(165°)	-14.57/-13.78	-12.58/-11.65	-10.89/-10.78	-11.19/-11.61	-11.29/-11.23	-10.73/-10.45	-10.62/-11.33	-14.24/-14.34	-13.43/-14.43	-13.57/-12.73	-11.75/-10.97	-11.49/-12.98	-14.53/-14.78	-14.12/-13.81	-13.16/-11.09	-9.36/-8.69	-8.23/-9.05	-10.12/-11.61	-13.01/-12.05	-11.74/-10.62	-9.56/-9.32	-9.51/-10.67	-13.16/-14.4	-14.66/-15.77
Θ(172.5°)	-10.36/-10.37	-11.21/-10.31	-10.09/-9.33	-8.79/-8.82	-9.41/-10.31	-11.81/-12.12	-12.53/-12.59	-12.46/-10.63	-8.75/-8.28	-8.23/-7.88	-8.23/-8.59	-8.91/-9.48	-9.52/-10.23	-10.47/-11.05	-11.37/-11.84	-12.71/-13.28	-14.05/-15.34	-15.44/-14.32	-12.9/-12.01	-11.78/-10.88	-10.65/-10.98	-11.8/-12.07	-12.92/-12.12	-11.38/-10
Θ(180°)	-9.02/-9.31	-10.69/-11.48	-10.91/-11.09	-10.68/-10.79	-11.25/-12.22	-13.87/-13.92	-14.96/-14.92	-14.54/-12.4	-11.14/-10.6	-9.78/-9.76	-9.38/-9.07	-8.6/-7.69	-7.43/-6.85	-6.36/-6.07	-6.36/-6.83	-7.78/-8.98	-9.86/-11.11	-12.23/-12.96	-14.76/-15.34	-15.15/-13.38	-12.27/-10.98	-10.05/-9.37	-8.73/-8.62	-8.53/-8.67
Freq(Hz)	5.36GPol	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°)	-10.31/-9.57	-8.9/-8.01	-7.46/-7.25	-6.61/-5.88	-5.44/-5.47	-5.31/-4.87	-5.04/-5.13	-5.85/-6.82	-7.92/-8.05	-8.78/-8.45	-7.87/-7.3	-6.23/-5.86	-5.42/-5.12	-4.91/-4.49	-3.89/-3.58	-3/-2.5	-2.52/-2.9	-3.04/-3.17	-3.25/-3.45	-3.47/-4	-4.92/-5.78	-6.77/-5.6	-8.54/-5.98	-10.34/-10.48
Θ(7.5°)	-10.77/-11.92	-12.37/-11.49	-11.10/-10.4	-7.77/-5.38	-4.05/-3.38	-2.95/-2.57	-2.32/-2.61	-3.67/-5	-6.07/-7.24	-7.81/-7.12	-5.79/-2.45	-2.85/-2.28	-2.03/-1.8	-1.89/-2.14	-2.02/-1.62	-1.9/-2.52	-2.62/-2.4	-2.14/-2.16	-2.05/-2.07	-2.22/-2.84	-3.74/-4.67	-5.93/-7.54	-8.94/-9.69	
Θ(15°)	-6.7/-7.43	-7.99/-6.01	-7.07/-6.2	-4.95/-3.16	-1.87/-1.11	-0.91/-0.89	-0.48/-0.41	-0.93/-1.46	-1.83/-2.5	-2.94/-2.27	-1.6/-1.42	-1.25/-0.9	-0.89/-1.17	-1.31/-1.49	-2.07/-2.48	-2.34/-1.85	-1.44/-0.69	0.01/0.56	0.98/1.21	1.35/1.46	1.33/0.87	0.1/-1.16	-2.81/-4.36	-5.79/-6.24
Θ(22.5°)	-1.16/-1.79	-3.48/-3.54	-6.18/-7.01	-6.45/-5.59	-4.61/-3.55	-2.7/-2.39	-2.21/-2.01	-1.79/-1.38	-0.84/-0.98	-0.38/0.7	1.02/0.8	0.48/0.22	0.04/0.3	0.89/1.16	1.27/1.44	1.51/-1.22	1.08/1.54	2.05/2.03	1.69/1.69	2.63/3.69	4.17/4.13	3.45/1.88	-0.23/-1.45	-1.53/-1.4
Θ(30°)	1.21/0.34	-0.51/-1.39	-2.51/-3.48	-5.03/-6.35	-3.41/-0.4	0.91/0.76	-0.2/0.44	0.17/0.85	1.0/0.68	0.11/0.61	0.96/0.86	0.67/0.63	1.51/2.3	2.82/3.29	3.61/3.53	3.33/2.94	2.43/2.04	1.35/0.75	1.26/2.91	4.52/5.13	4.73/1.32	1.54/1.52	2/1.86	
Θ(37.5°)	1.74/0.44	-0.4/-0.82	-1.73/-1.2	-0.73/-1.17	-1.11/0.91	2.28/2.48	2.18/1.95	1.99/2.21	2.01/1.32	1.01/0.5	-0.4/-0.39	0.78/0.79	0.36/1.16	2.86/3.9	4.08/3.66	3.06/2.74	2.24/1.64	1.88/3.06	3.63/2.92	1.91/1.63	2.93/4.22	4.15/2.97	2.77/3.62	3.83/0.3
Θ(45°)	1.65/1.06	-0.38/-1.77	-4.13/-1.65	0.45/0.83	0.62/0.42	0.56/1.18	1.73/1.99	2.47/3.32	3.24/1.47	0.96/0.75	-1.07/0.43	1.81/83	1.33/2.66	4.75/-59	5.53/4.34	2.49/0.96	0.33/0.53	1.01/2.41	3.52/3.71	3.2/2.24	1.28/1.85	3.22/2.59	4.41/5.1	4.43/2.75
Θ(52.5°)	1.56/2.42	1.92/0.92	-0.81/-1.09	1.41/2.3	2.43/1.36	1.28/2.02	2.23/2.13	2.43/3.76	4.29/1.67	0.78/1.38	-1.14/-0.7	1.23/1.35	2.01/3.8	5.04/5.32	5.24/4.27	2.94/1.37	0.91/4.3	1.45/2.19	3.03/3.14	3.24/2.6	0.69/1.1	3.32/4.07	4.93/5.26	3.74/1.5
Θ(60°)	1.32/3.27	3.52/3.13	1.43/0.37	1.86/3.6	3.51/2.73	3.71/4.17	3.38/1.8	1.24/3.1	4.94/2.69	0.38/1.36	-0.6/-0.72	0.68/-0.11	1.47/3.18	3.95/4.45	3.43/3.86	3.55/2.74	1.8/2.28	1.95/2.19	2.71/1.93	2.34/2.46	0.2/1.18	4.21/4.74	4.63/5.45	2.36/-0.87
Θ(67.5°)	0.57/2.86	3.47/3.52	1.31/0.33	1.48/4.02	2.65/2.69	4.33/4.73	3.29/1.32	0.57/2.66	4.77/2.98	0.71/0.4	-1.39/-1.25	-0.02/-2.28	0.87/3.36	2.83/2.										



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

Appendix A

Θ(60°)	-4.4/-7.19	-5.67/-1.8	-2.93/-3.75	-3.5/-4.25	-3.38/-4.58	-0.72/-1.36	-4.89/-3.99	-5.11/-5.99	-7.57/-8.21	-10.55/-8.36	-7.4/-5.83	-5.68/-6.11	-8.37/-6.88	-5.24/-8.71	-13.89/-12.18	-8.38/-8.92	-11.85/-13.91	-11.03/-11.41	-8.72/-7.19	-5.31/-5.69	-5.54/-8.52	-6.69/-3.99	-5.24/-4.67	-1.83/-2.38
Θ(67.5°)	-5.54/-9.45	-6.06/-2.39	-4.13/-4.73	-7.19/-9.66	-4.78/-5.38	-0.65/-1.38	-8.48/-6.18	-4.97/-7.55	-13.63/-12.06	-13.84/-10.15	-9.78/-7.22	-5.29/-7.19	-10.12/-4.55	-5.32/-9.98	-14.03/-12.53	-11.31/-9.85	-10.96/-14.64	-11.29/-11.52	-7.99/-8.99	-6.05/-6.08	-7.04/-10.82	-9.14/-6.39	-6.5/-7.39	-5.87/-3.73
Θ(75°)	-6.61/-9.29	-7.44/-5.28	-7.8/-7.13	-9.41/-12.89	-7.62/-9.9	-3.17/-2.73	-9.91/-8.32	-7.22/-10.72	-14.85/-11.36	-12.84/-10.63	-10.83/-7.53	-6.72/-7.95	-10/-6.87	-7.36/-12.74	-15.03/-10.64	-9.77/-12.44	-12.26/-14.17	-12.49/-13.56	-9/-14.56	-7.71/-7.25	-7.8/-11.59	-10.94/-8.5	-7.91/-10.02	-10.53/-5.8
Θ(82.5°)	-8.09/-10.55	-9.12/-7.56	-9.95/-6.26	-6.85/-10.87	-10.37/-11.54	-5.69/-5.84	-13.47/-9.36	-10.31/-11.33	-10.65/-9.55	-10.19/-11.62	-10.25/-8.62	-10.22/-10.18	-8.46/-8.74	-11.96/-14.23	-11.29/-9.27	-8.1/-13.03	-11.21/-11.28	-13.46/-14.52	-9.91/-15.25	-8.05/-8.53	-9.2/-8.28	-7.05/-8.53	-6.36/-8.56	-14.31/-7.39
Θ(90°)	-8.63/-11.44	-9.38/-7.61	-11.62/-8.92	-6.84/-7.14	-10.58/-8.78	-8.61/-6.35	-15.33/-10.6	-11.48/-9.61	-10.01/-6.1	-9.58/-9.11	-13.33/-7.81	-11.95/-11.21	-9.45/-10.63	-14.13/-11.78	-10.91/-7.36	-8.18/-11.4	-11.13/-12.08	-15.13/-14.77	-11.59/-15.1	-12.7/-11.71	-9.69/-6.8	-5.84/-6.19	-6.18/-8.86	-12.59/-6.89
Θ(97.5°)	-9.74/-11.47	-10.42/-8.64	-13.84/-10.92	-7.17/-6.27	-9.51/-10.93	-8.86/-7.64	-16.1/-8.96	-10.55/-8.55	-8.14/-6.53	-8.32/-10.51	-11.98/-8.28	-12.87/-12	-9.97/-9.63	-9.35/-9.33	-8.74/-9.79	-8.13/-9.65	-8.84/-11.55	-13.84/-14.7	-12.98/-14.44	-15.26/-14.44	-13.02/-5.63	-5.18/-6.79	-5.06/-6.6	-8.02/-5.55
Θ(105°)	-8.35/-9.93	-9.61/-6.4	-12.75/-11.23	-9.65/-6.02	-8.63/-7.79	-15.9/-9.89	-13.38/-6.78	-12.77/-7.08	-9.2/-5.57	-11.05/-13.06	-13.21/-8.5	-13.24/-10.35	-9.87/-8.44	-9.08/-8.82	-10.45/-7.44	-8.4/-10.28	-10.46/-12.42	-14.47/-15.55	-13.17/-14.18	-15.72/-13.88	-13.04/-5.04	-6.58/-4.77	-5.12/-6	-5.93/-4.82
Θ(112.5°)	-5.24/-8.47	-13.18/-5.99	-9.47/-11.28	-13.26/-9.3	-8.84/-8.43	-9.9/-8.76	-12.68/-7.85	-11.06/-6.2	-9.07/-7.41	-12.91/-13.19	-15.49/-12.57	-12.85/-8.03	-10.96/-9.22	-8.32/-9.02	-9/-10.52	-8.38/-8.44	-8.11/-12.21	-13.25/-15.72	-13.88/-12.94	-14.94/-11.86	-11.16/-4.48	-5.18/-4.13	-3.71/-4.47	-3.82/-3.12
Θ(120°)	-3.45/-6.49	-8.94/-8.46	-11.42/-9.45	-11.75/-15.96	-12/-10.52	-11.54/-8.38	-10.7/-7.14	-11.11/-7.57	-10.69/-9.14	-11.83/-13.48	-14.1/-8.62	-10.85/-8.92	-9.88/-7.05	-5.59/-8.86	-10.47/-9.77	-11.9/-10.89	-7.66/-11.33	-11.42/-12.98	-14.21/-15.27	-15.07/-11.64	-10.15/-6.73	-10.08/-5.72	-4.05/-5.95	-1.67/-2.38
Θ(127.5°)	-3.77/-7.2	-11.14/-8.87	-12.39/-11.91	-10.19/-15.65	-10.82/-9.29	-12.57/-11.33	-10.98/-9.43	-11.29/-10.4	-9.5/-12.47	-14.73/-11.77	-14.63/-12.91	-11.52/-10.07	-9.57/-8.07	-8.71/-8.54	-11.42/-11.04	-8.26/-9.94	-9.87/-9.73	-9.96/-8.84	-10.94/-12.06	-13.32/-11.25	-6.35/-10.43	-9.33/-8.96	-8.9/-6.47	-5.55/-6.35
Θ(135°)	-7.16/-7.03	-11.19/-12.9	-11.45/-10.46	-11.42/-11.89	-15.61/-15.72	-11.07/-8.09	-12.11/-10.85	-9.96/-11.03	-10.99/-10.7	-10.57/-10.35	-10.74/-9.67	-11.12/-12.29	-12.04/-12.51	-10.37/-12.67	-10.9/-8.42	-11.19/-7.71	-9.95/-10.91	-12.06/-13.23	-11.9/-14.05	-14.4/-10.34	-8.71/-12.11	-13.7/-7.7	-9.39/-7.38	-4.83/-8.33
Θ(142.5°)	-10.04/-7.82	-8.48/-9.29	-12.45/-14.91	-15.72/-14.09	-13.12/-13.14	-11.32/-11.41	-13.6/-12.64	-12.53/-12.98	-11.78/-13.86	-15.25/-13.25	-9.01/-9.24	-12.05/-12.63	-9.93/-7.85	-8.74/-10.91	-12.76/-11.74	-9.4/-9.18	-10.53/-10.78	-11.07/-10.68	-11.62/-14.41	-15.63/-11.15	-8.67/-9.2	-13.05/-10.66	-7.14/-7.28	-7.83/-10.05
Θ(150°)	-9.88/-10.92	-11.35/-10.76	-14.2/-12.68	-9.56/-7.41	-7.59/-8.84	-11.3/-14.5	-15.24/-13.95	-15.45/-14.93	-14.84/-15.2	-15.33/-13.57	-12.12/-12.86	-13.71/-11.61	-10.51/-10.52	-11.06/-9.5	-8.25/-9.15	-12.62/-13.39	-13.27/-14.21	-14.54/-13.58	-14.13/-13.16	-11.49/-10.21	-10.33/-12.14	-13.57/-15.71	-11.08/-6.97	-7.27/-8.85
Θ(157.5°)	-12.51/-10.4	-12.33/-15.36	-15.45/-15.34	-13.12/-12.46	-13.39/-14.57	-15.37/-14.92	-16.14/-14.18	-13.22/-13.69	-14.97/-14.6	-15.11/-14.53	-13.72/-14.07	-14.99/-11.91	-11.73/-12.77	-12.63/-10.93	-10.43/-11.34	-11.45/-12.61	-13.58/-12.31	-11.44/-11.44	-11.34/-12.82	-14.38/-13.15	-12.82/-10.67	-9.41/-9.14	-7.89/-7.6	-10.41/-12.21
Θ(165°)	-15.2/-15.16	-15.51/-15.2	-14.38/-12.11	-11.47/-11.84	-12.78/-14.41	-15.04/-14.31	-13.53/-13.81	-15.36/-15.25	-15.48/-13.97	-12.12/-12.05	-12.39/-13.17	-14.53/-16.03	-15.07/-13.97	-13.6/-12.63	-11.89/-10.67	-10.23/-9.46	-8.85/-10.4	-12.16/-14.6	-15.68/-14.19	-11.67/-9.55	-7.88/-7.23	-5.77/-9.84	-10.99/-14.5	
Θ(172.5°)	-15.17/-13.15	-12.21/-10.87	-9.78/-9.91	-10.26/-10.62	-11.72/-13.07	-13.51/-13.09	-12/-12.16	-10.9/-9.4	-8.18/-7.94	-8.61/-9.72	-10.56/-11.19	-10.97/-10.54	-10.51/-10.26	-9.58/-7.83	-7.16/-7.19	-7.32/-7.44	-7.8/-8.09	-8.97/-9.95	-11.05/-12.92	-12.85/-12.78	-11.61/-11.49	-11.08/-11.38	-12.53/-12.72	-14.59/-15.78
Θ(180°)	-12.11/-12.96	-13.76/-13.18	-11.55/-10.85	-10.51/-10.29	-10.77/-11.74	-13.15/-15.67	-14.13/-14.59	-14.93/-13.45	-11.02/-9.74	-9.54/-9.25	-8.91/-8.75	-9.68/-10.73	-11.07/-12.04	-12.51/-13.52	-13.19/-14.99	-15.49/-15.21	-14.74/-14.96	-13.55/-12.01	-11.59/-10.99	-11.33/-10.68	-10.08/-9.62	-9.83/-10.77	-11.14/-11.58	-12.14/-12.02
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°)	-10.36/-9.96	-8.69/-7.81	-6.83/-5.61	-4.74/-4.44	-4.21/-3.96	-3.94/-4.35	-5.14/-6.11	-7.23/-8.3	-9.14/-9.31	-9.05/-8.57	-8.43/-8.13	-8.13/-7.54	-7.24/-7.59	-7.69/-7.69	-7.04/-6.57	-6.38/-6.34	-6.17/-6.12	-6.34/-6.61	-7.29/-7.89	-8.96/-8.94	-9.28/-9.95	-10.68/-11.32	-13.45/-13.66	-12.59/-11.67
Θ(7.5°)	-11.93/-12.64	-12.19/-11.26	-9.67/-7.82	-6.08/-4.95	-4.46/-4.57	-5.12/-5.65	-6.33/-7.24	-8.22/-8.74	-8.53/-7.86	-6.39/-5.18	-4.57/-4.07	-3.56/-3.13	-2.86/-2.68	-2.6/-2.56	-2.28/-2.06	-2.12/-2.35	-2.2/-2.06	-2.25/-2.74	-3.17/-3.33	-3.94/-4.97	-5.88/-7.22	-8.73/-9.58	-10.73/-11.03	-11.3/-11.65
Θ(15°)	-6.46/-8.09	-9.44/-9.51	-8.95/-7.81	-5.72/-3.55	-2.66/-2.73	-3.03/-3.66	-4.28/-4.93	-5.02/-4.76	-3.77/-3.08	-2.65/-2.18	-2.09/-1.89	-1.76/-1.57	-1.47/-1.05	-0.55/-0.05	0.360/0.76	0.840/0.73	0.31/-0.12	-0.34/-0.52	-0.92/-1.23	-1.48/-1.81	-1.89/-1.62	-1.64/-1.89	-2.25/-3.05	-3.8/-5.07
Θ(22.5°)	-3.06/-4.77	-7.06/-8.84	-7.49/-5.81	-4.1/-2.2	-1.18/-0.86	-1.24/-2.07	-2.34/-2.62	-2.54/-2.42	-1.33/-0.6	-0.45/-0.55	-0.92/-0.79	-0.36/-0.13	-0.20/-0.2	1.35/-1.99	2.41/-2.51	2.27/-1.74	1.010/0.48	0.290/0.52	0.740/0.88	0.570/0.26	0.330/0.78	1.32/-1.67	1.37/0.35	-0.68/-1.63
Θ(30°)	-0.4/-1.12	-1.73/-1.94	-3.69/-6.27	-6.49/-5.21	-3.32/-1.87	-1.17/-0.55	-0.47/-0.48	-0.72/-1.06	-1.15/-0.73	0.210/0.22	-0.190/-0.7	0.39/-0.22	-0.340/0.3	2.082/2.77	2.892/2.71	2.172	2.072/0.9	2.132/99	3.523/53	3.243/38	3.272/71	2.462/61	2.140/99	0.320/0.8
Θ(37.5°)	-0.71/-1.4	-0.9/-0.89	-0.87/-0.5	-1.19/-2.08	-0.61/-1.55	2.53/-1.9	0.830/0.41	1.36/-1.46	0.570/0.49	0.80/0.51	1.11/-1.33	0.940/0.36	1.633/1.1	4.043/3.51	2.953/0.1	3.133/44	2.8/-1.9	2.332/55	2.52/82	3.594/13	4.122/89	2.082/83	2.4/-1.15	0.04/-0.43
Θ(45°)	-0.75/-1.83	-1.96/-2.04	-1.03/7	-0.76/-0.79	0.54/-1.67	1.610/0.91	0.210/0.19	1.712/43	1.37/-1.01	1.190/45	1.11/-1.08	0.4/-1.43	3.224/2.27	4.834/67	4.083/88	3.784/2	3.542/68	1.78/-1.23	1.51/-1.13	1.032/49	3.742/82	1.723	3.07/-1.4	0.11/-0.26
Θ(52.5°)	0.8/0.83	0.66/-0.56	-2.090/0.25	0.31/-1.95	2.21/-1.37	0.570/0.87	0.490/0.3	2.043/57	2.66/-1.61	1.460/0.6	0.90/0.51	0.852/41	3.534/71	4.72/5	4.874/52	4.324/58	3.983/24	2.512/05	2.172/0.8	1.542	3.642/43	0.783/33	3.762/67	1.640/66
Θ(60°)	1.962/45	3.612/45	1/3.17	3.514/12	3.371/194	1.952/61	1.770/53	1.714/0.2	3.391/0.6	2.1/-1.25	0.86/-0.59	0.692/97	3.273/71	4.375/15	5.394/43	3.64/0.1	3.954/25	3.492/83	3.123/4	2.891/56	4.013/77	2.814/44	4.413/5	3.162/0.3
Θ(67.5°)	1.272/31	4.342/62	2.363/94	4.844/22	3.04/-1.88	2.433/19	1.940/37	1.043/98	3.70/-27	2.09/-1.12	0.05/-1.87	0.83/12	2.882/95	4.564/57	5.124/24	2.893/39	3.854/88	3.783/0.8	3.253/-19	2.67/-1.4	4.984/87	3.885/25	4.053/0.9	3.742/-11
Θ(75°)	-0.17/-1.32	3.95/-1.87	2.42/6	5.013/21	1.860/93	1.612/67	1.08/-0.71	-0.242/93	3.56/-0.89	0.990/84	-1.2/-2.56	0.062/83	1.35/-1.79	3.623/6	4.54/-11	2.192/35	3.85/52	4.583/31	2.362/93	2.891/11	5.235/76	5.235/92	3.6/-1.97	3.63/-1.75
Θ(82.5°)	-2.55/-0.07	2.380/0.18	0.74/-0.68	3.620/83	-0.15/-0.82	-0.380/96	-0.7/-2.05	-1.60/85	1.86/-3.04	-0.46/-0.81	-3.23/-2.76	0.32/4	0.15/-1.31	2.742/31	3.583/25	0.57/-1.03	3.584/8	4.272/53	0.44/-1.87	1.660/79	5.334/97	4.795/52	2.40/66	2.65/-1.21
Θ(90°)	-5.22/-1.82	0.41/-0.8	-0.29/-3.72	1.02/-1.6	-2.23/-1.47	-1.91/-1.52	-3.89/-4.75	-3.55/-1.98	-0.24/-4.65	-2.55/-1.38	-4.56/-3.97	-1.36/-1.09	-1.720/32	1.430/92	1.37/-1.62	-1.28/-1.41	1.72/-61	3.24/-14	-1.71/-0.63	-0.6/-1.75	3.62/82	2.433/28	-0.03/-0.32	1.53/-1.02
Θ(97.5°)	-6.87/-3.09	-3.41/-3.31	-2.49/-5.87	-2.4/-5.29	-4.72/-2.66	-3.63/-4.93	-8.7/-7.3	-4.59/-3.53	-3.95/-6.56	-4.32/-2.87	-5.45/-5.26	-2.82/-1.11	-4.51/-0.71	-0.25/-0.55	-0.31/-0.35	-3.35/-3.94	-1.470/27	0.69/-1.06	-4.84/-2.33	-3/-4.57	0.97/-0.17	-1.38/-0.52	-2.59/-1.21	0.460/37
Θ(105°)	-6.62/-6.45	-7.12/-6.68	-5.72/-4.15	-4.26/-7.23	-5.52/-3.73	-4.16/-4.24	-6.95/-8.15	-4.45/-2.73	-5.44/-9.18	-6.84/-4.62	-6.49/-6.41	-3.93/-3.43	-6.51/-3.99	-2.33/-2.27	-3.15/-1.84	-3.51/-5.79	-3.22/-1.97	-2.48/-2.22	-3.47/-2.45	-3.45/-7.67	-2.88/-2.31	-4.53/-2.67	-5.83/-3.69	-3.12/-1.97
Θ(112.5°)	-6.78/-7.8	-8.11/-7.9	-9.13/-5.73	-4.09/-6.29	-6.46/-5.96	-5.49/-3.76	-4.03/-6.98	-7.47/-4.83	-4.75/-7.86	-7.82/-6.34	-7													



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

Appendix A

Gain Result

Freq(Hz)	2.45GPol.	Phi/Ant. 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°)	-4.84/-4.57	-4.55/-4.71	-5.24/-5.97	-6.84/-8.02	-9.5/-11.42	-14.18/-18.11	-10.85/-19.27	-15.01/-11.44	-8.9/-7.21	-5.94/-9.44	-4.29/-3.83	-3.58/-3.57	-3.76/-4.04	-4.56/-5.16	-6.01/-7.19	-8.77/-10.32	-13.14/-16.41	-19.29/-18.97	-19.2/-16.27	-13.12/-10.09	-8.94/-7.54	-5.45/-5.32		
Θ(7.5°)	-6.63/-5.86	-5.26/-4.97	-5/-5.23	-5.73/-6.57	-7.89/-9.85	-12.75/-17.27	-17.05/-18.41	-13.17/-9.51	-7.13/-5.57	-4.34/-3.4	-2.83/-2.69	-2.87/-3.35	-4.07/-4.97	-6.09/-7.54	-9.25/-11.13	-13.13/-15.1	-17.41/-18.33	-17.72/-17.26	-17.65/-16.48	-15.47/-14.51	-13.93/-13.62	-12.65/-11.19	-9.88/-8.91	-8.22/-7.41
Θ(15°)	-10.03/-4.89	-7.13/-6.41	-6.04/-5.95	-6.08/-6.63	-7.68/-9.41	-12.04/-16.64	-17.97/-18.79	-13.04/-9.22	-6.78/-5.21	-4.01/-3.11	-2.67/-2.74	-3.31/-4.3	-5.61/-7.11	-9.02/-11.27	-14.04/-16.76	-18.99/-18.69	-18.65/-18.53	-17.99/-18.47	-18.44/-18.07	-17.88/-17.86	-18.27/-18.84	-17.69/-15.6	-13.79/-12.61	-11.96/-11.19
Θ(22.5°)	-16.77/-13.79	-11.26/-9.89	-8.94/-8.15	-7.8/-7.93	-8.62/-9.96	-12.16/-16.02	-18.07/-17.85	-14.45/-10.36	-7.76/-6.07	-4.92/-4.1	-3.79/-4.17	-5.29/-7.16	-9.48/-11.97	-14.71/-17.91	-17.95/-17.32	-17.9/-17.79	-19.09/-18.02	-18.21/-18.53	-18.1/-19.07	-18.56/-18.68	-18.94/-18.59	-17.68/-15.9	-15.71/-16.89	
Θ(30°)	-16.68/-17.4	-17.83/-17.62	-13.18/-10.8	-9.65/-9.33	-9.8/-10.73	-12.03/-14.67	-18.51/-18.88	-18.96/-13.58	-10.24/-8.21	-6.87/-6.01	-5.61/-5.98	-7.45/-10.18	-13.5/-15.63	-15.84/-15.58	-15.7/-16.62	-19.16/-18.44	-18.69/-18.66	-17.59/-18.56	-19.16/-18.05	-18.81/-18.49	-18.83/-18.32	-17.51/-18.9	-15.82/-13.62	-13/-14.23
Θ(37.5°)	-10.02/-10.23	-15.54/-15.09	-12.43/-10.96	-10.44/-10.53	-11.34/-12.43	-13.32/-14.82	-17.99/-17.55	-18.41/-16.79	-12.95/-10.68	-9.24/-8.16	-7.57/-7.93	-9.75/-13.3	-15.96/-14.62	-13/-12.01	-11.26/-11.11	-11.86/-13.72	-15.77/-18.66	-18.55/-18.69	-19.33/-18.67	-19.1/-19.01	-19.26/-17.96	-18.72/-16.3	-12.18/-10.1	-9.27/-8.44
Θ(45°)	-7.82/-9.27	-10.6/-10.01	-9.27/-9.45	-10.47/-12.22	-14.51/-16.78	-17.17/-17.84	-16.55/-15.41	-14.58/-13.32	-11.98/-11.32	-11.13/-10.46	-9.83/-10.36	-18.17/-15.9	-13.34/-12.15	-11.01/-9.82	-9.1/-9.47	-11.13/-14.34	-17.68/-18.93	-18.61/-18.06	-18.27/-19.35	-17.66/-16.62	-14.3/-10.96	-8.46/-7.2	-6.87/-7.13	
Θ(52.5°)	-9.32/-12.04	-11.55/-9.72	-9.34/-10.72	-14.08/-17.81	-18.55/-18.78	-18.33/-17.7	-18.12/-14.33	-10.7/-8.69	-7.78/-8.12	-8.39/-10.27	-10.65/-12.59	-18.84/-18.04	-15.26/-11.44	-10.13/-10.08	-10.17/-9.57	-8.79/-8.96	-10.95/-15.44	-19.22/-17.95	-19.16/-18.23	-17.21/-13.26	-10.77/-9.14	-7.77/-6.55	-5.67/-5.34	-5.77/-7.22
Θ(60°)	-16.25/-17.38	-15.25/-12.98	-14.16/-19.16	-18.42/-15.93	-11.39/-9.7	-10.67/-13.59	-19.12/-18.62	-14.9/-8.69	-7.84/-8.1	-9.25/-9.44	-9.41/-11.41	-18.61/-13.04	-11.98/-8.93	-7.8/-7.34	-6.86/-6.42	-6.49/-5.32	-10.45/-16.85	-19/-17.29	-17.04/-19.03	-18.89/-10.98	-7.68/-5.87	-5.21/-5.2	-5.51/-5.99	-7.11/-10.2
Θ(67.5°)	-14.68/-12.69	-12.29/-15.3	-18.48/-17.15	-15.53/-11.12	-8.89/-8.56	-10.22/-12.22	-12.36/-13.69	-16.73/-12.82	-10.64/-12.08	-13.86/-11.78	-10.84/-13.16	-18.47/-13.08	-8.95/-7.93	-8.35/-8.19	-6.7/-5.25	-4.84/-5.85	-8.75/-14.04	-17.32/-13.83	-13.56/-15.68	-13.86/-4.97	-6.5/-5.19	-5.38/-6.61	-8.2/-9.4	-10.56/-12.79
Θ(75°)	-13.14/-12.13	-14.22/-18.65	-18.54/-18.89	-18.03/-15.78	-13.48/-13.77	-18.67/-18.02	-12.83/-11.6	-12.32/-10.06	-8.48/-10.56	-15.41/-12.68	-10.58/-13.05	-17.32/-12.47	-8.04/-7.43	-8.61/-9.43	-8.01/-5.72	-4.59/-5.11	-7.46/-11.99	-18.51/-18.45	-18.85/-18.48	-13.26/-8.43	-5.77/-4.9	-5.39/-6.81	-8.8/-10.76	-12.51/-13.86
Θ(82.5°)	-12.63/-13.99	-17.82/-18.23	-17.81/-18.71	-18.55/-14.93	-10.27/-9.81	-13.86/-17.8	-14.25/-11.86	-12.96/-10.42	-8.46/-11.34	-17.67/-9.75	-6.87/-7.91	-15.03/-17.14	-9.19/-7.14	-7.21/-8.47	-8.25/-5.81	-4.29/-4.43	-6.47/-11.51	-19.1/-16.96	-15.95/-18.9	-18.27/-9.91	-6.14/-5.49	-4.4/-5.27	-7.24/-10.14	-12.69/-12.98
Θ(90°)	-9.22/-10.55	-12.14/-13.33	-14.1/-16.45	-18.64/-15.54	-10.28/-9.39	-13.27/-17.99	-13.31/-10.54	-11.04/-8.76	-6.57/-8.53	-18.01/-11.72	-6.57/-6.06	-9.92/-15.11	-7.91/-4.74	-4.03/-4.84	-6.33/-6.86	-6.26/-5.99	-7.39/-12.07	-18.43/-14.64	-13.37/-16.51	-14.3/-8.33	-4.75/-3.28	-3.46/-4.9	-7.14/-8.87	-6.88/-8.41
Θ(97.5°)	-8.42/-9.52	-10.77/-10.94	-10.97/-12.91	-19.4/-18.81	-11.88/-10.56	-14.61/-18.83	-12.73/-11.26	-13/-9.6	-6.83/-8.73	-18.87/-10.69	-5.41/-4.19	-6.51/-12.54	-9.09/-5.68	-4.74/-4.56	-4.65/-5.17	-6.13/-7.45	-10.2/-17.07	-19.41/-13.79	-13.74/-16.98	-12.49/-7.2	-4.37/-3.54	-4.33/-6.18	-8.15/-8.6	-8.14/-8.1
Θ(105°)	-10.94/-10.89	-9.59/-10.81	-8.24/-10.28	-15.39/-13.77	-17.88/-16.32	-18.83/-17.42	-10.97/-10.02	-12.16/-10.42	-7.57/-8.53	-15.48/-15.98	-7.88/-5.06	-10.26/-9.65	-8.78/-7.08	-5.54/-5.16	-4.29/-4.43	-13.49/-10.93	-15.49/-12.68	-15.8/-18.47	-17.53/-2.93	-3.69/-5.48	-7.68/-6.93	-10.8/-10.99		
Θ(112.5°)	-11.48/-10.59	-9.19/-8.54	-9.22/-12.39	-18.1/-17.77	-13.83/-13.49	-18.79/-18.63	-15.08/-13.36	-16.13/-14.1	-12.94/-9.77	-11.07/-10.43	-8.02/-7.02	-15.12/-16.31	-13.91/-10.22	-17.17/-5.76	-5.66/-6.87	-9.53/-10.32	-16.46/-9.99	-9.41/-17.16	-17.34/-8.38	-5.22/-4.66	-5.2/-6.39	-7.29/-7.97	-9.22/-10.85	
Θ(120°)	-16.46/-17.45	-14.89/-12.23	-11.17/-12.25	-14.62/-14.77	-13.38/-13.56	-16.04/-16.91	-13.92/-12.24	-12.85/-15.26	-18.19/-17.44	-13.67/-9.46	-7.15/-6.85	-7.62/-7.85	-7.23/-6.41	-6.83/-9.76	-14.34/-13.2	-10.2/-8.77	-8.7/-7.86	-6/-5.45	-6.8/-10.04	-11.77/-7.94	-4.93/-3.72	-3.73/-4.22	-4.91/-6.2	-8.73/-13
Θ(127.5°)	-10.42/-9.7	-9/-8.3	-7.81/-8.03	-9.47/-12.23	-15.43/-18.58	-19.04/-17.66	-16.99/-12.87	-10.44/-9.8	-10.29/-10.34	-9.14/-7.44	-7.25/-9.92	-13.84/-10.18	-6.51/-6.44	-4.42/-5.61	-7.54/-8.73	-8.46/-7.6	-6.82/-8.58	-5.29/-5.79	-8.05/-10.14	-7.56/-4.12	-2.07/-1.56	-2.41/-1.5	-6.34/-6.61	-10.2/-10.32
Θ(135°)	-6.45/-6.42	-7.2/-8.38	-9.25/-9.79	-11.1/-19	-15.93/-18.46	-17.61/-18.49	-18.97/-13.51	-12.14/-10.32	-8.73/-6.64	-4.51/-3.02	-2.85/-4.57	-8.99/-14.2	-16.8/-12.29	-10.86/-10.38	-9.68/-9.04	-8.13/-7.38	-6.89/-6.4	-6.15/-7.28	-10.31/-11.63	-7.58/-4.22	-2.48/-2.28	-3.52/-5.84	-8.22/-9.11	-8.32/-7.11
Θ(142.5°)	-6.73/-7.3	-8.96/-11.5	-13.55/-13.18	-12.68/-11.85	-12.68/-14.69	-18.33/-18.29	-18.57/-18.99	-18.49/-16.15	-12.7/-8.64	-5.53/-3.82	-3.53/-4.57	-6.95/-10.14	-11.99/-10.65	-8.44/-7.03	-6.78/-7.53	-8.6/-9.27	-9.45/-9.38	-10.06/-12.99	-18.51/-18.77	-11.26/-7.79	-6.27/-6.29	-7.56/-9.02	-9.2/-8.51	-5.68/-10.41
Θ(150°)	-7.35/-9.22	-11.97/-15.14	-15.89/-13.18	-11.14/-10.51	-11.44/-13.55	-15.85/-15.2	-12.21/-10.2	-9.33/-9.67	-11.44/-12.84	-11.64/-9.91	-9.31/-9.61	-10.47/-11.06	-10.04/-7.3	-5.37/-3.91	-3.31/-3.45	-3.96/-4.52	-5.03/-6.55	-6.73/-8.51	-11.32/-16.14	-18.53/-18.67	-15.76/-11.85	-9.02/-7.69	-5.31/-4.8	-5.06/-5.97
Θ(157.5°)	-9.84/-12.32	-13.99/-13.97	-12.68/-11.03	-9.98/-9.96	-10.83/-11.92	-11.66/-10.11	-8.35/-6.92	-5.98/-5.83	-6.55/-7.78	-9.21/-10.67	-12.54/-15.31	-18.82/-17.98	-14.92/-10.66	-7.72/-9.54	-4.91/-4.46	-4.42/-4.63	-5.06/-5.76	-6.63/-7.84	-9.29/-10.98	-12.06/-11.45	-9.82/-8.08	-6.61/-5.42	-4.72/-4.75	-5.68/-7.38
Θ(165°)	-15.55/-14.25	-12.63/-11.4	-15.88/-10.04	-9.86/-10.21	-11.16/-11.89	-11.49/-10.46	-9.3/-8.04	-6.96/-6.55	-6.75/-7.27	-8.02/-8.95	-10.21/-11.87	-14.71/-18.47	-18.91/-18.14	-16.61/-13.41	-11.29/-10	-9.18/-8.9	-9.05/-9.34	-9.8/-10.38	-10.93/-11.54	-11.72/-11.46	-11.12/-10.78	-10.47/-10.03	-9.79/-10.22	-11.91/-14.62
Θ(172.5°)	-11.25/-10.32	-10.29/-10.68	-11.22/-11.85	-12.84/-14.41	-16.52/-17.88	-17.42/-15.82	-14.09/-12.72	-11.94/-11.65	-11.64/-11.59	-11.62/-11.72	-11.86/-12.31	-13.32/-14.91	-16.92/-19.4	-18.82/-18.28	-17.82/-18.08	-18.71/-17.77	-16.91/-16.06	-15.34/-15.2	-15.4/-15.83	-16.69/-17.91	-17.53/-19.2	-18.6/-17.03	-18.29/-18.52	-17.12/-13.5
Θ(180°)	-9.35/-9.75	-11.06/-13.08	-15.24/-17.56	-19.16/-17.67	-18.52/-17.87	-18.48/-17.77	-18.38/-18.2	-18.46/-19.12	-17.95/-19.17	-18.79/-18.69	-18.23/-17.2	-18.62/-16.59	-16.3/-15.82	-15.68/-16.01	-16.98/-18.18	-19.42/-18.98	-18.91/-18.63	-19.42/-19.28	-18.12/-17.55	-17.57/-18.23	-16.14/-14.82	-14/-13.99	-13.36/-12.73	-11.41/-9.9
Freq(Hz)	2.45GPol.	Theta/Ant. 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°)	-19.59/-17.88	-14.34/-11.45	-9.35/-7.75	-6.44/-5.28	-4.38/-3.64	-3.06/-2.74	-2.79/-3.22	-3.72/-4.13	-4.71/-5.54	-6.72/-8.4	-10.41/-13.65	-18.89/-19.36	-17.14/-16.31	-12.69/-10.38	-8.66/-7.22	-6.06/-5.3	-4.9/-4.79	-4.78/-4.68	-4.73/-6.03	-5.41/-5.85	-6.33/-6.96	-7.85/-8.56	-10.35/-12.46	-14.96/-17.95
Θ(7.5°)	-17.16/-13.35	-15.21/-16.48	-15.47/-12.99	-10.46/-8.38	-6.68/-5.38	-4.36/-3.7	-3.51/-3.76	-4.34/-8.3	-5.57/-6.56	-7.95/-9.83	-12.28/-14.51	-14.76/-12.95	-10.98/-9.41	-8.32/-7.64	-7.18/-6.79	-6.52/-6.31	-6.17/-6.12	-6.08/-6.03	-6.04/-6.08	-6.12/-6.12	-6.12/-6.16	-6.25/-6.49	-7.04/-7.76	-9.18/-10.41
Θ(15°)	-7.12/-7.54	-8.47/-8.93	-11.59/-13.5	-14.32/-13.31	-11.4/-9.65	-8.21/-7.03	-6.44/-6.46	-6.91/-7.47	-8.16/-9.02	-10.22/-11.13	-10.98/-9.62	-8.02/-6.81	-6.05/-6.66	-5.47/-5.53	-5.71/-5.88	-5.93/-5.73	-5.37/-5.03	-4.74/-4.62	-4.64/-4.61	-4.53/-4.51	-4.49/-4.39	-4.24/-4.22	-4.54/-5.23	-6.12/-6.74
Θ(22.5°)	-4/-3.82	-3.98/-4.48	-5.29/-6.3	-7.23/-8.6	-8.1/-8.17	-8.16/-7.94	-7.78/-8.15	-8.97/-10	-10.84/-11.31	-11.26/-10.05	-7.93/-5.82	-4.29/-3.51	-3.29/-3.77	-3.93/-5.77	-3.97/-3.95	-3.69/-3.26	-2.79/-2.39	-2.09/-1.98	-2.06/-2.23	-2.45/-2.66	-2.78/-2.73	-2.61/-2.58	-2.88/-3.5	-4.11/-4.26
Θ(30°)	-1.8/-1.44	-1.37/-1.67	-2.43/-3.37	-4.08/-4.5	-4.63/-4.77	-4.83/-4.8	-4.89/-5.33	-6.21/-7.36	-8.63/-9.48	-9.53/-8.27	-6.06/-3.86	-2.33/-1.64	-1.65/-1.93	-2.25/-										



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

Appendix A

Θ(22.5°)	-4.18/-3.45	-2.16/-1.34	-0.84/-0.77	-1.1/-2	-3.2/-4.51	-6.15/-7.74	-8.65/-10.61	-12.93/-18.86	-18.68/-18.77	-13.97/-7.5	-3.3/-1.58	-2.42/-48	-6.61/-5.15	-3.43/-2.63	-3.3/-4.51	-5.41/-6.36	-7.69/-9.59	-12.23/-16.18	-18.58/-18.3	-18.92/-14.04	-10.31/-7.92	-6.57/-6.95	-7.83/-7.59	-5.89/-4.62
Θ(30°)	-2.7/-3.37	-2.95/-2.12	-1.39/-3.04	4.63/-6.74	-9.21/-12.58	-15.77/-15.99	-11.06/-9.63	-10.87/-18.62	-18.41/-19.22	-14.31/-6.2	-0.9/-1.5	0.91/-2.23	-4.78/-27	-1.24/-1.56	-3.46/-5.43	-6.67/-7.66	-9.42/-10.6	-11.82/-12.97	-15.13/-15.61	-18.07/-18.05	-18.09/-12.55	-10.08/-11.2	-10.16/-5.4	-2.8/-2.11
Θ(35°)	-3.32/-1.38	-3.98/-3.81	-3.01/-3.42	-4.17/-5.21	-7.23/-9.57	-6.59/-10.69	-13.65/-9.28	-9.89/-14.59	-13.54/-12.22	-9.25/-5.03	-0.88/-1.54	-0.81/-2.37	-3.72/-1.98	-1.94/-4.21	-1.77/-8.97	-13.61/-18.29	-18.39/-18.71	-16.98/-15.89	-18.01/-15.49	-16.76/-18.04	-17.19/-18.27	-17.03/-17.34	-11.73/-3.71	-0.43/-6.02
Θ(45°)	-6.98/-7.79	-3.13/-0.94	0.26/-0.41	-1.76/-3.26	-5.49/-6.1	-4.03/-6.54	-13.89/-7.3	-7.73/-10.47	-11.13/-10.96	-6.47/-3.43	-0.89/-1.17	0.82/-2.42	-5.17/-4.81	-5.26/-7.3	-9.84/-11.42	-18.87/-18.31	-13.74/-18.34	-17.92/-14.27	-15.89/-18.94	-19.01/-18.23	-17.49/-17.52	-17.89/-17.85	-9.72/-3.86	-0.93/-1.76
Θ(52.5°)	-9.63/-6.95	-2.78/-1.13	-0.39/-1.56	-3.94/-8.59	-7.74/-7.36	-2.24/-2.92	-13.05/-8.4	-8.21/-11.14	-15.98/-16.79	-6.14/-2.83	-2.31/-5.02	-1.23/-4.63	-6.89/-10.44	-9.64/-8.18	-8.84/-11.76	-18.45/-15.23	-11.06/-13.78	-19.35/-16.05	-15.79/-19.14	-17.63/-17.47	-16.38/-13.47	-15/-15.05	-16.01/-6.25	-2.98/-4.82
Θ(60°)	-10.31/-11.96	-5.03/-2.71	-1.46/-3.81	-10.84/-14.65	-13.64/-10.14	-2.37/-2.56	-14.26/-8.7	-8.19/-9.72	-17.07/-17.08	-10.35/-3.25	-3.54/-2.33	-3.92/-7.71	-10.68/-13.94	-10.89/-11.06	-12.21/-12.43	-16.47/-17.53	-11.71/-13.92	-19.22/-14.51	-13.25/-15.99	-18.33/-17.62	-13.39/-6.65	-11.27/-12.04	-13.95/-9.87	-6.36/-5.8
Θ(67.5°)	-8.88/-11.9	-7.26/-5.63	-4.48/-8.36	-13.86/-17.99	-17.93/-10.69	-2.44/-3.26	-18.52/-7.33	-8.79/-12.81	-17.98/-10.58	-17.22/-5.22	-7.62/-4.2	-7.39/-12.83	-16.84/-13.5	-13.51/-17.04	-14.22/-10.81	-12.25/-14.5	-14.43/-15.7	-17.84/-14.5	-14.2/-16.3	-16.95/-19.67	-12.06/-8.11	-9.67/-12.81	-18.12/-18.56	-14.08/-8.42
Θ(75°)	-9.9/-18.71	-12.74/-8.93	-5.72/-11.2	-8.48/-12.72	-12.32/-12.38	-5.41/-4.75	-17.47/-7.68	-9.17/-11.15	-12.83/-6.89	-16.48/-6.66	-9.62/-4.69	-9.11/-19.16	-16.15/-10.66	-12.31/-17.75	-14.05/-9.35	-8.14/-9.33	-11.65/-15.28	-16.66/-16.78	-14.1/-16.76	-15.67/-17.5	-15.01/-9.48	-8.4/-9.75	-10.98/-18.93	-19.27/-12.53
Θ(82.5°)	-11.46/-12.13	-13.41/-17.68	-7.86/-11.56	-5.21/-9.21	-11.5/-15.36	-6.98/-6.86	-17.77/-7.35	-10.02/-9.21	-10.87/-6.97	-16.48/-6.9	-12.49/-8.66	-14.09/-17.95	-15.28/-9.75	-13.05/-13.98	-8.89/-6.61	-7.83/-8.07	-9.11/-14.03	-19.15/-18.4	-15.6/-17.21	-14.17/-15.48	-14.8/-9.75	-10.37/-9.09	-11.05/-12.89	-14.59/-17.91
Θ(90°)	-14.63/-14.95	-10.55/-16.84	-16.04/-14.53	-4.06/-6.85	-7.67/-9.59	-9.43/-8.27	-18.72/-8.48	-10.53/-7.85	-8.23/-6.76	-11.19/-9.11	-15.59/-11.29	-18.01/-17.23	-14.11/-9.26	-11.45/-14.46	-8.74/-7.53	-7.01/-7.2	-8.21/-13.69	-18.55/-18.08	-16.95/-17.11	-18.45/-17.49	-15.82/-12.16	-11.05/-10.57	-11.07/-13.26	-10.39/-18.84
Θ(97.5°)	-8.45/-12.24	-12.81/-17.52	-12.29/-18.04	-6.32/-7.94	-5.83/-10.41	-10.76/-9.33	-16.71/-6.93	-10.89/-6.32	-9.2/-5.3	-11.69/-10.93	-19.01/-9.98	-18.8/-11.92	-10.36/-8.68	-8.22/-7.04	-7.39/-1.41	-18.59/-18.29	-15.74/-18.28	-19.28/-17.85	-15.23/-11.49	-11.75/-11.93	-11.52/-11.88	-11.56/-10.49	-8.69/-9.99	
Θ(105°)	-9.57/-8.36	-8.36/-15.58	-16.35/-18.65	-6.38/-8.71	-6.41/-9.56	-11.76/-9.36	-16.99/-4.29	-12.29/-7.41	-8.39/-8.72	-11.17/-14.11	-16.02/-12.04	-15.93/-13.63	-8.77/-9.21	-11.11/-13.37	-10.49/-8.99	-7.91/-7.39	-9.97/-16.18	-17.92/-18	-15.63/-18.78	-19.26/-18.76	-14.29/-9.36	-7.69/-9	-8.93/-10.75	-12.53/-16.96
Θ(112.5°)	-13.06/-13.37	-6.11/-7.68	-11.82/-19.25	-11.31/-13.58	-7/-9.03	-13.93/-11.19	-14.43/-6.19	-14.81/-6.56	-8.66/-11.8	-14.68/-18.11	-14.4/-8.66	-12.33/-11.41	-9.19/-5.48	-4.58/-9.64	-11.21/-8.77	-7/-6.39	-10.03/-17.04	-18.86/-19.19	-14.29/-18.88	-19.01/-17.41	-11.56/-9.82	-9.84/-9.12	-9.56/-9.01	-5.64/-7.65
Θ(120°)	-8.38/-10.31	-8.56/-12.44	-8.73/-9.59	-18.97/-18.15	-8.6/-17.7	-11.41/-10.31	-17.04/-6.41	-12.15/-16.54	-15.66/-18.62	-18.65/-11.64	-13.63/-11.01	-11.44/-9.56	-5.15/-5.2	-6.18/-9.86	-11.47/-10.24	-5.78/-7.65	-10.33/-14.63	-18.01/-17.62	-13.81/-18.58	-18.43/-18.39	-11.56/-10.48	-11.81/-11.55	-11.92/-11.88	-8.84/-5.14
Θ(127.5°)	-9.25/-12.07	-8.97/-12.49	-7.78/-8.36	-10.97/-14.84	-10.97/-14.84	-13.89/-11.18	-17.95/-15.92	-16.49/-18.46	-13.34/-11.2	-14.2/-8.82	-14.91/-9.99	-6.02/-4.3	-6.65/-11.88	-13.93/-6.14	-7.52/-8.32	-8.76/-14.04	-15.06/-19.2	-19.27/-18.17	-18/-19.28	-11.62/-11.21	-9.28/-11.62	-12.55/-13.28	-8.36/-7.3	
Θ(135°)	-9.36/-13.91	-18.69/-17.96	-9.47/-10.73	-10.69/-8.72	-12.95/-19.55	-14.65/-12.68	-18/-17.46	-18.61/-19.16	-14.36/-14.24	-16.49/-12.45	-13.94/-13.19	-11.86/-11.21	-7.02/-4.64	-7.25/-10.13	-8.07/-9.86	-12.33/-9.58	-12.49/-18.82	-17.62/-18.41	-18.74/-18.98	-18.45/-18.5	-13.61/-12.94	-12.04/-10.31	-9.52/-12.84	-9.36/-5.93
Θ(142.5°)	-11.61/-8.95	-12.81/-17.52	-16.48/-19.21	-17.11/-17.59	-17.78/-14.82	-16.79/-16.69	-16.44/-10.43	-16.89/-18.53	-13.88/-11.32	-16.96/-14.9	-8.83/-8.3	-8.43/-9.07	-8.12/-7.19	-9.11/-11.29	-13.46/-11.8	-10.85/-16.46	-18.33/-18.7	-18.13/-18.71	-18.83/-18.35	-18.84/-17.32	-17.18/-14.86	-11.09/-17.84	-10.8/-10.23	-10.34/-10.97
Θ(150°)	-8.48/-10.23	-13.44/-12.97	-14.97/-10.2	-17.13/-16.6	-7.21/-9.54	-12.99/-17.25	-15.51/-11.82	-12.91/-17.05	-18.69/-15.03	-17.87/-15.03	-14.65/-12.08	-11.11/-11.35	-8.97/-8.79	-7.46/-9.87	-12.43/-13.84	-16.47/-18.93	-18.65/-18.58	-17.07/-16.68	-17.33/-19.37	-19.26/-18.32	-19.19/-23.29	-17.43/-18.91	-16.9/-11.41	-8.1/-7.31
Θ(157.5°)	-7.77/-9.56	-14.18/-18.61	-18.62/-16.52	-14.09/-12.76	-11.02/-11.37	-12.29/-12.33	-11.2/-10.23	-12.8/-18.21	-18.89/-18.74	-19.14/-16.44	-14.85/-16.57	-18.67/-15.28	-9.15/-7.21	-8.23/-10.91	-14.99/-17.92	-18.33/-17.23	-15.5/-16.39	-17.15/-16.16	-15.92/-15.09	-13.18/-12.89	-13.85/-14.17	-13.43/-14.99	-18.23/-13.23	-8.56/-7.44
Θ(165°)	-17.49/-15.24	-13.45/-12.83	-12.57/-13.15	-13.01/-12.82	-11.99/-11.23	-10.59/-10.16	-10.24/-11.58	-16.02/-19.11	-17.57/-18.89	-18.14/-16.66	-18.3/-17.69	-18.8/-19.06	-18.03/-16.7	-15.83/-15.47	-15.9/-14.72	-13.61/-13.59	-13.05/-14.24	-15.85/-16.19	-14.09/-13.04	-12.44/-11.61	-11.38/-11.54	-12.27/-13.61	-17.06/-17.76	-17.87/-16.64
Θ(172.5°)	-10.03/-10.52	-11.52/-10.46	-9.79/-9.02	-8.89/-9.12	-9.67/-10.54	-12.78/-16	-18.48/-18.98	-18.43/-16.25	-12.09/-10.49	-9.65/-8.98	-9.1/-9.52	-9.56/-9.38	-9.51/-9.75	-10.32/-11.16	-12.27/-14.43	-17.39/-18.19	-19.06/-18.48	-18.66/-16.06	-13.73/-12.8	-13.45/-13.29	-13.88/-14.98	-15.62/-14.17	-13.61/-12.75	-11.85/-10
Θ(180°)	-8.4/-8.76	-10.82/-11.57	-11.31/-11.13	-11.21/-11.58	-12.68/-14.04	-17.55/-18.95	-19.28/-17.87	-16.65/-13	-11.08/-10.35	-9.83/-9.47	-9.07/-8.38	-7.69/-6.84	-6.22/-5.52	-5.05/-4.85	-4.98/-5.74	-6.67/-8.14	-9.59/-11.47	-13.01/-14.57	-17.29/-18.34	-18.15/-15.15	-10.61/-10.08	-9.87/-9.85	-9.88/-8.75	
Freq(Hz)	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°)	-14.3/-16.2	-18.38/-18.17	-17.82/-18.79	-18.89/-17.76	-16.3/-15.21	-14.2/-12.73	-12.4/-11.54	-11.09/-11.56	-11.81/-10.46	-9.72/-9.46	-10.39/-10.85	-11.35/-11.95	-12.98/-13.94	-14.47/-13.7	-13.05/-12.47	-10.32/-8.55	-7.96/-7.87	-7.39/-6.97	-6.31/-5.67	-5.04/-5.1	-5.41/-5.75	-6.17/-6.9	-7.95/-9.09	-10.48/-11.96
Θ(7.5°)	-13.92/-16.02	-18.11/-17.94	-18.57/-15.61	-18.48/-10.57	-8.88/-6.96	-5.59/-4.86	-4.62/-5.08	-4.84/-6.56	-7.44/-9.45	-10.09/-9.82	-10.18/-9.68	-8.56/-8.29	-8.9/-8.94	-7.91/-6.73	-7.1/-7.5	-5.36/-4.52	-5.46/-5.83	-5.36/-4.92	-3.75/-3.36	-2.96/-2.63	-2.6/-2.89	-2.74/-4.82	-6.39/-8.09	-9.92/-11.59
Θ(15°)	-9.71/-9.1	-9.52/-10.39	-10.35/-9.49	-7.88/-6.73	-4.36/-2.87	-1.81/-1.11	-0.54/-0.76	-1.54/-2.17	-3.12/-5.22	-6.85/-6.53	-6.4/-7	-6.55/-6.02	-6.05/-6.21	-5.61/-4.87	-4.54/-6.04	-3.06/-2.18	-1.82/-1.12	-0.550/-17	0.91/-49	1.751/-84	1.550/-79	-0.57/-2.37	-5.4/-7.81	-9.78/-9.81
Θ(22.5°)	-3.15/-2.73	-3.1/-3.79	-4.64/-6.27	-7.73/-8.69	-9.79/-9.45	-8.13/-6.76	-5.64/-5.14	-4.55/-4.1	-4.03/-4.51	-5.6/-4.48	-4.79/-5.5	-6.23/-6.9	-7.39/-6.67	-4.96/-5.36	-2.3/-0.97	0.170/-81	1.29/-159	1.541/-23	0.860/-92	1.792/-86	3.3/-3.1	1.93/-0.37	-3.21/-4.7	-4.55/-3.81
Θ(30°)	-1.42/-2.13	-2.8/-3.68	-4.89/-5.58	-5.53/-6.03	-3.96/-2.85	-2.77/-3.68	-4.3/-3.78	-2.39/-1.79	-2.17/-3.87	-6.66/-6.17	-3.87/-3.43	-6.66/-4.49	-6.26/-6.69	-3.91/-1.7	-0.510/-55	1.21/-41	1.66/-148	0.61/-0.56	-1.52/-3.36	-1.820/-16	2.12/-81	2.220/-07	-1.37/-0.62	-0.01/-0.58
Θ(37.5°)	-2.13/-2.93	-3.01/-3.54	-4.36/-3.64	-2.73/-2.1	-1.89/-0.99	-0.72/-0.93	-1.07/-0.86	-0.39/-0.31	-1.11/-2.43	-3.31/-4.62	-5.54/-4.2	-3.05/-5.03	-8.81/-6.65	-1.650/-57	1.151/-31	0.54/-0.63	2/-2.67	-1.760/-18	1.320/-82	-0.52/-1.55	-0.041/-34	0.84/-0.71	0.392/-46	2.590/-5
Θ(45°)	-1.73/-2.8	-3.19/-3.24	-3.52/-2.19	-1.05/-0.76	-1.58/-2.52	-2.16/-2.29	-1.180/-38	0.26/-1.92	-2.11/-2.73	-5.77/-4.62	-2.13/-4.02	-7.62/-5.02	-0.33/-1.64	1.520/-81	-0.09/-2.18	-4.64/-4.9	-3.25/-1.05	0.951/-81	1.06/-0.61	-1.222/-0.2	-0.3/-1.15	1.263/-41	3.160/-84	
Θ(52.5°)	-1.1/-1.7	-2.39/-2.26	-1.68/-0.63	0.31/-15	0.19/-2.3	-2.48/-0.55	-0.77/-3.04	-2.520/-89	2/-1.28	-2.19/-1.63	-5.91/-6.35	-3.86/-4.53	-4.46/-1.87	0.161/-15	0.570/-11	0.19/-0.72	-2.03/-2.59	-0.050/-62	0.890/-43	-0.62/-0.32	-0.52/-0.45	2.14/-85	2.57/-0.02	
Θ(60°)	0.020/-15	-0.88/-1.43	-1.37/-2.34	-1.321/-76	1.590/-08	1.762/-99	1.34/-3.35	-5.050/-53	3.650/-47	-3.38/-1.27	-4.17/-5.98	-3.65/-4.77	-3.33/-1.37	-0.620/-63	0.17/-0.46	0.92/-1.08	0.38/-0.71	-1.48/-2.16	-1.89/-1.64	-0.380/-05	-1.17/-1.06	-0.48/-0.32	1.74/-13	0.89/-1.28
Θ(67.5°)	0.15/-0.38	-0.65/-2.12	-2.45/-4.67	-3.071/-5	0.610/-31	2.993/-85	1.8/-2.97	-5.260/-23	3.771/-19	-3.09/-2.43	-5.17/-6.44	-3.04/-5.84	-3.06/-0.41	-1.65/-1.12	-0.520/-34	2.122/-05	1.270/-17	-1.16/-0.98	-0.93/-2.98	-2.09/-0.13</				



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

Appendix A

Θ(67.5°)	-8.16/-11.46	-4.58/-1.84	-3.22/-5.85	-15.59/-14.06	-6.75/-7.39	-4.89/-5.39	-14.98/-16.95	-8.75/-9.16	-18.31/-12.23	-15.79/-9.96	-9.56/-5.92	-4.4/-7.13	-11.69/-5.61	-8.18/-17.24	-17.62/-15.8	-17.82/-14.23	-16.88/-17.14	-19.13/-18.13	-19.03/-18.04	-12.9/-12.69	-15.08/-14.99	-19.08/-14.99	-16.57/-16.57	-10.73/-6.84
Θ(75°)	-11.37/-11.27	-7.07/-4.79	-7.83/-6.72	-18.04/-18.48	-11.36/-14.03	-7.46/-5.98	-16.62/-14.17	-8.97/-10.71	-17.82/-11.94	-17.44/-10.31	-11.55/-6.37	-5.44/-8.38	-12.57/-7.57	-10.49/-16.39	-16.58/-11.56	-13.85/-19.27	-18.16/-16.69	-16.4/-16.08	-18.16/-19.01	-13.88/-13.49	-14.71/-14.34	-14.05/-10.97	-12.03/-18.81	-17.1/-11.66
Θ(82.5°)	-13.15/-13.36	-9.79/-7.86	-9.66/-8.46	-26.1/-12.2	-18.34/-18.27	-10.45/-9.49	-18.83/-12.94	-10.09/-12.7	-12.5/-11.49	-14.65/-11.9	-10.84/-8.05	-10.49/-11.62	-9.3/-8.86	-18.77/-15.62	-11.03/-9.56	-9.34/-15.72	-13.85/-11.65	-15.74/-17.76	-18.48/-18.18	-13.53/-14.36	-12.71/-11.95	-10.13/-10.28	-8.6/-11.82	-18.83/-13.48
Θ(90°)	-13.37/-17.64	-11.2/-8.24	-11.63/-11.07	-8.67/-8.21	-13.52/-13.63	-10.68/-9.13	-18.42/-13.76	-11.82/-10.74	-14.55/-8.99	-14.33/-9.37	-14.86/-7.36	-12.46/-14.1	-10.59/-10.8	-17.75/-12.04	-11.24/-7.84	-8.85/-11.4	-12.99/-13.43	-18.18/-17.63	-18.85/-18.48	-18.31/-18.69	-13.46/-10.06	-8.52/-8.23	-7.49/-9.91	-13.77/-11.29
Θ(97.5°)	-13.39/-16.19	-12.72/-9.24	-15.34/-15.95	-8.83/-5.97	-12.18/-18.5	-11.42/-10.14	-14.64/-10.97	-10.99/-13.29	-11.11/-9.76	-11.02/-11.77	-14.93/-9.13	-13.73/-16.69	-12.51/-9.28	-9.4/-8.6	-8.24/-10.44	-9.5/-9.37	-11.04/-10.23	-15.81/-18.15	-16.35/-17.02	-17.46/-18.14	-14.17/-18.95	-8.28/-10.57	-6.58/-7.57	-9.4/-8.78
Θ(105°)	-10.55/-14.9	-12.93/-7.27	-14.02/-18.15	-12.19/-6.77	-7.91/-9.79	-19.12/-12.93	-19.26/-10.71	-12.17/-8.28	-14.04/-15.5	-15.12/-11.82	-11.43/-7.52	-8.56/-8.32	-10.67/-7.92	-10.25/-9.71	-12.43/-13.39	-18.76/-18.38	-18.09/-16.78	-18.6/-18.74	-14.89/-8.49	-16.59/-16.08	-7.53/-6.26	-6.61/-5.97		
Θ(112.5°)	-6.53/-12.38	-15.04/-8.75	-9.62/-15.91	-17.98/-11.32	-8.5/-10.26	-12.63/-12.16	-18.99/-11.76	-18.91/-8.7	-13.43/-11.84	-17.75/-14.54	-18.56/-13.87	-14.68/-9.56	-13.86/-8.54	-8.02/-8.4	-8.34/-10.48	-9.63/-10.44	-10.81/-13.51	-19.03/-19.06	-15.86/-14.46	-17.91/-17.08	-13.13/-7.86	-7.95/-9.4	-6.79/-5.12	-4.9/-5.02
Θ(120°)	-4.33/-7.01	-8.99/-14.05	-12.2/-11.34	-18.53/-18.43	-12.52/-12.84	-13.19/-9.17	-14.15/-9.6	-17.64/-12.35	-17.69/-18.09	-18.06/-14.84	-17.22/-10.32	-12.65/-8.34	-9.38/-8.87	-4.23/-9.29	-10.68/-11.59	-13.05/-10.43	-9.88/-12.94	-17.73/-18.19	-18.77/-17.48	-18.21/-18.12	-12.84/-8.04	-9.46/-9.6	-8.24/-7.06	-3.75/-4.88
Θ(127.5°)	-6.33/-9.75	-11.06/-11.33	-17.27/-13.59	-12.87/-18.51	-13.02/-12.3	-15.62/-18.82	-17.31/-13.5	-18.06/-18.73	-17/-18.23	-17.1/-13.54	-18.92/-16.42	-13.42/-9.51	-8.93/-7.22	-8.06/-9.21	-16.16/-11.45	-7.28/-11.06	-13.02/-17.18	-18.37/-17.05	-18.57/-15.83	-18.72/-18.11	-10.18/-12.29	-10.02/-12.04	-12.12/-6.86	-6.67/-8.45
Θ(135°)	-7.87/-8.6	-11.41/-19.05	-12/-10.51	-13/-14.64	-18.97/-19.07	-13.35/-11.73	-18.54/-18.06	-18.58/-18.26	-15.92/-17.31	-13.27/-10.86	-14.13/-11.85	-11.65/-13.29	-15.56/-14.13	-11.03/-13.61	-11.01/-7.83	-11.62/-8.5	-10.92/-17.41	-18.98/-18.36	-17.86/-19.66	-16.36/-16.76	-15.99/-13.95	-16.03/-10.43	-9.58/-9.23	-6.38/-7.61
Θ(142.5°)	-14.4/-10.17	-8.51/-8.63	-12.92/-17.83	-18.75/-14.33	-18.78/-18.75	-16.31/-13.94	-14.83/-15.43	-18.91/-17.71	-13.64/-15.5	-16.62/-14.68	-10.8/-10.16	-12.74/-13.35	-9.56/-9.87	-13.53/-15.51	-14.16/-12.52	-16.78/-18.3	-17.74/-18.24	-17.88/-18.47	-18.98/-17.33	-13.98/-11.88	-17.17/-14.86	-10.03/-8.96	-8.72/-10.4	
Θ(150°)	-9.72/-15.17	-18.8/-17.51	-18.84/-13.28	-9.25/-7.34	-8.36/-9.87	-11.45/-16.23	-17.52/-15.97	-18.49/-18.16	-17.85/-17.96	-17.65/-15.46	-12.38/-13.72	-10.64/-10.67	-11.34/-9.76	-8.34/-10.07	-13.58/-18.21	-18.4/-17.49	-18.61/-17.32	-17.68/-19.03	-18.56/-16.67	-16.79/-14.94	-18.18/-19.01	-16.36/-11.46	-10.65/-9.41	
Θ(157.5°)	-13.44/-12.59	-14.27/-17.68	-18.4/-19.27	-18.89/-17.98	-17.84/-18.12	-18.48/-17.15	-18.98/-18.81	-18.32/-18.85	-17.66/-16.55	-17.61/-18.17	-18.45/-18.53	-19.56/-13.25	-11.86/-13.38	-15.06/-12.61	-12.5/-16.44	-18.5/-19.49	-18.95/-18.19	-18.76/-17.52	-17.58/-19.13	-18.73/-18.08	-19.02/-16.23	-12.17/-8.76	-7.42/-8.17	-10.69/-12.77
Θ(165°)	-17.51/-18.49	-18.35/-19.1	-17.32/-15.25	-13.54/-17.77	-13.46/-15.9	-17.61/-17.18	-16.38/-18.51	-18.24/-17.62	-17.84/-18.53	-18.3/-18.9	-17.85/-18.4	-18.89/-19.24	-18.76/-18.32	-19.18/-18.49	-19.14/-17.28	-18.62/-18.9	-15.92/-17.47	-18.73/-17.46	-18.89/-16.69	-13.02/-10.83	-8.58/-7.6	-7.67/-9.52	-11.16/-16.76	
Θ(172.5°)	-17.69/-14.65	-13.25/-11.01	-9.64/-9.83	-9.75/-10.61	-12.79/-16.92	-17.67/-17.3	-17.7/-19.16	-15.17/-11.92	-9.86/-8.98	-9.2/-10.08	-10.51/-11.41	-11.42/-10.76	-10.32/-10.17	-9.56/-8.03	-6.96/-6.74	-8.63/-8.99	-9.05/-9.7	-11.32/-13.48	-13.77/-13.77	-12.51/-11.36	-11.21/-11.85	-12.82/-13.97	-12.72/-18.56	
Θ(180°)	-13.08/-14.6	-15.53/-13.97	-12.55/-11.71	-11.02/-11.03	-11.74/-13.87	-15.74/-19.12	-18.78/-19.16	-17.8/-14.58	-11.65/-9.44	-8.89/-8.91	-8.08/-8.37	-9.35/-10.46	-11.42/-12.22	-13.58/-14.57	-15.17/-16.91	-18.53/-17.53	-17.26/-17.71	-15.13/-12.67	-12.11/-11.46	-11.37/-10.4	-10.08/-9.93	-10.49/-11.8	-12.28/-13.66	-13.96/-12.81
Freq(Hz)	5.7853/Phi	Theta/Ant. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-17.68/-18.94	-18.48/-15.29	-12.86/-10.88	-9.29/-8.54	-7.58/-6.55	-6.24/-6.38	-6.8/-7.14	-7.38/-8.22	-8.91/-9.53	-10.69/-11.59	-12.96/-14.94	-18.65/-18.23	-17.63/-19.1	-19/-17.97	-15.13/-12.44	-10.95/-10	-8.89/-8.46	-7.96/-7.27	-7.22/-7.52	-8.14/-8.07	-8.61/-9.64	-10.58/-11.96	-15.2/-18.25	-17.63/-17.96
Θ(7.5°)	-13.31/-16.79	-18.76/-18.86	-16.18/-14.19	-12.04/-10.52	-9.77/-9.73	-10.02/-9.95	-10.57/-11.11	-11.92/-13.11	-13.9/-13.4	-11.86/-11.53	-11.15/-10.64	-10.6/-10.34	-9.28/-7.89	-7.27/-7.22	-6.31/-4.92	-3.97/-3.51	-2.57/-1.7	-1.32/-1.41	-1.52/-1.6	-2.15/-3.26	-4.69/-6.3	-7.83/-9.35	-10.74/-11.23	-11.36/-11.83
Θ(15°)	-5.35/-7.11	-9.88/-13.37	-15.68/-13.49	-10.47/-7.3	-6.03/-5.78	-5.72/-6.11	-6.93/-8.41	-9.61/-10.72	-10.8/-11.06	-11.07/-9.76	-8.4/-6.9	-5.93/-5.2	-5.05/-4.74	-4.5/-4.04	-3.27/-4.23	-1.81/-1.27	-0.75/-0.25	0.34/0.74	0.62/0.4	0.19/-0.2	-0.68/-1.02	-1.47/-1.96	-2.47/-3.16	-3.37/-4.19
Θ(22.5°)	-3.14/-4.35	-5.93/-8.13	-9.22/-9.03	-6.99/-4.83	-3.72/-4.39	-4.31/-5.63	-6.18/-7.59	-9.2/-10.11	-8.53/-7.48	-6.5/-5.84	-5.74/-5.76	-5.68/-5.64	-6.16/-5.65	-4.43/-3.35	-2.19/-1.3	-0.76/-0.54	-0.69/-1.06	-0.94/0	0.77/1.24	10.52	0.160/-17	0.360/-44	-0.01/-0.86	-1.35/-1.91
Θ(30°)	-3.15/-3.21	-3.9/-3.8	-4.19/-4.89	-5.77/-7.47	-8.2/-8.17	-6.95/-4.99	-3.61/-3.29	-4.11/-5.68	-6.54/-5.99	-4.4/-4.07	-4.55/-5.37	-10.8/-10.19	-10.01/-6.89	-4.21/-2.74	-2.26/-2.04	-0.45/-0.64	-0.4/-0.55	-0.920/-26	1.667/2.7	18.72/8	1.90/65	-0.03/0.07	-0.36/-1.16	-1.68/-2.63
Θ(37.5°)	-5.174/-5.2	-4.13/-4.6	-4.1/-5.62	-4.83/-6.08	-4.62/-1.59	-0.27/-0.52	-0.91/-0.73	-0.31/-1.18	-2.55/-9.22	-3.37/-4.19	-3.07/-4.18	-7.31/-10.55	-5.97/-3.08	-1.66/-2.31	-3.72/-3.56	-1.56/-0.12	0.32/-0.55	-1.1/-1.97	-2.78/-1.56	0.851/79	1.640/37	-1.33/-1.27	-1.06/-1.35	-3.15/-5.24
Θ(45°)	-4.04/-3.53	-3.85/-4.44	-3.7/-3.19	-5.4/-6.07	-4.06/-2.37	-1.91/-2.35	-2.85/-1.92	0.250/55	0.91/-1.84	-2.33/-3.71	-2.89/-4.05	-6.65/-5.02	-1.46/0.25	0.510/31	-0.47/-1.38	-0.810/3	0.18/0.4	-1.94/-3.54	-4.04/-4.7	-4.31/-1.83	-0.64/-0.99	-2.19/-1.22	-1.44/-1.75	-2.44/-3.28
Θ(52.5°)	-2.59/-3.65	-2.75/-3.75	-2.52/-1.73	-2.77/-1.46	-1.1/-2.71	-0.56/-0.53	0.98/-2.05	0.43/-6.7	0.56/-1.36	-1.73/-4.38	-3.35/-3.62	-4.33/-1.42	-0.662/32	2.022/06	1.830/2	0.140/5	0.58/0.9	-1.5/-2.21	-1.12/-1.27	-2.91/-2.11	-0.43/-0.09	-0.32/-1.17	-0.61/-0.98	-0.41/-0.47
Θ(60°)	-1.71/-2.3	-0.23/-1.68	-0.59/-0.92	0.491/76	1.57/-0.38	0.872/87	1.71/-1.61	-0.58/-1.79	1.35/-2.26	-0.69/-2.75	-3.99/-4.31	-2.73/-0.1	0.651/77	2.32/79	2.94/0.61	0.26/-0.05	0.831/28	-0.09/-1.5	0.481/7	0.23/-1.72	0.711/17	-1.11/-1.27	0.190/33	1.841/68
Θ(67.5°)	-2.57/-2.02	0.35/-2.25	0.21/-1.54	1.32/2.09	1.66/0.38	2.243/77	2.12/-1.67	-2.26/-1.07	1.63/-3.25	-0.52/-3.6	-5.27/-5.18	-3.16/0.64	-0.230/94	2.321/68	1.840/14	-0.29/-0.69	1.09/2.01	0.05/-1.9	0.81/91	0.33/-0.8	2.21/2.1	-1.02/-0.17	0.330/38	3.042/36
Θ(75°)	-3.09/-1.93	0.7/-3.2	0.12/0	0.971/19	0.67/-0.32	1.793/28	1.32/-2.3	-3.91/-0.43	1.75/-4.29	-2.35/-4.7	-7.65/-5.62	-5.04/0	-2.48/-0.57	1.810/68	0.840/44	-0.601/68	1.953/04	0.94/-1.91	-0.362/21	1.32/-0.21	2.382/53	0.251/29	0.48/-0.76	2.852/7
Θ(82.5°)	-4.11/-3.15	-0.4/-5.87	-1.97/-3.74	-0.92/-1.83	-1.53/-2.23	0.11/1.61	-0.18/-2.8	-5.24/-3.94	-0.19/-7.2	-4.55/-8.03	-10.33/-5.85	-4.66/-1.1	-3.97/-1.68	0.83/-1.17	-0.62/-0.03	-1.92/-1.79	1.92/41	0.61/-3.11	-2.17/-1.13	0.61/-0.8	2.470/92	-0.991/44	-0.55/-2.19	1.982/05
Θ(90°)	-5.63/-4.34	-1.27/-3.65	-3.51/-8.24	-4.09/-4.26	-2.9/-4.2	-1.67/-1.23	-4.04/-5.18	-6.38/-8.27	-2.81/-10.2	-8.39/-8.56	-12.79/-7.7	-6.43/-3.54	-5.93/-2.98	-0.72/-5.28	-3.64/-1.57	-5.4/-3.78	0.310/69	-0.12/-3.67	-8/-1.65	-1.22/-2.77	1.24/-1.39	-4.82/-0.39	-2.41/-2.4	0.861/08
Θ(97.5°)	-6.45/-5.25	-2.39/-8.26	-5.49/-10.46	-7.64/-8.29	-6.69/-4.32	-3.8/-5.03	-11.04/-8.76	-7.7/-10.42	-8.41/-13.7	-8.61/-10.28	-12.95/-10.71	-9.09/-7.44	-9.93/-3.87	-1.94/-3.96	-0.67/-4.46	-8.92/-6.05	-2.87/-6.22	-2.73/-5.5	-6.26/-3.06	-3.21/-5.64	-0.82/-3.65	-8.29/-3.48	-4.27/-3.54	-0.26/-0.52
Θ(105°)	-7.85/-8.19	-5.89/-11.01	-8.53/-9.27	-9.69/-10.16	-7.13/-4.79	-4.8/-3.31	-7.56/-12.02	-7.6/-6.23	-10.17/-19.12	-15.18/-9.36	-11.64/-13.98	-7.67/-8.74	-11.72/-7.2	-4.04/-5.38	-8.82/-6.81	-9.56/-7.46	-4.26/-4.03	-5.18/-4.83	-3.82/-3.5	-4.35/-6.49	-2.69/-3.92	-8.12/-4.8	-8.05/-5.72	-2.63/-2.17
Θ(112.5°)	-6.04/-9.97	-9.53/-11.19	-11.06/-8.99	-10.68/-6.96	-7.24/-7.13	-5.17/-2.4	-8.31/-12.14	-13.53/-6.86	-6.73/-18.1	-17.31/-12	-11.93/-18.28	-9.38/-11.0	-10.55/-8.46	-6.5/-8.15	-10.96/-6.67	-8.31/-6.6	-2.57/-3.58	-8.88/-6.48	-3.56/-6.52	-5.74/-5.22	-3.12/-5.28	-8.41/-6.42	-10.1/-9.44</	



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

Appendix A

Θ (112.5°)	-7.32/-7.39	-13.95/-7.03	-11.59/-11.88	-14.41/-12.1	-14.36/-14.54	-11.25/-14.46	-11.21/-11.15	-10/-8.95	-9.36/-10.6	-11.01/-12.81	-17.15/-17.33	-18.02/-16.84	-18.25/-18.08	-14.47/-15.24	-14.07/-13.83	-14.66/-13.37	-19.02/-18.93	-13.96/-11.89	-9.51/-15.74	-18.77/-16.07	-19/-19.04	-9.43/-5.94	-9.88/-12.34	-7.87/-7.13
Θ (120°)	-8.1/-9.1	-17.36/-7.87	-10.82/-15.33	-13.47/-18.8	-18.04/-13.05	-11.48/-13.94	-10.17/-9.89	-11.05/-9.02	-8.85/-12.2	-12.62/-17.63	-18.84/-15.83	-18.91/-16.33	-15.46/-17.58	-13.46/-11.7	-16.08/-12.97	-14.19/-14.36	-13.84/-14.33	-16.44/-15.18	-12.24/-18.66	-14.28/-10.54	-18.34/-18.58	-11.38/-9.18	-8.84/-11.19	-8.26/-7.85
Θ (127.5°)	-8.84/-11.44	-18.58/-9.01	-12.22/-18.07	-17.21/-19.14	-17.76/-13.15	-8.6/-14.75	-9.87/-8.9	-10.34/-9.93	-11.37/-12.24	-13.95/-16.59	-17.83/-19.24	-15.66/-15.33	-19.37/-16.38	-14.06/-17.54	-17.27/-12.74	-17.93/-14.19	-16.22/-13.17	-10.28/-9.08	-12.55/-17.73	-15.2/-9.94	-9.46/-11.51	-12.55/-11.65	-17.02/-11.92	-12.8/-14.81
Θ (135°)	-11.73/-16.77	-16.59/-12.56	-15.23/-19.22	-16/-16.22	-13.3/-15.76	-14.17/-15.42	-15.09/-11.77	-11.32/-10.03	-12.55/-17.48	-18.82/-18.57	-18.56/-18.31	-16.53/-18.95	-18.5/-15.6	-16.02/-17.7	-18.54/-19.22	-11.04/-13.47	-14.59/-17.05	-12/-9.58	-13.19/-11.94	-12.85/-13.19	-12.54/-11.7	-13.18/-12.94	-14.94/-16.91	-13.26/-17.71
Θ (142.5°)	-11.14/-14.42	-18.44/-16.65	-16.56/-18.4	-16.85/-12.82	-12.86/-18.81	-17.47/-12.15	-14.69/-17.96	-18.13/-18.19	-17.94/-15.56	-17.36/-17.87	-16.35/-18.02	-17.24/-18.37	-19.06/-19.16	-18.81/-15.96	-16.94/-14.76	-15.2/-15.67	-12.22/-10.74	-7.89/-10.48	-18.09/-14.72	-14.19/-13.96	-14.79/-13.22	-14.02/-13.17	-9.32/-11.08	-18.51/-16.01
Θ (150°)	-15.56/-11.9	-13.84/-17.72	-19.85/-18.81	-17.49/-15.27	-14.12/-16.59	-15.96/-17.5	-19.18/-17.41	-15.58/-15.08	-18.62/-18.88	-17.26/-17.7	-18.44/-15.99	-14.22/-14.38	-14.83/-15	-16.72/-15.6	-15.83/-15.66	-15.46/-13.62	-11.95/-14.22	-17.51/-14.52	-10.36/-9.42	-11.26/-18.7	-18.15/-13.76	-10.75/-10.82	-15.11/-18.54	
Θ (157.5°)	-17.96/-14.26	-15.11/-19.24	-17.52/-18.85	-18.73/-19.63	-17.74/-18.25	-18.25/-16.87	-15.62/-19.21	-17.88/-18.87	-18.5/-18.22	-19.12/-18.51	-16.1/-14.93	-15.48/-16.89	-18.81/-18.11	-18.16/-16.82	-14.23/-13.38	-13.56/-14.25	-12.95/-11.01	-10.54/-12.54	-18.25/-18.56	-12.16/-11.06	-12.41/-15.81	-18.34/-18.02	-16.29/-12.99	-14.63/-17.88
Θ (165°)	-18.26/-18.68	-15.12/-15.33	-15.91/-17.4	-17.27/-16.05	-15.84/-16.06	-15.82/-17.82	-19.15/-17.95	-18.8/-16.73	-14.65/-14.29	-14.46/-13.89	-13.23/-13.04	-14/-15.46	-17.23/-18.81	-17.56/-17.17	-15.59/-13.75	-12.12/-10.96	-10.69/-10.92	-12.53/-17.22	-17.56/-18.62	-16.1/-14.12	-12.77/-12.7	-12.32/-13.37	-14.56/-15.06	-19.44/-18.7
Θ (172.5°)	-18.2/-19.1	-16.5/-15.53	-14.83/-14.84	-14.77/-14.63	-13.7/-13.23	-13.46/-14.32	-14.42/-13.32	-12.27/-11.91	-12.11/-12.06	-12.53/-12.86	-12.88/-13.5	-15/-17.34	-18.8/-19.08	-18.06/-16.52	-15.48/-14.6	-14.77/-15.72	-17.4/-17.7	-19.15/-17.88	-18.03/-18.62	-16.42/-14.66	-14.15/-14.15	-14.83/-16.73	-19.44/-17.78	-18.06/-17.79
Θ (180°)	-19.46/-18.69	-18.18/-18.5	-17.65/-19.23	-16.9/-15.65	-14.54/-15.15	-15.87/-17.37	-18.83/-17.41	-18.14/-17.6	-19.09/-18.3	-18.91/-19.05	-17.82/-18.87	-18.66/-18.45	-18.21/-17.94	-18.88/-19.36	-18.24/-19.03	-17.64/-17.67	-19.12/-18.63	-19.18/-18.61	-18.07/-18.62	-17.59/-18.28	-16.81/-15.87	-14.66/-13.88	-13.09/-13.36	-14.91/-17.78
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°)	-17.44/-15.17	-12.96/-10.59	-8.32/-6.93	-6.56/-6.29	-6.23/-5.55	-4.81/-5.1	-5.69/-6.31	-6.96/-7.61	-9.33/-12.4	-13.76/-13.29	-13.14/-12.05	-10.01/-8.31	-7.37/-6.35	-5.21/-4.65	-4.31/-4.31	-4.46/-4.71	-4.73/-4.73	-4.87/-5.21	-5.56/-5.89	-6.56/-7.26	-8.41/-9.53	-11.11/-13.21	-15.35/-17.46	-18.83/-17.68
Θ (7.5°)	-11.51/-11.74	-11.32/-11.57	-12.13/-11.57	-11/-10.1	-10.34/-9.43	-8.04/-8.29	-9.28/-11.14	-11.65/-11.97	-13.86/-17.75	-14.16/-9.84	-7.56/-5.73	-4.05/-2.75	-2.17/-1.91	-1.82/-1.95	-2.24/-2.77	-3.49/-4.1	4.51/-4.46	4.43/-4.68	-5.06/-5.49	-5.96/-6.74	-7.53/-8.07	-8.38/-8.71	-8.92/-8.78	-9.4/-10.48
Θ (15°)	-12.14/-15.5	-17.21/-15.4	-14.1/-11.7	-9.71/-8.74	-8.77/-9.15	-8.15/-9.15	-10.51/-13.28	-11.12/-8.8	-13.38/-13.04	-11.12/-8.8	-6.87/-4.96	-3.34/-2.36	-1.99/-1.93	-2.24/-2.9	-3.74/-4.74	-5.8/-6.53	-6.23/-5.29	-4.84/-4.91	-5.55/-5.91	-6.33/-6.44	-6.57/-6.27	-6.47/-7.08	-7.67/-7.89	-8.05/-9.93
Θ (22.5°)	-4.42/-5.9	-8.33/-11.39	-16.35/-18.62	-18.81/-11.9	-8.7/-6.95	-5.73/-4.85	-5.01/-6.48	-7.83/-8.16	-7.76/-7.15	-5.84/-4.66	-3.77/-2.9	-2.41/-2.3	-1.74/-1.09	-0.67/-0.67	-1.18/-2.44	-4.42/-6.66	-5.96/-3.92	-2.73/-2.88	-3.29/-3.46	-3.11/-2.73	-2.67/-3.05	-3.83/-4.91	-6.09/-6.23	-5.24/-4.42
Θ (30°)	-4.13/-2.51	-3.3/-3.53	-4.7/-7.22	-11.31/-17.2	-7.82/-2.59	-4.08/-3.2	-2.67/-4.29	-5.34/-5.31	-4.92/-5.3	-4.5/-3.12	-2.43/-2.12	-2.18/-2.03	-1.17/-1.05	-0.29/-0.09	-0.04/-0.2	-0.81/-1.93	-2.4/-1.88	-1.43/-1.55	-1.92/-0.27	-1.74/-1.03	-0.41/-3.3	-1.42/-3.28	-4.91/-5.45	-2.67/-1.95
Θ (37.5°)	-2.33/-4.43	-3.53/-3.88	-4.48/-5.6	-6.11/-6.99	-6.31/-5.06	-3.81/-2.92	-3.02/-3.3	-3.45/-2.49	-2.80/-2.99	-2.87/-1.97	-2.37/-3.26	-3.33/-2.01	-0.83/-0.48	-1.56/-1.73	-3.16/-1.08	-0.63/-0.48	-0.8/-1.06	-0.84/-0.94	-1.97/-2.61	-2.12/-1.88	-0.94/-0.44	0.84/-0.38	-2.03/-2.88	-2.72/-1.99
Θ (45°)	-4.96/-4.78	-7.05/-7.63	-9.29/-8.2	-5.02/-5.72	-5.04/-3.9	-3.09/-2.67	-1.98/-1.44	-1.02/-0.52	-0.36/-1.74	-2.56/-1.64	-2.94/-4.28	-2.32/-0.33	0.58/0.91	0.37/0.31	-0.27/-1.44	-1.92/-1.52	-1.35/-0.97	-0.58/-0.72	-2.1/-3.42	-3.31/-3.86	-3.3/-0.35	1.31/0.5	0.16/-0.86	-3.32/-5.22
Θ (52.5°)	-5.65/-1.93	-2.04/-3.92	-6.88/-5.56	-1.52/-2.79	-2.9/-2.28	-1.86/-1.83	-1.16/-0.17	0.28/0.54	0.39/-1.3	-2.02/-1.92	-4.42/-4.02	-0.49/-1.24	1.522/0.4	2.11/1.71	1.96/0.47	-1.57/-2.76	-2.35/-1.1	-0.69/-0.55	-1.79/-13.4	-3.11/-3.85	-4.91/-1.35	0.97/0.91	0.78/0.38	-1.94/-5.84
Θ (60°)	-5.76/-0.62	0.51/0	-3.32/-2.51	0.61/-0.03	-1.45/-1.9	-1.12/-0.89	0.14/-0.2	0.14/0.2	0.26/-0.85	-1.38/-1.76	-4.72/-3.44	-2.40/-0.15	1.592/0.08	2.44/-1.74	1.91/0.9	-0.67/-2.47	-3.2/-1.71	-1.18/-1.5	-2.03/-3.56	-4.84/-0.84	1.78/0.98	1.18/0.57	-0.96/-5.57	
Θ (67.5°)	-8.52/-0.93	0.69/1.57	-1.98/-0.97	0.63/1.21	-2.14/-2.74	-1.47/-1.16	-1.23/-0.58	-0.66/-1.24	-0.59/-1.39	-1.65/-2.97	-6.05/-3.04	-0.92/-0.89	0.10/0.5	0.78/0.34	0.95/0.21	-1/-2.98	-3.07/-1.22	-1.2/-0.74	-0.95/-1.19	-2.09/-2.85	-3.76/-0.01	2.493/0.08	1.11/0.8	0.1/-5.08
Θ (75°)	-11.28/-21.4	-0.51/-1.97	-1.84/-0.99	-0.98/-0.97	-3.47/-3.63	-3.09/-1.83	-2.3/-1.77	-1.86/-3.08	-1.82/-1.91	-1.79/-3.62	-6.38/-3.86	-1.73/-2.75	-1.46/-0.01	-0.95/-1.09	-1.2/-1.99	-1.91/-2.69	-2.44/-1.22	-1.61/-1.31	-0.62/-0.56	-2.24/-2.21	-2.94/-0.13	2.43/-1.57	-0.15/-0.51	0.03/-2.46
Θ (82.5°)	-15.78/-4.08	-2.81/0.9	-2.49/-0.93	-0.28/0.7	-6.71/-5.17	-3.8/-2.58	-3.61/-0.39	-3.61/-4.72	-2.94/-3.55	-2.55/-4.99	-6.81/-4.41	-2.5/-0.48	-2.5/-0.73	-2.16/-1.77	-2.45/-1.48	-3.05/-3.13	-2.49/-1.61	-2.5/-1.35	-0.32/-1.02	-3.02/-2.25	1.50/0.9	-2.32/-2.52	-1.26/-4.25	
Θ (90°)	-17.03/-7.55	-7.68/-1.44	-4.39/-1.7	-4.78/-2.14	-9.33/-7.63	-7.03/-4.39	-5.01/-4.27	-4.35/-6.43	-4.62/-5.62	-4.22/-6.12	-8.3/-6.63	-4.68/-4.88	-3.71/-2.13	-2.98/-2.44	-3.57/-5.06	-5.64/-3.97	-4.4/-3.04	-3.97/-2.97	-2.55/-2.52	-4.86/-3.64	-4.29/-1.64	-0.62/-2.03	-4.1/-3.93	-2.5/-4.07
Θ (97.5°)	-15.17/-9.5	-10.45/-5.41	-7.23/-4	-7.35/-4.73	-10.98/-8.43	-8.09/-5.24	-6.2/-6.65	-5.46/-7.42	-6.21/-7.17	-5.94/-7.7	-7.22/-5.84	-4.37/-3.06	-3.97/-4.08	-5.19/-6.45	-8.32/-6.24	-7.18/-4.96	-5.85/-5.64	-6.16/-5.91	-7.63/-6	-7.16/-3.84	-4.57/-5.96	-9.21/-7.46	-3.8/-4.72	
Θ (105°)	-18.79/-14.24	-11.16/-9.08	-9.45/-6.35	-6.14/-8.22	-13.69/-9.28	-8.44/-5.86	-7.54/-9.07	-6.29/-9.45	-3.73/-6.9	-8.24/-10.16	-10.15/-10.97	-10.05/-7.98	-5.44/-6.64	-5.22/-6.57	-6/-6.88	-9.03/-10.12	-12.38/-9.92	-13.2/-10.06	-12.07/-8.07	-9.94/-11.82	-12.27/-11.14	-6.12/-6.83		
Θ (112.5°)	-18.32/-16.6	-10.24/-9.24	-9.4/-8.67	-5.67/-8.42	-14.4/-12.65	-10.59/-8.22	-8.93/-10.7	-9.68/-11.84	-10.65/-12.16	-13.12/-9.52	-10.89/-12.35	-11.18/-8.36	-5.81/-5.48	-7.73/-9.28	-10.71/-8.64	-9.52/-9.89	-7.28/-7.59	-8.11/-15.76	-10.68/-11.35	-14.69/-9.68	-12.07/-10.82	-9.21/-14.05	-18.36/-13.42	-7.38/-11.52
Θ (120°)	-14.98/-17.29	-10.97/-9.53	-6.31/-8.93	-7.27/-7.17	-15.16/-52	-15.2/-13.62	-13.24/-12.86	-13.09/-16.53	-13.53/-15.77	-18.85/-13.33	-14.17/-10.38	-14.68/-11.52	-8.17/-8.37	-9.51/-15.62	-10.58/-7.79	-8.55/-18.67	-6.75/-9.54	-6.42/-12.43	-7.36/-10.43	-13.86/-9.04	-10.12/-8.49	-7/-10.41	-9.5/-8.7	-8.42/-11.46
Θ (127.5°)	-14.51/-19.07	-11.7/-9.23	-7.14/-8.3	-18.73/-13.4	-18.69/-17.49	-15.69/-12.24	-11.61/-14.34	-17.95/-18.1	-18.17/-17.31	-18.98/-17.36	-16.26/-16.51	-9.57/-9.13	-11.26/-4.59	-7.78/-13.5	-9.19/-10.53	-9.89/-13.63	-10.69/-10.46	-9.33/-9.79	-7.32/-11.79	-15.98/-14.01	-12.34/-12.29	-9.22/-14.76	-15.68/-11.08	-8.29/-9.22
Θ (135°)	-18.94/-18.27	-17.61/-11.02	-8.44/-9.49	-15.48/-18.8	-18.17/-18.31	-18.48/-13.05	-12.3/-14.9	-19.34/-18.16	-18.97/-17.97	-18.8/-17.24	-19.19/-18.85	-12.37/-15.14	-10.19/-17.04	-11.56/-15.72	-18.91/-12.28	-17.06/-15.03	-18.11/-12.29	-12.08/-15.57	-13.48/-17.4	-15/-19.19	-15.2/-19.29	-11.83/-16.61	-17.38/-18.6	-10.58/-10.94
Θ (142.5°)	-17.65/-18.55	-17.99/-18.63	-13.01/-10.81	-11.36/-16.14	-18.57/-16.81	-13.58/-14.84	-17.57/-15.87	-16.01/-18.95	-17.93/-17.44	-17.08/-16.29	-15.67/-12.74	-14/-14.25	-11.65/-11.09	-12.86/-15.46	-12.86/-11.71	-15.93/-18.82	-18.24/-13.14	-16.92/-17.51	-14.5/-16.61	-17.54/-17.53	-15.19/-17.48	-14.57/-13.02	-15.79/-17.46	-18.45/-18.83
Θ (150°)	-18.55/-19.07	-16.01/-14.05	-14.02/-14.87	-16.17/-14.94	-18.39/-13.78	-11.82/-12.42	-17.89/-18.7	-13.78/-16.47	-19.05/-18.98	-19.16/-18.91	-17.98/-19.47	-16.07/-12.92	-10.84/-10.5	-13.24/-15.85	-17.34/-18.85	-17.85/-18.87	-19.13/-18.59	-18.02/-18.83	-19.05/-17.56	-19.22/-16.53	-14.07/-13.54	-15.58/-18.54	-18.05/-17.79	-18.97/-17.87
Θ (157.5°)	-19.11/-19.25	-18.36/-18.04	-18.74/-18.15	-19.04/-17.96	-17.5/-14.96	-15.75/-18.3	-17.8/-18	-19.36/-18.31	-17.76/-17.88	-17.53/-18.5	-17.98/-18.9	-14.66/-12.84	-10.84/-14.1	-16.91/-17.67	-18.0									



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

Appendix A

Θ(157.5°)	-13.75/-11.43	-12.88/-17.62	-18.51/-19.08	-15.81/-14.72	-16.37/-18.37	-17.86/-17.94	-18.4/-15.38	-13.65/-14.4	-17.61/-18.92	-17.07/-15.08	-14.48/-14.4	-15.85/-18.48	-17.53/-18.94	-18.79/-16.49	-13.85/-12.23	-12.12/-12.77	-12.18/-10.5	-9.61/-9.95	-10.99/-13.99	-16.49/-14.42	-13.26/-12.02	-12.32/-13.01	-12.77/-14.31	-17.54/-18.28
Θ(165°)	-17.06/-17.78	-18.75/-17.59	-18.46/-17.53	-15.69/-16.67	-18.19/-17.65	-18.32/-17.24	-18.71/-16.25	-14.34/-15.63	-17.66/-18.99	-17.78/-16.4	-13.2/-12.33	-13.13/-15.03	-17.48/-16.81	-14.76/-14.04	-13.75/-13.83	-13.46/-11.11	-9.39/-8.59	-8.68/-9.76	-12.07/-17.41	-18.27/-18.08	-15.08/-12.66	-10.7/-10.59	-11.48/-14.48	-17.61/-18.59
Θ(172.5°)	-18.26/-18.82	-18.67/-18.71	-18.48/-19.13	-17.74/-18.78	-19.1/-18.96	-18.64/-18.01	-15.69/-13.58	-11.27/-11.35	-12.45/-12.96	-14.22/-14.03	-14/-14.51	-16.54/-19	-18.79/-18.52	-18.11/-15.25	-14.43/-14.91	-14.75/-13.7	-12.88/-12.94	-13/-14.64	-17.91/-18.51	-19.08/-18.92	-16.56/-14.77	-14.06/-14.86	-18.01/-18.34	-18.92/-17.51
Θ(180°)	-14.64/-18.48	-18.68/-18.99	-18.12/-19.81	-17.6/-15.94	-15.67/-13.98	-13.61/-15.16	-14.29/-14.73	-15.87/-18.58	-19.15/-18.94	-18.44/-18.57	-18.51/-18.32	-17.16/-17.25	-16.89/-16.63	-17.54/-19.24	-18.98/-18.15	-18.19/-18.73	-18.6/-18.45	-17.39/-17.34	-18.31/-18.15	-19.83/-19.03	-16.15/-14.25	-12.49/-11.27	-9.98/-9.26	-10.13/-12.2
Freq(Hz)	5.6G(Pol.	Theta/Ant. 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°)	-6.48/-5.83	-5.43/-5.28	-4.69/-4.05	-3.86/-3.73	-4.11/-4.71	-5.22/-5.53	-6.7/-8.33	-10.56/-12.83	-14.81/-14.6	-13.5/-12.4	-10.93/-9.32	-8.37/-7.59	-7.03/-6.81	-6.6/-6.62	-6.46/-6.38	-6.29/-6.44	-6.6/-7.03	-7.81/-8.81	-10.12/-11.58	-13.27/-15.98	-18.1/-18.3	-19.23/-18.11	-14.09/-11.99	-9.79/-7.91
Θ(7.5°)	-19.04/-17.17	-15.35/-13.06	-10.73/-8.23	-6.19/-5.02	-4.53/-4.53	-5.37/-6.14	-6.9/-8.35	-10.61/-11.59	-11.77/-10.24	-8.47/-6.81	-5.6/-4.68	-3.66/-2.96	-3.03/-3.31	-3.39/-3.22	-3.57/-4.27	-5.49/-6.63	-7.75/-8.83	-9.91/-11.49	-12.64/-13.39	-14.17/-15.1	-15.77/-15.92	-17.36/-19.32	-17.35/-18.4	-18.47/-19.26
Θ(15°)	-11.99/-12.71	-12.45/-11.8	-10.61/-8.94	-7.58/-6.28	-5.89/-6.14	-6.53/-6.99	-7.3/-6.97	-7.01/-7.04	-6.5/-5.56	-4.34/-3.41	-2.57/-1.84	-1.42/-1.05	-0.89/-0.73	-0.4/-0.09	-0.02/-0.12	-0.48/-1.18	-2.38/-3.96	-5.86/-7.84	-9.25/-9.13	-8.94/-9.39	-9.81/-9.94	-9.57/-9.63	-9.85/-9.91	-10.45/-11.85
Θ(22.5°)	-10.58/-12.89	-15.42/-17.98	-15.51/-9.37	-6.5/-4.97	-4.21/-3.42	-3.02/-3.39	-4.03/-3.87	-3.28/-2.59	-2.04/-1.55	-1.44/-1.69	-1.95/-2.58	-3.31/-3.57	-3.17/-2.2	-1.3/-0.55	-0.030/0.7	-0.15/-0.41	-0.83/-1.54	-2.84/-4.54	-6.45/-7.73	-7.39/-6.76	-6.67/-6.18	-5.35/-4.29	-4.13/-5.09	-7.37/-9.21
Θ(30°)	-2.29/-3.68	-4.78/-4.69	-6.37/-11.27	-12.01/-7.18	-3.72/-1.33	-0.94/-1.62	-2.61/-2.94	-2.39/-1.61	-1.54/-1.52	-1.27/-1.7	-2.6/-2.48	-1.42/-0.41	0.64/1.43	1.75/1.9	2.1/1.56	0.60/0.26	-0.070/-1.4	0.54/-0.17	-2.25/-4.08	-3.76/-3.39	-3.04/-2.43	-1.4/-1.46	-3.24/-5.61	-5.07/-3.01
Θ(37.5°)	-1.1/-3.44	-4.18/-3	-2.68/-2.49	-3.19/-3.78	-2.84/-1.17	-1.07/-2.33	-2.99/-3.35	-2.08/-0.87	-1.38/-2.21	-1.76/-2.26	-2.36/-0.23	1.69/2.26	2.51/3.21	3.48/3.27	3.42/2.8	1.71/0.8	-0.23/-0.04	0.0/3	0.7/-0.03	-0.79/-0.3	-0.130	1.55/1.97	-0.52/-3.7	-3.04/-0.95
Θ(45°)	-0.75/-3	-6.96/-8	-6.15/-2.28	-2.15/-1.96	-1.05/-0.15	-0.94/-2.37	-2.21/-2.43	-2.32/-0.58	-0.69/-2.05	-2.07/-2.37	-1.520/-2.1	1.36/1.26	1.23/2.02	2.78/2.68	3.15/3.08	1.75/1.08	0.18/0.16	-0.28/-0.16	0.75/0.82	0.43/0.76	0.87/0.23	1.39/2.7	1.50/6.8	-0.25/-0.78
Θ(52.5°)	-0.280/-41	-1.38/-3.64	-10.57/-2.82	-0.8/-0.03	-0.2/-0.1	-1.76/-2.85	-1.37/-1.07	-2.29/-3.06	0.57/-0.19	-1.29/-2.1	-0.39/0.54	0.25/-0.18	1.08/1.79	2.12/2.48	2.44/2.6	1.69/2.1	0.19/0.97	0.78/-0.35	0.31/1.2	0.62/0.73	0.75/-1.71	1.04/3.23	2.92/2.58	1.34/-1.32
Θ(60°)	-0.42/1	10.14	-4.53/-0.23	1.62/1.02	-0.37/-0.42	-2.19/-0.35	-1.44/-0.15	-1.72/-0.3	1.17/0.36	-1.52/-2.12	-0.34/-0.6	-1.54/-0.18	1.27/1.87	1.92/1.96	1.02/1.18	0.84/2.43	0.37/1.21	1.97/0.32	-0.13/1.58	1.04/0.58	1.18/-0.81	2.424/1.7	3.38/2.83	1.13/-2.38
Θ(67.5°)	-1.39/-0.12	1.58/1.28	-2.65/0.5	3.33/2.05	-1.32/-2.35	-4.73/-4.57	-2.02/-0.99	-2.04/0.25	1.01/-0.13	-1.68/-1.11	-0.26/-2.39	-3.08/0.75	1.61/1.62	1.53/1.4	0.66/0.06	-0.142/1.1	0.04/1.23	2.2/0.1	-1.59/1.8	1.08/0.51	1.94/0.96	3.95/4.68	2.74/1.89	0.1/-4.63
Θ(75°)	-4.16/-2.27	0.07/0.95	-2.29/-0.18	3.12/1.5	-3.87/-4.75	-6.05/-5.46	-2.33/-1.81	-2.77/-0.1	0.57/-1.77	-3.4/-1.76	-1.21/-3.01	-4.13/0.47	1.30/93	0.63/0.03	0.28/-1.09	-2.19/1.5	0.32/1.45	2.84/0.55	-2.87/0.61	-0.36/-0.35	2.15/2.26	4.68/3.63	1.89/0.12	-0.6/-6.07
Θ(82.5°)	-7.74/-3.88	-2.39/-0.52	-3.5/-2.41	2.43/-1.53	-5.37/-6.48	-7.06/-7.13	-3.65/-2.77	-3.68/-1.65	-0.73/-4.07	-5.28/-1.73	-2.73/-3.52	-3.42/0.48	-0.45/0.08	-1.38/-0.9	-2.14/-2.16	-3.02/-3.32	0.21/3.7	2.94/0.22	-4.27/-1.52	-2.89/-0.97	1.6/2.5	4.48/3.69	0.26/-1.81	-1.88/-4.17
Θ(90°)	-9.9/-4.41	-6.9/-1.87	4.45/-4.48	-0.79/-3.92	-6.78/-8.41	-8.11/-7.68	-5.06/-4.83	-5.21/-3.48	-2.56/-4.6	-7.59/-2.12	-3.31/-4.58	-5.38/-0.25	-1.93/-0.05	-3.21/-2.79	-1.19/-4.8	-5.83/-2.91	-2.09/-0.9	0.95/-0.19	-5.4/-2.62	-5.04/-4.6	-0.81/0.49	2.48/1.14	-2.17/-4.59	-4.1/-2.84
Θ(97.5°)	-9.47/-5.42	-12.16/-4.48	-7.11/-6.11	-3.71/-7.22	-8.66/-9.78	-8.81/-9.21	-5.76/-5.01	-6.23/-6.45	-4.74/-7.15	-7.47/-1.22	-5.03/-4.8	-6.32/-2.03	-4.6/-2.02	-5.85/-3.26	-2.46/-4.45	-7.01/-7.1	-5.4/-2.6	-1.88/-3.45	-8.7/-5.49	-7.35/-2.83	-1.2/-2.19	-5.84/-5.94	-5.57/-2.23	
Θ(105°)	-10.05/-7.62	-12.14/-6.59	-9.23/-6.63	-6.85/-9.9	-9.41/-10.21	-9.34/-11.04	-8.37/-7.01	-7.59/-5.86	-5.71/-2.95	-5.09/-4.23	-5.66/-4.94	-2.74/-5	-7.96/-12.13	-8.29/-5.48	-5.16/-17	-7.96/-12.13	-8.29/-5.48	-5.16/-17	-7.96/-12.13	-8.29/-5.48	-5.16/-17	-7.96/-12.13	-8.29/-5.48	-5.16/-17
Θ(112.5°)	-17.03/-11.17	-9.81/-8.21	-9.7/-6.23	-4.11/-6.65	-14.95/-13.88	-10.93/-10.31	-8.6/-8.6	-9.35/-7.07	-8.26/-11.55	-8.49/-9.13	-10.05/-10.38	-6.04/-3.69	-3.88/-4.95	-5.67/-6.64	-4.34/-5.96	-8.85/-12.69	-8.6/-6.51	-4.72/-5.54	-10.36/-6.64	-7.02/-13.19	-10.03/-6.31	-7.85/-7.19	-9.1/-15.45	-9.47/-6.61
Θ(120°)	-18.83/-10.08	-8.04/-6.55	-6.03/-7.8	-5.36/-8.49	-14.75/-18.55	-18.51/-17.32	-13.12/-9.11	-13.85/-10.94	-8.67/-17.76	-10.56/-9.14	-11.28/-15.15	-8.77/-5.86	-5.42/-67	-5.96/-9.53	-7.47/-6.85	-9.63/-10.87	-10.32/-7.38	-4.89/-7.94	-11.61/-7.84	-7.8/-10.53	-7.95/-8.41	-5.42/-7.42	-18.88/-14.84	-18.98/-12.85
Θ(127.5°)	-9.21/-10.49	-7.76/-2.91	-5.68/-11.73	-12.64/-11.75	-17.52/-18.33	-16.57/-14.13	-16.85/-13.08	-12.88/-18.93	-14.57/-18.62	-13.94/-8.74	-9.26/-9.35	-13.54/-9.27	-8.45/-10.81	-11.16/-17.57	-8.35/-7.55	-6.81/-9.46	-7.78/-9.12	-4.41/-17.06	-10.82/-8.75	-12.51/-18.4	-19.27/-15.51	-18.48/-17.97	-13.34/-13.67	
Θ(135°)	-11.11/-17.07	-15.04/-8.23	-6.15/-8.72	-15.66/-19.01	-19.46/-18.33	-19.32/-13.54	-14.74/-18.6	-17.4/-16.8	-18.28/-18.32	-18.13/-18.28	-14.61/-12.58	-9.1/-6.61	-10.84/-7.92	-8.01/-11.4	-7.82/-10.09	-8.66/-18.6	-9.73/-10.61	-6.98/-18.5	-11.97/-8.32	-8.17/-14	-18.48/-18.57	-12.04/-9.21	-12.08/-12.19	-17.88/-12.01
Θ(142.5°)	-18.06/-14.3	-14.24/-15.72	-10.73/-12.71	-14.02/-17.88	-17.02/-11.26	-11.91/-15.08	-13.44/-14.7	-18.9/-18.05	-17.34/-18.26	-15.16/-14.23	-17.63/-18.93	-13.58/-11.84	-9.96/-9.11	-12.36/-14.42	-14.98/-18.69	-17.96/-18.32	-18.3/-10.28	-10.95/-13.28	-12.27/-11.11	-13.62/-15.62	-17.95/-14.68	-11.29/-18.94	-16.98/-12.85	-12.74/-18.21
Θ(150°)	-12.9/-12.57	-13.87/-14.49	-15.25/-18.04	-19.07/-17.51	-16/-12.59	-14.23/-17.74	-19.09/-15.16	-15.75/-19.69	-17.14/-18.32	-17.66/-18.56	-19.19/-18.46	-18.4/-17.83	-18.6/-16.43	-17.62/-13.02	-12.65/-15.88	-17.4/-16.69	-17.59/-17.76	-17.59/-17.76	-17.59/-17.76	-17.59/-17.76	-17.59/-17.76	-17.59/-17.76	-17.59/-17.76	-17.59/-17.76
Θ(157.5°)	-17.54/-15.43	-13.2/-13.89	-15.13/-14.17	-13.59/-13.04	-11.39/-10.29	-9.55/-10.67	-13.96/-17.81	-18.34/-17.77	-17.83/-18.82	-19.02/-18.47	-18.06/-13.63	-11.21/-9.87	-10.01/-11.81	-15.32/-18.07	-17.91/-18.48	-18.35/-16.35	-13.73/-13.09	-12.84/-12.31	-12.87/-15.33	-18.9/-18	-17.93/-18.14	-18.66/-17.05	-17.03/-18.13	-19.65/-16.78
Θ(165°)	-14.59/-13.32	-14.41/-17.72	-17.56/-16.74	-16.13/-17.94	-18.22/-17.33	-16.49/-16.41	-17.31/-18.91	-17.21/-18	-19.27/-16.99	-17.75/-17.14	-17.66/-13.3	-17.84/-16.04	-13.65/-11.81	-11.47/-12.82	-13.87/-13.45	-12.14/-11.66	-12.46/-14.18	-16.21/-18.22	-19.22/-18.38	-15.38/-14.85	-15.12/-17.19	-18.5/-18.53	-16.56/-15.84	-14.81/-14.63
Θ(172.5°)	-18.84/-19.19	-17.54/-18.8	-18.92/-18.42	-19.84/-16.51	-13.22/-12.39	-11.92/-12.6	-13.15/-14.8	-17.82/-17.75	-17.26/-18.03	-17.38/-14.98	-13.27/-12.2	-12.19/-12.11	-11.9/-11.81	-12.21/-13.7	-15.17/-16.68	-18.44/-17.25	-18.94/-18.68	-16.98/-15.73	-14.83/-15.14	-15.86/-17.18	-18.79/-18.3	-18.58/-17.99	-18.48/-15.95	-16.32/-18.97
Θ(180°)	-14.36/-13.16	-12.51/-12.63	-13.59/-14.71	-15.53/-16.34	-16.16/-16.84	-18.51/-18.48	-18.59/-18.69	-18.56/-18.69	-16.59/-15.57	-15.23/-15.19	-15.35/-14.79	-18.51/-17.94	-18.45/-18.6	-18.94/-18.68	-18.96/-19.54	-18.47/-19.23	-17.42/-17.13	-16.28/-15.96	-15.62/-15.98	-18.11/-17.8	-18.5/-18.82	-18.72/-18.22	-19.14/-14.3	
Freq(Hz)	5.785G(Pol.	Phi/Ant. 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°)	-13.73/-14.47	-15.33/-16.13	-19.53/-18.06	-18.54/-18.29	-16.4/-13.78	-10.43/-8.7	-7.93/-7.03	-6.12/-5.52	-5.41/-5.28	-5.38/-5.88	-6.8/-7.83	-9.62/-12.36	-14.56/-16.93	-17.54/-17.56	-18.52/-16.73	-13.83/-12.84	-13.7/-13.19	-12.14/-10.65	-9.19/-8.28	-8.21/-8.04	-8.00/-7.95	-8.17/-8.17	-8.8	



Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	4.33	4.54	4.06	4.61
Ant. 2 Max Gain (dBi)	4.03	4.46	4.39	4.53
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/67.5/322.5	Theta/45/337.5	Theta/52.5/330	Theta/60/210
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/52.5/120	Theta/52.5/127.5	Theta/60/337.5	Theta/60/330
Max Gain (dBi)	4.33	4.54	4.39	4.61
DG [1SS] (dBi)	6.72	6.5	6.87	6.83
DG [2SS] (dBi)	4.33	4.54	4.39	4.61

DG 1SS Result

Freq(Hz)	6.175GPa		PhiL																									
DGI(0B)	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(0B)	-5.69/-6.37	-7.4/-8.84	-8.73/-8.51	-10.73/-13.5	-11.49/-9.46	-9.96/-10.75	-9.87/-8.63	-6.43/-4.8	-4.1/-3.93	-4.03/-4.18	-4.13/-3.83	-3.96/-4.18	-4.86/-5.57	-5.96/-6.44	-6.98/-7.62	-8.96/-8.86	-9.46/-9.3	-11.77/-12	-6.55/-6.1	-5.74/-5.92	-6.09/-5.55	-4.75/-4.61	-4.95/-5.06	-5.39/-5.81				
Θ(7.5°)	-9.78/-9.54	-9.4/-9.69	-9.09/-7.75	-8.5/-8.64	-10.25/-11.49	-12.34/-11.36	-9.44/-8.43	-6.45/-4.96	-4.5/-4.97	-5.46/-6.66	-5.37/-4.98	-4.8/-5.01	-5.27/-5.42	-5.57/-6.18	-7.36/-7.83	-8.38/-8.4	-8.62/-7.98	-7.45/-5.67	-6.22/-5.98	-6.19/-7.81	-8.91/-8.68	-8.23/-8.3	-8.59/-9.4	-10.26/-10.48				
Θ(15°)	-13.57/-15.42	-15.44/-12.1	-8.89/-7.23	-7.58/-8.6	-9.91/-11.66	-12.4/-11.5	-10.08/-9.2	-7.98/-6.51	-5.33/-4.51	-4/-4.46	-5.76/-7.11	-8.59/-7.6	-10.35/-9.71	-9.69/-11.16	-12.46/-12.2	-11.77/-11.2	-10.15/-9.48	-9.92/-9.69	-7.69/-6.64	-6.64/-7.32	-8.08/-8.18	-8.77/-9.55	-9.45/-9.94	-11.04/-11.89				
Θ(22.5°)	-5.55/-6.39	-9.57/-11.72	-9.17/-9.95	-8.67/-9.9	-10.5/-8.71	-7.34/-8.95	-11.4/-10.91	-8.01/-5.99	-5.47/-3.32	-2.09/-1.45	-1.82/-2.83	-3.94/-6.02	-8.91/-11.61	-11.81/-9.8	-10.45/-12.05	-11.77/-11.9	-6.27/-5.8	-8.02/-9.31	-6.16/-3.55	-3.35/-4.77	-4.47/-4.07	-4.59/-6.11	-8.01/-9.43	-8.5/-6.22				
Θ(30°)	-3.84/-3.47	-4.97/-6.77	-6.81/-6.88	-8.37/-10.2	-8.79/-5.13	-5.07/-9.1	-12.75/-9.38	-7.55/-6.82	-5.71/-4.31	-2.76/-1.55	-1.44/-1.6	-1.03/-1.87	-4.02/-4.66	-9.67/-9.56	-10.42/-10.89	-9.06/-9.02	-4.22/-2.76	-5.33/-6.81	-4.3/-2.06	-2.18/-4.3	-6.19/-5.85	-5.09/-5.49	-6.5/-8.01	-7.4/-5.71				
Θ(37.5°)	-4.92/-4.81	-3.35/-3.71	-4.43/-5.76	-8.02/-10.38	-8.64/-7.71	-11/-15.47	-13.4/-7.97	-6.49/-6.49	-6.55/-6.61	-5.49/-2.2	-0.3/-0.26	-0.25/-2.25	-5.13/-9.4	-14.83/-10.79	-11.87/-13.57	-8.28/-5.85	-7.21/-6.73	-5.22/-4.31	-3.36/-4.65	-4.57/-4.87	-4.01/-3.48	-4.03/-5.02	-4.37/-4.65					
Θ(45°)	-3.89/-5.63	-4.13/-3.62	-3.9/-5.43	-10.54/-10.89	-9.19/-10.06	-11.91/-14.79	-12.65/-7.76	-6.79/-7.71	-6.78/-5	-5.75/-2.78	-1.09/-0.01	1.16/-1.39	2.44/-0.81	-2.92/-2.85	-7.23/-13.64	-11.72/-8.08	-6.71/-7.03	-8.18/-8	-11.78/-4.2	-3.49/-3.74	-3.25/-6.57	-5.93/-4.68	-3.74/-3.52	-2.38/-2.33				
Θ(52.5°)	-3.46/-6.77	-5.97/-5.41	-5.26/-9.12	-11.75/-10.53	-9.09/-9.52	-11.03/-14.55	-14.25/-8.16	-6.89/-10.71	-8.49/-5.43	-6.07/-2.73	-1.85/-0.05	0.63/-1.49	2.92/-1.8	-0.75/-1.06	-5.81/-9.89	-7.47/-5.89	-8.94/-7.91	-9.33/-4.83	-5.86/-4.82	-4.69/-4.24	-3.6/-6.79	-7.47/-6.71	-5.76/-5.08	-3.78/-3.01				
Θ(60°)	-3.66/-7.88	-8.47/-6.26	-7.03/-11.31	-10.96/-9.92	-9.98/-10.6	-10.46/-12.36	-14.47/-9.46	-7.8/-8.1	-11.54/-6.35	-6.22/-5.29	-5.48/-3.35	-1.79/-0.92	0.72/-0.79	-6.44/-11.57	-9.89/-5.48	-11.98/-10.14	-9.59/-9.22	-7.35/-9.09	-9.9/-6.74	-5.5/-10.29	-13.11/-11.54	-7.76/-5.08	-5.66/-3.56					
Θ(67.5°)	-6.5/-11.4	-11.28/-8	-8.24/-10.93	-9.91/-9.49	-9.99/-10.06	-9.95/-10.44	-11.52/-9.29	-9.87/-12.44	-14.48/-11.94	-10.41/-8.07	-9.97/-6.3	-6.42/-2.15	-0.54/-0.7	-0.37/-2.7	-6.89/-11.36	-11.06/-6.22	-9.89/-8.93	-8.41/-7.72	-6.94/-8.69	-9.9/-8.4	-9.07/-15.27	-10.37/-12.37	-7.96/-4.44	-6.72/-8.11				
Θ(75°)	-7.63/-11.61	-14.91/-9.66	-10.11/-10.02	-9.73/-10.58	-11.8/-10.71	-11.75/-10.46	-11.11/-9.71	-8.89/-10.45	-13.85/-11.64	-10.49/-9.48	-10.37/-14.65	-12.61/-5.62	-3.85/-1.01	-1.78/-3.79	-7.56/-12.66	-15.35/-9.97	-11.36/-15.79	-8.79/-9.16	-7.75/-6.89	-10.61/-11.32	-12.01/-14.04	-11.29/-5.85	-7.01/-3.98	-6.44/-11.06				
Θ(82.5°)	-10.79/-13.35	-13.55/-9.66	-12.22/-10.07	-9.77/-12.07	-11.99/-10.21	-10.28/-12.36	-10.77/-11.18	-11.66/-10.49	-13.48/-14.95	-11.08/-8.29	-7.8/-14.63	-14.77/-9.78	-8.37/-9.33	-6.3/-5.71	-7.42/-11.5	-15.09/-9.73	-15.94/-11.21	-9.55/-10.33	-5.89/-7.95	-12.72/-10.08	-11.48/-15.55	-9.69/-6.97	-6.01/-4.36	-7.04/-15.08				
Θ(90°)	-12.34/-13.25	-10.28/-8.5	-12.65/-8.34	-8.51/-11.26	-9.56/-15.37	-9.87/-12.01	-9.98/-10.63	-10.95/-10.17	-7.45/-12.6	-8.62/-6.81	-5.31/-9.99	-9.39/-14.98	-13.47/-6.69	-7.63/-6.4	-8.65/-9.99	-11.31/-11.08	-12.07/-15.54	-12.77/-12.39	-8.08/-9.4	-13.49/-9.14	-12.94/-12.12	-8.87/-6.46	-6.41/-5.85	-6.53/-15.65				
Θ(97.5°)	-13.89/-15.18	-10.19/-8.9	-13.92/-9.3	-10.16/-10.29	-8.26/-13.53	-12.68/-12.29	-10.08/-11.42	-13.19/-10.13	-9.09/-9.71	-7.99/-5.52	-5.46/-10.66	-9.22/-10.5	-10.86/-9	-10.03/-5.71	-7.08/-8.31	-9.55/-10.75	-12.39/-11.97	-14.56/-9.42	-12.91/-13.83	-14.91/-11.66	-15.59/-11.41	-8.89/-5.52	-6.33/-6.23	-8.6/-14.47				
Θ(105°)	-11.53/-14.1	-9.33/-8.8	-13.16/-8.23	-8.49/-11.84	-13.02/-14.13	-15.25/-13.48	-13.89/-15.58	-15.69/-11.12	-8.26/-11.19	-9.33/-7.55	-5.08/-6.6	-8.87/-8.29	-7.33/-14.13	-13.91/-9.72	-8.34/-6.51	-11.39/-10.82	-15.77/-14.62	-15.47/-13.34	-11.27/-15.41	-13.92/-14.05	-15.45/-11.46	-6.89/-5.91	-7.98/-8.82	-14.05/-11.31				
Θ(112.5°)	-10.34/-10.29	-6.16/-6.8	-10.73/-5.52	-8.89/-13.66	-13.06/-15.12	-14.14/-12.86	-14.49/-12.61	-12.92/-10.19	-4.73/-8.37	-8.2/-5.97	-3.72/-5.48	-5.58/-8.59	-8.05/-9.75	-8.86/-12.61	-11.97/-11.5	-8.85/-7.99	-15.21/-10.17	-14.57/-13.24	-15.22/-15.69	-13.32/-12.05	-10.62/-9.32	-8.7/-9.09	-6.98/-12.02	-15.04/-11.24				
Θ(120°)	-10.74/-8.37	-5.87/-7.26	-11.32/-8.59	-8.52/-12.34	-14.54/-16.2	-12.61/-11.45	-12.03/-14.74	-13.99/-13.13	-10.4/-8.39	-8.97/-15.06	-11.45/-4.52	-4.3/-7.21	-6.04/-8.06	-7.59/-15.08	-15.58/-9.59	-10.79/-8.59	-9.24/-12.38	-12.57/-9.35	-10.92/-12.09	-11.63/-13.99	-10.92/-4.93	-7.07/-12.89	-10.23/-15.36	-12.35/-11				
Θ(127.5°)	-10.47/-7.69	-5.52/-6.48	-8.74/-9.51	-9.23/-12.8	-14.55/-12.12	-16.12/-15.87	-14.7/-14.69	-15.08/-15.18	-13.53/-7.22	-5.95/-6.21	-8.29/-13.2	-5.83/-6.21	-6.18/-9.55	-7.92/-10.3	-16.09/-16.05	-15.38/-8.02	-8.51/-15.9	-13.23/-9.3	-12.29/-8.04	-10.84/-14.42	-9.96/-9.41	-9.11/-8.9	-8.5/-10.81	-9.43/-9.94				
Θ(135°)	-12.32/-8.59	-7.52/-8.41	-8.52/-7.66	-7.46/-8.55	-14.73/-14.47	-16.06/-15.37	-15.35/-14.75	-11.91/-14.55	-12.99/-14.43	-11.31/-9	-9.71/-10.31	-3.1/-9.34	-8.93/-7.8	-10.19/-14.49	-12.10/-8.23	-11.43/-11.51	-11.46/-9.65	-8.07/-7.68	-7.34/-9.07	-8.24/-14.29	-10.01/-8.92	-8.58/-8.73	-8.56/-8.33					
Θ(142.5°)	-9.37/-7.45	-6.42/-7.34	-10.93/-9.4	-9.04/-10.94	-12.93/-10.87	-12.05/-14.53	-14.18/-12.09	-11.47/-10.78	-9.55/-4.66	-6.91/-12.9	-9.66/-4.96	-10.51/-10.26	-7.44/-7.24	-8.14/-13.56	-8.09/-8.51	-8.87/-8.89	-10.64/-14.69	-9.25/-8.09	-7.57/-10.39	-7.8/-7.76	-8.37/-8.74	-8.48/-11.23	-11.05/-10.5					
Θ(150°)	-14.19/-10.92	-9.23/-9.35	-9.09/-8.45	-8.45/-11.84	-13.41/-14.86	-15.4/-15.28	-15.57/-15.73	-14.4/-12.86	-11.47/-11.51	-9.4/-8.32	-7.76/-6.03	-3.75/-3.39	-6.74/-6.96	-9.17/-15.38	-11.99/-12.65	-11.35/-9.92	-8.4/-7	-6.44/-8.83	-10.72/-10.12	-9.47/-8.96	-9.54/-11.96	-8.48/-11.88	-13.79/-15.42					
Θ(157.5°)	-12.02/-10.75	-10.75/-12.61	-14.73/-12.99	-15.75/-14.66	-11.85/-12.92	-14.74/-13.91	-13.56/-12.73	-13.43/-15.09	-14.59/-11.94	-8.32/-6.73	-7.01/-7.62	-7.5/-8.84	-1.68/-10.53	-12.96/-9.5	-15.35/-14.3	-9.92/-8.91	-9.02/-10.26	-9.9/-5.34	-3.91/-3.84	-4.45/-4.27	-4.73/-7.64	-10.71/-13.56	-15.09/-15.87	-15.69/-13.91				
Θ(165°)	-10.48/-11.19	-13.44/-14.82	-14.54/-14.29	-13.67/-12.87	-13.28/-15.2	-14.27/-14.2	-12.03/-10.55	-9.43/-9.44	-10.8/-10.86	-12.32/-12.57	-13.99/-15.62	-15.14/-15.78	-15.05/-11.21	-10.45/-12.44	-12.08/-8.9	-10.99/-13.24	-12.88/-11	-7.67/-6.29	-5.55/-6.5	-4.14/-3.18	-3.17/-4.02	-4.4/-4.99	-6.15/-7.5	-8.61/-9.38				
Θ(172.5°)	-9.18/-9.98	-10.77/-10.8	-10.52/-13.12	-13.92/-14.47	-13.72/-15.12	-13.47/-12.71	-11.27/-11.57	-13.37/-14.83	-14.98/-14.82	-15.27/-14.62	-13.45/-12.88	-12.62/-13.58	-14.32/-14.35	-13.49/-13.65	-15.55/-15.5	-15.88/-14.49	-13.31/-11.41	-9.96/-9.25	-7.92/-7.67	-7.16/-7.07	-7.66/-7.91	-8.27/-8.64	-8.62/-8.94					
Θ(180°)	-9.81/-8.72	-9.02/-8.82	-10.69/-10.87	-10.9/-10.92	-12.86/-14.81	-15.7/-15.56	-15.74/-15.15	-12.28/-10.54	-9.83/-9.69	-10.55/-11.34	-12.31/-11.85	-12.19/-11.58	-10.92/-10.39	-10.95/-11.67	-11.51/-11.02	-14.58/-15.15	-17.27/-15.01	-14.52/-13.08	-13.31/-11.96	-11.07/-10.61	-9.75/-9.03	-8.77/-9.17						
Freq(Hz)	6.175GPa		PhiTetaL																									
DGI(0B)	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°)	-7.83/-6.56	-5.85/-5.3	-4.44/-3.56	-3.53/-4.11	-4/-3.38	-3.42/-4.07	-4.48/-5.07	-6.03/-6.76	-7.33/-7.97	-8.81/-9.94	-10.92/-11.83	-11.71/-10.09	-8.69/-7.7	-7.07/-6.58	-6.2/-5.3	-4.98/-5.3	-5.54/-5.49	-5.29/-5.74	-6.36/-6.91	-7.41/-8.18	-9.35/-10.45	-10.85/-11.14	-10.73/-10.3	-9.54/-9.12				
Θ(7.5°)	-8.91/-7.12	-5.47/-4.01	-2.56/-1.28	-0.74/-0.58	-0.08/-0.59	0.70/-24	-0.37/-0.93	-1.75/-2.59	-3.47/-4.77	-6.47/-9.7	-9.01/-9.5	-9.95/-4.07	-10.13/-8.48	-7.64/-7.1	-6.76/-6.68	-6.48/-6.62	-6.8/-7.6	-7.22/-8.6	-10.71/-12.47	-13.42/-13.12	-14.47/-16.03	-15.79/-15.27	-15.42/-13.77	-12.07/-10.44				
Θ(15°)	-2.07/-2.4	-2.41/-1.74	-0.510/-74	1.712/-14	2.021/89	1.912/22	2.482/81	2.852/99	4.464/76	4.463/91	3.325/25	3.432/81	1.13/-1.27	-3.91/-3.09	-3.05/-2.21	-0.820/-55	1.120/-13	-1.37/-3.47	-5.17/-7.73	-8.31/-6.69	-10.67/-10.06	-7.2/-4.65	-2.32/-0.52	0.81/-33	1.181/-01			
Θ(22.5°)	1.230/-17	-0.41/-0.14	0.652/-18	2.691/95	1.031/64	2.853/82	4.464/76	4.463/91	3.325/25	3.432/81	1.13/-1.27	-3.91/-3.09	-3.05/-2.21	-0.820/-55	1.120/-13	-1.37/-3.47	-5.17/-7.73	-8.31/-6.69	-10.67/-10.06	-7.2/-4.65	-2.32/-0.52	0.81/-33	1.181/-01	0.931/37				
Θ(30°)	3.312/-24	1.942/-14	2.793/71	3.452/-29	1.883/-1	4.875/89	5.935/-46	5.014/51	3.823/93	4.674/-24	2.670/-99	0.18/-4.02	-2.74/-3.16	-0.631/-77	2.882/-99	2.480/-6	-2.7/-6.89	-9.27/-9.32	-7.48/-3.37	-0.610/-62	1.71/-85	1.2/-12	1.813/-25	3.333/-56				
Θ(37.5°)	4.13/-36	2.93/-08	3.623/91	2.91/-75	2.073/-8	4.784/-76	4.674/93	5.25/-67	4.735/-39	5.846/63	5.174/-06	3.63/-02	2.29/-76	-2.35/-39	-1.740/-13	3.354/-21	2.320/-77	-2.83/-5.03	-7.23/-8.31	-6.25/-3.33	-0.210/-62	0.892/-13	1.622/-45	3.554/-87	54/-73			
Θ(45°)	3.772/-71	3.384/-11	4.23/-25	2.832/-8	3.463/88	4.324/-49	4.736/-39	5.846/63																				



Radiated Composite Gain Data of Radio 0 (6GHz)

Appendix B

Θ(22.5°)	-5.9/-7.22	-7.5/-5.65	-5.23/-7.75	-8.63/-10.1	-8.51/-8.27	-11.99/-11.78	-9.71/-9.02	-8.86/-8.93	-9.29/-9.26	-9.03/-7.77	-6.22/-5.81	-7.95/-8.39	-6.86/-6.71	-8.7/-7.6	-6.77/-7.5	-10.21/-11.31	-9.34/-9.7	-11.05/-10.49	-7.77/-6.65	-7.01/-6.32	-6/-6.52	-7.36/-8.09	-9.09/-9.85	-8.11/-6.3
Θ(30°)	-4.49/-5.17	-6.33/-5.45	-5.03/-5.64	-7.91/-10.7	-9.29/-9.18	-11.34/-12.78	-13.02/-10.55	-9.32/-8.58	-6.08/-4.8	-4.96/-3.69	-1.65/-1.06	-2.58/-5.25	-4.26/-3.96	-5.78/-7.11	-6.9/-5.15	-4.75/-6.54	-5.88/-7.01	-12.01/-8.27	-4.11/-3.1	-4.11/-4.08	-2.61/-2.93	-4.32/-4.73	-6.77/-9.48	-7.82/-4.95
Θ(142.5°)	-2.9/-4.46	-4.53/-5.03	-4.35/-5.54	-7.79/-9.25	-4.66/-5.94	-15.06/-15.48	-12.08/-10.28	-9.39/-7.43	-4.27/-2.81	-3.21/-3.49	0.28/-1.68	-0.58/-1.37	-2.01/-2.76	-5.08/-6.05	-8.14/-7.31	-7.5/-12.1	-9.33/-6.1	-10.11/-8.89	-5.28/-2.51	-1.65/-2.44	-2.86/-4.39	-5.04/-5.32	-5.92/-7.35	-6.34/-3.23
Θ(45°)	-3.8/-5.35	-3.59/-5.46	-8.04/-5.27	-6.16/-6.65	-6.99/-9.94	-15.78/-10.84	-9.85/-7.43	-6.94/-8.79	-6.37/-3.39	-2.69/-4.65	-1.26/-1.25	1.54/-0.8	0.18/-0.37	-4.9/-6.4	-9.14/-13.26	-7.54/-12.4	-13.3/-9.49	-11.9/-12.99	-7.5/-1.64	0.71/-1.3	-4.01/-5.28	-2.84/-1.78	-2.2/-4.46	-4.08/-2.36
Θ(52.5°)	-5.83/-6.23	-2.68/-5.44	-11/-6.81	-7.73/-8.41	-7.74/-10.16	-11.78/-7.41	-8.47/-8.76	-8.64/-7.95	-9.34/-8.11	-5.24/-5.73	-2.78/-0.96	0.62/-0.54	1.16/-0.81	-2.31/-2.68	-6.05/-10.83	-11.85/-9.63	-15.57/-9.6	-12.24/-10.54	-5.16/-2.02	-1.02/-4.13	-5.14/-3.98	-2.14/-1.19	-2.14/-4.25	-3.32/-2.67
Θ(60°)	-8.13/-9.15	-4.1/-6.77	-12.49/-8.57	-11.18/-9.92	-10.18/-12.71	-13.87/-10.93	-8.31/-9.32	-9.92/-9.71	-9.49/-11.78	-8.43/-7.7	-6.07/-4.42	-1.29/-0.03	0.60/-0.84	-2.02/-2.14	-12.8/-11.72	-9.87/-7.9	-12.8/-10.31	-9.87/-9.11	-4.25/-4.65	-4.02/-6.28	-5.83/-4.94	-3.45/-5.38	-4.97/-6.26	-3.94/-3.17
Θ(67.5°)	-9.08/-11	-6.41/-8.86	-13.53/-10.56	-14.29/-9.03	-12.02/-13.29	-10.39/-11.72	-11.51/-12.69	-13.59/-12.85	-13.07/-14.17	-9.22/-9.06	-8.78/-9.89	-5.19/-2.9	-1.49/-0.29	-2.23/-3.69	-9.43/-11.94	-14.63/-9.06	-12.2/-12.77	-9.92/-7.67	-4.55/-6.82	-9.2/-7.23	-6.86/-7.69	-9.05/-12.06	-8.84/-6.92	-6.8/-5.57
Θ(75°)	-10.62/-15.24	-10.29/-11.94	-13.97/-11.67	-16.04/-8.49	-11.86/-15.73	-12.95/-13.02	-11.18/-13.51	-13.7/-12.99	-13.43/-15.38	-13.36/-13.13	-10.47/-14.04	-10.17/-7.32	-4.44/-2.59	-2.62/-4.06	-9.08/-12	-14.87/-8.96	-10.85/-14.36	-11.71/-9.11	-5.81/-4.96	-8.83/-9.9	-9.99/-12.08	-12.66/-15.06	-8.22/-6.39	-9.32/-8.44
Θ(82.5°)	-10.35/-14.7	-12.2/-13.87	-11.76/-12.46	-13.54/-9.67	-15.23/-14.4	-13.37/-13.09	-10.46/-13.51	-13.7/-14.26	-14.9/-13.24	-12.44/-14.43	-13.66/-14.99	-15.34/-10.57	-7.02/-5.9	-5.44/-5.91	-10.13/-12.84	-12.41/-9.07	-12.24/-15.92	-8.78/-8.65	-8.54/-7.91	-11.53/-14.78	-11.6/-13.1	-13.21/-8.72	-6.58/-7.61	-12.43/-10.29
Θ(90°)	-10.92/-15.71	-10.3/-14.52	-11.13/-12.46	-12.58/-10.36	-15.88/-13.55	-11.04/-12.73	-11.43/-11.1	-14.26/-14.18	-15.47/-13.36	-11.06/-12.37	-11.43/-12.51	-15.85/-15.03	-12.58/-8.75	-7.41/-6.62	-8.91/-12.15	-9.75/-12.91	-13.03/-14.32	-9.94/-10.59	-10.29/-10.52	-13.99/-13.12	-13.49/-11.52	-10.79/-6.94	-7.49/-7.13	-16.3/-11.28
Θ(97.5°)	-13.51/-15.08	-9.74/-15.88	-11.16/-12.48	-13.23/-12.4	-14.67/-13.41	-12.51/-15.83	-13.41/-13.16	-14.49/-10.69	-14.12/-10.64	-9.21/-7.82	-8.2/-8.62	-13.32/-15.18	-15.1/-11.87	-10.18/-8.65	-7.67/-11.42	-9.88/-12.43	-14.38/-15.52	-15.49/-14.71	-14.48/-15.14	-14.65/-11.72	-11.76/-12.83	-9.86/-5.4	-7.01/-7.88	-15.61/-12.81
Θ(105°)	-12.68/-13.54	-9.23/-14.17	-11.64/-10.42	-13.77/-10.62	-14.57/-15.38	-13.72/-11.8	-15.66/-11.88	-14.95/-10.77	-12.38/-10.17	-10.97/-8.88	-8.42/-7.96	-13.8/-13.51	-14.39/-11.28	-8.53/-11.17	-8.8/-14.64	-13.52/-15.57	-11.81/-13.86	-12.92/-11.71	-12.35/-13.26	-10.76/-9.49	-7.96/-5.92	-9.01/-10.08	-15.3/-10.03	
Θ(112.5°)	-14.93/-10.4	-8.78/-13.62	-12.76/-11.3	-13.28/-10.91	-13.85/-14.57	-14.95/-11.72	-14.07/-14.86	-15.39/-15.61	-11.45/-10.08	-10.15/-8.21	-6.49/-6.45	-7.27/-9.73	-10.9/-13.34	-13.36/-12.52	-10.83/-12.03	-7.27/-10.8	-12.58/-12.34	-15.35/-15.21	-12.85/-9.46	-12.02/-10.7	-6.24/-7.06	-10.34/-4.45	-10.27/-11.99	-15.85/-10.92
Θ(120°)	-15.37/-9.49	-7.75/-12.44	-11.91/-10.01	-12.41/-12.25	-14.5/-13.19	-13.9/-13.99	-12.55/-12.47	-15.28/-15.87	-14.41/-11.05	-10.26/-8.84	-9.6/-9.57	-6.4/-7.12	-7.52/-9.95	-12.16/-14.89	-13.31/-11.51	-13.33/-8.7	-10.85/-8.73	-14.82/-10.42	-8.28/-7.29	-9.88/-9.14	-6.62/-4.22	-9.5/-9.35	-11.66/-11.77	-13.74/-10.4
Θ(127.5°)	-13.53/-7.84	-7.73/-12.56	-10.73/-8.3	-12.43/-13.76	-14.63/-13.8	-12.19/-13.31	-15.27/-14.18	-13.39/-14.3	-16.01/-14.33	-8.52/-7.16	-7.15/-9.32	-9.17/-8.2	-6.18/-8.39	-10.5/-12.78	-12.89/-14.23	-11.9/-9.74	-13.71/-7.94	-9.16/-7.79	-10.2/-10.42	-12.39/-12.15	-7.85/-11.41	-11.46/-15.07	-13.15/-10.43	
Θ(135°)	-10.77/-7.87	-9.63/-14.19	-10.28/-8.88	-11.27/-12.15	-12.15/-15.23	-14.66/-14.11	-12.77/-14.1	-15.47/-14.68	-14.28/-14.11	-11.43/-10.8	-9.06/-11.17	-12.78/-9.97	-10.8/-8.44	-8.38/-10.54	-11.12/-13.01	-15.81/-13.18	-10.95/-14.73	-12.34/-8.69	-9.52/-7.97	-7.78/-10.39	-11.1/-10.87	-10.63/-10.05	-12.89/-12.74	-10.44/-11.8
Θ(142.5°)	-8.65/-7.78	-8.93/-12.56	-10.69/-10.65	-9.67/-8.68	-10.17/-12.21	-12.8/-13.82	-16.33/-15.66	-14.09/-14.69	-15.72/-15.74	-11.38/-9.88	-10.78/-12.43	-10.42/-8.75	-7.75/-12.07	-13.17/-15.25	-13.19/-12.97	-15.21/-13.06	-14.66/-14.01	-13.76/-10	-9.75/-12.41	-13.77/-11.62	-12.39/-12.15	-15.19/-14.78	-13.41/-11.56	-13.15/-14.11
Θ(150°)	-11.71/-12.19	-15.05/-13.45	-9.67/-8.68	-10.77/-12.21	-12.8/-13.82	-16.33/-15.66	-14.09/-14.69	-15.72/-15.74	-11.38/-9.88	-10.78/-12.43	-10.42/-8.75	-7.75/-12.07	-13.17/-15.25	-13.19/-12.97	-15.21/-13.06	-14.66/-14.01	-13.76/-10	-9.75/-12.41	-13.77/-11.62	-12.39/-12.15	-15.19/-14.78	-13.41/-11.56	-13.15/-14.11	
Θ(157.5°)	-15.97/-14.67	-15.78/-14.02	-13.13/-12.35	-15.43/-13	-12.3/-11.56	-11.65/-11.43	-12.67/-11.03	-9.7/-9.83	-9.64/-11.35	-12.7/-13.13	-12.69/-11.98	-12.91/-12.38	-13.89/-14.19	-13.11/-12.51	-15.67/-15.46	-12.95/-10.99	-12.89/-13.98	-11.42/-8.67	-8.88/-10.16	-9.09/-9.6	-12.31/-12.7	-13.9/-14.66	-14.94/-14.85	-14.96/-15.31
Θ(165°)	-9.46/-9.04	-8.91/-5.44	-8.69/-9.38	-9.51/-9.11	-10.22/-11.1	-13.27/-15.17	-14.97/-12.6	-10.86/-10.63	-11.86/-13.22	-13.94/-14.1	-13.49/-13.62	-14.04/-14.78	-14.66/-14.4	-13.78/-13.6	-14.16/-16.02	-15.1/-15.46	-14.17/-16.04	-8.04/-7.1	-8.07/-7.11	-6.38/-6.01	-6.44/-7.69	-8.82/-11.38	-12.37/-11.63	-11/-10.28
Θ(172.5°)	-8.02/-7.87	-8.46/-9.46	-9.82/-10.12	-10.71/-12.43	-13.93/-14.82	-14.15/-14.46	-13.48/-13.24	-13.19/-15.06	-15.33/-15.92	-15.02/-15.23	-15.88/-15.71	-14.67/-13.8	-12.78/-12.65	-13.21/-13.21	-12.36/-11.16	-11.19/-10.97	-10.26/-9.56	-9.53/-9.67	-9.83/-9.95	-9.01/-9.14	-8.38/-7.9	-7.58/-7.89		
Θ(180°)	-14.23/-14.26	-13.75/-13.29	-13.78/-14.65	-14.3/-13.55	-14.14/-14.94	-15.55/-15.61	-15.1/-13.28	-13.34/-12.18	-11.98/-11.98	-12.53/-14.12	-13.82/-13.21	-12.29/-12.1	-11.21/-10.68	-9.95/-9.83	-10.76/-11.48	-11.77/-11.4	-12.6/-12.92	-13.86/-15.37	-15.91/-16.04	-15.48/-15.54	-15.21/-14.72	-14.04/-13.08	-12.99/-12.87	
Freq(GPol)	6.985GPol	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°)	-6.19/-5.2	-4.35/-3.9	-3.42/-2.89	-2.78/-3.07	-3.04/-2.93	-3.16/-3.35	-3.8/-4.83	-5.93/-6.92	-8.14/-10.16	-12.56/-14.68	-15.68/-15.45	-13.51/-11.21	-9.55/-7.97	-6.56/-5.87	-5.41/-4.57	-3.59/-3.44	-3.58/-3.6	-3.68/-3.43	-3.54/-4.03	-5.04/-6.01	-6.75/-7.7	-8.86/-9.48	-9.51/-9.05	-7.97/-9.63
Θ(7.5°)	-4.1/-3.52	-2.89/-1.79	-1.34/-0.74	-0.54/-3.07	-0.59/-0.88	-0.78/-0.44	-0.57/-1.32	-1.89/-2.34	-2.85/-3.46	-4.47/-5.98	-7.96/-10.18	-10.31/-9.5	-9.11/-8.14	-7.9/-8.16	-7.99/-6.22	-4.93/-4.05	-2.82/-1.87	-1.42/-2.29	-1.6/-2.76	-4.66/-6.62	-9.45/-14.05	-15.43/-13.63	-12.52/-9.68	-6.95/-5.1
Θ(15°)	-3.63/-3.13	-1.93/-1.03	-0.20/-76	1.51/25	1.67/24	2.95/37	3.102/41	1.460/72	0.399/17	-0.10/-78	-2.03/-4.08	-6.98/-9.89	-10.7/-43	-5.46/-5.05	-0.02/-4.81	-5.15/-5.24	-5.19/-3.92	-2.92/-2.27	-1.94/-1.86	-2.06/-2.73	-3.93/-5.64	-5.49/-4.89	-3.48/-2.75	-2.92/-3.51
Θ(22.5°)	-0.42/-0.51	0.150/34	1.05/1.3	1.12/1.98	3.33/4.55	5.23/5.64	5.37/4.56	3.54/2.7	1.99/1.64	1.72/1.75	1.07/-0.98	-4.57/-9.77	-12.4/-9.93	-6.1/-2.48	-0.39/-0.09	-1.4/-3.23	-5.3/-6.74	-7.88/-7.77	-6.36/-4.54	-3.36/-2.94	-3.92/-4.49	-2.8/-0.86	0.6/1.33	1.520/96
Θ(30°)	2.37/1.87	1.67/2.01	2.39/1.87	1.63/2.58	4.14/4.97	4.79/5.47	4.57/4.45	4.34/4.13	3.79/2.85	1.59/1.95	2.34/1.16	-0.64/-2.49	-3.68/-5.87	-9.32/-4.55	-1.04/-0.09	-0.72/-2.04	-4.87/-9.09	-7.47/-9.38	-7.84/-6.33	-3.31/-2.26	-2.78/-4.01	-4.29/-4.13	2.52/3.05	3.31/3.15
Θ(37.5°)	3.74/2.8	1.95/2.21	2.42/2.32	2.45/3.01	4.43/5.49	5.44/5.22	4.85/4.64	4.43/5.85	3.763/7.4	2.55/2.22	3.23/2.26	1.220/34	0.19/-2.29	-4.02/-6.39	0.11/1.67	0.69/-1.42	-6.23/-10.8	-11.8/-8.82	-7.63/-7.97	-4.81/-2.36	-1.78/-0.63	1.37/2.77	3.89/4.25	3.92/3.88
Θ(45°)	5.52/4.7	3.65/3.94	3.89/3.89	3.64/3.59	4.37/5.29	5.47/5.1	4.86/4.81	4.93/4.7	3.65/4.84	5.15/4.64	4.08/5.58	2.13/4.1	0.60/55	0.66/-1.71	0.240/3	-0.61/-1.77	-5.48/-8.78	-9.12/-7.05	-5.73/-5.41	-1.76/-0.06	-0.950/0.9	3.87/5.21	6.6/85	5.35/5.45
Θ(52.5°)	6.05/5.47	4.98/5.33	4.68/3.87	3.81/3.97	4.32/4.33	4.36/4.47	4.41/4.71	5.27/5.47	4.45/5.46	5.98/5.1	4.51/2.26	2.35/1.26	0.11/1.81	3.42/12	1.570/25	-1.87/-3.14	-6.11/-6.6	-7.91/-6.8	-6.15/-4.96	-0.620/1.03	0.03/1.64	5.376/14	6.77/6.71	6.136/15
Θ(60°)	5.55/18	5.13/5.37	3.82/3.11	2.83/3.27	4.03/3.69	3.16/3.4	3.41/4.46	5.19/5.04	4.13/98	5.33/4.48	3.82/1.77	2.31/1.63	-0.19/-1.62	4.52/4.19	2.64/1.19	-2.07/-3.17	-4.73/-4.32	-5.37/-9.23	-9.49/-5.67	0.91/44	0.22/3	6.026/41	6.64/6.87	6.25/6.11
Θ(67.5°)	4.68/4.31	4.51/49	2.79/1.8	2.32/3.31	3.38/3.59	3.46/3.68	2.71/3.21	4.25/3.98	3.613/18	3.13/1.7	1.72/1.35	-0.530/78	4.384/56	2.88/1.22	-1.94/-1.17	-0.91/-0.8	-1.48/-4.21	-2.94/-1.34	1.05/2.15	0.41/3.63	5.915/84	6.175/91	5.48/5.35	
Θ(75°)	3.91/3.23	3.13/3.64	1.84/0.37	1.95/2.13																				



Sporton International Inc. Hsinchu Laboratory



Radiated Composite Gain Data of Radio 0 (6GHz)

Appendix B

Θ(22.5°)	-13.89/-17.39	-16.13/-9.09	-6.78/-6.97	-8.14/-10.37	-11.07/-13.33	-19.17/-18.17	-15.49/-14.44	-13.55/-13.06	-13.86/-14.17	-14.1/-12.18	-9.02/-6.93	-7.11/-7.82	-7.22/-4.73	-7.98/-7.98	-8.6/-11.1	-17/-18.58	-12.47/-10.47	-11.02/-10.25	-7.69/-6.05	-5.92/-6.52	-7.32/-8.4	-9.49/-10.62	-12.72/-14.64	-13.6/-12.54
Θ(30°)	-5.89/-7.37	-14.4/-10.81	-6.29/-5.34	-7.98/-14.18	-14.23/-13.8	-19.1/-17.86	-17.78/-17.84	-18.96/-16.22	-10.57/-8.44	-8/-5.78	-3.69/-3.07	-3.9/-5.24	-4.67/-5.78	-9.03/-11.01	-10.53/-7.98	-8.32/-14.49	-12.05/-11.2	-17.54/-10.89	-6.29/-5.45	-6.39/-7.75	-7.43/-7.9	-9.13/-9.78	-11.47/-14.23	-11.88/-7.21
Θ(37.5°)	-3.2/-8.02	-8.15/-9.9	-6.54/-5.41	-8.89/-14.71	-8.99/-9.46	-17.67/-18.23	-17.75/-17.65	-18.99/-14.88	-8.4/-5.67	-5/-4.64	-1.95/-1.08	-2.3/-3.2	-1.88/-3.18	-6.48/-8.53	-12.69/-11.44	-10.68/-18.39	-16.78/-9.25	-17.67/-10.85	-11.2/-8	-5.96/-7.81	-12.67/-17.8	-19.12/-18.38	-14.85/-15.26	-14.56/-5.82
Θ(45°)	-3.8/-4.06	-4.31/-6.15	-8.04/-5.06	-8.16/-16.27	-9.21/-10.66	-19.18/-14.9	-16.26/-18.25	-18.2/-17.53	-10.78/-6.43	-5.53/-6.42	-4.5/-2.19	-2.42/-1.88	-0.36/-0.61	-3.48/-4.95	-8.6/-18.06	-12.29/-16.06	-15.62/-9.38	-12.47/-17.99	-19.05/-6.64	-3.04/-6.84	-19.26/-19.13	-8.79/-6.45	-5.42/-6.67	-7.22/-3.99
Θ(52.5°)	-5.01/-5.57	-3.61/-7.28	-11.23/-6.33	-10.29/-16.92	-10.05/-10.53	-15.89/-13.08	-16.21/-18.27	-18.88/-14.2	-18.47/-12.37	-9.04/-9.1	-6.54/-4.35	-5.17/-4.35	-1.38/-4.02	-2.04/-4.08	-8.67/-17.78	-15.32/-9.38	-18.68/-9.19	-12.72/-15.75	-10.44/-6.81	-4.77/-1.01	-15.51/-8.23	-5.13/-7.7	-4/-7.1	-4.4/-3.71
Θ(60°)	-7.36/-8.56	-4.61/-7.83	-13.84/-7.54	-14.38/-15.92	-11.76/-17.95	-18.16/-18	-18.57/-16.97	-17.69/-18.84	-19.06/-18.62	-14.95/-13.66	-14.19/-10.47	-10.09/-6.96	-3.42/-1.85	-3.36/-4.74	-8.67/-18.81	-18.97/-9.67	-13.54/-11.4	-15.11/-14.83	-10.46/-15.04	-12.83/-8.38	-4.86/-7.07	-5.78/-4.88	-4.18/-4.1	-1.8/-1.4
Θ(67.5°)	-8.83/-12.89	-8.29/-12.55	-15.31/-10.3	-18.34/-12.4	-13.11/-18.71	-16.55/-18.96	-18.49/-19.31	-18.04/-18.01	-19.2/-17.68	-18.92/-18.67	-18.19/-16.09	-17.35/-10.36	-6.3/-3.68	-4.45/-6.58	-11.99/-18.22	-18.89/-10.06	-14.75/-13.49	-18.01/-13.73	-9.55/-10.83	-17.81/-12.37	-10.2/-10.26	-8.34/-13.38	-8.49/-6.17	-6.42/-6.76
Θ(75°)	-11.09/-18.54	-12.27/-15.87	-15.06/-10.2	-19.04/-9.95	-14.22/-18.64	-18.66/-19.04	-18.09/-14.8	-17.56/-19.15	-18.67/-18.39	-17.22/-18.55	-18.07/-10.3	-17.77/-15.76	-10.62/-6.98	-5.71/-6.89	-12.03/-16.59	-17.18/-11.71	-13.35/-16.63	-19.45/-18.78	-13.7/-6.75	-11.05/-14.41	-10.65/-14.66	-14.67/-19.35	-9.76/-6.81	-8.94/-10.43
Θ(82.5°)	-11.45/-18.07	-12.73/-18.28	-12.04/-13.49	-14.71/-10.03	-18.54/-17.73	-19.38/-19.08	-17.91/-17.26	-15.36/-18.99	-18/-14.43	-13.26/-16.18	-15.11/-18	-18.17/-18.81	-14.38/-12.73	-7.81/-8.35	-11.66/-16.18	-13.79/-12.04	-12.77/-19.13	-19.33/-19.32	-16.38/-7.33	-11.76/-17.61	-12.2/-16.93	-15.59/-12.61	-9.06/-9.15	-13.08/-13.16
Θ(90°)	-13.06/-18.55	-10.6/-18.15	-11.23/-13.16	-13.7/-10.13	-19.09/-18.71	-15.7/-17.74	-18.12/-17.2	-16.51/-18.65	-18.44/-14.47	-11.04/-13.33	-11.92/-15.8	-18.6/-17.55	-18.37/-14.85	-11.1/-10.7	-12.69/-13.07	-10.02/-19.23	-13.76/-18.45	-17.05/-17.77	-14.98/-10.1	-15.9/-14.46	-16.8/-17.67	-16.1/-9.5	-10.83/-8.55	-18.86/-16.58
Θ(97.5°)	-16.52/-17.81	-9.65/-19	-11.43/-13.28	-14.71/-14.03	-18.87/-16.4	-14.81/-18.66	-16.78/-19.01	-19.14/-13.3	-12.23/-12.24	-10.88/-11.94	-16.8/-17.91	-17.59/-16.6	-14.71/-12.79	-10.68/-13.22	-9.69/-15.49	-16.95/-19.08	-19.04/-17.1	-15.95/-17.27	-19.18/-16.85	-18.82/-18.76	-15.78/-7.46	-11.78/-9.12	-19.08/-19.3	-19.08/-19.3
Θ(105°)	-18.34/-15.2	-9.97/-17.38	-12.17/-10.58	-17.49/-18.61	-18.91/-17.45	-18.21/-18.08	-16.85/-15.56	-16.17/-13.65	-11.15/-9.8	-8.92/-10.75	-13.91/-15.8	-18.42/-15.48	-18.55/-14.51	-12.28/-11.54	-8.07/-18.08	-18.29/-18.13	-18.05/-17.72	-16.56/-15.22	-18.08/-19.14	-18.8/-16.54	-13.48/-7.01	-13.7/-12.71	-13.72/-12.75	-13.72/-12.75
Θ(112.5°)	-19.01/-10.86	-9.67/-16.25	-13.46/-11.27	-14.45/-10.87	-17.88/-17.51	-17.65/-14.27	-15.47/-18.2	-19.3/-19.26	-13.52/-14.23	-14.82/-11.39	-9.12/-10.75	-14.34/-12.84	-14.69/-15.06	-17.44/-17.97	-17.4/-12.83	-8.21/-11.25	-14.89/-13.14	-18/-19.07	-18.48/-18.03	-18.08/-17.37	-14.05/-10.97	-11.39/-6.93	-16.9/-17.31	-18.44/-10.99
Θ(120°)	-18.19/-10.55	-8.36/-15.41	-12.51/-10.5	-14.9/-10.37	-16.41/-18.96	-17.55/-15.7	-14.15/-15.88	-17.57/-19.19	-17.3/-13.19	-14.38/-11.34	-12/-11.07	-9.77/-10.76	-10.91/-14.58	-14.17/-19.23	-14.15/-15.62	-14.34/-11.4	-15.62/-16.15	-17.41/-11.52	-19.42/-15.04	-12.23/-11.58	-11.82/-9.68	-11.58/-13.77	-16.45/-16.25	-15.03/-10.34
Θ(127.5°)	-15.19/-8.55	-8.1/-16.15	-12.41/-10.38	-13.59/-18.54	-16.62/-19.33	-17.47/-18.9	-18.68/-18.35	-18.01/-17.86	-19.09/-17.01	-13.51/-11.96	-12.19/-11.08	-13.08/-9.96	-9.67/-11.88	-10.74/-18.01	-13.77/-17.2	-16.39/-3.66	-16.45/-14.32	-18.51/-9.38	-19.01/-10.69	-11.01/-14.06	-15.13/-10.18	-13.44/-19.24	-13.34/-18.29	-14.76/-10.61
Θ(135°)	-11.17/-7.37	-9.71/-19	-11.96/-9.94	-17.01/-19	-18.84/-18.04	-17.14/-18.52	-18.36/-19.08	-19.13/-17.76	-18.77/-18.45	-17.51/-12.29	-12.2/-12.85	-16.19/-10.81	-10.4/-8.21	-8.25/-12.98	-18.04/-18.81	-18.69/-18.95	-11.11/-16.96	-18.79/-8.67	-12.35/-13.07	-11.55/-17.87	-16.2/-17.43	-18.52/-19.56	-17.89/-13.53	-10.28/-12.41
Θ(142.5°)	-9.5/-8.92	-11.01/-17.84	-15.07/-12.9	-14.37/-19.19	-16.69/-18.8	-18.11/-17.52	-18.78/-18.1	-17.85/-17.14	-16/-16.3	-16.12/-15.02	-13.68/-12.26	-12.16/-12.91	-13.18/-12.83	-14.73/-11.73	-13.36/-13.79	-17.8/-10.57	-10.81/-17.27	-16.26/-18.18	-17.46/-16.69	-14.75/-18.45	-18.1/-18.35	-13.81/-16.68	-17.08/-12.33	-12.79/-14.13
Θ(150°)	-12.81/-13.38	-18.72/-19.27	-12.8/-11.49	-14.4/-18.46	-18.04/-15.29	-19.79/-17.87	-18.68/-19.2	-18.34/-18.88	-18.57/-17.51	-17.37/-17.73	-19.24/-17.12	-16.93/-16.06	-13.51/-16.19	-15.09/-19.1	-14.48/-13.63	-18.29/-18.25	-18.52/-15.47	-16.28/-14.22	-16.39/-18.44	-17.83/-15.66	-18.71/-17.22	-18.76/-17.31	-15.37/-18.59	-18.34/-16.33
Θ(157.5°)	-19.37/-18.02	-19.09/-16.29	-13.94/-14.06	-18.7/-17.6	-18.31/-18.5	-18.65/-17.89	-18.87/-14.9	-14.43/-17.6	-18.09/-18.91	-16.4/-14.12	-14.16/-14.1	-15.13/-17.59	-19.21/-16.97	-18.6/-16.41	-18.45/-18.88	-13.48/-11.53	-13.73/-15.41	-13.14/-12.65	-15.01/-17.38	-15.34/-17.25	-18.28/-13.83	-15.31/-17.59	-17.96/-18.21	-18.61/-18.15
Θ(165°)	-14.19/-13.67	-12.97/-13.66	-16.1/-17.15	-19.22/-17.82	-18.32/-18.17	-18.05/-18.24	-19.01/-17.17	-17.1/-17.99	-18.21/-15.54	-15.29/-15.64	-15.18/-14.55	-15.34/-17.81	-17.71/-16.3	-14.94/-19.14	-16.49/-19.08	-17.99/-12.55	-15.68/-12.69	-12.01/-13.6	-15.98/-14.94	-13.81/-13.05	-12.79/-13.63	-14.47/-18.54	-16.94/-14.94	-14.59/-14.19
Θ(172.5°)	-13.85/-12.91	-13.04/-14.22	-14.34/-14.96	-15.17/-15.58	-16.97/-16.69	-16.39/-17.33	-17.68/-16.55	-18.42/-19.14	-18.19/-19.81	-17.75/-18.47	-18.9/-18.25	-18.67/-18.33	-17.22/-18.34	-17.85/-17.74	-18.3/-17.41	-18.69/-17.84	-17.64/-17.57	-19.08/-17.78	-17.93/-18.38	-18.41/-19.13	-18.93/-17.13	-15.75/-16.81	-14.78/-13.96	-12.55/-13.32
Θ(180°)	-17.8/-18.2	-17.7/-18.39	-18.53/-18.75	-17.23/-15.83	-16.05/-16.99	-18.51/-18.95	-19.07/-18.48	-19.38/-17.45	-18.57/-18.53	-17.93/-19.15	-18.23/-17.53	-16.26/-16.05	-15.97/-16.05	-15.66/-16.35	-17.7/-18.19	-18.41/-17.65	-19.21/-17.86	-19.07/-17.74	-18.63/-18.8	-19.16/-18.25	-17.98/-17.99	-18.52/-18.09	-18.13/-19.31	-18.72/-17.36
Freq(Hz)	6.985GPol.	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°)	-6.39/-5.96	-5.41/-7.43	4.66/-4.42	4.23/-4.6	4.71/-4.46	4.55/-4.84	5.28/-6.71	-7.71/-8.19	-9.07/-10.6	-13.26/-16.66	-19/-18.5	-17.07/-14.54	-12.25/-10.64	8.88/-8	-7.12/-6.62	-5.92/-5.67	-5.71/-6.2	-6.77/-7.83	-9.12/-10.64	-11.75/-13.14	-13.96/-13.6	-11.89/-10.51	-11.89/-10.51	-8.59/-7.27
Θ(7.5°)	-7.35/-6.46	-5.47/-4.56	-4.07/-3.16	-2.97/-3.01	-3.08/-3.43	-3.73/-3.37	-5.56/-5.23	-5.22/-6.05	-6.59/-6.57	-6.56/-7.1	-8.12/-9.86	-11.86/-14.57	-17.51/-17.79	-17.91/-17.81	-11.12/-12.02	-9.66/-8.07	-6.89/-6.36	-5.97/-6.65	-6.38/-8.51	-10.92/-12.92	-15.21/-17.13	-10.95/-19.42	-17.19/-13.37	-10.23/-8.64
Θ(15°)	-7.99/-6.7	-5.42/-4.44	-3.57/-2.72	-2.42/-1.81	-0.650/-77	1.511/-74	1.330/-08	-1.78/-3.39	-4.49/-4.86	-4.65/-4.86	-5.72/-7.03	-8.89/-11.4	-12.96/-9.98	-7.77/-7.27	-8.4/-10.85	-15.22/-17.78	-19.4/-13.53	-10.4/-9.4	-9.08/-8.09	-7.08/-7.08	-8.89/-13.26	-15.52/-13.14	-10.47/-9.54	-9.76/-9.71
Θ(22.5°)	-2.68/-2.83	-2.72/-2.82	-2.61/-3.03	-3.43/-1.65	0.662/-35	2.942/-8	1.930/-82	-0.31/-1.11	-1.67/-2.2	-2.5/-2.88	-3.78/-6.04	-9.19/-12.96	-16.29/-13.53	9.51/-7	-5.7/-5.73	-7.84/-11.99	-18.31/-18.49	-18.57/-17.71	-13.72/-8.65	-6.95/-8	-11.28/-13.08	-9.2/-5.53	-2.89/-1.3	-0.91/-1.59
Θ(30°)	-0.29/-0.98	-1.63/-1.7	-1.98/-3.23	-3.2/-0.84	1.382/-29	1.44/-0.13	1.77/-0.74	0.851/-61	-0.97/-0.52	-1.97/-2.26	-2.63/-4.6	-4.92/-9.52	-8.68/-9.12	-18.12/-15.19	-8.76/-7.74	-4.59/-10.9	-14.41/-17.75	-16.44/-18.09	-14.98/-8.39	-5.05/-4.91	-11.74/-5.28	-1.23/-0.77	0.43/-0.47	
Θ(37.5°)	1.02/-0.92	-2.29/-1.59	-0.54/-0.2	-0.210/-13	1.432/-4	2.182/-09	2.42/-68	2.45/-1.81	1.04/-0.17	-1.31/-1.3	-0.04/-1.04	-3.33/-5.14	-2.78/-3.31	-6.18/-18.33	-6.88/-3.6	-4.25/-8.33	-10.7/-15.26	-15.62/-15.02	-12.6/-10.65	-5.31/-3.26	-4.13/-3.43	-1.84/-0.74	0.40/-57	0.780/-92
Θ(45°)	1.940/-68	-0.81/-0.57	0.31/-1.31	1.320/-41	0.762/-08	2.762/-73	2.622/-62	2.24/-15	0.660/-97	1.071/-42	1.89/-0.24	0.71/-1.1	-1.74/-1.43	-1.24/-3.66	-1.26/-0.98	-2.52/-4.24	-8.23/-9.77	-8.29/-9.25	-10.62/-10.9	-4.03/-2.18	-4.03/-2.75	0.62/-47	3.632/-64	1.741/-68
Θ(52.5°)	2.21/-97	1.370/-88	0.08/-1	1.07/-0.09	0.481/-6	1.762/-06	2.12/-05	1.630/-92	0.030/-64	1.531/-15	2.132/-49	2.070/-8	-0.980/-0.02	2.112/-11	2.160/-41	-2.48/-3.56	-1.82/-8.8	-1.74/-8.49	-11.27/-12.7	-5.35/-3.69	-5.76/-2.67	1.743/-36	4.063/-29	2.432/-22
Θ(60°)	2.032/-36	2.271/-29	-1.130/-4	1.060/-48	1.021/-01	1.290/-7	0.241/-27	1.63/-0.16	3.17/-2.94	-0.310/-29	0.661/-07	1.69/-1.2	-1.18/-0.32	2.863/-96	3.25/-1.33	-1.86/-2.84	-5.57/-6.38	-7.78/-11.93	-18.22/-13.72	-6.73/-3.98	-4.26/-1.38	2.593/-57	3.073/-3	2.622/-26
Θ(67.5°)	1.292/-07	2.031/-46	-1.59/-0.16	1.121/-31	0.																			



Radiated Composite Gain Data of Radio 0 (6GHz)

Appendix B

Θ(67.5°)	-15.14/-18.17	-18.21/-12.88	-10.44/-11.38	-18.89/-14.93	-14.77/-18.26	-15.57/-12.46	-11.99/-10.86	-13.31/-16.02	-16.66/-12.47	-18.09/-14.56	-17.07/-9.39	-7.42/-3.21	-1.78/-0.51	-3.49/-7.84	-11.46/-11.74	-18.38/-12.26	-10.05/-9.28	-7.65/-8.34	-5.76/-9.27	-14.4/-10.8	-10.98/-18.31	-17.54/-15.35	-12.97/-11.42	-15.81/-18.92
Θ(75°)	-13.44/-12.36	-17.31/-14.64	-11.93/-11.75	-19.41/-17.33	-17.32/-16.71	-17.06/-13.44	-11.51/-9.76	-12.34/-13.25	-15.19/-11.5	-18.33/-19.4	-18.77/-17.84	-13.37/-5.46	-4.65/-1.82	-4.58/-7.84	-13.43/-13.3	-18.46/-16.3	-13.9/-19.7	-8.68/-8.49	-6.63/-8.9	-19.04/-18.81	-17.43/-15.78	-11.41/-9.3	-9.62/-8.17	-12.68/-17.43
Θ(82.5°)	-15.21/-14.64	-17.18/-16.84	-14.63/-13.47	-18.19/-16.33	-16.82/-15.18	-13.51/-18.29	-11.09/-11.61	-18.77/-18.4	-18.19/-17.31	-17.98/-17.73	-13.32/-19.01	-17.84/-7.94	-10.57/-6.64	-9.08/-7.85	-10.27/-14.96	-17.86/-17.79	-18.61/-12.96	-11.69/-11.33	-5.72/-9.89	-19.24/-19.14	-17.85/-18.31	-7.9/-9	-8.84/-9.01	-11.77/-18.94
Θ(90°)	-15.28/-14.59	-15.14/-16.14	-14.92/-11.01	-17.09/-19.07	-16.23/-17.99	-11.9/-18.76	-10.47/-11.12	-14.19/-16.83	-9.11/-14.79	-12.41/-12.12	-6.84/-10.31	-10.41/-17.98	-16.27/-6.51	-8.87/-7.14	-8.88/-15.13	-15.3/-17.94	-15.87/-19.1	-13.44/-13.98	-8.86/-10.5	-16.23/-19.81	-19.18/-12.94	-8.94/-9.52	-8.69/-9.13	-9.45/-19.43
Θ(97.5°)	-18.91/-18.39	-14.91/-14.13	-16.81/-13.59	-18.67/-17.72	-12.21/-15.36	-14.61/-16.96	-11.87/-11.49	-13.86/-18.02	-10.89/-10.67	-12.04/-11.66	-9.39/-15.41	-13.44/-11.76	-10.96/-9.47	-13.62/-6.48	-7.91/-11.62	-14.1/-14.72	-18.1/-17.56	-19.11/-8.83	-18.65/-16.98	-17.3/-17.53	-18.58/-12.2	-11.95/-8.48	-8.52/-8.37	-11.23/-19.2
Θ(105°)	-17.22/-15.52	-13.3/-15.04	-16.63/-12.3	-14.97/-18.09	-18.42/-16.51	-18.17/-6.4	-19.21/-12.68	-18.46/-17.75	-13/-18.61	-11.38/-10.38	-6.3/-7.62	-6.07/-10.01	-9.75/-16.62	-15.29/-10.04	-10.02/-8.16	-19.27/-16.93	-19.31/-18.91	-16.64/-16.69	-18.12/-17.82	-16.23/-16.25	-17.8/-14.57	-9.26/-6.92	-11.42/-11.42	-16.13/-17.28
Θ(112.5°)	-16.04/-12.62	-9.67/-11.01	-12.49/-11.3	-16.16/-17.96	-18.84/-18.13	-16.17/-15.49	-18.94/-17.81	-13.82/-10.78	-8.62/-11.65	-9.23/-7.37	-5.15/-7.17	-7.05/-11.63	-11.16/-11.67	-8.69/-14.37	-16.75/-18.84	-10.93/-13.65	-17.65/-14.85	-18.58/-14.7	-17.99/-16.63	-14.16/-14.85	-12.17/-11.16	-11.85/-9.17	-9.77/-12.53	-17.96/-18.46
Θ(120°)	-18.38/-12.21	-12.15/-12.81	-15.15/-14.46	-18.18/-18.31	-18.31/-19.02	-13.25/-11.73	-12.79/-17.72	-18.25/-18.52	-17.88/-12.92	-11.92/-18.41	-13.51/-6.66	-4.46/-8.34	-7.4/-9.35	-10.56/-18.14	-18.67/-10.88	-16.5/-16.84	-8.69/-13.17	-16.53/-15.44	-10.84/-13.86	-17.7/-15.84	-12.01/-6.94	-8.5/-13.91	-10.2/-18.61	-18.43/-18.57
Θ(127.5°)	-17.66/-11.47	-9.72/-8.46	-10.16/-13.71	-14.06/-19.25	-16.8/-12.7	-19.12/-19.39	-16.44/-17.1	-17.87/-18.93	-19.45/-9.21	-7.45/-8.61	-11/-9.34	-6.35/-9.55	-7.22/-10.06	-10.31/-12.04	-19.27/-19.9	-17.91/-10.51	-10.44/-18.86	-16.96/-14.34	-12.72/-11.18	-15.85/-16.77	-17.39/-8.7	-8.61/-8.05	-9.15/-14.32	-18.88/-19.19
Θ(135°)	-18.43/-13.43	-14.06/-13.42	-9.37/-10.62	-12.32/-11.77	-17.84/-16.56	-18.85/-18.5	-18.54/-17.38	-14.95/-16.99	-17.07/-19.1	-18.35/-13.83	-14.65/-12.48	-11.71/-17.86	-12.71/-14.74	-15/-8.92	-10.41/-17.02	-12.6/-8.4	-17.5/-11.81	-11.61/-16.73	-9.87/-8.42	-7.75/-8.96	-8.09/-16.05	-9.68/-8.14	-7.67/-12.17	-16.32/-16.66
Θ(142.5°)	-11.16/-13	-11.6/-11.36	-12.83/-11.38	-10.84/-13.73	-13.86/-11.1	-12.58/-16.8	-15.67/-12.91	-12.28/-12.55	-14.46/-15.63	-12.33/-8.15	-10.83/-19.1	-14.69/-16.25	-15.93/-14.21	-13.4/-10.63	-11.74/-16.2	-7.1/-8.34	-9.39/-8.74	-10.92/-16.95	-8.64/-7.15	-6.84/-12.06	-7.78/-7.3	-9.47/-10.22	-12.92/-18.23	-18.56/-13.57
Θ(150°)	-18.91/-16.65	-11.6/-11.05	-10.13/-10.95	-10.29/-9.83	-10.01/-12.36	-14.46/-17.21	-17.69/-13.33	-19.55/-18.79	-18.8/-17.66	-14.21/-11.96	-10.11/-11.01	-12.46/-9.09	-5.36/-5.26	-9.79/-18.87	-14.81/-17.85	-12.91/-15	-13.41/-9.61	-8.23/-7.5	-8.67/-8.61	-10.13/-10.38	-9.63/-8.19	-9.57/-10.71	-15.82/-17.83	-18.97/-17.69
Θ(157.5°)	-18.55/-18.98	-17.86/-17.85	-16.86/-14.56	-18.6/-17.01	-12.14/-13.78	-17.2/-15.42	-14.64/-13.85	-15.02/-18.96	-17.76/-14.83	-11.41/-9.38	-9.77/-10.89	-10.88/-12.82	-17.75/-18.59	-14.21/-12.38	-18.54/-18.08	-14.87/-12.19	-9.82/-10.22	-8.59/-5.32	-3.41/-2.77	-3.28/-3.93	-4.48/-6.7	-10.73/-14.85	-18.43/-18.81	-18.71/-17.41
Θ(165°)	-12.46/-13.7	-14.77/-16.55	-16.68/-16.38	-15.31/-14.19	-14.72/-17.99	-17.84/-18.29	-13.81/-11.87	-10.68/-10.3	-10.55/-11.37	-12.41/-13.97	-16.48/-18.99	-18.66/-18.64	-17.22/-11.94	-10.15/-12.82	-12.49/-9.03	-11.8/-14.74	-13.56/-14.69	-9.99/-6.61	-5.36/-4.65	-4.2/-3.44	-2.96/-3.15	-4.05/-5.04	-6.2/-7.65	-9.63/-11.22
Θ(172.5°)	-11.34/-11.58	-11.6/-11.47	-12.69/-12.59	-13.56/-18.78	-17.23/-17.68	-15.65/-12.76	-11.14/-11.85	-14.14/-17.53	-17.97/-17.58	-18.73/-13.07	-14.9/-13.75	-16.66/-14.86	-16.55/-16.23	-15.67/-16.15	-18.49/-18.23	-17.82/-17.82	-17.17/-13.39	-11.18/-9.92	-8.19/-17.63	-7.01/-6.64	-6.58/-7.05	-7.61/-7.98	-8.66/-9.07	-9.82/-10.82
Θ(180°)	-8.54/-8.4	-8.56/-9.31	-10.61/-12.34	-14.64/-18.83	-17.87/-17.98	-19.01/-18.08	-18.27/-18.28	-12.71/-10.48	-9.55/-9.46	-10.35/-11.83	-13/-12.78	-12.53/-11.9	-11.49/-10.8	-10.1/-10.05	-11.3/-12.26	-12.55/-12.65	-14.24/-17.3	-18.79/-18.6	-17.59/-17.82	-17.12/-15.69	-14.42/-12.69	-11.34/-10.35	-9.46/-8.49	-8/-8.48
Freq(Hz)	6.175GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-15.09/-12.74	-12.24/-11.82	-10.69/-9.44	-9.57/-11.28	-11.21/-10.38	-11.06/-12.59	-13.14/-13.35	-13.81/-13.83	-14.85/-15.74	-15.84/-15.6	-15.48/-15.7	-17.22/-17.77	-17.63/-16.87	-17.54/-18.5	-17.85/-15.45	-14.95/-16.06	-16.4/-15.26	-14.33/-15.18	-15.62/-14.51	-14.25/-14.97	-16.56/-16.09	-18.6/-18.87	-17.58/-17.6	-17.28/-18.34
Θ(7.5°)	-8.4/-8.62	-5.96/-4.53	-4.58/-6.37	-3.48/-1.7	-3.92/-3.37	-3.63/-4.45	-5.09/-5.35	-6.11/-6.63	-7.81/-9.54	-11.43/-12.67	-12.47/-11.47	-10.89/-10.81	-10.56/-9.31	-8.84/-9.89	-9.9/-10.98	-11.64/-12.81	-13.67/-13.83	-13.96/-14.68	-15.75/-19.48	-14.44/-16.11	-16.2/-19.68	-19.23/-18.53	-17.65/-19.39	-13.98/-15.73
Θ(15°)	-2.3/-2.22	-2.21/-2.52	-0.49/-0.06	0.35/-0.23	0.14/-0.18	-0.27/-0.02	0.31/-0.05	0.34/-0.08	-0.34/-0.82	-1.71/-3.49	-5.55/-7.61	-7.71/-6.94	-6.09/-5.47	-3.73/-3.33	-3.24/-4.42	-6.21/-5.85	-8.87/-8.99	-8.63/-6.45	-4.25/-4.55	-5.03/-3.81	-5.83/-4.75	-5.03/-3.81	-5.83/-4.75	-5.03/-3.81
Θ(22.5°)	-1.2/-2.11	-2.18/-1.17	0.1/-1.4	1.18/-0.34	-0.52/-0.49	0.0/-0.65	1.422/-0.7	1.851/-1.3	0.56/-0.77	1.48/-1.16	-0.87/-4.62	-7.48/-7.61	-7.87/-7.36	-5.34/-2.79	-1.09/-1.18	-2.71/-3.68	-4.6/-6.74	-8.71/-10.12	-10.88/-9.92	-8.88/-8.39	-5.5/-2.88	-1.57/-0.81	-0.21/-0.08	-0.72/-0.87
Θ(30°)	0.29/-0.65	-0.24/-0.14	1.25/-1.69	1.35/-0.65	0.03/-0.66	1.98/-2.62	2.752/-0.6	4.07/-0.61	2.52/-7	1.48/-0.68	-2.07/-3.31	-5.98/-5.31	-3.35/-0.7	1.192/-0.5	1.67/-0.55	-3.71/-6.46	-8.67/-9.88	-9.29/-6.62	-5.73/-5.32	-2.46/-2.72	-0.77/-1.03	-0.49/-0.83	0.52/-0.73	
Θ(37.5°)	2.01/-0.79	2.08/-1.54	1.68/-1.55	0.28/-1.12	-1.18/-0.69	2.122/-7.4	3.323/-8.3	3.553/-18	1.94/-0.44	2.182/-9	2.181/-8.4	7.77/-2.23	-6.21/-4.84	-3.53/-1.81	0.592/-1	0.622/-2.18	-5.34/-7.47	-9.52/-10.83	-8.46/-6.93	-4.13/-6.41	-4.0/-2.8	-0.84/-3.02	1.052/-2.2	2.062/-55
Θ(45°)	1.83/-0.3	0.36/-1.91	2.08/-0.2	-1.19/-1.54	-1.03/-0.14	2.063/-0.6	3.163/-38	3.473/-74	4.2/-62	2.382/-11	0.10/-84	-0.07/-5.08	-9.94/-6.88	-4.58/-2.9	-0.12/-1	-1.9/-2.48	-4.2/-9.3	-11.24/-13.69	-12.78/-4.77	-2.78/-2.07	-0.97/-0.7	0.280/-96	2.22/-0.05	2.72/-72
Θ(52.5°)	2.4/-1	1.11/-1.42	1.02/-0.04	-1.15/-2.36	-0.76/-0.87	2.072/-97	3.031/-0.08	3.063/-12	4.033/-25	2.381/-45	-0.6/-31	-0.44/-5.04	-8.37/-1.74	-5.53/-6.27	-0.37/-0.25	-2.51/-4.18	-5.87/-9.21	-8.41/-15.88	-14.2/-8.06	-1.42/-0.34	1.142/-9	0.31/-0.85	2.331/-59	2.783/-02
Θ(60°)	2.6/-2.23	2.01/-1.34	-0.02/-0.96	-2.38/-1.87	-0.20/-87	1.851/-92	1.71/-11	3.122/-95	3.143/-31	2.321/-76	-0.921/-46	-7.19/-1.66	-5.81/-8.01	-4.83/-2.79	1.630/-86	-2.622/-2.76	-5.6/-8.39	-10.05/-10.65	-10.75/-7.09	-8.90/-34	1.263/-31	2.62/-1	1.56/-19	2.812/-66
Θ(67.5°)	2.81/-1.89	0.66/-0.42	-0.11/-1.59	-2.9/-1.01	0.17/-0.76	1.03/-0.17	-0.12/-0.96	2.22/-49	2.142/-91	1.231/-27	-1.23/-1.03	0.72/-0.83	-4.76/-7.48	-3.34/-4.09	0.71/-0.04	-3.07/-2.68	-2.81/-3.57	-8.67/-6.01	-4/-4.7	-0.41/-0.7	1.222/-57	2.371/-59	1.152/-52	2.732/-33
Θ(75°)	1.55/-0.76	-1.28/-0.46	-0.79/-2.88	-4.59/-1.56	-0.13/-0.67	-0.06/-0.02	-0.71/-0.34	0.971/-74	0.561/-46	0.550/-8	-1.98/-0.53	-0.38/-0.38	-3.74/-11.91	-4.44/-9.51	-1.55/-1.28	-2.59/-2.12	-2.76/-2.22	-1.39/-3.77	-2.13/-2.45	-0.62/-0.78	0.470/-98	1.61/-0.14	0.231/-82	1.580/-59
Θ(82.5°)	0.71/-0.36	-2.17/-0.75	-1.05/-3.43	-5.04/-3.06	-1.27/-1.58	-1.61/-1.34	-1.39/-0.41	0.150/-2	0.24/-0.27	-1.01/-0.13	-1.65/-0.53	-0.64/-0.53	-3.96/-12.07	-4.81/-11.6	-2.75/-1.59	-1.87/-1.94	-3.28/-3.5	-2.14/-3.49	-2.75/-2.45	0.50/-49	-1.42/-0.72	0.79/-1.73	-0.720/-63	0.49/-0.12
Θ(90°)	-0.57/-1.79	-3.03/-2.02	-2.86/-5.04	-6.71/-4.59	-2.39/-3.07	-3.22/-2.27	-2.27/-2.75	-1.27/-0.32	-0.31/-0.75	-1.45/-0.48	-2.92/-3.14	-4.16/-3.05	-9.47/-14.7	-11.18/-15.63	-4.92/-1.45	-2.33/-3.02	-4.97/-4.26	-4.15/-5.16	-4.95/-4.44	-1.91/-1.14	-3.27/-2.62	-0.73/-3.96	-3.39/-0.87	-0.71/-1.02
Θ(97.5°)	-1.74/-4.1	-4.19/-3.35	-4.01/-6.2	-9.09/-7.44	-3.77/-3.63	-4.37/-2.65	-3.72/-6.53	-5.15/-3.61	-2.43/-5.8	-5.48/-4	-5.55/-5.08	-5.02/-2.22	-9.63/-14.43	-13.32/-12.48	-6.35/-5.56	-7.87/-6.96	-7.84/-6.89	-10.52/-10.56	-10.52/-7.95	-4.03/-4.86	-6.21/-3.08	-1.48/-5.16	-5.9/-3.86	-2.63/-1.78
Θ(105°)	-4.29/-6.64	-5.26/-3.47	-5.46/-7.36	-10.73/-9.44	-6.81/-4.55	-6.15/-4.42	-4.45/-6.31	-3.81/-2.13	-2.31/-3.97	-5.8/-3.59	-6.55/-7.22	-9.8/-5.08	-8.69/-6.62	-7.31/-9.64	-10.05/-11.42	-18.06/-13.33	-8.66/-11.49	-6.71/-9.47	-15.46/-11.26	-7.04/-7.51	-7.23/-3.68	-2.81/-6.43	-8.66/-6.06	-3.35/-4.32
Θ(112.5°)	-7.47/-13.43	-7.82/-3.91	-4.86/-7.13	-12.46/-9.22	-6.68/-5.55	-5.55/-7.42	-4.52/-9.99	-6.51/-4.28	-6.04/-8.18	-8.65/-8.61	-13.72/-18.27	-7.06/-3	-7.71/-7.65	-7.15/-9.56	-14.99/-10.48	-8.32/-9.87	-10.58/-8.4	-8.89/-						



Radiated Composite Gain Data of Radio 0 (6GHz)

Appendix B

Θ(112.5°)	-16.98/-17.05	-14.6/-17.02	-18.94/-19.03	-18.63/-18.68	-15.94/-17.65	-18.28/-15.21	-19.07/-17.55	-17.58/-18.02	-15.51/-12.09	-11.76/-11.06	-9.9/-8.33	-7.52/-12.65	-13.19/-17.87	-15.42/-13.63	-11.32/-18.01	-13/-17.47	-16.36/-18.33	-18.73/-17.45	-13.85/-9.11	-12.77/-11.14	-6.17/-9.25	-15.89/-8.02	-10.74/-13.17	-19.3/-18.4
Θ(120°)	-18.57/-15.01	-14.08/-15.49	-18.28/-16.58	-15.97/-18.19	-18.76/-14.11	-16.32/-18.54	-17.24/-15.1	-19.08/-18.58	-17.55/-15.03	-11.94/-12.39	-13.26/-14.4	-9.06/-9.54	-10.17/-11.59	-16.29/-16.75	-19.21/-13.55	-18.95/-12.03	-12.4/-11.83	-18.27/-15.87	-7.16/-7.25	-13.6/-12.76	-6.3/-5.32	-13.56/-11.15	-13.19/-13.53	-18.91/-18.19
Θ(127.5°)	-18.14/-14	-14.55/-15.03	-15.32/-12.37	-13.29/-15.3	-18.79/-14.86	-13.4/-14.33	-18.49/-16.17	-15.04/-16.8	-18.96/-17.68	-9.92/-8.69	-8.51/-13.79	-11.37/-12.67	-8.74/-10.95	-17.59/-14.02	-18.72/-17.28	-17.7/-17.57	-12.11/-11.42	-15.24/-12.88	-9.51/-10.92	-16.16/-12.84	-10.11/-8.98	-9.46/-11.34	-15.77/-17.88	-17.84/-17.66
Θ(135°)	-17.53/-16.87	-17.11/-15.71	-14.86/-14.41	-12.2/-12.5	-12.58/-18.45	-18.23/-15.91	-13.8/-15.5	-17.87/-17.63	-16.02/-15.96	-12.17/-15.66	-11.95/-15.76	-15.41/-15.88	-18.76/-16.66	-16.35/-14.15	-11.45/-13.91	-18.95/-14.1	-18.22/-18.6	-12.9/-16.4	-12.72/-9.3	-10.1/-10.47	-12.42/-11.37	-10.54/-9.39	-14.29/-18.75	-18.48/-18.15
Θ(142.5°)	-14.55/-13.19	-12.72/-13.68	-12.52/-14.49	-15.36/-16.51	-17.92/-12.8	-11.03/-13.38	-19.07/-19.19	-17.91/-16.55	-18.33/-18.49	-18.11/-19.12	-13.26/-14.84	-15.84/-15.4	-17.44/-17.86	-14.19/-12.43	-17.49/-17.01	-13.59/-16.14	-10.74/-12.71	-17.93/-18.03	-11.32/-12.19	-11.36/-8.39	-6.98/-13.51	-16.22/-16.58	-18.2/-17.6	-16.57/-13.97
Θ(150°)	-17.18/-17.51	-17.44/-14.35	-12.56/-11.9	-12.11/-12.87	-15.59/-18.71	-18.86/-15.48	-15.63/-16.42	-19.13/-18.62	-16.71/-14.57	-12.17/-9.8	-10.47/-12.86	-10.94/-8.9	-8.68/-14.1	-14.46/-17.49	-18.34/-19.22	-17.27/-14.33	-16.89/-18.91	-17.31/-11.95	-15.69/-13.71	-13.75/-13.5	-17.67/-18.2	-17.59/-14.69	-14.42/-17.99	
Θ(157.5°)	-18.6/-17.36	-18.5/-17.85	-19.1/-16.88	-18.18/-14.67	-13.08/-11.87	-11.94/-11.98	-13.36/-13.26	-11.28/-9.79	-9.33/-11.39	-15.07/-18.78	-17.58/-15.99	-16.8/-13.64	-15.08/-17.44	-14.19/-14.72	-18.91/-18.08	-19.44/-17.47	-18.8/-18.93	-15.95/-10.8	-9.6/-10.34	-9.68/-9.6	-13.11/-18.11	-18.88/-17.76	-17.95/-17.52	-17.37/-18.5
Θ(165°)	-11.03/-10.69	-10.98/-9.85	-9.31/-9.34	-8.78/-8.71	-10.04/-11.36	-14.81/-18.13	-17.06/-14.29	-11.52/-10.75	-12.47/-16.99	-19/-18.88	-18.06/-19.36	-19.18/-17.78	-17.63/-18.69	-19.15/-18.72	-17.91/-18.98	-18.23/-18.69	-19/-14.73	-10.18/-8.55	-7.96/-7.05	-6.47/-6.28	-7.05/-8.51	-9.81/-11.59	-14.06/-14.35	-13.47/-12.48
Θ(172.5°)	-8.91/-9.24	-10.14/-11.02	-11.54/-11.62	-12.48/-15.31	-16.92/-19.15	-18.01/-17.62	-15.44/-14.44	-14.44/-17.12	-18.49/-18.13	-18.32/-18.02	-18.88/-19.21	-16.79/-15.52	-14.56/-13.62	-13.09/-13.63	-16.02/-16.27	-14.3/-14.86	-13.57/-11.74	-11.1/-11.35	-10.25/-9.12	-9.07/-9.02	-9.3/-10.16	-9.42/-9.14	-8.96/-8.66	-8.99/-9.01
Θ(180°)	-16.72/-16.43	-15.85/-14.62	-15.35/-16.69	-17.39/-17.35	-18.41/-19.03	-18.61/-18.31	-17.25/-14.54	-14.11/-13.4	-12.46/-12.48	-13.67/-15.49	-15.62/-15.08	-14.44/-14.27	-12.76/-11.83	-10.91/-10.35	-11.08/-11.9	-12.24/-12.06	-13.07/-14.36	-15.89/-19.07	-19.23/-19.3	-17.87/-18.87	-17.94/-18.87	-17.94/-17.39	-16.09/-13.75	-13.94/-14.62
Freq(Hz)	6.895GPol.	Theta/Ant. 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°)	-13.38/-11.26	-9.89/-9.84	-8.65/-7.69	-7.7/-7.86	-7.63/-7.72	-8.17/-8.25	-8.68/-9.14	-10.38/-12.12	-13.88/-16.83	-18.74/-18.86	-18.39/-18.42	-16.01/-13.91	-12.89/-11.53	-10.31/-9.87	-9.96/-8.66	-7.33/-7.31	-7.58/-7.05	-6.48/-6.45	-6.33/-6.31	-7.09/-7.65	-8.15/-8.81	-10.18/-11.5	-13.22/-13.95	-14.29/-13.81
Θ(7.5°)	-7.48/-6.61	-5.73/-5.04	-4.63/-4.39	-4.18/-3.77	-4.15/-4.37	-3.89/-3.54	-3.98/-4.3	-4.59/-4.7	-5.18/-6.37	-8.51/-11.33	-15.24/-18.66	-15.08/-10.85	-8.82/-7.43	-7.09/-7.45	-7.8/-7.12	-6.51/-6.16	-4.89/-3.61	-3.13/-3.14	-3.14/-3.69	-5.27/-7.25	-10.37/-17	-18.84/-19.26	-14.14/-11.33	-9.69/-8.43
Θ(15°)	-5.48/-5.62	-4.49/-3.66	-2.87/-1.8	-1.33/-1.71	-2.08/-2.25	-1.98/-1.77	-1.3/-1.34	-1.32/-1.32	-1.09/-1.2	-1.81/-2.83	-4.41/-7.16	-11.25/-14.72	-13.06/-10.92	-9.23/-8.92	-7.68/-5.58	-4.32/-3.81	-3.47/-3.22	-3/-2.5	-2.16/-2.53	-3.44/-4.58	-5.35/-5.66	-5.25/-4.65	-3.77/-3.13	-3.28/-4.19
Θ(22.5°)	-4.26/-4.26	-3/-2.52	-1.36/-0.56	-0.59/-0.46	-0.030/0.64	1.44/2.45	2.77/2.23	1.290/4.3	-0.42/-0.62	-0.220/1	-0.42/-2.33	-6.22/-12.6	-14.62/-12.39	-8.72/-4.2	-1.58/-1.09	-1.96/-2.81	-3.78/-5.48	-6.88/-6.98	-6.49/-6.57	-5.82/-4.29	-4.05/-4.13	-3.38/-2.47	-1.96/-2.08	-2.12/-2.54
Θ(30°)	-1/-1.3	-1.06/-0.07	0.55/-0.55	0.13/-0.04	0.79/-1.62	2.11/2.98	3.64/-3.18	1.78/0.6	0.570/-18	-1.070	0.920/-24	-1.03/-2.76	-5.07/-8.64	-8.89/-3.56	-0.930/-16	-0.26/-1.8	-4.19/-6.1	-6.98/-8.55	-8.06/-8.29	-7.81/-5.64	-4.88/-5.17	-4.37/-1.43	0.20	0.17/-0.2
Θ(37.5°)	0.420/-44	0.01/-0.07	-0.64/-1.2	-0.92/-0.13	1.42/-55	2.68/-32	1.250/-43	0.26/-0.26	0.44/-54	0.32/-0.3	0.47/-0.47	-0.49/-0.75	-2.86/-7.89	-7.98/-3.89	-0.610/-45	-0.74/-3.22	-7.99/-12.57	-13.71/-8.5	-9.05/-11.32	-11.36/-8.15	-1.450/-24	1.33/-1.86	1.040/-81	
Θ(45°)	3.04/-2.6	1.89/-2.21	1.41/-0.42	-0.130/-74	1.932/-48	2.14/-1.39	1.010/-9	1.52/-1.16	0.62/-2.62	3.11/-83	0.17/-3.89	-2.83/-2.01	-3.13/-3.64	-3.86/-5.92	-4.61/-5.01	-4.87/-5.35	-8.75/-14.42	-19.2/-10.95	-7.2/-6.45	-5.57/-4.06	-3.89/-3.09	1.11/-93	2.3/-04	2.91/-3.14
Θ(52.5°)	3.8/-93	2.53/-55	3.010/-71	0.52/-19	2.06/-103	0.910/-81	0.631/-34	2.853/-76	2.653/-95	4.212/-94	3.83/-5.98	-4.67/-5.38	-5.37/-2.56	-1.76/-5.52	-7.71/-7.8	-8.2/-9.85	-10.25/-10.5	-17.95/-11.36	-7.46/-4.92	-2.2/-0.55	-0.87/-2.04	2.93/-29	3.45/-4.1	3.75/-3.98
Θ(60°)	2.93/-197	1.97/-331	2.4/-0.22	-1.630/-103	1.020/-33	0.551/-62	2.73/-98	3.94/-65	4.34/-25	0.96/-4.41	-4.02/-5.07	-5.85/-2.6	-0.09/-2.95	-6.71/-6.81	-10.25/-11.69	-10.65/-8.39	-9.05/-12.56	-9.08/-5.51	-1.790/-31	-1.54/-117	3.41/-23	4.16/-39	3.82/-86	
Θ(67.5°)	2.040/-45	0.932/-3	0.96/-2.41	-2.97/-0.84	-0.240/-14	-0.12/-0.26	-1.15/-1.52	1.81/-3.08	3.17/-3.05	3.53/-1.55	0.85/-2.83	-3.22/-4.61	-5.52/-2.55	0.79/-1.11	-4/-6.47	-10.75/-7.02	-4.82/-3.43	-3.18/-4.08	-3.91/-2.53	-0.59/-0.29	-3.390/-57	2.68/-2.57	3.94/-3.06	2.66/-2.92
Θ(75°)	1.41/-0.66	-0.860/-66	-1.01/-3.86	-3.26/-3.57	-2.76/-1.31	-2.18/-0.93	-0.84/-2.5	-1.72/-14	1.882/-52	2.620/-69	0.26/-0.28	-2.18/-4.92	-8.37/-3.94	0.03/-1.35	-4.18/-6.52	-8.47/-5.91	-1.98/-4.09	0/-0.85	-1.52/-3.83	-0.48/-1.23	-4.69/-0.88	1.01/-142	2.66/-1.75	2.06/-4.7
Θ(82.5°)	0.23/-2.1	-2.37/-0.5	-1.71/-4.35	-3.41/-3.91	-3.97/-2.23	-3.1/-75	-2.11/-3.37	-4.39/-0.82	0.840/-32	0.85/-1.56	-2.07/-3.71	-3.31/-5.85	-10.12/-6.71	-1.75/-3.95	5.62/-8.14	-6.3/-4.44	-1.94/-0.32	-0.59/-0.31	-0.07/-0.54	-0.92/-2.17	-3.63/-3.18	-0.01/-1.2	1.340	0.44/-1.3
Θ(90°)	-0.99/-3.28	-3.47/-2.18	-2.62/-4.71	-3.94/-4.37	-4.34/-2.9	-4.33/-3.06	-4/-4.39	-5.66/-3.76	-0.91/-1.25	-1.38/-3.41	-2.69/-2.69	-3.09/-6.37	-8.47/-8.61	-6.32/-9.07	-10.43/-11.83	-6.79/-6.09	-4.58/-4.31	-2.56/-2.63	-1.91/-1.48	-3.5/-3.28	-9.22/-5.01	-2.4/-3.96	-0.56/-1.66	-0.830/-2
Θ(97.5°)	-2.35/-4.96	-4.93/-4.16	-3.89/-5.49	-4.92/-6.53	-5.25/-3.29	-6.41/-5.25	-5.76/-6.29	-7.54/-5.17	-3.03/-3.74	-3.55/-6.41	-6.15/-4.4	-5.58/-8.52	-9.87/-14.97	-9.65/-10.37	-9.82/-11.79	-8.93/-8.85	-8.86/-9.54	-5.01/-8.17	-7.96/-7.53	-8.36/-6.11	-10.63/-6.77	-4.2/-6.47	-3.15/-3	-2.14/-0.91
Θ(105°)	-3.71/-5.89	-7.71/-6.05	-4.74/-6.78	-7.02/-7.79	-6.67/-4.86	-6.09/-6	-7.24/-9.27	-9.61/-8.5	-8.71/-6.38	-4.52/-7.89	-7.3/-5.28	-6.21/-9.17	-13.36/-16.78	-6.91/-6.41	-8.16/-13.35	-18.51/-18.48	-8.95/-9.37	-6.63/-7.81	-11.74/-8.73	-11.14/-8.43	-8.07/-7.34	-6.52/-10.05	-6/-5.77	-3.93/-2.26
Θ(112.5°)	-4.1/-6.65	-8.82/-6.73	-7/-10.44	-9.21/-9.21	-8.17/-6.96	-6.51/-6.12	-5.21/-9.64	-7.36/-9.02	-8.04/-6.91	-5.07/-8.04	-8.01/-10.94	-14.88/-15.03	-11.05/-12.92	-7.56/-8.8	-9.91/-19.18	-10.32/-10.88	-7.23/-5.84	-4.52/-8.19	-10.38/-6.94	-6.37/-16.3	-9.86/-7.75	-11.32/-12.27	-8.44/-7.33	-4.59/-3.96
Θ(120°)	-5.11/-9.84	-14.5/-7.89	-8.22/-13.43	-18.71/-15.97	-11.36/-7.88	-5.85/-6.37	-10.04/-11.81	-12.67/-8.44	-7.45/-8.41	-6.46/-9.13	-12.22/-18.7	-17.53/-13.42	-11.61/-15.77	-9.87/-9.86	-18.93/-10.49	-8.91/-6.61	-15.49/-18.55	-13.48/-18	-18.04/-11.18	-13.94/-16.92	-9.98/-5.95	-10.67/-9.79	-13.14/-7.78	-5.76/-7.03
Θ(127.5°)	-6.54/-9.21	-10.54/-12.08	-11.25/-9.82	-14.8/-15.15	-12.69/-8.64	-7.8/-9.47	-10.97/-10.72	-9.5/-7.5	-11.4/-9.25	-9.46/-11.52	-14.68/-18.49	-14.24/-13.73	-17.25/-17.14	-15.66/-18.55	-9.25/-9.14	-15.32/-18.05	-11.69/-15.02	-8.62/-13.73	-14.51/-9.47	-18.48/-10.86	-15.13/-7.89	-10.78/-13	-12.83/-9.14	-7.73/-8.88
Θ(135°)	-10.24/-10.74	-10.81/-11.3	-10.1/-10.49	-10.02/-11.9	-10.73/-8.49	-10.73/-8.49	-12.17/-13.1	-16.52/-17.76	-17.64/-14.93	-14.62/-11.27	-10.92/-13.22	-14.85/-15.68	-18.45/-10.85	-11.06/-13.97	-18.16/-13.36	-13.29/-11.5	-9.11/-9.61	-7.57/-9.99	-12.9/-10.02	-17.61/-10.64	-11.57/-12.14	-12.87/-17.71	-10.04/-6.19	-6.92/-14.9
Θ(142.5°)	-9.41/-13.77	-15.45/-14.36	-12.79/-11.26	-11.46/-11.4	-9.79/-8.32	-7.87/-9.06	-10.93/-11.47	-7.87/-8.13	-8.86/-9.03	-13.08/-12.11	-9.61/-9.28	-8.03/-10.77	-12.57/-14.85	-12.82/-17.83	-13.96/-8.41	-9.55/-19.25	-19.13/-15.31	-13.87/-15.57	-19.22/-17.64	-18.18/-18.08	-18.53/-19.28	-19.19/-13.66	-8.63/-7.57	-5.64/-7.3
Θ(150°)	-10.4/-12	-16.38/-13.17	-11.35/-11.03	-11.2/-13.04	-16.18/-13.75	-11.83/-10.97	-10.62/-10.86	-13.34/-15.09	-11.12/-10.72	-14.01/-15.18	-14.65/-18.91	-19.12/-18.26	-14.63/-14.15	-15.57/-16.99	-18.84/-18.29	-15.96/-18.48	-15.99/-13.47	-15.88/-18.52	-18.37/-18.34	-19.25/-18.74	-17.79/-17.22	-18.82/-18.62	-14.68/-14.07	-10.52/-9.42
Θ(157.5°)	-15.88/-17.47	-17.75/-17.4	-16.19/-13.26	-10.56/-9.81	-9.35/-9.96	-12.19/-13.63	-16.33/-17.24	-18.68/-18.42	-18.72/-15.95	-14.48/-15.11	-13.61/-13.37	-13.53/-19.18	-8.53/-19.1	-17.67/-15.18	-15.71/-17.35	-18.07/-15.87	-17.19/-19.05	-17.95/-19.22	-17.89/-18.96	-16.95/-11.66	-9.43			



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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)	4.9	3.52	4.07	4.19	5.01	4.42	4.36	5.86	3.44
Ant. 1 Polarization/Θ(°)/Φ(°)	Theta/52.5/322.5	Phi/45/15	Phi/45/15	Theta/67.5/7.5	Theta/67.5/7.5	Theta/60/7.5	Theta/67.5/22.5	Theta/67.5/22.5	Theta/60/15



Sporton International Inc. Hsinchu Laboratory



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

Appendix C

Θ(22.5°)	1.33/183	2.43/292	3.36/378	3.89/35	2.46/77	-1.37/-4.27	-7.15/-10.33	-11.62/-14.86	-18.65/-11.57	-6.26/-2.72	-0.52/0.61	0.86/0.72	0.49/0.35	0.34/0.43	0.27/-0.27	-0.93/-1.26	-2.52/-3.61	-4.43/-5.01	-5.79/-7.61	-9.39/-8.21	-5.14/-2.96	-1.63/-0.67	0.22/0.84	1.06/1.26
Θ(30°)	1.55/2.26	2.66/2.91	3.1/3.44	3.43/2.8	1.79/0.38	-1.68/-4.25	-7.54/-10.86	-12.74/-15.13	-18.86/-10.27	-4.47/-1.03	0.75/1.36	1.48/1.52	1.55/1.78	1.99/1.69	0.81/-0.31	-1.31/-2.61	-3.38/-0.44	-4.23/-3.99	-4.09/-5.44	-7.58/-6.2	-3.69/-2.7	-2.53/-0.37	-3.09/-2.13	-6.60/-6.4
Θ(37.5°)	1.58/2.76	3.41/3.66	3.29/2.95	2.70/6.65	-0.6/-1.68	-2.84/-4.34	-6.61/-10.66	-14.53/-19.17	-17.98/-9.05	-3.21/0.17	1.62/1.78	1.8/1.8	1.67/2.4	2.98/2.48	1.64/0.86	-0.06/-1.01	-2.07/-3.14	-4.87/-6.01	-9.4/-8.72	-5.09/-3.85	-3.89/-4.45	-4.78/-4.05	-2.30/-1.2	
Θ(45°)	2.66/3.77	4.07/3.87	3.5/2.85	1.35/-1	-3.3/-4.59	-4.74/-4.85	-6.48/-11.2	-16.97/-17.64	-19.21/-10.11	-3.79/-0.61	1.27/2.13	2.2/2.2	1.82/2.12	2.67/2.36	2.21/1.43	0.7/-0.32	-2.21/-3.89	-4.89/-5.4	-6.57/-9.87	-15.65/-10.88	-7.17/-5.52	-3.9/-2.98	-2.68/-1.98	-0.71/-2.4
Θ(52.5°)	3.15/3.67	3.52/3.02	2.76/2.42	0.96/-1.72	-4.51/-5.05	-4.65/-5.36	-6.91/-12.44	-18.26/-18.41	-18.16/-12.75	-5.62/-2.43	-0.29/-1.39	1.99/1.68	0.36/0.51	1.56/1.73	1.41/0.6	0.25/-1.4	-3.36/-4.9	-7.04/-9.16	-10.21/-12.68	-18.92/-13.68	-11.01/-8.28	-4.56/-2.81	-1.74/-0.37	1.02/2.29
Θ(60°)	2.74/3.19	2.51/3.5	0.86/1.13	0.47/-3.27	-5.24/-4.87	-5.44/-7.24	-8.66/-12.44	-18.98/-18.5	-18.44/-14.99	-8.09/-5.2	-3.32/-0.8	0.93/0.65	-1.12/-1.35	-0.12/0.58	0.41/-0.17	-0.43/-1.96	-3.68/-4.8	-7.46/-10.84	-12.21/-14.63	-18.55/-18.66	-17.71/-10.31	-5.85/-4.26	-2.18/-0.47	0.78/1.78
Θ(67.5°)	1.73/1.85	0.38/-1.39	-1.71/-0.61	-0.72/-3.71	-5.81/-4.72	-5.07/-9.17	-10.83/-13.33	-15.32/-18.91	-18.17/-18.35	-10.6/-8.33	-6.72/-3.19	-0.99/-1.44	-3.77/-3.4	-1.79/-0.96	-1.62/-2.52	-2.05/-4.14	-5.76/-5.45	-8.68/-15.77	-13.8/-12.88	-17.29/-18.76	-18.07/-11.77	-6.79/-5.62	-3.48/-1.93	-0.55/0.79
Θ(75°)	-0.37/0.02	-1.65/-4.23	-5.03/-3.22	-2.72/-5.7	-7.67/-5.36	-5.13/-11.29	-13.82/-14.53	-12.67/-18.84	-17.84/-19.17	-13.44/-11.78	-9.54/-5.52	-3.41/-2.79	-5/-5.37	-4.35/-2.77	-3.97/-4.78	-3.48/-5.84	-3.3/-6.53	-11.05/-18.28	-14.35/-14.46	-17.97/-17.4	-18.35/-11.01	-8.32/-8.53	-6.17/-4.68	-3.62/-2.1
Θ(82.5°)	-3.52/-2.69	-4.24/-6.18	-7.48/-5.53	-4.29/-7.24	-9.9/-7	-5.83/-11.59	-17.4/-16.57	-13.19/-17.92	-18.12/-18.97	-17.43/-14.94	-14.49/-9.59	-5.96/-4.74	-7.54/-6.78	-6.37/-4.76	-7.63/-6.16	-5.27/-8.94	-9.56/-6.98	-12.39/-17.24	-15.14/-15.05	-19.04/-18.97	-17.77/-12.67	-9.29/-11.6	-8.37/-7.06	-5.79/-4.98
Θ(90°)	-6.2/-5.59	-6.82/-7.03	-7.06/-7.86	-6.59/-7.96	-10.43/-8.37	-6.27/-12.13	-19.31/-17.76	-13.1/-19.3	-18.01/-18.15	-16.79/-14.67	-12.53/-11.01	-9.25/-6.75	-9.67/-8.38	-9.7/-8.31	-10.75/-9.76	-7.81/-12.95	-12.49/-9.92	-14.2/-12.49	-14.81/-17.75	-17.57/-18.34	-18.7/-12.94	-11.35/-14.88	-11.79/-10.24	-8.02/-7.36
Θ(97.5°)	-11.83/-9.78	-10.52/-7.31	-7.75/-10.6	-9.13/-9.8	-10.91/-11.93	-8.02/-14.69	-18.6/-17.5	-15.29/-18.97	-18.65/-18.68	-18.21/-15.31	-11.31/-11.42	-11.6/-9.36	-11.72/-16.07	-18.11/-17.84	-14.89/-13.43	-18.11/-18.83	-18.85/-18.43	-16.96/-14.79	-17.6/-17.48	-17.87/-18.58	-15.78/-15.8	-17.27/-18.58	-17.71/-18.3	-11.76/-10.27
Θ(105°)	-15.79/-14.81	-12.93/-8.6	-7.76/-13.32	-14.87/-12.32	-12.96/-16.63	-10.57/-14.75	-15.76/-18.18	-17.76/-18.71	-17.36/-18.66	-19.09/-15.27	-9.95/-13.18	-18.19/-14.36	-11.19/-8.4	-13.58/-17.17	-13.11/-12.28	-14.17/-18.77	-18.15/-19.19	-17.93/-13.96	-16.41/-17.17	-18.71/-17.87	-15.42/-12.79	-14.92/-18.55	-18.62/-19.02	-16.91/-11.67
Θ(112.5°)	-18.24/-18.98	-12.13/-6.82	-7.71/-18.36	-18.46/-14.39	-10.64/-17.5	-14.69/-16.74	-14.97/-17.27	-17.99/-19.04	-18.52/-18.31	-18.47/-17.42	-11.87/-14.48	-15.34/-17.57	-9.53/-11.44	-18.42/-17.8	-15.77/-12.11	-18.71/-17.87	-18.38/-18.71	-19.63/-13.26	-18.61/-18.88	-19.05/-18.38	-16.65/-14.99	-14.24/-17.47	-19.1/-18.22	-12.37/-13.32
Θ(120°)	-19.02/-18.23	-13.58/-9.57	-9.95/-14.27	-17.39/-18.54	-10.91/-11.93	-18.86/-18.96	-17.23/-18.34	-18.71/-17.6	-18.24/-18.37	-13.9/-17.88	-17.02/-14.71	-14.84/-15.2	-11.72/-16.07	-18.11/-17.84	-14.89/-13.43	-18.11/-18.83	-18.85/-18.43	-16.96/-14.38	-17.6/-17.48	-17.87/-18.58	-15.78/-15.8	-17.27/-18.58	-12.25/-17.5	-17.83/-13.98
Θ(127.5°)	-19.21/-13.87	-13.41/-12.97	-13.47/-16.6	-18.94/-18.97	-13.19/-13.79	-18.35/-17.86	-17.95/-17.55	-17.5/-17.74	-18.82/-18.53	-13.47/-13.29	-18.94/-13.72	-13.37/-15.28	-18.86/-19.21	-18/-17.09	-16.3/-13.8	-18.91/-19.06	-18.75/-18.88	-17.42/-16.28	-18.38/-16.96	-18.4/-18.67	-16.81/-18.98	-19.06/-18.87	-12.63/-16.07	-16.65/-19.6
Θ(135°)	-17.96/-18.19	-11.24/-11.9	-11.48/-12.81	-17.5/-16.29	-9.51/-10.92	-17.72/-18.95	-18.57/-18.86	-17.95/-17.35	-17.44/-18.48	-12.21/-10.99	-13.34/-17.87	-18.89/-13.11	-15.69/-18.64	-17.63/-18.98	-18.77/-18.36	-18.34/-15.76	-18.03/-19.39	-18.66/-16.03	-18.64/-18	-19.19/-18.07	-15.64/-13.14	-17.06/-19.1	-17.24/-15.94	-18.42/-19.1
Θ(142.5°)	-18.38/-16.09	-14.41/-11.86	-16.73/-15.07	-12.68/-14.81	-18.24/-14.08	-12.95/-18.18	-18.55/-18.06	-15.31/-19.16	-16.22/-13.76	-18.08/-15.73	-18.66/-15.94	-18.04/-18.31	-17.11/-18.25	-15.9/-13.71	-17.44/-18.36	-18.53/-16.97	-18.99/-18.97	-18.49/-18.95	-17.67/-13.8	-13.26/-18.85	-18.24/-18.54	-16.82/-16.72	-15.21/-18.38	
Θ(150°)	-17.94/-11.58	-9.02/-9.4	-11.71/-16.99	-13.79/-13.47	-13.3/-16.16	-14.09/-10.28	-12.51/-11.25	-18.2/-18.06	-16.79/-16.55	-19.09/-18.18	-18.2/-16.58	-18.22/-18.81	-15.51/-18.53	-18.78/-16.62	-16.56/-17.53	-18.6/-19.25	-18.37/-19.04	-17.42/-16.99	-18.81/-18.29	-18.55/-17.86	-18.68/-17.84	-18.31/-18.34	-18.31/-15.72	-13.96/-17.77
Θ(157.5°)	-18.76/-17.05	-13.28/-12.05	-13.31/-14.8	-13.98/-13.77	-14.76/-16.2	-15.39/-13.34	-11.65/-12.75	-16.84/-18.03	-19.26/-16.08	-14.63/-14.66	-15.09/-13.92	-12.59/-12.84	-16.16/-18.58	-18.9/-16.15	-16.9/-17.58	-18.07/-17.53	-17.79/-17.76	-18.54/-17.41	-18.51/-18.03	-18.61/-18.4	-18.8/-18.51	-18.54/-18.07	-15.75/-12.79	-12.24/-16.28
Θ(165°)	-17.67/-14.46	-12.52/-11.89	-12.41/-13.46	-15.16/-17.47	-17.91/-17.83	-19.26/-15.76	-14.23/-14.35	-16.83/-18.63	-18.42/-17.84	-16.22/-14.13	-13.12/-13.06	-13.9/-16.78	-18.68/-18.16	-18.75/-19.06	-19.01/-18.52	-18.34/-18.22	-18.53/-18.34	-17.95/-18.57	-19.07/-19.03	-19.28/-17.93	-18.04/-17.58	-18.24/-16.1	-15.08/-14.47	-16.69/-18.23
Θ(172.5°)	-19.04/-18.01	-19/-17.68	-18.01/-18.46	-18.23/-17.95	-17.89/-17.3	-18.14/-18.12	-18.41/-18.97	-18.2/-17.9	-17.56/-17.77	-17.41/-16.64	-16.84/-17.79	-18.22/-18.64	-19.07/-18.45	-17.32/-18.3	-17.23/-18.73	-19.03/-18.35	-18.96/-18.36	-19.45/-18.31	-18.36/-18.14	-17.65/-16.47	-15.03/-14.32	-13.52/-13	-13.44/-14.54	-16.13/-17.94
Θ(180°)	-17.91/-18.06	-18.84/-19.2	-18.11/-17.74	-17.9/-18.73	-18.63/-18.78	-17.38/-18.2	-18.94/-18.09	-18.04/-17	-15.96/-15.22	-14.81/-14.31	-13.61/-13.17	-13.38/-13.73	-14.21/-14.93	-16.45/-18.58	-18.02/-19	-19.25/-17.68	-18.76/-17.84	-19.24/-18.57	-18.47/-17.88	-18.26/-18.33	-19.24/-18.57	-17.95/-18.93	-19.17/-17.85	-17.9/-18.81
Freq(Hz)	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°)	-7.76/-11.12	-16.83/-17.51	-12.93/-8.58	-5.75/-3.53	-1.75/-0.51	0.29/1.04	1.6/2.09	2.34/2.45	2.45/2.38	2.1/44	0.67/-0.58	-1.87/-3.88	-6.43/-9.61	-13.76/-13.85	-9.51/-6.15	-3.61/-1.9	-0.48/0.5	1.31/7.8	2.03/2.22	2.28/2.16	1.86/1.37	0.84/0.1	-0.94/-2.18	-3.57/-5.69
Θ(7.5°)	-5.71/-7.54	-10.54/-16.61	-18.03/-14.52	-9.42/-5.83	-3.42/-2.04	-1.16/-0.41	0.30/0.83	1.09/1.33	1.55/1.81	1.79/1.36	0.79/0.13	-0.10/-2.95	-5.45/-8.62	-13.13/-12.64	-8.33/-4.98	-2.64/-0.89	0.37/1.31	1.99/2.48	2.82/3.09	3.12/2.93	2.57/2.06	1.56/0.8	-0.34/-1.49	-2.67/-4.14
Θ(15°)	-2.05/-2.59	-3.88/-6.14	-9.84/-13.83	-1.19/-6.26	-3.46/-1.72	-0.88/0.41	-0.26/-0.18	-1.0/2.4	0.79/1.46	1.73/1.52	0.77/-0.29	-1.93/-5.46	-8.16/-14.02	-19.02/-13.29	-8.11/-5.33	-2.37/-1.82	-0.74/0.07	1.73/2.12	2.49/2.67	2.67/2.48	2.21/1.69	0.76/-0.17	-1.04/-1.63	
Θ(22.5°)	-2.31/-2.44	-2.78/-3.77	-5.82/-8.62	-10.35/-6.17	-3.05/-1.67	-1.41/-2.12	-3/-3.65	-3.23/-2.13	-6.07/0.3	1.03/0.9	0.08/-1.66	-4.3/-7.23	-8.62/-9.39	-9.93/-9.1	-8.07/-6.66	-4.88/-3.35	-2.36/-2.17	-2.37/-2.54	-2.09/-1.26	-0.45/0.06	0.4/0.55	0.78/0.99	0.94/0.38	-0.61/-1.68
Θ(30°)	-4.38/-4.89	-3.69/-2.92	-3.68/-6.36	-11.62/-10.22	-6.41/-5.56	-6.37/-8.11	-9.33/-9.22	-7.63/-5.67	-3.75/-2.56	-1.22/0.34	-1.05/-1.35	-5.72/-7.36	-7.46/-6.48	-11.59/-13.44	-10.85/-8.34	-5.78/-8.37	-3.67/-4.68	-5.34/-5.13	-4.23/-3.05	-2.19/-2.26	-2.69/-2.63	-2.18/-1.09	-0.5/-0.8	-1.77/-2.9
Θ(37.5°)	-4.65/-6.15	-4.78/-3.36	-2.92/-4.61	-9.12/-18.64	-18.28/-12.63	-10.69/-10.81	-10.68/-10.44	-9.4/-9.12	-9.54/-7.41	-3.71/-1.79	-2.36/-4.71	-7.02/-7.98	-8.28/-10.37	-18.71/-16.6	-7.27/-6.56	-4.95/-4.78	-4.93/-6.4	-7.44/-4.64	-2.31/-2.11	-3.62/-4.1	-2.79/-1.3	-0.62/-0.96	-1.72/-2.6	
Θ(45°)	-1.99/-3.28	-2.25/-1.09	-0.21/-1.27	-4.42/-7.03	-8.52/-7.27	-6.2/-5.58	-8.36/-10	-11.77/-13.39	-18.82/-16.4	-6.54/-3.36	-4.01/-6.54	-6.46/-7.67	-9.05/-9.31	-11.13/-4.83	-2.54/-2.35	-3.69/-4.86	-4.63/-4.5	-5.03/-6.22	-5.94/-3.63	-2.14/-2.31	-3.6/-4.24	-2.50/-1.5	1.16/0.45	-0.47/-0.92
Θ(52.5°)	-0.22/-1.08	-0.28/0.79	1.86/1.07	-1.31/-4.04	-5.4/-4.39	-5.07/-1.09	-8.09/-8.32	-8.2/-8.27	-11.34/-12.93	-7.79/-6.09	-6.09/-6.29	-4.53/-5.68	-7.71/-11	-7.56/-2.71	-1.02/-0.84	-3.13/-4.57	-3.91/-4	-4.87/-5.96	-5.85/-3.61	-1.41/-1.79	-3.86/-4.86	-3.05/0.14	1.17/0.57	0.03/-0.36
Θ(60°)	1.02/-0.08	0.73/0.99	2.37/1.95	-0.34/-3.52	-3.72/-3.95	-8.22/-12.26	-9.94/-8.68	-7.51/-5.92	-7.54/-11.8	-10.14/-7.71	-7.18/-4.3	-3.81/-4.32	-7.74/-6.42	-8.98/-3.74	-1.65/-0.87	-2.72/-2.56	-3.57/-3.05	-4.02/-5.05	-4.89/-3.2	-0.59/-0.13	-1.89/-3.64	-3.38/-0.52	0.02/-0.61	-0.86/-0.12
Θ(67.5°)	1.75/0.35	0.86/0.52	2.31/2.02	-0.46/-3.74	-3.1/-5.11	-11.63/-9.79	-7.55/-6.53	-5.57/-4.57	-6.32/-11.95	-11.77/-9.2	-7.25/-2.88	-3.1/-3.86	-7.05/-6.7	-9.24/-4.48	-2.67/-1.02	-3.51/-5								



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

Appendix C

Θ(75°)	-1.85/-2.25	-2.38/-4.55	-8.11/-6.3	-2.82/-2.61	-4.42/-5.68	-8.03/-9.66	-8.54/-18.98	-17.42/-14.94	-10.77/-17.3	-18.48/-17.76	-13.55/-8.18	-6.61/-5.76	-3.34/-2.76	-4.72/-4.57	-2.97/-3.34	-7.45/-7.33	-8.92/-12.67	-12.13/-16.94	-17.91/-14.1	-12.23/-14.37	-13.79/-11.47	-12.36/-11.33	-6.47/-5.58	-4.36/-3.51
Θ(82.5°)	4.91/-4.57	-4.95/-4.68	-11.21/-10.57	-4.76/-4.26	-5.95/-5.75	-7.13/-13.55	-9.31/-16.16	-12.36/-13.3	-10.74/-19.14	-18.74/-18.77	-14.98/-11.06	-11.85/-11.21	-6.46/-5.01	-9.08/-8.52	-5.19/-5.66	-8.03/-7.57	-11.52/-12.68	-10.66/-18.65	-19.11/-11.85	-11.27/-12.39	-15.16/-14.69	-14.8/-14.37	-8.34/-8.12	-8.03/-6.55
Θ(90°)	-8.17/-6.76	-8.71/-10.78	-16.08/-16.59	-5.56/-3.3	-9.52/-8.44	-7.69/-16.75	-12.01/-19.35	-11.98/-16.15	-12.85/-18.96	-16.28/-18.34	-14.68/-9.09	-12.85/-13.47	-8.02/-6.99	-11.82/-11.94	-8.3/-8.72	-11.26/-9.99	-16.48/-16.64	-12.37/-19.02	-19.13/-14.63	-11.81/-15.85	-18.19/-15.77	-17.17/-17.25	-10.67/-12.2	-12.83/-11.64
Θ(97.5°)	-9.31/-7.96	-11.53/-15.34	-12.58/-13.97	-9.79/-8.88	-14.54/-10.24	-7.91/-18.46	-14.31/-17.73	-10.04/-19.09	-16.15/-18.33	-18.3/-17.45	-15.97/-11.02	-16.97/-16.75	-9.28/-8.72	-16.53/-14.68	-11.03/-17.81	-13.11/-12.76	-18.02/-16.91	-17.47/-18.76	-18.54/-18.29	-16.98/-18.56	-18.3/-19.18	-17.88/-18.65	-13.74/-13.02	-15.59/-16.02
Θ(105°)	-12.61/-9.55	-15.47/-16.17	-11.74/-13.23	-11.21/-10.2	-14.22/-12.1	-8.34/-16.58	-17.74/-17.44	-11.05/-18.42	-14.6/-15.86	-18.08/-19.13	-16.98/-12.63	-14.03/-12.77	-13.84/-15.45	-17.4/-14.24	-13.32/-15.68	-11.68/-12.82	-19.14/-18.98	-17.9/-17.72	-18.72/-18.37	-14.79/-19.05	-17.86/-16.69	-18.39/-18.93	-13.91/-16.35	-17.64/-15.67
Θ(126°)	-15.56/-15.82	-14.96/-12.59	-11.13/-12.6	-13.97/-12.36	-14.78/-15.92	-11.52/-19.03	-16.25/-18.25	-13.55/-16.92	-18.82/-17.74	-18.76/-15.07	-18.15/-15.36	-17.5/-14.8	-17.16/-16.98	-18.24/-14.95	-19.66/-16.69	-10.62/-13.78	-15.44/-16.84	-18.9/-18.27	-17.12/-18.61	-16.5/-18.05	-18.41/-18.6	-18.1/-18.26	-16.82/-17.26	-15.01/-17.98
Θ(120°)	-17.14/-18.15	-15.14/-11.37	-9.81/-14.89	-17.61/-15.11	-12.22/-13.27	-17.52/-19.04	-17.53/-18.89	-15.95/-17.89	-17.47/-16.97	-18.5/-11.21	-10.78/-16.9	-16.47/-16.66	-18.94/-17.38	-18.83/-18.14	-18.01/-17.96	-16.03/-19.17	-17.24/-19.43	-18.22/-18.59	-17.32/-17.75	-16.33/-18.66	-18.4/-18.69	-17.73/-19.2	-18.17/-17.65	-19.37/-17.3
Θ(127.5°)	-17.28/-17.24	-11.06/-9.4	-12.76/-15.24	-18.64/-18.77	-10.39/-9.5	-17.22/-18.26	-18.22/-17.76	-16.04/-17.68	-19.16/-12.49	-13.9/-19.18	-17.1/-11.96	-16.48/-15.4	-14.27/-14.4	-16.42/-18.88	-18.11/-17.34	-13.79/-17.88	-17.69/-18.81	-18.29/-17.31	-18.24/-19.1	-16.53/-17.47	-17.68/-17.91	-17.58/-17.84	-13.56/-17.41	-18.52/-19.04
Θ(135°)	-16.25/-14.68	-9.72/-9.03	-10.46/-14.75	-19.28/-18.56	-11.21/-10.63	-18.81/-17.98	-16.16/-18.25	-15.46/-13.7	-18.17/-10.77	-15.12/-17.77	-18.02/-13.02	-11.86/-14.54	-15.95/-15.55	-17.17/-17.98	-15.36/-11.85	-18.57/-15.22	-17.34/-19	-18.67/-12.22	-16.05/-18.12	-15.09/-13.81	-15.17/-14.82	-15.15/-18.39	-19.3/-17.73	-18.79/-19.02
Θ(142.5°)	-13.43/-13.79	-15.05/-14.76	-15.51/-17.82	-18.41/-12.75	-9.51/-12.19	-17.73/-16.96	-15.71/-18.13	-14.65/-12.41	-17.61/-17.95	-14.88/-13.89	-14.97/-15.86	-13.6/-16.8	-19.01/-18.45	-18.05/-17.93	-18.24/-18.74	-18.66/-19	-18.17/-18.04	-19.21/-16.16	-17.61/-18.98	-17.81/-17.02	-19.18/-16.12	-14.21/-18.11	-18.81/-19.03	-18.97/-17.12
Θ(150°)	-17.84/-11.57	-9.45/-9.09	-12.91/-18.44	-12.77/-8.49	-8.32/-10.91	-11.51/-8.86	-9.1/-13.68	-18.66/-15.41	-15.9/-19.74	-18.76/-19.14	-18.05/-19.1	-18.83/-17.92	-19.07/-19.28	-17.78/-17.77	-18.87/-16.96	-17.28/-18.59	-17.51/-18.84	-18.34/-15.68	-18/-18.48	-18.69/-18.39	-18.08/-19.03	-17.86/-18.09	-18.84/-11.64	-10.52/-15.93
Θ(157.5°)	-17.85/-17.7	-12.86/-13.51	-16.94/-18.29	-18.56/-14.8	-14.79/-14.32	-11.99/-10.28	-9.76/-13.99	-12.42/-15.84	-17.06/-14.68	-12.98/-12.66	-13.15/-14.19	-16.42/-18.88	-19.12/-17.59	-15.18/-12.24	-17.84/-13.92	-18.34/-18.81	-17.14/-18.44	-19.52/-18.53	-17.83/-17.74	-18.91/-18.06	-18.74/-17.85	-17.17/-13.73	-10.8/-8.88	-9/-11.93
Θ(165°)	-19.27/-17.66	-17.96/-17.94	-18.42/-18.26	-18.96/-18.06	-18.27/-17.04	-13.96/-12.23	-11.86/-12.73	-16.3/-17.27	-18.67/-18.02	-15.59/-14.35	-14.71/-15.72	-17.15/-18.2	-18.75/-17.31	-18.68/-18.73	-18.15/-18.4	-17.61/-18.66	-17.13/-19.05	-18.76/-19.19	-18.52/-18.17	-17.52/-17.33	-15.54/-13.54	-12.08/-11.34	-11.2/-11.32	-11.96/-14.76
Θ(172.5°)	-18.47/-18.63	-18.12/-18.55	-18.48/-19.15	-18.33/-17.66	-15.55/-14.36	-14.4/-15.35	-17.68/-19	-19.28/-19.35	-17.25/-15.06	-13.45/-13.03	-14.1/-15.39	-16.13/-17.86	-18.6/-17.54	-18.55/-18.77	-15.57/-14.73	-14.82/-15.43	-16.34/-16.86	-16.76/-16.25	-15.75/-15.36	-14.81/-14.57	-13.98/-13.06	-12.49/-12.98	-13.94/-14.18	-14.92/-16.25
Θ(180°)	-17.81/-18.61	-17.73/-17.97	-17.47/-17.69	-19.06/-18.94	-17.86/-18.58	-18.01/-18.49	-18.53/-18.3	-18.76/-17.98	-18.4/-18.85	-18.95/-18.05	-16.37/-14.99	-14.36/-15.46	-17.39/-18.87	-18.65/-17.53	-18.32/-18.83	-18.55/-18.02	-17.2/-18.49	-18.1/-18.48	-18.22/-19.12	-18.71/-18.32	-19.24/-18.69	-17.63/-17.57	-19.11/-17.74	-18.9/-18.34
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°)	-9.62/-13.14	-16.46/-13.22	-9.66/-6.55	-4.56/-3.16	-1.9/-0.78	0.040/0.5	0.790/0.97	0.940/0.85	0.620/0.25	-0.38/-0.125	-2.42/-4.51	-7.35/-11.59	-18.5/-18.24	-12.14/-7.93	-5.26/-3.18	-1.61/-0.41	0.521/2.4	1.621/1.8	1.911/1.9	1.741/4.7	0.825/0.5	-0.14/-0.96	-1.99/-3.4	-1.57/-2.5
Θ(7.5°)	-5.19/-6.84	-9.62/-13.97	-17.61/-17.94	-11.85/-7.73	-5.08/-3.23	-1.82/-0.94	-0.41/-0.14	-0.21/-0.35	-0.64/-1.11	-2.02/-3.51	-5.39/-7.97	-12.74/-18.95	-17.78/-14.06	-8.71/-5.8	-3.78/-2.1	-0.790.18	0.981/5.2	1.741/7.7	1.711/5.3	1.270/8.2	0.35/-0.12	-0.57/-1.11	-1.63/-2.29	-3.1/-4.04
Θ(15°)	-2.21/-2.71	-3.8/-5.1	-8.27/-12.69	-4.15/-9.22	-5.85/-3.67	-2.26/-1.48	-0.92/-0.56	-0.43/-0.67	-1.43/-2.43	-3.48/-4.78	-6.43/-8.3	-9.98/-10.81	-11.06/-11.52	-1.21/-9.47	-6.78/-4.52	-2.94/-1.77	-0.81/-0.23	-0.12/-0.38	-0.72/-0.85	-0.8/-0.48	-0.25/-0.13	-0.25/-0.52	-0.92/-1.64	-1.91/-1.96
Θ(22.5°)	-1.92/-2.18	-2.21/-2.56	-3.57/-4.94	-5.26/-3.65	-2.27/-2.01	-1.62/-1.45	-0.99/-0.42	0.04/-0.21	-1.37/-3.36	-6.19/-8.75	-10.11/-9.91	-8.29/-6.34	-5.66/-6.7	-9.85/-17.52	-18.51/-13.03	-9.95/-7.54	-5.38/-3.94	-3.51/-3.94	-4.79/-4.46	-5.48/-4.9	-4.33/-1.81	-0.40/-0.56	0.68/-0.33	-1.42/-1.84
Θ(30°)	-4.56/-3.97	-3.61/-2.94	-2.62/-3.33	-3.39/-3.15	-3.6/-3.38	-2.43/-1.9	-2.15/-2.62	-2.46/-2.02	-2.9/-6.32	-14.48/-19.01	-18.56/-16.46	-10.27/-6.82	-5.63/-5.96	-6.78/-8.33	-9.17/-6.3	-8.18/-8.4	-5.45/-3.05	-1.44/-1.17	-2.28/-3.62	-3.86/-4.52	-4.75/-3.6	-2.23/-1.01	-0.46/-1.22	-2.53/-4.24
Θ(37.5°)	-4.66/-3.37	-3.14/-2.47	-2.04/-3.02	-2.87/-3.99	-7.99/-16.58	-7.14/-5.79	-9.09/-16.4	-13.31/-7.66	-6.8/-13.31	-12.6/-11.97	-7.77/-5.16	-5.72/-5.19	-5.11/-5.44	-3.80/-1.53	-3.09/-6.05	-4.59/-5.07	-1.570/0.99	-1.44/-1.62	-0.37/-0.57	-2.13/-3.46	-4.35/-3.5	-2.42/-2.82	-4.01/-5.07	
Θ(45°)	-2.03/-0.8	-0.58/-0.83	-0.51/-1.37	-2.2/-2.7	-2.9/-2.5	-11.33/-16.07	-16.07/-10.37	-11.77/-12.9	-11.49/-15.48	-13.82/-9.16	-7.25/-4.72	-4.28/-4.4	-6.79/-7.06	-6.64/-7.02	-2.59/-1.02	-1.41/-5.47	-5.48/-1.37	1.351/0.2	-1.47/-1.68	0.320/0.5	-6.82/-2.22	-3.87/-2.66	-1.05/-1.78	-1.09/-2.93
Θ(52.5°)	1.72/3.01	3.02/3	1.671/0.1	0.120/0.5	-0.05/-3.11	-6.19/-7.2	-4.31/-2.92	-4.88/-11.89	-16.26/-7.87	-6.18/-3.92	-2.190/0.1	-0.61/-1.65	-4.64/-5.1	-4.44/-5.51	-3.18/-1.54	-2.95/-8	-9.9/-3.26	-0.28/-0.97	-3.67/-3.43	-1.33/-0.6	-1.47/-2.8	-3.4/-1.92	-0.87/-1.08	-1.590/0.3
Θ(60°)	3.394/66	4.523/38	2.441/94	0.251/4.4	1.08/-1.09	1.17/-0.68	-0.45/-1.09	-3.54/-5.93	-9.57/-3.17	-2.91/-1.15	0.11/35	0.68/-0.99	-2.67/-3.99	-2.43/-2.22	-2.61/-3.45	-3.42/-8.06	-13.4/-5.86	-2.43/-3.57	-4.4/-4.43	-2.34/-0.14	-0.31/-1.1	-1.98/-1.16	-0.35/-0.08	-1.61/-0.63
Θ(67.5°)	3.415/0.1	4.63/74	1.891/31	0.561/6.2	1.23/-0.02	1.262/5.3	1.491/0.04	-2.76/-3.24	-1.74/-1.84	1.081/12	0.39/-1.55	-3.01/-3.44	-2.12/-1.78	-1.51/-3.8	-3.62/-6.09	-12.59/-6.06	-3.36/-4.27	-2.75/-2.15	-2.35/-0.06	0.63/-0.2	-1.26/-0.84	0.120/0.52	-0.152/0.16	
Θ(75°)	1.83/3.91	3.322/79	0.670/64	-1.610/5.2	0.34/-0.46	1.562/44	0.54/-1.99	-4.06/-7.57	-7.34/-2.58	-1.28/-1.8	0.32/-0.53	-1.29/-3.51	-5.67/-4.46	-4.09/-2.36	-1.79/-5.36	-4.41/-5.49	-11.26/-7.65	-4.28/-6.41	-1.02/-0.04	-1.750/8.4	0.93/-0.7	-1.98/-1.37	-0.30/31	-0.980/93
Θ(82.5°)	0.262/38	1.771/24	-1.27/-6.09	-3.23/-1.07	-0.96/-1.92	0.130/9.7	-1.29/-5.19	-6.88/-6.83	-9.12/-4.38	-2.21/-2.72	-1.07/-2.31	-3.83/-6.13	-8.98/-6.07	-5.79/-2.71	-2.74/-5.87	-4.19/-4.42	-12.48/-6.96	-5.14/-8.43	-1.15/-0.3	-2.260/9.7	0.55/-1.47	-3.15/-2.97	-1.02/-0.47	-2.43/-0.51
Θ(90°)	-1.98/-0.29	-0.02/-1.03	-2.98/-1.81	-5.29/-5.51	-1.98/-2.59	-1.51/-0.87	-2.13/-5.47	-7.68/-9.19	-8.12/-5.24	-2.84/-3.94	-2.66/-3.46	-4.75/-7.2	-10.77/-8.54	-6.81/-4.6	-4.22/-8.56	-6.74/-5.56	-16.16/-10.6	-6.85/-1.22	-2.32/-1.8	-3.96/-0.12	-1.34/-4.47	-5.39/-5.01	-2.69/-2.69	-4.66/-3.22
Θ(97.5°)	-3.96/-3.34	-2.61/-4.14	-3.96/-2.86	-7.25/-5.51	-3.85/-3.74	-3.13/-3.38	-4.52/-6.94	-7.55/-8.7	-11.34/-8.92	-3.48/-4.05	-5.75/-6.89	-7.57/-9	-12.07/-9.58	-8.01/-6.99	-5.39/-9.07	-8.23/-9.4	-15.25/-9.41	-9.37/-14.07	-3.85/-5.39	-6.57/-1.9	-5.18/-9.65	-8.28/-5.74	-4.52/-5.69	-6.84/-5.77
Θ(105°)	-6.25/-6.55	-4.38/-2.66	-4.01/-4	-8.66/-8.78	-4.92/-4.76	-3.72/-3.16	-4.17/-6.56	-8.06/-8.85	-8.99/-8.88	-5.64/-4.43	-6.74/-10.81	-8.82/-8.32	-8.66/-9.8	-10.13/-8.9	-8.55/-7.85	-10.3/-14.47	-17.93/-11.52	-11.93/-18.38	-5.86/-7.44	-9.25/-4.92	-8.27/-12.98	-11.86/-6.85	-6.03/-7.81	-7.57/-3.4
Θ(112.5°)	-9.13/-11.28	-7.49/-6.93	-4.33/-4.03	-7.33/-14.64	-9.14/-6.33	-5.38/-4.53	-6.64/-8.1	-11.11/-12.34	-11.6/-10.23	-8.5/-8.59	-7.91/-12.67	-18.52/-15.04	-11.14/-13.88	-11.59/-11.52	-11.41/-15.66	-12.89/-9.79	-12.57/-11.5	-4.5/-5.38	-6.76/-6.59	-9.05/-9.21	-9.28/-8.33	-8.61/-9.93	-7.98/-10.29	
Θ(120°)	-9.81/-10.38	-9.85/-8.67	-6.34/-5.43	-12.14/-17	-9.45/-8.06	-7.87/-7.5	-16.97/-15.51	-16.02/-11.38	-9.25/-10.28	-11.21/-9.64	-7.39/-8.88	-12.04/-18.43												



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

Appendix C

Θ(127.5°)	-16.35/-10.35	-11.23/-18.58	-9.67/-11.51	-19.12/-14.85	-14.78/-14.71	-13.91/-18.27	-19.76/-17.21	-19.07/-16.28	-15.33/-18.59	-18.89/-13.26	-10.93/-16.57	-18.36/-18.64	-18.56/-16.43	-14.64/-18.46	-17.54/-18.14	-18.52/-17.68	-18.23/-18.84	-17.73/-19.02	-18.81/-18.1	-17.73/-11.93	-17.62/-17.6	-16.06/-18.22	-12.62/-12.65	-18.84/-18.77
Θ(135°)	-18.49/-18.46	-12.38/-14.4	-17.45/-15.01	-18.99/-18.04	-10.33/-10.41	-17.81/-18.13	-18.14/-17.68	-15.56/-16.7	-19.14/-16.32	-17.53/-18.4	-14.35/-14.26	-13.05/-12.94	-19.02/-17.83	-18.38/-18.95	-18.17/-18.73	-17.68/-16.01	-15.27/-18.15	-18.08/-18.33	-17.43/-16.57	-11.36/-18.37	-17.76/-19.3	-14.94/-18.3	-18.53/-12.83	
Θ(142.5°)	-12.46/-12.85	-11.08/-12.86	-17.18/-15.56	-17.02/-18.13	-10.96/-10.4	-17.69/-15.12	-14.83/-19.02	-15.22/-11.72	-16.94/-19.2	-11.47/-10.97	-14.75/-16.86	-18.61/-18.28	-16.66/-14.95	-17.62/-18.51	-18.21/-18.23	-16.91/-16.59	-16.38/-17.49	-17.61/-18.4	-14.83/-13.35	-11.06/-17.85	-14.33/-14.39	-16.54/-18.48	-16.45/-13.13	
Θ(150°)	-13.67/-9.88	-9.64/-13.86	-18.42/-19.04	-12.47/-10.68	-11.37/-15.36	-17.84/-11.38	-10.4/-16.05	-18.82/-11.73	-13.4/-18.81	-13.67/-13.05	-15.01/-13.96	-13/-14.57	-18.5/-18.81	-13.57/-15.34	-18.49/-18.36	-15.87/-17.67	-17.87/-19.17	-18.52/-18.85	-18.24/-17.62	-18.44/-18.86	-18.54/-15.87	-13.05/-15.53	-18.87/-13.54	-11.1/-11.48
Θ(157.5°)	-19.31/-12.32	-9.61/-12.4	-17.44/-10.3	-18.81/-16.06	-14.96/-12.3	-10.88/-16.9	-11.31/-15.05	-15.87/-14.47	-17/-18.77	-17.34/-16.09	-14.26/-11.22	-10.64/-12.69	-18.19/-18.6	-19.02/-15.2	-13.27/-17.82	-18.6/-16.2	-17.78/-18.49	-18.73/-15.56	-13.19/-13.49	-14.45/-12.45	-16.86/-18.76	-18.64/-18.18	-14/-8.66	-8.23/-12.29
Θ(165°)	-18.36/-16.03	-17.08/-19.16	-17.5/-18.44	-19.1/-15.44	-12.53/-11.05	-10.85/-10.95	-12.06/-13.92	-17.95/-18.89	-18.8/-17.07	-15.07/-14.2	-13.88/-13.53	-14.33/-15.36	-18.03/-18.54	-17.99/-16.48	-17.84/-18.94	-17.25/-16	-18.42/-18.57	-15.06/-14.23	-13.14/-12.87	-13.06/-12.47	-15.34/-13.76	-17.5/-18.34	-18.96/-17.47	-17.89/-18.07
Θ(172.5°)	-18.64/-17.11	-18.2/-18.1	-16.27/-14.52	-13.6/-13.53	-14.1/-14.13	-14.06/-14.56	-16.71/-18.86	-18.87/-18.77	-17.58/-17.57	-18.5/-16.57	-16.77/-17.93	-19.01/-18.22	-17.88/-18.26	-18.29/-18.61	-16.93/-16.71	-17.89/-17.08	-17.51/-17.69	-18.53/-17.31	-17.91/-18.24	-15.41/-13.6	-13.15/-12.69	-14.13/-16.99	-17.8/-17.84	-17.81/-18.8
Θ(180°)	-18.28/-18.76	-18.71/-18.88	-19.33/-19.37	-19.02/-18.3	-18.35/-18.66	-17.68/-19.01	-17.46/-18.78	-18.31/-17.56	-15.89/-14.41	-13.49/-13.26	-13.25/-13.73	-14.26/-15.79	-18.41/-18.11	-18.54/-17.73	-16.82/-16.51	-17.03/-16.12	-15.03/-14.58	-15.13/-16.8	-17.32/-18	-19.62/-18.9	-19.28/-17.72	-18.04/-18.53	-18.34/-18.91	-18.98/-19.51
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°)	-9.45/-9.84	-9.2/-18.2	-6.73/-4.77	-3.2/-2.25	-1.52/-0.77	-0.44/-0.22	-0.36/-0.55	-0.92/-1.38	-1.91/-2.77	-3.82/-4.9	-6.08/-7.16	-7.89/-8.04	-7.74/-7.33	-6.37/-5.3	-4.48/-3.67	-2.92/-1.28	-1.66/-1.29	-1.17/-1.05	-0.98/-1.14	-1.21/-1.55	-1.92/-2.38	-2.93/-3.57	-4.47/-5.2	-6.89/-8.24
Θ(7.5°)	-10.16/-14.79	-18.63/-19.25	-11.02/-6.56	-3.44/-2.59	-7.92/-5.74	-3.04/-0.71	-0.08/-0.31	-0.96/-1.73	-2.91/-3.99	-4.93/-6.02	-6.94/-7.11	-8.8/-8.78	-9.74/-10.6	-10.82/-10.02	-8.67/-6.99	-6.39/-5.51	-4.78/-4.42	-4.55/-4.55	-4.19/-4.14	-4.55/-4.55	-4.64/-4.28	-3.99/-4.02	-4.36/-4.82	-5.98/-7.48
Θ(15°)	-7.38/-10.51	-15.23/-19.22	-18.08/-16.27	-12.86/-10.06	-7.87/-5.67	-4.44/-3.44	-2.43/-1.8	-1.58/-1.9	-2.59/-3.41	-3.88/-3.88	-4.11/-4.63	-5.7/-8.05	-13.26/-19.15	-14.91/-10.51	-8.23/-6.64	-5.8/-5.45	-5.53/-5.5	-5.32/-5.15	-4.71/-7.47	-4.81/-5.07	-5.14/-5.24	-4.96/-4.44	-3.8/-3.18	-3.34/-4.57
Θ(22.5°)	-3.74/-5.58	-6.93/-8.71	-11.38/-10.99	-10.39/-9.53	-7.84/-5.21	-4.14/-4.6	-4.72/-3.56	-2.43/-2.03	-2.78/-3.66	-3.29/-2.33	-2.59/-3.38	-4.22/-6.64	-9.66/-11.74	-15.09/-11.83	-7.39/-5.04	-3.74/-3.37	-3.42/-3.41	-3.13/-2.67	-2.86/-2.97	-3/-2.15	-1.53/-1.14	-1.21/-1.9	-2.77/-3.45	-3.05/-2.81
Θ(30°)	-0.34/-1.67	-0.38/-4.48	-7.92/-7.54	-7.39/-10.79	-9.58/-3.32	-1.55/-3.16	-6.89/-7.46	-6.1/-5.99	-7.15/-8.11	-6.46/-4.1	-5.81/-7.86	-7.76/-8	-6.67/-6.4	-10.14/-11.33	-12.49/-14.61	-13/-9.3	-5.79/-3.17	-1.28/-0.61	-1.44/-3.95	-6.99/-6.87	-4.11/-1.94	-1.78/-2.62	-3.47/-4.11	-2.9/-0.77
Θ(37.5°)	-0.43/-0.7	-1.79/-4.94	-7.79/-6.76	-6.49/-9.45	-13.51/-3.54	-1.49/-3.65	-10.38/-14.77	-13.78/-19.28	-18.4/-18.58	-14.45/-9.6	-8.34/-6.21	-7.29/-8.1	-6.85/-5.75	-3.46/-5.77	-9.89/-18.48	-12.96/-8.23	-5.15/-2.85	-0.83/-0.18	-2.38/-7.79	-13.68/-8.76	-3.91/-1.87	-3.12/-6.75	-6.22/-3.77	-1.98/-1.08
Θ(45°)	-0.41/-1.13	1.09/-0.68	-5.14/-4.64	-2.55/-1.7	-6.99/-6.46	-2.83/-3.99	-8.31/-13.8	-14.91/-12.36	-8.57/-8.47	-8.47/-3.97	-1.87/-0.21	-5.74/-10.26	-6.69/-4.29	-0.77/-0.29	-2.91/-8.09	-11.26/-10.28	-9.93/-12.52	-8.38/-4.42	-5.63/-8.63	-15.21/-19.75	-4.95/-0.7	-1.29/-5.6	-6.62/-4.14	-2.11/-1.12
Θ(52.5°)	1.23/-2.6	3.42/-6.8	-0.47/-1.63	-0.44/-6.9	-1.4/-2.05	-0.34/-4.88	-4.49/-5.69	-5.03/-3.91	-2.18/-0.19	0.93/-1.62	-6.84/-5.41	-3.76/-1.82	-0.4/-1.72	-0.98/-5.46	-6.1/-7.22	-9.35/-11.51	-10.06/-8.53	-4.45/-6.34	-9.96/-13.2	-5.46/-0.31	0.46/-1.65	-3.19/-2.36	-0.98/-0.42	
Θ(60°)	2.36/3.51	4.334/3.1	2.14/-0.83	1.68/2.65	0.77/0.99	1.85/1.23	-1.1/-2.38	-2.11/-2.92	-3.86/-3.23	0.21/1.55	1.4/-1.35	-4.61/-3.09	-1.55/-0.44	-0.49/-1.66	-1.34/-4.97	-3.82/-4.47	-4.29/-4.5	-3.62/-1.66	-1.32/-2.41	-2.8/-4.22	-2.75/0.54	1.13/0.63	0.29/0.66	0.31/1.59
Θ(67.5°)	2.41/2.89	4.24/3.6	2.94/-0.43	2.36/2.56	1.41/2.1	2.45/2.35	0.45/-0.1	-1.01/-4.2	-4.02/-3.67	-0.14/-1.76	0.82/-2.69	-2.96/-1.69	-0.42/0.21	-0.29/-2.46	-2.5/-4.51	-1.93/-3.6	-1.93/-2	-0.53/0.14	0.61/0	0.83/-0.73	-1.58/0.33	0.62/1.38	1.97/1.31	0.28/0.64
Θ(75°)	0.87/1.52	2.613/7.1	2/-1.47	1.33/1.08	1.05/0.23	2.11/-1.49	-0.07/-0.92	-0.51/-3.88	-0.52/-3.41	-1.56/0.69	-0.06/-3.62	-3.4/-2.1	-1.01/-1.06	-1.12/-3.86	-4.65/-5.44	-2.13/-3.38	-1.09/-0.61	0.19/0.79	2.84/1.24	-0.86/0.54	-0.30/-3.53	1.66/0.61	-1.52/0.65	-1.52/0.65
Θ(82.5°)	-1.44/-0.12	0.58/2.4	0.51/-2.54	-0.74/-0.27	-0.29/-1.19	1.51/-0.61	-1.69/-2.56	-1.4/-4.19	-7.28/-4.44	-1.97/-0.57	-1.87/-6.15	-3.97/-2.91	-1.46/-0.76	-2.36/-4.09	-5.48/-6.84	-3.17/-3.44	-1.11/0.53	0.14/0.5	0.33/0.72	3.1/0.8	-1.4/-0.51	-1.52/-1.74	0.63/-0.84	-4.31/-2.61
Θ(90°)	-4.95/-2.92	-1.55/0.33	-1.38/-4.76	-3.1/-6.5	-2.04/-3.54	0.09/-2.34	-3.34/-4.26	-2.51/-4.11	-8.6/-5.62	-6.63/-6.26	-2.66/-6.31	-6.84/-6.21	-4.43/-0.74	-6.69/-8.71	-7.78/-4.59	-3.26/-2.14	-1.55/-2.19	-1.62/-0.93	1.12/-1.42	-3.6/-3.54	-3.5/-4.65	-1.61/-3.07	-6.76/-5.61	
Θ(97.5°)	-8.56/-5.93	-4.2/-3.13	-4.24/-7.96	-5.36/-3.51	-3.74/-7.4	-2.09/-3.24	-4.68/-6.54	-3.44/-6.18	-8.39/-6.83	-4.09/-2.75	-4.23/-9.52	-8.69/-7.41	-4.91/-2.98	-7.84/-6.59	-5.93/-7.54	-6.5/-6.68	-5.93/-7.14	-4.48/-4.06	-2.87/-6.25	-6.44/-6.91	-6.88/-7.46	-2.69/-5.4	-8.34/-9.3	
Θ(105°)	-10.66/-8.55	-6.91/-5.25	-7.24/-9.01	-5.96/-4.46	-4.75/-8.05	-6.4/-4.61	-6.07/-9.18	-8.04/-10.12	-7.4/-8.23	-7.06/-5.55	-5.62/-8.94	-10.75/-12.58	-7.17/-5.72	-6.23/-8.91	-6.78/-7.78	-11.75/-8.39	-7.36/-10.17	-11.35/-12.14	-7.44/-7.49	-6.64/-8.1	-7.51/-8.7	-7.01/-7.07	-4.16/-7.74	-11.02/-13.01
Θ(112.5°)	-13.93/-12.15	-9.18/-6.65	-8.34/-9.76	-9.11/-5.44	-6.89/-7.43	-8.22/-8.84	-10.5/-10.33	-10.34/-8.66	-9.59/-7.65	-6.4/-9.32	-10.74/-10.79	-9.68/-7.46	-7.66/-7.48	-8.07/-5.94	-9.07/-9.63	-10.81/-8.69	-7.84/-12.07	-8.97/-14.18	-7.41/-9.1	-8.44/-8.1	-8.49/-8.29	-9.02/-10.49	-6.85/-10.1	-13.82/-18.65
Θ(120°)	-18.43/-14.46	-11.77/-17.15	-5.99/-10.58	-12.41/-9.92	-6.71/-11.67	-8.12/-6.36	-7.13/-9.72	-9.33/-8.71	-10.03/-10.12	-8.48/-8.15	-12.69/-18.06	-13.55/-8.21	-11.1/-9.37	-9.04/-15.94	-12.11/-13.31	-11.1/-7.96	-11.92/-13.81	-9.01/-7.81	-9.46/-8.99	-9.51/-10.26	-13.31/-10.8	-6.4/-10.72	-15.47/-18.27	
Θ(127.5°)	-18.07/-12.59	-12.96/-10.47	-9.67/-7.77	-11.04/-9.07	-7.32/-11.5	-16.74/-10.69	-10.82/-15.68	-15.42/-10.17	-8.51/-12.09	-13.54/-11.05	-10.86/-14.92	-15.69/-15.48	-11.98/-13.25	-14.42/-14.5	-8.37/-11.69	-11.83/-11.51	-15.48/-11.07	-18.61/-18.86	-11.01/-12.67	-18.71/-11.32	-13.16/-13.59	-11.21/-12.22	-7.01/-9.47	-17.97/-13.91
Θ(135°)	-17.46/-18.37	-13.38/-9.83	-6.59/-6.14	-5.86/-12.59	-9.87/-11.01	-14.68/-14.51	-9.83/-9.5	-13.62/-14.4	-10.44/-9.28	-12.1/-16.44	-18.63/-17.89	-16.35/-14.92	-12.67/-14.2	-13.4/-12.31	-14.36/-10.99	-18.67/-11.55	-11.75/-6.06	-17.68/-18.79	-6.47/-6.67	-13.35/-17.4	-7.26/-12.81	-11.47/-17.97	-9.75/-12.83	-19.09/-18.84
Θ(142.5°)	-18.71/-17.83	-12.48/-9.08	-8.03/-8.26	-10.66/-15.73	-18.21/-13.3	-10.18/-11.72	-11.77/-10.32	-10.87/-14.08	-15.8/-16.26	-14.43/-13.47	-15.53/-18.54	-18.02/-15.83	-15.27/-13.97	-16.1/-19.03	-14.05/-17.64	-17.6/-16.35	-15.55/-19.43	-18.79/-18.49	-11.47/-9.84	-13.13/-19.29	-18.39/-11.28	-16.07/-10.22	-11.46/-14.11	-19.09/-16.64
Θ(150°)	-18.78/-17.85	-15.2/-12.6	-11.74/-10.34	-9.04/-10.56	-16.26/-19.16	-13.68/-13.4	-16.52/-19.28	-18.95/-13.49	-10.83/-10.8	-16.47/-17.43	-18.15/-17.62	-17.57/-17.61	-16.3/-16.8	-17.62/-18.08	-18.33/-16.55	-13.54/-11.93	-11.47/-16.05	-18.86/-17.49	-18.73/-14.03	-16.88/-17.61	-15.36/-11.76	-12.21/-10.07	-18.96/-18.56	-17.72/-12.83
Θ(157.5°)	-17.63/-18.61	-17.26/-10.93	-9.42/-9.29	-10.28/-13.9	-17.47/-14.38	-12/-11.57	-11.78/-12.3	-13.25/-15.43	-15.84/-16.51	-16.51/-15.17	-15.52/-17.91	-18.79/-18	-18.23/-18.81	-18.91/-18.34	-17.84/-19.08	-15.71/-14.95	-17.01/-15.99	-14.6/-14.89	-18.57/-18.59	-18.73/-17.92	-18.89/-17.72	-19.24/-15.12	-12.5/-12.61	-14.64/-19.03
Θ(165°)	-15.19/-14.97	-13.56/-11.41	-10.83/-11.84	-13.76/-16.34	-17.47/-18.28	-17.41/-19.24	-18.09/-16.51	-16.67/-17.99	-17.8/-18.89	-17.87/-16.02	-14.22/-14.49	-16.08/-19.07	-17.34/-18.03	-18.77/-19.81	-16.57/-15.55	-17.46/-18.59	-17.83/-18.76	-18.57/-16.45	-12.66/-12.36	-11.99/-14.01	-17.81/-17.77	-17.78/-18.47	-12.54/-10.97	-11.68/-12.98
Θ(172.5°)	-17.42/-17.76	-18.25/-18.26	-17.45/-18.75	-17.88/-19.94	-18.95/-17.63	-18.81/-18.64	-17.95/-18.62	-17.38/-16.94	-15.56/-15.56	-17.38/-19.2	-17.54/-18.39	-18.34/-18.26	-18.23/-18.49	-18.24/-16.87										



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

Appendix C

Θ (180°)	-19.16/-18.06	-19.11/-18.77	-16.47/-17.14	-16.91/-17.55	-16.73/-16.87	-17.19/-18.93	-17.54/-17.67	-17.99/-18.5	-17.91/-18.97	-16.68/-15.15	-13.65/-12.25	-12.27/-12.68	-13.49/-14.85	-15.66/-18.33	-18.83/-18.45	-18.86/-17.45	-17.34/-18.78	-18.26/-19.23	-18.84/-17.38	-17.65/-16.32	-16.14/-15.99	-15.9/-15.12	-14.69/-17.18	-18.37/-19.93
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°)	-10.3/-10.26	-9.63/-9.07	-8.24/-7.87	-6.99/-6.07	-5.2/-4.8	-4.19/-3.77	-3.5/-3.16	-2.86/-2.75	-2.95/-2.98	-3.19/-3.59	-3.97/-4.54	-4.96/-5.67	-6.49/-7.61	-8.51/-9.42	-10.17/-11.17	-12/-12.66	-12.75/-12.31	-11.87/-11.29	-10.53/-9.47	-8.97/-8.08	-7.91/-7.95	-7.77/-7.82	-7.9/-8.27	-9.45/-10.03
Θ (7.5°)	-12.64/-14.64	-12.79/-9.22	-6.68/-5.46	-4.44/-3.59	-3/-2.81	-2.59/-2.19	-1.94/-1.8	-1.52/-1.5	-1.45/-1.26	-1.2/-1.34	-1.77/-2.45	-3.45/-4.95	-7/-9.82	-13.02/-16.83	-19.12/-17.62	-16.71/-15.18	-14.79/-13.44	-12.01/-11.28	-10.55/-9.79	-8.64/-7.69	-7.04/-6.32	-5.8/-5.65	-6.75/-6.75	-8.35/-10.63
Θ (15°)	-8.13/-9.67	-12.97/-12.81	-9.79/-8.77	-8.6/-7.89	-7.43/-6.63	-5.66/-4.59	-4.31/-4.62	-5.63/-6.74	-6.73/-5.4	-3.97/-3.09	-3.38/-4.42	-6.55/-9.17	-13.68/-19.07	-17.63/-12.94	-10.03/-7.61	-5.94/-4.68	-4.14/-3.91	-4.44/-5.41	-5.88/-5.6	-4.66/-3.46	-3.06/-3.18	-3.66/-4.1	-4.67/-5.76	-6.95/-7.7
Θ (22.5°)	-4.46/-5.25	-6.65/-8.92	-11.64/-18.01	-18.98/-17.12	-18.06/-13.22	-9.57/-5.92	-4.52/-5.05	-7.62/-10.99	-10.04/-6.6	-4.12/-3.2	-4.71/-9.13	-15.45/-18.37	-17.49/-12.53	-11.61/-13.52	-13.4/-10.28	-6.43/-3.05	-1.65/-2.12	-3.68/-4.69	-4.36/-3.42	-2.33/-2.14	-2.26/-2.87	-4.84/-7.18	-7.55/-6.53	-4.85/-4.27
Θ (30°)	-1.35/-1.46	-1.89/-2.37	-2.9/-6.1	-12.12/-15.92	-10.22/-6.54	-6.22/-5.98	-4.25/-3.7	-5.07/-7.09	-5.94/-3.62	-2.72/-3.8	-7.66/-16.92	-18.64/-19.56	-16.04/-10.52	-8.76/-8.34	-8.88/-10.89	-17.68/-11.23	-7.31/-6.39	-6.44/-5.09	-4.66/-6.2	-6.3/-6.21	-6.24/-4.52	-3.5/-3.34	-4.06/-5.17	-3.74/-1.57
Θ (37.5°)	0.17/-0.23	-1.11/-1.61	-0.53/-2.8	-8.88/-14.18	-7.77/-4.11	-4.87/-8.86	-10.1/-7.8	-7.27/-9.47	-9.38/-8.32	-8.27/-11.87	-17.83/-12.47	-14.2/-18.36	-8.03/-4.39	-3.22/-3.33	-6.91/-9.65	-14.96/-11.28	-10.11/-12.39	-15.09/-12.65	-11/-7.04	-4.3/-6.5	-11.8/-4.46	-2.6/-0.68	-0.02/-1.88	-2.18/-0.82
Θ (45°)	0.09/0.43	0.06/-2.53	-1.75/-2.74	-7.63/-10.47	-6.69/-2.25	-3.13/-6.74	-8.97/-11.75	-14.38/-11.54	-13.15/-13.24	-10.17/-5.27	-5.41/-10.97	-18.79/-9.26	-3.34/-1.19	-0.95/-2.42	-5.93/-5.69	-8.58/-8.79	-10.68/-8.74	-8.56/-8.67	-6.35/-2.92	-1.65/-3.78	-10.33/-3.06	-0.96/-1.4	-1.54/-3.61	-1.5/-1.07
Θ (52.5°)	0.07/1.43	2.30/29	-2.21/-2.24	-3.48/-4.54	-2.55/-0.03	-0.93/-2.38	-2.43/-3.17	-5.75/-5.75	-6.32/-8.85	-4.65/-0.73	-2.18/-8.08	-8.19/-4.22	-1.41/-0.33	-0.51/-2.89	-4.12/-3.42	-5.45/-4.77	-7.61/-5.14	-4.33/-2.95	-4.12/-3.28	-2.44/-4.66	-9.56/-4.43	-1.01/-2.43	-2.78/-2.26	0.07/-0.49
Θ (60°)	0.36/2.33	3.44/2.77	-0.20/2.5	-0.36/-2.27	-0.44/0.96	0.53/-1.27	-0.77/-0.72	-1.99/-1.35	-3.59/-5.95	-2.24/1.45	-0.03/-3.8	-5.03/-2.96	-1.41/-1.05	-0.55/-3.62	-4.99/-3.04	-3.55/-2.4	-4.12/-3.45	-2.05/-0.6	-2.09/-3.68	-4.33/-4.93	-5.45/-4.31	-0.91/-2.42	-0.06/-0.12	0.18/-0.1
Θ (67.5°)	0.94/2.62	3.32/93	0.63/0.98	-0.29/-0.38	-0.21/1.37	-0.83/-2.14	-1.39/-2.06	-4.06/-1.58	-3.69/-6.26	-1.15/1.97	-0.24/-3.25	-4/-3.86	-2.29/-1.49	-1.31/-3.66	-4.93/-3.39	-2.46/-0.65	-0.87/-0.74	0.56/0.7	-1.25/-2.9	-2.49/-1.84	-1.75/-3.86	-0.72/-1.23	1.14/0.86	-0.57/0.07
Θ (75°)	0.57/1.63	2.34/2.07	0.73/0.71	0.38/0.64	0/0.53	-1.74/-0.43	0.05/-1.14	-2.71/-3.06	-1.65/-7.04	-1.61/93	-0.78/-2.71	-4.16/-4.31	-2.99/-3.23	-3.03/-4.5	-6.13/-5.82	-3.92/-0.82	0.06/-0.14	1.03/0.18	-0.8/-2.29	-1.97/-0.52	-0.23/-3.22	-1.45/-2.1	0.88/0.19	-2.24/-1.04
Θ (82.5°)	-0.57/0.03	0.62/1.1	-0.44/-0.22	-0.23/-0.01	-0.26/-1.57	-1.09/-0.89	-0.65/-1.75	-2.36/-4.68	-2.3/-8.28	-2.46/0.34	-2.73/-4.31	-5.75/-4.99	-4.4/-5	-4.27/-5.67	-6.23/-8.56	-4.36/-0.92	0.51/0.48	0.85/-1.76	-1.36/-3.35	-1.52/0.45	-0.3/-2.87	-2.32/-3.13	-0.35/-0.47	-4.36/-2.39
Θ (90°)	-2.62/-1.94	-1.01/-0.34	-1.9/-2.03	-1.98/-1.15	-1.04/-3.68	-1.98/-1.97	-2.09/-3.27	-2.67/-5.77	-3.22/-9.91	-3.8/-1.72	-4/-6.24	-7.82/-5.46	-6.35/-9.78	-4.97/-7.31	-6.64/-9.89	-7.67/-2.18	-1.64/-0.54	-0.97/-5.14	-3.79/-6.53	-2.85/-1	-2.36/-5	-4.82/-5.32	-2.64/-1.2	-6.89/-3.73
Θ (97.5°)	-6.14/-4.04	-3/-2.26	-3.76/-4	-3.83/-2.89	-3.22/-5.53	-4.58/-2.86	-3.15/-3.54	-3.58/-9.17	-4.31/-8.88	-5.91/-2.72	-5.74/-8.41	-9.65/-5.93	-5.4/-10.16	-6.8/-10.19	-8.93/-10.65	-10.53/-5.65	-7.18/-5.22	-5.3/-10.56	-6.97/-11.33	-5.88/-5.97	-7.2/-8.96	-9.57/-8.09	-4.84/-3.27	-10.52/-6.23
Θ (105°)	-8.87/-5.46	-5.45/-4.38	-4.68/-6.08	-4.53/-4.48	-7.02/-5.78	-8.23/-4.99	-8.2/-7.14	-7.76/-11.36	-8.11/-8.35	-9.68/-6.25	-6.88/-11	-17.41/-9.94	-7.87/-9.59	-10.49/-11.25	-11.18/-9.55	-8.61/-8	-7.94/-8.82	-6.86/-7.44	-7.22/-8.46	-8.28/-9.44	-9.64/-8.59	-10.52/-8.33	-4.71/-4.85	-9.36/-8.15
Θ (112.5°)	-11.86/-8.77	-9.88/-7.84	-6.47/-7.18	-4.96/-7.52	-5.69/-8.68	-8.12/-6.18	-6.66/-9.67	-8.35/-7.59	-11.96/-8.63	-10.07/-7.56	-7.71/-12.37	-15.23/-15.4	-10.78/-11.04	-14.08/-13.29	-9.44/-12.88	-14.66/-10.04	-7.21/-7.41	-7.45/-11.44	-6.59/-11.5	-9.79/-9.28	-7.78/-9.3	-15.11/-9.54	-8.31/-7.52	-16.63/-12.98
Θ (120°)	-11.02/-12.36	-9.36/-7.62	-6.3/-6.24	-7.66/-8.39	-8.26/-6.58	-11.1/-9.57	-8.24/-9.11	-10.82/-9.99	-8.46/-10.56	-6.87/-7.59	-10.22/-14.34	-11.4/-12.46	-13.46/-10.63	-11.03/-12.09	-12.58/-12.08	-13.8/-17.29	-11.14/-8.72	-9.52/-17.94	-9.53/-17.87	-18.96/-9.48	-16.76/-13.67	-18.8/-10.25	-8.55/-10.94	-15.76/-16.69
Θ (127.5°)	-14.33/-13.11	-9.39/-7.55	-7.4/-9.8	-9.51/-7.79	-11.93/-12	-10.43/-9.68	-8.16/-9.28	-12.04/-10.97	-9.17/-7.48	-9.85/-9.78	-11.3/-16.73	-18.52/-11.49	-11.14/-11.41	-14.36/-18.11	-10.87/-12.54	-9.63/-18.5	-10.93/-9.06	-14.72/-19	-7.92/-13.42	-17.87/-11.16	-13.37/-7.88	-17.46/-11.8	-9/-10.44	-13.1/-18
Θ (135°)	-18.16/-17.13	-17.55/-12.79	-8.81/-6.51	-8.49/-11.24	-14.09/-18.45	-14.87/-13.02	-12.14/-11.79	-12.04/-11.55	-9.68/-8.12	-8.97/-14.17	-14.68/-13.81	-13.24/-14.71	-12.93/-12.44	-11.45/-16.49	-10.76/-14.88	-16.48/-11.29	-15.45/-7.21	-16.82/-19.29	-7.62/-9.49	-18.98/-15.45	-6.9/-13.9	-10.78/-15.63	-8.52/-13.02	-18.07/-18.95
Θ (142.5°)	-17.59/-13.8	-10.88/-8.74	-6.96/-7.92	-10.47/-17.88	-17.56/-16.66	-14.96/-11.63	-10.22/-10.54	-10.09/-10.09	-11.03/-10.8	-10.72/-13.69	-19.44/-16.64	-12.07/-11.82	-12.74/-15.62	-16.54/-18.58	-18.66/-14.39	-19.15/-19.16	-18.18/-12.77	-18.58/-16.7	-9/-12.39	-18.79/-18.81	-18.94/-18.66	-16.48/-11.05	-9.47/-13.19	-18.92/-19.26
Θ (150°)	-18.47/-14.51	-12.25/-13.07	-12.57/-12.11	-12.85/-12.25	-16.83/-17.38	-12.98/-12.07	-12.62/-14.3	-13.77/-10.6	-10.01/-12.16	-18.35/-18.51	-18.07/-17.79	-18.01/-17.69	-18.92/-18.97	-18.17/-17.72	-19.48/-18.2	-14.67/-10.77	-10.1/-12.57	-18.81/-17.59	-18.38/-15.9	-18.43/-17.83	-17.65/-15.38	-14.54/-16.56	-17.45/-18.17	-17.93/-18.08
Θ (157.5°)	-18.41/-17.32	-12.28/-11.3	-10.79/-11.86	-15.58/-17.41	-14.41/-14.42	-16.08/-15.71	-15.17/-14.67	-14.36/-12.08	-11.27/-11.8	-15.71/-18.02	-18.08/-18.07	-18.91/-18.61	-18.64/-17.97	-18.89/-16.73	-15.65/-14.29	-13.57/-13.67	-15.56/-17.9	-18.05/-18.4	-17.23/-16.76	-18.75/-18.14	-18.5/-17.52	-18.34/-17.4	-13.23/-13.14	-15.85/-18.85
Θ (165°)	-14.94/-13.79	-12.97/-13.11	-14.72/-15.23	-15.69/-15.08	-14.48/-15.6	-16.94/-17.78	-17.55/-17.23	-18.25/-18.09	-18.14/-18.87	-18.5/-16.92	-17.69/-17.45	-19/-18.61	-18.78/-18.3	-19.01/-18.75	-17.96/-16.05	-16.71/-17.81	-17.86/-18.87	-18.28/-16.74	-14.36/-13.76	-15.07/-16.81	-18.75/-18.25	-17.61/-19.18	-18.3/-15.93	-15.24/-15.48
Θ (172.5°)	-17.02/-15.84	-15.4/-15.55	-17.69/-18.92	-17.85/-17.99	-18.33/-18.3	-16.32/-14.22	-13.36/-13.44	-14.49/-14.87	-15.66/-17.57	-18.95/-17.55	-18.54/-18.08	-17.86/-19.44	-17.55/-18.64	-17.65/-16.99	-17.38/-17.63	-18.53/-18.07	-16.66/-14.76	-13.32/-12.42	-11.6/-10.85	-11.3/-11.74	-13.31/-16.99	-18.22/-18.79	-17.69/-17.84	-19.03/-17.53
Θ (180°)	-18.93/-19.1	-18.54/-18.86	-18.35/-18.08	-18.72/-18.94	-18.93/-18.4	-18.51/-17.8	-15.7/-13.93	-13.02/-12.45	-12.93/-14.11	-15.16/-16.88	-18.59/-18.07	-18.18/-18.76	-18.34/-18.51	-18.36/-17.36	-17.08/-16.52	-16.88/-16.69	-16.52/-17.67	-18.49/-17.84	-19.12/-17.66	-19.21/-18.11	-18.44/-17.61	-19.21/-19.16	-18.76/-18.1	-18.61/-17.74





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

Appendix D

Θ (15°)	-1.34/-2.06	-3.06/-3.86	-4.52/-4.28	-4.09/-3.35	-3.42/-3.78	-4.59/-5.60	-6.56/-7.99	-9.05/-9.97	-10.03/-10.38	-10.05/-4.88	-6.37/-4.38	-3.08/-2.09	-1.77/-1.60	-1.43/-0.95	-0.4300.00	0.250.48	0.610.81	1.031.11	0.770.58	0.510.46	0.460.59	0.810.77	0.620.14	-0.11/-0.79
Θ (22.5°)	-1.43/-1.58	-1.15/-0.80	-0.280.42	0.800.83	0.21/-0.78	-2.97/-4.80	-5.73/-7.03	-8.65/-9.38	-7.94/-6.77	-5.94/-4.59	-3.31/-2.36	-1.88/-1.80	-2.09/-2.19	-1.96/-1.40	-0.84/-0.35	-0.09/-0.03	-0.25/-0.54	-0.480.21	0.82/-1.28	1.050.57	0.220.41	1.08/-1.63	1.67/-0.96	0.14/-0.75
Θ (35°)	-0.89/-0.40	-0.030.62	0.670.45	0.23/-0.65	-0.25/-0.16	-5.17/-4.34	-2.95/-2.63	-3.67/-5.48	-6.29/-5.76	-3.78/-2.14	-0.64/-0.04	-1.27/-3.79	-4.02/-2.33	-1.06/-0.24	-0.60/-0.35	-0.380.01	0.07/-0.09	-0.490.44	1.71/-7.75	3.00/-0.31	2.240.95	0.410.80	0.53/-0.45	-0.94/-1.11
Θ (37.5°)	-0.54/-0.99	-1.11/-1.79	-2.49/-2.39	-3.04/-4.11	-3.80/-1.49	-0.20/-0.46	-0.64/-0.33	-0.18/-1.10	-2.44/-2.50	-2.28/-1.57	0.87/-1.30	-1.39/-4.38	-1.250.73	1.010.20	-0.99/-1.70	-0.800.57	0.910.26	-0.47/-1.68	-2.61/-1.46	0.90/-0.05	2.17/-1.03	-0.67/-0.64	-0.66/-1.04	-1.52/-0.71
Θ (45°)	0.16/-1.39	-2.32/-1.87	-1.80/-1.79	-2.91/-3.07	-2.39/-1.67	-1.18/-2.06	-2.56/-1.26	0.34/-0.62	-0.59/-1.20	-0.92/-0.94	0.350.53	-1.83/-2.07	0.82/-1.61	1.200.86	-0.15/-1.29	-0.720.21	0.390.05	-1.41/-3.04	-3.67/-4.55	-4.14/-1.43	0.02/-0.36	-1.85/-1.69	-1.09/-1.07	-0.230.73
Θ (52.5°)	0.08/-2.12	-1.12/-0.72	0.310.69	0.070.69	0.77/-0.90	-0.520.37	-0.91/-1.80	0.56/-1.99	-0.86/-0.95	-0.62/-1.74	-0.54/-0.13	-0.720.69	1.77/-2.53	2.14/-2.12	1.910.36	0.280.71	0.640.17	-1.16/-1.95	-0.97/-1.19	-2.33/-1.41	0.800.22	-2.69/-1.89	-0.50/-0.65	0.74/-1.52
Θ (60°)	0.16/-1.18	1.16/-1.31	1.69/-2.25	1.29/-2.33	2.50/-0.64	1.81/-3.34	1.74/-1.40	-0.32/-2.12	1.49/-1.99	-0.25/-1.45	-1.98/-1.41	-0.48/-1.21	1.15/-2.09	2.67/-2.92	2.980.75	0.470.14	0.89/-1.32	-0.01/-1.42	0.54/-1.74	0.53/-1.29	0.89/-1.33	-0.90/-1.09	0.240.53	2.55/-2.79
Θ (67.5°)	-1.51/-1.55	1.560.97	1.84/-2.17	1.41/-2.19	2.25/-1.05	3.01/-4.27	2.20/-1.54	-1.38/-1.46	1.67/-3.73	-0.39/-2.70	-3.90/-2.52	-0.73/-3.31	0.07/-1.81	2.69/-1.74	1.890.25	-0.21/-0.50	1.16/-2.06	0.10/-1.80	0.84/-1.95	0.53/-0.53	2.29/-2.18	-0.95/-0.03	0.420.47	3.22/-2.85
Θ (75°)	-2.49/-1.45	1.37/-0.91	0.890.55	1.02/-1.24	0.93/-0.14	2.28/-3.77	1.39/-2.03	-2.73/-0.04	1.80/-3.69	-2.23/-3.65	-6.17/-2.97	-2.230.59	-2.070.22	2.060.76	0.890.73	-0.41/-0.62	1.99/-0.39	1.02/-1.75	-0.29/-2.24	1.45/-0.01	2.46/-2.62	0.41/-1.54	0.72/-0.69	2.89/-2.86
Θ (82.5°)	-3.60/-2.75	0.07/-3.74	-1.29/-2.48	-0.33/-1.35	-1.44/-2.12	0.48/-1.93	-0.12/-2.40	-4.01/-3.40	0.08/-5.83	-4.15/-6.54	-7.57/-3.80	-3.65/-0.73	-2.85/-0.92	0.88/-1.02	-0.240.43	-1.20/-1.63	2.01/-2.58	0.71/-2.96	-2.07/-1.18	0.77/-0.61	2.80/-1.14	-0.49/-1.72	0.08/-1.74	2.02/-2.17
Θ (90°)	-4.95/-4.14	-0.85/-3.47	-2.89/-6.42	-2.79/-2.79	-2.54/-2.10	-1.16/-0.58	-3.88/-4.56	-5.29/-6.32	-2.53/-6.32	-7.40/-5.94	-10.69/-4.52	-5.46/-3.17	-4.65/-2.30	-0.63/-2.11	-2.94/-0.65	-3.78/-0.39	0.510.86	-0.05/-3.50	-4.82/-1.56	-1.14/-2.66	1.38/-0.84	-3.280.27	-1.24/-1.69	1.01/-1.32
Θ (97.5°)	-5.65/-5.08	-2.82/-5.71	-5.06/-9.38	-5.18/-4.92	-5.61/-4.16	-3.11/-3.86	-10.48/-6.72	-6.03/-8.28	-6.54/-8.13	-7.25/-7.95	-10.82/-6.84	-6.24/-6.95	-8.02/-2.77	-1.22/-2.68	-3.36/-3.48	-6.19/-4.39	-2.25/-2.15	-2.52/-5.27	-5.85/-2.92	-3.05/-5.40	-0.62/-2.53	-5.27/-2.70	-2.26/-2.09	2.040.08
Θ (105°)	-5.98/-7.35	-5.11/-5.74	-7.45/-8.74	-7.75/-5.13	-4.49/-3.60	-4.64/-2.86	-6.71/-6.33	-7.31/-4.91	-9.00/-7.94	-11.56/-8.49	-9.87/-8.33	-6.95/-7.00	-8.56/-4.35	-2.73/-3.60	-7.21/-4.32	-6.88/-5.43	-3.64/-3.55	-4.97/-4.64	-3.66/-3.26	-4.19/-6.24	-2.44/-2.62	-5.51/-3.25	-4.77/-2.97	-1.17/-1.07
Θ (112.5°)	-3.27/-8.00	-8.45/-7.97	-7.27/-8.92	-9.94/-7.40	-8.81/-5.41	-4.45/-1.96	-3.67/-8.94	-12.42/-6.47	-5.89/-8.91	-14.51/-10.08	-11.08/-11.06	-8.26/-6.82	-8.89/-5.49	-4.18/-5.26	-6.45/-5.16	-5.91/-5.10	-1.96/-3.16	-6.62/-6.25	-3.31/-5.09	-5.48/-4.95	-2.71/-3.37	-5.16/-4.53	-5.10/-3.75	-2.93/-1.90
Θ (120°)	-2.42/-5.64	-6.20/-11.20	-10.25/-8.22	-15.65/-14.04	-8.85/-9.65	-5.82/-2.67	-5.84/-7.53	-12.79/-7.91	-10.80/-15.37	-15.11/-13.37	-14.92/-9.69	-10.18/-6.40	-7.29/-3.78	-1.89/-7.59	-9.78/-8.57	-6.03/-6.52	-3.65/-3.47	-13.80/-9.46	-3.21/-10.69	-11.20/-2.72	-4.18/-3.54	-6.26/-7.04	-4.76/-6.81	-3.26/-2.38
Θ (127.5°)	-3.19/-6.31	-9.25/-10.43	-15.01/-12.04	-11.86/-15.43	-11.96/-8.72	-6.87/-9.11	-13.74/-12.30	-13.76/-13.91	-14.77/-14.95	-13.38/-12.45	-16.01/-14.13	-10.20/-8.44	-6.81/-4.55	-5.06/-6.88	-13.76/-5.02	-4.42/-10.29	-4.35/-8.26	-15.05/-5.82	-0.71/-7.58	-9.98/-4.56	-4.12/-7.21	-5.52/-6.99	-11.31/-6.54	-6.41/-5.77
Θ (135°)	-4.99/-5.67	-8.08/-13.82	-10.69/-8.77	-11.93/-13.33	-13.15/-9.21	-6.51/-5.93	-8.49/-12.04	-15.91/-12.90	-10.04/-9.26	-9.10/-9.71	-11.24/-10.95	-9.28/-11.39	-7.12/-11.07	-7.72/-12.45	-8.94/-5.38	-4.54/-10.02	-15.49/-5.13	-1.04/-3.73	-14.35/-8.15	-3.26/-9.94	-11.43/-8.76	-7.44/-8.97	-6.13/-5.70	-6.35/-5.70
Θ (142.5°)	-6.85/-7.27	-7.99/-4.73	-9.94/-11.77	-13.03/-14.65	-15.55/-13.92	-10.30/-7.88	-7.58/-8.41	-11.47/-14.08	-12.52/-12.47	-15.69/-12.54	-8.50/-9.63	-11.79/-9.10	-7.31/-6.77	-7.79/-10.18	-12.41/-13.39	-12.72/-9.48	-10.37/-15.38	-11.91/-4.99	-4.38/-10.90	-14.95/-11.81	-5.94/-8.99	-14.67/-12.97	-9.47/-7.32	-6.84/-7.87
Θ (150°)	-6.88/-9.08	-10.33/-11.97	-13.18/-10.49	-7.86/-6.28	-7.07/-8.18	-10.36/-13.91	-13.70/-13.60	-15.36/-15.34	-13.15/-11.42	-11.61/-11.53	-9.50/-10.46	-12.91/-11.13	-9.86/-9.98	-10.45/-9.14	-7.65/-8.27	-10.40/-12.21	-14.43/-13.81	-11.06/-8.06	-7.60/-9.73	-11.25/-10.75	-10.70/-12.65	-15.78/-15.14	-12.03/-8.96	-8.46/-7.35
Θ (157.5°)	-8.94/-8.51	-10.41/-13.60	-15.38/-15.57	-13.14/-11.21	-10.42/-11.01	-10.13/-8.79	-9.42/-11.13	-12.81/-13.33	-10.66/-8.23	-8.10/-9.75	-12.18/-13.07	-13.35/-11.50	-11.08/-12.33	-13.30/-11.73	-10.88/-11.80	-13.54/-15.48	-14.13/-11.22	-9.01/-8.24	-9.14/-13.00	-15.20/-13.85	-15.17/-13.62	-10.57/-7.34	-6.08/-6.60	-8.06/-8.81
Θ (165°)	-11.88/-11.39	-10.74/-10.96	-10.86/-11.69	-11.38/-10.84	-11.09/-12.36	-14.30/-14.43	-14.05/-13.20	-11.88/-12.81	-14.42/-15.97	-14.67/-15.51	-15.41/-15.56	-15.90/-15.36	-15.36/-12.89	-11.04/-10.89	-12.17/-11.89	-12.35/-9.97	-9.59/-8.99	-8.18/-8.72	-9.08/-8.33	-7.27/-6.78	-7.33/-8.96	-10.09/-12.52		
Θ (172.5°)	-9.51/-9.05	-8.94/-8.17	-8.14/-8.32	-7.77/-7.60	-7.67/-7.17	-6.50/-6.80	-7.23/-7.07	-6.62/-6.49	-6.29/-6.39	-7.07/-7.73	-7.82/-8.41	-8.71/-8.77	-9.02/-9.47	-6.47/-6.53	-6.48/-5.75	-5.71/-8.88	-4.87/-5.14	-5.58/-6.53	-7.44/-8.17	-8.62/-9.00	-9.92/-10.99	-10.85/-10.74		
Θ (180°)	-10.49/-10.86	-11.52/-11.04	-11.24/-10.69	-10.18/-9.83	-9.52/-9.94	-9.88/-9.68	-8.41/-8.23	-8.44/-8.40	-7.90/-7.27	-7.37/-7.70	-7.23/-7.63	-8.39/-8.79	-9.21/-9.45	-9.68/-9.39	-8.76/-7.92	-7.31/-6.46	-6.05/-6.34	-6.59/-6.47	-7.04/-7.43	-7.53/-7.46	-7.71/-8.00	-9.13/-10.53	-10.55/-10.91	-11.39/-10.63
Freq(Hz)	2.45G/Pol	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°)	-1.80/-1.62	-1.50/-1.41	-1.27/-1.21	-1.17/-1.10	-1.04/-1.00	-0.91/-0.82	-0.77/-0.79	-0.80/-0.86	-0.94/-1.04	-1.20/-1.39	-1.61/-1.84	-2.05/-2.18	-2.26/-2.26	-2.15/-2.03	-2.01/-2.01	-1.92/-1.80	-1.77/-1.88	-1.86/-1.81	-1.84/-1.94	-1.83/-1.60	-1.48/-1.54	-1.61/-1.64	-1.67/-1.77	-1.89/-1.93
Θ (7.5°)	-0.74/-0.63	-0.53/-0.47	-0.40/-0.40	-0.39/-0.35	-0.31/-0.33	-0.39/-0.47	-0.56/-0.68	-0.79/-0.90	-1.03/-1.20	-1.41/-1.73	-2.01/-2.52	-2.41/-2.52	-2.63/-2.68	-2.69/-2.70	-2.74/-2.75	-2.62/-2.47	-2.41/-2.57	-2.68/-2.70	-2.74/-2.76	-2.52/-2.74	-1.87/-1.75	-1.64/-1.45	-1.26/-1.09	-1.00/-0.94
Θ (15°)	-0.53/-0.49	-0.46/-0.49	-0.53/-0.60	-0.69/-0.72	-0.68/-0.69	-0.76/-0.84	-0.87/-0.85	-0.84/-0.86	-0.90/-0.97	-1.15/-1.39	-1.60/-1.69	-1.72/-1.75	-1.80/-1.92	-2.06/-2.20	-2.37/-2.55	-2.72/-2.86	-3.30/-3.22	-3.41/-3.60	-3.75/-3.78	-3.52/-3.11	-2.72/-2.37	-1.99/-1.61	-1.26/-0.93	-0.75/-0.68
Θ (22.5°)	-1.04/-1.09	-1.23/-1.53	-1.88/-2.19	-2.48/-2.64	-2.49/-2.27	-2.05/-1.77	-1.47/-1.15	-0.95/-0.79	-0.68/-0.67	-0.70/-0.82	-0.93/-1.02	-1.10/-1.18	-1.29/-1.40	-1.48/-1.59	-1.76/-2.02	-2.38/-2.79	-3.26/-3.75	-4.17/-4.73	-5.18/-5.36	-5.14/-6.34	-3.90/-3.15	-2.56/-2.14	-1.79/-1.44	-1.20/-1.06
Θ (30°)	-1.81/-1.90	-2.20/-2.82	-3.65/-4.46	-5.04/-5.20	-4.70/-3.78	-2.91/-2.11	-1.47/-1.04	-0.74/-0.72	-0.64/-0.48	-0.37/-0.46	-0.65/-0.96	-1.28/-1.53	-1.67/-1.60	-1.41/-1.21	-1.14/-1.23	-1.44/-1.79	-2.40/-3.11	-3.88/-4.65	-5.40/-5.96	-5.96/-5.22	-4.18/-3.36	-2.92/-2.76	-2.62/-2.31	-1.98/-1.80
Θ (37.5°)	-2.39/-2.43	-2.89/-3.87	-5.29/-6.50	-7.16/-6.47	-5.12/-3.70	-2.37/-1.27	-0.450.02	0.07/-0.09	-0.190.09	0.050.03	-0.36/-1.05	-1.87/-2.51	-2.66/-2.28	-4.37/-2.50	-9.960.09	0.86/-1.31	1.32/-2.20	1.10/-1.08	0.990.61	-0.25/-1.80	-3.87/-5.86	-5.29/-5.19	-5.12/-4.37	-2.77/-1.26
Θ (45°)	-1.72/-1.75	-2.38/-3.57	-5.05/-6.27	-6.15/-4.80	-3.80/-2.99	-2.01/-0.90	0.020.56	0.610.46	0.350.53	0.800.79	0.20/-0.95	-2.34/-3.48	-3.69/-2.93	-1.83/-0.93	-0.250.16	0.210.08	-0.50/-0.97	-1.40/-1.86	-2.68/-4.11	-5.63/-6.14	-5.58/-5.06	-5.26/-5.82	-5.90/-4.90	-3.41/-2.24
Θ (52.5°)	-0.65/-0.62	-1.11/-1.07	-3.02/-3.54	-2.80/-1.73	-1.31/-1.37	-1.28/-0.77	-0.210.14	0.120.02	0.220.72	1.28/-1.34	0.50/-1.27	-3.37/-4.80	-4.45/-2.89	-1.50/-0.47	0.360.84	0.910.68	0.360.07	-0.16/-0.60	-1.49/-3.12	-5.14/-6.43	-6.24/-5.60	-5.44/-5.78	-5.47/-4.25	-2.50/-1.21
Θ (60°)	-0.51/-0.32	-0.57/-1.22	-2.01/-2.06	-1.23/-0.25	0.220.21	0.170.35	-0.33/-0.04	-0.69/-1.08	-0.720.06	0.43/-0.97	0.92/-1.36	0.74/-1.08	-0.33/-5.08	-4.37/-2.50	-9.960.09	0.86/-1.31	1.32/-2.20	1.10/-1.08	0.990.61	-0.25/-1.80	-3.87/-5.86	-5.66/-5.91	-5.29/-5.19	-5.12/-4.37
Θ (67.5°)	-2.56/-2.22	-2.19/-2.38	-2.73/-2.49	-1.40/-0.43	0.050.24	0.460.88	0.960.48	-0.39/-0.97	-0.880.39	0.410.95	0.42/-1.26	-3.34/-4.46	-3.24/-1.64	-0.450.29	0.86/-1.17	1.21/-3.77	1.58/-1.70	1.01/-1.01	0.84/-1.14	-1.49/-3.12				

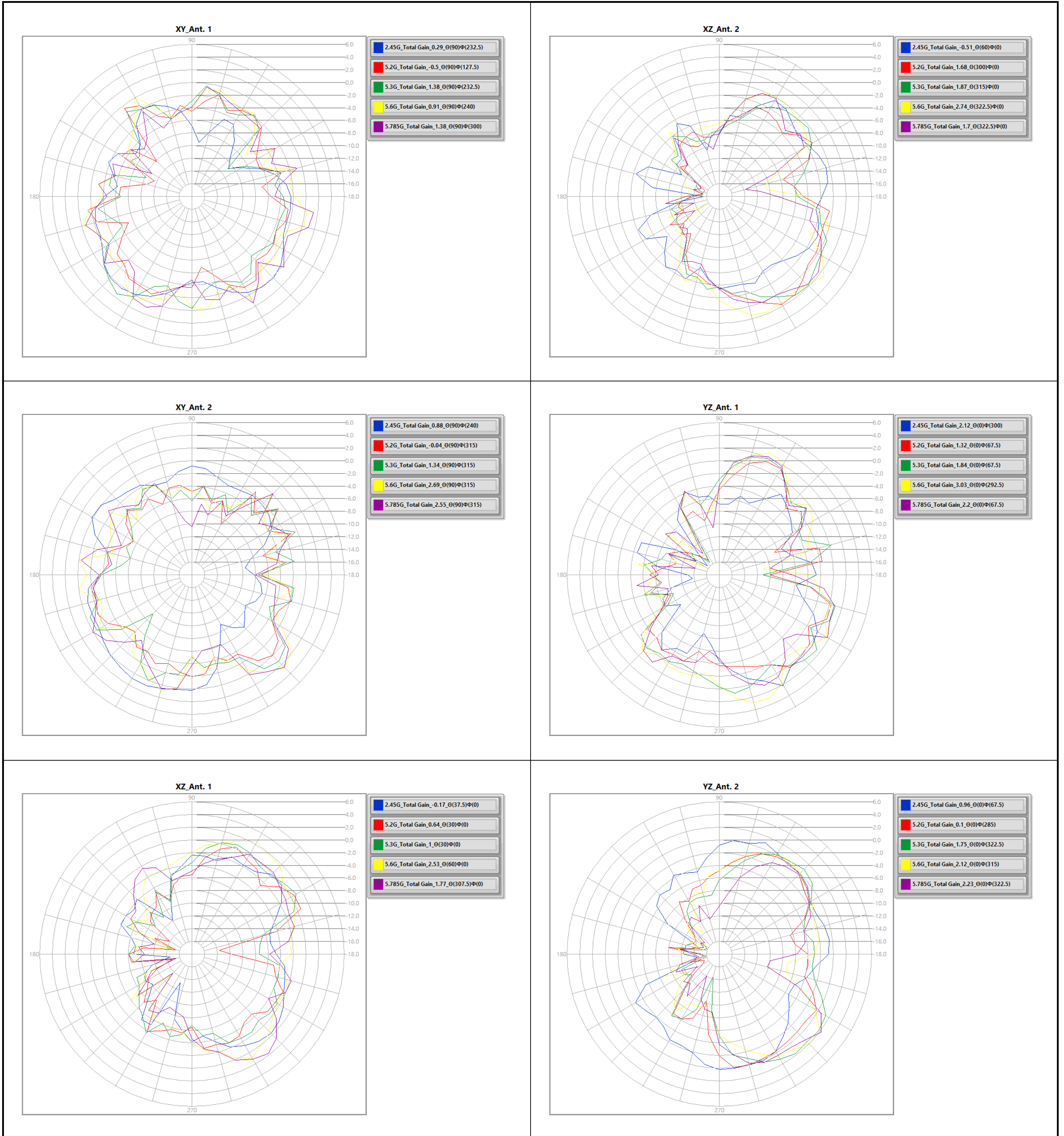


Antenna Pattern of Radio 2 (2.4GHz) and Radio 1 (5GHz)

Appendix D

Θ(60°)	0.23/1.24	1.05/0.59	-3.93/-0.07	2.13/2.49	0.40/0.15	0.31/-0.25	0.17/1.53	0.08/0.27	1.43/0.78	-1.33/-2.03	-0.11/-0.29	-1.30/-0.12	1.38/2.03	2.06/2.04	1.22/1.47	1.21/2.60	0.62/1.35	2.42/0.57	0.60/2.35	1.60/1.97	1.99/-0.17	3.20/4.76	3.94/3.72	2.48/-0.57
Θ(67.5°)	-0.41/0.18	1.62/1.59	-2.26/0.81	3.76/2.20	-0.63/-1.59	-1.27/-1.67	-0.69/0.47	-0.96/0.43	1.07/-0.05	-1.59/-1.04	-0.08/-1.92	-2.97/0.80	1.69/1.71	1.70/1.53	0.76/0.14	0.09/2.30	0.35/1.28	2.51/0.38	-0.96/2.25	1.36/1.43	2.34/1.36	4.27/4.94	3.14/2.46	0.94/-1.75
Θ(75°)	-2.28/-1.69	0.26/1.06	-2.13/0.11	3.46/1.55	-2.73/-3.48	-3.55/-2.59	-1.68/-0.98	-2.49/-0.05	0.64/-1.67	-3.11/-1.65	-1.14/-2.65	-3.99/0.54	1.49/1.15	0.89/0.22	0.33/-1.00	-1.86/1.61	0.50/1.50	3.05/0.76	-2.48/0.86	0.00/0.59	2.32/2.63	4.75/4.69	2.02/0.61	-0.14/-2.80
Θ(82.5°)	-5.17/-3.28	-2.19/-0.34	-3.35/-1.91	2.62/-1.38	-4.12/-5.37	-4.59/-4.44	-3.29/-2.20	-3.53/-1.47	-0.54/-3.28	-4.71/-1.53	-2.59/-3.25	-3.27/0.59	-0.27/0.17	-1.15/-0.74	0.19/-2.01	-3.28/-0.04	0.41/1.41	3.05/0.36	-3.92/-1.42	-2.27/-0.12	1.69/2.88	4.56/3.83	0.43/-1.32	-1.56/-2.46
Θ(90°)	-6.42/-3.35	-6.01/-1.51	-4.25/-3.65	-0.24/-3.49	-5.58/-6.25	-7.14/-6.54	-4.88/-4.14	-4.97/-3.07	-2.25/-3.35	-5.73/-1.85	-3.13/-4.19	-5.19/-0.05	-1.50/0.06	-3.08/-2.67	-1.11/-4.65	-5.37/-2.58	-1.81/-0.81	1.00/-0.12	-5.20/-2.53	-4.62/-3.52	-0.61/-1.32	2.69/1.77	-1.73/-4.16	-3.88/-1.45
Θ(97.5°)	-6.84/-3.79	-9.87/-3.76	-6.79/-4.65	-2.79/-5.42	-7.56/-7.48	-7.79/-7.17	-5.47/-4.06	-6.01/-3.74	-3.91/-4.83	-5.46/-3.88	-4.86/-4.24	-6.05/-1.93	-4.07/-1.89	-5.56/-3.14	-2.36/-4.21	-5.98/-6.63	-4.80/-2.50	-1.80/-3.31	-8.22/-5.26	-7.06/-7.03	-4.52/-1.10	-0.87/-0.84	-4.91/-5.47	-5.03/-1.19
Θ(105°)	-6.46/-5.50	-8.76/-5.27	-8.77/-5.29	-6.70/-7.85	-7.93/-8.73	-8.49/-8.56	-7.91/-5.93	-6.80/-4.35	-4.04/-6.30	-7.71/-5.67	-7.99/-6.93	-5.49/-2.81	-4.66/-4.06	-5.43/-4.78	-2.65/-4.82	-7.21/-9.83	-6.59/-5.27	-4.83/-5.77	-9.69/-5.96	-6.26/-10.51	-10.84/-4.10	-6.34/-2.41	-5.30/-6.93	-8.48/-3.16
Θ(112.5°)	-9.55/-6.46	-8.30/-5.11	-8.33/-5.45	-3.82/-5.67	-12.43/-12.10	-8.66/-7.88	-7.65/-6.97	-7.94/-4.56	-6.37/-6.85	-6.58/-8.71	-8.69/-8.12	-5.75/-3.55	-3.63/-4.74	-5.44/-6.41	-4.16/-5.77	-7.76/-11.56	-6.82/-6.20	-4.18/-4.98	-8.99/-6.36	-6.72/-9.25	-9.45/-3.78	-6.51/-2.59	-4.73/-10.56	-6.81/-4.54
Θ(120°)	-8.88/-8.31	-7.60/-4.28	-4.92/-7.49	-4.95/-8.04	-13.34/-14.14	-11.46/-10.72	-9.52/-6.04	-9.55/-6.74	-6.30/-10.11	-8.46/-7.88	-10.35/-13.65	-8.36/-5.64	-5.18/-6.41	-5.75/-8.94	-5.48/-6.20	-8.75/-10.04	-8.62/-5.81	-4.06/-6.72	-9.29/-7.23	-7.46/-5.87	-7.22/-6.60	-4.99/-4.30	-6.27/-10.40	-5.43/-3.17
Θ(127.5°)	-5.18/-7.02	-7.34/-7.43	-5.05/-10.93	-9.12/-10.74	-14.56/-12.45	-11.00/-8.74	-13.71/-9.61	-9.28/-10.69	-8.60/-11.06	-10.55/-8.23	-8.82/-7.79	-12.26/-8.77	-7.98/-10.18	-10.33/-11.52	-6.78/-6.52	-6.48/-8.41	-6.58/-6.04	-3.37/-6.68	-6.52/-7.67	-10.08/-7.58	-8.65/-9.80	-7.27/-6.22	-8.75/-10.15	-7.59/-4.88
Θ(135°)	-8.08/-10.22	-13.53/-6.64	-5.31/-8.36	-13.12/-12.44	-12.86/-14.03	-13.91/-9.65	-10.89/-11.44	-9.53/-10.85	-12.09/-11.44	-14.76/-15.13	-13.24/-11.36	-8.57/-6.18	-9.67/-7.58	-7.69/-10.61	-7.47/-9.51	-7.62/-10.78	-8.46/-8.08	-6.15/-10.36	-8.03/-7.91	-7.74/-9.14	-10.06/-10.62	-10.78/-7.28	-10.45/-9.51	-10.10/-11.16
Θ(142.5°)	-8.85/-7.92	-11.23/-13.70	-10.09/-11.57	-15.85/-14.62	-12.52/-10.13	-9.31/-9.92	-11.95/-12.94	-13.15/-13.97	-15.27/-15.43	-13.34/-12.36	-12.00/-12.52	-10.82/-10.96	-9.24/-8.57	-11.54/-13.09	-13.60/-13.61	-12.10/-12.91	-11.40/-9.49	-8.39/-8.78	-10.11/-10.47	-10.67/-7.44	-7.67/-9.90	-9.83/-12.77	-8.65/-9.53	-11.64/-15.40
Θ(150°)	-11.78/-9.83	-10.31/-11.08	-13.18/-14.91	-14.86/-12.13	-11.26/-10.48	-12.61/-14.71	-15.67/-13.20	-14.03/-16.08	-14.93/-14.87	-15.06/-15.89	-15.86/-15.48	-15.29/-15.02	-15.60/-14.62	-13.61/-13.65	-14.47/-12.05	-11.48/-12.71	-13.56/-14.45	-12.28/-12.28	-12.32/-10.64	-9.50/-7.61	-8.88/-13.69	-16.52/-13.80	-8.79/-6.79	-7.66/-11.11
Θ(157.5°)	-12.23/-9.97	-10.03/-12.36	-13.49/-12.95	-11.55/-10.79	-10.19/-9.66	-8.95/-9.92	-12.63/-13.42	-12.38/-12.76	-14.71/-15.86	-14.93/-13.44	-12.90/-10.99	-9.93/-9.31	-9.30/-11.04	-13.71/-14.20	-12.41/-11.31	-11.19/-11.19	-9.88/-8.59	-7.92/-7.96	-8.82/-11.60	-14.52/-12.84	-11.99/-11.07	-11.41/-11.57	-11.39/-12.80	-15.46/-14.46
Θ(165°)	-12.64/-11.99	-13.05/-14.64	-14.98/-14.11	-12.89/-14.25	-15.19/-14.48	-14.30/-13.79	-14.94/-14.37	-12.53/-13.64	-15.38/-14.87	-14.75/-13.74	-11.87/-11.36	-11.87/-12.50	-12.15/-10.62	-9.80/-10.38	-10.80/-10.63	-9.74/-8.37	-7.65/-7.53	-7.97/-9.18	-11.30/-14.86	-13.58/-13.16	-12.09/-11.35	-10.03/-9.94	-10.70/-12.10	-12.98/-13.16
Θ(172.5°)	-15.53/-15.99	-15.06/-15.74	-15.68/-15.75	-15.65/-14.49	-12.22/-11.53	-11.08/-11.50	-11.23/-11.14	-10.40/-10.45	-11.21/-11.78	-12.51/-11.47	-10.61/-10.19	-10.83/-11.30	-11.09/-10.97	-11.22/-11.40	-11.77/-12.70	-13.20/-12.11	-11.92/-11.91	-11.54/-12.14	-13.09/-13.50	-14.17/-14.95	-14.52/-13.18	-12.75/-13.14	-15.23/-13.97	-14.42/-15.17
Θ(180°)	-11.49/-12.04	-11.57/-11.73	-12.28/-13.54	-13.43/-13.13	-12.93/-13.17	-12.39/-13.50	-12.92/-13.26	-14.00/-15.62	-14.67/-13.93	-13.53/-13.55	-13.64/-13.20	-13.11/-13.74	-14.61/-14.23	-14.96/-15.90	-15.95/-15.40	-15.55/-16.11	-15.52/-15.81	-14.39/-14.31	-14.17/-13.91	-14.22/-14.23	-14.01/-12.66	-11.52/-10.57	-9.44/-8.74	-9.62/-10.33
Freq(Hz)	5.7855/Pol.	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°)	-8.82/-8.28	-7.21/-7.28	-7.33/-6.51	-6.18/-6.21	-6.41/-6.52	-5.86/-5.57	-5.74/-5.75	-5.54/-5.16	-5.14/-4.96	-4.78/-4.84	-5.15/-5.15	-5.21/-5.53	-5.71/-6.02	-6.20/-6.45	-6.57/-6.95	-7.04/-7.31	-8.09/-8.20	-8.53/-8.60	-8.20/-7.67	-7.86/-7.71	-7.73/-7.58	-7.79/-7.70	-8.33/-8.98	-9.32/-9.35
Θ(7.5°)	-11.56/-10.23	-9.28/-8.78	-8.38/-7.71	-6.62/-5.88	-5.26/-5.10	-5.11/-4.60	-4.39/-4.41	-4.23/-3.33	-2.47/-2.02	-1.56/-1.24	-1.52/-1.96	-2.39/-2.63	-3.09/-3.82	-4.06/-4.03	-4.14/-4.55	-5.03/-5.49	-6.40/-7.75	-9.13/-10.02	-9.88/-9.50	-9.30/-9.24	-8.61/-8.66	-9.63/-10.64	-11.49/-11.99	
Θ(15°)	-13.72/-13.14	-10.73/-8.02	-6.85/-7.08	-6.65/-5.62	-5.06/-4.59	-4.19/-3.87	-4.13/-3.79	-3.24/-2.37	-1.33/-0.50	-0.09/-0.15	-0.73/-1.39	-2.22/-2.93	-3.26/-3.09	-2.59/-2.07	-1.99/-1.74	-1.79/-2.29	-3.49/-5.29	-7.29/-9.39	-10.19/-9.68	-8.89/-7.78	-7.14/-6.57	-6.33/-6.51	-7.34/-8.70	-10.51/-12.82
Θ(22.5°)	-8.54/-9.18	-9.92/-10.39	-9.65/-7.60	-6.40/-5.23	-4.31/-3.51	-2.87/-2.69	-2.37/-1.92	-1.24/-0.97	-0.33/0.02	-0.42/-1.11	-1.83/-1.67	-1.11/-0.75	-0.62/-0.09	0.57/0.87	0.79/0.29	-0.39/-1.18	-1.92/-2.32	-3.12/-4.16	-4.58/-4.14	-3.85/-3.83	-3.58/-3.43	-3.24/-3.03	-3.30/-4.65	-6.58/-7.92
Θ(30°)	-2.54/-3.26	-3.88/-5.42	-9.72/-15.86	-12.25/-7.40	-3.92/-1.72	-1.21/-1.30	-1.71/-1.35	-1.09/-1.19	-1.05/-0.83	-0.81/-1.42	-1.89/-0.73	0.40/0.69	0.55/1.05	1.67/1.96	1.83/1.33	-0.07/-1.16	-0.78/-0.08	0.11/0.34	0.53/0.35	-0.09/-0.15	0.01/-0.32	-0.57/-0.64	-1.29/-2.81	-3.58/-2.70
Θ(37.5°)	-1.90/-3.28	-2.97/-2.86	-3.36/-3.27	-3.51/-3.99	-2.40/-0.68	0.34/-0.34	-1.27/-0.73	0.27/-0.10	-0.86/-0.62	-0.40/-0.84	-0.69/0.42	1.28/1.46	1.70/2.58	3.23/2.95	2.97/3.05	2.03/0.93	-0.19/-0.24	0.67/1.28	2.23/2.71	2.05/1.67	1.71/0.61	0.83/1.76	0.36/-2.08	-2.55/-1.85
Θ(45°)	-3.30/-5.52	-6.01/-4.89	-3.91/-2.04	-2.13/-1.80	-1.04/0.22	0.87/0.33	-0.24/0.23	0.84/0.28	-0.72/-0.28	-0.59/-1.38	-0.82/-0.16	0.19/0.92	1.66/2.35	3.20/3.04	2.58/2.96	2.58/2.50	1.06/0.23	0.14/0.20	1.16/1.84	1.49/1.69	2.89/1.66	1.11/3.06	2.46/-0.11	-1.46/-2.78
Θ(52.5°)	-1.72/-0.83	-1.86/-2.57	-7.65/-3.64	-1.61/0.19	-0.04/0.22	0.77/-0.51	-0.68/0.24	0.59/0.62	-0.03/0.12	-0.90/-1.62	-0.89/-1.40	-0.97/0.20	0.53/1.37	1.79/2.04	2.04/2.82	2.72/2.81	1.53/0.71	0.96/0.59	0.51/1.12	1.12/0.90	1.75/-0.21	0.32/3.56	3.14/1.83	0.02/-3.17
Θ(60°)	-0.14/1.03	1.42/0.85	-3.19/-0.37	1.28/1.03	-0.33/-1.10	0.08/-0.90	-1.34/-0.22	-0.34/0.67	-0.04/-0.92	-1.05/-0.82	-0.56/-2.81	-1.80/0.07	-0.03/-0.09	0.87/1.67	1.86/2.22	1.30/2.17	1.23/1.29	1.24/1.21	0.41/0.08	0.55/-0.09	2.08/0.70	1.35/4.37	3.43/1.83	0.11/-2.96
Θ(67.5°)	-0.35/0.62	2.24/1.37	-1.39/0.65	2.80/0.50	-1.18/-2.09	-0.54/-1.58	-3.15/-1.38	-0.63/1.07	-0.23/-2.17	-1.26/-0.39	-1.05/-4.45	-1.19/-0.31	0.10/-0.66	1.20/1.73	2.44/2.27	0.31/1.54	0.83/1.76	1.66/1.86	0.52/-1.10	0.05/-1.06	2.29/1.77	2.77/4.53	2.43/0.62	-1.23/-3.39
Θ(75°)	-2.05/-1.19	1.26/0.66	-1.30/-0.52	3.19/-0.70	-2.58/-3.60	-2.71/-3.03	-5.47/-3.89	-2.12/0.31	-0.76/-3.27	-1.48/-0.16	-1.62/-5.32	-1.19/-0.21	-0.69/-1.59	-0.32/0.62	2.15/1.78	-0.68/-0.39	-0.31/1.99	2.24/2.11	-0.25/-2.98	-0.98/-2.52	2.46/3.03	3.89/4.37	1.05/-0.73	-1.84/-4.58
Θ(82.5°)	-5.23/-2.66	-0.72/-0.41	-2.48/-2.77	2.15/-2.41	-3.99/-4.86	-5.16/-5.38	-8.54/-6.57	-3.88/-0.57	-2.00/-4.49	-2.04/-0.93	-3.27/-5.43	-1.02/-0.00	-1.64/-1.57	-1.17/-0.20	1.64/0.59	-2.62/-2.00	-0.81/1.17	1.92/1.60	-2.12/-4.06	-2.75/-2.84	2.34/3.07	4.05/3.57	-0.22/-1.97	-3.33/-5.48
Θ(90°)	-7.98/-4.52	-3.73/-1.53	-2.99/-4.72	0.04/-4.29	-7.31/-5.46	-8.25/-6.74	-10.43/-9.40	-6.46/-2.37	-3.08/-4.17	-2.75/-1.44	-4.15/-5.94	-2.60/-0.38	-3.35/-2.31	-2.37/-1.54	0.05/-1.00	-2.98/-4.95	-3.04/-1.53	0.63/0.12	-3.70/-5.92	-6.09/-6.08	0.15/1.25	2.55/1.20	-3.03/-3.97	-4.48/-4.63
Θ(97.5°)	-10.54/-5.70	-9.54/-4.35	-5.31/-6.30	-3.02/-6.57	-7.45/-5.72	-8.55/-8.72	-11.50/-9.61	-7.07/-3.07	-4.64/-5.02	-4.58/-1.75	-5.06/-5.70	-4.56/-1.46	-4.97/-3.42	-4.56/-3.06	-1.75/-2.20	-3.85/-7.55	-5.55/-2.74	-1.81/-2.69	-8.80/-7.88	-9.66/-9.24	-3.32/-1.68	-0.81/-2.51	-5.31/-4.21	-4.94/-3.65
Θ(105°)	-9.04/-8.14	-11.43/-7.01	-8.42/-4.50	-4.71/-8.11	-9.59/-7.38	-9.83/-10.66	-12.33/-8.32	-6.36/-3.89	-5.23/-5.63	-5.86/-5.78	-7.41/-5.71	-5.96/-4.27	-6.95/-6.53	-6.55/-4.95	-3.42/-2.90	-3.70/-9.89	-7.77/-5.79	-5.46/-5.44	-8.97/-7.62	-8.81/-13.82	-10.11/-4.29	-5.31/-3.88	-6.20/-6.67	-9.09/-5.58
Θ(112.5°)	-9.45/-8.16	-11.74/-6.88	-11.74/-6.58	-4.18/-7.																				

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°)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/-2.47	-4.07/-3.74	-3.48/-3.22	-3.50/-3.19	-3.82/-2.95	-2.62/-2.95	-3.26/-3.69	-3.67/-1.38	-2.77/-2.85	-3.40/-3.69	-3.76/-3.61	-3.50/-3.11	-2.95/-2.92	-2.67/-2.79	-3.10/-2.90	-2.71/-2.80	-3.13/-3.21	-2.78/-2.56	-2.54/-2.78	-2.96/-3.50	-4.22/-3.47	-3.82/-3.77	-4.12/-3.93	-3.86/-4.10
Θ(7.5°)	-12.64/-11.36	-9.09/-6.45	-4.40/-3.00	-2.50/-1.25	-2.03/-1.39	-0.92/-1.15	-1.83/-2.64	-3.09/-3.26	-3.28/-4.13	-5.22/-5.74	-5.48/-5.02	-4.49/-4.35	-4.50/-4.56	-4.71/-5.19	-5.57/-5.28	-4.73/-4.58	-4.48/-4.18	-3.88/-3.73	-3.96/-4.70	-6.06/-8.13	-10.47/-11.54	-11.53/-12.03	-13.14/-13.44	-13.16/-13.39
Θ(15°)	-8.27/-9.85	-9.92/-8.04	-5.23/-2.91	-1.63/-1.23	-1.79/-2.04	-1.93/-1.61	-1.39/-0.88	-0.58/-0.60	-0.86/-1.20	-1.46/-2.10	-2.94/-3.58	-4.13/-4.31	-3.91/-3.36	-3.45/-4.46	-5.75/-7.55	-9.69/-10.36	-9.32/-8.79	-8.82/-8.84	-8.69/-9.46	-9.37/-7.98	-6.08/-5.08	-5.17/-6.10	-7.49/-8.06	-7.70/-7.40
Θ(22.5°)	-1.02/-2.44	-4.50/-5.39	-3.97/-1.82	-1.16/-2.08	-3.24/-2.04	-0.13/-1.04	1.52/-1.51	1.29/-0.90	0.68/-0.04	-1.17/-2.29	-3.22/-3.99	-4.29/-3.38	-2.43/-1.93	-2.46/-4.69	-7.73/-9.28	-9.47/-10.56	-11.39/-10.80	-10.36/-8.65	-7.22/-5.13	-3.89/-3.04	-2.13/-2.23	-3.51/-3.95	-2.74/-4.30	
Θ(30°)	1.58/0.93	-0.45/-1.93	-1.11/-0.55	0.22/-1.80	-1.81/-0.26	2.15/0.02	2.93/2.28	1.71/-1.44	1.61/-1.77	1.46/-0.28	-1.49/-2.32	-3.86/-6.55	-3.75/-1.65	-1.46/-2.23	-2.94/-4.45	-5.82/-7.51	-12.93/-12.87	-8.44/-4.60	-1.31/-0.12	-0.20/-1.52	-2.84/-2.51	-1.74/-0.16	0.41/-0.99	
Θ(37.5°)	1.23/-1.60	1.40/-0.40	0.63/-1.29	0.31/-0.91	-0.10/-1.39	1.65/-0.68	-0.31/-0.25	0.83/2.24	3.21/3.15	2.26/-1.10	-0.12/-1.06	-1.14/-0.43	-1.69/-4.93	-4.23/-1.14	0.14/-0.47	-0.04/-2.18	-4.81/-6.29	-9.35/-10.96	-9.59/-5.92	-2.21/-0.42	-0.39/-1.34	-1.26/-0.24	0.60/-0.27	2.67/-1.63
Θ(45°)	1.03/-1.23	1.97/-1.41	1.22/-1.11	1.03/-1.11	1.85/-1.76	0.70/-0.36	0.06/-1.47	2.42/2.93	3.45/3.26	2.27/0.97	0.26/-0.74	-0.94/-0.48	1.31/-0.49	-1.25/-0.14	0.07/0.53	1.19/-0.17	-3.23/-0.49	-5.46/-8.25	-11.82/-6.23	-1.96/-0.18	-1.47/-2.63	-1.21/-0.82	2.02/0.06	3.25/2.21
Θ(52.5°)	1.76/-1.13	2.11/-1.53	0.99/0.91	1.88/2.90	3.13/2.25	1.39/-1.52	2.13/2.59	2.95/2.61	2.60/2.21	1.27/0.57	0.88/-1.19	0.45/0.09	1.65/-1.96	1.91/-1.56	-0.17/-0.17	1.74/-0.13	-3.49/-4.53	-5.33/-11.12	-11.47/-7.66	-3.49/-1.74	-1.19/-1.31	0.16/2.26	3.07/3.86	3.23/2.57
Θ(60°)	2.08/-1.24	1.81/-2.07	0.47/-0.22	1.37/3.09	3.12/-1.95	1.29/-1.57	1.59/-1.75	2.26/2.40	2.12/-1.85	0.62/-0.54	0.54/-2.58	2.10/-0.59	0.71/-2.40	3.24/-1.72	-0.30/-0.16	1.34/-0.34	-3.26/-5.16	-6.20/-11.21	-7.78/-6.25	-2.87/-1.16	0.11/-0.13	2.02/0.97	3.67/4.20	2.92/2.16
Θ(67.5°)	2.28/-1.27	1.18/-1.67	-0.27/-0.55	0.19/2.31	2.26/-1.61	0.59/0.79	0.61/0.65	1.71/-2.20	2.06/0.63	-0.43/-0.10	1.18/-0.06	2.66/-0.32	-0.96/-1.96	2.97/-1.48	-0.63/-0.47	1.00/-0.27	-2.59/-3.75	-4.67/-5.82	-3.78/-2.38	0.46/-0.91	0.30/-0.42	3.07/4.38	3.16/3.62	2.27/-1.51
Θ(75°)	1.47/0.40	0.53/-0.99	-0.61/-1.23	-1.20/-0.89	1.33/0.24	-0.61/-0.50	-1.36/-0.47	1.30/-1.30	1.32/-0.18	-1.12/-1.40	0.37/-1.90	2.63/-0.22	-3.63/-0.52	1.99/-0.58	-1.35/-0.51	-0.12/-0.40	-2.10/-3.46	-4.35/-4.17	-3.88/-1.83	0.99/-1.95	1.08/-0.49	2.61/3.95	1.71/-2.45	1.30/-0.57
Θ(82.5°)	0.31/-1.00	0.23/-0.81	-1.84/-2.67	-1.86/-0.51	1.01/-0.79	-0.65/-2.28	-3.96/-2.66	0.28/-0.70	0.32/-2.12	-2.78/-1.87	-0.69/-0.19	0.81/-2.08	-4.41/-0.17	0.27/-0.51	-2.29/-1.19	-2.52/-1.82	-2.22/-4.31	-4.68/-4.30	-6.65/-1.67	0.07/-0.05	0.76/-0.48	0.82/2.87	0.54/-0.39	-0.72/-0.27
Θ(90°)	-1.34/-2.14	-0.27/-0.67	-2.05/-2.87	-2.15/-1.07	0.24/-2.18	-1.84/-4.26	-6.16/-3.76	-0.41/-0.30	-1.69/-3.75	-3.26/-2.04	-2.02/-1.19	-0.05/-2.00	-3.20/-0.81	-1.20/-2.20	-4.04/-3.27	-5.51/-3.35	-2.35/-4.98	-6.73/-5.59	-5.80/-3.42	-1.69/-0.60	-0.45/-1.47	-1.54/-0.77	-1.79/-2.22	-2.23/-1.77
Θ(97.5°)	-2.29/-3.80	-2.15/-0.40	-3.03/-4.08	-2.80/-2.27	-1.21/-0.40	-4.10/-5.27	-6.91/-4.66	-0.62/-0.91	-3.55/-6.42	-4.99/-3.17	-3.99/-3.16	-1.96/-3.50	-4.24/-2.52	-2.23/-4.46	-6.05/-3.72	-7.23/-6.09	-4.24/-5.21	-8.98/-8.28	-7.66/-7.04	-3.83/-4.25	-3.13/-3.62	-4.53/-1.40	-3.86/-4.38	-4.18/-3.31
Θ(105°)	-2.39/-5.23	-3.66/-1.73	-4.02/-4.97	-3.76/-3.57	-2.73/-4.16	-7.38/-5.58	-6.49/-5.93	-2.20/-2.37	-0.32/-5.36	-5.93/-6.07	-6.36/-4.27	-2.93/-2.79	-4.73/-6.64	-4.29/-6.14	-6.88/-6.71	-8.68/-8.21	-8.78/-9.86	-11.83/-11.91	-7.00/-11.23	-6.13/-7.72	-6.21/-6.36	-5.73/-4.01	-5.39/-5.39	-5.36/-3.58
Θ(112.5°)	-3.43/-5.98	-4.49/-2.95	-5.55/-7.08	-4.88/-4.12	-4.34/-4.39	-8.01/-9.23	-8.42/-5.92	-3.95/-3.23	-4.42/-5.90	-8.93/-7.65	-6.45/-6.17	-5.76/-5.72	-7.15/-7.56	-5.75/-6.28	-6.78/-7.11	-11.61/-7.99	-13.87/-9.05	-14.43/-14.37	-10.23/-12.54	-9.23/-5.41	-7.93/-7.44	-6.40/-5.29	-6.31/-9.34	-6.88/-4.79
Θ(120°)	-3.94/-6.26	-5.59/-4.46	-7.27/-8.79	-5.42/-5.32	-5.77/-6.40	-8.07/-9.98	-9.57/-8.96	-6.24/-0.42	-4.19/-5.33	-8.05/-14.33	-11.32/-6.59	-5.60/-6.85	-7.34/-6.88	-5.11/-8.98	-7.57/-11.75	-8.20/-9.73	-13.15/-8.44	-12.26/-7.74	-15.53/-11.54	-8.86/-5.48	-6.91/-5.55	-4.59/-7.22	-9.78/-9.90	-8.35/-6.20
Θ(127.5°)	-6.12/-5.81	-6.59/-8.43	-10.04/-9.78	-7.69/-6.16	-5.85/-7.22	-9.68/-10.11	-6.98/-6.62	-5.93/-6.96	-9.00/-8.45	-8.69/-6.79	-6.14/-5.97	-6.97/-7.14	-7.30/-7.59	-9.43/-10.38	-11.87/-9.99	-7.62/-8.01	-11.70/-9.75	-10.37/-7.48	-7.62/-8.01	-10.55/-8.48	-8.22/2.87	0.54/-0.39	-0.72/-0.27	
Θ(135°)	-8.05/-7.09	-7.66/-8.78	-10.41/-9.76	-6.51/-5.68	-8.20/-11.74	-12.42/-12.07	-11.20/-9.70	-7.70/-7.36	-6.45/-6.74	-8.32/-8.71	-8.53/-10.03	-8.03/-7.77	-9.64/-8.26	-8.91/-12.04	-13.13/-12.47	-11.75/-10.37	-11.34/-13.62	-11.11/-9.18	-9.61/-12.69	-8.73/-9.03	-12.88/-11.09	-11.92/-14.52	-10.17/-8.45	-6.31/-4.35
Θ(142.5°)	-7.76/-6.82	-7.29/-8.74	-11.76/-10.25	-10.12/-8.91	-9.15/-11.10	-12.27/-12.20	-12.37/-10.98	-9.23/-8.00	-8.60/-10.24	-10.76/-8.74	-7.50/-8.40	-9.24/-8.72	-9.38/-7.27	-6.24/-7.50	-8.11/-10.49	-15.24/-10.66	-13.15/-14.69	-15.16/-12.95	-14.72/-11.74	-13.51/-14.64	-12.11/-14.05	-11.87/-10.49	-9.68/-10.73	-9.70/-7.21
Θ(150°)	-10.42/-11.14	-10.77/-12.78	-13.05/-11.16	-9.67/-10.88	-12.81/-14.05	-14.00/-12.22	-13.32/-9.94	-8.48/-9.30	-12.15/-12.43	-11.34/-9.48	-8.71/-8.62	-7.49/-6.88	-8.71/-9.63	-6.53/-9.46	-9.24/-15.25	-15.10/-14.66	-14.41/-11.94	-11.33/-13.68	-15.57/-14.46	-11.59/-12.38	-16.16/-15.24	-10.17/-8.90	-9.59/-10.44	
Θ(157.5°)	-11.34/-9.91	-9.90/-11.59	-14.38/-13.65	-11.81/-12.22	-14.09/-14.94	-15.45/-14.96	-14.60/-12.25	-11.72/-12.21	-13.13/-11.88	-9.37/-8.74	-9.43/-9.85	-9.51/-10.29	-11.80/-14.17	-12.98/-11.56	-13.24/-11.45	-9.97/-10.86	-13.65/-14.64	-14.21/-11.28	-11.63/-13.08	-13.95/-11.78	-12.02/-15.00	-15.57/-12.98	-12.98/-13.30	-12.41/-11.69
Θ(165°)	-11.42/-11.19	-11.50/-12.07	-13.70/-15.66	-14.00/-12.77	-11.87/-12.16	-12.83/-12.66	-12.36/-11.58	-11.04/-10.62	-10.91/-10.51	-11.61/-12.96	-14.34/-14.70	-13.73/-13.09	-13.40/-13.40	-15.08/-15.27	-14.84/-13.40	-12.41/-11.09	-11.45/-10.70	-9.97/-11.16	-13.63/-13.51	-10.46/-9.30	-8.77/-10.02	-10.07/-8.82	-9.04/-10.52	-11.34/-11.37
Θ(172.5°)	-12.15/-12.75	-12.02/-14.81	-14.11/-13.01	-14.09/-12.52	-14.69/-14.28	-14.75/-16.02	-15.41/-15.31	-16.03/-15.41	-14.96/-15.03	-14.70/-15.45	-15.21/-14.91	-15.13/-16.32	-14.93/-14.57	-13.67/-12.89	-12.59/-13.65	-12.67/-13.23	-13.59/-13.32	-14.67/-13.61	-14.02/-13.08	-11.67/-11.36	-11.50/-12.61	-11.21/-12.02	-11.42/-12.08	
Θ(180°)	-14.66/-14.46	-14.91/-14.98	-15.21/-14.18	-12.21/-11.84	-13.01/-14.09	-13.32/-13.57	-14.04/-13.82	-14.19/-13.31	-12.92/-12.71	-12.95/-12.34	-11.90/-12.32	-13.54/-13.91	-14.28/-14.45	-14.62/-15.97	-15.22/-15.49	-14.70/-13.86	-13.39/-13.33	-14.14/-14.84	-15.63/-14.73	-13.68/-12.83	-12.83/-12.71	-12.53/-12.78	-13.02/-13.34	-13.51/-13.84
Freq(Hz)	6.175GPol.	TotalAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-4.64/-4.45	-4.04/-4.23	-4.70/-5.39	-5.92/-6.05	-5.76/-5.75	-6.16/-6.27	-6.42/-6.46	-6.36/-6.41	-6.24/-5.70	-5.31/-5.15	-4.86/-5.77	-6.61/-7.45	-7.63/-7.77	-7.47/-7.73	-7.88/-7.67	-7.49/-7.18	-6.55/-5.96	-6.18/-6.04	-5.21/-4.78	-4.46/-4.24	-4.27/-4.39	-4.32/-4.23	-4.23/-4.16	-4.03/-4.29
Θ(7.5°)	-3.29/-2.82	-2.52/-2.57	-2.63/-3.09	-3.64/-3.72	-3.65/-3.50	-3.29/-2.82	-2.32/-1.83	-1.73/-1.76	-1.77/-1.85	-2.15/-2.95	-3.15/-3.33	-4.29/-5.45	-6.53/-9.10	-13.63/-14.57	-10.93/-6.93	-4.43/-3.03	-2.64/-2.94	-3.53/-4.58	-5.84/-6.08	-8.46/-7.45	-7.45/-7.13	-6.88/-5.69	-5.00/-4.62	
Θ(15°)	-8.26/-5.81	-3.74/-2.35	-1.50/-1.76	-2.55/-3.10	-3.23/-2.56	-1.87/-1.29	-1.05/-1.22	-1.47/-1.61	-1.49/-1.67	-3.39/-4.24	-5.50/-4.66	-5.79/-4.03	-2.89/-2.09	-1.53/-2.42	-4.86/-6.82	-12.67/-8.42	-4.80/-3.60	-4.24/-5.80	-7.78/-7.61	-6.00/-4.64	-3.70/-5.35	-7.60/-8.70	-9.40/-11.60	-14.01/-11.74
Θ(22.5°)	-5.69/-9.76	-7.51/-2.74	-0.55/-0.77	-2.10/-2.18	-0.76/0.64	1.22/-0.40	1.22/0.96	1.12/-0.70	0.67/0.32	-0.07/-1.10	-2.42/-4.12	-5.89/-6.13	-5.50/-5.00	-3.65/-2.09	-2.29/-4.09	-9.23/-13.01	-8.64/-7.73	-11.23/-14.74	-9.73/-4.50	-1.86/-1.03	-1.21/-2.48	-4.45/-5.06	-3.96/-2.56	-2.10/-2.90
Θ(30°)	1.50/-0.00	-3.80/-4.35	-1.23/-1.14	-2.89/-1.82	0.49/-1.08	0.42/-0.12	0.65/-1.92	3.08/-3.34	2.39/-0.95	-0.07/-0.17	-0.38/-0.96	-1.73/-1.86	-3.01/-7.95	-12.09/-6.93	-4.38/-4.41	-6.29/-8.27	-9.56/-8.51	-8.89/-8.16	-5.60/-3.20	-1.72/-1.56	-2.17/-3.73	-6.75/-8.54	-2.26/-0.01	0.86/-1.45
Θ(37.5°)	2.96/2.08	1.28/-1.13	-0.66/-0.53	-1.12/0.83	1.87/0.97	0.23/-1.13	3.95/2.55	2.65/-2.41	0.76/-1.33	-2.64/-2.00	-1.06/-1.14	-1.14/-1.10	1.32/-1.53	-7.04/-5.70										

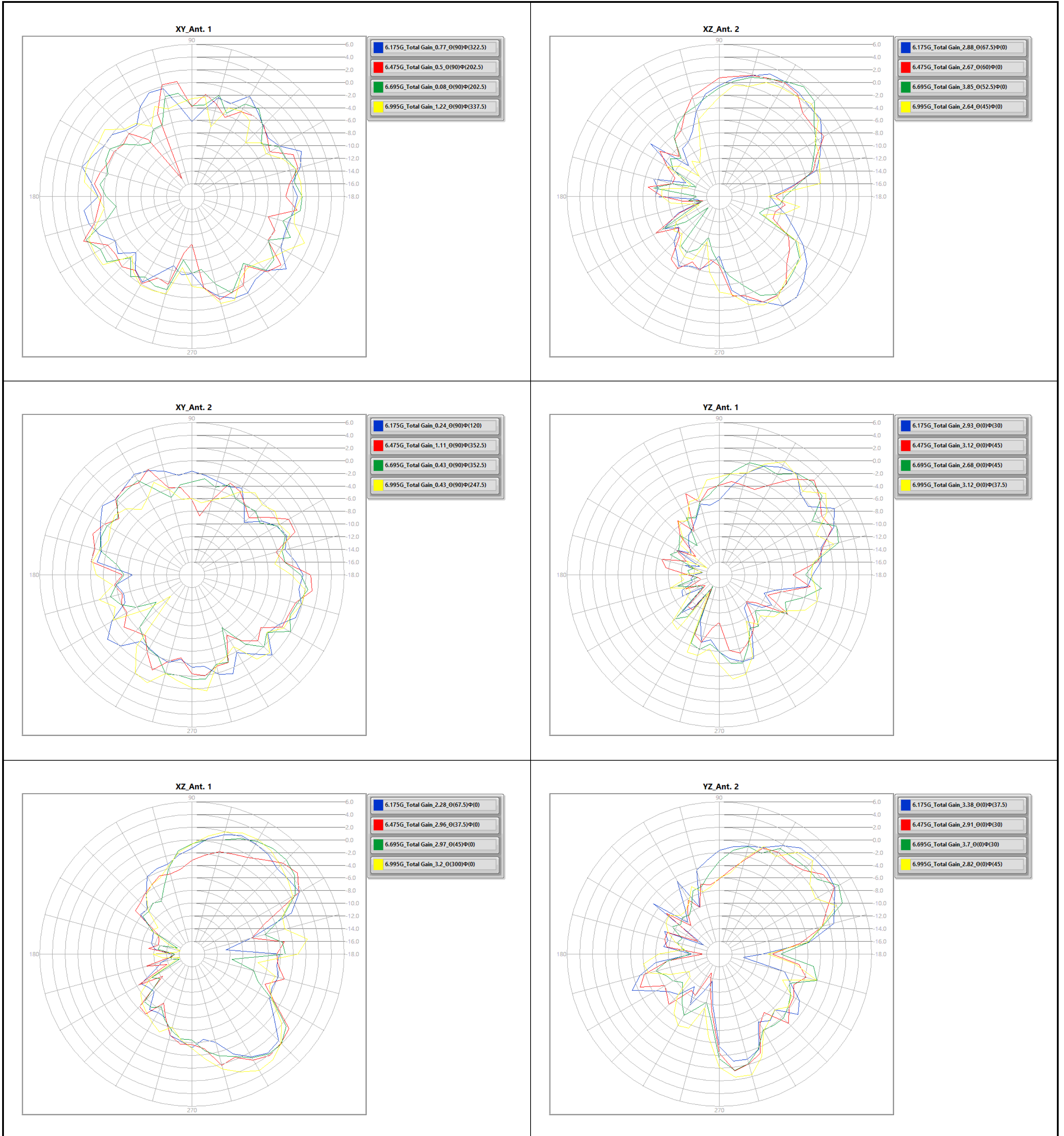


Antenna Pattern of Radio 0 (6GHz)

Appendix E

Θ(22.5°)	-0.76/-1.49	-1.58/-0.90	0.08/-1.19	1.24/0.44	-0.33/-0.04	0.63/-1.11	1.64/-2.21	2.07/-1.73	1.17/-1.43	2.28/-2.28	0.85/-1.62	-3.29/-4.32	-5.39/-5.99	-4.56/-2.19	-0.82/-0.95	-2.46/-3.25	-2.88/-3.78	-5.81/-7.50	-5.87/-3.74	-2.99/-3.84	-2.56/-0.93	-0.13/-0.19	0.42/-0.21	-0.50/-0.50
Θ(30°)	0.65/-0.23	0.10/-0.87	1.48/-1.77	1.40/-0.71	0.21/-1.12	2.40/-0.33	3.03/-9.02	2.82/-2.21	0.91/-1.27	3.21/-3.85	3.08/-1.70	1.10/-0.33	-2.72/-3.17	-2.44/-0.23	1.37/-2.11	1.86/-0.02	-1.50/-1.98	-3.33/-4.69	-3.40/-0.73	-0.52/-1.84	-0.59/-0.80	1.03/-0.68	0.52/-1.22	0.93/-1.10
Θ(37.5°)	2.17/-0.85	0.55/-1.52	1.96/-1.65	0.35/-1.03	-1.02/-0.82	2.15/-2.77	3.38/-0.22	3.85/-5.57	2.56/-1.24	2.66/-3.77	3.59/-3.66	3.44/-1.00	-0.56/-1.44	-2.24/-1.72	0.67/-2.16	0.74/-2.42	-4.62/-4.63	-5.35/-4.39	-2.37/-1.24	0.11/-1.32	-0.90/-1.28	1.03/-1.15	1.83/-2.52	2.31/-2.80
Θ(45°)	2.07/-0.24	0.49/-2.24	2.44/-0.51	-1.10/-1.32	-0.64/-0.26	2.10/-0.39	3.26/-3.58	3.65/-9.97	4.43/-3.33	2.72/-2.72	1.59/-2.96	3.39/-1.04	0.78/-0.29	-3.79/-2.13	0.30/-0.86	-1.57/-1.40	-2.91/-7.45	-7.24/-6.60	-5.61/-0.92	-0.22/-0.26	0.77/-1.34	0.81/-1.56	2.75/-2.36	2.97/-0.05
Θ(52.5°)	2.59/-1.15	1.16/-1.72	1.32/-0.17	-1.06/-2.14	-0.43/-0.97	2.11/-0.30	3.06/-3.32	3.30/-3.23	4.24/-3.67	2.63/-2.17	0.72/-3.17	2.84/-1.38	2.03/-0.73	-3.27/-1.13	0.95/-0.22	-1.54/-2.08	4.15/-7.19	-6.14/-7.79	-4.82/-2.75	0.34/-1.72	2.34/-3.28	1.43/-2.15	2.55/-1.69	2.88/-3.21
Θ(60°)	2.84/-2.37	2.08/-1.53	0.31/-0.60	-2.28/-1.64	0.01/-0.93	1.89/-1.98	1.76/-2.31	3.33/-3.08	3.26/-3.70	2.65/-2.09	-0.38/-2.23	2.36/-2.08	1.94/-1.13	-0.47/-0.67	2.01/-1.10	-2.12/-1.91	-4.76/-6.54	-4.95/-7.91	-5.67/-4.67	-0.29/-1.24	2.00/-3.50	2.63/-2.14	1.64/-2.00	2.85/-2.82
Θ(67.5°)	2.88/-1.93	0.72/-0.62	0.27/-1.16	-2.79/-0.84	0.31/-0.81	1.12/-0.40	0.15/-1.24	2.32/-2.55	2.20/-3.03	1.28/-1.38	-1.12/-1.41	1.34/-1.15	-0.01/-0.29	-0.40/-2.55	0.97/-0.32	-2.94/-2.23	-2.06/-2.54	-1.62/-4.01	-1.78/-3.00	-0.23/-1.34	1.47/-2.61	2.41/-1.68	1.32/-2.69	2.79/-2.36
Θ(75°)	1.69/-0.97	-1.17/-0.30	-0.47/-2.35	-4.45/-1.45	-0.05/-0.56	0.03/-0.17	1.17/-1.88	0.67/-1.67	0.61/-0.84	-1.89/-0.45	-0.17/-0.79	-1.16/-1.41	-1.50/-5.58	-1.28/-1.02	-2.48/-2.02	-2.44/-2.14	-0.65/-2.51	-0.81/-1.56	-0.56/-0.83	0.54/-1.07	1.82/-0.61	0.66/-2.23	1.74/-0.66	
Θ(82.5°)	0.81/-0.20	-2.04/-0.64	-0.86/-3.02	-4.88/-2.86	-1.19/-1.39	-1.34/-1.25	-0.95/-0.09	0.21/-0.26	0.30/-0.18	-0.92/-0.20	-1.36/-0.47	-0.56/-0.19	-3.10/-5.55	-3.43/-6.19	-2.04/-1.39	-1.57/-1.83	-1.68/-2.83	-0.98/-1.73	-0.44/-0.54	-1.32/-0.65	1.16/-0.98	-0.10/-1.08	0.74/-0.06	
Θ(90°)	-0.43/-1.57	-2.77/-1.85	-2.60/-4.06	-6.33/-4.44	-2.18/-2.93	-2.67/-2.17	-1.66/-2.16	-1.05/-0.22	0.24/-0.58	-1.12/-0.19	-1.38/-2.38	-3.24/-2.91	-8.65/-5.90	-6.86/-6.56	-3.45/-1.27	-2.12/-4.80	-4.63/-4.12	-3.67/-4.62	-3.47/-3.48	-1.75/-1.08	-3.84/-2.23	-0.12/-2.89	-2.27/-0.27	-0.16/-0.96
Θ(97.5°)	-1.66/-3.94	-3.84/-3.00	-3.79/-5.47	-8.64/-7.32	-3.19/-3.35	-3.98/-2.49	-3.10/-5.33	-4.60/-3.46	-1.85/-4.58	-4.61/-3.31	-4.05/-4.70	-4.44/-1.76	-7.23/-8.27	-10.46/-5.51	-4.05/-4.60	-6.94/-7.90	-7.45/-6.53	-9.96/-6.60	-9.90/-7.44	-3.83/-4.63	-5.97/-2.58	-1.11/-3.50	-4.01/-2.54	-2.07/-1.70
Θ(105°)	-4.07/-6.11	-4.63/-3.18	-5.14/-6.15	-9.34/-8.88	-5.58/-4.28	-5.88/-4.22	-4.31/-6.10	-3.66/-2.01	-1.95/-3.82	-4.74/-2.76	-3.41/-4.41	-4.54/-3.87	-6.18/-6.21	-6.66/-6.83	-7.02/-6.48	-15.61/-11.76	-6.44/-8.72	-13.58/-10.39	-6.55/-6.97	-6.86/-3.34	-1.92/-2.62	-6.94/-4.95	-3.13/-4.11	
Θ(112.5°)	-6.90/-10.00	-5.64/-3.14	-4.17/-5.72	-10.92/-8.68	-6.42/-5.32	-5.19/-6.90	-9.94/-9.33	-5.77/-3.40	-4.13/-6.57	-5.92/-4.94	-4.58/-6.85	-4.04/-2.44	-6.09/-6.20	-4.84/-8.32	-12.77/-9.89	-6.42/-7.70	-9.80/-7.51	-4.71/-9.69	-11.61/-5.81	-6.49/-7.06	-6.11/-3.39	-4.42/-6.45	-6.14/-3.56	-5.61/-6.02
Θ(120°)	-8.16/-10.19	-8.55/-4.80	-3.53/-5.83	-8.88/-11.46	-8.46/-7.21	-4.49/-4.01	-4.75/-4.64	-3.74/-4.87	-5.98/-5.38	-7.63/-8.68	-10.17/-6.16	-3.87/-4.91	-5.29/-7.16	-6.56/-9.04	-8.79/-4.38	-7.50/-5.42	-8.28/-11.09	-13.34/-13.30	-8.73/-6.90	-11.36/-14.20	-6.92/-3.14	-5.52/-8.19	-7.05/-3.74	-5.48/-4.69
Θ(127.5°)	-8.49/-8.15	-8.63/-5.81	-5.08/-6.00	-7.32/-10.65	-10.60/-8.07	-10.60/-8.07	-9.22/-8.00	-7.24/-7.51	-6.93/-5.05	-5.24/-5.94	-9.28/-8.80	-5.18/-8.52	-6.86/-7.53	-9.76/-11.10	-15.61/-9.35	-10.04/-9.79	-5.12/-11.60	-13.06/-9.93	-11.57/-6.68	-14.12/-13.36	-5.70/-7.71	-7.83/-3.61	-4.64/-3.86	-6.02/-5.34
Θ(135°)	-11.21/-12.17	-11.13/-8.10	-5.94/-5.39	-6.62/-8.25	-10.28/-9.80	-9.64/-9.41	-10.91/-11.63	-10.06/-10.25	-8.79/-8.60	-5.85/-4.16	-6.41/-8.77	-9.01/-12.06	-7.93/-7.97	-9.96/-7.44	-8.30/-12.68	-9.25/-7.42	-8.04/-8.00	-9.10/-9.99	-8.95/-6.72	-7.02/-8.52	-6.62/-11.57	-6.96/-3.31	-3.33/-2.26	-4.05/-5.95
Θ(142.5°)	-4.31/-8.16	-10.17/-10.57	-8.54/-6.26	-6.50/-5.80	-8.79/-7.68	-7.52/-6.66	-4.93/-4.62	-6.64/-7.62	-8.92/-12.92	-9.41/-6.21	-6.63/-4.68	-7.04/-6.63	-10.00/-11.19	-8.90/-7.28	-7.33/-8.23	-6.27/-6.39	-8.44/-8.31	-10.15/-14.16	-8.19/-6.88	-6.54/-6.97	-5.20/-5.63	-4.48/-3.65	-2.71/-3.11	
Θ(150°)	-9.93/-12.11	-12.17/-10.33	-8.57/-7.45	-6.35/-6.30	-8.15/-11.75	-13.40/-14.53	-15.18/-15.68	-13.43/-12.23	-12.27/-10.11	-8.11/-9.45	-11.52/-8.65	-5.13/-4.93	-7.85/-8.37	-6.38/-7.31	-12.28/-15.09	-9.88/-10.90	-7.82/-6.96	-6.47/-7.45	-8.73/-7.68	-5.62/-4.85	-6.12/-6.30	-4.26/-3.80	-7.36/-7.80	-8.90/-8.76
Θ(157.5°)	-12.31/-14.52	-14.52/-13.94	-13.08/-9.38	-6.58/-5.25	-5.04/-5.19	-5.56/-6.86	-8.67/-9.05	-8.93/-9.56	-10.33/-10.63	-8.96/-8.11	-9.28/-10.18	-10.06/-10.71	-10.96/-12.04	-11.61/-9.29	-8.88/-8.99	-9.98/-8.62	-8.07/-8.96	-7.82/-4.95	-3.10/-2.20	-2.49/-3.41	-3.61/-4.13	-5.14/-5.37	-6.31/-7.87	-9.40/-10.61
Θ(165°)	-7.27/-8.47	-11.66/-14.53	-14.40/-14.37	-13.13/-12.20	-12.36/-11.34	-9.99/-10.23	-9.59/-9.33	-9.62/-9.56	-9.93/-10.53	-11.54/-12.34	-13.94/-14.33	-15.40/-15.66	-15.02/-11.07	-8.85/-10.19	-9.40/-6.53	-7.85/-10.59	-9.27/-9.65	-9.86/-6.27	-5.07/-3.88	-3.16/-2.44	-1.78/-1.66	-2.09/-2.40	-2.74/-3.46	-4.58/-5.89
Θ(172.5°)	-8.26/-8.19	-7.44/-7.82	-8.85/-9.28	-9.47/-9.64	-9.44/-11.00	-11.97/-10.52	-9.13/-9.19	-10.30/-11.18	-10.55/-9.95	-10.20/-10.72	-11.05/-11.35	-11.95/-13.06	-14.42/-14.27	-13.58/-13.60	-13.19/-13.02	-12.89/-11.16	-9.64/-8.90	-8.71/-8.83	-7.85/-7.27	-6.72/-5.95	-5.60/-5.81	-5.96/-5.98	-6.11/-6.30	-7.14/-8.04
Θ(180°)	-7.87/-7.60	-7.19/-7.24	-8.16/-9.06	-8.59/-9.63	-10.78/-12.52	-13.43/-12.77	-13.71/-13.92	-10.71/-9.18	-8.24/-7.68	-7.95/-9.07	-10.38/-10.46	-10.44/-9.78	-9.06/-8.62	-8.24/-8.04	-3.31/-8.50	-10.07/-9.66	-9.11/-8.91	-9.23/-9.34	-8.81/-8.43	-8.10/-8.12	-8.32/-7.96	-7.54/-7.82		
Freq(Hz)	6.4750GPol.	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°)	-9.06/-9.17	-10.47/-11.93	-11.72/-10.84	-10.82/-11.03	-11.43/-12.14	-10.95/-9.37	-9.66/-11.15	-11.85/-11.32	-10.61/-10.73	-11.01/-11.26	-11.21/-11.35	-10.93/-10.32	-9.80/-8.96	-8.70/-9.39	-10.42/-10.45	-9.49/-9.55	-9.73/-9.24	-8.86/-8.76	-9.06/-9.20	-9.45/-9.47	-9.32/-8.56	-8.76/-9.14	-9.62/-10.05	-10.32/-9.75
Θ(7.5°)	-6.32/-6.42	-5.12/-6.43	-4.31/-4.40	-4.19/-4.00	-4.80/-5.32	-4.61/-4.43	-5.10/-5.28	-5.50/-5.99	-6.93/-4.87	-10.57/-12.08	-14.42/-14.77	-12.02/-9.27	-7.49/-6.92	-8.29/-9.24	-8.97/-9.24	-8.27/-6.86	-5.93/-5.73	-5.35/-6.63	-6.24/-7.12	-7.30/-8.66	-10.17/-9.88	-8.96/-8.60	-7.97/-6.88	
Θ(15°)	-2.69/-2.03	-1.31/-1.04	-1.21/-1.55	-1.85/-2.55	-3.24/-2.94	-2.13/-1.50	-1.21/-1.15	-1.11/-1.37	-1.71/-2.03	-2.01/-2.00	-2.86/-4.99	-7.86/-9.96	-8.87/-7.09	-5.32/-4.20	-3.48/-3.61	-3.46/-3.72	-4.21/-4.76	-4.52/-3.71	-3.88/-4.50	-5.33/-4.90	-4.28/-4.03	-4.13/-4.30	-4.23/-3.82	-3.39/-2.98
Θ(22.5°)	-1.40/-0.92	-0.45/-0.18	0.15/-0.16	-1.09/-2.34	-1.67/-1.34	-0.98/-0.24	0.32/-0.68	0.99/-1.08	0.85/-0.75	1.42/-1.98	1.32/-0.93	-4.33/-7.04	-8.85/-8.91	-5.57/-2.55	-1.06/-0.44	-0.24/-0.88	-1.94/-3.16	-4.80/-6.16	-5.30/-5.14	-5.10/-3.02	-1.01/-0.10	-0.43/-1.48	-1.62/-1.04	-1.02/-1.40
Θ(30°)	1.03/-0.69	1.16/-1.62	1.65/-1.53	0.57/-0.06	0.56/-1.52	1.63/-2.07	2.91/-2.97	2.85/-2.83	2.72/-1.36	0.58/-2.35	2.78/-2.01	0.42/-1.80	-5.43/-8.24	-4.37/-1.72	0.00/-0.74	0.50/-0.03	-1.09/-2.35	-4.09/-5.68	-4.44/-3.72	-3.14/-1.54	0.67/-1.39	0.23/-0.50	1.04/-1.97	1.98/-1.52
Θ(37.5°)	0.45/-0.93	0.61/-1.74	2.42/-1.89	-0.00/-0.07	1.05/-1.66	1.23/-1.32	2.65/-4.27	3.48/-3.25	3.17/-2.25	-0.33/-0.70	1.47/-1.80	2.09/-0.09	-4.06/-5.67	-4.76/-3.18	-1.01/-0.33	-0.23/-2.20	-5.47/-5.97	-5.72/-7.48	-4.16/-1.37	-1.66/-1.05	0.17/-0.63	1.19/-1.61	2.11/-1.36	2.14/-1.89
Θ(45°)	0.65/-0.06	0.27/-0.90	1.06/-0.34	-0.88/-0.21	2.27/-2.99	2.03/-0.55	0.71/-1.57	2.43/-2.78	3.81/-4.32	2.13/-0.45	-1.16/-0.57	1.69/-0.52	-3.02/-3.59	-6.02/-6.64	-4.89/-4.23	-2.88/-2.29	-4.79/-6.17	-7.43/-7.42	-3.02/-1.03	0.96/-1.71	2.40/-1.43	1.26/-1.47	0.23/-0.54	2.41/-2.81
Θ(52.5°)	2.29/-0.79	-0.40/-0.18	0.10/-1.53	-2.78/-0.79	2.44/-2.61	1.91/-0.36	0.07/-0.85	2.85/-5.32	3.48/-4.73	3.46/-0.88	-3.02/-0.62	1.33/-4.08	-0.66/-1.01	-3.61/-5.01	-3.31/-5.44	-4.92/-4.22	-6.55/-7.51	-10.59/-10.45	-6.38/-2.93	0.03/-2.31	2.02/-1.24	-0.60/-0.43	-0.27/-2.55	3.65/-2.47
Θ(60°)	2.67/-0.39	-1.49/-1.23	1.58/-0.30	-1.74/-0.83	2.21/-0.86	-0.58/-0.16	0.52/-0.66	2.34/-3.83	3.41/-3.98	3.01/-1.33	-2.45/-1.45	0.90/-0.09	0.14/-0.12	-1.97/-2.64	-0.56/-1.87	-6.69/-5.50	-4.97/-5.22	-7.28/-8.20	-5.22/-3.08	-1.23/-1.56	0.85/-0.55	0.07/-0.38	0.66/-0.39	3.83/-2.38
Θ(67.5°)	2.22/-0.69	-1.54/-1.29	2.30/-0.57	-2.50/-0.27	0.51/-1.88	-3.06/-1.61	0.10/-1.87	2.53/-5.34	3.58/-3.41	2.58/-0.95	-2.28/-1.49	-0.11/-0.49	0.02/-0.74	-1.57/-2.02	0.19/-3.33	-8.23/-3.44	-3.06/-1.75	-2.82/-3.08	-1.11/-1.89	-1.37/-0.21	-0.54/-0.04	-0.49/-1.72	1.11/-3.35	3.92/-1.79
Θ(75°)	1.78/-1.50	-1.51/-1.28	2.32/-0.21	-2.49/-0.43	0.34/-1.17	-3.50/-4.49	-2.60/-7.88	0.61/-2.79	2.89/-2.13	1.67/-0.00	-1.31/-1.94	-2.06/-0.77	-1.80/-1.35	-0.75/-2.42	-0.90/-3.40	-6.77/-4.20	-0.85/-0.34	-1.75/-3.00	-0.05/-0.48	-0.64/-1.82	-3.18/-1.55	-1.33/-1.		

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°)	2.52/2.21	2.20/2.45	2.74/2.90	2.59/2.07	0.99/-0.03	-0.57/-0.68	-0.21/0.47	0.89/0.38	-1.16/-3.20	-4.92/-4.61	-3.59/-2.18	-0.63/0.71	1.47/1.72	1.65/-1.44	0.94/0.23	-0.39/-0.57	-0.50/-0.70	-1.49/-2.49	-3.69/-4.54	-4.22/-3.09	-1.63/-0.23	0.98/2.08	2.77/2.76	2.67/2.63
Θ(30°)	1.40/-1.79	2.28/2.86	3.53/3.88	3.62/2.71	1.14/-0.49	-1.11/-1.18	-1.16/-0.73	-0.25/-0.56	-2.43/-5.57	-5.64/-2.55	-0.74/0.61	1.76/2.40	2.32/1.86	1.63/-1.43	0.85/-0.33	-1.37/-1.91	-1.39/-0.96	-0.46/-0.39	-1.17/-2.34	-2.61/-2.20	-1.84/-1.65	-1.09/-0.08	1.01/-1.38	1.49/-1.29
Θ(142.5°)	0.55/-1.71	2.26/2.29	2.59/2.59	2.45/-1.53	-1.00/-4.11	-3.89/-4.08	-6.02/-5.68	-3.79/-4.04	-6.18/-6.18	-3.19/-1.33	0.01/-1.89	3.11/3.41	2.81/-6.3	1.29/-1.45	1.75/-1.33	-0.41/-1.83	-1.51/-0.47	2.00/-1.58	-0.59/-0.90	0.47/0.56	-0.92/-2.40	-3.15/-2.42	-1.16/-0.58	-0.53/-0.31
Θ(45°)	1.74/3.21	4.03/-59	3.10/2.42	1.66/0.51	-0.96/-3.36	-5.04/-6.87	-8.07/-5.53	-4.59/-7.61	-9.01/-5.34	-3.12/-2.53	-1.09/-1.49	3.09/3.46	2.43/0.43	-0.22/0.95	2.31/2.34	0.54/-2.54	-3.24/-0.78	1.57/-1.39	-0.81/-1.05	1.07/-1.44	-0.04/-1.91	-2.93/-1.44	0.63/-1.05	0.55/0.60
Θ(52.5°)	4.515/-71	5.934/88	3.873/-19	2.55/-12	1.31/-1.17	-0.34/-3.87	-2.89/-2.10	-3.47/-8.63	-8.45/-0.47	-3.27/-2.61	-0.71/-2.00	3.11/3.36	1.96/0.63	0.07/-1.27	2.27/-1.92	-0.73/-4.12	-6.18/-2.83	-0.10/-0.63	-3.09/-2.92	-0.80/-0.13	-1.31/-2.45	-2.35/-0.67	1.51/-2.18	2.14/3.08
Θ(60°)	5.406/36	6.405/25	4.013/54	2.70/2.93	2.31/0.17	-0.63/0.23	0.18/-0.92	-3.34/-7.42	-1.22/-1.81	-2.17/-0.77	0.47/-2.12	2.28/-1.97	1.23/0.69	0.56/-1.05	2.17/-1.24	-0.96/-3.86	-6.18/-4.70	-2.07/-3.10	-3.87/-3.94	-2.16/-0.90	-0.24/-0.69	-1.20/-0.22	1.36/2.34	2.84/-11
Θ(67.5°)	4.906/12	5.924/87	2.892/61	2.02/3.20	2.46/0.99	1.752/95	1.98/0.02	-2.64/-6.63	-5.39/-1.44	-1.28/-0.26	1.28/-1.80	1.62/0.64	0.45/0.29	0.09/0.69	1.62/0.24	-1.72/-3.56	-7.00/-5.26	-2.87/-3.98	-2.51/-1.89	-2.12/0.04	0.76/0.10	-0.77/-0.11	1.43/2.15	2.25/3.66
Θ(75°)	3.38/4.85	4.36/3.53	1.21/-1.4	0.84/-2.4	1.59/0.68	2.01/2.70	1.05/-1.90	-3.86/-6.84	-5.71/-2.44	-1.20/-1.69	0.49/0.16	-0.17/-1.48	-1.34/-0.52	-1.38/-0.63	0.67/-1.22	-2.66/-3.30	-6.92/-6.46	-3.62/-6.04	-0.93/-0.13	-1.38/0.97	1.07/-1.35	-1.60/-0.95	0.64/-1.31	0.66/2.26
Θ(82.5°)	1.41/3.18	2.61/-1.92	-0.85/-0.27	-0.92/0.63	0.24/-0.42	0.88/-1.12	-0.65/-4.86	-5.80/-7.36	-6.84/-4.24	-2.11/-2.61	-0.90/-1.77	-3.19/-4.96	-4.53/-2.50	-4.12/-1.70	-0.78/-2.75	-2.69/-2.71	-8.96/-5.93	-4.07/-8.04	-1.08/-0.01	-1.75/-1.17	0.67/-1.27	-2.86/-2.67	-0.28/0.22	-1.37/0.46
Θ(90°)	-1.04/0.59	0.53/-0.59	-2.77/-1.67	-3.09/-1.37	-1.28/-1.59	-0.57/-0.76	-1.71/-5.30	-6.31/-8.39	-6.86/-5.06	-2.72/-3.79	-2.40/-2.41	-4.12/-6.28	-6.17/-4.69	-5.62/-3.86	-2.79/-5.63	-5.43/-4.22	-13.31/-9.28	-5.78/-11.30	-2.23/-1.58	-3.30/-0.01	-1.25/-4.16	-5.11/-4.76	-2.05/-2.23	-4.04/-2.64
Θ(97.5°)	-2.85/-2.05	-2.09/-3.82	-3.40/-2.54	-5.33/-3.87	-3.49/-2.86	-1.86/-3.25	-4.09/-6.59	-5.61/-8.32	-10.10/-6.62	-3.34/-3.86	-5.36/-5.47	-7.04/-7.37	-7.44/-6.12	-7.44/-6.31	-4.34/-8.53	-7.01/-7.75	-13.41/-8.70	-8.74/-12.80	-3.70/-5.17	-6.19/-1.81	-4.97/-9.19	-7.83/-5.52	-4.03/-4.95	-6.30/-5.38
Θ(105°)	-5.35/-4.79	-4.05/-4.92	-3.33/-3.51	-6.74/-6.42	-4.44/-4.02	-2.43/-2.97	-3.98/-6.22	-6.29/-8.44	-7.94/-9.09	-5.40/-4.29	-6.35/-8.62	-4.62/-6.99	-7.93/-1.55	-9.38/-7.79	-7.30/-7.19	-7.93/-10.57	-15.48/-10.80	-10.95/-15.03	-5.64/-7.10	-8.18/-4.76	-8.71/-11.44	-10.99/-6.59	-5.37/-7.24	-7.10/-6.74
Θ(112.5°)	-8.24/-9.97	-6.77/-5.89	-3.51/-3.46	-6.48/-10.34	-8.09/-5.88	-4.43/-5.24	-6.19/-7.70	-9.15/-10.91	-10.85/-9.52	-8.11/-6.01	-7.52/-10.80	-14.97/-11.91	-10.35/-12.15	-14.66/-10.56	-10.96/-10.37	-7.99/-11.61	-10.97/-9.01	-11.66/-10.67	-4.27/-5.18	-6.32/-6.29	-8.57/-8.74	-8.74/-7.91	-8.00/-8.42	-7.19/-9.61
Θ(120°)	-9.07/-9.71	-8.01/-6.80	-4.73/-4.96	-5.82/-11.07	-7.61/-6.92	-7.42/-7.21	-8.01/-13.87	-12.97/-10.50	-8.64/-9.44	-10.47/-7.34	-5.75/-8.24	-10.70/-14.45	-15.58/-14.96	-15.62/-13.35	-8.73/-8.25	-11.24/-12.74	-13.85/-11.04	-14.91/-12.78	-8.04/-8.76	-10.10/-7.23	-6.83/-8.48	-13.69/-11.87	-10.15/-8.20	-9.43/-9.44
Θ(127.5°)	-10.11/-11.46	-8.29/-8.38	-5.24/-4.14	-6.17/-10.94	-7.61/-4.85	-6.41/-8.57	-10.06/-9.61	-8.45/-9.57	-10.55/-7.30	-6.97/-10.13	-13.51/-14.69	-11.95/-11.00	-12.77/-10.20	-12.93/-10.34	-8.71/-6.66	-12.25/-15.58	-13.47/-10.15	-15.37/-12.57	-8.77/-10.09	-14.81/-11.82	-8.36/-10.21	-14.99/-14.57	-9.83/-10.42	-11.10/-10.02
Θ(135°)	-9.97/-11.88	-7.68/-5.90	-4.33/-4.31	-6.67/-12.23	-10.43/-6.38	-5.78/-7.27	-9.65/-10.33	-9.04/-8.12	-10.25/-10.94	-8.19/-9.35	-11.21/-11.63	-10.80/-12.32	-10.99/-11.21	-13.14/-13.01	-8.22/-8.95	-14.32/-12.60	-11.89/-12.57	-15.76/-9.70	-7.79/-9.46	-13.19/-11.19	-9.96/-10.01	-13.45/-14.87	-13.89/-9.66	-8.70/-9.70
Θ(142.5°)	-9.43/-9.92	-9.90/-8.84	-7.03/-6.45	-6.67/-7.23	-8.44/-11.24	-9.10/-8.66	-10.84/-13.63	-10.47/-8.66	-10.44/-12.26	-13.55/-11.37	-10.44/-12.26	-12.41/-14.71	-15.55/-15.48	-15.43/-14.78	-15.47/-15.25	-15.32/-13.13	-11.20/-14.93	-12.52/-14.21	-10.43/-9.76	-14.96/-14.04	-13.32/-12.40	-11.97/-15.06	-14.60/-12.28	-10.17/-9.49
Θ(150°)	-14.09/-10.81	-9.00/-8.68	-11.66/-11.67	-8.40/-6.30	-6.96/-9.40	-9.14/-7.30	-7.37/-9.86	-10.79/-8.92	-8.03/-8.83	-10.69/-13.59	-15.41/-16.08	-15.63/-15.44	-15.33/-15.81	-14.96/-14.63	-15.22/-14.00	-12.00/-11.07	-11.92/-15.63	-14.79/-13.51	-14.19/-15.11	-14.79/-11.69	-15.11/-12.40	-14.71/-15.27	-13.04/-8.19	-7.41/-12.22
Θ(157.5°)	-14.34/-14.38	-11.17/-11.26	-10.97/-9.68	-9.67/-9.59	-10.06/-10.45	-9.92/-8.96	-8.80/-9.50	-11.40/-14.03	-14.53/-12.77	-11.28/-10.80	-11.79/-13.01	-14.53/-15.73	-16.11/-15.02	-13.35/-11.20	-10.73/-11.93	-14.70/-15.40	-13.64/-11.95	-10.72/-10.51	-10.74/-11.04	-11.79/-12.93	-15.31/-14.90	-14.92/-11.50	-8.41/-6.99	-7.46/-10.03
Θ(165°)	-13.81/-14.80	-15.14/-15.06	-15.51/-15.45	-15.25/-15.49	-15.66/-14.73	-12.09/-10.36	-8.86/-10.07	-11.44/-11.55	-12.31/-13.18	-13.07/-12.99	-13.35/-13.91	-14.14/-15.58	-15.93/-14.74	-15.65/-15.07	-14.06/-14.43	-14.76/-15.47	-14.60/-16.00	-15.65/-15.19	-14.27/-14.59	-14.62/-14.68	-13.94/-12.38	-11.17/-10.60	-10.37/-10.28	-10.63/-12.09
Θ(172.5°)	-15.52/-15.75	-15.16/-15.12	-15.22/-15.55	-15.60/-15.04	-13.96/-12.63	-11.71/-11.54	-11.46/-10.84	-9.92/-9.78	-10.08/-10.59	-11.25/-11.64	-12.74/-13.63	-14.23/-13.71	-15.73/-14.98	-15.40/-15.92	-13.52/-13.40	-13.31/-12.94	-12.35/-11.97	-11.70/-11.50	-11.09/-10.53	-10.29/-10.47	-10.61/-10.47	-10.44/-10.98	-11.83/-12.28	-12.72/-13.91
Θ(180°)	-15.18/-15.59	-15.41/-15.40	-14.55/-15.22	-15.80/-15.76	-14.99/-15.39	-14.24/-13.61	-13.53/-13.91	-14.59/-14.12	-13.91/-13.75	-13.31/-13.39	-13.15/-13.41	-12.59/-13.46	-14.83/-15.76	-15.50/-15.09	-15.36/-15.85	-15.31/-15.79	-15.42/-15.31	-15.92/-15.57	-15.35/-15.74	-14.66/-15.39	-16.22/-15.24	-14.66/-15.22		
Freq(Hz)	6.175/Pol.	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°)	1.46/1.36	1.36/1.34	1.04/0.87	0.85/0.93	0.79/0.80	0.83/0.75	0.60/0.62	0.59/0.67	0.801/0.69	0.77/0.85	0.83/0.80	0.74/0.76	0.73/0.83	0.94/1.01	1.00/1.10	1.19/1.11	1.16/1.21	1.39/1.42	1.52/1.47	1.48/1.62	1.71/1.78	1.71/1.75	1.70/1.77	1.66/1.60
Θ(7.5°)	0.99/1.05	1.04/1.04	0.92/0.95	1.04/1.10	0.71/0.46	0.36/0.18	-0.00/-0.13	-0.14/-0.01	-0.11/-0.47	-0.61/-0.82	-1.03/-1.12	-0.91/-0.51	-0.13/-0.15	0.41/0.58	0.66/0.62	0.43/0.22	0.07/0.10	0.19/0.33	0.41/0.40	0.48/0.64	0.81/0.96	0.98/1.09	1.13/1.22	1.08/1.11
Θ(15°)	0.50/-0.35	-0.81/-0.60	-0.25/-0.14	-0.26/-0.27	-0.50/-0.53	-0.28/-0.17	0.08/0.45	0.67/0.73	0.44/-0.25	-1.07/-1.91	-2.39/-2.37	-1.87/-1.02	-0.05/0.87	1.55/1.85	1.86/1.34	0.49/-0.63	-1.74/-2.40	-2.72/-2.99	-3.03/-3.11	-2.76/-2.46	-1.20/-1.54	-0.78/-0.22	0.38/0.96	1.19/-1.09
Θ(22.5°)	2.47/1.67	0.82/0.81	0.69/0.27	-0.12/-0.07	-0.43/-0.90	-1.17/-1.35	-1.23/-0.62	0.18/0.31	-0.35/-1.59	-2.48/-2.58	-2.51/-2.20	-1.91/-1.03	0.46/1.36	1.69/1.84	1.78/1.33	0.39/-0.83	-2.12/-3.42	-4.12/-4.05	-3.76/-3.70	-2.59/-3.31	-2.56/-1.25	-0.02/1.18	1.89/2.44	2.752/89
Θ(30°)	3.25/2.24	1.19/0.85	0.80/0.74	1.11/1.03	-0.08/-1.16	-1.97/-2.81	-3.62/-2.81	-1.65/-1.73	-3.13/-3.49	-1.84/-0.67	-0.90/-1.18	-0.70/0.28	0.89/0.83	0.75/0.63	0.00/-1.02	-2.32/-3.42	-3.83/-3.00	-1.44/-0.60	-1.49/-4.25	-7.15/-5.31	-2.81/-1.01	-0.03/0.51	1.45/2.52	3.05/3.29
Θ(37.5°)	1.60/1.93	0.93/0.40	0.03/-0.51	0.04/0.45	-0.21/-1.68	-3.97/-7.74	-8.53/-4.75	-3.92/-6.52	-10.63/-6.49	-2.82/-1.46	-1.02/0.21	1.22/1.61	1.13/0.86	0.48/-0.89	-2.13/-2.75	-3.26/-3.41	-0.29/0.99	-0.70/-5.02	-4.60/-0.78	0.49/0.43	-1.46/-3.84	-3.59/-1.34	0.26/0.85	
Θ(45°)	1.84/2.82	2.48/1.19	0.25/-0.47	-0.21/0.86	0.41/-2.83	-6.35/-8.68	-6.35/-3.87	-4.36/-8.69	-10.24/-7.00	-5.12/-2.67	0.46/2.51	2.47/3.26	1.57/2.17	2.45/0.88	-0.24/-1.15	-1.92/-3.57	-4.16/-3.92	-1.58/-0.82	-3.54/-7.58	-3.55/-0.02	1.55/-1.22	-1.90/-7.24	-4.87/-2.84	-0.81/0.64
Θ(52.5°)	4.07/4.95	4.61/3.91	2.69/1.84	1.78/3.01	1.54/-1.55	-1.58/-0.52	-0.92/-2.39	-5.27/-7.75	-4.45/-3.15	-5.14/-1.07	2.37/3.17	1.86/0.65	0.96/2.47	3.29/2.25	2.19/0.27	-1.24/-2.57	-3.91/-6.10	-4.98/-3.70	-4.15/-3.78	-6.39/-2.25	0.50/1.19	-1.22/-3.68	-1.12/1.24	2.45/3.65
Θ(60°)	5.195/90	5.60/5.19	3.90/3.18	3.21/4.63	2.53/0.68	2.32/2.75	1.22/-0.59	-3.02/-5.22	-3.22/-1.15	-2.38/-0.51	3.03/2.91	1.07/-0.39	0.42/1.91	2.93/2.41	2.83/0.24	-0.05/-1.26	-1.96/-5.28	-4.99/-3.48	-0.91/-2.24	-5.65/-3.89	0.50/2.20	0.37/-0.68	1.52/3.49	3.94/4.85
Θ(67.5°)	4.41/5.19	5.25/5.23	4.26/3.08	3.50/4.79	2.96/2.05	3.32/3.56	1.64/0.09	-1.31/-2.93	-1.67/-0.66	-0.88/0.30	2.93/1.71	-0.95/-0.92	-0.23/-1.44	1.56/-1.52	-1.98/-0.40	-0.42/-1.57	-0.78/-3.20	-2.07/-1.09	0.90/1.44	-0.67/-1.70	1.47/2.84	0.67/0.80	2.36/3.81	3.58/4.26
Θ(75°)	2.68/3.46	4.25/4.34	3.62/-1.52	2.50/3.85	2.34																			



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

Appendix F

Θ(67.5°)	2.97/4.80	4.66/3.87	2.95/2.91	1.32/1.21	0.72/1.94	-0.15/-1.48	-0.99/-0.44	-2.11/-1.43	-3.53/-5.59	-0.41/2.82	1.59/-0.52	-1.09/-0.57	1.00/1.60	1.49/-0.56	-2.54/-2.09	-0.90/-0.12	-0.61/-0.63	0.61/0.78	-1.04/-2.43	-1.71/-1.54	-1.43/-3.68	-0.63/-0.77	1.72/1.85	1.05/1.60
Θ(75°)	2.29/3.74	3.89/3.04	2.70/2.66	1.88/1.96	1.11/1.16	-0.70/0.22	0.27/-0.34	-1.73/-2.92	-1.55/-6.56	-1.22/2.34	0.62/-1.10	-2.27/-2.13	-0.61/0.11	-0.25/-1.89	-3.74/-4.36	-2.49/-0.32	0.33/0.07	1.08/0.23	-0.53/-1.67	-0.87/-0.11	0.22/-2.52	-1.24/-1.43	1.27/0.83	-1.10/0.31
Θ(82.5°)	0.54/2.02	2.26/2.00	1.23/1.32	1.08/1.09	0.68/-0.84	-0.15/-0.26	-0.52/-1.20	-2.02/-4.47	-2.16/-7.92	-2.17/0.76	-1.40/-2.91	-3.93/-3.19	-2.43/-1.60	-1.74/-3.78	-4.77/-7.81	-3.17/-0.64	0.73/0.63	0.90/-1.67	-1.26/-2.70	-0.47/0.64	0.13/-2.30	-2.07/-2.46	0.06/-0.26	-3.57/-1.11
Θ(90°)	-1.60/-0.19	0.77/0.71	-0.64/-0.58	-0.85/-0.28	-0.25/-2.93	-0.99/-1.41	-2.00/-3.06	-2.43/-5.53	-2.97/-9.37	-3.49/-1.41	-2.85/-4.78	-6.03/-4.13	-4.26/-5.70	-2.79/-5.41	-5.67/-9.24	-6.36/-1.95	-1.44/-0.44	-0.85/-4.95	-3.62/-5.56	-1.98/-0.90	-2.04/-4.45	-4.57/-4.21	-2.22/-1.13	-6.51/-2.80
Θ(97.5°)	-4.89/-3.24	-1.55/-0.74	-2.68/-2.69	-3.00/-2.01	-2.30/-4.56	-3.54/-2.45	-3.02/-3.38	-3.28/-8.69	-4.16/-8.44	-5.70/-2.47	-4.13/-6.99	-8.75/-5.13	-3.66/-7.73	-4.76/-7.80	-7.93/-10.10	-9.95/-5.36	-6.79/-5.02	-5.05/-9.84	-6.60/-10.62	-5.01/-5.76	-6.82/-8.31	-9.11/-6.58	-4.16/-3.15	-9.85/-4.90
Θ(105°)	-8.12/-5.13	-3.99/-2.35	-3.96/-5.32	-3.97/-3.86	-5.71/-4.64	-7.35/-4.82	-7.81/-6.84	-7.45/-10.68	-7.78/-7.98	-9.21/-5.87	-4.50/-6.73	-13.33/-8.05	-5.86/-8.00	-8.12/-9.16	-10.49/-8.81	-8.17/-7.58	-7.61/-8.29	-6.49/-7.06	-6.72/-7.86	-7.22/-8.84	-8.94/-8.07	-9.89/-7.48	-3.91/-4.66	-8.87/-6.74
Θ(112.5°)	-10.08/-7.96	-8.34/-5.12	-5.18/-6.86	-4.47/-7.14	-5.01/-7.45	-7.45/-5.97	-6.36/-9.10	-7.97/-7.30	-10.84/-8.22	-9.32/-6.89	-5.55/-7.20	-12.15/-13.66	-8.12/-7.99	-11.29/-12.24	-8.89/-11.94	-12.99/-9.48	-6.83/-7.04	-7.18/-10.65	-6.30/-10.69	-9.13/-8.64	-7.44/-8.79	-13.39/-8.86	-7.82/-6.89	-14.64/-11.59
Θ(120°)	-10.36/-10.77	-8.50/-5.78	-4.46/-5.94	-6.96/-7.90	-7.74/-5.90	-9.59/-9.13	-7.88/-8.62	-10.19/-9.42	-7.98/-9.88	-6.14/-6.63	-8.50/-8.91	-8.97/-11.57	-12.22/-7.80	-9.65/-11.26	-11.61/-11.09	-12.58/-15.11	-10.37/-8.13	-9.05/-15.54	-9.03/-15.15	-15.54/-8.96	-14.61/-12.29	-15.63/-9.65	-8.19/-9.70	-14.20/-14.34
Θ(127.5°)	-12.74/-10.49	-8.09/-5.40	-4.00/-8.24	-8.94/-7.36	-10.94/-10.26	-8.29/-9.23	-7.72/-8.61	-10.77/-9.99	-8.78/-7.15	-9.16/-7.72	-8.31/-11.12	-15.62/-10.73	-10.21/-9.22	-12.71/-15.44	-9.93/-11.59	-8.98/-15.04	-10.17/-8.57	-13.08/-15.33	-7.58/-12.11	-14.91/-8.99	-12.21/-7.59	-13.10/-11.09	-8.58/-8.00	-12.02/-15.38
Θ(135°)	-15.17/-11.31	-8.89/-8.85	-6.79/-6.15	-8.08/-9.65	-10.19/-11.44	-12.28/-12.07	-11.28/-11.00	-10.14/-9.73	-9.11/-7.75	-8.58/-10.84	-10.49/-12.38	-12.11/-13.25	-11.93/-10.31	-10.46/-14.68	-9.95/-13.38	-14.34/-10.03	-13.65/-6.93	-12.80/-15.68	-7.26/-8.95	-15.65/-13.23	-5.87/-12.68	-9.98/-13.54	-7.74/-11.70	-12.48/-12.80
Θ(142.5°)	-13.15/-12.38	-8.47/-6.63	-5.39/-6.60	-9.82/-10.58	-6.62/-8.91	-13.56/-10.42	-8.74/-9.96	-8.90/-8.06	-9.48/-10.06	-9.19/-11.42	-14.80/-13.99	-11.22/-11.06	-11.83/-13.37	-11.46/-15.33	-14.95/-13.05	-13.96/-15.37	-14.52/-10.54	-14.78/-14.64	-8.59/-11.52	-15.87/-14.01	-11.22/-15.46	-13.21/-10.06	-8.81/-12.19	-12.35/-10.00
Θ(150°)	-14.74/-9.96	-8.45/-8.80	-10.85/-11.20	-10.78/-8.09	-8.07/-10.45	-10.92/-8.29	-8.42/-13.16	-10.64/-7.24	-8.47/-11.13	-10.11/-8.59	-11.02/-12.75	-13.27/-13.61	-15.38/-15.34	-14.09/-13.06	-16.14/-13.29	-11.12/-9.45	-9.65/-11.62	-15.82/-14.59	-15.68/-13.55	-13.84/-14.97	-14.70/-10.34	-8.99/-12.67	-15.27/-11.37	-8.08/-11.78
Θ(157.5°)	-15.86/-11.80	-9.31/-8.73	-9.74/-10.82	-11.83/-11.95	-11.71/-10.82	-9.38/-7.70	-9.17/-12.66	-12.99/-10.21	-9.56/-10.78	-13.82/-15.08	-13.91/-11.14	-10.84/-11.33	-14.22/-15.39	-13.45/-12.39	-13.63/-13.04	-12.29/-11.55	-13.02/-14.82	-15.55/-15.22	-12.55/-11.82	-12.78/-13.40	-15.56/-13.16	-11.79/-14.68	-11.63/-8.71	-8.69/-13.94
Θ(165°)	-11.80/-10.88	-11.78/-12.15	-12.95/-13.36	-13.52/-13.43	-11.55/-10.86	-10.32/-11.00	-12.37/-14.59	-15.70/-15.00	-14.13/-12.85	-11.42/-9.98	-10.03/-10.25	-10.86/-11.91	-14.39/-15.22	-13.98/-11.90	-11.77/-12.76	-14.15/-14.66	-15.51/-15.75	-15.66/-13.32	-11.18/-10.47	-11.08/-12.40	-14.24/-15.37	-14.61/-15.57	-15.60/-13.84	-13.61/-13.13
Θ(172.5°)	-14.63/-13.91	-13.88/-13.93	-14.48/-15.76	-15.03/-14.79	-14.22/-13.96	-13.26/-12.92	-12.30/-12.09	-12.98/-13.15	-13.81/-13.35	-12.86/-11.90	-12.32/-12.49	-12.53/-13.01	-12.80/-14.29	-15.25/-14.71	-14.91/-14.74	-15.43/-15.07	-14.62/-13.04	-12.19/-11.52	-10.63/-10.09	-10.30/-10.76	-11.20/-12.79	-13.35/-14.12	-14.20/-14.18	-15.17/-14.72
Θ(180°)	-16.03/-15.54	-15.81/-15.80	-14.30/-14.57	-14.71/-15.18	-14.68/-14.56	-14.79/-15.32	-13.51/-12.40	-11.82/-11.49	-11.73/-12.88	-12.84/-12.92	-12.44/-11.24	-11.28/-11.72	-12.26/-13.30	-13.79/-14.81	-14.86/-14.37	-14.62/-14.04	-13.90/-15.18	-15.36/-15.47	-15.97/-14.51	-15.35/-14.11	-14.13/-13.71	-14.24/-13.68	-13.25/-14.61	-15.48/-15.69

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

