



Antenna Composite Gain Test Report

FCC ID	QXO-AP5020
Equipment	Access Point
Brand Name	Extreme Networks
Model Name	AP5020
Applicant	Extreme Networks, Inc. 2121 RDU Center Drive Morrisville North Carolina United States 27560
Manufacturer	Extreme Networks, Inc. 2121 RDU Center Drive Morrisville North Carolina United States 27560
Standard	KDB662911 D03 v01
Sample Received	Dec. 14, 2023
Start Test Date	Jan. 05, 2024
Final Test Date	Jan. 06, 2024

Approved by: Sam Chen

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History of this test report

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1. Operation Mode and Antenna Information

Ant. No.	Antenna Position	Port					Brand	Model Name	Antenna Type	Connector	Modes of Operation
		WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz	Bluetooth / Zigbee	GPS					
1	2G5G Ant1	1	1	-	-	-	Sercomm	6172001TJH.20	PIFA	I-PEX	2.4GHz / 5GHz
2	2G5G Ant2	2	2	-	-	-	Sercomm	6172001TJH.21	PIFA	I-PEX	2.4GHz / 5GHz
3	2G5G Ant3	3	3	-	-	-	Sercomm	6172001TJH.22	PIFA	I-PEX	2.4GHz / 5GHz
4	2G5G Ant4	4	4	-	-	-	Sercomm	6172001TJH.23	PIFA	I-PEX	2.4GHz / 5GHz
5	6GAnt1	-	-	1	-	-	Sercomm	6172001TJH.24	PIFA	I-PEX	6GHz
6	6GAnt2	-	-	2	-	-	Sercomm	6172001TJH.25	PIFA	I-PEX	6GHz
7	6GAnt3	-	-	3	-	-	Sercomm	6172001TJH.26	PIFA	I-PEX	6GHz
8	6GAnt4	-	-	4	-	-	Sercomm	6172001TJH.27	PIFA	I-PEX	6GHz
9	5G6G Ant1	-	1	1	-	-	Sercomm	6172001TJH.28	PIFA	I-PEX	5GHz / 6GHz
10	5G6G Ant2	-	2	2	-	-	Sercomm	6172001TJH.29	PIFA	I-PEX	5GHz / 6GHz
11	BT/Zigbee	-	-	-	1	-	Sercomm	6172001TJH.30	PIFA	I-PEX	Bluetooth / Zigbee
12	BT/Zigbee	-	-	-	2	-	Sercomm	6172001TJH.31	PIFA	I-PEX	Bluetooth / Zigbee
13	BT/Zigbee	-	-	-	-	-	Sercomm	6172001TJH.32	PIFA	I-PEX	Bluetooth / Zigbee
14	GPS	-	-	-	-	1	Sercomm	6172001TJH.33	PIFA	I-PEX	GPS

Note 1: The Bluetooth / Zigbee function of Antenna 13 is not enabled at this time.

Note 2: There are only measured antenna gains of the WLAN 2.4GHz/5GHz/6GHz.

Note 3:

Radio 1

2.4GHz Operation Mode

For 2TX/2RX:

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

2G5GAnt1~2 could transmit/receive simultaneously.

For 2TX/4RX:

2G5GAnt1~4 can be used as receiving antenna, but only 2G5GAnt1~2 can be used as transmitting antenna.

2G5GAnt1~4 could receive simultaneously, but only 2G5GAnt1~2 could transmit simultaneously.

For 4TX/4RX:

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

2G5GAnt1~4 could transmit/receive simultaneously.

5GHz Operation Mode

UNII 1~UNII 3: 2RX

5G6GAnt1~2 can be used as receiving antenna.

5G6GAnt1~2 could receive simultaneously.

UNII1~UNII 2A: 2TX/2RX

5G6GAnt1~2 can be used as transmitting/receiving antenna.

5G6GAnt1~2 could transmit/receive simultaneously.

6GHz Operation Mode

For 2TX/2RX:

5G6GAnt1~2 can be used as transmitting/receiving antenna.

5G6GAnt1~2 could transmit/receive simultaneously.

Radio 2

5GHz Operation Mode

For 2TX/4RX:

2G5GAnt1~4 can be used as receiving antenna, but only 2G5GAnt1~2 can be used as transmitting antenna.

2G5GAnt1~4 could receive simultaneously, but only 2G5GAnt1~2 could transmit simultaneously.

For 4TX/4RX:

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

2G5GAnt1~4 could transmit/receive simultaneously.

Radio 3

2.4GHz Operation Mode

For 1TX/2RX:

2G5GAnt3~4 can be used as receiving antenna, but only 2G5GAnt3 can be used as transmitting antenna.

2G5GAnt3~4 could receive simultaneously.

For 2TX/2RX:

2G5GAnt3~4 can be used as transmitting/receiving antenna.

2G5GAnt3~4 could transmit/receive simultaneously.

6GHz Operation Mode

For 2TX/4RX:

6GAnt1~4 can be used as receiving antenna, but only 6GAnt1~2 can be used as transmitting antenna.

6GAnt1~4 could receive simultaneously, but only 6GAnt1~2 could transmit simultaneously.

For 4TX/4RX:

6GAnt1~4 can be used as transmitting/receiving antenna.

6GAnt1~4 could transmit/receive simultaneously.

2. Table for EUT Information

EUT	GPS Integrated Module
1	With
2	Without

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

Note 2: The above information was declared by manufacturer.

3. Table for Radio Function

Radio	Support Band		
	2.4GHz	5GHz	6GHz
1	BW: 20MHz	2TX: UNII 1, 2RX: UNII 1&3 (scan) BW: 20/40/80MHz	UNII 5 or UNII 5~8 (scan) BW: 20/40/80/160MHz
2	-	UNII 3 or UNII 1&3 BW: 20/40/80MHz	-
3	BW: 20MHz	-	UNII 7~8 or UNII 5~8 BW: 20/40/80/160/320MHz
4	Bluetooth / Zigbee		
5	GPS		

Note: 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 Jiang	24-24.5 / 40-55	Jan. 05, 2024 ~ Jan. 06, 2024

Note:

Testing Site Information

Brand Name: TDK

Dimension: 11m*6m*6m

Characteristic: Fully Anechoic Chamber

6. Test Facility and Configuration

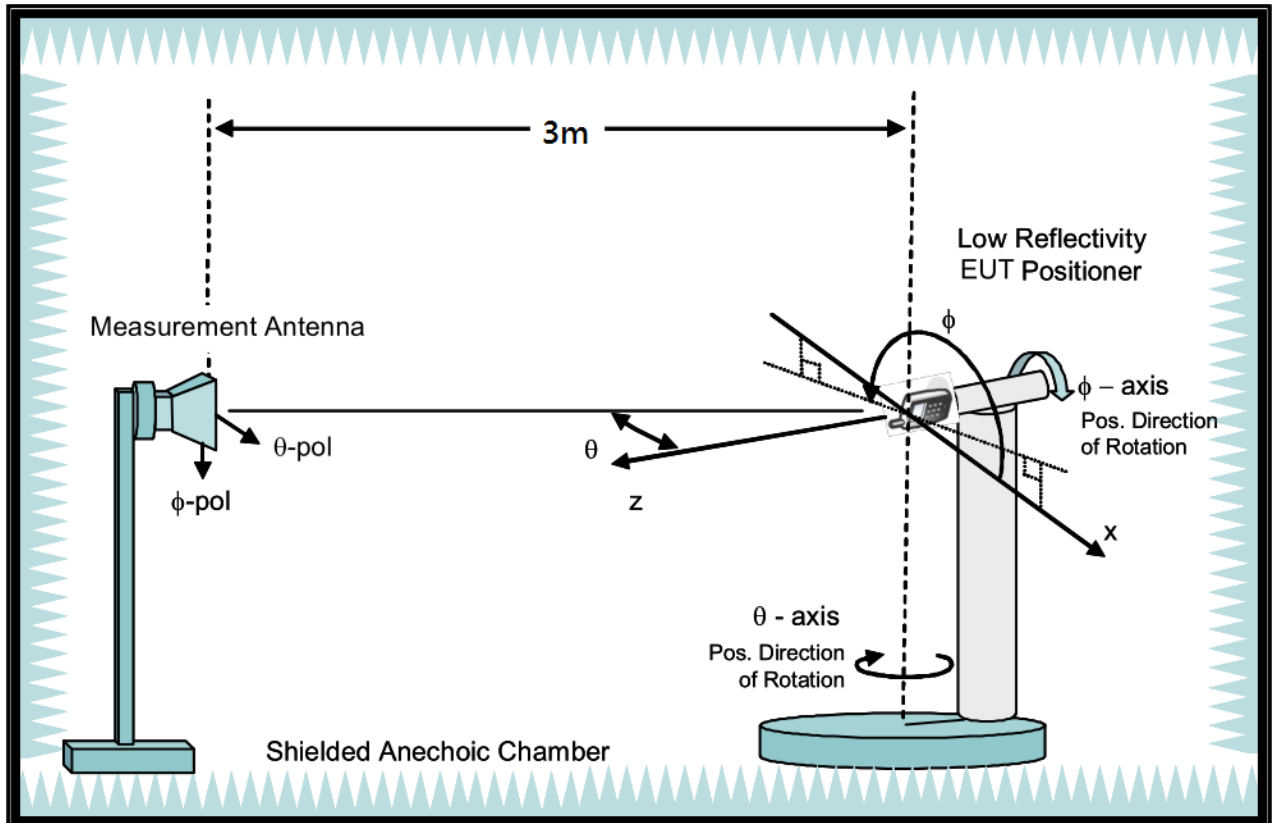
Test configuration: Reference to CITA OTA distributed-axes system configuration.

Chamber: Fully Anechoic Chamber.

Measurement antenna: Dual Polarization Horn antenna

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

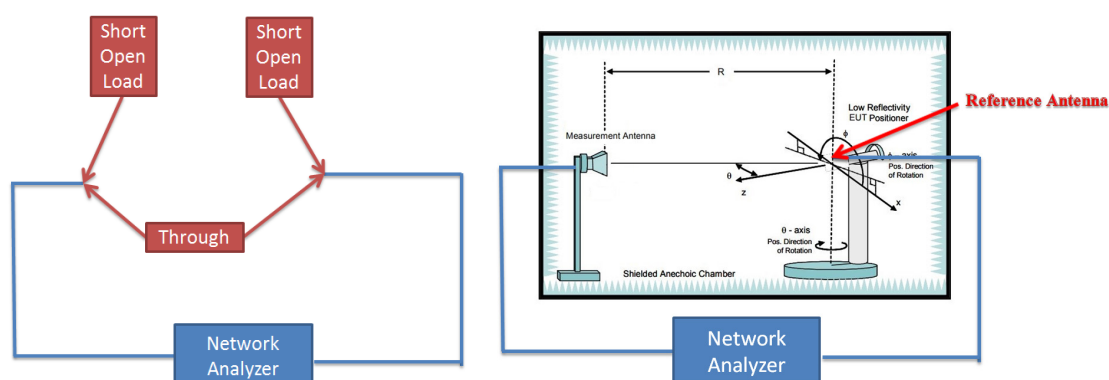
#Reference to CTIA "ctia-test-plan-for-wireless-device-over-the-air-performance-ver-3-7-1"



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)	-33.75	-33.64	-32.91	-32.21	-32.45	-32.33	-32.57	-32.94	-32.78	-33.35	-32.91	-33.81	-34.54	-35.64
G(phi) reading (dB)	-33.19	-32.12	-32.48	-32.51	-32.64	-31.68	-32.24	-32.45	-32.45	-32.85	-32.45	-33.62	-34.48	-35.24
Reference gain (dBi)	10	10.4	10.6	12.3	12.5	13.3	13.3	13.2	13.1	13	13.2	12.4	11.8	11.1
Factor(theta) (dB)	43.75	44.04	43.51	44.51	44.95	45.63	45.87	46.14	45.88	46.35	46.11	46.21	46.34	46.74
Factor(phi) (dB)	43.19	42.52	43.08	44.81	45.14	44.98	45.54	45.65	45.55	45.85	45.65	46.02	46.28	46.34

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 2G5G Ant 1~4 (4TX):

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	-0.69	4.88	4.09	3.61	2.7
Ant. 2 (dBi)	1.66	3.19	-3.69	-2.3	2.89
Ant. 3 (dBi)	-3.41	2.99	3.71	4.27	-1.49
Ant. 4 (dBi)	1.45	-3.03	1.37	1.04	1.24
DG [1SS] (dBi)	6	8.49	7.89	8.04	7.52
Polarization	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	52.5	67.5	67.5	75	75
$\Phi(^{\circ})$	22.5	37.5	52.5	45	30

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

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [$10^{(G/20)}$]	$10^{(-0.69/20)}$	$10^{(4.88/20)}$	$10^{(4.09/20)}$	$10^{(3.61/20)}$	$10^{(2.7/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(1.66/20)}$	$10^{(3.19/20)}$	$10^{(-3.69/20)}$	$10^{(-2.3/20)}$	$10^{(2.89/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(-3.41/20)}$	$10^{(2.99/20)}$	$10^{(3.71/20)}$	$10^{(4.27/20)}$	$10^{(-1.49/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(1.45/20)}$	$10^{(-3.03/20)}$	$10^{(1.37/20)}$	$10^{(1.04/20)}$	$10^{(1.24/20)}$
Ant. 1 [$10^{(G/20)}$] value	0.924	1.754	1.601	1.515	1.365
Ant. 2 [$10^{(G/20)}$] value	1.211	1.444	0.654	0.767	1.395
Ant. 3 [$10^{(G/20)}$] value	0.675	1.411	1.533	1.635	0.842
Ant. 4 [$10^{(G/20)}$] value	1.182	0.706	1.171	1.127	1.153
Sum All Antenna [Amax]	3.991	5.314	4.959	5.045	4.755
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	6	8.49	7.89	8.04	7.52

Note:

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

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

For 2G5G Ant 1~2 (2TX):

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 (dBi)	-0.65	4.88	3.99	2.78	2.7
Ant. 2 (dBi)	2.19	3.19	2.28	3.82	2.89
DG [1SS] (dBi)	3.9	7.09	6.19	6.33	5.81
Polarization	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	45	67.5	75	67.5	75
$\Phi(^{\circ})$	240	37.5	37.5	30	30

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

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 [$10^{(G/20)}$]	$10^{(-0.65/20)}$	$10^{(4.88/20)}$	$10^{(3.99/20)}$	$10^{(2.78/20)}$	$10^{(2.7/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(2.19/20)}$	$10^{(3.19/20)}$	$10^{(2.28/20)}$	$10^{(3.82/20)}$	$10^{(2.89/20)}$
Ant. 1 [$10^{(G/20)}$] value	0.928	1.754	1.583	1.377	1.365
Ant. 2 [$10^{(G/20)}$] value	1.287	1.444	1.3	1.552	1.395
Sum All Antenna [Amax]	2.215	3.198	2.883	2.93	2.759
DG [$10 \cdot \log(A_{\max}^2/N_{\text{ant}})$]	3.9	7.09	6.19	6.33	5.81

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

For 2G5G Ant 3~4 (2TX):

DG_1SS max value position

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 3 (dBi)	-3.69	4.1	3.57	4.3	1.51
Ant. 4 (dBi)	2.64	0.47	1.92	2.06	4.02
DG [1SS] (dBi)	3.05	5.48	5.79	6.26	5.87
Polarization	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	60	75	75	75	82.5
$\Phi(^{\circ})$	30	52.5	52.5	52.5	82.5

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

DG_1SS max value position calculation

Frequency (Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 3 [$10^{(G/20)}$]	$10^{(-3.69/20)}$	$10^{(4.1/20)}$	$10^{(3.57/20)}$	$10^{(4.3/20)}$	$10^{(1.51/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(2.64/20)}$	$10^{(0.47/20)}$	$10^{(1.92/20)}$	$10^{(2.06/20)}$	$10^{(4.02/20)}$
Ant. 3 [$10^{(G/20)}$] value	0.654	1.603	1.508	1.641	1.19
Ant. 4 [$10^{(G/20)}$] value	1.355	1.056	1.247	1.268	1.589
Sum All Antenna [Amax]	2.009	2.659	2.756	2.908	2.778
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	3.05	5.48	5.79	6.26	5.87

Note:

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

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

For 5G6G Ant 1~2 (2TX):

DG_1SS max value position

Frequency (Hz)	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	3.07	0.37	2	1.42	1.33	0.98	2.92	-0.08
Ant. 2 (dBi)	-0.42	2.52	3.88	4.23	4.08	2.56	1.75	4.42
DG [1SS] (dBi)	4.51	4.52	6	5.95	5.82	4.82	5.36	5.47
Polarization	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	67.5	75	75	75	82.5	67.5	82.5	67.5
$\Phi(^{\circ})$	345	187.5	172.5	172.5	172.5	157.5	150	330

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

DG_1SS max value position calculation

Frequency (Hz)	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(3.07/20)}$	$10^{(0.37/20)}$	$10^{(2/20)}$	$10^{(1.42/20)}$	$10^{(1.33/20)}$	$10^{(0.98/20)}$	$10^{(2.92/20)}$	$10^{(-0.08/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(-0.42/20)}$	$10^{(2.52/20)}$	$10^{(3.88/20)}$	$10^{(4.23/20)}$	$10^{(4.08/20)}$	$10^{(2.56/20)}$	$10^{(1.75/20)}$	$10^{(4.42/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.424	1.044	1.259	1.178	1.165	1.119	1.4	0.991
Ant. 2 [$10^{(G/20)}$] value	0.953	1.337	1.563	1.627	1.6	1.343	1.223	1.663
Sum All Antenna [Amax]	2.377	2.38	2.822	2.805	2.765	2.462	2.623	2.654
DG [$10^{\log(A_{max}^2/N_{ant})}$]	4.51	4.52	6	5.95	5.82	4.82	5.36	5.47

Note:

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

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

For 6G Ant 1~4 (4TX):

DG_1SS max value position

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	4.73	0.91	5.13	2.39
Ant. 2 (dBi)	1.84	4.42	3.91	5.39
Ant. 3 (dBi)	4.49	1.54	3.18	2.32
Ant. 4 (dBi)	1.23	3.65	1.18	1.87
DG [1SS] (dBi)	9.23	8.77	9.49	9.13
Polarization	Theta	Theta	Theta	Theta
$\Theta (^{\circ})$	67.5	75	67.5	75
$\Phi (^{\circ})$	330	60	345	180

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

DG_1SS max value position calculation

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(4.73/20)}$	$10^{(0.91/20)}$	$10^{(5.13/20)}$	$10^{(2.39/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(1.84/20)}$	$10^{(4.42/20)}$	$10^{(3.91/20)}$	$10^{(5.39/20)}$
Ant. 3 [$10^{(G/20)}$]	$10^{(4.49/20)}$	$10^{(1.54/20)}$	$10^{(3.18/20)}$	$10^{(2.32/20)}$
Ant. 4 [$10^{(G/20)}$]	$10^{(1.23/20)}$	$10^{(3.65/20)}$	$10^{(1.18/20)}$	$10^{(1.87/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.724	1.11	1.805	1.317
Ant. 2 [$10^{(G/20)}$] value	1.236	1.663	1.569	1.86
Ant. 3 [$10^{(G/20)}$] value	1.677	1.194	1.442	1.306
Ant. 4 [$10^{(G/20)}$] value	1.152	1.522	1.146	1.24
Sum All Antenna [Amax]	5.789	5.49	5.961	5.723
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	9.23	8.77	9.49	9.13

Note:

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

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

For 6G Ant 1~2 (2TX):

DG_1SS max value position

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 (dBi)	3.96	4.76	5.18	2.39
Ant. 2 (dBi)	4.77	2.31	4.8	5.39
DG [1SS] (dBi)	7.38	6.63	8	7.03
Polarization	Theta	Theta	Theta	Theta
$\Theta(^{\circ})$	60	60	60	75
$\Phi(^{\circ})$	0	0	345	180

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

DG_1SS max value position calculation

Frequency (Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 [$10^{(G/20)}$]	$10^{(3.96/20)}$	$10^{(4.76/20)}$	$10^{(5.18/20)}$	$10^{(2.39/20)}$
Ant. 2 [$10^{(G/20)}$]	$10^{(4.77/20)}$	$10^{(2.31/20)}$	$10^{(4.8/20)}$	$10^{(5.39/20)}$
Ant. 1 [$10^{(G/20)}$] value	1.578	1.73	1.816	1.317
Ant. 2 [$10^{(G/20)}$] value	1.732	1.305	1.738	1.86
Sum All Antenna [Amax]	3.309	3.034	3.553	3.177
DG [$10 \cdot \log(A_{max}^2/N_{ant})$]	7.38	6.63	8	7.03

Note:

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

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

10. Summary of Test Result

For 2G5G Ant 1~4 (4TX):

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.91	4.88	4.99	5.07	5.29
Ant. 2 Max Gain (dBi)	3.17	3.95	3.41	5	5.07
Ant. 3 Max Gain (dBi)	2.98	4.49	4.06	4.4	3.93
Ant. 4 Max Gain (dBi)	2.64	4.75	4.07	4.71	4.4
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/105	Theta/67.5/37.5	Theta/45/22.5	Theta/45/15	Theta/52.5/15
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/52.5/232.5	Theta/52.5/277.5	Theta/45/285	Theta/82.5/285	Theta/45/300
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/45/195	Theta/67.5/52.5	Theta/52.5/90	Theta/67.5/52.5	Theta/52.5/82.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/30	Theta/52.5/150	Theta/52.5/157.5	Theta/52.5/142.5	Theta/52.5/142.5
Max Gain (dBi)	3.17	4.88	4.99	5.07	5.29
DG [1SS] (dBi)	6	8.49	7.89	8.04	7.52
DG [2SS] (dBi)	3.17	5.49	4.99	5.07	5.29
DG [4SS] (dBi)	3.17	4.88	4.99	5.07	5.29

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. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)

For 2G5G Ant 1~2 (2TX):

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.91	4.88	4.99	5.07	5.29
Ant. 2 Max Gain (dBi)	3.17	3.95	3.41	5	5.07
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/105	Theta/67.5/37.5	Theta/45/22.5	Theta/45/15	Theta/52.5/15
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/52.5/232.5	Theta/52.5/277.5	Theta/45/285	Theta/82.5/285	Theta/45/300
Max Gain (dBi)	3.17	4.88	4.99	5.07	5.29
DG [1SS] (dBi)	3.9	7.09	6.19	6.33	5.81
DG [2SS] (dBi)	3.17	4.88	4.99	5.07	5.29

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. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)

For 2G5G Ant 3~4 (2TX):

Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 3 Max Gain (dBi)	2.98	4.49	4.06	4.4	3.93
Ant. 4 Max Gain (dBi)	2.64	4.75	4.07	4.71	4.4
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/45/195	Theta/67.5/52.5	Theta/52.5/90	Theta/67.5/52.5	Theta/52.5/82.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/30	Theta/52.5/150	Theta/52.5/157.5	Theta/52.5/142.5	Theta/52.5/142.5
Max Gain (dBi)	2.98	4.75	4.07	4.71	4.4
DG [1SS] (dBi)	3.05	5.48	5.79	6.26	5.87
DG [2SS] (dBi)	2.98	4.75	4.07	4.71	4.4

Note:

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

For 5G6G Ant 1~2 (2TX):

Freq(Hz)	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.07	2.35	2.59	3.21	2.71	2.66	4.37	3.21
Ant. 2 Max Gain (dBi)	3.01	2.66	3.88	4.23	4.41	3.82	3.37	4.42
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/ 345	Theta/60/345	Theta/67.5/ 337.5	Theta/67.5/ 337.5	Theta/82.5/0	Theta/60/0	Theta/90/270	Theta/90/270
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75/ 172.5	Theta/75/ 172.5	Theta/75/ 172.5	Theta/75/ 172.5	Theta/82.5/ 165	Theta/60/ 337.5	Theta/60/165	Theta/67.5/ 330
Max Gain (dBi)	3.07	2.66	3.88	4.23	4.41	3.82	4.37	4.42
DG [1SS] (dBi)	4.51	4.52	6	5.95	5.82	4.82	5.36	5.47
DG [2SS] (dBi)	3.07	2.66	3.88	4.23	4.41	3.82	4.37	4.42

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. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)

For 6G Ant 1~4 (4TX):

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	5.33	4.93	5.5	4.83
Ant. 2 Max Gain (dBi)	5.41	4.54	5.26	5.39
Ant. 3 Max Gain (dBi)	5.95	5.96	4.82	4.77
Ant. 4 Max Gain (dBi)	5.79	5.88	5.89	5.91
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/352.5	Theta/67.5/345	Theta/60/0	Theta/67.5/307.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/52.5/7.5	Theta/60/225	Theta/67.5/285	Theta/75/180
Ant. 3 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/60/315	Theta/75/127.5	Theta/75/292.5	Theta/82.5/127.5
Ant. 4 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/75/60	Theta/75/157.5	Theta/75/165	Theta/75/157.5
Max Gain (dBi)	5.95	5.96	5.89	5.91
DG [1SS] (dBi)	9.23	8.77	9.49	9.13
DG [2SS] (dBi)	6.23	5.96	6.49	6.13
DG [4SS] (dBi)	5.95	5.96	5.89	5.91

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. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)

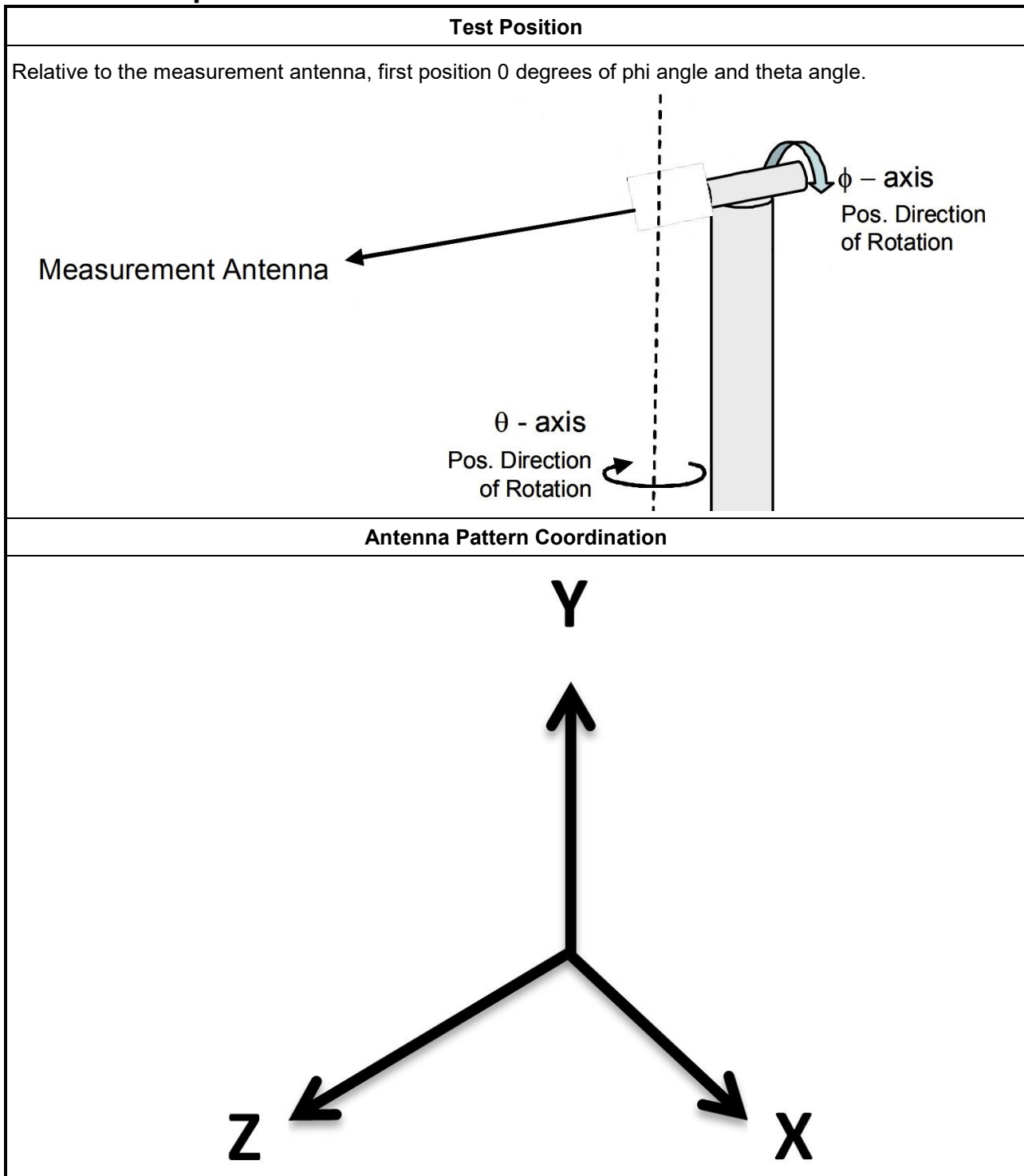
For 6G Ant 1~2 (2TX):

Freq(Hz)	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	5.33	4.93	5.5	4.83
Ant. 2 Max Gain (dBi)	5.41	4.54	5.26	5.39
Ant. 1 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/67.5/352.5	Theta/67.5/345	Theta/60/0	Theta/67.5/307.5
Ant. 2 Polarization/ $\Theta(^{\circ})/\Phi(^{\circ})$	Theta/52.5/7.5	Theta/60/225	Theta/67.5/285	Theta/75/180
Max Gain (dBi)	5.41	4.93	5.5	5.39
DG [1SS] (dBi)	7.38	6.63	8	7.03
DG [2SS] (dBi)	5.41	4.93	5.5	5.39

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. Directional Gain (2SS) = Directional Gain (1SS) – 3dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)
4. Directional Gain (4SS) = Directional Gain (1SS) – 6dB. If directional gain is less than max gain, use max gain as directional gain. Refer to KDB662911D01 (F) (2) (e) (ii)

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-1543	1GHz~18GHz	May 11, 2023	May 10, 2024
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	Jul. 28, 2023	Jul. 27, 2024
VNA Calibration Kit	TS RF	TS85033E-F	-	DC~9GHz	N.C.R.	N.C.R.
Multi-axis positioner	Sporton	MAPS01	MAPS01-001	Theta / Phi axis	N.C.R.	N.C.R.
Test Software	SPORTON	SENSE-RDG	V1.0.8	-	N.C.R.	N.C.R.

Note: Calibration Interval of instruments listed above is one year.

N.C.R means Non-Calibration required.



13. Test Results

Please refer to the appendix.

Appendix A – Radiated Composite Gain of 2G5G (4TX).....	Page 26
Appendix B – Radiated Composite Gain of 2G5G (2TX / Ant 1~2).....	Page 40
Appendix C – Radiated Composite Gain of 2G5G (2TX / Ant 3~4).....	Page 44
Appendix D – Radiated Composite Gain of 5G6G.....	Page 48
Appendix E – Radiated Composite Gain of 6G (4TX).....	Page 61
Appendix F – Radiated Composite Gain of 6G (2TX / Ant 1~2).....	Page 72
Appendix G – Antenna Pattern of 2G5G.....	Page 75
Appendix H – Antenna Pattern of 5G6G.....	Page 82
Appendix I – Antenna Pattern of 6G.....	Page 87
Appendix J – Test Photos.....	Page 93



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Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.91	4.88	4.99	5.07	5.29
Ant. 2 Max Gain (dBi)	3.17	3.95	3.41	5	5.07
Ant. 3 Max Gain (dBi)	2.98	4.49	4.06	4.4	3.93
Ant. 4 Max Gain (dBi)	2.64	4.75	4.07	4.71	4.4
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/67.5/105	Theta/67.5/37.5	Theta/45/22.5	Theta/45/15	Theta/52.5/15
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/52.5/232.5	Theta/52.5/277.5	Theta/45/285	Theta/82.5/285	Theta/45/300
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/45/195	Theta/67.5/52.5	Theta/52.5/90	Theta/67.5/52.5	Theta/52.5/82.5
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/60/30	Theta/52.5/150	Theta/52.5/157.5	Theta/52.5/142.5	Theta/52.5/142.5
Max Gain (dBi)	3.17	4.88	4.99	5.07	5.29
DG [1SS] (dBi)	6	8.49	7.89	8.04	7.52
DG [2SS] (dBi)	3.17	5.49	4.99	5.07	5.29
DG [4SS] (dBi)	3.17	4.88	4.99	5.07	5.29



Radiated Composite Gain Data_2G5G (4TX)

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°)	-2.33/2.92	-3.61/4.26	-4.69/4.62	-4.51/4.42	-4.29/4.08	-3.35/2.27	-1.45/-0.8	-0.18/0.32	0.75/0.83	0.49/-0.02	-0.45/-0.93	-1.45/-2.2	-2.3/-2.68	-3.35/-4.12	-4.78/-5.18	-4.81/4.28	-3.61/-0.37	-2.06/-1.17	-0.64/-0.32	-0.030/0.32	0.53/0.51	0.36/0.19	0.03/-0.25	-0.72/-1.53
Θ(7.5°)	-2.51/2.79	-3.31/-3.64	-4.41/4.66	-4.68/-4.61	-4.62/-4.54	-3.84/-2.67	-1.71/-1.03	-0.53/0.02	0.57/0.81	0.51/-0.06	-0.62/-1.03	-1.38/-1.83	-2.36/-2.78	-3.4/-4.2	-4.94/-4.91	-5.16/-4.58	-3.83/-2.94	-2.05/-1.21	-0.6/-0.24	-0.07/0.09	0.17/0.13	0.01/0.15	-0.33/-0.69	-1.22/-1.88
Θ(15°)	-2.73/2.39	-2.46/2.8	-3.32/-3.99	-4.75/-5.13	-5.55/-5.55	-4.57/-3.29	-2.27/-1.62	-1.31/-0.98	-0.43/-0.01	0.07/-0.13	-0.47/-0.84	-1.22/-1.72	-2.23/-2.72	-3.18/-3.73	-4.39/-5.01	-5.43/-4.92	-4.25/-3.41	-2.48/-1.67	-0.97/-0.48	-0.21/-0.18	-0.31/-0.6	-0.82/-0.97	-1.28/-1.79	-2.42/-2.71
Θ(22.5°)	-2/-1.12	-0.83/-1.11	-1.9/-1.36	-4.54/-5.06	-5.38/-5.29	-4.55/-3.69	-2.72/-2.26	-2.19/-2.2	-1.96/-1.28	-0.44/0.19	0.41/0.25	-0.17/-0.78	-1.39/-1.87	-2.35/-2.95	-3.7/-4.68	-5.28/-5.22	-4.37/-3.41	-2.73/-2.08	-1.34/-0.66	-0.14/0.04	-0.16/-0.74	-1.36/-1.89	-2.39/-2.96	-3.31/-3.11
Θ(30°)	-0.8/-0.18	0.15/-0.08	-1.02/-2.37	-3.39/-3.51	-3.49/-3.61	-3.54/-3.43	-2.96/-2.75	-2.86/-3.04	-2.92/-1.96	-0.64/0.42	1.15/1.32	-0.10/-0.48	-0.91/-1.59	-2.73/-4.22	-5.55/-5.47	-4.39/-3.42	-2.85/-2.46	-0.28/0.94	-0.11/-0.01	-0.28/0.94	-2.03/-3.27	-4.35/-4.42	-3.06/-1.64	
Θ(37.5°)	0.71/0.57	0.33/-0.07	-0.93/-1.96	-2.12/-1.88	-1.99/-2.41	-2.45/-2.32	-2.22/-2.31	-2.58/-3.01	-3.06/-1.88	-0.58/0.51	1.33/1.64	1.39/0.74	0.22/0.15	0.11/-0.55	-1.99/-3.66	-4.71/-4.75	-3.87/-3.5	-2.94/-2.48	-1.32/-0.2	-0.04/-0.75	-1.63/-2.44	-3.51/-4.53	-5.42/-4.33	-1.61/0.18
Θ(45°)	1.08/0.72	-0.09/-0.76	-1.35/-1.36	-1.17/-0.8	-0.88/-1.41	-1.61/-1.26	-1.6/-2.2	-2.62/-3.26	4/-3.02	-1.46/-0.39	0.51/0.15	1.02/0.42	-0.23/-0.24	0.02/-0.27	-1.4/-2.95	-3.69/-3.66	-3.44/-3.37	-2.92/-2.25	-0.93/-0.21	-0.68/-2.03	-3.1/-3.51	-4.58/-4.3	-3.41/-2.18	-0.77/0.54
Θ(52.5°)	-0.44/-0.65	-1.43/-1.9	-1.4/-0.74	-0.22/0.3	-0.99/-2.14	-2.44/-2.15	-2.63/-2.94	-2.53/-2.84	-3.53/-3.64	-2.28/-1.46	-0.55/0.45	0.77/0.31	-0.31/-0.51	-0.34/-0.44	-1.38/-2.84	-3.68/-3.59	-2.95/-2.82	-2.57/-1.67	-0.61/-0.4	-1.26/-2.38	-2.58/-3.2	-4.44/-4.49	-3.01/-1.55	-0.97/0.77
Θ(60°)	-2.39/-2.64	-2.75/-1.94	-0.73/0.23	0.59/0.01	-1.63/-3.44	-4.04/-4.19	-5.08/-4.6	-6.08/-4.6	-3.35/-3.16	-2.77/-2.07	-1.12/0.31	0.02/0.91	0.42/-0.11	-0.44/-0.57	-1.01/-2.34	-3.27/-2.99	-1.91/-1.2	-2.44/-1.66	-0.18/0.19	-0.81/-1.59	-1.55/-2.42	-4.93/-5.66	-3.67/-2.38	-1.89/-2.12
Θ(67.5°)	-3.07/-2.63	-2.31/-1.34	-0.3/0.11	0.08/-0.65	-2.35/-3.57	-3.95/-4.69	-7.34/-7.46	-6.62/-5.71	-4.49/-3.26	-2.94/-2.5	-0.62/-1.24	1.79/1.25	0.38/-0.25	-0.51/-0.74	-1/-1.95	-2.85/-2.23	-1.55/-2.02	-2.72/-1.55	0.48/0.98	0.06/-0.91	-0.8/-1.99	-6.2/-6.42	-3.34/-2.52	-3.07/-3.32
Θ(75°)	-2.58/-2.02	-2.35/-1.93	-1.36/-1.23	-1.26/-1.86	-3.33/-4.02	-4.37/-5.46	-8.1/-8.15	-7.04/-5.66	-5.02/-4.24	-3.98/-3.95	-1.15/1.34	2.24/1.33	-0.18/-0.31	-0.12/-0.66	0.91/-1.75	-3.02/-3.11	-2.14/-2.01	-2.02/-0.56	1.14/1.49	0.37/-0.96	-0.86/-1.92	-5.68/-5.98	-2.21/-1.63	-3.16/-3.87
Θ(82.5°)	-2.06/-1.55	-2.32/-2.77	-1.84/-1.52	-1.43/-1.99	-3.43/-4.03	-4.38/-6.02	-8.38/-8.16	-7.39/-5.84	-5.19/-3.87	-3.72/-3.77	-1.09/-1.28	2.21/1.08	-0.90/0.45	0.49/-0.52	-1.12/-1.83	-2.62/-2.06	-1.19/-0.98	-1.11/-0.43	0.69/1.04	0.09/-1.09	-0.95/-1.83	-5.65/-5.93	-2/-1.27	-2.5/-3.12
Θ(90°)	-2.57/-2.41	-3.52/-3.22	-2.29/-2.27	-2.1/-3.14	-4.15/-4.01	-3.89/-5.61	-8.89/-9.27	-8.95/-8.07	-5.43/-3.61	-3.31/-3.89	-1.83/0.77	1.97/1.07	-0.5/-0.32	0.14/0.63	-1.85/-2.39	-2.64/-2.51	-1.59/-1.55	-2.09/-1.18	0.41/0.3	0.09/-1.58	-1.26/-1.95	-6.22/-6.97	-2.96/-2.34	-3.63/-3.63
Θ(97.5°)	-3.24/-2.96	-3.69/-3.48	-2.35/-2.07	-1.97/-3.12	-4.82/-4.76	-4.68/-6.25	-8.25/-8.35	-8.96/-7.8	-4.81/-3.44	-3.45/-4.37	-2.37/0.34	1.36/0.3	-0.96/-0.64	-0.32/-1.28	-2.56/-2.55	-2.61/-3.06	-2.05/-2.1	-2.81/-1.65	0.22/0.81	-0.29/-1.43	-0.39/-1.11	-5.37/-5.51	-2.33/-2.53	-4.33/-4.23
Θ(105°)	-2.87/-2.21	-3.12/-3.51	-2.71/-2.57	-2.49/-3.85	-5.95/-6.49	-6.53/-7.62	-8.63/-8.16	-7.39/-5.84	-6.39/-5.37	-5.42/-5.28	-2.79/0.15	1.32/0.18	-1.32/-2.06	-1.65/-1.81	-2.04/-1.58	-2.34/-3.55	-3.14/-2.83	-2.92/-1.88	0.21/0.4	-0.21/-1.9	-0.98/-1.71	-6.25/-6.25	-2.62/-3.18	-5.72/-6.43
Θ(112.5°)	-2.6/-2.22	-3/-3.25	-2.88/-2.54	-2.14/-2.78	-3.62/-4.66	-5.78/-7.23	-9.38/-9.22	-8.38/-1.13	-5.94/-4.98	-4.74/-4.81	-2.45/0.01	0.93/-0.41	-2.52/-2.48	-1.39/-1.36	-1.74/-1.86	-2.95/-3.59	-2.85/-2.32	-2.54/-1.86	-0.39/-0.23	-2.48/-4.54	-2.71/-3.04	-6.23/-6.43	-2.16/-2.55	-4.92/-4.28
Θ(120°)	-2.71/2.95	-3.6/3.33	-2.46/-1.73	-1.34/-2.18	-3.12/-3.85	-5.4/-7.47	-10.53/-12.07	-10.49/-8.23	-6.77/-5.82	-4.65/-4.66	-2.61/-1.02	-0.56/-1.52	-2.74/-3.1	-2.68/-3.27	-2.5/-2.36	-2.37/-2.7	-2.92/-3.09	-4.28/-3.61	-1.96/-1.09	-2.03/-2.78	-1.68/-2.21	-4.36/-4.12	-3.5/-3.57	-5.09/-4.24
Θ(127.5°)	-3.24/-3.05	-3.67/-3.74	-2.67/-1.76	-1.72/-3.22	-3.82/-3.76	-4.62/-6.2	-7.7/-7.43	-5.85/-5.17	-5.22/-5.61	-5.64/-4.06	-2.23/-1.46	-1.68/-2.63	-3.39/-3.64	-3.08/-1.92	-1.68/-1.92	-2.51/-3.18	-3/-2.03	-4.68/-1.92	-1.78/-1.11	-2.35/-3.74	-3.08/-3.67	-4.88/-5.39	-6.67/-6.87	-6.1/-4.7
Θ(135°)	-1.81/-2.07	-2.92/-3.65	-3.48/-2.7	-2.25/-2.19	-2.09/-1.5	-1.43/-2.51	-4.29/-5.89	-6.04/-5.52	-5.49/-6.14	-6.29/-4.39	-2.53/-1.99	-2.31/-2.78	-3.37/-3.92	-3.22/-2.21	-1.62/-1.86	-2.94/-4.1	-3.56/-2.56	-2.85/-3.63	-2.63/-1.5	-2.48/-4.4	-4.58/-4.94	-5.94/-6.23	-8.19/-8.88	-4.95/-2.67
Θ(142.5°)	-1.46/-2.08	-3.18/-3.56	-3.19/-2.72	-2.47/-2.14	-1.81/-1.81	-2.23/-3.23	-5.11/-7.74	-8.25/-7.65	-7.8/-7.9	-6.15/-3.82	-2.58/-2.69	-3.58/-4.89	-6.08/-6.52	-5.66/-4.5	-3.6/-3.66	-4.71/-5.33	-4.45/-3.55	-3.08/-3.76	-3.65/-4.25	-2.45/-3.5	-4.71/-5.07	-5.37/-5.95	-6.98/-7.84	-4.78/-2.34
Θ(150°)	-2.91/-3.56	-4.47/-4.28	-3.32/-2.73	-2.79/-2.34	-3.88/-4.46	-4.99/-6.05	-7.99/-7.32	-8.62/-8.96	-8.99/-7.32	-5.56/-3.72	-3.15/-3.74	-5.19/-6.13	-6.3/-5.72	-5.52/-5.15	-4.98/-5.46	-6.12/-6.61	-5.03/-3.87	-6.28/-3.36	-3.04/-3.36	-4.60/-4.53	-5.83/-5.98	-6.57/-6.42	-5.23/-4.42	
Θ(157.5°)	-3.64/-3.85	-3.92/-3.82	-3.99/-4.16	-4.88/-5.83	-6.59/-6.71	-6.54/-6.22	-5.9/-6.05	-6.46/-7.27	-6.95/-6.28	-5.28/-3.89	-3.07/-2.89	-3.2/-3.73	-4.36/-5.42	-5.96/-5.77	-5.59/-6.02	-6.69/-6.89	-6.02/-5.07	-4.33/-4.42	-4.68/-4.95	-4.92/-5.23	-5.58/-6.05	-6.72/-7.28	-6.54/-5.29	-4.16/-3.65
Θ(165°)	-4.21/-3.6	-3.32/-3.34	-3.91/-4.8	-5.69/-6.14	-6.04/-6.2	-6.06/-5.81	-5.21/-5.06	-5.12/-5.52	-4.81/-4.19	-3.28/-2.62	-2.29/-2.18	-2.65/-3.1	-4.79/-6.07	-6.46/-6.39	-6.71/-7.48	-8.29/-8.5	-7.97/-7.26	-7.02/-7.13	-6.87/-6.83	-6.81/-6.93	-7.61/-8.88	-9.61/-9.39	-8.49/-6.7	-5.28/-4.59
Θ(172.5°)	-4.91/-4.68	-4.74/-5.06	-5.53/-6.04	-6.41/-6.55	-6.53/-6.62	-6.47/-6.37	-6.5/-7.7	-4.77/-4.17	-3.86/-3.73	-3.85/-4.21	-4.85/-5.77	-7.67/-8.98	-9.51/-9.07	-8.94/-8.21	-7.24/-7.32	-7.87/-8.98	-7.95/-9.07	-7.26/-7.53	-7.16/-7.17	-7.63/-8.55	-9.43/-9.37	-8.43/-7.44	-6.15/-5.34	
Θ(180°)	-5.96/-6.09	-6.62/-6.79	-7.04/-7.35	-7.51/-8.02	-8.26/-8.27	-8.38/-8.42	-8.65/-8.69	-8.75/-8.13	-7.24/-6.71	-6.75/-6.76	-6.85/-7.08	-7.39/-7.59	-7.55/-7.5	-7.63/-7.5	-7.65/-7.52	-7.34/-7.4	-7.14/-7.08	-6.99/-6.89	-6.65/-6.26	-6.56/-7.37	-7.74/-8.06	-7.99/-8.23	-7.95/-7.6	-6.69/-6.14
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°)	-2.28/-1.66	-1.39/-1.23	-1.15/-1.08	-1.05/-1.13	-1.31/-1.61	-2.2/3.1	-3.75/-4.27	-4.87/-5.59	-6.25/-6.19	-6.34/-6.17	-6.01/-5.61	-4.64/-3.82	-2.95/-2.26	-1.69/-1.26	-0.99/-0.94	-1.13/-1.45	-1.71/-1.87	-2.14/-2.77	-3.69/-4.76	-5.55/-6.12	-6.21/-5.95	-6.17/-5.78	-4.97/-4.2	-3.37/-2.9
Θ(7.5°)	-3.22/-2.68	-2.15/-1.8	-1.61/-1.49	-1.46/-1.48	-1.58/-1.98	-2.86/-4.2	-5.3/-5.93	-6.55/-6.66	-6.14/-6.15	-5.97/-5.51	-5.19/-4.68	-3.96/-3.24	-2.15/-1.36	-0.79/-0.42	-0.2/-0.16	-0.34/-0.61	-0.82/-0.97	-1.19/-1.72	-2.56/-3.48	-4.58/-5.21	-5.47/-5.74	-6.01/-6.05	-5.57/-6.4	-4.02/-3.58
Θ(15°)	-2.66/-2.68	-2.48/-2.24	-2.08/-2.04	-2.09/-2.09	-2.11/-2.41	-3.22/-4.25	-5.29/-6.45	-6.22/-5.66	-5.23/-5.12	-5.31/-5.14	-4.5/-3.89	-3.41/-2.51	-1.46/-0.57	0.12/0.68	1.11/1.37	1.42/1.31	1.16/1	-0.79/-1.77	-0.84/-2.15	-3.56/-4.29	-4.54/-4.49	-4.09/-3.99	-3.85/-3.42	-2.94/-2.65
Θ(22.5°)	-0.36/-0.96	-1.56/-1.93	-2.21/-2.44	-2.59/-2.55	-2.33/-1.96	-1.81/-2.18	-3.06/-3.8	-4.13/-3.92	-3.99/-4.62	-5.4/-5.46	-3.99/-2.51	-1.53/-0.69	0.17/0.95	1.59/2.15	2.68/0.34	3.19/3.14	2.98/2.69	2.22/1.41	0.21/-1.07	-2.61/-3.57	-3.35/-2.41	-1.57/-1.11	-0.8/-0.51	-0.24/-0.13
Θ(30°)	1.68/-1.31	0.94/0.58	-0.07/-0.99	-1.8/-1.93	-1.25/-0.18	0.62/0.88	0.65/0.07	-0.65/-1.49	-2.7/-4	-4.67/-6.43	-3.52/-1.6	-0.07/1.07	1.86/2.43	2.93/38	3.894/29	4.474/47	4.3/3.98	3.33/2.34	1.16/-0.08	-1.32/-1.99	-1.5/-2.09	0.84/-1.49	1.77/-1.9	1.95/-1.9
Θ(37.5°)	3.13/-3.18	3.33/-2.21	2.51/-27	0.14/-17	0.64/-174	2.46/2.72	1.69/-1.16	-1.89/-1.16	-0.93/-0.18	1.35/2.47	3.08/3.33	3.493/86	4.414/87	5.145/17	5.034/63	3.872/43	3.724/31	1.41/0.08	-0.87/-0.97	-0.21/0.1	2.24/3.11	3.53/63	3.53/28	
Θ(45°)	4.044/32	4.895/06	4.473/31	2.342/17	2.653/24	3.553/52	3.292/99	2.491/57	0.560/36	1.142/09	2.311/77	2.313/22	3.583/87	4.123/85	4.144/88	5.335/44	5.344/99	4.192/8	0.87/-1.14	-1.7/-0.61				



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(22.5°)	2.43/1.59	-0.18/-2.04	-4.22/-6.61	-6.45/-4.86	-3.5/-1.74	-0.82/-1.22	-1.41/-0.98	-0.01/0.44	0.13/-0.2	-1.17/-2.38	-2.05/-1.28	-0.46/-0.68	-1.74/-2.11	-2.11/-2.25	-2.79/-4.35	-5.76/-4.92	-4.35/-3.48	-3.64/-3.74	-3.42/-3.9	-4.94/-5.81	-6.1/-4.08	-2.28/-0.14	0.98/1.25	1.73/2.39
Θ(30°)	2.19/1.91	1/-0.57	-1.86/-2.57	-3.2/-1.78	0.44/1.14	0.51/-1.28	-1.01/-0.4	0.94/0.87	-0.11/-0.78	-1.44/-2.75	-2.35/-1.77	-0.87/-0.67	-1.09/-0.77	-1.42/-2.37	-3.83/-4.29	-4.18/-4.06	-2.42/-1.8	-2.79/-3.35	-2.42/-3.01	-4.07/-3.21	-1.92/-1.09	0.19/1.47	1.39/0.67	1.31/0.72
Θ(37.5°)	0.53/0.62	2.17/1.36	-1.05/-2.23	-2.44/-0.66	1.93/1.9	0.42/-0.34	0.27/-0.09	0.14/0.49	0.15/-0.94	-1.28/-1.06	-1.85/-2.27	-2.32/-2.21	-2.06/-1.9	-2.59/-2.22	-2.44/-1.94	-4.26/-5.96	-1.5/-1.11	-2.32/-2.4	-2.9/-3.56	-1.98/-0.21	-0.13/-0.02	0.72/0.91	1.29/0.27	1.78/1.02
Θ(45°)	-0.53/-0.94	1.4/0.84	-2.84/-1.91	-2.49/-0.8	1.67/0.71	0.07/1.34	0.54/-1.07	-0.76/-0.28	-0.06/-0.19	-0.97/-0.44	-0.27/-0.68	-2.07/-1.84	-1.82/-1.23	-1.13/-0.59	-1.1/-0.35	-2.75/-6.08	-1.4/0.11	-1.3/-2.58	-2.01/-2.47	-1.51/-0.76	-1.44/0.33	2.28/1.56	1.97/3.19	2.91/6.63
Θ(52.5°)	2.55/-0.64	0.94/1.47	-0.36/-0.66	-1.65/-0.85	0.71/-0.28	0.68/1.76	0.81/-0.2	-0.33/0.53	0.95/1.3	0.27/-1.11	0.7/0.75	-0.67/-3.3	-2.95/-1.47	0.59/1	-0.83/0.26	-3.07/-5.73	-1.76/-1.34	-1.52/-4.09	-4.9/-3.82	-3.13/-2.74	-4/-1.09	1.38/0.96	1.71/2.44	3.04/3.93
Θ(60°)	3.21/0.7	-2.0/-0.94	1.43/-0.58	-0.57/-0.44	0.21/-0.05	0.21/-0.05	0.92/1.94	1.9/0.93	1.59/0.36	0.14/0.85	0.64/-1.03	-4.18/-1.76	0.14/0.7	-1.41/0.82	-1.55/-3.97	-2.27/-1.71	-2.59/-4.51	-3.34/-3.38	-4.92/-4.35	-4.26/-1.24	0.55/-1.58	2.38/1.63	2.64/3.87	2.64/3.87
Θ(67.5°)	2.71/0.74	-0.04/0.5	0.91/-0.56	-0.16/-0.89	-0.07/0.92	1.26/0.42	3.12/5.8	1.03/2.13	2.2/1.3	1.76/0.45	-1.32/0.85	0.33/-0.76	-1.83/-1.46	-0.61/0.5	-0.6/0.79	-1.73/-3.9	-3.06/-2.5	-2.9/-3.64	-2.99/-3.71	-4.94/-3.1	-3.54/-1.57	0.32/1.2	1.54/1.09	3.06/3.3
Θ(75°)	0.76/-0.41	-0.29/-0.23	-0.05/-1.4	-0.78/-0.7	-1.09/-0.65	1.25/1.29	3.37/2.57	0.61/1.12	1.7/0.48	0.07/0.48	-1.34/-1.02	-0.54/-0.1	-0.36/0.66	-0.24/-0.37	-1.25/0.3	-1.39/-3.04	-3.53/-2.66	-2.75/-2.08	-1.37/-3.05	-5.21/-2.7	-2.8/-2.42	-0.64/0.77	-0.7/-0.41	1.92/2.12
Θ(82.5°)	-0.77/-1.53	-0.95/-1.23	-1.48/-1.56	-1.44/-1.26	-2.14/-1.08	0.36/1.11	2.67/1.72	-0.63/-0.44	0.79/0.43	-0.43/-0.5	-2.07/0.37	-2.16/-2.18	-0.61/0.39	-0.95/-1.39	-1.6/-0.46	-2.35/-2.55	-3.72/-2.28	-3.54/-1.83	-1.41/-3.32	-5.47/-2.84	-4.04/-3.58	-1.16/-0.39	-2.57/-1.66	0.8/0.25
Θ(90°)	-2.42/-2.98	-0.99/-2.95	-3.29/-2.65	-2.68/-3.55	-4.45/-3.62	-0.59/-0.28	0.29/0.62	-1.23/-1.66	-1.23/-1.36	-1.24/-1.05	-2.5/-1.52	-3.12/-3.43	-2.74/-0.33	-0.45/-3.44	2.66/-2.04	-2.9/-4.16	-3.74/-2.9	-6.09/-3.1	-2.23/-3.37	-5.9/-3.19	-5/-4.51	-2.95/-3.51	-4.07/-3.71	-0.64/-1.46
Θ(97.5°)	-3.89/-3.74	-2.44/-4.43	-4.82/-3.51	-3.96/-4.76	-6.36/-5.38	-2.18/-0.64	-0.2/-0.56	-3.82/-2.65	-3.51/-2.58	-2.44/-3.72	-3.93/-2.34	-5.45/-5.82	-3.21/-2.19	-1.57/-5.12	-4.6/-4.25	-3.97/-4.25	-5.75/-4.4	-7.41/-5.54	-4.85/-5.35	-7.59/-5.99	-7.67/-6.61	-4.77/-6.33	-4.85/-3.85	-1.42/-3.38
Θ(105°)	-5.4/-5.2	-3.93/-5.74	-6.11/-5.47	-6.43/-8.71	-6.49/-5.97	-3.57/-2.04	-1.92/2.22	-5.19/-3.2	-4.91/-4.38	-3.19/-5.38	-1.57/2.4	-7.1/-8.43	-6.15/-4.73	-7.1/-8.43	-5.66/-6.41	-4.98/-7.48	-5.35/-7.89	-10.94/-7.76	-6.11/-8.9	-10.93/-9.67	-11.45/-9.15	-7.85/-8.74	-4.53/-4.27	-1.94/-5.1
Θ(112.5°)	-5.92/-4.39	-5.45/-7.79	-7.95/-7.7	-7.62/-9.73	-8.96/-6.85	-3.84/-2.29	-3.78/-3.44	-4.81/-3.77	-6.27/-6.52	-5.74/-6.7	-6.11/-10.39	-12.01/-10.15	-3.37/-4.93	-5.51/-9.2	-5.81/-7.63	-7.96/-6.9	-6.07/-7.03	-10.69/-8.93	-6.8/-10.3	-11.54/-11.97	-12.52/-10.38	-9.09/-7.97	-7.39/-6.38	-5.32/-5.5
Θ(120°)	-6.8/-7.01	-5.94/-7.5	-9.81/-9.41	-10.21/-10.56	-9.32/-7.06	-5.93/-3.56	-4.82/-3.22	-4.85/-5.22	-7.54/-8.73	-6.98/-7.31	-6.72/-8.93	-10.36/-9.54	-5.07/-5.92	-7.6/-7.24	-7.26/-7.12	-6.88/-7.59	-6.07/-8.52	-8.42/-10.2	-7.54/-9.04	-8.86/-9.61	-10.93/-11.6	-10.77/-10.89	-9.51/-9.43	-8.2/-6.36
Θ(127.5°)	-7.82/-9.45	-7.46/-10.84	-8.86/-8.67	-9.59/-10.29	-9.33/-7.31	-9.11/-5.64	-7.61/-4.6	-6.76/-8.24	-9.48/-9.95	-7.31/-8.09	-9.8/-6.85	-9.58/-10.29	-5.37/-6.74	-8.24/-8.72	-5.73/-9.03	-6.82/-10.06	-11.09/-7.4	-6.61/-10.53	-10.16/-8.52	-10.65/-11.26	-9.04/-10.35	-10.55/-11.43	-11.42/-9.42	-12.38/-8.22
Θ(135°)	-9.92/-8.47	-8.53/-10.56	-8.05/-8.73	-11.07/-8.84	-10.32/-8.91	-9.15/-10.06	-9.32/-7.71	-9.72/-9.75	-10.31/-11.77	-10.21/-10.5	-10.78/-8.68	-7.93/-11.59	-8.96/-6.13	-7.2/-8.08	-7.53/-4.95	-9.03/-6.08	-9.4/-7.51	-5.44/-8.5	-8.93/-8.87	-10.97/-12.02	-10.38/-10.07	-7.97/-8.38	-8.33/-11.11	-10.28/-9.43
Θ(142.5°)	-10.69/-6.94	-7.06/-9.11	-10.97/-11.02	-9.24/-5.68	-8.52/-7.56	-8.58/-11.57	-7.47/-6.89	-10.36/-8.6	-6.75/-9.14	-1.99/-9.58	-9.79/-7.55	-9.74/-10	-9.29/-9.88	-6.8/-8.32	-8.65/-9.7	-9.42/-7.2	-10.65/-10.68	-8.36/-6.68	-9.26/-8.13	-8.11/-10	-9.48/-11.28	-9.85/-7.89	-11.67/-11.3	-7.4/-9.76
Θ(150°)	-9.55/-8.2	-8.62/-9.35	-10.79/-10.12	-7.38/-7.04	-7.1/-5.42	-6.44/-9.36	-5.82/-4.33	-7.35/-10.55	-6.8/-6.82	-7.94/-10.59	-11.06/-9.5	-10.32/-12.26	-12.15/-9.48	-7.96/-10.83	-8.37/-8.55	-9.64/-10.57	-10.38/-9.76	-9.02/-8.22	-9.06/-8.31	-8/-9.51	-10.81/-17.7	-12.35/-12.06	-11.26/-9.39	-8.4/-9.89
Θ(157.5°)	-8.55/-8.51	-9.76/-9.65	-10.61/-10.4	-8.91/-6.37	-4.05/-3.5	-5.43/-8.69	-7.95/-6.87	-9.27/-11.75	-8.19/-8.52	-10.66/-12.44	-9.7/-8.72	-8.15/-7.81	-6.6/-7.49	-11.67/-9.75	-7.8/-7.65	-9.24/-9.17	-8.82/-9.25	-7.62/-6.48	-7.22/-10.06	-11.62/-12	-11.65/-11.04	-12.28/-12.85	-12.1/-11.97	-10.92/-8.89
Θ(165°)	-11.81/-12.06	-11.47/-8.78	-8.37/-8.56	-9.22/-9.69	-7.89/-6.94	-7.92/-9.05	-10.24/-10.98	-9.99/-6.83	-8.36/-8.83	-10.06/-11.64	-10.89/-10.36	-8.92/-6.91	-6.6/-8.39	-10.6/-12.08	-9.98/-9.8	-10.89/-12.14	-11.63/-10.44	-8.57/-7.67	-9.12/-11.2	-12.38/-12.66	-11/-11.15	-11.26/-11.61	-8.03/-7.12	-7.9/-10.68
Θ(172.5°)	-11.18/-10.93	-9.95/-8.72	-8.75/-8.66	-7.76/-7.3	-7.68/-7.9	-9.26/-9.46	-10.45/-10.27	-9.93/-9.4	-8.97/-9.1	-8.73/-10.99	-10.97/-10.09	-9.59/-9.06	-9.01/-11.13	-12.4/-11.97	-10.93/-9.32	-8.89/-8.32	-8.69/-9.88	-11.79/-12.81	-11.62/-11.36	-11.03/-11.24	-11.09/-10.22	-10.07/-11.76		
Θ(180°)	-9.38/-8.98	-8.49/-8.38	-7.87/-7.84	-8.18/-7.85	-7.92/-7.78	-7.89/-8.51	-8.26/-7.81	-8.06/-8.51	-8.07/-9.3	-8.88/-8.95	-9.8/-10.09	-10.79/-11.7	-11.23/-10.18	-9.43/-9.02	-9.71/-10.3	-10.32/-10.02	-8.93/-7.75	-7.67/-7.73	-8.39/-8.36	-8.29/-8.41	-8.36/-7.79	-7.96/-9.16	-8.66/-8.97	-8.58/-8.97
Freq(Pol)	5.3GPol	ThetaL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.66/-7.95	-7.58/-7.01	-6.29/-5.34	-4.87/-4.78	-4.72/-4.02	-3.64/-3.39	-2.82/-3.32	-3.61/-3.25	-4.01/-4.72	-5.14/-5.84	-6.32/-6.03	-5.83/-5.33	-5.76/-5.95	-5.45/-5.5	-5.53/-5.42	-5.15/-4.79	-4.48/-4.25	-4.29/-4.57	-5.17/-5.4	-5.73/-6.28	-7.1/-6.62	-6.8/-6.98	-7.31/-7.36	-7.39/-7.31
Θ(7.5°)	-4.46/-4.05	-4.29/-3.94	-3.69/-3.16	-3.01/-3.3	-3.19/-2.92	-3.04/-3.36	-3.95/-4.85	-5.87/-6.29	-6.15/-4.75	-7.99/-6.73	-6.4/-6.54	-6.67/-5.33	-5.56/-6.25	-6.89/-6.41	-6.06/-6.16	-6.56/-6.58	-4.14/-2.98	-2.48/-1.76	-1.16/-1.19	-1.29/-1.72	-2.85/-3.17	-3.65/-4.35	-5.3/-5.17	-5.13/-5.02
Θ(15°)	-4.95/-4.1	-6.71/-1.29	-0.23/0.62	0.95/0.84	0.71/0.13	-0.31/-0.52	-0.11/0.3	0.11/-0.48	-1.4/-1.76	-2.43/-2.41	-2.44/-2.26	-2.47/-2.17	-3.12/-3.45	-4.15/-4.83	-6.35/-7.29	-5.67/-1.34	-6.74/-6.2	-5.63/-2.68	-3.84/-4.32	-3.84/-3.58	-2.46/-2.71	-1.98/-1.71	-2.43/-3.46	-3.46/-3.57
Θ(22.5°)	-2.06/-0.74	0.65/1.77	1.92/2.15	2.57/2.62	1.87/0.29	-0.51/0.05	0.34/0.41	-0.07/-0.4	-0.78/-1.95	-2.88/-1.61	-0.64/-0.52	-1.19/-2.05	-2.95/-4.24	-5.12/-5.63	-7.35/-7.96	-5.53/-3.79	-2.85/-2.2	-1.84/-2.1	-2.91/-2.24	-1.75/-1.43	-0.82/-0.77	-0.57/-0.78	-1/-1.27	-1.24/-1.66
Θ(30°)	0.15/1.06	2.163/7.1	4.33/8.7	3.42/3.65	3.25/2.68	2.76/2.67	1.76/0.51	-1.59/-1.88	-1.48/-2.69	-2.42/-1.98	-0.47/-1.23	1.61/1.13	-0.22/-1.69	-2.97/-4.13	-4.35/-3.86	-1.94/-0.12	0.16/0.19	0.33/0.43	0.28/1.25	1.69/1.53	1.31/0.92	0.15/-1.18	-0.9/-0.94	-2.22/-1.29
Θ(37.5°)	2.993/7.7	3.434/0.7	4.824/6.1	3.583/6.9	3.522/7.4	2.622/0.6	1.080/68	-0.21/-0.16	1.03/1.56	0.52/-0.2	0.38/1.76	1.721/55	0.980/51	0.290/0.2	0.43/-0.59	0.39/1.06	0.14/1.38	1.64/1.2	1.32/3.04	3.953/45	3.593/25	1.09/-0.11	0.89/0.79	0.55/-1.27
Θ(45°)	5.085/7.9	5.333/4.2	5.165/3.7	5.075/3.3	4.993/98	3.924/23	4.44/4	2.61/2.6	2.58/2.6	1.76/1.84	2.663/1.8	2.38/1.91	2.45/1.53	0.3/0.66	1.9/1.8	2.192/68	2.874/0.9	4.233/63	4.624/52	1.71/2.4	2.37/2.31	2.632/3.47		
Θ(52.5°)	4.51/5	5.555/6.9	5.116/4.3	6.386/1.7	5/4.92	5.57/6.67	6.015/13	4.023/7.4	4.264/63	3.994/58	5.375/0.8	4.272/75	2.553/15	2.882/0.3	2.773/0.4	3.123/1.7	3.312/9.4	2.64/4.1	3.234/1.4	4.473/5.4	3.433/0.9	0.452/8.1	2.540/48	2.343/8.7
Θ(60°)	4.613/06	3.825/0.9	5.737/2.9	7.547/4.7	4.845/06	5.114/92	5.223/81	2.863/3.8	4.44/7.2	4.043/82	5.175/4	5.584/26	0.98/2	4.063/16	2.813/39	3.743/99	3.72/9.4	2.112/33	2.633/67	4.283/5	3.372/83	1.36/3	3.142/2	3.414/68
Θ(67.5°)	5.313/86	4.175/77	7.177/59	7.427/89	5.495/06	5.575/76	4.942/83	2.994/36	5.235/04	5.024/34	5.366/12	3.463/08	1.341/05	3.383/06	2.443/36	3.983/66	3.223/07	2.462/35	2.763/65	4.023/35	4.243/6	3.193/31	3.443/85	4.085/17
Θ(75°)	5.13/4	4.565/45	6.887/21	7.157/49	5.85/21	6.336/85	5.814/6	4.965/57	5.575/89	6.245/94	5.576/37	5.335/38	2.571/42	2.561/9	1.222/48	3.773/89	3.083/22	2.962/59	4.32/4.4	5.033/89	4.643/78	3.742/71	2.223/76	4.194/93
Θ(82.5°)	4.213/45	4.254/08	5.726/02	6.326/02	4.724/27	6.086/7	5.355/05	5.435/37	4.525/32	5.836/12	5.486/3	4.84/83	1.631/87	1.890/2	0.2									



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(75°)	1.43/-1.53	-2.24/-0.75	-0.81/-1.26	-3.19/-1.8	-1.39/-1.85	-1.2/-1.18	1.92/1.48	1.01/-0.11	1.57/1.12	0.20/4.4	-1/-0.69	-1.45/-0.66	-0.51/-0.08	-1.77/-2.42	-1.54/-2.06	-2.38/-4.22	-5.39/-6.35	-5.93/-2.47	-2.35/-2.66	-4.93/-4.18	-3.87/-2.69	-1.25/-1.12	-1.6/-0.52	0.71/5.7	
Θ(82.5°)	0.45/-2.79	-1.9/-1.63	-2.5/-1.86	-3.88/-3.49	-2.07/-2.65	-1.35/0.65	1.44/0.04	-0.26/-0.95	0.92/-0.48	-1.21/0.54	-1.64/-0.74	-2.34/-1.14	-1.13/-0.02	-1.47/-2.56	-2.05/-2.34	-2.21/-4.98	-5.22/-6.88	-5.48/-2.01	-2.35/-2.36	-4.22/-4.1	-3.95/-2.25	-0.8/-1.59	-3.84/-2.35	-0.54/0.68	
Θ(90°)	-1.6/-3.24	-3.23/-3.68	-3.85/-2.8	-4.34/-5.46	-2.91/-2.95	-2.14/-0.22	-0.03/-1.92	-1.62/-3.25	-0.01/-1.17	-2.94/-1.2	-3.19/-1.86	-3/-2.33	-1.68/-0.24	-2.25/-2.46	-3.02/-2.47	-3.46/-5.93	-5.67/-7.26	-5.49/-3.47	-3.27/-3.46	-5.75/-5.47	-5.01/-4.01	-1.64/-3.02	-4.89/-4.1	-2.43/-0.93	
Θ(97.5°)	-2.77/-3.53	-5.15/-5.69	-3.91/-3.99	-4.8/-5.78	-5.1/-5.32	-3.32/-2.31	-1.78/-3.31	-3.85/-4.41	-1.88/-3.46	-3.75/-2.68	-4.13/-3.95	-5.69/-4.03	-3.70/0.4	-2.09/-4.39	-3.56/-3.31	-5.32/-6.74	-6.06/-9.81	-8.43/-7.67	-6.9/-5.32	-8.96/-7.74	-7.01/-6.26	-4.34/-7.78	-6.67/-5.29	-3.76/-2.35	
Θ(105°)	-3.2/-4.09	-6.17/-7.34	-6.42/-6.11	-7.05/-8.26	-7.74/-6.58	-4.19/-3.85	-3.25/-4.87	-3.96/-5.04	-3.5/-4.51	-4.33/-5.06	-6.93/-5.58	-7.02/-7.46	-5.24/-1.56	-3.24/-4.53	-5.87/-4.29	-8.09/-10.07	-8.74/-8.04	-10.27/-9	-8.4/-6.31	-7.77/-9.04	-10.12/-9.1	-7.79/-11.18	-7.48/-5.31	-4.66/-3.89	
Θ(112.5°)	-4.2/-6.43	-8.59/-7.93	-8/-10.32	-9.03/-8.66	-9.87/-8.38	-5.01/-5.18	-4.75/-5.33	-5.97/-5.73	-5.81/-6.8	-5.44/-7.64	-7.58/-10.15	-8.13/-8.46	-5.34/-1.8	-5.46/-5.99	-5.39/-4.43	-7.17/-7.94	-9.31/-10.93	-9.79/-6.62	-9.24/-6.54	-8.49/-9.17	-7.49/-7.79	-8.84/-10.49	-8.48/-7.28	-6.2/-5.33	
Θ(120°)	-8.62/-7.94	-7.9/-8.21	-9.42/-8.84	-8.24/-8.28	-8.69/-7.5	-6.37/-7.43	-4.42/-6.54	-5.81/-7.28	-9.72/-10.76	-7.21/-6.56	-8.33/-8.47	-7.45/-8.36	-5.77/-2.49	-5.44/-6.8	-6.66/-6.23	-7.6/-5.84	-6.87/-10.19	-10.03/-7.71	-5.86/-7.15	-8.7/-10.65	-7.87/-9.24	-8.69/-9.75	-10.16/-7.35	-9.28/-6.66	
Θ(127.5°)	-11.63/-9.37	-10.56/-9.14	-9.34/-7.4	-5.74/-9.93	-8.37/-6.7	-7.07/-11.55	-7.33/-8.8	-8.15/-7.67	-10.89/-11.4	-8.8/-10.94	-8.09/-9.14	-6.48/-7.52	-8.6/-6.95	-6.22/-6.92	-8.25/-7.74	-6.9/-9.64	-11.05/-11.03	-6.99/-8.79	-7.95/-7.52	-8.9/-9.02	-10.96/-12.62	-7.22/-9.88	-6.85/-9.85	-11.75/-7.4	
Θ(135°)	-10.47/-9.83	-7.53/-9.75	-8.38/-9.09	-9.03/-7.9	-4.52/-7.07	-11.43/-7.54	-6.31/-8.27	-9.81/-10.96	-11.6/-10.96	-9.25/-9.32	-8.71/-8.54	-10.73/-8.79	-8.53/-10.2	-9.56/-7.42	-8.5/-7.45	-8.94/-10.43	-7.93/-9.98	-8.79/-7.83	-6.87/-6.57	-9.18/-8.35	-9.85/-8.97	-7.07/-8.44	-6.34/-9.79	-8.5/-5.7	
Θ(142.5°)	-7.91/-7.38	-7.33/-6.6	-6.16/-7.58	-9.93/-10.7	-8.48/-8.88	-6.58/-8.57	-12.66/-7.26	-7.7/-9.29	-8.8/-9.44	-10.27/-9.83	-8.99/-9.79	-10.18/-8.04	-10.73/-7.31	-6.71/-10.06	-9.67/-10.38	-9.8/-9.8	-7.83/-9.34	-10.53/-9.54	-7.59/-8.5	-8.53/-9.39	-11.21/-8.54	-10.73/-10.23	-8.84/-8.88	-7.23/-6.14	
Θ(150°)	-9.73/-5.91	-6.25/-8.27	-7.61/-7.88	-9.5/-7.41	-9.65/-8.57	-4.97/-5.24	-9.23/-7.31	-7.7/-9.28	-7.94/-6.33	-6.53/-9	-10.13/-10.11	-8.59/-7.27	-8.47/-6.29	-8.84/-8.24	-8.99/-11.3	-10.44/-12.17	-12.59/-11.79	-11.93/-9.56	-10.73/-10.43	-9.41/-11.31	-11.74/-10.36	-8.59/-9.2	-8.06/-8.89	-8.73/-8.67	
Θ(157.5°)	-8.01/-9.47	-7.72/-6.49	-7.08/-8.88	-8.84/-8.29	-8.71/-8.71	-7.6/-8.27	-8.56/-8.62	-10.56/-12.1	-9.12/-9.16	-10.5/-10.41	-10.64/-9.31	-9.39/-9.37	-10.12/-9.36	-9.52/-9.77	-8.82/-8.95	-9.02/-8.5	-8.85/-9.12	-9.1/-9.53	-9.55/-9.29	-9.07/-9.7	-10.51/-10.13	-10.61/-10.83	-10.79/-9.96	-9.34/-9.26	-10.24/-9.64
Θ(165°)	-9.99/-9.61	-8.58/-10.37	-11.4/-10.15	-8.16/-8.95	-9.82/-10.29	-8.75/-9.46	-10.54/-12.21	-11.48/-10.51	-9.41/-9.67	-10.7/-10.75	-9.66/-11.09	-10.54/-10.37	-9.58/-9.21	-10.51/-11.34	-11.19/-11.2	-12.01/-10.63	-8.68/-8.42	-9.09/-12.04	-12.46/-12.35	-12.05/-10.46	-10.83/-11.88	-11.9/-10.08	-7.52/-7.81	-8.56/-8.81	
Θ(172.5°)	-9.38/-9.39	-9.31/-8.41	-7.72/-8.09	-8.04/-8.72	-9.82/-10.28	-10.88/-10.59	-10.57/-10.39	-10.08/-10.75	-10.32/-9.56	-10.12/-9.09	-8.64/-9.38	-9.03/-9.38	-9.83/-10.29	-10.76/-10.95	-11.03/-10.64	-9.72/-8.09	-7.6/-7.71	-9.48/-11.12	-12.98/-12.1	-12.47/-11.45	-9.99/-8.43	-7.78/-8.78	-9.33/-9.4	-9.19/-8.93	
Θ(180°)	-9.59/-9.1	-8.09/-8.04	-8.1/-8.57	-9.22/-10.01	-10.8/-10.73	-9.82/-9.59	-9.82/-9.97	-10.34/-10.3	-10.5/-10.41	-10.64/-9.31	-9.39/-9.37	-10.12/-9.36	-9.52/-9.77	-8.82/-8.95	-9.02/-8.5	-8.85/-9.12	-9.1/-9.53	-9.55/-9.29	-9.07/-9.7	-10.51/-10.13	-10.61/-10.83	-10.79/-9.96	-9.34/-9.26	-10.24/-9.64	
Freq(Hz)	5.785GPol.	Theta-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	
DG(dB)	Φ(0°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)	
Θ(0°)	-2.61/-2.4	-2.28/-2.15	-2.08/-2.14	-2.65/-3.29	-3.49/-3.64	-4.1/-4.45	-4.9/-4.58	-5.27/-5.97	-5.34/-6.32	-5.93/-5.77	-5.42/-5.04	-4.83/-4.3	-4.06/-3.93	-3.21/-2.62	-2.27/-2.32	-2.54/-2.55	-2.63/-2.79	-3.02/-3.1	-3.3/-3.54	-3.85/-4.52	-4.94/-5.24	-5.48/-4.93	-4.18/-4.44	-4.29/-3.22	
Θ(7.5°)	-4.4/-3.67	-2.93/-2.3	-1.84/-1.5	-1.35/-1.29	-1.45/-1.58	-1.82/-1.96	-1.98/-3.1	-3.7/-4.11	-3.98/-3.42	-4.05/-4.38	-4.33/-4.13	-4.15/-4.13	-3.4/-3.05	-2.92/-2.48	-2.12/-2.33	-3.1/-3.97	-4.53/-4.92	-5.42/-5.28	-5.58/-5.67	-5.62/-5.23	-5.2/-5.72	-6.37/-6.8	-6.23/-6.52	-5.79/-5.16	
Θ(15°)	-1.84/-1.3	-0.58/-0	0.03/-0.2	0.41/0.47	0.59/0.98	1.14/-1.02	0.23/-1.02	-3.01/-5.43	-5.33/-5.12	-4.28/-4.15	-3.74/-3.86	-4.92/-5.07	-5.39/-5.73	-4.98/-4.03	-3.29/-2.69	-2.24/-1.56	-0.96/-0.94	-0.74/-0.8	-0.9/-1.01	-1.84/-2.29	-2.97/-4.63	-5.68/-6.14	-5.85/-4.78	-3.51/-2.46	
Θ(22.5°)	-0.04/0.51	0.91/1.38	2.08/2.71	2.65/1.87	0.78/0.32	0.32/0.66	1.11/1.22	0.9/-0.33	-1.58/-1.6	-1.02/-0.22	-0.04/-0.04	-0.65/-2.2	-2.97/-3.99	-5.46/-5.21	-4.82/-4.83	-4.51/-2.8	-1.58/-1.33	-0.6/-0.14	-0.39/-1.73	-3.19/-3.52	-3.14/-3	-3.72/-4.29	-4.13/-2.53	-2.08/-1.15	
Θ(30°)	0.68/2.85	4.28/4.25	3.45/3.75	3.53/2.47	2.32/2.43	1.11/0.5	1.35/1.99	2.17/1.67	1.32/0.95	-1.17/-1.29	-1.66/-0.26	-0.9/-2.35	-1.88/-1.49	-2.57/-5.59	-5.47/-3.56	-3.79/-3.67	-2.97/-2.48	-1.11/1.06	1.55/-0.34	-2.33/-0.82	0.61/0.9	0.32/-0.67	-1.21/0.08	0.49/-0.69	
Θ(37.5°)	0.41/2.31	3.94/4.45	4.23/4.91	4.58/3.44	3.81/4.11	3.14/1.98	2.55/2.4	1.68/2.14	2.61/6.3	0.85/0.97	2.16/2.56	1.94/0.51	0.57/1.27	0.82/-1.79	-2.48/0.05	-0.87/-0.49	0.89/1.32	2.53/46	2.51/-0.02	0.05/2.53	2.97/3.8	3.05/0.39	-0.36/0.02	0.01/-0.89	
Θ(45°)	4.09/5.21	4.28/4.99	6.35/4.6	5.16/4.61	4.74/3.2	3.79/4.15	4.28/4.59	4.31/4.31	4.21/3.16	3.45/3.8	4.75/4.73	3.23/2.78	1.68/1.96	3.12/2.87	3.21/3.52	1.39/2.14	2.21/1.97	2.53/2.27	1.67/1.46	3.05/4.07	4.85/6.51	5.31/1.52	1.67/2.83	1.75/1.68	
Θ(52.5°)	5.05/6.79	5.58/5.5	7.33/6.39	5.88/5.32	5.53/5.12	5.43/6.46	5.72/6.16	5.92/5.51	4.11/3.26	4.77/5.37	5.76/4.7	5.45/5.05	3.82/8.3	3.99/4.26	4.34/3.7	2.07/2.4	3.23/89	4.03/2.78	3.11/2.6	3.19/3.44	3.38/5.24	4.82/3.44	3.19/3.33	2.87/3.61	
Θ(60°)	4.16/5.72	5.45/5.02	6.86/6.06	6.27/5.82	5.58/5.06	5.64/6.07	5.15/5.79	5.43/4.88	4.12/3.71	4.23/4.81	5.18/6.35	5.52/4.71	4.57/5.05	5.13/4.33	4.35/4.15	2.41/2.77	2.77/4.44	4.29/3.85	3.74/3.55	3.07/2.61	0.74/1.7	2.75/3.58	3.44/2.72	4.06/4.98	
Θ(67.5°)	3.68/4.84	4.85/5.19	7.14/6.68	7.25/6.38	5.61/4.45	5.38/5.55	4.93/4.3	4.24/5.38	5.07/2.87	1.78/3.45	3.53/5.29	4.86/2.15	3.66/5.66	5.49/4.22	4.13/5.3	2.29/2.86	3.24/3.7	4.05/4.88	4.09/3.55	2.73/5.5	2.16/2.6	3.53/15	3.68/3.02	4.71/5.58	
Θ(75°)	3.54/93	4.28/5.84	7.52/7.1	6.59/6.43	6.02/4.32	6/7.16	6.05/3.14	2.77/5.82	5.96/4.2	3.56/4.83	4.01/4.9	5.14/3.29	3.08/3.73	5.44/3.93	3.72/3.66	2.17/2.52	2.66/4.14	3.63/5.47	5.31/4.5	3.6/4.13	3.06/4.39	3.54/2.16	2.78/2.82	4.56/5.11	
Θ(82.5°)	3.15/4.76	3.31/5.73	6.85/6.88	5.56/6.03	5.83/3.96	6.25/7.37	6.12/2.29	2.87/6.02	5.85/4.38	3.94/4.77	3.99/4.86	5.01/3.39	2.58/2.28	4.35/3.16	3.34/3.17	2.31/1.02	2.49/4.18	3.51/5.63	6.24/5.42	4.44/4.09	3.26/5.05	3.34/1.87	0.03/1.88	3.61/3.66	
Θ(90°)	3.23/3.74	1.76/5.41	5.51/5.72	4.06/5.19	4.73/3.13	5.23/6.59	4.83/1.55	2.05/5.37	4.72/3.65	2.08/3.43	3.64/4.54	4.72/3.7	1.62/0.6	2.09/2.04	2.28/2.37	3.5/-0.7	1.47/4.5	2.41/5.22	5.62/4.8	4.31/3.64	3.08/4.55	2.63/1.72	-10.58	2.57/1.8	
Θ(97.5°)	1.83/1.7	-0.85/4.37	3.88/4.53	3.17/4.06	3.37/1.81	3.62/4.94	3.40/86	1.28/4.33	3.13/2.13	0.67/2.77	2.87/3.69	3.32/1.92	0.48/-0.08	1.35/1.39	1.01/1.5	2.24/-0.8	0.02/2.92	-0.25/2.89	3.82/2.38	3.17/1.69	1.08/2.95	1.15/-0.44	-1.32/-0.12	0.73/-0.11	
Θ(105°)	0.22/-1.06	-2.09/2.92	1.56/3.1	2.57/2.7	2.02/0.1	1.43/2.98	1.24/-0.15	-0.73/-1.6	1.8/1.21	-0.11/3.08	2.03/2.34	1.32/1.52	-1.4/-0.92	-0.01/-0.31	0.31/-0.66	0.55/-1.02	-3.5/0.41	-4.02/0.5	0.73/-0.72	0.65/-1.37	-0.6/-1.07	-1.57/-2.8	-2.23/-0.16	0.03/-1.23	
Θ(112.5°)	-1.5/-3.54	-1.9/-1.04	-1.62/0.83	1.09/1.21	0.37/-1.4	0.48/1.58	-1.89/-2.14	-4.13/-0.52	-0.82/0.34	0.19/3.18	1.88/1.05	-0.02/-0.32	-1.07/-1.84	-1.12/-1.91	-1.85/-0.89	-2.08/-2.02	-3.41/-2.02	-2.75/-0.91	-0.5/-1.28	-1.89/-3.88	-3.58/-4.11	-2.19/-1.23	-2.23/-1.27	-0.19/-1.7	
Θ(120°)	-3.47/-4.69	-3.28/-4.73	-3.44/-1.55	-1.98/-0.62	-1.38/-1.98	-0.44/1.3	-1.62/-2.26	-5.12/-1.59	-2.15/-1.4	-2.38/0.04	-0.58/-3.35	-0.6/-0.86	-0.67/-1.84	-4.19/-3.42	-1.1/-2.45	-2.11/-0.86	-3.7/-5.14	-2.73/-1.41	-0.9/-0.81	-4.08/-2.92	-2.31/-2.13	-1.63/-3.45	-3.17/-3.29	0.11/-2.95	
Θ(127.5°)	-7.04/-4.61	-3.59/-7.1	-3.49/-2.29	-4.04/-2.91	-3.34/-2.72	-5.43/-2.89	-3.77/3.56	-3.36/-0.65	-2.25/-4.96	-8.89/-2.76	-2.98/-4.63	-1.92/-3.07	-2.01/-1.02	-5.64/-4.6	-1.24/-4.04	-2.11/-1.17	-3.68/-5.73	-5.84/-7.7	-1.57/-3.07	-6.2/-2.97	-3.08/-2.66	-1.63/-4.68	-4.99/-4.55	-1.9/-6.4	
Θ(135°)	-5.19/-5.21	-5.19/-5.2	-3.54/-3.71	-4.31/-3.39																					





Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(22.5°)	-4.26/-7.99	-12.12/-13.18	-13.95/-18.71	-13.26/-9.25	-7.29/-6.4	-5.85/-6.29	-6.79/-6.74	-6.89/-7.13	-7.08/-7.13	-7.99/-8.96	-9.78/-10.58	-9.27/-8.05	-7.68/-6.08	-5.45/-6.35	-8.65/-12.74	-18.36/-17.79	-18.94/-19.3	-19.11/-13.7	-10.83/-9.7	-9.87/-8.91	-7.81/-6.51	-4.89/-3.24	-1.83/-1.19	-1.89/-3
Θ(30°)	-3.06/-3.39	-8.24/-9.68	-9.93/-9.5	-8.83/-5.78	-5.43/-5.56	-5.13/-5.59	-6.17/-8.4	-9.84/-8.33	-8.41/-5.59	-4.59/-5.95	-7.29/-9.03	-10.16/-12.96	-14.95/-10.08	-8.61/-10.4	-12.47/-13.72	-18.37/-16.79	-14.01/-14.6	-14.15/-8.83	-7.47/-9.89	-12.33/-7.48	-5.1/-3.99	-3.28/-3.34	-4.23/-8.42	-3.79/-2.49
Θ(35°)	-5.39/-6.49	-5.54/-6.24	-9.97/-9.51	-8.68/-9.22	-8.03/-6.64	-4.94/-4	-5.07/-7.71	-7.11/-4.78	-4.21/-4.52	-4.45/-4.4	-5.53/-7.99	-12.26/-17.24	-18.12/-18.18	-1.73/-13.62	-4.27/-17.65	-18.89/-14.68	-8.09/-9.76	-12.10/-19	-11.36/-13.89	-7.2/-18.1	-3.52/-5.47	-6.68/-3.96	-4.86/-6.07	
Θ(45°)	-10.59/-10.05	-7.68/-9.07	-17.51/-14.62	-18.48/-16.67	-9.47/-8.38	-7.26/-6.07	6/-6.17	-3.71/-1.99	-1.94/-3.3	-4.71/-3.78	-4.23/-5.98	-6.86/-8.52	-11.61/-16.18	-11.7/-7.5	-11.5/-18.78	-17.44/-17.41	-7.01/-4.36	-6.65/-7.69	-5.72/-6.43	-3.65/-2.55	-4.84/-3.48	-2.27/-5.69	-3.21/-0.52	-1.66/-6.26
Θ(52.5°)	-0.89/-8.4	-7.38/-7.82	-9.25/-11.77	-16.86/-10.3	-7.79/-8.22	-6.54/-4.6	-3.73/-2.99	-1.6/-4.02	-0.13/-2.04	-4.56/-3.63	-3.89/-4.6	-4.62/-7.15	-11.26/-14.36	-12.83/-7.53	-8.74/-14.49	-17.74/-18.36	-6.07/-3.44	-5.04/-11.19	-7.8/-6.42	-3.93/-2.42	-5.01/-2.69	-2.92/-7.45	-1.66/-0.28	-0.76/-0.09
Θ(60°)	-0.24/-4.14	-9.07/-8.28	-6.53/-12.42	-17.61/-10.23	-10.06/-8.93	-5.85/-4.72	-1.74/-1.77	-0.27/-0.57	-4.72/-2.25	-4.83/-4.1	-5.52/-5.77	-4.43/-6.76	-8.69/-7.42	-10.12/-19	-9.54/-13.74	-10.64/-4.67	-4.4/-8.2	-5.34/-6.66	-5.18/-4.36	-8.83/-11.1	-3.73/-4.71	-0.77/-1.54	-1.79/-0.4	
Θ(67.5°)	-2.31/-6.42	-11.18/-8.4	-8.6/-15.01	-13.66/-12.69	-161/-10.48	-4.91/-3.8	-1.10/-56	-0.590/-72	0.28/-2.22	-4.4/-4.15	-6.03/-5.78	-6.59/-9.93	-6.71/-4.69	-8.65/-11.21	-10.14/-11.63	-18.29/-17.46	-10.98/-6.38	-5.91/-7.4	-5.03/-4.83	-5.44/-4.27	-8.07/-3.05	-4.98/-3.4	-1.39/-2.97	-2.77/-1.51
Θ(75°)	-6.89/-10.2	-9.23/-10.63	-17.07/-11.88	-11.44/-9.26	-17/-14.58	-6.06/-4.58	-1.170/-76	-1.36/-0.12	-1.04/-2.77	-4.99/-43	-5.49/-5.43	-8.07/-10.77	-5.75/-3.79	-6.6/-10.39	-14.68/-14.76	-18.77/-18.13	-12.52/-8.16	-5.82/-4.91	-4.71/-4.75	-6.06/-5.11	-7.52/-3.45	-4.89/-3.3	-4.24/-5.22	-3.81/-4.37
Θ(82.5°)	-11.96/-13.84	-9.68/-13.88	-18.69/-9.21	-10.31/-9.57	-19.31/-17.53	-7.66/-4.07	-1.55/-0.41	-2.35/-0.93	-2.77/-3.15	-5.46/-5.15	-6.75/-6.74	-10.59/-15.66	-7.66/-4.22	-9.17/-11.93	-13.31/-17.02	-18.59/-18.82	-13.32/-8.4	-7.57/-3.91	-4.72/-5.47	-8.4/-6.34	-7.73/-4.87	-6.02/-4.24	-6.2/-6.35	-6.4/-10.28
Θ(90°)	-19.35/-17.47	-10.52/-16.43	-17.87/-8.12	-11.08/-10.85	-18.03/-18.19	-7.97/-5.46	-3.62/-1.49	-2.95/-2.45	-4.4/-3.66	-6.97/-5.56	-6.17/-7.27	-10.53/-17.45	-11.86/-4.77	-8.44/-14.91	-15.72/-18.1	-19/-17.69	-13.58/-9.59	-12.85/-5.8	-5.82/-4.49	-7.61/-7.21	-8.61/-6.99	-8.05/-6.65	-9.19/-8.5	-7.73/-15.29
Θ(97.5°)	-18.71/-18.93	-13.49/-18.22	-16.8/-9.37	-12.47/-12.11	-18.35/-15.55	-9.65/-4.57	-3.42/-2.96	-5.45/-4.33	-7.64/-5.32	-8.67/-6.74	-7.23/-9.33	-12.93/-13.46	-10.79/-6.71	-7.76/-12.73	-19.13/-17.62	-18.1/-17.56	-18.25/-12.03	-9.86/-9.57	-11.23/-10.07	-10.15/-11.57	-9.94/-9.46	-14.17/-10.72	-9.79/-18.9	
Θ(105°)	-19.47/-17.63	-14.65/-17.93	-12.27/-9.6	-12.54/-19.1	-14.02/-14.49	-8.69/-5.66	-5.64/-6.5	-7.63/-5.81	-8.65/-7.41	-8.14/-14.04	-14.4/-14.62	-12.6/-9.84	-10.26/-12.66	-18.41/-18.67	-18.29/-18.87	-19.02/-18.67	-16.78/-9.96	-11.9/-14.31	-18.44/-17.14	-14.75/-17.26	-14.55/-12.19	-15.18/-12.1	-10.23/-17.97	
Θ(112.5°)	-18.48/-19.01	-18.37/-13.45	-13.89/-12.21	-17.9/-17.85	-14.51/-12.91	-6.39/-5.2	-7.99/-7.26	-9.34/-7.1	-10.33/-11.17	-13.66/-11.51	-8.8/-16.79	-16.66/-14.83	-13.86/-12.74	-13.97/-13.77	-18.75/-19.13	-19.19/-17.29	-19.29/-17.95	-19.05/-13.94	-11.02/-12.11	-16.63/-17.17	-18.25/-18.54	-15.43/-12.27	-18.64/-14.31	-19.16/-17.83
Θ(120°)	-18.68/-18.04	-17.64/-10.12	-16.2/-18.83	-19.08/-15.53	-12.24/-8.12	-7.28/-4.73	-9.37/-7.72	-10.46/-11.77	-12.96/-13.47	-13.47/-16.62	-11.27/-18.06	-18.8/-12.8	-11.88/-14.75	-15.05/-14.93	-18.14/-17.89	-19/-17.75	-18.21/-18.7	-18.01/-18.22	-17.48/-15.7	-14.93/-15.6	-16.85/-17.85	-13.65/-16.96	-18.57/-16.07	-18.63/-14.34
Θ(127.5°)	-18.43/-15.27	-15.49/-14.18	-12.92/-17.42	-15.53/-13	-11.42/-9.84	-9.51/-7.23	-11.19/-10.83	-12.04/-16.52	-14.89/-17.31	-14.31/-18.69	-18.37/-19.01	-16.28/-14.79	-13.41/-14.21	-14.29/-14.83	-17.98/-16.87	-19.03/-19.21	-18.64/-18.87	-18.96/-18.11	-18.5/-13.7	-18.29/-16.85	-16.84/-14.83	-16.95/-19.9	-18.38/-17.24	-18.35/-14.45
Θ(135°)	-18.41/-12.28	-15.5/-19.3	-12.35/-16.03	-18.01/-13.19	-16.45/-12.03	-11.22/-13.68	-13.62/-12.89	-13.8/-14.91	-16.88/-18.75	-18.38/-18.49	-18.36/-18.36	-19.13/-19.27	-15.97/-13.75	-15.11/-18.75	-17.1/-17.27	-18.94/-18.81	-18.8/-17.48	-15.59/-14.64	-18.61/-19.1	-17.95/-18.29	-18.41/-12.57	-17.11/-13.28	-11.62/-17.36	-13.74/-12.93
Θ(142.5°)	-18.55/-10.66	-9.82/-17.08	-18.69/-18.54	-18.68/-14.47	-13.79/-19.01	-17.79/-17.28	-14.46/-13.92	-17.66/-18.15	-16.17/-16.23	-18.35/-18.84	-18.46/-18.18	-17.76/-17.83	-17.61/-16.13	-15.77/-19.07	-17.92/-19.2	-19.21/-19.79	-18.75/-17.24	-16.08/-12.65	-18.35/-18.7	-10.04/-14.96	-19.42/-17.95	-16.58/-15.52	-15.91/-18.71	-10.38/-11.74
Θ(150°)	-18.71/-13.57	-14.41/-18.48	-18.56/-17.81	-16.2/-15.12	-17.47/-15.45	-18.05/-15.85	-13.73/-12.02	-17.9/-18.79	-15.77/-18.42	-18.19/-17.89	-18/-10.96	-17.32/-16.84	-17.28/-17.8	-18.27/-15.66	-17.86/-18.94	-14.31/-14.63	-17.29/-18.88	-15.53/-13.17	-18.58/-14.58	-11.18/-11.68	-13.38/-16.25	-18.62/-18.58	-17.56/-17.21	-13.56/-16.3
Θ(157.5°)	-19.34/-18.4	-19.23/-17.48	-16.5/-16.61	-13.2/-10.52	-9.44/-10.83	-14.91/-16.18	-14.54/-16.25	-17.58/-14.94	-11.03/-12.86	-19.13/-18.38	-18.99/-18.68	-18.99/-19.23	-17.31/-16.66	-18.49/-19.69	-18.98/-18.16	-19.01/-17.86	-17.54/-18.45	-11.31/-9.44	-11.16/-17.17	-17.9/-16.32	-14.97/-15.97	-17.57/-18.95	-18.85/-17.7	-18.37/-18.3
Θ(165°)	-18.24/-18.67	-14.92/-13.11	-14.77/-18.86	-19/-17.85	-14.63/-14.33	-15.52/-17.02	-17.55/-18.77	-18.54/-18.19	-18.42/-18.99	-17.12/-14.82	-17.58/-19.19	-18.62/-18	-18.66/-17.7	-19.08/-18.17	-18.17/-18.5	-18.28/-19.03	-18.51/-17.48	-12.93/-10.4	-12.65/-17.5	-18.38/-18.15	-14.96/-13.83	-15.05/-14.96	-13.41/-12.34	-14.61/-18.21
Θ(172.5°)	-19.01/-17.17	-19.05/-17.73	-19.07/-15.42	-18.18/-18.17	-16.91/-17.28	-19.45/-19.16	-17.63/-14.32	-16.67/-16.15	-16.87/-18.54	-17.94/-18.99	-18.16/-18.57	-18.24/-18.85	-17.25/-18.33	-19.45/-18.8	-19.1/-17.86	-18.18/-17.48	-19.03/-15.41	-13.55/-13.51	-14.71/-16.13	-17.33/-19.02	-18.18/-18.89	-18.93/-14.85	-19.02/-19.17	-17.37/-18.78
Θ(180°)	-18.77/-18.63	-16.96/-17.64	-17.42/-15.76	-13.69/-12.09	-11.54/-11.91	-11.92/-11.44	-10.62/-10.19	-10.04/-10.53	-11.36/-11.14	-10.87/-12.05	-13.4/-14.53	-15.11/-18.02	-17.98/-17.87	-19.14/-18.83	-18.84/-17.84	-15.66/-13.88	-12.17/-10.84	-10.33/-10.36	-10.65/-10.74	-10.21/-9.86	-10.02/-10.04	-10.34/-10.63	-11.29/-12.91	-15.37/-17.21
Freq(Pol)	5.3GPol	ThetaAnt. 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-18.66/-18.6	-18.22/-16.13	-14.09/-12.82	-12.58/-12.39	-12.57/-12.32	-12.01/-11.77	-11.9/-12.26	-12.83/-14.15	-15.16/-11	-18.72/-18.8	-19.71/-18.68	-18.55/-17.16	-17.79/-17.2	-13.65/-13.22	-13.34/-13.48	-12.5/-11.18	-10.48/-10.37	-10.69/-11.29	-11.29/-11.26	-11.75/-12.34	-13.42/-13.89	-15.07/-17.69	-18.33/-17.37	-18.11/-17.62
Θ(7.5°)	-10.2/-8.69	-8.14/-7.69	-7.27/-7.21	-7.24/-7.19	-7.87/-6.17	-7.28/-6.92	-7.03/-7.18	-7.49/-8.24	-9.19/-11.08	-15.17/-10.75	-16.13/-16.26	-17.27/-12.32	-14.87/-11.93	-11.34/-14.02	-10.76/-12.97	-14.47/-12.52	-12.26/-12.2	-12.03/-12.53	-13.72/-16.24	-18.71/-18.33	-18.17/-16.14	-16.46/-16.01	-15.53/-12.97	
Θ(15°)	-8.76/-8	-4.35/-3.03	-2.01/-1.89	-2.35/-3.25	-4.06/-4.67	-4.69/-4.49	-4.31/-4.02	-4.24/-5.03	-6.77/-9.95	-15.26/-18.89	-16.82/-18.1	-13.68/-9.83	-10.01/-11.86	-9.95/-6.56	-8.34/-9.98	-10.72/-12.75	-13.15/-12.86	-12.47/-12.18	-13.25/-15.68	-17.31/-17.54	-19.25/-16.68	-13.65/-13.39	-13.91/-13.82	-12.09/-10.55
Θ(22.5°)	-0.99/-0.22	-4.01/-6.6	0.37/-0.54	-0.93/-1.04	-1.24/-1.52	-2.14/-3.3	-4.95/-6.08	-6.1/-6.2	-8.01/-13.49	-19.07/-13.86	-10.89/-11.11	-10.21/-9.11	-10.55/-12.58	-12.34/-11.15	-10.64/-9.25	-7.16/-5.66	-5.55/-7.14	-9.28/-13.27	-16.75/-15.12	-15.69/-17.05	-13.44/-10.33	-9.42/-10.67	-11.13/-8.75	-4.82/-2.38
Θ(30°)	-1.190/-18	0.370/-61	0.29/-0.77	-1.2/-0.88	-0.220/-51	0.34/-1.82	-5.79/-7.57	-5.81/-5.55	-8.77/-10.06	-14.41/-8.99	-6.06/-4.86	-4.81/-5.87	-6.31/-7.27	-11.19/-15.04	-12.98/-9.6	-6.41/-3.6	-3.05/-3.96	-5.78/-8.73	-12.28/-7.9	-7.06/-10.4	-12.34/-9.41	-10.14/-14.74	-13.66/-10.42	-8.47/-4.6
Θ(37.5°)	0.262/-07	2.271/-92	0.810/-17	0.990/-58	-0.130/-47	0.21/-2.68	-7.16/-5.38	-3.79/-4.92	-6.81/-6.9	-7.36/-8.1	-8.05/-4.79	-7.05/-8.21	-8.95/-7.3	-7.11/-10.6	-6.39/-6.94	-7.52/-4.11	-3.05/-3.04	-3.62/-7.68	-11.44/-5.78	-5.17/-10.21	-9.47/-7.3	-12.33/-15.81	-6.89/-3.75	-3.21/-2.07
Θ(45°)	2.44/-4	4.94/-99	3.111/-52	2.852/-6	1.440/-92	-0.19/-3.6	-4.56/-3.31	-3.58/-4.13	-3.22/-3.5	-5.36/-6.04	-5.58/-6.45	-6.94/-6.09	-7.08/-11.67	-10.84/-6.67	-14.8/-10.4	-4.72/-4.2	-1.83/-3.18	-2.46/-4.35	-11.34/-4.24	-2.34/-6.53	-5.01/-4.87	-17.75/-6.05	-2.31/-1.39	-0.380/-7
Θ(52.5°)	-0.162/-02	2.953/-31	2.11/-4	2.622/-8	1.480/-91	-0.52/-2.74	-1.89/-2.81	-4.38/-2.44	-0.58/-1.17	-2.56/-2.36	-3.06/-5.17	-4.37/-2.64	-4.27/-8.51	-8.73/-4.73	-3.82/-3.26	-2.99/-0.77	-1.36/-4.37	-3.88/-5.62	-12.35/-3.87	-0.85/-3.54	-3.05/-4.47	-12.4/-1.55	-1.73/-4.48	-2.420/-07
Θ(60°)	-1.03/-3.85	-3.93/-1.25	1.181/-77	3.414/-36	1.22/-0.07	-0.81/-1.49	0.03/-1.36	-2.82/-0.84	0.18/-0.14	-1.05/-2.02	-4.27/-5.75	-2.97/-0.89	-4.19/-1.92	-8.03/-3.77	-4.25/-2.29	-3.21/-1.9	-0.96/-2.91	-3.64/-6.97	-9.48/-4.77	-1.8/-5.64	-4.37/-4.37	-8.09/-4.04	0.03/-0.54	0.371/-23
Θ(67.5°)	0.571/-1.52	-1.490/-58	3.053/-78	3.764/-09	0.69/-3.38	-0.75/-0.81	0.62/-0.77	-2.02/-1.2	0.17/-0.34	-1.26/-3.68	-4.43/-2.6	-0.52/-1.09	-4.94/-10.92	-1.07/-1.38										



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(75°)	-4.37/-12.08	-9.37/-5.29	-7.66/-18.04	-17.7/-13.6	-10.78/-11.92	-7.91/-2.69	-1.49/-2.2	-0.32/-1.25	-0.31/-2.02	-3.03/-2.13	-5.74/-5.93	-9.27/-9.08	-8.39/-7.54	-10.68/-13.48	-13.74/-13.97	-13.11/-13.52	-12.92/-13.2	-10.75/-7.22	-8/-8	-9.06/-6.54	-6.38/-5.9	-5.15/-6.69	-5.07/-2.44	-4.4/-1.8
Θ(82.5°)	-6.93/-11.19	-7.11/-5.88	-11.14/-13.72	-15.45/-15.01	-12.32/-14.42	-7.65/-3.98	-2.62/-5.02	-1.57/-1.38	-0.85/-3.96	-3.25/-3.22	-7.07/-6.27	-11.59/-8.5	-9.35/-9.72	-9.68/-13.4	-11.25/-13.15	-13.62/-18.12	-13.58/-15.41	-10.57/-7.25	-6.34/-7.91	-6.86/-5.91	-4.68/-4.77	-4.14/-6.58	-5.75/-6.15	-9.09/-4.98
Θ(90°)	-10.47/-10.11	-7.12/-5.88	-12.34/-11.98	-13.1/-19.24	-11.52/-11.68	-7.39/-4.43	-4.61/-6.83	-2.31/-2.75	-1.44/-4.8	-5.46/-4.97	-9.17/-6.06	-9.15/-9.69	-10.44/-8.41	-10.92/-12.52	-10.66/-11.65	-18.9/-18.97	-18.29/-14.62	-11.5/-8.95	-7.33/-8.92	-10.69/-9.29	-6.04/-6.87	-5.07/-7.99	-6.68/-9.18	-9.46/-8.17
Θ(97.5°)	-13.19/-10.26	-10.04/-12.68	-10.61/-11.27	-12.19/-18.66	-12.6/-16.72	-7.6/-6.11	-6.25/-8.13	-4.36/-4.86	-3.12/-7.52	-6.14/-6.59	-11.05/-8.44	-9.53/-12.39	-11.26/-7.11	-10/-17.3	-9.4/-11.72	-18.14/-18.39	-17.63/-19.19	-14.09/-10.94	-9.02/-12.92	-15.81/-12.94	-9.44/-11.67	-7.41/-12.43	-9.56/-10.33	-10.8/-15.6
Θ(105°)	-11.22/-9.48	-14.03/-16.33	-12.36/-10.29	-15.98/-17.56	-15.13/-19.37	-8.07/-6.4	-6.51/-8.97	-4.88/-6.44	-4.95/-9.14	-7.44/-8.16	-14.67/-11.14	-8.84/-18.23	-12.66/-7.36	-12.14/-17.23	-12.09/-13.68	-18.74/-19.02	-14.92/-18.44	-19.01/-15.28	-10.84/-10.12	-12.25/-16.39	-17.93/-15.86	-14.1/-15.17	-12.49/-13.24	-11.44/-17.76
Θ(112.5°)	-8.92/-13.69	-18.61/-13.43	-13.09/-15.82	-18.55/-17.82	-18.14/-13.72	-7.76/-6.14	-9.6/-9.19	-6.8/-9.32	-8.23/-10.78	-8.02/-10.46	-19.04/-14.03	-9.77/-13.74	-12.69/-8.7	-17.17/-18.36	-10.11/-12	-17.54/-19.14	-16.52/-18.34	-16.18/-17.28	-14.8/-12.41	-12.29/-12.62	-13.96/-12.87	-15.19/-13.57	-11.39/-13.37	-13.34/-18.95
Θ(120°)	-12.77/-15.34	-18.02/-11.73	-13.16/-18.76	-15.3/-12.45	-14.15/-9.21	-7.04/-10.55	-7.82/-9.55	-8.22/-10.08	-11.11/-15.75	-12.26/-9.95	-17.87/-16.1	-9.32/-13.74	-11.75/-8.31	-11.86/-15.48	-15.59/-14.72	-16.74/-15.92	-12.82/-13.47	-13.94/-12.39	-18.11/-17.6	-15.9/-18.67	-11.4/-13.68	-10.54/-13.91	-15.7/-12.9	-13.03/-11.77
Θ(127.5°)	-17.4/-15.91	-15.75/-10.63	-10.54/-12.87	-10.89/-12.94	-11.9/-8.47	-8.67/-18.34	-7.37/-9.38	-9.82/-8.55	-14.99/-17.92	-17.61/-15.85	-11.86/-18.41	-9.57/-10.21	-17.71/-15.94	-10.62/-11.87	-12.54/-17.26	-12.68/-15.5	-18.37/-13.47	-14.26/-13.28	-18.94/-18.45	-17.73/-11.1	-18.31/-19.28	-8.88/-18.66	-10.23/-14.41	-18.52/-7.82
Θ(135°)	-11.93/-11.15	-11.17/-19.1	-9.64/-13.66	-14.35/-15.14	-11.09/-11.68	-17.43/-9.97	-8.94/-15.89	-13.93/-13	-19.22/-16.04	-18.16/-18.22	-11.91/-14.02	-14.66/-9.53	-16.44/-18.99	-18.51/-12.53	-11.47/-12.77	-18.88/-18.12	-18.36/-15.63	-15.13/-9.6	-6.38/-9.23	-18.92/-10.35	-14.04/-11.93	-11.76/-14.13	-8.55/-15.17	-9.23/-5.04
Θ(142.5°)	-13.42/-9.8	-7.45/-14.07	-13.62/-14.37	-17.69/-19.12	-19.02/-19.45	-14.62/-13.54	-19.44/-16.89	-10.44/-12.11	-18/-16.83	-15.06/-18.02	-18.79/-18.28	-16.98/-11.32	-12.29/-12.67	-13.89/-18.83	-18.58/-18.88	-18.45/-17.78	-13.12/-14.5	-16.09/-15.37	-9.57/-15.17	-10.87/-12.65	-19.05/-10.94	-14.98/-14.85	-9.95/-12.6	-7.85/-4.61
Θ(150°)	-15.32/-9.24	-8.66/-13.51	-17.2/-12.21	-13.93/-15.99	-18.4/-18.2	-10.85/-11.33	-16.69/-13.82	-11.9/-15.7	-19.01/-16.91	-13.94/-17.48	-17.78/-18.06	-17.6/-16.19	-16.26/-11.66	-11.75/-17.88	-18.8/-18.28	-17.75/-19.53	-19.43/-16.62	-18.17/-14.83	-15.5/-13.12	-11.51/-16.77	-18.69/-13.63	-14.44/-17.71	-10.56/-12.18	-11.6/-11.42
Θ(157.5°)	-13.32/-18.69	-18.74/-18.3	-18.47/-17.91	-18.84/-13.7	-13.16/-15.4	-17.44/-18.31	-16.34/-10.08	-15.88/-19.05	-13.99/-12.37	-14.68/-19.55	-18.51/-18.4	-19.34/-18.25	-18.53/-15.04	-14.52/-13.77	-17.11/-18.16	-15.35/-15.68	-15.22/-17	-17.98/-18.9	-12.98/-11.64	-14.69/-18.48	-17.88/-17.8	-18.7/-18.73	-16.88/-19.51	-18.63/-12.32
Θ(165°)	-17.58/-16.2	-14.07/-18.01	-18.36/-16.33	-14.54/-15.5	-18.27/-19.05	-16.03/-13.09	-14.43/-18.34	-18.8/-19.07	-18.04/-16.89	-15.54/-18.51	-17.47/-18.95	-17.67/-17.48	-17.85/-16.92	-18.93/-16.69	-18.37/-18.34	-17.69/-16.95	-12.67/-11.05	-11.67/-17.21	-18.66/-18.01	-17.83/-15.93	-18.69/-18.39	-17.87/-15.68	-12.91/-13.39	-18.29/-18.31
Θ(172.5°)	-16.15/-15.11	-15.01/-14.65	-13.64/-13.5	-13.45/-14.61	-15.17/-15.5	-15.64/-15.38	-17.15/-18.55	-18.3/-18.65	-18.8/-13.85	-11.77/-13.92	-14.15/-13.16	-12.65/-16.27	-18.42/-15.66	-15.75/-18.89	-18.5/-15.66	-13.2/-17.7	-9.89/-10.63	-12.93/-17.63	-19.36/-17.6	-17.54/-17.53	-15.27/-12.56	-12.23/-13.55	-14.3/-17.63	-17.45/-17.04
Θ(180°)	-17.61/-17.26	-18.46/-17.39	-15.47/-15.72	-15.71/-15.39	-15.3/-14.88	-14.8/-14.44	-14.96/-14.59	-16.28/-17.97	-18.27/-17.72	-19.15/-18.21	-18.97/-18.33	-18.62/-17.19	-18.99/-19.35	-17.62/-18.72	-18.77/-17.7	-18.76/-17.64	-18.66/-19.29	-16.79/-15.19	-14.57/-15.26	-18.7/-18.78	-18.71/-19.11	-18.9/-17.04	-15.18/-15.54	-19.05/-18.3
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°)	-5.28/-5.03	4.44/-4.87	-3.71/-3.75	4.04/-4.46	4.65/-5.25	-6.02/-7.23	-8.14/-9.66	-11.47/-15.69	-17.49/-17.43	-17.27/-16.34	-13.11/-10.66	-9.12/-7.51	-6.44/-6.67	-5.82/-4.6	-4.35/-4.76	-5.11/-4.98	-5.23/-5.84	-6.17/-6.81	-10.39/-11.86	-16.13/-18.79	-17.63/-18.11	-15.28/-12.18	-10.09/-8.37	-7.59/-6.01
Θ(7.5°)	-9.31/-8.9	-7.9/-6.88	-5.85/-5.32	-4.89/-4.64	-4.81/-5.28	-6.1/-7.55	-8.96/-11.75	-16.61/-18.27	-15.6/-13.25	-13.01/-10.88	-9.4/-8.94	-9.04/-8.84	-6.97/-6.41	-6.81/-5.68	-3.94/-3.37	-3.85/-4.59	-4.89/-5.46	-6.48/-7.69	-9.22/-10.39	-13.96/-18.91	-18.25/-18.46	-19.06/-18.86	-16.4/-15.37	-13.05/-10.7
Θ(15°)	-4.98/-3.79	-2.78/-2.09	-1.99/-1.74	1.51/-1.33	-1.25/-1.1	-1.46/-2.49	-4.07/-6.71	-11.37/-17.81	-17.12/-16	-10.34/-13.61	-9.3/-9.48	-11.2/-12.03	-12.11/-12.67	-11.94/-9.59	-7.62/-6.23	-5.66/-5.45	-5.53/-6.35	-7.38/-8.55	-9.05/-9.83	-10.63/-11.9	-13.62/-14.86	-15.68/-14.93	-13.8/-11.77	-8.52/-6.59
Θ(22.5°)	-1.9/-0.94	-0.57/-0.54	-0.23/-0.44	-0.51/-0.57	-0.33/-1.54	-2.52/-2.3	-2.39/-3.72	-6.92/-4.18	-17.77/-11.83	-8.81/-6.9	-6.74/-7.66	-4.99/-10.66	-12.05/-9.18	-9.31/-10.24	-12.25/-8.55	-7.73/-7.92	-6.78/-9.56	-15.54/-14.24	-11.62/-14.14	-11.13/-6.67	-4.35/-2.88			
Θ(30°)	1.16/-2.59	3.42/-2.59	0.50/-2.3	0.20/-3.7	0.5/-1.14	-4.11/-4.4	-2.4/-3.02	-7.38/-15.67	-14.87/-10.75	-7.2/-9.13	-18.49/-18.04	-17.62/-16.02	-18.35/-17.9	-14.99/-10.15	-8.23/-5.85	-5.33/-6.69	-8.39/-7.24	-5.49/-4.39	-5.23/-9.81	-17.72/-9.39	-8.88/-10.83	-8.23/-8.31	-8.49/-5.19	-1.81/-0.11
Θ(37.5°)	-0.44/-1.18	1.42/-1.36	1.31/-9	0.96/-0.34	0.96/-0.57	-2.15/-3.16	-1.55/-2.81	-7.77/-7.58	-3.9/-4.6	-6.42/-5.06	-5.42/-5.72	-5.55/-6.46	-8.35/-9.37	-7.94/-6.26	-6.22/-4.2	-4.42/-6.83	-5.01/-4.6	-4.98/-3.33	-4.32/-10.92	-10.64/-6.5	-11.26/-6.29	-2.89/-3.68	0.34/-5.55	-4.02/-2.7
Θ(45°)	2.64/-5	4.99/-4.27	3.14/-3.72	3.73/-24	1.23/-0.51	-2.96/-2.11	-1.63/-0.52	-0.55/-0.31	-0.82/-0.41	-2.46/-1.78	-3.83/-5.28	-6.79/-6.65	-5.58/-3.06	0.35/-1.13	-6.57/-4.63	-2.79/-3.48	-6.67/-7.2	-4.22/-7.46	-6.01/-5.42	-6.42/-11.2	-2.32/-15.18	-3.81/-6.06	-0.26/-0.44	
Θ(52.5°)	2.51/-4.82	5.29/-4.61	3.05/-3	3.87/-2.03	1.17/-0.44	-3.76/-2.07	-3.22/-0.93	1.27/-0.03	-1.18/-3.03	-2.72/-3.84	-6.42/-2.47	0.19/-0.52	-4/-6.17	-6.11/-3.97	-0.38/-0.01	-5.45/-5.03	-3.34/-2.36	-5.2/-12.73	-6.52/-9.24	-4.77/-1.93	-2.23/-0.16	-2.66/-6.69	-0.27/-0.01	-1.40/-0.02
Θ(60°)	0.47/-0.85	1.09/-0.22	-0.26/-0.97	3.27/-183	1.21/-0.58	-2.64/-1.03	-3/-0.38	-0.24/-0.74	-0.68/-0.89	-4.11/-14.8	-4.49/-2.09	-0.26/-1.96	-6.63/-4.33	-5.07/-6.27	-2.39/-1.1	-4.61/-4.43	-4.1/-2.21	-3.38/-9.08	-10.09/-10.78	-4.6/-1.42	-11.26/-6.29	-2.89/-3.68	0.34/-5.55	-0.88/-1.4
Θ(67.5°)	0.61/-1.08	-2.87/-2.61	0.43/-2.51	3.96/-29	1.62/-0.72	-1.26/-0.22	-0.74/-2.44	-3.39/-0.23	-6.28/-2.19	-4.37/-2.83	-4.36/-2.18	-6.44/-3.49	-7.64/-6.11	-3.12/-3.87	-6.75/-4.26	-3.42/-3.68	-3.01/-5.59	-9.99/-10.31	-2.72/-1.03	-5.68/-2.52	-0.68/-4.51	0.41/-0.11	1.86/-21	
Θ(75°)	0.73/-0.77	-1.54/-0.48	2.73/-8	2.58/-3.41	1.61/-3.71	-0.82/-1.15	0.32/-3.72	-5.55/-0.35	1.39/-2.57	-1.2/-0.16	-4.23/-2.9	-4.37/-8.27	-3.8/-6.51	-6.83/-11.19	-3.94/-4.51	-6.06/-5.9	-2.42/-3.11	-2.78/-4.09	-6.9/-9.3	-2.35/-1.01	-3.21/-0.96	-0.25/-6.46	-0.62/-0.23	1.73/-2.82
Θ(82.5°)	0.42/-0.84	-1.47/-0.09	2.96/-3.78	0.54/-2.28	0.33/-3.76	-1.21/-0.79	0.18/-5.38	-6.14/-0.55	1.61/-1.92	-3.04/-0.23	-5.71/-86	-3.81/-4.62	-4.05/-8.25	-9.47/-14.24	-4/-5.29	-6.23/-8.15	-1.89/-2.88	-2.65/-2.38	-2.8/-6.3	-1.56/-6.03	-0.45/-2.78	0.22/-4.15	-4.27/-2.35	0.55/-1.03
Θ(90°)	-0.27/-1.22	-3.88/-0.19	1.17/-3.2	-2.53/-0.75	-2.71/-9.61	-3.51/-0.4	-2.09/-5.24	-7.10/-53	1.38/-1.5	-5.52/-0.96	-4.49/-0.44	-1.82/-3.87	-4.5/-10.91	-14.31/-18.37	-4.16/-5.67	-3.79/-10.81	-3.88/-1.75	-6.7/-2.48	-2.91/-7.52	-3.17/-1.32	0.04/-2.68	-0.29/-2.53	-5.08/-3.99	-2.77/-2.73
Θ(97.5°)	-1.28/-3.41	-10.47/-1.21	0.04/-0.67	-4.35/-3.83	-6.34/-12.36	-4.83/-1.93	-4.03/-5.45	-7.16/-0.65	-0.28/-0.26	-7.81/-10.3	-3.83/-0.77	-1.31/-4.93	-3.64/-10.74	-13.73/-13.7	-4.62/-6.13	-4.83/-6.68	-5.91/-2.3	-9.34/-4.45	-3.44/-9.47	-5.5/-4.33	-1.98/-1.04	-1.76/-4.17	-6.06/-3.76	-7.61/-6.68
Θ(105°)	-3.13/-11.87	-13.29/-2.02	-2.39/-1.99	-5.12/-6.89	-9.34/-10.01	-6.39/-2.72	-7.14/-4.16	-7.28/-1.33	-0.3/-0.16	-6.53/-2.44	-3.28/-2.45	-1.52/-5.28	-5.16/-7.05	-16.41/-18.84	-2.99/-7.1	-6.31/-7.67	-8.79/-4.75	-13.32/-4.96	-5.62/-10.7	-13.7/-15.42	-5.79/-2.64	-4.22/-6.6	-6.32/-3.2	-9.53/-5.88
Θ(112.5°)	-4.1/-13.97	-6.18/-2.42	-2.44/-6.37	-6.54/-6.51	-10.91/-12.02	-7.05/-3.22	-10.91/-5.99	-9.03/-2.73	-3.29/-2.17	-7.78/-13.3	-3.66/-3.77	-3.58/-11.37	-5.37/-9.94	-17.78/-17.1	-11.08/-4.02	-5.68/-7.86	-10.15/-8.17	-7.14/-6.3	-10.31/-8.26	-18.29/-11.93	-14.82/-5.81	-6.24/-8.67	-6.27/-4.47	-5.52/-7.16
Θ(120°)	-6.69/-10.24	-5.33/-6.68	-3.42/-8.82	-11.06/-6.11	-12.05/-9.71	-7.28/-4.15	-11.35/-10.44	-11.77/-7.33	-5.94/-4.49	-8.94/-8.7	-4.22/-8.92	-5.62/-1.94	-8.21/-10.9	-13.87/-15.68	-11.18/-8.6	-5.39/-4.92	-15.84/-12.76	-9.6/-11.81	-17.28/-18.92	-13.91/-6				



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(127°5')	-11.52/-13.48	-17.34/-18.35	-15.46/-11.1	-13.71/-17.13	-19.96/-16.21	-17.43/-19.24	-16.46/-18.78	-14.38/-19.31	-15.14/-15.58	-17.08/-16.62	-19.28/-12.01	-16.12/-16.24	-13.26/-10.88	-11.37/-12.12	-6.53/-11.32	-13.79/-11.24	-12.98/-7.7	-9.97/-14.81	-13.14/-12.46	-16.21/-18.71	-15.34/-18.09	-15.94/-15.18	-15.81/-16.37	-16.98/-15.28
Θ(135°)	-18.15/-17.94	-18.41/-11.72	-13.41/-10.66	-14.85/-18.81	-17.25/-15.98	-16.52/-17.42	-16.62/-14.73	-16.38/-18.32	-17.6/-16.02	-15.11/-11.48	-17.77/-18.41	-17.46/-14.53	-19.38/-8.24	-9.87/-13.82	-14.73/-9.62	-17.43/-7.64	-18.14/-23	-10.33/-18.62	-13.48/-15.27	-18.95/-18.88	-18.73/-14.56	-12.41/-11.58	-14.4/-18.79	-18.96/-18.22
Θ(142.5°)	-11.78/-12.45	-8.53/-9.81	-11.36/-12.67	-18.12/-18.86	-14.69/-15.67	-16.66/-18.63	-17.41/-14.96	-18.11/-16.33	-16.92/-17.99	-17.82/-13.86	-13.74/-15.28	-17.13/-18.07	-17.41/-13.05	-10.41/-14.84	-16.17/-10.88	-11.11/-11.05	-18.16/-19.01	-10.68/-12.97	-15.82/-10.29	-14.76/-15.92	-17.17/-13.86	-13.89/-13.11	-15.5/-18.53	-11.56/-12.12
Θ(150°)	-8.63/-13.16	-10.81/-9.82	-11.62/-16.37	-18.45/-15.11	-13.53/-13.43	-16.75/-18.68	-18.04/-19.21	-17.82/-17.57	-16.49/-16.13	-18.47/-16.12	-18.26/-14.11	-15.09/-15.3	-19.41/-13.29	-11.91/-11.01	-12.45/-17.2	-18.62/-15.19	-15.35/-18.9	-19.21/-15.49	-13.58/-9.78	-13.86/-17.75	-15.97/-16.83	-18.27/-19.34	-14.16/-13.03	-11.08/-9.11
Θ(157°)	-9.62/-12.66	-18.88/-18.52	-19.1/-18.3	-13.87/-10.58	-11.08/-13.22	-19.01/-18.64	-18.84/-18.37	-18.71/-18.71	-18.82/-17.76	-18.75/-15.08	-11.95/-10.33	-10.38/-11.49	-12.41/-17.37	-17.75/-12.3	-15.47/-18.99	-18.22/-18	-19.24/-17.75	-18.72/-18.27	-18.52/-17.97	-19.19/-17.71	-18.36/-17.67	-18.82/-18.87	-18.31/-18.54	-17.71/-11.96
Θ(165°)	-18.15/-17.63	-12.84/-13.19	-12.71/-11.1	-10.99/-11.75	-11.17/-12.41	-14.96/-14.5	-16.06/-16.81	-18.39/-17.29	-17.31/-17.47	-18.16/-17.08	-16.14/-14.36	-13.86/-12.68	-13.67/-17.17	-17.8/-16.78	-17.57/-17.68	-18.3/-14.82	-16.68/-18.27	-17.87/-18.31	-17.2/-19.18	-14.9/-17.94	-18.47/-17.48	-17.62/-17.65	-18.15/-13.46	-13.5/-18.61
Θ(172.5°)	-14.97/-12.25	-9.9/-8.84	-9.15/-9.67	-9.71/-10.46	-12.37/-12.26	-12.12/-15.39	-18.08/-17.37	-18.15/-18.98	-17.75/-18.98	-18.72/-17.86	-18.12/-14.38	-12.03/-12.49	-14.83/-17.38	-18.29/-18.19	-18.05/-17.28	-16.21/-16.47	-15.56/-16	-14.86/-14.74	-18.89/-18.39	-18.02/-18.63	-17.95/-16.47	-14.02/-12.95	-12.78/-11.56	-12.46/-15.38
Θ(180°)	-12.25/-11.54	-9.64/-9.25	-9.96/-11.41	-12.3/-12.39	-11.41/-14.16	-16.48/-14.8	-15.55/-17.88	-18.75/-17.53	-19.29/-17.95	-18.71/-18.12	-17.22/-18.01	-18.43/-18.05	-18.53/-15.89	-14.03/-13.14	-13.97/-15.39	-15.21/-16.18	-18.35/-17.69	-16.98/-18.71	-18.16/-18.84	-18.59/-19.09	-18.55/-17.35	-14.86/-14.99	-13.42/-11.51	-11.38/-12.11
Freq(Hz)	5.2GPol.	Theta/Ant. 2	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-18.84/-17.92	-15.19/-13.03	-12.35/-11.01	-9.34/-9.25	-8.84/-8.04	-7.37/-17.14	-8.84/-7.14	-6.89/-10.13	-9.56/-9.23	-11.96/-12.32	-14.54/-16.78	-15.76/-15.58	-15.93/-13.5	-11.92/-10.81	-9.32/-8.55	-8.23/-8.33	-9.16/-8.76	-7.95/-8.59	-9.56/-8.72	-10.72/-11.82	-10.61/-12.87	-14.16/-13.74	-17.41/-18.97	-17.93/-18.93
Θ(7.5°)	-11.59/-10.9	-9.87/-9.85	-8.8/-9.4	-8.98/-8.98	-9.7/-9.12	-9.19/-9.46	-10.75/-11.17	-9.67/-9.83	-12.78/-11.13	-10.31/-12.15	-12.92/-13.14	-14.33/-17.65	-16.91/-17.58	-12.05/-9.72	-7.94/-6.68	-6.52/-6.23	-5.34/-4.4	-4.47/-4.83	-5.04/-5.56	-5.23/-4.73	-5.8/-7.02	-7.78/-9.36	-10.73/-11.35	-6.59/-8.17
Θ(15°)	-15.22/-17.96	-13.24/-9.71	-7.94/-6.25	-5.16/-4.47	-4.32/-4.87	-6.47/-7.24	-8.16/-9.25	-7.15/-6.23	-8.16/-7.92	-7.7/-8.43	-9.04/-11	-11.61/-11.65	-12.64/-14.46	-15.68/-18.14	-18.65/-14.79	-11.39/-8.86	-7.14/-6.28	-5.2/-2.41	-4.05/-4.26	-4.12/-3.78	-3.23/-2.09	-1.71/-1.99	-2.92/-5	-7.55/-10.8
Θ(22.5°)	-17.67/-16.41	-13.39/-8.83	-6.26/-3.98	-2.11/-1.14	-1.39/-2.35	-5.49/-6.27	-6.72/-7.06	-6.46/-5.94	-6.85/-7	-6.11/-5.73	-5.88/-7.35	-8.06/-7.81	-9.35/-12.48	-16.48/-19.33	-18.88/-14.6	-12.27/-10.71	-7.37/-6.51	-4.23/-3.37	-2.87/-2.16	-1.71/-1.03	-0.5/-0.05	-0.62/-1.06	-3.5/-5.43	-7.74/-13.07
Θ(30°)	-10.84/-12.17	-10.25/-7.27	-1.71/-2.88	-2.83/-3.23	-3.38/-3.31	-4.08/-5.53	-5.52/-6.89	-10.83/-11.16	-12.21/-8.68	-6.95/-6.59	-5.44/-5.01	-5.47/-7.21	-11.22/-16.27	-14.19/-9.77	-7.74/-7.08	-6.7/-4.06	-2.94/-2.61	-2.63/-1.36	-0.54/-0.68	-0.52/-0.38	-0.69/-1.63	-3.22/-5.4	-6.59/-8.17	-1.16/-12.1
Θ(37.5°)	-4.25/-4.51	-4.98/-5.62	-3.65/-1.31	-2.37/-4.93	-4.28/-2.85	-2.85/-2.88	-2.35/-3.33	-6/-5.93	-5.93/-7.28	-6.52/-8.23	-9.31/-10.49	-6.38/-4.33	-3.75/-4.32	-8.52/-18.8	-11.35/-5.9	-3.45/-3.7	-4.31/-4.13	-3.34/-2.6	-1.460/62	2.25/2.72	2.29/1.23	-0.11/-2.23	-4.12/-5.19	-5.37/-4.18
Θ(45°)	-2.15/-1.28	-1.49/-3.92	-2.27/0.3	-1.67/-4.89	-4.64/-3.87	-4.12/-3.41	-3.21/-6.07	-9.27/-6.81	-4.62/-4.57	-4.38/-4.56	-6.68/-4.99	-9.71/-4.14	-2.02/-2.36	-5.72/-17.66	-10.86/-13.1	-1.71/-1.28	-3.85/-4.77	-4.68/-2.12	1.37/2.76	2.42/39	1.86/1.99	1.74/-2.07	-4.24/-9.84	-4.78/-2.74
Θ(52.5°)	-1.82/-2.85	-0.34/-1.42	-1.21/-1.59	-0.31/-3.25	-4.75/-4.49	-4.08/-4.17	-6.07/-6.49	-5.12/-5.01	-3.63/-5.64	-3.89/-3.31	-4.83/-6.65	-7.14/-4.08	-1.91/-1	-3.02/-9.45	-7.25/-3.46	-2.02/-0.73	-2.94/-3.59	-5.08/-2.57	3.16/3.95	2.65/0.79	-0.95/-2.62	-0.66/-0.74	-3.44/-9.09	-7.26/-1.79
Θ(60°)	-0.51/-3.71	-1.74/-0.79	0.36/2.73	0.16/-1.92	-4.28/-6.08	-5.83/-8.18	-7.24/-4.28	-3.16/-2.88	-4.12/-8.22	-7.46/-3.43	-2.23/-3.01	-4.11/-3.15	-2.360/7	-0.52/-6.13	-4.47/-2.31	-0.19/-0.88	-2.4/-2.52	-1.850/0.1	1.252/39	1.3/-0.87	-2.42/-5.34	-4.85/-3.71	-5.4/-8.86	-13.23/-2.05
Θ(67.5°)	1.09/-1.93	-2.73/-0.84	1.11/3.19	-0.77/-0.51	-3.16/-6.79	-11.98/-7.49	-3.97/-3.42	-2.46/-1.28	-3.19/-7.38	-9.01/-2.97	-0.16/-2.09	-3.55/-8.16	-2.74/0.64	0.56/-3.88	-3.68/-1.57	-0.14/-2.32	-3.86/-2.72	-2.11/-0.74	0.38/1.33	0.950/1.2	-1.27/-2.26	-3.83/-5.91	-7.29/-8.42	-17.14/-2.02
Θ(75°)	1.63/-0.18	-3.39/-0.77	1.22/75	-1.53/-0.93	-2.93/-10.31	-9.06/-4.31	-0.84/-3.29	-2.04/-0.74	-1.41/-3.84	-8.49/-4.07	-0.91/-0.51	-4.07/-1.91	-3.51/0.41	-0.48/-3.28	-3.34/-1.83	-0.127/3.49	-5.98/-3.78	-3.02/-2.06	0.51/1.92	2.26/1.11	-1.42/-2.82	-1.37/-4.4	-8.39/-9.06	-11.29/-2.45
Θ(82.5°)	0.93/-0.47	-3.71/-1.11	1.15/1.9	-2.67/-0.98	-3.07/-12.75	-6.84/-3.47	-6.53/-3.94	-1.83/-1.24	-1.01/-4.89	-6.52/-4.98	-1.47/-1.13	-4.81/-1.99	-3.820/43	-0.92/-0.41	-2.74/-3.66	-2.08/-5.04	-7.06/-4.71	-3.61/-1.77	1.67/1.89	2.66/1.51	-2.67/-3.85	-1.38/-3.88	-9.87/-10.37	-9.89/-2.69
Θ(90°)	-0.16/-2.86	-3.58/-2.01	0.7/-0.13	-3.08/-1.1	-4.66/-12.66	-4.73/-2.26	-7.68/-5.3	2.73/-2.3	-1.5/-4.1	-6.25/-5.85	-3.34/-1.45	-4.92/-1.78	-4.6/-1.27	-1.46/-4.92	-3.58/-3.74	-3.29/-4.31	-6.95/-4.38	-3.21/-2.44	-0.02/-1.08	2.71/64	-2.69/-5.74	-3.04/-4.6	-9.72/-10.82	-11.52/-2.49
Θ(97.5°)	-1.63/-5.88	-3.53/-3	0.12/-2.33	-3.06/-1.44	-6.7/-13.62	-4.72/-1.72	-2.57/-2.29	-5.16/-4.09	-2.89/-5.45	-6.23/-6.72	-4.03/-3.14	-2.58/-2.73	-2.75/-6.2	-5.57/-6.9	-4.16/-3.97	-9.56/-6.07	-3.47/-3.21	-2.28/-2.23	0.950/3	-1.94/-6.65	-5.51/-5.9	-1.47/-11.8	-17.79/-18.71	-11.08/-3.29
Θ(105°)	-3.16/-8.83	-4.35/-4.91	-0.96/-4.71	-3.29/-2.39	-10.4/-12.15	-6.13/-1.63	-6.76/-9.05	-7/-7.1	-4.39/-6.5	-7.56/-8.85	-6.72/-4.33	-5.54/-3.54	-7.71/-5.54	-4.55/-6.62	-7.8/-6.77	-5.7/-3.7	-12.43/-7.8	-6.37/-6.27	-5.17/-8.99	-3.82/-3.42	-5.64/-19.22	-7.97/-7.98	-18.21/-12.33	-13.48/-6.56
Θ(112.5°)	-15.74/-12.98	-4.29/-5.99	-2.94/-6.76	-3.55/-3.6	-14.19/-9.22	-8.53/-5.36	-7.62/-10.14	-6.33/-6.88	-8.61/-5.46	-5.6/-9.52	-9.93/-6.51	-7.57/-7.38	-13.1/-7.19	-5.52/-7.48	-10.42/-8.07	-7.41/-5.67	-15.69/-9.36	-10.45/-8.28	-8.14/-15.05	-15.92/-7.22	-10.29/-15.28	-8.64/-13.88	-12.51/-17.7	-13.39/-10.51
Θ(120°)	-18.41/-10.91	-5.77/69	-5.54/-8.35	-4.91/-5.23	-14.28/-10.3	-9.83/-6.64	-11.1/-14.8	-5.96/-7.3	-7.28/-4.4	-3.37/-7.77	-11.95/-9.27	-12.22/-8.11	-17.91/-13.61	-7.66/-7.16	-8.59/-9.39	-13.41/-19.7	-13.68/-12.1	-10.88/-7.87	-6.33/-10.49	-13.93/-4.79	-8.35/-11.85	-17.47/-11.8	-17.79/-18.71	-12.62/-17.82
Θ(127.5°)	-18.86/-11.04	-6.83/-9.42	-11.22/-8.07	-5.73/-8.05	-18.11/-10.47	-7.59/-8.85	-12.12/-11.98	-8.51/-8.89	-9.45/-7.02	-5.56/-6.9	-6.18/-11.21	-13.11/-7.11	-14.15/-13.13	-7.88/-8.2	-13.91/-8.72	-17.55/-11.3	-14.34/-14.81	-10.78/-14.28	-5.92/-11.46	-17.74/-5.66	-4.38/-18.91	-18.63/-7.8	-18.23/-13.63	-18.67/-16.27
Θ(135°)	-19.03/-11.49	-8.82/-12.64	-16.18/-8.83	-6.94/-12.25	-19.03/-10.87	-7.68/-6.27	-8.08/-12.69	-11.33/-11.93	-13.65/-13.93	-10.38/-6.49	-4.73/-7.64	-9.82/-6.7	-6.65/-14.32	-9.29/-12.32	-10.65/-9.89	-14.14/-15.12	-18.73/-15.26	-16.02/-15.73	-11.37/-16.06	-13.41/-17.64	-12.43/-11.35	-17.46/-15.63	-18.13/-12.12	-18.97/-13.11
Θ(142.5°)	-12.4/-15.75	-17.03/-16.43	-13.48/-10.36	-11.64/-18.58	-9.91/-6.77	-8.98/-11.8	-13.56/-18.79	-14.33/-15.19	-9.83/-12.08	-13.05/-9.08	-10.43/-7.45	-6.94/-7.5	-13.82/-16.69	-13.77/-18.02	-9.49/-14.74	-19.2/-12.86	-17.99/-15.22	-19.11/-12.39	-17.86/-18.81	-17.24/-19.21	-10.41/-9.56	-15.4/-10.7	-13.36/-13.53	-19.22/-10.66
Θ(150°)	-12.13/-17.34	-14.6/-14.15	-13.81/-17.75	-18.47/-17.84	-9.91/-7.75	-7.27/-9.93	-18.99/-18.67	-18.16/-13.27	-13.78/-13.04	-13.64/-17.71	-16.34/-16.56	-15.28/-14.34	-15.35/-18.7	-17.9/-19.51	-11.77/-18.88	-18.37/-18.56	-19.12/-18.72	-17.45/-15.9	-18.29/-18.53	-12.13/-10.45	-12.01/-13.53	-18.77/-18.54	-16.17/-17.19	-15.16/-10.07
Θ(157.5°)	-18.91/-18.77	-17.75/-17.25	-18.5/-18.09	-14.83/-16.53	-11.73/-8.81	-7.88/-6.91	-13.09/-16.91	-15.35/-15.05	-11.36/-10.42	-10.4/-9.34	-10.94/-13.24	-13.66/-14.82	-13.07/-12.21	-17.96/-17.85	-19.07/-18.31	-18.5/-18.7	-19.47/-19.01	-15.08/-17.01	-14.72/-11.39	-14.45/-18.39	-18.67/-13.78	-13.78/-16.92	-17.31/-18.69	-18.66/-16.21
Θ(165°)	-16.19/-16.78	-18.31/-19.36	-15.15/-16.1	-14.32/-12.98	-14.13/-11.46	-11.62/-15.08	-14.86/-17.52	-18.16/-17.82	-17.47/-18.67	-16.85/-12.57	-12.95/-11.37	-17.36/-18.93	-18.8/-18.08	-18.92/-19.13	-17.58/-18.97	-17.73/-17.14	-13.15/-13.7	-15.29/-15.3	-18.39/-19.1	-14.08/-16.67	-15.01/-17.84	-18.83/-17.29	-18.66/-16.21	-18.66/-16.21
Θ(172.5°)	-18.98/-17.83	-17.95/-15.97	-13.05/-11.84	-12.28/-11.91	-10.72/-11.65	-12.41/-10.37</																		



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(180°)	-15.24/-16.52	-18.66/-17.89	-19.11/-15.83	-18.48/-19.13	-18.03/-18.37	-19.18/-18.71	-19.34/-17.72	-18.49/-18.29	-17.64/-15.63	-15.61/-12.24	-12.13/-13.62	-15.23/-18.67	-18.05/-18.64	-18.07/-16.9	-16.12/-14.81	-14.99/-18.44	-18.18/-18.93	-19.06/-18.3	-18.18/-18.54	-18.39/-18.27	-17.34/-17.28	-14.4/-13.02	-14.52/-13.66	-11.88/-12.36
Freq(Hz)	5.6GPol.	ThetaAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(15°)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°)	-17.69/-19.02	-17.65/-19.06	-13.78/-12.8	-11.26/-10.84	-10.86/-9.8	-8.96/-8.47	-9.53/-7.77	-9.07/-10.56	-9.19/-12.13	-13.9/-14.04	-18.36/-17.65	-17.56/-18.04	-18.12/-16.44	-14.98/-13.33	-11.94/-11.54	-11.5/-9.6	-7.98/-8.34	-8.73/-7.22	-7.72/-8.33	-6.47/-8.73	-9.34/-8.04	-10.85/-11.18	-11.12/-15.89	-18.74/-18.23
Θ(7.5°)	-14.5/-12.94	-12.51/-10.08	-8.65/-8.08	-6.85/-6.49	-7.24/-6.19	-6.48/-5.94	-6.42/-6.91	-6.34/-7.57	-8.17/-7.57	-10.64/-11.2	-11.26/-14.03	-12.99/-13.86	-17.53/-14.66	-15.93/-17.07	-15.22/-14.5	-13.61/-11.83	-9.69/-8.13	-7.53/-8.03	-7.01/-7.29	-10.36/-9	-10.47/-14.46	-14.1/-18.24	-17.48/-17.3	-18.9/-18.19
Θ(15°)	-18.38/-17.59	-18.01/-14.3	-9.88/-7.59	-6.17/-6.32	-7.5/-9.5	-6.73/-7.71	-6.77/-7.08	-5.76/-7.68	-8.25/-7.93	-9.29/-8.92	-9.64/-12.1	-15.34/-17.6	-16.84/-15.12	-13.48/-14.39	-13.03/-11.86	-10.39/-7.75	-5.7/-4.48	-3.34/-2.84	-2.38/-1.25	-1.46/-1.86	-1.92/-3.16	-4.29/-5.53	-8.08/-10.91	-13.62/-16.91
Θ(22.5°)	-12.89/-13.12	-10.31/-7.96	-5.08/-4.33	-4.88/-8.41	-11.76/-8.38	-5.93/-4.72	-5.68/-6.93	-7.52/-10.53	-16.64/-17.47	-15.52/-8.98	-6.99/-6.67	-6.57/-9.13	-11.03/-12.65	-13.94/-17.4	-19.37/-13.29	-9.01/-5.85	-4.56/-4.86	-4.97/-4.28	-3.55/-7.16	-2.73/-3.74	-3.71/-4.16	-4.27/-4.12	-5.3/-7.84	-11.27/-11.9
Θ(30°)	-8.08/-12.15	-10.91/-4.74	-1.92/-1.67	-4.23/-8.3	-6.31/-3.76	-4.59/-7.8	-9.68/-9.84	-6.99/-6.6	-8.76/-8	-12.85/-13.06	-14.36/-7.97	-7.46/-7.37	-4.72/-4.9	-7.57/-12.7	-19.72/-12.01	-8.56/-4.67	-6/-5.7	-4.55/-2.12	-1.24/-0.34	0.12/-1.08	0.03/6	-1.28/-2.16	-5.06/-6.16	-6.1/-8.42
Θ(37.5°)	-3.91/-6.3	-11.39/-5.43	-3.12/-3.32	-4.5/-5.26	-3.73/-3.74	-7.66/-8.7	-9.66/-9.58	-7.48/-6.44	-7.5/-8.88	-10.59/-15.46	-14.95/-9.21	-4.42/-2.53	-4.94/-15.12	-10.67/-6.95	-5.05/-3.87	-4.33/-4.55	-0.98/-0.19	-0.59/-0.71	1.15/-63	2.21/-46	-0.62/-2.24	-3.53/-6.34	-5.87/-3.76	
Θ(45°)	-1.18/-1.98	-5.31/-5.42	-1.2/-2.2	-3.72/-5.08	-5.41/-3.48	-3.03/-5.14	-7.08/-4.15	-2.78/-2.98	-5.35/-6.39	-4.73/-3.56	-2.33/-3.63	-4.39/-3.99	-3.48/-1.14	-2.32/-0.97	-7.07/-2.81	-3.46/-2.28	-1.58/-0.68	0.01/-0.39	-0.14/-1.68	2.94/-03	4.58/-4.51	2.79/-0.36	-3.82/-4.95	-2.83/-1.46
Θ(52.5°)	-0.58/-0.04	-2.45/-2.83	1.42/-0.1	-1.79/-4.34	-6.25/-1.59	-4.04/-5.44	-4.18/-3.3	-2.43/-2.46	-5.83/-7.04	-4.79/-4.13	0.14/-1.07	-2.88/-1.14	-0.26/-0.35	-1.13/-4.72	-4.17/-1.02	-1.37/-0.5	-0.35/-0.6	0.99/-0.59	2.43/-6.24	2.091/-86	0.69/-0.46	0.43/-0.37	-1.96/-4.7	-0.77/-0.34
Θ(60°)	-0.23/-0.18	-1.57/-1.58	3.52/-1.09	-1.74/-4.68	-4.09/-4.97	-4.84/-2.58	-4.73/-3.28	-0.57/-0.24	-4.57/-8.19	-6.82/-3.73	-0.95/-0.53	-4.41/-3.25	-0.22/-0.09	-1.34/-2.34	-3.09/-0.22	-1.02/-0.01	-0.31/-0.44	0.33/-0.27	1.571/-94	1.63/-0.7	6.15/-13.77	-5.83/-1.44	-0.55/-5.11	-0.11/-0.09
Θ(67.5°)	0.26/-0.07	-0.97/-2.04	3.82/-0.54	-2.19/-4.19	-5.28/-5.74	-0.85/-3.28	-6.59/-1.77	0.62/-1.15	-6.48/-10.48	-5.35/-4.54	-2.71/-1.38	-3.76/-5.89	-0.72/-0.44	-1.18/-3.08	-2.49/-0.12	0.43/-1.07	-0.74/-1.49	-0.99/-0.44	1.752/-39	2.390/-93	-1.98/-3.53	-2.61/-1.45	-1.85/-5.88	-2.60/-0.2
Θ(75°)	0.86/-0.8	-1.26/-2.24	2.87/-1.13	-2.3/-2.98	-5.63/-4.47	-0.27/-2.42	-2.96/-1.04	-0.55/-1.95	-6.43/-7.76	-5/-3.03	-4.42/-6.35	-1.25/-5.17	-3.08/-1.36	-0.48/-2.35	-2.68/-1.71	0.09/-0.35	-1.76/-4.33	-3.68/-0.32	2.393/-73	4.09/-28	-0.24/-0.44	-0.38/-2.16	-4.12/-6.68	-4.21/-0.4
Θ(82.5°)	0.18	-1.34/-2.25	1.34/-3.91	-2.6/-3	-5.55/-3.58	-0.19/-2.97	-1.42/-1.69	-2.06/-4.14	-7.03/-8.33	-5.45/-2.46	-3.21/-4.97	-1.42/-4.81	-0.50/-2.76	0.13/-4.78	-4.13/-1.97	-0.84/-0.72	-3.45/-6.39	-3.18/-0.73	1.725/-51	5.81/-82	-1.21/-0.98	-1.68/-3.01	-7.67/-8.49	-5.13/-1.04
Θ(90°)	-0.96/-0.94	-1.6/-1.59	-1.04/-7.35	-2.07/-4.37	-5.27/-3.51	-0.15/-3	-1.64/-4.13	-2.45/-3.16	-6.1/-5.74	-8.22/-3.29	-3.51/-4.11	-2.92/-3.77	-4.74/-3.19	-0.2/-2.88	-5.42/-3.99	-1.92/-1.25	-4.59/-6.26	-4.46/-2.21	1.172/-98	4.83/-2.55	-2.08/-2.31	-3.07/-5.06	-18.94/-11.58	-5.71/-2.76
Θ(97.5°)	-2.63/-0.19	-3.04/-1.55	-2.92/-7.21	-2.22/-6.99	-4.97/-3.7	-1.63/-4.25	-3.38/-5.81	-3.44/-4.15	-5.55/-6.6	-6.78/-4.73	-4.23/-4.76	-2.48/-4.78	-5.39/-4.57	-1.29/-4.14	-4.58/-6.1	-3.87/-2.47	-5.61/-5.83	-5.12/-3.68	-1.46/-0.11	3.071/-24	-1.7/-5.24	-6.71/-9.95	-1.71/-11.41	-6.11/-3.5
Θ(105°)	-4.36/-4.42	-3.77/-4.45	-5.27/-6.8	-2.43/-9.3	-5.45/-3.7	-3.64/-4.5	-4.3/-7.23	-7.14/-94	-5.85/-6.6	-6.52/-4.1	-4.49/-6.88	-3.95/-5.24	-6.03/-6.81	-0.58/-4.55	-6.13/-5.59	-6.02/-2.12	-6.62/-6.26	-9.91/-6.09	-2.73/-9.2	-6.66/-1.69	-1.99/-15.66	-5.66/-1.96	-14.77/-17.23	-6.42/-6.32
Θ(112.5°)	-6.65/-6.2	-8.56/-6.18	-8.34/-9.28	-3.68/-11.83	-6.55/-3.8	-4.77/-4.37	-6.24/-9.5	-7.57/-6.16	-7.71/-10.67	-10.39/-4.78	-4.94/-9.24	-4.13/-6.46	-5/-7.02	-3.45/-5.46	-6.88/-9.44	-10.79/-5.11	-6.91/-5.05	-16.45/-5.76	-6.79/-13.4	-8.96/-4.38	-5.17/-9.16	-14.37/-16.17	-13.01/-14	-5.66/-6.35
Θ(120°)	-6.69/-14	-8.57/-9.6	-14.16/-10.98	-5.58/-13.49	-8.38/-4.46	-5.51/-4.78	-6.45/-14.8	-9.4/-6.49	-7.36/-14.59	-12.04/-5.11	-5.78/-7.39	-6.99/-6.96	-3.89/-8.3	-6.23/-7.58	-5.95/-8.78	-13.78/-9.4	-4.94/-9.39	-14.62/-4.6	-6.36/-5.54	-9.97/-3.59	-2.8/-4.94	-18.81/-17.49	-10.99/-12.23	-6.9/-8.55
Θ(127.5°)	-17.66/-12.6	-12.74/-13.02	-14.89/-8.8	-10.47/-19.04	-7.64/-7.18	-8.8/-6.27	-5.07/-11.57	-14.01/-6.53	-6.67/-16	-8.95/-7	-7.5/-5.71	-14.67/-4.23	-6.32/-8.07	-16.84/-7.43	-6.32/-8.07	-5.26/-11.75	-18.17/-1.54	-8.42/-9.11	-12.82/-6.62	-2.63/-16.38	-12.78/-18.64	-8.07/-16.98	-10.46/-18.06	
Θ(135°)	-16.7/-16.77	-12.67/-17.82	-9.93/-6.23	-10.12/-17.99	-7.52/-5.88	-9.16/-8.94	-7.63/-12.14	-17.86/-11.25	-9.64/-9.28	-10.56/-10.69	-10.24/-8.46	-9.04/-14.46	-8.42/-11.44	-18.89/-10.59	-5.41/-8.78	-17.73/-16.95	-13.23/-6.26	-17.91/-9.92	-14.15/-12.48	-9.57/-10.37	-8.16/-14.46	-17.34/-16.34	-11.55/-18.7	-18.49/-18.66
Θ(142.5°)	-14.49/-17.84	-18.42/-12.21	-7.63/-8.66	-18.69/-10.59	-5.87/-5.39	-9.95/-9.76	-7.28/-9.41	-14.46/-13.9	-12.10/-7.4	-8.02/-6.07	-11.42/-9.47	-16.98/-12.22	-13.67/-16.11	-14.54/-16.98	-12.22/-17.76	-18.19/-18.32	-14.94/-12.05	-17.91/-17.76	-18.19/-18.32	-17.33/-12.32	-13.56/-12.1	-14.43/-16.08	-14/-18.41	-18.97/-18.75
Θ(150°)	-18.2/-17.61	-11.24/-11.05	-17.11/-18.43	-9.08/-2.53	-6.02/-9.91	-13.58/-13.27	-10.56/-9.58	-13.25/-18.49	-14.55/-11.19	-12.73/-10.99	-11.05/-9.74	-9.8/-8.64	-10.32/-15.03	-17.59/-15.83	-19.39/-13.5	-10.31/-16.13	-17.16/-18.38	-15.57/-17.98	-12.43/-11.59	-19.1/-13.8	-11.71/-11.69	-13.61/-13.62	-18.45/-18.85	-14.13/-16.34
Θ(157.5°)	-14.99/-18.47	-18.7/-18.08	-19.23/-16.2	-11.06/-9.66	-9.19/-13.15	-18.16/-15.19	-10.78/-8.84	-10.34/-8.83	-10.13/-11.8	-14.17/-18.67	-15.17/-15.16	-17.22/-17.57	-13.92/-11.49	-11.2/-14.11	-15.93/-14.32	-18.88/-19.08	-15.82/-13.7	-13.35/-14.03	-14.04/-13.32	-11.39/-10.66	-11.81/-15.25	-19.17/-19.48	-14.66/-11.45	-17.59/-18.48
Θ(165°)	-17.68/-18.4	-17.8/-14.57	-16.85/-14.58	-14.37/-16.22	-16.89/-13.92	-14.89/-14.01	-10.9/-8	-9.35/-9.66	-10.78/-8.28	-8.53/-9.09	-11.39/-14	-13.1/-15.26	-16.59/-14.07	-12.7/-17.11	-17.34/-18.23	-18.11/-16.61	-17.76/-15.99	-18.71/-16.62	-16.21/-15.31	-13.74/-9.06	-8.48/-7.04	-8.02/-10.72	-12.44/-13.82	-18.81/-17.99
Θ(172.5°)	-18.54/-18.19	-19.18/-17	-16.75/-13.63	-14.8/-16.82	-14.16/-16.27	-18.92/-18.95	-19.16/-19.01	-17.98/-17.95	-16.93/-17.46	-17.47/-17.62	-16.32/-16.91	-13.77/-12.23	-12.07/-13.82	-14.66/-16.87	-18.06/-18.62	-19.08/-18.46	-16.45/-15.41	-15.35/-13.53	-11.66/-11.09	-12.57/-15.68	-11.73/-15.88	-17.52/-19.35	-18.84/-17.68	
Θ(180°)	-17.49/-17.92	-18.55/-19.16	-18.98/-17.97	-17.13/-17.56	-18.57/-18.93	-17.86/-17.88	-18.91/-18.04	-18.23/-14.94	-14.04/-14.14	-14.12/-17.82	-18.11/-18.05	-19.02/-18.99	-17.91/-17.85	-18.42/-18.91	-17.82/-18.71	-19/-18.42	-18.43/-17.9	-17.7/-17.08	-17.23/-15.59	-16.05/-16.4	-17.16/-17.95	-18.41/-18.33	-19/-19.24	-19.26/-18.47
Freq(Hz)	5.785GPol.	PhiAnt. 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(15°)Φ(7.5°)	Φ(15°)Φ(22.5°)	Φ(30°)Φ(37.5°)	Φ(45°)Φ(52.5°)	Φ(60°)Φ(67.5°)	Φ(75°)Φ(82.5°)	Φ(90°)Φ(97.5°)	Φ(105°)Φ(112.5°)	Φ(120°)Φ(127.5°)	Φ(135°)Φ(142.5°)	Φ(150°)Φ(157.5°)	Φ(165°)Φ(172.5°)	Φ(180°)Φ(187.5°)	Φ(195°)Φ(202.5°)	Φ(210°)Φ(217.5°)	Φ(225°)Φ(232.5°)	Φ(240°)Φ(247.5°)	Φ(255°)Φ(262.5°)	Φ(270°)Φ(277.5°)	Φ(285°)Φ(292.5°)	Φ(300°)Φ(307.5°)	Φ(315°)Φ(322.5°)	Φ(330°)Φ(337.5°)	Φ(345°)Φ(352.5°)
Θ(0°)	-6.79/-7.01	-7.64/-8.93	-10.14/-9.89	-10.69/-11.66	-13.29/-14.22	-15.06/-15.86	-14.39/-15.06	-16.45/-11.94	-11.92/-12.51	-10.03/-10.19	-9.14/-8.88	-9.11/-7.6	-6.59/-7	-8.08/-8.5	-8.81/-8.8	-11.34/-12.91	-15.78/-18.05	-19.15/-16.53	-16.34/-15.59	-9.77/-10.39	-9.18/-7.26	-7.36/-6.27	-5.94/-6.21	-6.07/-6.53
Θ(7.5°)	-8.39/-8.28	-9.37/-10.1	-10.47/-10.32	-12.48/-14.75	-16.5/-19.17	-18.18/-19.07	-15.23/-13.13	-10.43/-8.54	-6.75/-6.37	-5.55/-4.93	-5.15/-5.22	-5.45/-5.19	-5.15/-5.92	-6.98/-7.77	-8.58/-9.43	-10.23/-10.46	-10.48/-11.99	-16.37/-13.9	-15.56/-17.66	-19.21/-18.62	-18.02/-17.89	-13.45/-13.66	-12.1/-10.47	-9.8/-9.39
Θ(15°)	-10.73/-10.53	-11.66/-13.08	-14.88/-16.12	-13.31/-10.42	-10.23/-10.12	-12.57/-18.26	-15.65/-11.58	-8.6/-29	-5.27/-4.71	-4.49/-4.15	-4.11/-5.1	-4.89/-3.53	-3.92/-4.47	-4.88/-3.77	-6.39/-7.09	-7.66/-8	-8.61/-9.23	-11.64/-12.58	-15.34/-18.83	-15.89/-9.81	-6.74/-6.47	-5.39/-5.74	-6.66/-6.7	-8.11/-9.9
Θ(22.5°)	-4.76/-6.16	-7.21/-8.02	-10.58/-17.82	-13.15/-8.42	-6.88/-7.56	-11.22/-15.09	-12.15/-10.65	-8.56/-4.44	-5.18/-5.19	-5.75/-7.62	-6.71/-7.46	-6.39/-4.27	-4.04/-4.14	-4.65/-4.66	-4.64/-4.66	-5.07/-6.32	-7.94/-7.51	-7.04/-8.19	-10.4/-15.02	-17.81/-13.49	-10.63/-10.37	-8.51/-5.7	-4.07/-3.56	-3.04/-3.51
Θ(30°)	-2.78/-4.57	-6.46/-5.89	-7.43/-10.92	-13.46/-8.82	-7.34/-8.27	-10.41/-10.24	-9.78/-13.67	-10.31/-8.32	-6.23/-6.64															



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(22.5°)	-7.78/-8.39	-8.99/-9.34	-9.4/-9.42	-9.8/-10.59	-11.54/-12.73	-14.57/-17.1	-18.92/-17.94	-18.7/-18.98	-17.28/-13.92	-10.35/-7.55	-5.53/-4.15	-3.18/-2.42	-2/-1.91	-2.2/-2.69	-3.31/-4.09	-5.13/-6.34	-7.56/-8.78	9.73/-10.36	-11.2/-12.27	-13.97/-15.34	-13.49/-10.55	-8.66/-7.68	-7.1/-6.69	-7/-7.37
Θ(30°)	-4.44/-5.32	-6.34/-7.28	-7.96/-8.31	-8.74/-9.54	-10.46/-11.48	-12.61/-13.36	-12.83/-11.94	-11.36/-11.48	-12.51/-12.81	-10.86/-8.05	-5.64/-3.71	-2.23/-1.06	-0.29/0	-0.05/-0.27	-0.69/-1.5	-2.75/-4.13	-5.56/-6.87	-8.19/-9.31	-9.98/-10.25	-10.29/-9.4	-7.64/-5.81	-4.54/-3.78	-3.34/-3.17	-3.31/-3.74
Θ(37.5°)	-2.82/-3.72	-4.61/-5.48	-6.26/-6.71	-6.98/-7.4	-8.26/-8.39	-8.9/-9.2	-8.73/-7.89	-7.27/-7.52	-1.76/-0.86	-7.76/-6.32	-4.75/-3.23	-0.47/0.88	0.92/0.85	0.47/-0.38	-1.65/-2.96	-4.16/-5.15	-6.17/-6.43	-8.64/-9.33	-8.82/-7.26	-11.21/-10.5	-1.71/-1.76	-1.21/-1.05	-1.21/-1.04	-1.21/-1.94
Θ(45°)	-2.55/-3.12	-3.55/-4.15	-4.8/-5.05	-4.95/-4.82	-4.79/-4.79	-4.84/-5.04	-5.27/-5.36	-5.3/-5.44	-5.69/-5.53	-4.83/-3.82	-2.94/-2.27	-1.54/-0.46	0.47/1.93	2.98/1.85	0.51/-0.24	-1.29/-2.29	-2.91/-3.2	-3.78/-5.24	-7.85/-10.5	9.2/-6.29	-4.3/-2.89	-1.65/-0.7	-0.13/-0.08	-0.58/-1.56
Θ(52.5°)	-3.41/-3.21	-3.05/-3.41	-3.88/-3.89	-3.48/-3.13	-2.82/-2.53	-2.32/-2.41	-2.99/-4.07	-5.11/-5.47	-6.26/-4.5	-3.42/-2.35	-1.47/-1.05	-0.9/-0.36	0.37/0.71	0.53/0.11	-0.39/-1.08	-1.84/-2.31	-2.23/-2.1	-2.71/-4.85	-9.06/-11.74	-7.45/-4.41	-2.81/-1.87	-1.15/-0.61	-0.28/-0.4	-1.26/-2.64
Θ(60°)	-4.51/-5.4	-2.99/-3.25	-3.69/-3.64	-3.24/-2.77	-2.33/-1.73	-1.24/-1.16	-1.97/-3.8	-5.91/-6.72	-6.13/-4.94	-3.43/-1.99	-0.87/-0.29	-0.54/-0.69	-0.13/0.27	0.03/-0.55	-1.14/-1.57	-1.88/-1.85	-1.39/-1.11	-1.85/-4.25	-8.4/-9.46	-6.03/-3.95	-3.02/-2.57	-2.12/-1.67	-1.37/-1.61	-2.67/-1.49
Θ(67.5°)	-5.39/-3.96	-3.39/-3.81	-4.45/-4.61	-4.33/-3.8	-3.19/-2.37	-1.62/-1.63	-2.94/-5.68	-8.9/-9.47	-7.21/-4.99	-3.21/-1.75	-0.55/-0.03	-0.63/-1.54	-1.36/-1.02	-1.27/-1.76	-1.95/-1.75	-1.42/-0.97	-0.39/-0.12	-0.79/-3.17	-7.57/-9.29	-6.28/-4.58	-3.95/-3.48	-2.56/-1.75	-1.53/-2.11	-3.5/-5.28
Θ(75°)	-7.09/-5.31	-4.99/-5.88	-6.77/-6.95	-6.34/-5.26	-4.61/-3.96	-3.08/-3.34	-5.5/-10.06	-15.87/-16.11	-10.3/-5.74	-3.23/-1.83	-0.8/-0.12	-0.62/-2.17	-2.98/-2.78	-2.87/-3.29	-3.3/-2.8	-2.17/-1.46	-0.66/-0.13	-0.67/-3.24	-8.55/-9.57	-5.65/-3.94	-3.63/-3.53	-2.87/-2.16	-2.14/-3.19	-5.3/-7.58
Θ(82.5°)	-5.68/-4.38	-4.65/-6	-7.05/-7.12	-6.07/-4.55	-4.01/-3.97	-3.57/-4.41	-7.6/-13.54	-15.22/-13.97	-11.55/-6.34	-3.45/-2.2	-1.34/-0.7	-1.15/-2.96	-4.28/-4.17	-3.85/-3.77	-3.45/-2.87	-2.14/-1.54	-0.98/-0.68	-1.58/-4.68	-10.35/-9.35	-5.46/-4	-4.08/-4.6	-4.18/-3.27	-3.04/-4.19	-6.27/-1.11
Θ(90°)	-4.37/-3.52	-4.44/-6.7	-8.25/-8.13	-6.53/-4.69	-4.31/-4.66	-4.77/-6.11	-9.94/-14.51	-12.81/-10.33	-7.8/-4.74	-2.67/-2	-1.78/-1.48	-1.82/-3.43	-5.13/-5.18	-4.35/-3.81	-3.22/-2.39	-1.71/-1.35	-1.16/-1.14	-2.27/-5.64	-12.2/-10.39	-5.93/-4.26	-4.32/-4.66	-3.81/-2.75	-2.55/-3.61	-5.2/-5.57
Θ(97.5°)	-4.76/-3.98	-5.47/-9.04	-11.26/-9.5	-6.1/-3.99	-4.04/-5.22	-6.05/-7.68	-10.82/-12.78	-11.93/-9.95	-7.06/-4.27	-2.64/-2.65	-3.55/-3.83	-3.75/-4.36	-5.35/-5.15	-4.49/-3.91	-3.02/-1.99	-1.61/-1.59	-1.47/-1.47	-2.89/-7.1	-15.84/-9.59	-5.31/-3.82	-3.68/-3.47	-2.9/-2.52	-2.82/-3.48	-6.27/-6.36
Θ(105°)	-5.57/-4.78	-6.59/-11.65	-17.19/-13.58	-7.91/-4.57	-4.24/-5.68	-6.86/-7.85	-9.42/-10.76	-10.72/-8.67	-5.9/-3.8	-3.01/-4.12	-6.73/-7.45	-5.91/-5.05	-5.67/-6.12	-6.07/-5.74	-4.37/-3.22	-3.38/-3.92	-4.01/-4.12	-6.02/-12.51	-16.31/-7.6	-4.66/-3.37	-3.18/-3.45	-4.08/-5.99	-8.16/-7.71	
Θ(112.5°)	-7.84/-7.91	-9.89/-14.09	-18.16/-17.32	-10.6/-5.33	-4.3/-5.8	-8.21/-10.45	-12.66/-14.09	-12.63/-9.04	-5.74/-3.68	-3.48/-5.8	-8.83/-8.22	-6.4/-5.17	-5.72/-7.02	-7.94/-6.8	-4.42/-3.87	-5.35/-6.94	-7.25/-7.84	-10.76/-15.08	-10.61/-6.8	-4.91/-3.69	-3.08/-3.27	-4/-4.69	-5.48/-6.94	-8.63/-8.82
Θ(120°)	-10.82/-10.96	-10.02/-10.7	-12.99/-15.18	-10.93/-9.53	-4.37/-5.25	-7.52/-10.32	-13.05/-15.68	-13.71/-9.24	-4.78/-6.82	-7.79/-7.57	-7.64/-6.81	-7.5/-9.53	-10.53/-7.55	-6.68/-4.5	-5.62/-8.92	-9.55/-9.75	-11.63/-15.19	-13.09/-9.61	-7.76/-6.52	-5.58/-5.2	-5.46/-5.92	-6.37/-7.04	-4.58/-14.82	
Θ(127.5°)	-12.76/-13.99	-13.99/-15.26	-18.18/-15.61	-19.09/-12.14	-9.48/-9.71	-11.15/-12.57	-14.38/-17.53	-14.81/-10.04	-7.3/-6.49	-7.35/-8.89	-9.12/-9.98	-9.17/-8.1	-8.08/-9.13	-7.99/-5.78	-5.11/-7.02	-11.69/-17.32	-19.52/-19.15	-17.71/-18.7	-12.51/-10.05	-9.35/-8.66	-7.41/-6.44	-6.33/-6.65	-7.09/-7.72	-8.94/-10.72
Θ(135°)	-14.61/-18.61	-18.16/-18.6	-19.11/-18.75	-18.93/-17.6	-17.69/-19.19	-18.56/-17.41	-18.37/-17.75	-19.26/-14.32	-12.09/-11.88	-13.07/-13.46	-13.54/-18.09	-17.4/-11.08	-9.28/-8.6	-7.34/-6.17	-6.4/-8.37	-11.1/-13.14	-15.39/-16.74	-16.52/-14.5	-12.51/-11.89	-11.65/-10.86	-9.69/-8.95	-9.11/-9.59	-10.09/-10.65	-11.38/-12.56
Θ(142.5°)	-13.45/-13.86	-16.15/-19.41	-18.34/-18.47	-19.44/-15.73	-15.56/-15.94	-18.14/-18.76	-17.79/-13.35	-18.36/-19.15	-17.76/-15.11	-18.12/-16.64	-16.56/-19.23	-17.87/-15.8	-13.32/-12.19	-11.77/-12.11	-13.38/-14.18	-14.24/-15.64	-17.82/-16.67	-17.82/-19.07	-18.15/-18.52	-17.91/-17.65	-17.35/-16.01	-16.12/-16.28	-17.72/-14.2	-15.91/-14.52
Θ(150°)	-12.42/-12.13	-14.16/-18.98	-18.37/-18.17	-14.25/-12.46	-11.93/-12.29	-13.53/-16	-12.37/-17.26	-18.43/-16.43	-15.05/-14.97	-18.71/-16.85	-16.81/-16.24	-15.01/-14.1	-13.98/-14.45	-14.75/-13.61	-11.22/-9.37	-8.47/-8.57	-9.35/-10.45	-11.63/-12.33	-12.99/-14.08	-15.57/-17.61	-15.62/-18.18	-17.2/-18.2	-17.97/-18.89	-18.21/-14.51
Θ(157.5°)	-15.78/-17.18	-18.18/-18.68	-16.18/-11.6	-9.08/-7.82	-7.42/-7.67	-8.77/-10.95	-15.25/-18.07	-18.77/-14.67	-12.43/-11.66	-11.9/-12.7	-13.42/-13.81	-14.12/-14.7	-15.63/-16.25	-15.01/-12.21	-9.52/-7.74	-6.93/-6.8	-7.1/-7.79	-8.96/-10.54	-12.41/-14.81	-17.82/-18.04	-17.88/-18.65	-17.05/-16.24	-16.12/-16.36	-16.36/-15.86
Θ(165°)	-18.87/-18.74	-17.74/-14.14	-10.89/-8.76	-7.38/-6.65	-6.41/-5.66	-7.18/-6.64	-11.28/-15.36	-18.05/-18.68	-17.58/-16.04	-15.77/-16.5	-17.59/-18.84	-18.51/-17.84	-18.98/-18.53	-18.67/-16.42	-14.09/-12.34	-11.51/-11.38	-11.79/-12.59	-14.18/-16.53	-17.58/-17.94	-18.08/-18.31	-19.04/-19.74	-18.29/-17.59	-17.43/-18.29	-19.25/-18.2
Θ(172.5°)	-18.25/-16.76	-13.73/-11.65	-10.21/-9.13	-8.54/-8.32	-8.42/-8.63	-8.98/-9.82	-11.19/-12.96	-15.34/-17.87	-18.56/-17.83	-18.78/-18.85	-18.5/-18.91	-18.68/-18.15	-18.05/-18.24	-18.69/-17.54	-17.84/-19.38	-18.35/-18.75	-18.69/-18.26	-18.85/-18.04	-16.5/-15.73	-15.17/-14.74	-14.72/-15.13	-16.12/-14.73	-18.48/-18.87	-18.56/-18.26
Θ(180°)	-16.41/-14.87	-13.44/-12.5	-11.94/-11.6	-11.49/-11.8	-12.33/-12.75	-12.94/-13.05	-13.2/-13.42	-13.94/-14.78	-15.57/-16.04	-16.78/-16.07	-15.63/-15.24	-15.1/-15.12	-15.47/-16	-16.4/-16.37	-16.55/-17.3	-18.33/-18.28	-16.95/-15.34	-13.76/-12.52	-11.64/-11.35	-11.59/-11.74	-11.81/-12.15	-12.9/-14.12	-15.5/-16.54	-17.58/-17.3
Freq(Hz)	5.2GPol	PhiAnt.3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-11.97/-14.34	-17.05/-18.46	-19.21/-17.38	-17.78/-17.85	-16.52/-14.16	-11.84/-9.65	-7.89/-6.91	-6.24/-5.61	-5.09/-4.79	-5/-5.32	-5.39/-5.71	-6.43/-7.41	-8.67/-10.38	-13/-16.59	-18.13/-17.21	-19.06/-14.38	-11.89/-9.86	-8.35/-7.5	-6.83/-6.29	-6.04/-5.83	-6.16/-6.48	-6.65/-7.05	-7.47/-8.36	-9.2/-10.44
Θ(7.5°)	-7.43/-9.92	-12.4/-15.98	-18.86/-16.63	-18.52/-13.95	-11.54/-9.14	-7.71/-7.02	-6.22/-6.13	-6.45/-6.86	-7.17/-7.8	-8.34/-8.96	-9.62/-10.75	-11.94/-13.09	-14.54/-14.86	-15.69/-17.13	-18.65/-18.38	-19.21/-18.48	-17.78/-18.13	-15.87/-13.64	-10.98/-8.7	-6.79/-5.21	-4.71/-4.19	-3.65/-3.57	-3.59/-3.97	-4.58/-8.72
Θ(15°)	-4.02/-5.97	-8.67/-13.94	-18.3/-18.89	-18.86/-17.33	-15.65/-14.12	-12.69/-9.64	-6.68/-5.02	-3.76/-3.22	-3.2/-3.78	-4.69/-5.94	-10.21/-11.47	-13.16/-16.07	-17.8/-17.76	-19.39/-13.55	-11.5/-10.95	-11.58/-12.95	-14.31/-15.59	-13.56/-11.18	-8.56/-6.58	-4.85/-3.51	-2.74/-2.16	-1.76/-2.6		
Θ(22.5°)	-1.72/-3.86	-7.89/-13.96	-15.03/-14.45	-16.14/-19.28	-17.77/-15.29	-11.81/-8.14	-5.01/-2.99	-1.69/-0.94	-0.8/-1.11	-2.24/-3.65	-5.69/-7.69	-9.32/-9.46	-9.4/-10.4	-12.51/-14.83	-19.27/-17.97	-17.99/-17.1	-12.97/-10.6	-10.48/-11.9	-14.57/-18.65	-18.97/-18.16	-17.57/-13.42	-10.37/-8.06	-5.72/-3.37	-1.54/-1.17
Θ(30°)	-2.58/-3.74	-5.03/-5.55	-6.78/-10.24	-17.61/-10.18	-7.05/-6.92	-7.02/-6.01	-4.46/-2.83	-1.88/-1.9	-2.66/-3.48	-4.6/-5.65	-7.51/-11.11	-13.37/-11.15	-9.12/-8.19	-8.18/-9.74	-15.88/-18.45	-14.19/-16.21	-11.76/-10.67	-12.38/-15.88	-13.71/-13	-13.81/-14	-9.06/-6.93	-6.52/-8.6	-5.95/-6.42	-3.61/-3.35
Θ(37.5°)	-3.05/-4.45	-5.16/-6.36	-10.93/-19.03	-10.11/-3.82	-2.67/-3.13	-3.34/-3.81	-4.37/-3.27	-3.28/-5.14	-8.39/-11.06	-11/-9.32	-9.56/-14.32	-16.03/-11.43	-9.98/-10.1	-8.55/-9.7	-10.69/-12.14	-11.46/-12.22	-12.32/-11.91	-14.94/-14.09	-11.95/-10.58	-7.91/-4.68	-2.46/-1.1	-0.9/-2.49	-5.13/-4.67	-2.54/-2.07
Θ(45°)	-3.05/-5.4	-7.52/-12.15	-14.88/-13.52	-10.68/-4.82	-5.12/-5.59	-2.01/-1.88	-5/-6.65	-6.22/-5.52	-8.83/-8.8	-11.57/-8.26	-6.83/-7.84	-11.82/-9.72	-8.44/-13.58	-11.24/-6.41	-6.84/-8.54	-9.21/-13.09	-17.37/-18.19	-18.31/-14.14	-11.06/-10.23	-6.28/-5.86	-3.21/-2.02	0.3/-3.49	-2.95/-2.03	0.34/-0.4
Θ(52.5°)	-2.52/-6.34	-8.78/-15.38	-12.72/-11.33	-15.09/-10.63	-16.68/-7.76	-3.15/-3.02	-6.48/-10	-5.81/-1.73	-1.14/-3.3	-5.51/-6.56	-3.09/-2.92	-6.25/-8.26	-8.3/-15.94	-12.51/-6.1	-6.75/-9.03	-11.06/-15.56	-18.73/-19.02	-15.45/-11.3	-9.95/-11.91	-13.84/-7.98	-4.86/-2.49	-0.16/-0.26	-1.32/0.13	2.48/-1.7
Θ(60°)	-2.41/-4.46	-6.58/-11.8	-11.59/-11.05	-17.45/-17.45	-9.85/-3.97	-4.65/-6.93	-5.62/-2.87	-2.65/-1.03	-0.81/-3.07	-3.84/-6.02	-3.19/-1.3	-2.45/-4.52	-6.12/-9.37	-17.6/-6.17	-6.44/-10.45	-11.65/-16.44	-15.3/-13.06	-13.82/-12.29	-8.53/-8.35	-8.67/-8.38	-7.4/-3.98	-0.74/0.03	-1.35/-0.31	2.88/1.69
Θ(67.5°)	-3.1/-3.68	-6.75/-16.64	-13.46/-16.8	-18.06/-13.67	-6.15/-2.36	-3.83/-7.88	-4.39/-0.37	-1.12/-1.38	-0.27/-5.59	-2.18/-3.99	-2.81/-1.14	-2.49/-4.87	-7.71/-7.89	-16.45/-6.15	-9.11/-17.43	-18.69/-17.53	-13.15/-13.02	-14.07/-10.93	-6.77/-7.64	-10.91/-10.04	-1.52/-0.64	-1.39/-1.39	1.27/0.7	
Θ(75°)																								



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(67.5°)	-1.47/-1.84	-1.99/0.74	2.78/2.27	3.34/3.71	1.54/-0.19	0.21/-0.01	-2.3/-3.13	-1.15/-0.92	-0.62/0.61	-1.12/-3.39	-1.46/-0.4	-1.87/-6.52	-15.32/-6.87	-8.91/-8.49	-4.72/-8.06	-6.1/-4.56	-6.3/-7.08	-7.95/-7.89	-8.55/-6.51	-5.75/-4.19	-2.16/-2.08	-3.34/-4.5	-3.31/-0.44	1.57/0.44
Θ(75°)	-2.6/-2.86	-3.74/-0.91	1.12/0.11	2.31/3.57	1.97/1.21	2.31/2.94	1.95/0.86	1.59/1.47	0.45/0.59	0.79/0.11	-1.27/-1.02	-3.24/-4.29	-12.2/-8.36	-5.81/-11.27	-6.35/-8.22	-6.22/-5.4	-7.48/-5.4	-4.81/-3.66	-3.45/-4.43	-6.61/-7	-3.66/-3.57	-2.88/-4.87	-3.29/0.09	1.79/-0.44
Θ(82.5°)	4.39/-3.19	-6.25/-3.54	-1.32/-3.03	0.92/2.03	0.76/0.31	1.92/3.18	2.49/1.64	1.96/1.21	0.70/-1.29	-0.14/-1.29	-0.77/-0.52	-3.06/-3.27	-13.53/-9.66	-6.31/-14.49	-7.91/-6.9	-4.78/-7.43	-8.12/-3.39	-1.8/-2.32	-2.15/-2.47	-5.29/-5.88	-3.07/-3.63	-3.13/-6.03	-4/-1.13	1.13/-1.68
Θ(90°)	-5.61/-4.21	-6.93/-5.56	-3.39/-6.96	-0.69/-0.11	-0.86/-0.74	-0.64/0.8	0.59/-0.39	0.49/-0.13	-1.4/-2.01	-1.59/0.3	-0.86/-0.29	-3.67/-4.19	-13.15/-12.82	-3.56/-8.09	-7.53/-4.5	-4.44/-7.71	-8.38/-3.37	-1.26/-3.18	-3.51/-2.93	-5.5/-4.51	-2.92/-2.55	-3.27/-5.8	-3.57/-2.64	0.34/-2.97
Θ(97.5°)	-6.98/-6.3	-8.04/-7.62	-5.32/-9.57	-2.07/-2.07	-2.5/-1.67	-2.35/-2.57	-2.9/-4.1	-2.31/-2.57	-2.58/-1.98	-2.33/-0.99	-1.64/-0.92	-3.56/-4.86	-10.11/-12.5	-5.43/-10.09	-6.97/-4.2	-4.22/-6.51	-5.24/-2.83	-2.06/-5.47	-5.1/-4.3	-9.47/-4.03	-4.03/-2.8	-4.78/-7.97	-5.94/-4.23	-0.74/-4.61
Θ(105°)	-6.17/-7.19	-7.6/-11.48	-7.65/-14.47	-3.17/-3.15	-3.36/-1.68	-3.79/-5.59	-6.63/-10.82	-7.56/-3.93	-3.54/-1.42	-1.45/-2.56	-4.06/-2.77	-3.98/-6.14	-14.4/-15.02	-5.19/-7	-8.06/-8.42	-6.53/-5.83	-5.32/-3.78	-3.14/-7.72	-14.38/-4.32	-6.33/-3.5	-6.2/-10.78	-5.03/-7.12	-2.32/-1.42	
Θ(112.5°)	-6.12/-8.51	-11.56/-18.54	-16.02/-15.74	-8.58/-5.46	-5.87/-3.83	-4.89/-5.55	-5/-8.39	-10.37/-5.37	-6.48/-2.88	-1.86/-3.71	-9.41/-6.22	-4.37/-6.91	-7.6/-7.7	-7.04/-12.82	-9.23/-6.85	-6.75/-6.59	-9.89/-7.46	-7.78/-14.28	-5.16/-6.4	-19.2/-8.51	-6.91/-6.38	-8.25/-13.16	-12.57/-4.35	-2.52/-5.57
Θ(120°)	-5.12/-6.89	-9.55/-9.19	-12.29/-12.48	-10.1/-10.01	-7.16/-5.9	-5.9/-6.18	-5.28/-5.39	-6.71/-5.09	-6.79/-9.02	-6.74/-6.05	-9.65/-10.97	-7.87/-13.71	-9.66/-10.12	-7.33/-12.45	-13.31/-10.65	-15.52/-7.29	-8.48/-4.84	-9.26/-11.77	-6.11/-9.43	-17.7/-7.6	-5.31/-4.4	-8.71/-13.93	-14.03/-6.1	-3.04/-4.16
Θ(127.5°)	-6.7/-8.33	-9.44/-8.16	-11.71/-11.41	-8.45/-7.71	-7.42/-8.37	-12.11/-14.19	-10.54/-8.81	-7.56/-4.93	-5.83/-13.76	-17.18/-10	-8.65/-13.27	-14.27/-17.2	-16.54/-10.18	-8.08/-19.03	-8.61/-18.17	-8.99/-10.7	-3.33/-4.84	-14.33/-11.1	-17.57/-19.97	-18.85/-13.1	-4.14/-8.7	-7.61/-10.3	-14.34/-9.82	-7.6/-5.73
Θ(135°)	-8.63/-10.6	-7.07/-5.79	-10.53/-15.24	-14.54/-10.29	-6.78/-5.93	-8.74/-10.47	-9.41/-10.75	-11.66/-12.19	-11.59/-9.96	-9.43/-16.77	-18.38/-19.37	-18.15/-18	-15.11/-10.08	-6.78/-7.73	-16.36/-12.4	-9.37/-8.81	-3.68/-9.14	-17.57/-18.21	-11.78/-18.45	-13.46/-15.83	-7.26/-5.9	-12.28/-10.69	-12.27/-12.45	-11.62/-10.63
Θ(142.5°)	-16.57/-18.85	-18.59/-14.62	-11.44/-10.76	-11.83/-12.59	-11.16/-11.21	-11.69/-9.32	-9.73/-11.01	-10.24/-9.87	-12.79/-18.05	-9.15/-8.2	-13.86/-18.1	-18.01/-18.39	-18.15/-18.56	-12.39/-12.02	-14.4/-10.16	-11.32/-8.35	-6.13/-9.56	-16.17/-14.36	-7.65/-9.03	-18.41/-17.76	-17.53/-12.21	-11.97/-14.91	-12.63/-9.95	-8.85/-10.21
Θ(150°)	-11.94/-9.16	-11.5/-15.16	-12.98/-15.2	-19.14/-13.9	-18.17/-18.56	-13.34/-11.36	-12.95/-15.16	-11.41/-9.36	-10.17/-14.91	-16.79/-15.58	-18.65/-17.24	-18.37/-18.81	-16.71/-17.14	-11.76/-9.49	-11.35/-12.55	-15.92/-17.61	-17.83/-12.36	-8.61/-10.02	-13.93/-17.34	-16.84/-14.93	-14.1/-17.86	-19.13/-17.5	-16.02/-18.05	
Θ(157.5°)	-18.05/-18.32	-17.63/-17.79	-18.45/-17.51	-17.91/-18.68	-14.57/-12.08	-10.01/-10.22	-13.54/-17.66	-18.74/-18.95	-17.4/-18.14	-19.04/-19.27	-18.77/-16.86	-16.7/-14.42	-10.68/-8.67	-9.67/-14.09	-18.36/-18.32	-18.47/-19.22	-18.1/-17.57	-15.74/-18.33	-18.02/-17.63	-11.85/-10.06	-9.74/-10.51	-10.42/-9.35	-8.8/-9.41	-11.1/-13.7
Θ(165°)	-18.17/-17.69	-18.61/-18.97	-15.02/-13.05	-12.66/-11.47	-10.46/-9.65	-10.16/-12.05	-13.03/-15.35	-16.51/-14.88	-13.43/-13.61	-14.44/-16.44	-17.87/-18.86	-19.29/-18.41	-18.28/-15.36	-13.53/-12.57	-12.17/-17.72	-14.12/-15.26	-13.89/-12.22	-9.94/-8.55	-8.49/-7.8	-12.32/-16.29	-17.48/-18.55	-16.33/-18.7	-15.89/-18.65	
Θ(172.5°)	-16.21/-17.77	-18.91/-16.8	-13.98/-12.39	-12.15/-11.81	-11.39/-11.56	-13.49/-15.02	-15.76/-17.34	-18.11/-18.62	-19.01/-18.62	-18.46/-19.21	-18.79/-17.5	-18.47/-17.55	-17.72/-17.29	-18.42/-19	-17.41/-19.71	-19.65/-18.97	-18.16/-18.55	-18.36/-19.29	-18.57/-18.66	-18.13/-18.45	-17.58/-16.59	-16.04/-15.81	-15.62/-15.22	
Θ(180°)	-17.67/-18.87	-19.24/-18.61	-17.1/-19.27	-18.4/-19.15	-18.25/-18.22	-18.03/-18.47	-19.11/-18.79	-17.49/-18.38	-17.96/-17.56	-18.04/-18.45	-18.51/-18.25	-18.53/-18.18	-18.7/-17.74	-17.63/-18.85	-18.49/-17.93	-17.86/-18.37	-18.04/-17.52	-15.51/-13.91	-13.26/-13.31	-13.38/-13.63	-14.31/-14.86	-16.11/-18.23	-19.37/-18.57	-17.32/-17.79
Freq(Hz)	5.6GPol	PhiAnt.3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-7.57/-8.01	-9.24/-10.57	-11.9/-14.27	-16.16/-19.58	-17.96/-17.19	-15.16/-11.54	-10.34/-8.32	-7.95/-6.79	-6.08/-5.34	-4.71/-4.91	-5.06/-5.24	-5.83/-6.62	-7.19/-7.9	-9.5/-11.74	-14.77/-18.22	-18.81/-17.54	-12.71/-10.46	-9.22/-8.63	-7.56/-7.15	-6.19/-5.74	-5.51/-5.33	-4.98/-5.28	-5.9/-6.36	-7.46/-7.87
Θ(7.5°)	-8.01/-6.89	-11.49/-12.45	-19.36/-16.68	-18.83/-12.34	-9.47/-7.72	-6.81/-6.22	-5.99/-5.76	-6.01/-6.04	-6.56/-6.66	-7.02/-7.82	-8.51/-7.6	-9.05/-9.51	-9.65/-10.5	-11.89/-13.92	-14.45/-13.7	-12.51/-10.7	-10.08/-9.78	-7.73/-7.32	-6.61/-6.48	-6.87/-8.98	-5.75/-5.73	-5.78/-6.03	-6.71/-7.28	
Θ(15°)	-9.57/-9.39	-9.19/-11.53	-18.12/-13.21	-9.44/-7.57	-6.95/-6.37	-6.02/-5.11	-6.26/-6.89	-6.27/-9.95	-12.91/-12.29	-12.98/-13.6	-14.49/-14.86	-13.64/-13.36	-14.71/-19	-15.79/-19.25	-8.21/-7.02	-6.71/-6.32	-6.32/-6.52	-6.95/-7.61	-9.49/-10.67	-10.21/-9.41	-9.57/-9.71	-9.43/-9.66		
Θ(22.5°)	-7.74/-6.88	-7.21/-8.34	-10.4/-16.46	-19.41/-14.28	-12.24/-10.75	-9.6/-7.91	-6.2/-4.83	-4.02/-4.07	-5.02/-6.14	-7.48/-8.95	-10.32/-12.77	-17.77/-17.82	-19.13/-16.84	-16.43/-17.53	-17.93/-18.38	-18.81/-16.82	-15.31/-16.09	-18.33/-16.94	-11.83/-8.22	-6.95/-6.64	-6.93/-6.87	-6.08/-5.98	-6.66/-8.18	-8.49/-8.29
Θ(30°)	-6.43/-7.71	-9.77/-6.97	-11.05/-14.94	-12.71/-10.28	-10.24/-10.91	-10.24/-6.99	-3.74/-1.59	-8.07/-1.24	-2.69/-4.4	-5.76/-5.7	-7.05/-7.78	-9.96/-13.78	-16.28/-17.7	-16.45/-12.55	-10.35/-9.74	-9.21/-18.7	-11.81/-8.87	-8.23/-6.8	-5/-3.39	-2.11/-1.87	-2.99/-5.25	-6.33/-6.52		
Θ(37.5°)	-6.03/-9.68	-10.71/-9.05	-11.3/-18.39	-11.4/-5.95	-4.27/-5.11	-7.25/-7.4	-3.82/-5.31	-6.7/-5.03	-8.82/-10.97	-11.98/-12.32	-8.83/-8.56	-10.19/-12.42	-13.82/-14.76	-15.61/-13.01	-12.29/-12.21	-11.46/-10.32	-9.75/-18.9	-8.78/-9.18	-6.45/-6.62	-1.81/-1.36	-3.26/-7.77	-6.44/-5.41		
Θ(45°)	-4.83/-5.55	-5.7/-6.99	-12.27/-18.94	-11.79/-5.43	-3.23/-3.29	-2.43/-1.89	-3.8/-4.2	-4.71/-7.2	-8.28/-7.52	-6.66/-6.5	-8.19/-12.36	-16.65/-12.05	-7.36/-6.2	-6.84/-10.47	-14.49/-18.46	-19.3/-18.7	-17.8/-16.21	-14.33/-15.28	-10.93/-6.78	-6.39/-10.47	-10.83/-6.55	-3.83/-2.25	-3.38/-6.01	-5.04/-3.79
Θ(52.5°)	-2.31/-3.44	-6.66/-13.91	-18.43/-13.29	-1.58/-14.51	-11.1/-11.03	-6.81/-3.12	-4.44/-7.64	-7.76/-6.53	-5.1/-1.4	-3.75/-2.94	-3.34/-3.71	-15.05/-19.04	-12.31/-19.4	-7.54/-14.99	-18.43/-18.21	-19.31/-18.64	-16.3/-16.95	-16.52/-16.49	-12.07/-8.86	-7.68/-9.62	-10.85/-6.65	-4.21/-1.97	-2.18/-7.35	-2.19/-3.12
Θ(60°)	-1.96/-3.02	-7.52/-14.83	-14.17/-12.28	-16.12/-9.5	-7.98/-4.91	-3.62/-2.57	-3.48/-1.59	-3.07/-3.99	-3.64/-2.96	-1.01/-3.78	-10.13/-16.32	-19.23/-14.98	-7.16/-15.32	-16.35/-14.98	-18.45/-14.51	-17.35/-13.55	-15.29/-10.72	-7.25/-7.37	-8.51/-7	-12.91/-10.27	-2.24/-4	-1.16/-0.74		
Θ(67.5°)	-3.64/-3.22	-8/-13.71	-14.02/-15.54	-15.82/-8.48	-7.88/-5.19	-3.25/-3.46	-3.35/-2.88	-1.75/-0.32	-1.71/-3.99	4.16/-3.1	-0.28/-3.02	-7.33/-7.47	-8.76/-11.46	-7.51/-6.92	-12.01/-11.74	-19.21/-18.31	-16.15/-11.17	-11.37/-7.71	-12.88/-16.8	-9.26/-6.29	-5.06/-3.98	-2.99/-0.08	-0.07/-3.13	-1.68/-1.69
Θ(75°)	-6.64/-4.32	-9.12/-17.54	-18.88/-18	-19.13/-10.13	-7.89/-4.34	-2.27/-3.36	-4.23/-2.42	-1.41/-1.01	-1.85/-4.05	-4.68/-4.48	-0.81/-2.63	-7.07/-6.38	-7.44/-9.7	-8.86/-6.78	-10.47/-9.35	-17.62/-17.96	-18.08/-12.54	-10.75/-6.19	-13.42/-19.13	-10.1/-6.29	-4.72/-9.39	-3.71/-1.01	-0.81/-2.74	-2.48/-3.1
Θ(82.5°)	-7.7/-6.42	-13.21/-19.37	-17.79/-18.19	-18.58/-13.45	-11.3/-6.84	-3.85/-4.95	-5.57/-3.31	-2.71/-2.95	-3.62/-5.59	-5.18/-4.21	-1.21/-3.58	-7.07/-6.15	-6.53/-6.81	-8.45/-7.34	-10.22/-8.09	-17.67/-15.03	-19.02/-15.49	-11.27/-5.29	-11.67/-16.85	-8.11/-5.37	-3.96/-4.84	-5.31/-2.49	-3.44/-4.83	-3.12/-3.47
Θ(90°)	-8.64/-6.73	-17.53/-17.6	-18.37/-17.95	-17.96/-14.83	-14.27/-9.11	-5.13/-8.06	-9.96/-5.65	-5.08/-6.79	-6.04/-5.91	-5.86/-6.77	-3.3/-5.66	-8.71/-6.2	-7.42/-6.14	-9.72/-7.41	-11.16/-14.8	-18.33/-15.06	-19.2/-16.53	-13.07/-5.92	-9.94/-16.8	-9.57/-7.29	-6.04/-6.54	-8/-4	-5.42/-5	-4.69/-4.37
Θ(97.5°)	-9.71/-7.13	-17.12/-19	-19.01/-13.89	-16.6/-17.08	-15.73/-10.15	-7.07/-14.14	-12.84/-7.5	-8.86/-11.09	-7.55/-7.15	-6.8/-8	-5.64/-10.91	-11.27/-9.2	-8.42/-6.43	-7.94/-9.04	-10.37/-9.88	-17.58/-13.55	-17.01/-15.09	-16.04/-9.33	-8.25/-17.42	-15.68/-8.83	-7.43/-9.89	-9.66/-6.16	-7.33/-5.84	-7.69/-6.7
Θ(105°)	-9.72/-8.12	-16.15/-18.6	-16.58/-16.98	-17.71/-18.22	-18.76/-14.78	-11.46/-18.55	-18.68/-11.3	-10.95/-13	-8.77/-9.33	-10.02/-11.3	-7.36/-12.56	-17.54/-10.94	-12.83/-7.88	-8.59/-9.39	-13.37/-11.46	-17.31/-18.76	-17.15/-18.76	-19.11/-12.62	-7.96/-13.84	-18.31/-13.24	-10.18/-12.91	-13.35/-9.27	-13.05/-8.5	-9.48/-6.49
Θ(112.5°)	-8.15/-7.87	-14.14/-18.82	-18.51/-19.39	-18.2/-18.04	-19.2/-16.16	-13.36/-18.18	-18.88/-11.64	-13.6/-16.14	-9.58/-11.69	-12.18/-12.66	-10.28/-15.94	-15.44/-11.62	-10.87/-8.64	-12.51/-12.27	-14.57/-14.1	-18.61/-14.96	-17.74/-18.68	-17.91/-15.57	-10.03/-11.61	-19.33/-17.35	-11.97/-16.32	-12.34/-10.5	-14.36/-10.41	-10.25/-6.51
Θ(120°)	-12.25/-9.85	-9.66/-12.01	-12.73/-19.16	-19.15/-18.97	-17.61/-19.46																			



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(120°)	-7.39/-10.47	-11.87/-11.03	-14.79/-13.65	-12.54/-10.9	-8.56/-5.78	-5.79/-5.95	-4.61/-4.6	-6.97/-10.3	-13.07/-8.06	-7.29/-5.81	-8.3/-7.93	-9.95/-9.27	-11.12/-9.55	-8.62/-9.26	-13.17/-14.18	-6.57/-8.67	-12.82/-6.67	-4.35/-5.21	-3.85/-3.89	-9.64/-9.87	-4.56/-7.07	-6.25/-10.21	-10.26/-9.69	-3.51/-7.49
Θ(127.5°)	-6.32/-8.49	-7.8/-11.45	-9.56/-11.34	-16.59/-16.7	-11.98/-9.8	-12.44/-10.9	-8.09/-5.45	-5.19/-6.41	-10.47/-10.99	-18.79/-16.88	-15.73/-14.27	-19.89/-11.49	-10.37/-13.63	-12.07/-8.3	-10.31/-12.25	-7.65/-4.74	-11.31/-8.56	-8.23/-10.93	-4.05/-4.64	-13.89/-9.51	-6.11/-10.45	-6.13/-7.19	-11.93/-10.76	-5.95/-9.56
Θ(135°)	-9.24/-9.79	-8.03/-11.05	-12.33/-12.8	-12.79/-13.25	-7.91/-4.31	-5.48/-9.61	-10.82/-9.77	-13.26/-12.2	-11.74/-12.33	-10.37/-11.88	-17.45/-18.87	-14.11/-9.88	-13.81/-15.46	-16.61/-19.35	-10.33/-17.38	-8.32/-13.46	-7.68/-8.02	-11.43/-10.54	-3.64/-6.64	-17.25/-12.59	-9.62/-7.79	-7.47/-5.95	-11.8/-9.99	-8.24/-14.38
Θ(142.5°)	-11.37/-12.58	-12.54/-16.55	-12.97/-9.73	-13.34/-19.18	-9.97/-8.31	-8.95/-8.1	-6.63/-5.59	-7.73/-18.52	-15.57/-13.41	-13.28/-15.08	-13.78/-9.64	-10.72/-17.43	-18.57/-17.07	-14/-17.61	-17.19/-11.85	-11.23/-10.28	-8.71/-12.98	-12.48/-9.64	-6.29/-9.74	-18.82/-17.91	-13.26/-9.18	-13.88/-14.02	-12.13/-12.34	-14.14/-14.24
Θ(150°)	-16.56/-15.97	-13.72/-18.74	-18.55/-11.2	-7.75/-9	-12.05/-13.2	-9.98/-8.98	-15.26/-13.73	-9.83/-16.31	-16.25/-12.58	-15.9/-18.16	-17.97/-16.66	-17.67/-19.32	-18.46/-18.66	-17.4/-13.45	-11.3/-10.53	-9.47/-9.14	-11.05/-13.33	-19.14/-16.47	-11.16/-10.4	-15.85/-18.62	-18.87/-17.79	-18/-19.16	-16.69/-13.93	-12.59/-11.68
Θ(157.5°)	-19.02/-18.8	-17.17/-18.77	-17.72/-18.66	-18.42/-11.06	-8.47/-6.94	-7.12/-6.69	-12.42/-16.54	-18.11/-14.98	-12.4/-12.75	-15.51/-18.25	-18.22/-18.04	-15.47/-17.5	-18.76/-19.16	-18.51/-14.94	-9.84/-7.78	-9.29/-14.77	-17.85/-19.05	-15.44/-10.4	-9.5/-11.99	-18.16/-17.12	-15.28/-18.15	-17.84/-17.43	-18.35/-16.26	-15.83/-16.75
Θ(165°)	-19.17/-18.1	-18.93/-13.61	-10.57/-11.14	-12.3/-13.45	-15.38/-16.79	-18.75/-18.73	-18.82/-18.28	-18.34/-18.72	-18.51/-17.63	-18.18/-18.95	-17.34/-18.82	-19.29/-15.59	-14.83/-18.68	-18.32/-13.24	-11.31/-10.88	-11.67/-14.59	-18.55/-17.41	-14.32/-12.19	-11.16/-10.37	-10.08/-10.61	-12.38/-14.44	-14.77/-15.03	-16.83/-18.85	-17.99/-17.2
Θ(172.5°)	-16.59/-15.93	-14.97/-13.03	-12.19/-10.27	-9.36/-9.1	-9.36/-11	-12.6/-15.07	-17.9/-18.63	-18.51/-17.69	-19.21/-17.84	-14.27/-13.12	-13.65/-14.5	-15.54/-15.97	-15.62/-14.07	-12.9/-13.94	-17.58/-18.22	-18.39/-18.67	-19.21/-18.89	-14.08/-11.84	-10.66/-10.79	-11.99/-14.63	-16.81/-18.94	-18.47/-16.78	-14.46/-14.24	-14.65/-15.15
Θ(180°)	-15.93/-18.34	-19.02/-15.73	-12.52/-10.81	-10.86/-10.4	-9.31/-8.96	-8.41/-8.31	-8.6/-8.61	-9.31/-10.52	-12.75/-15.2	-17.89/-17.42	-16.16/-15.85	-15.54/-14.3	-12.77/-11.06	-9.99/-9.54	-9.38/-9.37	-9.04/-8.72	-8.71/-8.34	-12.8/-8.12	-7.78/-7.83	-7.5/-7.19	-7.04/-7.46	-8.41/-9.75	-10.77/-11.61	-12.63/-13.86
Freq(Hz)	2.45GPol.	PhiAnt.4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-10.38/-10.03	-9.59/-8.77	-8.02/-7.45	-6.62/-6.4	-6.33/-6.32	-6.23/-6.18	-6.18/-6.18	-6.14/-6.27	-6.31/-6.53	-7.19/-8.11	-9.34/-10.85	-12.24/-12.82	-12.03/-11.66	-10.68/-9.66	-8.56/-7.53	-6.7/-6.2	-5.78/-5.41	-5.09/-4.98	-5.11/-5.37	-5.76/-6.25	-6.81/-7.32	-7.65/-7.97	-8.31/-8.88	-9.4/-10.03
Θ(7.5°)	-14.18/-13.85	-12.53/-10.99	-9.61/-8.55	-7.82/-7.52	-7.47/-7.32	-7.17/-7.19	-7.28/-7.36	-7.67/-6	-8.04/-8.05	-8.46/-10.05	-10.23/-9.88	-9.06/-8.22	-7.56/-7.17	-6.89/-6.54	-6.22/-5.96	-5.69/-5.29	-5.41/-9.1	-5.11/-5.44	-5.79/-6.22	-6.75/-7.29	-7.68/-8.05	-8.61/-9.71	-11.34/-13.19	
Θ(15°)	-18.99/-14	-11.58/-10.37	-9.37/-8.73	-8.46/-8.35	-8.04/-7.47	-6.98/-6.9	-7.14/-7.72	-8.78/-10.19	-11.17/-10.95	-10.46/-10.06	-10.03/-10.28	-10.45/-10.15	-9.12/-7.76	-6.65/-6.08	-5.9/-5.89	-5.99/-6.12	-6.2/-6.19	-6.14/-6.07	-6.07/-6.09	-6.1/-6.26	-6.77/-7.45	-7.97/-8.38	-9.3/-11.3	-15.37/-18.35
Θ(22.5°)	-11.97/-8.84	-7.67/-7.4	-7.49/-7.71	-7.87/-7.71	-6.97/-5.89	-5.22/-5.17	-5.7/-6.77	-8.64/-11.47	-14.87/-15.6	-13.96/-12.22	-11.41/-10.81	-11.11/-11.3	-10.4/-8.57	-6.95/-6.1	-5.83/-5.94	-6.25/-6.66	-6.98/-7.33	-7.61/-7.48	-6.93/-6.4	-5.97/-6.14	-6.78/-7.66	-8.38/-9.26	-11.12/-14.81	-18.65/-18.77
Θ(30°)	-7.67/-6.19	-5.54/-5.4	-5.6/-5.85	-5.91/-5.54	-4.65/-3.61	-3.06/-3.32	-4.27/-5.92	-8.47/-11.8	-16.57/-18.92	-18.41/-18.02	-14.77/-12.53	-11.28/-10.66	-10.13/-9.02	-7.6/-6.63	-6.31/-6.48	-6.95/-7.36	-7.42/-7.62	-8.15/-8.17	-7.19/-6.19	-5.72/-5.95	-6.78/-7.91	-9.11/-9.48	-14.11/-18.45	-15.03/-10.35
Θ(37.5°)	-5.22/-5.02	-7.17/-5.17	-4.98/-4.74	-4.41/-3.87	-2.78/-3.01	-3.6/-5.37	-8.43/-10.63	-10.16/-14.07	-13.09/-18.56	-17.99/-18.46	-16.29/-12.28	-10.45/-9.11	-8.62/-9.08	-8.26/-6.55	-5.88/-6.8	-7.52/-8.16	-4.99/-5.34	-6.56/-6.47	-4.9/-3.8	-3.73/-4.66	-6.52/-6.93	-11.45/-13.44	-13.26/-18.9	-8.76/-7.9
Θ(45°)	-5.34/-5.42	-5.86/-5.88	-5.18/-4.2	-3.4/-2.87	-2.37/-1.81	-1.83/-2.94	-5.34/-8.76	-11.79/-13.59	-16.57/-19.18	-18.5/-18.11	-15.19/-12.84	-11.65/-10.67	-9.97/-9.16	-7.76/-7.63	-6.51/-7.1	-7.53/-6.65	-5.56/-5.58	-6.63/-7.31	-6.24/-9.6	-4.66/-5.44	-6.94/-8.76	-10.69/-12.76	-14.05/-11.74	-8.32/-6.2
Θ(52.5°)	-7.37/-7.21	-7.26/-6.82	-5.18/-3.38	-2.4/-2.41	-2.78/-3.01	-3.6/-5.37	-8.43/-10.63	-10.16/-14.07	-13.09/-18.56	-17.99/-18.46	-16.29/-12.28	-10.45/-9.11	-8.62/-9.08	-8.26/-6.55	-5.88/-6.8	-7.52/-8.16	-4.99/-5.34	-6.56/-6.47	-4.9/-3.8	-3.73/-4.66	-6.52/-6.93	-11.45/-13.44	-13.26/-18.9	-8.76/-7.9
Θ(60°)	-8.69/-8.06	-7.57/-6.61	-4.48/-2.64	-2.13/-2.22	-5.11/-6.19	-6.66/-8.31	-10.38/-9.89	-8.95/-9.75	-12.14/-15.5	-16.86/-18.6	-18.65/-13.56	-11.23/-8.43	-6.52/-6.89	-8.02/-6.86	-5.52/-6.14	-7.08/-5.29	-3.73/-4.26	-6.24/-5.92	-3.79/-2.88	-3.13/-4.21	-6.3/-9.61	-14.14/-17.58	-14.66/-11.19	-9.59/-7.32
Θ(67.5°)	-8.51/-7.89	-7.21/-6.42	-4.78/-3.33	-3.31/-5.21	-7.78/-8.01	-7.87/-9.96	-13.5/-12.47	-11.36/-12.9	-14.07/-13.66	-15.86/-18.38	-16.11/-11.5	-11.94/-10.73	-7.66/-7.21	-8.21/-7.69	-6.46/-6.91	-7.19/-4.61	-2.68/-3.19	-5.65/-6	-3.89/-2.99	-3.33/-4.62	-7.15/-11.45	-16.81/-16.15	-12.69/-10.01	-8.6/-8.51
Θ(75°)	-8.24/-7.29	-6.62/-6.78	-6.33/-5.07	-5.09/-7.4	-9.82/-9.12	-8.78/-11.76	-18.43/-12.47	-10.38/-12.3	-13/-10.92	-12.16/-18.66	-14.02/-8.99	-9.37/-12.16	-9.98/-8.5	-9.12/-8.91	-6.63/-6.3	-7.46/-5.57	-3.33/-3.51	-5.97/-7.51	-5.38/-3.82	-3.74/-5.09	-7.8/-11.69	-14.16/-13.52	-12.01/-10.29	-8.88/-8.54
Θ(82.5°)	-7.66/-6.9	-6.74/-7.58	-7.21/-5.64	-5.72/-8.22	-10.52/-9.5	-8.85/-11.23	-18.27/-13.38	-11.09/-15.91	-18.89/-11.62	-12.18/-18.61	-11.15/-7.02	-7.78/-11.1	-6.1/-6.2	-6.34/-7.3	-6.16/-5.58	-6.35/-5.48	-3.8/-3.92	-6.01/-7.73	-6.36/-4.97	-4.77/-5.98	-8.57/-11.93	-14.06/-13.83	-12.71/-11.06	-9.4/-8.45
Θ(90°)	-9.28/-9.1	-8.62/-8.84	-7.91/-6.05	-6/-8.48	-10.36/-9.06	-8.18/-10.2	-18.28/-17.92	-14.7/-18.86	-14.77/-9.97	-11.94/-18.37	-11.56/-6.4	-6.41/-10.22	-9.01/-6.23	-5.93/-6.98	-6.78/-6.22	-6.46/-5.51	-3.97/-4.05	-6.02/-7.24	-6.23/-5.53	-5.59/-6.68	-9.16/-12.38	-13.77/-13.19	-11.78/-10.17	-9.17/-9.04
Θ(97.5°)	-11.33/-10.41	-9.25/-8.91	-7.76/-6.2	-6.32/-8.78	-10.98/-9.97	-9.15/-11.74	-18.47/-16.93	-14.68/-18.92	-12.69/-8.95	-11.57/-14.85	-13.25/-7.43	-8.12/-13.35	-9.28/-7.39	-7.55/-8.14	-7.56/-6.9	-6.71/-5.46	-4.09/-4.59	-7.15/-7.86	-5.87/-5.05	-5.36/-5.63	-8.67/-11.02	-12.04/-12.25	-11.71/-10.41	-9.78/-10.77
Θ(105°)	-8.71/-7.78	-7.32/-7.58	-7.14/-6.56	-7.96/-12.85	-17.33/-13.84	-12.06/-14.52	-17.46/-12.88	-11.89/-18.56	-15.55/-10.64	-12.72/-17.58	-15.23/-19.73	-6.34/-7.34	-8.31/-6.71	-6.88/-6.58	-9.58/-7.7	-4.69/-4.83	-7.31/-10.09	-8.61/-8.71	-6.48/-7.35	-9.36/-11.37	-11.72/-12.16	-13.18/-12.54	-10.63/-9.53	
Θ(112.5°)	-6.69/-6.2	-6.9/-7.82	-7.23/-6.18	-6.91/-6.64	-8.06/-6.89	-6.89/-8.93	-13.82/-13.99	-13.93/-19	-16.19/-12.08	-13.63/-18.1	-11.34/-6.85	-9.15/-17.1	-15.26/-10.18	-7.56/-6.9	-5.89/-5.14	-5.33/-5.63	-5.65/-6.24	-8.03/-9.31	-8.27/-7.51	-7.67/-8.9	-11.01/-12.12	-11.36/-10.9	-11.37/-11.55	-9.86/-7.91
Θ(120°)	-7.72/-6.8	-7.23/-7.3	-5.4/-5.35	-3.56/-5.34	-6.88/-7.34	-8.45/-12.35	-18.76/-16.57	-13.94/-14.71	-12.62/-11.02	-12.01/-19.2	-13.24/-9.19	-12.65/-17.99	-13.35/-8.11	-5.48/-4.87	-4.79/-5.01	-5.3/-5.33	-5.54/-6.76	-8.87/-11.64	-9.01/-9.45	-7.25/-8.02	-9.55/-10.62	-10.34/-9.66	-9.98/-11.21	-11.45/-9.94
Θ(127.5°)	-7.61/-6.51	-6.84/-7.1	-6.13/-5.25	-6.16/-9.16	-9.66/-7.98	-8.22/-9.99	-10.78/-16.57	-8.7/-9.46	-12.81/-14.52	-17.13/-18.21	-12.44/-10.86	-15.23/-19.73	-6.88/-7.99	-5.57/-4.45	-4.55/-5.33	-5.71/-5.07	-4.56/-5.45	-8.27/-11.28	-10.61/-9.49	-9.37/-9.89	-10.82/-11.52	-11.68/-11.78	-12.9/-15.37	-10.63/-9.94
Θ(135°)	-5.28/-5.64	-7.24/-8.83	-9.05/-8.68	-8.57/-7.21	-4.58/-2.93	-2.91/-4.47	-7.24/-10.12	-11.57/-13.4	-18.68/-18.96	-18.79/-19.23	-15.02/-14.25	-17.43/-16.22	-11.88/-8.9	-7.07/-5.85	-5.42/-5.79	-6.11/-5.59	-5.15/-5.9	-8.22/-10.31	-9.28/-8.12	-7.73/-7.91	-8.1/-8.47	-9.78/-11.86	-14.5/-14.34	-9.58/-6.48
Θ(142.5°)	-9.36/-6.17	-7.8/-9.45	-9.77/-8.87	-7.31/-5.48	-3.81/-2.97	-3.3/-5.32	-9.49/-17	-18.02/-18.18	-18.82/-19.01	-17.82/-17.93	-15.77/-16.55	-18.42/-17.75	-13.3/-10.8	-9.5/-8.78	-8.17/-7.37	-6.38/-5.55	-5.41/-6.33	-8.22/-10.3	-10.13/-8.96	-7.45/-6.96	-6.83/-7.36	-8.93/-11.68	-15.43/-16.75	-11.39/-7.67
Θ(150°)	-9.07/-8.32	-9.38/-7.93	-7.06/-6.51	-6.44/-6.53	-6.55/-6.81	-7.83/-10.44	-15.84/-18.66	-18.75/-17.71	-18.34/-19.04	-16.02/-16.33	-13.13/-13.17	-16.56/-18.53	-19.73/-15.25	-13.47/-13.07	-12.99/-12.02	-9.94/-8.16	-7.16/-6.95	-7.31/-8.16	-9.06/-9.26	-8.79/-8.21	-8.07/-8.77	-10.71/-14.46	-18/-18.71	-16.73/-11.57
Θ(157.5°)	-7.82/-6.72	-5.91/-5.39	-5.39/-6.14	-7.52/-9.34	-11.04/-12.16	-13.1/-14.29	-16.36/-18.84	-18.96/-18.21	-18.2/-18.19	-19.38/-15.39	-13.3/-13.38	-15.76/-18.11	-18.14/-18.17	-15.59/-14.94	-15.24/-15.13	-13.5/-11.4	-9.8/-8.84	-8.44/-8.6	-9.06/-9.55	-9.96/-10.4	-11.16/-12.65	-15.92/-18.57	-17.42/-14.04	-11.04/-9.28
Θ(165°)	-7.13/-6.47	-6.07/-6.14	-6.9/-8.33	-10.03/-11.23	-11.61/-11.52	-11.23/-10.91	-10.93/-11.5	-12.26/-12.82	-13.38/-14.22	-15.63/-17.72	-18.48/-17.47	-18.19/-18.22	-18.67/-19.32	-14.74/-13.36	-13.07/-13.18	-12.93/-1								



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ(165°)	-16.47/-15.04	-14.09/-13.79	-15.09/-16.66	-15.94/-13.23	-11.73/-12.23	-12.36/-13.62	-14.78/-14.55	-13.81/-14.03	-14.59/-17.49	-18.37/-18.43	-16.76/-14.15	-12.93/-12.71	-14.76/-18.62	-16.99/-16.16	-17.63/-18.02	-18.79/-16.33	-17.29/-18.72	-17.45/-15.23	-10.14/-10.71	-12.72/-15.26	-17.82/-17.41	-18.44/-17.97	-19.18/-18.99	-18.8/-18.49
Θ(172.5°)	-14.57/-13.19	-14.49/-17.75	-19.04/-18.25	-19.06/-17.74	-17.25/-18.01	-18.55/-18.34	-18.51/-18.67	-18.5/-16.9	-18.29/-18.3	-19.26/-18.7	-18.01/-19.16	-18.06/-17.72	-15.86/-17.42	-15.32/-14.04	-16.48/-17.11	-18.97/-19.16	-17.48/-18.93	-18.56/-15.42	-13.37/-12.48	-12.84/-13.55	-14.77/-14.43	-14.14/-16.32	-18.42/-18.44	-18.83/-17.2
Θ(180°)	-16.97/-17.24	-16.1/-16.14	-15.8/-15.37	-15.24/-14.37	-14.03/-14.68	-15.99/-16.84	-17.83/-17.57	-18.43/-17.61	-18.48/-17.06	-13.38/-12.94	-14.92/-16.89	-14.82/-14.73	-18.13/-18.98	-18.04/-17.32	-18.61/-18.41	-18.25/-17.96	-18.14/-18.27	-17.68/-17.58	-18.95/-18.08	-17.68/-17.81	-17.39/-19.08	-18.69/-17.69	-17.7/-16.55	-18.82/-16.77
Freq(Hz)	5.3GPol	PhiAnt. 4	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-14.21/-10.04	-8.72/-9.27	-9.47/-8.64	-7.99/-8.06	-8.26/-8.38	-8.34/-8.53	-9.13/-9.9	-10/-11.27	-14.02/-17.53	-19.02/-17.48	-15.24/-12.81	-11.37/-10.65	-8.38/-7.6	-7.68/-7.33	-8.06/-8.42	-8.54/-8.79	-9.16/-10	-11.3/-12.46	-14.82/-17.51	-18.63/-17.73	-18.59/-17.98	-18.6/-18.17	-16.89/-13.75	-14.58/-15
Θ(7.5°)	-8.17/-7.21	-6.76/-6.76	-7.12/-8.22	-9.84/-12.23	-14.54/-16.15	-18.36/-17.14	-18.63/-18.42	-19.12/-19.49	-18.76/-18.25	-17.45/-17.98	-18.75/-19.86	-18.71/-18.48	-13.72/-11.95	-12.21/-10.41	-9/-8.24	-7.07/-6.56	-6.41/-5.82	-5.99/-6.66	-6.37/-6.74	-8.31/-9.63	-11.97/-17.64	-18.44/-18.95	-18.29/-13.84	-10.79/-8.78
Θ(15°)	-7.53/-6.31	-6.37/-7.56	-9.73/-14.31	-18.16/-15.75	-10.44/-7.62	-6.52/-6.13	-6.36/-7.43	-8.84/-10.33	-10.82/-9.94	-10.34/-14.08	-13.09/-9.28	-7.93/-10	-13.03/-9.17	-7.89/-8.66	-8.84/-8.82	-7.71/-7.53	-6.94/-6.56	-5.15/-4.97	-5.55/-6.28	-7.84/-9.37	-11.58/-16.36	-19.3/-18	-18/-16.54	-11.56/-9.05
Θ(22.5°)	-6.97/-5.8	-6.38/-7.51	-9.57/-16.32	-15.64/-7.82	-4.41/-3.35	-3.61/-5.22	-6.75/-6.71	-6.35/-6.9	-8.39/-9.4	-11.21/-13.53	-9.89/-4.88	-2.77/-3.67	-6.83/-9.45	-8.62/-6.73	-6.38/-7.89	-9.7/-10.57	-9.65/-7.89	-6.93/-6.67	-7.23/-8.99	-11.24/-14.13	-17.55/-18.31	-16.13/-12.9	-12.42/-13.35	-10.99/-8.81
Θ(30°)	-6.79/-6.44	-6.48/-6.74	-7.46/-10.94	-14.49/-10.75	-2.96/-1.94	-3.44/-7.19	-6.77/-3.45	-2.94/-4.69	-8.53/-13.75	-18.02/-19.39	-12.84/-6.81	-3.79/-2.56	-2.63/-4.26	-8.93/-10.14	-9.07/-9.39	-9.78/-10.45	-7.06/-5.36	-5.13/-4.96	-5.33/-6.54	-6.66/-7.65	-11.64/-18.82	-14.62/-8.93	-7.67/-10.07	-11.86/-9.18
Θ(37.5°)	-10.64/-6.85	-4.14/-4.56	-7.25/-8.85	-9.01/-5.99	-2.39/-2.27	-6.08/-2.66	-6.58/-4.29	-3.79/-4.24	-5.79/-10.15	-19.03/-18.71	-17.78/-14.93	-8.32/-6.16	-4.91/-5.95	-12.33/-13.63	-6.98/-4.34	-8.12/-10.81	-4.13/-2.81	-3.37/-4.11	-4.96/-5.39	-4.33/-5.36	-10.18/-19.02	-14.69/-8.7	-6.13/-7.25	-10.92/-13.54
Θ(45°)	-12.86/-8.25	-3.98/-3.18	-6.71/-6.08	-3.7/-4.21	-2.53/-3.7	-8.79/-7.64	-6.88/-7.21	-6.71/-7.09	-8.4/-9.49	-13.16/-16.12	-11.9/-12.09	-13.66/-9.63	-5.08/-4.34	-6.38/-10.88	-6.41/-0.71	-3.51/-7.71	-2.73/-2.43	-3.92/-5.72	-7.99/-8.36	-6.65/-7.8	-10.97/-15.23	-15.1/-12.91	-8.91/-7.06	-9.59/-10.51
Θ(52.5°)	-11.01/-11.4	-5.49/-2.18	-4.08/-5.2	-2.67/-3.6	-0.92/-1.67	-4.38/-6.13	-8.72/-8.46	-8.89/-9.25	-6.76/-6.53	-8.75/-18.71	-9.37/-8.62	-10.46/-8.99	-7.46/-4.96	-1.91/-3.75	-4.31/-0.89	-5.33/-7.52	-3.45/-4.3	-4.29/-6.42	-13.79/-10.92	-8.39/-10.18	-12.33/-19.15	-18.45/-17.06	-15.71/-12.01	-9.96/-6.67
Θ(60°)	-10.69/-8.15	-6.41/-2.9	-2.63/-5.19	-1.9/-2.03	-0.15/-1.24	-2.82/-4.32	-3.22/-4.08	-7.15/-2.73	-6.85/-6.08	-6.7/-12.88	-15.58/-9.52	-9.62/-10.26	-17.38/-10.13	-2.62/-1.86	-6.4/-1.52	-3.52/-6.89	-3.25/-3.48	-4.45/-7.81	-9.26/-10.84	-14.62/-15.4	-13/-18.96	-18.63/-18.1	-12.41/-18.18	-14.27/-10.14
Θ(67.5°)	-15.68/-9.98	-5.89/-2.61	-2.01/-4.47	-2.5/-2.7	0.3/-1.13	-0.92/-4.04	-1.69/-4.84	-8.02/-7.26	-7.48/-8.25	-7.94/-10.27	-18.51/-9.56	-9.03/-5.66	-11.27/-16.5	-5.18/-3.2	-4.3/-0.9	-3.92/-5.11	-2.5/-3.04	-3.35/-6.66	-9.92/-12.81	-18.9/-17	-15.9/-18.18	-16.5/-11.22	-11.9/-16.71	-10.82/-13.52
Θ(75°)	-19.14/-13.29	-6.87/-3.66	-2.98/-5.93	-3.07/-3.38	-0.88/-2.28	-0.24/-1.63	-0.44/-5.54	-11.18/-11.03	-6.62/-9.76	-15.08/-9.76	-15.62/-6.23	-11.42/-5	-7.4/-7.38	-7.19/-3.98	-4.15/-1.38	-3.85/-3.53	-2.13/-3.03	-4.45/-7.61	-8.47/-16.68	-17.5/-13.79	-15.41/-18.48	-17.78/-13.04	-12.75/-18.9	-12.76/-14.52
Θ(82.5°)	-18.59/-12.67	-7.01/-4.88	-5.02/-7.99	-4.23/-4.62	-0.94/-2.42	-1.05/-1.55	-0.25/-4.82	-1.19/-16.41	-5.18/-17.91	-12.88/-6.24	-11.94/-6.21	-5.97/-6.72	-4.16/-6.52	-4.33/-0.56	-2.81/-2.96	-2.27/-3.35	-4.74/-7.66	-8.12/-17.51	-13.2/-11.56	-15.39/-16.87	-17.87/-14.54	-15.92/-16.32	-11.05/-13.73	
Θ(90°)	-17.92/-14.56	-7.87/-8.08	-8.59/-10.26	-5.8/-8.62	-3.27/-3.99	-1.07/-1.73	-1.89/-4.74	-10.02/-15.1	-7.51/-9.3	-10.8/-9.19	-10.49/-6.21	-10.57/-6.6	-8.54/-7.47	-3.73/-6.77	-5.44/-1.65	-3.05/-5.03	-3.65/-6.08	-7.34/-10.6	-10.22/-18.3	-14.84/-12.96	-18.85/-18.85	-15.55/-15.99	-16.86/-17.19	-11.21/-15.65
Θ(97.5°)	-19.45/-14.77	-10.08/-10.55	-11.56/-11.41	-6.99/-7.63	-4.32/-6.59	-3.52/-1.25	-1.48/-4.15	-11.63/-11.67	-8.85/-9.29	-9.31/-15.29	-11.49/-7.44	-14.76/-12.2	-8.82/-8.73	-5.23/-10.48	-7.97/-4.96	-5.04/-6.15	-6.89/-7.28	-10.73/-16.26	-14.42/-19.38	-18.3/-12.13	-17.62/-17.37	-18.27/-17.7	-16.39/-14	-11.92/-17.34
Θ(105°)	-16.77/-13.31	-11.96/-14.87	-16.3/-14.04	-11.53/-13.53	-6.08/-7.26	-6.44/-3.16	-2.47/-2.96	-9.26/-9.72	-10.27/-12	-7.57/-13.18	-8.55/-4.07	-19.63/-16.38	-13.06/-8.16	-5.59/-9.19	-8.93/-9.3	-6.09/-14.04	-10.58/-14.98	-14.82/-19.36	-15.57/-18.35	-17.14/-16.18	-18.65/-18.18	-18.94/-18.25	-18.32/-14.56	-9.88/-19.21
Θ(112.5°)	-17.66/-13.42	-15.15/-19.29	-18.43/-14.93	-11.57/-16.39	-11.39/-7.8	-7.17/-4.28	-6.47/-8.18	-12.79/-13.09	-9/-16.52	-10.95/-18.53	-18.91/-18.35	-6.57/-5.82	-6.05/-13.06	-11.46/-11.44	-10.73/-13.78	-10.33/-13.47	-14.63/-18.58	-15.12/-18.98	-17.99/-17.66	-18.9/-18.24	-18.21/-17.67	-17.94/-13.03	-14.55/-18.95	
Θ(120°)	-18.16/-16.61	-17.77/-18.75	-19.05/-18.28	-15.3/-17.06	-16.59/-16.02	-10.18/-4.75	-6.78/-7.14	-8.17/-7.55	-14.96/-15.34	-8.9/-11.23	-11.08/-18.55	-13.78/-14.8	-8.26/-6.04	-10.49/-9.93	-9.67/-9.8	-11.1/-11.63	-7.61/-18.39	-11.62/-17.25	-14.13/-18.92	-18.88/-18.8	-18.6/-19.12	-18.01/-18.89	-18.15/-18.75	-17.34/-18.11
Θ(127.5°)	-12.95/-16.5	-18.62/-18.95	-19.18/-18.12	-18.09/-16.63	-16.95/-16.86	-18.13/-9.36	-9.88/-6.7	-11.53/-10.68	-13.4/-18.06	-8.17/-10.9	-17.92/-8.12	-11.62/-15.3	-5.97/-7.25	-10.86/-16.69	-10.89/-13.29	-11.96/-17.41	-17.35/-18.96	-15.76/-18.76	-15.59/-18.88	-17.79/-17.65	-18.41/-17.96	-18.49/-17.69	-17.81/-13.31	-17.28/-17.56
Θ(135°)	-13.39/-17.49	-17.16/-16.96	-18.03/-16.54	-18.79/-14.95	-16.02/-18.63	-19.23/-15.82	-10.84/-15.65	-15.01/-18.57	-12.8/-18.47	-16.11/-12.72	-18.08/-10.61	-12.52/-14.97	-9.79/-14.9	-11.84/-15.11	-8.69/-7.08	-12.44/-9.42	-17.82/-11.12	-8.84/-15.05	-17.61/-15.02	-18.65/-18.33	-18.55/-17.84	-13.8/-18.85	-15.19/-15.21	-17.53/-17.87
Θ(142.5°)	-15.11/-18.27	-19.22/-16.09	-17.75/-19.02	-14.44/-10.38	-11.49/-12.11	-14.71/-17.67	-16.42/-16.4	-16.14/-11.74	-9.03/-9.97	-16.55/-10.7	-11.69/-14.14	-15.56/-15.6	-14.35/-12.55	-12.18/-15.47	-8.48/-7.82	-11.99/-10.08	-14.62/-18.64	-14.19/-11.38	-13.14/-13.23	-18.56/-17.81	-16.12/-19.3	-17.03/-18.22	-17.48/-19.4	-18.69/-17.46
Θ(150°)	-19.09/-17.81	-19.14/-17.44	-18.05/-18.59	-15.88/-15.85	-19.18/-13.36	-10.03/-11.95	-12.4/-8.48	-9.31/-12.9	-7.47/-5.31	-7.48/-12.52	-17.96/-13.42	-15.15/-18.7	-10.76/-13.18	-12.31/-13.57	-14.17/-12.22	-10.32/-12.51	-14.62/-14.87	-14.44/-15.6	-16.29/-18.49	-17.15/-19.82	-18.19/-18.76	-16.95/-18.73	-16.95/-18.27	
Θ(157.5°)	-19.23/-18.51	-19.09/-17.01	-17.72/-18.12	-19.02/-14.45	-8.41/-5.59	-6.03/-9.74	-10.37/-16.17	-10.86/-18.77	-16.37/-15.27	-16.53/-16.68	-18.98/-19.12	-17.93/-17.7	-11.77/-19.1	-16.46/-13.62	-7.58/-17.14	-9.44/-13.24	-11.81/-10.05	-9.63/-10.24	-11.04/-12.6	-16.38/-18.42	-19.14/-17.25	-17.97/-18.96	-17.5/-17.63	-18.67/-18.03
Θ(165°)	-17.06/-17.3	-18.43/-18.15	-19.62/-18.25	-18.56/-15.19	-10.97/-9.31	-9.64/-12.67	-17.94/-18.75	-13.97/-11.11	-10.87/-13.56	-18.2/-18.99	-18.26/-18.45	-17.9/-11.07	-8.5/-10.69	-15.58/-18.8	-11.91/-10.98	-13.29/-18.94	-16.33/-12.85	-11.13/-12.32	-15.6/-17.97	-18.45/-18.84	-17.73/-18.84	-17.71/-18.57	-17.21/-18.61	-18.02/-18.9
Θ(172.5°)	-18.25/-17.93	-18.73/-16.91	-18.31/-17.64	-14.77/-12.58	-11.29/-10.28	-10.58/-12.68	-15.03/-15.18	-13.86/-12.95	-12.13/-14.18	-12.5/-14.01	-15.18/-15.14	-17.25/-17.72	-16.46/-17.48	-18.43/-18.22	-14.65/-13.23	-14.64/-17.98	-16.53/-14.02	-12.09/-12.2	-13.02/-15.3	-17.64/-16.27	-17.48/-17.06	-17.96/-18.32	-18.17/-18.68	-18.62/-19.03
Θ(180°)	-15.75/-17.17	-18.06/-18.59	-16.31/-14.8	-14.65/-14.82	-15.2/-15.7	-16.52/-16.93	-17.15/-15.64	-14.44/-14.47	-14.75/-15.77	-15.58/-15.41	-16.36/-17.26	-17.17/-16.94	-14.99/-14.39	-13.22/-12.56	-14.22/-16.03	-15.85/-15.33	-14.38/-13.16	-13.38/-13.6	-13.71/-12.97	-13.54/-14.12	-13.88/-12.8	-13.32/-17.07	-17.67/-17.93	-15.21/-15.29
Freq(Hz)	5.3GPol	ThetaAnt. 4	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-14.16/-15.9	-16.97/-15.18	-18.24/-18.02	-17.5/-18.18	-13.51/-11.65	-10.59/-9.07	-8.25/-7.62	-6.96/-7.1	-5.62/-5.8	-6.87/-7.4	-9.24/-11.84	-13.1/-14.6	-18.16/-19.06	-17.71/-17.17	-15.91/-15.1	-15.39/-13.92	-12.63/-11.56	-11.68/-12.5	-12.07/-11	-10.22/-11.08	-13.73/-14.42	-17.81/-11.94		
Θ(7.5°)	-8.83/-11.22	-15.72/-17.72	-18.97/-18.75	-18.74/-18.46	-16.73/-17.31	-16.39/-15.57	-16.94/-18.86	-17.85/-16.57	-16.89/-18.3	-1														



Radiated Composite Gain Data_2G5G (4TX)

Appendix A

Θ (15°)	-17.7/-16.46	-14.1/-11.24	-9.2/-17.05	-5.8/-6.59	-8.6/-11.08	-14.7/-15.6	-14.1/-13.87	-14.7/-15.68	-17.4/-18.5	-18.2/-18.05	-17.5/-16.16	-13.6/-17.69	-15.5/-11.27	-8.7/-16.85	-5.4/-4.77	-5.5/-6.05	-6.4/-6.4	-7.1/-8.34	-10.5/-12.52	-16.1/-18.01	-17.9/-18.72	-17.8/-14.81	-13.6/-15.5	-18.3/-17.87
Θ (22.5°)	-18.9/-18.45	-15.8/-10.53	-8.5/-7.08	-5.9/-6.95	-9.5/-15.45	-10.6/-6.09	-4.8/-6.72	-7.7/-8.5	-8.3/-8	-8.4/-10.32	-11.2/-8.97	-7.7/-10.05	-12.1/-9.51	-6.5/-5.72	-5.5/-5.28	-6.5/-17.73	-8.2/-8.16	-8.7/-10.7	-14.9/-18.77	-18.6/-19.43	-18.4/-16.93	-15.4/-11.21	-10.6/-14.45	-18.6/-17.17
Θ (30°)	-12.7/-18.47	-16.3/-8.08	-5.9/-6.91	-9.8/-12.18	-13.9/-11.82	-5.3/-6.29	-3.6/-7.01	-9/-6.67	-5.4/-7.01	-11.9/-14.67	-11.7/-10.09	-6.0/-6.91	-6.6/-11.18	-5.8/-4.26	-6.6/-8.7	-7.9/-9.62	-10.4/-11.18	-9.8/-10.45	-12.1/-15.36	-17.9/-18.15	-17.4/-18.88	-17.8/-13.54	-10.7/-11.88	-15.9/-13.5
Θ (37.5°)	-12.7/-16.78	-16.9/-7.2	-4.0/-6.46	-19.2/-10.67	-11.4/-9.09	-4.2/-3.24	-5.2/-7.21	-6.6/-5.96	-5.4/-6.78	-11.3/-18.68	-15.1/-11.99	-9.8/-3.82	-4.0/-10.82	-6.2/-4.4	-9.7/-17.17	-8.3/-6.04	-5.3/-6.08	-9.2/-17.2	-15.4/-14.93	-16.5/-18.82	-18.4/-18.94	-17.6/-18.29	-18.7/-18.71	-18.2/-15.13
Θ (45°)	-16.3/-18.34	-11.4/-8.79	-6.1/-6.57	-15.2/-5.95	-6.9/-7.39	-4.2/-5.13	-6.5/-7.88	-7.9/-6.34	-6.0/-6.78	-6.3/-11.21	-18.5/-19.6	-10.9/-7.1	-3.7/-5.42	-16.9/-7.19	-4.1/-11.44	-5.1/-5.13	-5.7/-7.41	-17.4/-9.08	-11.4/-14.97	-15.0/-18.04	-18.4/-16.61	-15.3/-12.25	-14.4/-17.13	-18.2/-16.37
Θ (52.5°)	-10.1/-14.36	-8.7/-10.21	-6.3/-3.71	-9.7/-6.34	-4.7/-5.53	-5.4/-8.49	-11.2/-12.75	-9.4/-9.28	-8.3/-6.37	-6.9/-9.56	-10.1/-7.78	-8.3/-9.1	-4.1/-6.397	-7.5/-5.38	-3.1/-4.92	-4.7/-4.78	-4.7/-6	-14.6/-6.59	-7.8/-8.28	-8.0/-11.79	-19.0/-18.9	-15.1/-12.67	-14.8/-18.49	-14.1/-9.81
Θ (60°)	-7.1/-11.97	-8.8/-10.01	-7.9/-2.28	-5.9/-1.88	-2.9/-3.92	-5.7/-5.11	-10.2/-13.51	-15.0/-10.65	-4.6/-3	-5.1/-16.62	-10.3/-6.85	-11.7/-14.05	-10.1/-8.02	-4.7/-5.54	-3.4/-7.91	-4.6/-6.21	-5.9/-4.89	-9.1/-4.19	-8.2/-7.53	-9.0/-18.42	-19.3/-18.05	-18.0/-17.03	-12.0/-17.8	-13.3/-7.93
Θ (67.5°)	-5.9/-9.62	-13.5/-11.73	-6.1/-2.11	-4.8/-1.66	-1.5/-2.52	-5.0/-3.23	-4.3/-4.94	-10.1/-9.37	-6.3/-4.62	-6.2/-12.67	-14.3/-8.11	-11.3/-19.83	-14.6/-11.15	-5.7/-4.11	-3.7/-7.92	-2.9/-4.47	-7.8/-6.27	-7.9/-5.12	-8.4/-5.46	-8.6/-16.62	-17.8/-18.56	-19.2/-18.13	-17.5/-18.03	-9.7/-8.78
Θ (75°)	-5.8/-9.34	-18.1/-13.46	-5.5/-2.53	-4.0/-2.23	-2.6/-2.14	-3.3/-1.71	-1.6/-3.03	-7.9/-9.98	-7.4/-5.76	-7.5/-8.03	-18.8/-8.13	-7.8/-9.61	-13.4/-6.38	-8.0/-7.1	-4.4/-5.642	-3.3/-3.16	-6.2/-16.04	-8.9/-6.04	-8.0/-4.55	-7.7/-16.23	-16.5/-16.79	-16.5/-18.75	-16.3/-18.92	-10.2/-9.27
Θ (82.5°)	-6.9/-14.8	-18.6/-13.46	-6.4/-4.44	-4.9/-3.94	-3.3/-1.52	-3.0/-1.26	-1.13/-4.19	-11.4/-15.17	-7.8/-8.79	-13.3/-6.56	-18.6/-4.71	-8.1/-9.06	-13.4/-4.95	-7.7/-4.673	-5.2/-5.62	-3.8/-2.6	-5.3/-7.64	-10.4/-8.41	-11.2/-5.18	-10.2/-16.03	-18.5/-13.23	-11.6/-15.94	-18.7/-18.46	-10/-8.89
Θ (90°)	-8.0/-18.68	-18.5/-15.13	-7.3/-5.8	-6.6/-4.8	-4.0/-2.02	-4.1/-2.14	-1.4/-5.84	-12/-17.5	-7.5/-7.65	-18.9/-8.95	-17.8/-6.93	-9.8/-8.07	-11.9/-6.11	-8.5/-5.89	-6.9/-6.61	-4.0/-7.399	-5.6/-9.35	-9.7/-9.32	-11.5/-6.57	-12.7/-18.93	-16.4/-11.98	-10.6/-15.38	-16.1/-17.9	-14.5/-9.42
Θ (97.5°)	-9.0/-18.71	-17.0/-16.76	-7.5/-8.02	-7.5/-5.43	-5.6/-3.64	-4.9/-4.7	-3.1/-7.62	-13.3/-17.44	-9.0/-9.49	-13.8/-9.53	-15.2/-7.72	-12.8/-5.49	-14.0/-8.49	-7.9/-8.19	-9.8/-7.637	-9.0/-7.734	-6.8/-13.46	-12.6/-14.06	-14.9/-7.9	-18.3/-18.6	-18.3/-12.55	-11.0/-15.12	-18.8/-18.53	-18.0/-9.76
Θ (105°)	-10.7/-18.2	-18.5/-18.91	-10.5/-10.27	-9.0/-9.16	-8.4/-4.89	-5.5/-6.54	-4.9/-6.76	-11.0/-13.16	-12.5/-9.82	-9.7/-12.23	-16.7/-9.15	-14.8/-18.48	-15.5/-7.8	-7.2/-19.02	-14.1/-8.57	-15.8/-13.57	-17.4/-13.69	-17.0/-17.66	-17.2/-10.42	-19.0/-18.38	-17.1/-14.258	-10.8/-19.89	-13.0/-18.31	-18.9/-9.73
Θ (112.5°)	-13.1/-18.83	-17.4/-19.27	-13.4/-14.82	-11.8/-9.65	-10.6/-9.5	-7.7/-9.51	-7.1/-7.76	-13.4/-10.95	-16.2/-13.56	-11.4/-18.36	-12.5/-16.68	-15.5/-14.88	-11.3/-6.39	-11.6/-11.47	-12.3/-8.77	-17.0/-13.84	-15.4/-18.17	-17.1/-14.28	-15.9/-9.48	-13.9/-18.32	-18.2/-14.16	-16.9/-18.74	-15.7/-18.44	-18.2/-11.79
Θ (120°)	-18.3/-18.57	-15.2/-15.77	-14.9/-12.25	-12.8/-12.85	-10.6/-14.49	-11.8/-13.52	-7.1/-11.002	-11.6/-14.53	-18.5/-18.24	-10.6/-14.13	-15.0/-14.71	-15.6/-11.8	-9.9/-9.14	-13.5/-18.52	-11.6/-11.92	-12.7/-8.49	-18.2/-18.43	-17.4/-16.86	-12.0/-13.13	-16.1/-18.62	-14.8/-11.76	-15.8/-14.83	-17.1/-15.67	-18.1/-17.17
Θ (127.5°)	-19.0/-19.01	-14.9/-16.61	-18.1/-13.21	-15.1/-17.42	-15.7/-18.09	-12.4/-18.38	-14.7/-16.44	-13.9/-19.18	-19.1/-18.59	-8.9/-14.36	-12.6/-12.45	-10.5/-14.97	-10.1/-7.81	-15.1/-14.33	-16.3/-18.34	-18.7/-13.93	-17.4/-18.33	-19.0/-16.07	-10.9/-13.92	-17.2/-17.17	-13.6/-17.91	-18.8/-18.13	-9.5/-14.99	-15.4/-18.04
Θ (135°)	-18.2/-19.42	-12.1/-18.81	-17.7/-15.93	-16.2/-13.75	-12.9/-18.15	-17.3/-17.7	-9.0/-12.32	-17.4/-19.27	-17.1/-18.4	-11.1/-10.97	-12.7/-10.01	-9.8/-11.16	-18.6/-15.1	-18.9/-14.7	-15.7/-18.53	-11.7/-18.99	-16.3/-15.04	-16.3/-14.43	-18.1/-16.12	-18.2/-18.85	-16.2/-19.02	-12.8/-12.85	-12.8/-11.79	-15.8/-14.14
Θ (142.5°)	-17.9/-18.63	-17.6/-15.14	-16.7/-13.56	-18.3/-19	-10.9/-10.4	-10.1/-15.88	-17.8/-13.8	-18.6/-13.77	-10.6/-10.69	-18.5/-17.64	-13.1/-15.41	-15/-13.71	-19.1/-9.59	-13.8/-16.17	-13.8/-18.41	-13.8/-17.37	-17.8/-18.38	-17.3/-18.35	-18.4/-19.05	-17.4/-17.07	-18.9/-19.02	-19.3/-18.61	-18.1/-19.17	
Θ (150°)	-17.6/-17.86	-17.7/-18.79	-15.2/-19.81	-17.4/-12.07	-12.8/-18.5	-11.9/-8.56	-10.2/-12.89	-11.0/-13.24	-16.9/-11.17	-9.1/-12.78	-18.1/-12.67	-10.6/-16.44	-19.0/-10.52	-17.1/-11.15	-9.2/-16.79	-16.3/-17.03	-18.5/-17.31	-18.2/-18.65	-18.0/-17.55	-15.1/-17.67	-16.7/-18.5	-16.0/-14.18	-16.1/-17.55	-17.8/-19.39
Θ (157.5°)	-15.5/-19.01	-18.1/-18.03	-18.0/-18.43	-13.5/-13.05	-17.0/-12.98	-8.2/-7.63	-9.7/-14.75	-16.5/-17.91	-17.5/-18.39	-17.9/-11.27	-10.8/-17.4	-17.1/-13.66	-12.5/-12.96	-18.8/-10.46	-11.3/-18.43	-15.4/-11.5	-10.4/-11.16	-11.9/-13.53	-19.4/-17.19	-15.0/-17.63	-18.3/-18.92	-18.7/-17.72	-18.1/-17.91	-15.8/-16.04
Θ (165°)	-16.9/-19.22	-17.8/-17.52	-17.4/-14.44	-13.5/-17.84	-18.3/-17.3	-13.9/-13.49	-15.8/-17.78	-14.7/-11.88	-10.1/-11.24	-14.6/-14.25	-11.5/-14.63	-18.5/-16.91	-16.1/-18.83	-19.3/-18.68	-18.6/-17.86	-16.7/-13.1	-12.1/-12.68	-15.8/-18.64	-18.1/-18.44	-17.6/-17.83	-17.9/-18.84	-17.9/-18.73	-17.4/-16.15	-17.8/-17.83
Θ (172.5°)	-18.7/-18.83	-18.1/-15.26	-13.9/-14.47	-14.7/-16.46	-19.5/-18.15	-18.5/-16.54	-13.3/-12.34	-12.1/-12.7	-12.1/-13.73	-18.9/-18.29	-17.1/-18.34	-18.5/-18.98	-17.4/-18.41	-19.2/-18.33	-17.8/-16.77	-15.0/-13.63	-12.5/-11.33	-13.6/-15.96	-19.0/-19	-19.3/-19.16	-17.7/-16.76	-17.5/-18.88	-17.5/-17.67	-19.0/-19
Θ (180°)	-19.0/-18.6	-15.3/-14.86	-15.2/-15.97	-16.8/-19.07	-18.2/-16.69	-14.9/-13.96	-15.3/-17.03	-17.0/-16.84	-17.2/-18.54	-19.0/-18.91	-19.0/-18.12	-17.6/-16.19	-16.2/-16.28	-14.2/-13.51	-13.4/-12.5	-12.9/-14.27	-14.7/-15.73	-17.7/-18.05	-17.9/-18.38	-19.0/-18.43	-17.9/-18.93	-19.1/-18.47	-17.7/-18.22	-18.2/-15.74
Freq(Hz)	5.785GPol.	ThetaAnt. 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ (0°)	-4.7/-5.53	-7.0/-7.72	-8.5/-9.98	-13/-16.96	-17.0/-18.73	-18.4/-17.24	-13.5/-11.53	-10.5/-9.16	-8.1/-7.79	-7.5/-6.93	-6.4/-6.76	-6.8/-6.46	-7.4/-7.94	-8.5/-9.61	-10.3/-12.35	-15.1/-16.85	-17.5/-17.98	-15.8/-13.81	-11.8/-10.15	-8.2/-6.83	-6.2/-5.62	-4.3/-4.61	-5.18/-4.95	
Θ (7.5°)	-9.4/-8.52	-8.1/-9.09	-10.8/-11.91	-13.6/-15.09	-15.4/-15.03	-12.8/-11.01	-9.3/-8.47	-8.0/-7.87	-6.9/-5.84	-5.6/-5.72	-4.7/-3.85	-3.9/-3.87	-4.0/-4.75	-5.3/-5.91	-7.2/-9.14	-12.7/-16.17	-18.7/-18.34	-13.6/-12.67	-10.3/-8.12	-7.7/-8.11	-9.3/-9.75	-8.7/-9.87	-8.16/-9.01	
Θ (15°)	-11.4/-11.72	-10.6/-11.74	-16.2/-18.08	-19.0/-15.14	-11.7/-9.69	-8.4/-7.31	-7.2/-7.17	-6.5/-6.06	-5.9/-4.96	-5.8/-5.36	-4.7/-4.5	-4.5/-4.01	-4.4/-5.81	-6.4/-7.04	-7.9/-9.47	-11.1/-10.07	-9/-9.09	-9.3/-9.27	-9.4/-9.67	-8.7/-7.71	-8.1/-9.13	-10.6/-11.12	-10.8/-10.55	-10.5/-10.75
Θ (22.5°)	-9.2/-9.24	-8.4/-8.16	-8.8/-9.8	-10.1/-10.42	-12.5/-13.44	-14.7/-13.59	-9.0/-5.35	-3.5/-2.39	-1.8/-1.32	-0.2/-0.65	0.84/-0.53	0/-1.35	-2.8/-4.93	-8.6/-9.52	-10.5/-11.01	-10.5/-9.8	-7.0/-7.36	-7.6/-8.44	-9.6/-11.77	-13.7/-15.41	-16.5/-18.34	-16.5/-12.46	-10.4/-10.41	-11.3/-10.54
Θ (30°)	-10.9/-7.66	-3.9/-5.37	-10.2/-7.18	-5.2/-5.57	-12.8/-9.26	-8.8/-8.45	-4.0/-1.05	0.2/-0.69	0.5/-0.23	-0.7/-1.44	-0.2/-1.66	1.7/-0.81	-1.7/-1.11	-3.3/-10.29	-10.0/-10.2	-17.1/-18.2	-12.5/-10.99	-9.34/-6.84	-6.6/-9.57	-15.3/-15.82	-11.5/-9.72	-8.4/-8.39	-8.0/-8.26	-8.9/-11.02
Θ (37.5°)	-14.8/-9.24	-4.7/-4.86	-12.7/-8.66	-4.2/-6.23	-7.7/-8.529	-7.6/-6.909	-3.5/-2.64	0.0/-0.03	-0.2/-0.74	0.0/-1.99	2.6/-1.92	1.8/-2	-1.0/-9.69	-4.8/-3.69	-10.3/-8.95	-5.2/-4.3	-2.6/-3.16	-6.8/-15.91	-18.3/-10.68	-6.1/-9.429	-4.7/-7.64	-10.3/-13.2	-12.7/-12.86	
Θ (45°)	-9.6/-6.33	-7.9/-4.35	-3.1/-11.81	-6.5/-4.87	-5.7/-4.74	-4.9/-3.75	-0.9/-0.34	0.7/-1.69	2.34/-1.3	0.4/-0.18	-0.09/-1.56	2.32/-2.46	2.48/-1.96	0.86/-1.86	-0.8/-0.37	-3.7/-3.53	-2.9/-3.09	-2.1/-2.464	-13.7/-9.85	-5.7/-4.22	-3.09/-1.2	-1.8/-4.4	-7.8/-13.23	-17.1/-17.33
Θ (52.5°)	-11.5/-12.58	-2.2/-3.3	-1.1/-5.01	-4.4/-2.77	-4.2/-1.55	0.5/-0.14	0.45/-1.13	1.84/-2.75	2.87/-2.84	-4.09/-4.4	3.04/-3.72	3.53/-2.95	2.87/-1.57	1.12/-0.37	0.68/-0.04	-2.7/-2.53	-1.4/-1.16	-2.6/-2.618	-9.0/-8.07	-6.9/-6.51	-5.6/-2.13	-1.4/-2.95	-5.6/-5.87	-9.7/-16.13
Θ (60°)	-13.7/-12.45	0.6/-1.29	-0.3/-0.97	-1.1/-4.097	-0.94/-0.24	1.84/-0.26	0.64/-0.24	0.02/-1.08	1.48/-1.99	2.93/-82	2.81/-3.94	3.97/-3.04	3.19/-3.82	2.46/-0.27	0.07/-0.89	-1.54/-2.47	-2.0/-0.16	-2.4/-2.96	-4.0/-4.87	-7.9/-3.71	-7.1/-8.406	-4.3/-5.32	-6.7/-4.57	-4.5/-8.51
Θ (67.5°)	-17.9/-3.9	-0.5/-0.94	0.37/-1.54	1.88/-0.24	0.5/-0.6	2.15/-1.42	1.29/-1.04	-1.04/-2.13	2.14/-3.51	-9.6/-3.76	-1.56/-1.51	3.46/-2.77	0.88/-4.34	3.64/-0.59	0.28/-1.03	-0.5/-1.52	-0.9/-0.98	-2.8/-2.49	-5.1/-6.49	-13.8/-5.39	-4.6/-5.16	-8.6/-10.04	-6.2/-3.01	-2.4/-7.58
Θ (75°)	-15.2/-7.5	-3.6/-0.85	1.24/-2.58																					



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Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 1 Max Gain (dBi)	2.91	4.88	4.99	5.07	5.29
Ant. 2 Max Gain (dBi)	3.17	3.95	3.41	5	5.07
Ant. 1 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/67.5/105	Theta/67.5/37.5	Theta/45/22.5	Theta/45/15	Theta/52.5/15
Ant. 2 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/52.5/232.5	Theta/52.5/277.5	Theta/45/285	Theta/82.5/285	Theta/45/300
Max Gain (dBi)	3.17	4.88	4.99	5.07	5.29
DG [1SS] (dBi)	3.9	7.09	6.19	6.33	5.81
DG [2SS] (dBi)	3.17	4.88	4.99	5.07	5.29



Radiated Composite Gain Data_2G5G (2TX / Ant 1~2)

Appendix B

DG 1SS Result

Freq(Hz)	2.45GPol.	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°)	-2.12/3.18	-4.25/-5.55	-7.19/-3.33	-9.96/-10.58	-10.97/-11.02	-9.41/-7.06	-5.48/-4.22	-2.92/-1.8	-0.89/-0.57	-0.73/-0.98	-1.04/-1.07	-1.15/-1.39	-1.76/-2.4	-3.48/-4.95	-6.86/-9.06	-9.82/-10.6	-10.51/-10.39	-8.59/-6.87	-5.79/-4.94	-3.83/-2.61	-1.73/-1.31	-1.08/-0.85	-0.59/-0.44	-0.59/-1.21
Θ(7.5°)	-1.45/-2.04	-2.89/-3.92	-5.43/-7.15	-8.47/-9.43	-10.44/-11.51	-10.69/-8.3	-6.5/-5.19	-3.96/-2.59	-1.45/-0.92	-1.1/-1.56	-1.84/-1.84	-2.55/-3.44	-4.78/-6.54	-9.01/-10.6	-12.02/-12	-10.95/-9.26	-7.59/-5.88	-4.59/-3.68	-3.03/-2.33	-1.76/-1.32	-1.07/-0.87	-0.67/-0.64	-0.77/-1.08	
Θ(15°)	-1.7/-1.66	-2.01/-2.76	-3.98/-5.61	-7.59/-9.42	-11.27/-13.48	-12.27/-9.52	-7.45/-5.99	-4.91/-3.75	-2.59/-1.98	-1.91/-2.16	-2.4/-2.49	-2.53/-2.84	-3.41/-4.27	-5.38/-6.93	-8.89/-11.01	-12.85/-11.88	-9.86/-8.28	-6.24/-4.78	-3.76/-3.14	-2.85/-2.77	-2.71/-2.7	-2.5/-2.22	-2.03/-1.96	-1.93/-1.89
Θ(22.5°)	-2.56/-1.88	-1.63/-2.08	-3.23/-5.19	-7.78/-9.67	-11.32/-13.67	-12.97/-10.38	-7.85/-6.26	-5.35/-4.61	-3.8/-2.97	-2.18/-1.6	-1.38/-1.46	-1.68/-2.13	-2.83/-3.69	-4.73/-5.94	-7.41/-9.49	-11.25/-11.21	-8.94/-6.74	-5.33/-4.4	-3.92/-3.5	-3.15/-3.05	-3.24/-3.77	-4.19/-4.31	-4.09/-3.76	-3.5/-3.17
Θ(30°)	-2.87/-2.24	-1.85/-2.28	-3.74/-6.05	-8.01/-8.5	-9.47/-11.46	-12.59/-11.58	-8.74/-6.65	-5.4/-4.65	-3.9/-2.77	-1.44/-0.35	0.220/18	-1.75/-2.27	-2.89/-3.84	-5.21/-7.28	-10.19/-10.62	-8.61/-6.64	-5.37/-4.91	-4.74/-4	-3.55/-3.59	-5.84/-7.22	-7.8/-6.67	-4.88/-3.58		
Θ(37.5°)	-1.9/-2.1	-2.45/-3.23	-5.05/-7.46	-7.71/-7.23	-8.01/-10.06	-10.36/-9.67	-7.97/-6	-4.46/-3.74	-3.18/-2.05	-0.84/-0.13	0.770/81	0.19/-0.93	-1.81/-1.87	-1.88/-2.54	-3.94/-6.04	-8.72/-9.97	-8.95/-7.77	-5.99/-5.32	-4.33/-3.27	-3.47/-4.78	-6.11/-7.06	-8.18/-8.8	-9.24/-8.11	-4.74/-2.48
Θ(45°)	-1.24/-1.62	-2.77/-4.14	-6/-6.34	-6.55/-5.73	-5.89/-6.99	-7.34/-6.42	-6.24/-5.77	-4.79/-4.37	-4.31/-2.92	-1.45/-0.52	0.110/33	-0.05/-1.18	-2.24/-2.27	-1.99/-2.23	-3.13/-4.85	-7.05/-6.69	-9.28/-8.49	-6.35/-5.16	-3.97/-3.61	-4.7/-6.86	-7.98/-7.47	-8.91/-7.37	-5.5/-3.47	-3.43/-1.98
Θ(52.5°)	-2.34/-2.3	-3.37/-4.89	-5.35/-5.34	-4.75/-4.67	-5.16/-6.19	-6.53/-6.06	-6.38/-6.4	-5.28/-4.69	-4.23/-3.73	-2.41/-1.68	-0.84/-0.27	-0.49/-1.84	-2.54/-2.49	-2.34/-2.56	-3.3/-4.98	-7.24/-8.86	-8/-6.69	-5.49/-4.73	-4.22/-4.63	-6.66/-8.86	-8.22/-8.1	-9.11/-7.62	-4.44/-2.66	-2.59/-2.79
Θ(60°)	-3.52/-3.46	-4.04/-4.46	-4.19/-3.41	-2.7/-2.81	-3.85/-5.68	-6.81/-7.54	-10.02/-8.6	-6.75/-5.52	-4.33/-4.42	-3.25/-2.89	-1.44/-0.04	0.15/-0.99	-2.19/-2.63	-2.78/-2.97	-3.01/-4.17	-5.99/-7.03	-5.4/-4.96	-5.15/-5.06	-4.17/-4.59	-7.46/-8.76	-6.37/-5.91	-8.32/-7.27	-4.06/-2.3	-2.14/-2.88
Θ(67.5°)	-3.89/-3.28	-3.94/-3.98	-3.48/-3.13	-2.62/-2.53	-3.3/-4.79	-5.77/-6.67	-9.94/-10.82	-10.43/-8.54	-5.83/-4.19	-4.48/-4.16	-1.190/95	1.26/-0.18	-2.23/-3.13	-3.19/-3.04	-2.46/-2.86	-4.79/-5.24	-4.67/-5.27	-5.76/-4.6	-3.09/-3.51	-5.62/-6.46	-3.37/-2.98	-6.87/-6.49	-2.93/-2.44	-3.78/-4.33
Θ(75°)	-4.07/-3.12	-3.62/-4.28	-3.95/-3.75	-3.21/-3.17	-3.86/-4.97	-5.83/-6.47	-8.43/-10.6	-11/-8.63	-7.29/-6.27	-6.87/-6.57	-2.270/76	1.49/-0.05	-2.95/-3.08	-2.47/-2.93	-2.75/-3.23	-5.32/-6.49	-5.23/-4.84	-4.27/-2.57	-1.73/-2.4	-4.65/-5.55	-2.61/-2.3	-6.3/-6.53	-1.59/-1.12	-3.71/-5.73
Θ(82.5°)	-3.93/-2.95	-3.61/-3.95	-3.35/-3.13	-2.82/-2.9	-3.82/-4.93	-5.9/-7.45	-9.29/-10.22	-9.62/-7.76	-6.82/-5.88	-6.15/-6.03	-2.450/59	1.34/-0.42	-2.86/-2.24	-2.16/-3.26	-3.5/-3.96	-5.26/-4.48	-3.19/-3.1	-2.23/-2.57	-2.07/-2.27	-3.89/-4.59	-2.23/-2.17	-6.46/-6.23	-1.22/-0.61	-2.8/-4.72
Θ(90°)	-3.83/-3.25	-4.53/-4.28	-3.68/-3.76	-3.52/-3.87	-4.69/-4.96	-5.39/-7.14	-10.72/-11.18	-11.08/-10.07	-8.3/-6.43	-5.76/-5.68	-3.95/-0.29	1.04/-0.24	-3.23/-3.42	-2.75/-3.61	-4.65/-4.15	-4.64/-5	-3.88/-4.23	-4.67/-3.37	-2.02/-1.64	-3.28/-3.58	-2.77/-2.3	-7.19/-8.32	-2.61/-2.23	-4.39/-5.06
Θ(97.5°)	-3.85/-3.09	-4.66/-4.71	-3.56/-3.25	-3.05/-3.8	-5.65/-5.87	-6.12/-7.52	-9.22/-9.9	-11.05/-9.84	-7.79/-6.39	-6.25/-7.91	-4.7/-0.87	0.37/-1.2	-4.77/-3.74	-3.15/-4.43	-5.37/-3.86	-4.35/-5.71	-4.44/-4.6	-4.77/-3.76	-2.69/-2.64	-4.71/-5.5	-1.59/-1.34	-6.2/-6.25	-2.16/-3.01	-5.88/-5.47
Θ(105°)	-3.82/-2.92	-4.45/-4.95	-4.15/-3.87	-3.21/-3.54	-5.51/-7.1	-7.88/-8.7	-9.39/-10.99	-11.87/-11	-10.1/-9.15	-8.77/-8.65	-5.24/-1.29	0.34/-0.68	-3.67/-5.06	-4.65/-4.81	-4.71/-3.33	-1.85/-1.61	-4.04/-6.18	-2.38/-2.18	-7.67/-7.19	-2.26/-3.35	-7.67/-7.19	-2.26/-3.35	-7.56/-6.2	
Θ(112.5°)	-4.68/-3.56	-4.61/-5.03	-4.64/-4.01	-3.34/-3.45	-4.95/-7.39	-9.85/-11.07	-12.24/-11.7	-10.44/-9.5	-8.56/-7.28	-6.79/-7.04	-4.4/-1.19	0.03/-1.53	-4.94/-5.09	-3.65/-3.38	-3.32/-4.39	-5.86/-7.08	-5.1/-3.76	-3.51/-3.15	-2.36/-3.02	-7.63/-10.54	-4.6/-4.24	-9.04/-5.48	-1.63/-2.24	-6.18/-6.85
Θ(120°)	-5.4/73	-5.54/-5.63	-5.09/-4.52	-3.8/-4.04	-4.7/-6.2	-8.3/-9.16	-12.07/-15.37	-13.66/-11.84	-8.78/-8.36	-7.15/-6.92	-4.5/-1.83	-0.78/-2	-4.11/-5.62	-6.15/-5.98	-5.24/-4.55	-5.18/-5.77	-5.16/-4.92	-5.03/-4.65	-4.37/-4.45	-7.05/-6.08	-4.46/-4.81	-8.33/-6.34	-3.87/-3.77	-5.97/-6.33
Θ(127.5°)	-4.81/-4.88	-5.7/-6.4	-5.13/-4.01	-2.7/-2.81	-4.62/-5.64	-11.67/-11.83	-9.08/-7.2	-5.82/-5.6	-6.34/-5.54	-7.38/-2.08	-1.58/-2.66	-4.84/-7.97	-7.77/-5.71	-4.37/-4.72	-6.12/-7.84	-6.38/-3.63	-2.5/-3.03	-3.43/-3.71	-6.9/-9.99	-7.6/-8.17	-9.54/-8.32	-8.2/-7.38	-6.95/-6.68	
Θ(135°)	-3.84/-4.09	-5.12/-6.27	-6.3/-6.29	-4.37/-4.09	-4.3/-4.66	-5.72/-6.73	-9.71/-10.69	-8.99/-6.74	-5.31/-5.77	-6.39/-4.94	-3.17/-2.1	-1.87/-2.83	-4.89/-7.07	-6.38/-4.85	-3.87/-4.42	-6.43/-4.56	-6.67/-4.33	-3.57/-4.64	-4.71/-4.05	-6.73/-11.93	-12.15/-12.53	-13.22/-10.53	-12.77/-13.69	-7.55/-4.76
Θ(142.5°)	-4.06/-4.65	-5.38/-5.53	-5.55/-5.81	-6.32/-6.23	-5.74/-5.77	-6.81/-7.82	-9.06/-11.03	-10.4/-8.79	-8.59/-9.12	-7.61/-8.95	-3.68/-3.57	-4.38/-6.35	-9.38/-10.72	-9.02/-6.71	-5.59/-6.18	-8.46/-10.4	-8.52/-6.59	-4.62/-5.57	-6.24/-5.22	-6.31/-9.7	-14.51/-15.4	-14.55/-12.97	-14.23/-15.29	-9.08/-5.24
Θ(150°)	-5.45/-6.07	-6.85/-6.91	-6.75/-6.89	-7.5/-8.33	-8.11/-7.5	-7.38/-7.77	-9.31/-9.98	-9.5/-9.44	-4.89/-8.44	-7.34/-6.32	-6.51/-7.89	-9.78/-10.77	-10.11/-9.55	-9.41/-8.35	-5.87/-8.85	-10.09/-10.52	-8.15/-5.89	-5.05/-5.82	-7.59/-7.55	-6.94/-9.32	-12.08/-13.46	-14.18/-12.49	-14.21/-12.49	-9.81/-6.21
Θ(157.5°)	-6.13/-6.31	-6.84/-7.46	-8.84/-6.68	-9.39/-9.12	-8.53/-8.01	-7.66/-7.44	-7.04/-6.86	-6.84/-6.95	-6.8/-6.37	-6.6/-6.43	-6.01/-5.83	-5.66/-5.85	-6.73/-8.6	-10.44/-10.09	-9.19/-9.31	-9.84/-9.38	-8.03/-7.05	-7.08/-8.38	-10.15/-11	-10.95/-11.6	-11.6/-12.14	-11.93/-12.28	-10.37/-8.39	-6.86/-6.1
Θ(165°)	-7.11/-6.76	-6.41/-6.62	-7.29/-7.95	-7.97/-7.57	-7.32/-7.42	-7.73/-8.17	-7.18/-6.84	-6.18/-5.85	-4.68/-3.66	-2.91/-2.39	-2.14/-2.24	-2.77/-3.86	-5.53/-7.61	-9.12/-9.47	-9.83/-10.83	-11.74/-11.7	-10.1/-10.57	-10.94/-11.45	-11.59/-11.21	-10.81/-10.29	-10.41/-11.1	-11.24/-10.19	-8.69/-7.48	-7.02/-7.04
Θ(172.5°)	-8.55/-8.15	-8.06/-8.23	-8.45/-8.59	-8.67/-8.65	-8.77/-8.8	-9.3/-9.49	-9.89/-8.72	-7.95/-7.02	-4.39/-3.83	-3.54/-3.89	-4.52/-5.56	-6.81/-7.99	-8.81/-6.22	-11.13/-12.82	-13.63/-14.54	-15.39/-13.44	-9.39/-8.95	-8.5/-8.33	-8.8/-9.35	-10.52/-10.23	-9.75/-9.43	-9.28/-9.84		
Θ(180°)	-9.35/-9.4	-9.97/-10.16	-9.7/-10.26	-10.63/-11.06	-11.66/-11.39	-11.22/-10.94	-10.77/-10.05	-9.84/-9	-7.81/-7.29	-7.56/-8.26	-8.9/-9.3	-9.64/-9.98	-10.77/-10.31	-10.68/-10.98	-11.1/-11.79	-13.08/-13.81	-13.51/-12.66	-11.5/-10.14	-8.9/-7.79	-7.67/-8.29	-8.92/-9.55	-10.28/-11.21	-11.39/-10.87	-10.26/-9.68
Freq(Hz)	2.45GPol.	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°)	-6.88/-5.2	-4.28/-3.82	-3.51/-3.2	-2.87/-2.46	-2.01/-1.75	-1.98/-2.7	-3.69/-4.66	-5.88/-7.29	-8.81/-9.83	-10.78/-11.61	-12.34/-12.15	-10.41/-8.93	-7.16/-5.7	-4.5/-3.58	-2.89/-2.45	-2.32/-3.21	-2.17/-1.91	-1.77/-2.16	-3.21/-4.8	-6.39/-7.78	-8.47/-9.28	-11.01/-11.96	-11.77/-11.17	-9.88/-8.46
Θ(7.5°)	-8.07/-6.67	-5.45/-4.73	-4.29/-3.87	-3.43/-2.82	-2.21/-1.96	-2.35/-3.33	-4.6/-5.86	-7.11/-7.98	-8.38/-9.74	-11.05/-11.62	-12.05/-10.97	-9.92/-8.69	-6.17/-4.37	-3.18/-2.41	-1.92/-1.63	-1.54/-1.58	-1.56/-1.48	-1.51/-1.92	-2.93/-4.52	-6.1/-7.12	-7.73/-8.28	-9.29/-10.67	-11.17/-10.55	-9.67/-9
Θ(15°)	-8.15/-7.88	-7.06/-6.31	-5.77/-5.27	-4.64/-3.74	-2.9/-2.44	-2.58/-3.27	-4.48/-5.68	-6.51/-6.41	-6.67/-7.69	-9.49/-10.68	-10.36/-9.92	-9.61/-7.95	-5.76/-3.82	-2.42/-1.42	-0.73/-0.32	-0.16/-0.23	-0.38/-0.57	-0.87/-1.5	-2.66/-4.2	-5.76/-6.67	-6.66/-6.48	-6.69/-7.6	-8.59/-8.86	-8.57/-8.2
Θ(22.5°)	-6.44/-6.95	-7.27/-10.3	-6.89/-6.67	-6.09/-5.04	-3.91/-2.77	-1.94/-1.74	-2.38/-3.5	-4.18/-4.27	-4.79/-6.36	-8.92/-10.72	-8.89/-6.91	-5.68/-5.08	-3.78/-2.35	-1.19/-0.31	0.461/0.4	1.341/37	1.140/66	-0.07/-1.21	-2.75/-4.37	-5.71/-6.45	-4.82/-5.15	-5.74/-6.16	-6.29/-6.18	
Θ(30°)	-4.37/-4.45	-4.08/-3.74	-4.09/-5.24	-6.36/-6.2	-4.61/-2.38	-0.620/35	0.41/-0.32	-1.5/-2.86	-4.47/-6.21	-7.45/-8.1	-6.85/-4.63	-3.03/-2.14	-1.57/-0.9	-0.190.42	1.131/87	2.472/75	2.642/15	1.19/-0.16	-1.59/-2.9	-4.02/-4.6	-4.24/-3.44	-2.78/-2.65	-3.03/-3.49	-3.86/-4.15
Θ(37.5°)	-2.11/-1.45	-0.410/0.8	-0.53/-2.3	-4.6/-5.6	-4.1/-1.68	0.271/51	1.96/151	0.23/-1.83	-4.34/-5.72	-4.86/-5.32	-3.48/-3	-1.2/-2.07	-0.09/-0.2	-0.170/26	1.162/19	3.123/62	3.633/06	1.980/56	-0.77/-1.86	-2.64/-3.07	-3.03/-2.46	-1.57/-0.98	-0.99/-1.28	-1.72/-2.09
Θ(45°)	0.230/93	2.092/59	1.850/01	-1.95/-2.84	-2.27/-0.81	0.691/86	2.492/35	1.343/43	-2.43/-3.01	-1.771/103	0.2/-1.1	-0.550/4	0.4/-0.24	-0.85/-0.7	0.471/98	3.173/83	3.93/35</							



Radiated Composite Gain Data_2G5G (2TX / Ant 1~2)

Appendix B

Θ(15°)	1.24/-0.17	-2/-3.73	-5.71/9.02	-11.58/-9.92	-9.82/8.99	-8.64/8.24	-7.97/-8	-6.91/-5.64	-4.55/-3.93	-3.42/-3.18	-3.39/-4	-4.5/-4.96	-5.28/-5.3	-5/-5.74	-7.52/-7.98	-7.52/-6.91	-6.9/-7.61	-7.99/-9.32	-10.04/-9.34	-6.83/-5.05	-4.83/-4.04	-2.25/-0.74	0.41/1.35	1.95/1.98
Θ(22.5°)	1.09/-0.47	-2.68/-4.39	-5.65/-6.52	-4.46/-7.4	-7.29/-5.76	-5.03/-6.37	-7.63/-7.63	-6.3/-5.1	-5.29/-4.74	-5.29/-5.16	-4.02/-3.81	-3.2/-2.97	-3.29/-2.94	-2.79/-3.26	-4.52/-6.37	-7.86/-6.12	-5.21/-5.6	-7.35/-7.84	-6.54/-6.62	-7.6/-7.83	-6.98/-4.19	-2.250/-0.1	1.32/1.62	1.68/1.7
Θ(30°)	0.63/0.14	-0.9/-2.73	-3.35/-2.44	-2.45/-3.8	-3.43/-3.37	-3.62/-5.2	-5.97/-6.54	-5.93/-4.28	-4.03/-3.3	-3.32/-4.45	-3.61/-3.49	-2.85/-3.22	-4.23/-3.4	-2.72/-3.51	-5.09/-5.88	-7.42/-7.12	-5.3/-5	-6.46/-6.52	-5.42/-4.79	-11.91/-8.24	-4.08/-1.9	-0.640/-0.7	0.470/0.8	0.130/6.9
Θ(37.5°)	-1.35/-1.83	-0.49/-1.31	-2.9/-2.51	-3.41/-4.45	-2.61/-2.56	-3.09/-2.93	-3.21/-6.23	-6.36/-3.6	-2.37/-2.72	-2.25/-2.03	-2.61/-2.65	-3.25/-3.4	-3.93/-3.68	-3.62/-3.5	-5.53/-5.98	-8.43/-9.12	-4.19/-4.83	-6.49/-5.24	-6.35/-9.63	-7.56/-3.49	-2.42/-1.52	-1.06/-1.65	-1.190/-5.2	0.23/-0.65
Θ(45°)	-3.11/-3.45	-0.83/-1.56	-4.45/-3.37	-6.07/-3.2	-2.57/-3.58	-4.56/-3.64	-4.51/-6.34	-4.78/-2.84	-1.18/-1.18	-2.37/-1.55	-2.07/-1.52	-2.2/-2.27	-3.57/-3.65	-2.57/-1.38	-3.17/-4.66	-6.70/-10.13	-4.52/-1.79	-3.34/-5.05	-4.06/-5.29	-4.48/-2.74	-4.04/-1.45	1.20/0.7	0.66/1.71	0.6/-1.43
Θ(52.5°)	1.38/-2.42	-0.85/-0.08	-1.62/-2.14	-4.85/-3.28	-2.58/-4.77	-5.07/-3.75	-3.18/-3.34	-3.11/-1.72	-0.61/-0.36	-1.73/-2.15	-1.51/-1.18	-1.39/-4.42	-4.23/-3.83	-3.27/-1.06	-6.29/-2.64	-7.59/-9.4	-4.47/-3.19	-3.52/-7.34	-6.57/-5.94	-5.5/-4.07	-0.04/-0.8	1.15/1.12	-0.29/-2.8	
Θ(60°)	2.51/-0.97	-2.76/-0.18	0.19/-1.64	-4.05/-4.2	-4.81/-5.75	-4.26/-4.58	-1.93/-1.45	-2.3/-0.86	-0.19/-1.23	-0.96/-1.84	-3.04/-3.76	-2.07/-2.63	-4.33/-1.55	-2.75/-2.84	-2.53/-1.82	-4.4/-6.31	-6.58/-4.85	-5.29/-8.39	-6.54/-5.6	-6.45/-5.77	-7.11/-2.45	-1.49/-1.38	0.64/0.4	0.45/1.67
Θ(67.5°)	2.14/-1.63	-2.9/-9.06	-0.93/-1.72	-2.95/-5.75	-9.59/-6.67	-4.82/-4.11	-1.36/-1.51	-2.51/-1.03	-0.96/-1.4	-1.24/-2.76	-4.91/-3.31	-2.74/-3.52	-2.82/-0.92	-2.63/-1.74	-2.19/-2.62	-4.83/-7.01	-8.49/-6.66	-7.18/-8.29	-6.33/-6.13	-6.58/-4.39	-5.78/-2.87	-2.01/-1.44	-0.55/-0.62	1.14/1.37
Θ(75°)	0.23/-2.26	-1.97/-2.29	-2.8/-2.43	-5.05/-4.73	-10.98/-10.38	-7.14/-4.82	-1.49/-1.31	-2.73/-1.41	-2.4/-2.8	-2.59/-2.61	-4.51/-4.06	-4.69/-3.88	-2.28/-0.82	-1.53/-3.17	-3.49/-3.22	-4.49/-7.19	-10.57/-6.81	-6.23/-5.66	-5.14/-4.21	-7.35/-5.46	-5.95/-4.45	-3.15/-1.25	-4.18/-2.35	0.70/5.4
Θ(82.5°)	-1.42/-3.69	-2.16/-3.32	-4.4/-2.23	-3.38/-4.4	-14.6/-10.68	-8.32/-4.53	-2.27/-2.49	-3.83/-1.54	-3.75/-3.26	-2.55/-3.76	-6.47/-4.07	-5.71/-6.59	-3.36/-1.81	-3.34/-3.71	-3.74/-5.39	-6.74/-6.59	-10.47/-5.47	-8.16/-4.6	-4.91/-4.05	-7.78/-5.56	-7.68/-6.19	-3.75/-2.28	-6.35/-4.03	-0.86/-2.32
Θ(90°)	-3.52/-5.41	-2/-4.6	-5.35/-2.94	-4.53/-7.62	-15.12/-13.25	-8.61/-6.26	-5.1/-3.4	-4.5/-2.89	-5.43/-5.16	-4.22/-3.58	-6.48/-6.68	-6.65/-8.32	-5.77/-2.63	-4.18/-6.39	-4.98/-7.19	-7.14/-8.15	-8.88/-5.67	-10.73/-5.94	-5.8/-3.28	-7.43/-6.3	-8.87/-1.18	-5.91/-5.57	-7.48/-5.7	-1.95/-3.92
Θ(97.5°)	4.77/-5.67	-3.92/-5.25	-6.14/-3.88	-6.04/-6.96	-15.41/-12.8	-8.27/-8.07	-5.04/-4.71	-6.71/-3.91	-8.15/-6.69	-5.91/-5.4	-7.81/-7.24	-8.94/-9.54	-5.74/-4.72	-4.97/-7.3	-6.57/-8.48	-7.84/-7.36	-12.01/-8.19	-10.28/-6.52	-9.54/-9.49	-10.39/-9.85	-7.74/-6.47	-7.54/-6.47		
Θ(105°)	-5.65/-6	-4.83/-6.38	-6.77/-5.6	-7.82/-10.85	-12.56/-12.94	-9.04/-7.02	-6.94/-7.53	-8.39/-4.8	-8.13/-8.24	-7.48/-6.93	-8.05/-12.3	-9.84/-11.3	-8.28/-7.88	-7.11/-8.21	-7.95/-10.18	-9.28/-8.35	-8.11/-10.83	-13.94/-10.05	-11.52/-10.87	-14.92/-11.6	-13.44/-12.31	-12.75/-11.93	-7.03/-5.41	-3.71/-7.25
Θ(112.5°)	-6.58/-6.23	-6.47/-6.7	-8.06/-8.75	-10.04/-12.51	-13.47/-12.31	-7.56/-6.5	-8.79/-7.84	-9.54/-6.8	-10.55/-10.85	-11.63/-8.71	-7.98/-14.72	-14.45/-12.82	-7.98/-11.1	-12.14/-11.94	-6.71/-9.73	-10.44/-8.23	-9.52/-9.35	-13.77/-10.93	-10.68/-11.68	-14.28/-14.51	-15.69/-12.91	-12.52/-10.27	-8.09/-7.77	-8.25/-7.29
Θ(120°)	-7.07/-9.41	-8.12/-8.91	-12.25/-10.09	-13.6/-14	-10.61/-7.16	-8.27/-8.07	-9.87/-6.49	-10.48/-10.85	-10.19/-12.53	-11.23/-13.84	-9.91/-12.01	-15.49/-11.59	-8.42/-12.93	-11.87/-11.12	-10.54/-10.22	-8.72/-10.39	-11.6/-12.39	-12.49/-10.72	-13.53/-15.43	-12.91/-12.56	-11.63/-10.22	-8.87/-7.29		
Θ(127.5°)	-9.41/-11.92	-10.43/-13.21	-10.65/-10.77	-11.5/-12.49	-10.43/-7.93	-9.62/-7.98	-10.96/-8.48	-11.25/-14.54	-12.16/-13.3	-13.48/-13.92	-15.19/-11.25	-14.4/-12.82	-9.94/-11.48	-11.46/-9.5	-7.38/-12.56	-10.23/-11.78	-13.07/-9.19	-8.06/-13.44	-13.31/-11.82	-15.97/-13.43	-11.34/-13.17	-11.83/-14.28	-14.05/-12.36	-15.95/-8.85
Θ(135°)	-13.89/-11.9	-12.9/-13.64	-10.66/-10.61	-14.16/-12.52	-13.69/-10.27	-10.39/-12.5	-13.9/-9.9	-12.04/-11.71	-14.86/-15.13	-14.59/-16.04	-12.87/-10.56	-10.15/-16.04	-14.22/-7.54	-8.93/-10.05	-13.33/-9.71	-15.43/-8.62	-11.03/-15.16	-8.52/-10.82	-10.88/-12.25	-14.34/-15.31	-11.92/-11.87	-11.06/-9.2	-9.98/-14.69	-11.87/-10.78
Θ(142.5°)	-13.36/-7.7	-7.14/-10.44	-12.95/-12.59	-15.93/-12.78	-11.61/-13.1	-12.73/-14.88	-10.91/-12.7	-14.03/-13.11	-12.63/-15.86	-15.49/-14.97	-14.5/-10.99	-11.88/-13.93	-14.28/-11.71	-9.02/-10.67	-14.45/-10.77	-12.84/-10.27	-14.52/-14.58	-10.98/-10.09	-15.36/-10.02	-8.36/-13.81	-13.82/-15.87	-13.78/-9.8	-14.03/-12.94	-7.09/-10.99
Θ(150°)	-10.06/-8.68	-8.84/-11.24	-13.96/-14.8	-10.97/-8.14	-7.83/-9.76	-13.13/-14.05	-10.97/-12.06	-15.12/-14.68	-12.39/-15.12	-15.38/-15.46	-15.47/-15.17	-13.62/-14.48	-14.4/-13.81	-11.63/-11.92	-12.24/-13.07	-13.34/-13.27	-13.85/-14.05	-13.99/-11.32	-11.28/-9.66	-8.13/-11.13	-12.23/-13.83	-15.32/-15	-13.34/-9.93	-9.09/-10.99
Θ(157.5°)	-9.52/-11.71	-15.02/-14.93	-14.8/-13.79	-10.47/-6.75	-5.92/-5.78	-10.79/-14.16	-13.07/-14.28	-15.7/-13.25	-10.98/-11.75	-14.07/-15.73	-13.33/-12.64	-11.59/-10.24	-9.95/-12.24	-14.97/-12.74	-13.94/-15.06	-16.17/-15.86	-15.47/-15.74	-10.82/-9.56	-10.34/-14.13	-15.1/-14.25	-12.96/-14.2	-15.27/-15.35	-15.76/-15.67	-12.37/-9.65
Θ(165°)	-14.49/-15.87	-13.38/-9.38	-8.97/-9.89	-10.23/-11.48	-11.15/-11.16	-13.62/-14.62	-14.9/-15.7	-14.84/-14.29	-15.11/-13.75	-13.02/-13.39	-12.49/-12.03	-11.91/-11.46	-11.7/-12.85	-13.49/-14.1	-15.01/-15.35	-15.03/-15.57	-15.69/-15.33	-12.45/-11.06	-12.25/-13.63	-15.08/-16.27	-13.66/-13.1	-13.6/-13.77	-8.93/-8.43	-9.95/-12.53
Θ(172.5°)	-13.2/-12.55	-10.94/-9.73	-9.24/-9.27	-8.91/-9.19	-10.27/-11.71	-14.02/-12.68	-13.47/-14.1	-14.39/-14.26	-14.91/-15.26	-14.28/-12.65	-10.89/-9.69	-10.41/-13.46	-14.72/-15.16	-15.56/-14.07	-13.56/-12.93	-13.37/-12.67	-11.3/-10.81	-11.26/-12.2	-14.5/-15.85	-10.67/-15.2	-14.19/-13.76	-12.9/-12.11	-13.66/-14.4	
Θ(180°)	-11.8/-10.64	-10.03/-9.62	-9.51/-9.34	-9.57/-8.97	-8.74/-8.47	-8.64/-9.18	-8.93/-8.51	-9.24/-10.35	-11.15/-10.97	-10.5/-10.49	-11.57/-11.84	-12.72/-15.36	-15.26/-13.3	-12.08/-12.34	-12.67/-13.27	-13.28/-12.22	-10.63/-9.61	-9.27/-9.34	-10.06/-10.54	-10.5/-10.24	-9.88/-10.22	-10.65/-10.59	-10.37/-11.08	-11.63/-11.66
Freq(Hz)	5.3GPol	Theta1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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°)	-14.83/-15.01	-15.31/-14.14	-12.41/-10.61	-9.65/-9.07	-8.91/-7.67	-7.06/-6.68	-6.05/-7	-7.41/-6.41	-7.86/-9.02	-9.63/-11.1	-11.78/-10.29	-13.66/-15.59	-16.99/-14.65	-12.83/-12.61	-11.41/-10.72	-9.67/-8.25	-7.37/-7.01	-6.76/-6.9	-7.51/-7.26	-6.81/-7.51	-8.5/-8.47	-9.68/-10.85	-10.74/-11.82	-14.48/-15.35
Θ(7.5°)	-10.4/-9.12	-8.1/-8.2	-7.86/-7.02	-6.67/-7.04	-6.65/-5.59	-5.25/-5.09	-4.79/-4.67	-5.67/-6.02	-5.86/-7.76	-9.93/-9.63	-10.46/-10.69	-11.47/-10.66	-9.99/-11.22	-11.94/-11.01	-10.12/-10.68	-11.33/-9.03	-6.71/-6.25	-5.01/-4.41	-4.07/-4.48	-4.5/-5.02	-6.62/-6.96	-9.74/-9.86	-10.46/-11.33	
Θ(15°)	-9.3/-7.23	-5.25/-3.72	-2.69/-1.86	-1.57/-1.94	-1.94/-2.47	-3.35/-3.53	-3.38/-2.73	-2.87/-3.43	-3.75/-5.3	-8.04/-8.99	-9.91/-10.5	-9.77/-8.17	-8.13/-8.6	-8.58/-8.03	-8.31/-8.22	-8.67/-8.05	-7.01/-5.79	-4.8/-3.69	-3.94/-5.19	-5.33/-5.22	-5.23/-4.67	-4.15/-4.1	-5.19/-6.39	-7.37/-8.59
Θ(22.5°)	-2.84/-2.32	-1.12/-0.03	0.38/0.88	1.41/-4	0.72/-0.92	-2.35/-2.38	-2.34/-2.32	-3.06/-3.9	-4.92/-7.58	-8.86/-6.64	-5.42/-6.02	-7.01/-7.46	-7.45/-8.57	-10.13/-10.7	-10.84/-9.44	-6.5/-5.32	-4.81/-4.18	-3.2/-2.78	-3.12/-2.59	-2.33/-2.02	-1.02/-0.81	-1.2/-2.32	-3.29/-3.54	-3.32/-3.02
Θ(30°)	-1.95/-1.48	-0.750/8.9	1.46/1.68	1.67/1.11	0.480/7.4	1.070/2.27	-0.99/-1.39	-2.28/-3.15	-4.96/-10.12	-9.65/-7.37	-4.35/-2.72	-2.81/-3.03	-3.75/-5.42	-9.07/-13.25	-11.98/-8.32	-5.13/-3.09	-2.26/-1.22	-0.51/-0.79	-1.81/-4.7	-0.08/-0.24	-0.57/-0.55	-0.55/-2.39	-2.98/-3.45	-6.03/-4.19
Θ(37.5°)	0.05/1.16	1.02/2.2	2.69/2.74	2.28/0.76	0.63/1.53	1.12/-1.26	-3.09/-1.68	-1.63/-3.2	-3.68/-3.29	-4.6/-4.24	4.31/-3.53	-3.55/-3.01	-3.36/-3.89	-5.58/-7.03	-7.04/-5.92	-3.77/-1.61	-7.09/-9.03	0.52/0.02	-1.08/-1.42	2.64/1.85	2.04/1.95	-0.52/-2.35	-0.71/-0.24	-1.91/-1.86
Θ(45°)	2.58/3.83	3.95/4.89	4.49/3.82	3.08/1.78	1.63/1.13	-0.64/-2.16	-2.21/-6	-2.36/-2.63	-1.5/-1.43	-2.39/-2.84	-2.77/-3.14	-3.94/-3.25	-2.6/-2.97	-3.7/-5.19	-3/-2.68	-1.250/-91	0.460/0.7	0.91/1.5	0.042/8.2	4.012/5.7	3.112/9.4	-0.57/1.11	0.6/0.92	0.83/1.02
Θ(52.5°)	1.372/6.1	3.754/3.5	4.044/-19	3.312/14	0.88/1.35	1.550/-14	-0.25/-1.26	-1.440/3.7	1.1/1.1	0.180/66	0.39/-145	-1.83/-1.39	-1.5/-1.49	-0.86/-1.9	-1.62/-0.93	0.272/36	1.740/69	1.222/1.	1.313/23	4.061/5.1	0.16/-0.16	-2.81/95	1.23/-2.58	-0.81/0.66
Θ(60°)	0.96/-1.43	1.12/-48	3.86/4.74	4.344/-14	0.571/7.7	1.890/62	1.430/68	-0.37/1.13	1.271/36	1.91/-47	1.31/-0.28	0.430/76	-1.42/-2.35	0.690/42	-1.10/53	0.742/-42	2.041/-46	1.09/-142	1.412/5	2.540/0.9	-0.42/-0.7	-2.13/-1.25	1.950/0.9	0.041/71
Θ(67.5°)	2.60/05	2.455/-6	5.486/-11	4.554/05	1.01/1	1.91/52	2.280/94	-0.010/-18	1.13/13	1.860/09	0.711/-74	1.851/-26	-0.61/-24	-0.031/-14	-0.470/-13	1.5								



Radiated Composite Gain Data_2G5G (2TX / Ant 1~2)

Appendix B

Θ(52.5°)	-6.1/-3.27	-2.12/-2.51	-3.95/-4.22	-5.56/-4.12	-4.73/-3.4	-6.64/-7.09	-3.91/-6.13	-1.95/-1.11	-4.3/-3.28	-4.07/-2.1	-3.86/-7.78	-4.97/-3.29	-1.85/-0.16	-1.6/-4.67	-2.65/-5.78	-8.22/-8.05	-10.67/-8.06	-3.32/-3.1	-5.56/-9.68	-10.4/-6.56	-2.64/-1.84	0.29/-0.15	-3.23/-0.26	0.69/-2.2
Θ(60°)	-2.1/-2.39	-2.21/-0.96	-1.74/-5.11	-5.48/-3.61	-6.1/-5.3	-6.63/-5.87	-2.96/-3.64	-0.83/-1.4	-3.92/-3.92	-4.98/-2.03	-3.51/-4.25	-3.5/-2.85	-1.04/-1.05	-1.66/-4.51	-3.22/-4.17	-6.77/-6.57	-8.54/-12.94	-7.8/-6.45	-8.67/-9.13	-11.03/-6.6	-4.07/-4.35	-3.43/-2.33	-2.5/-0.18	-0.41/-1.19
Θ(67.5°)	-1.01/-2	-3.88/-0.61	-1.45/-5.33	-6.77/-4.89	-6.82/-8.28	-6.5/-4.25	-3.67/-3.61	-0.56/-2.22	-2.55/-3.57	-4.42/-2.3	-3.84/-3.8	-3.88/-3.1	-1.55/-1.19	-4.22/-5.37	-3.13/-5.33	-5.36/-9.09	-9.04/-13.63	-9.6/-7.12	-9.57/-10.28	-8.73/-5.99	-6.33/-6.46	-4.55/-2.8	-1.94/-0.12	-0.71/-0.73
Θ(75°)	-1.65/-3.56	-2.64/-0	-2.35/-5.94	-7.13/-8.96	-8.38/-10.44	-7.66/-4.09	-3.24/-3.86	-1.17/-3.12	-1.45/-2.77	-4.17/-2.82	-4.5/-4.21	-5.37/-2.84	-2.76/-1.88	-4.6/-4.92	-3.98/-3.96	-5.91/-10.36	-9.69/-12.33	-8.45/-6.21	-6.29/-8.92	-9.41/-5.46	-6.46/-6.34	-2.98/-2.67	-4.03/-1.63	-1.34/-0.32
Θ(82.5°)	-2.1/-4.06	-1.69/-0.96	-4.58/-5.69	-7.83/-10.36	-8.24/-13.16	-8.65/-5.41	-4.21/-6.34	-2.33/-2.93	-2.31/-4	-4.2/-3.51	-5.78/-5.15	-6.93/-4.21	-3.5/-3.09	-4.27/-5.21	-4.07/-4.82	-5.14/-14.23	-10.39/-11.75	-7.55/-4.47	-4.44/-6.85	-7.61/-5.98	-6.16/-6.04	-2.66/-3.21	-7.02/-5.14	-2.99/-2.53
Θ(90°)	-3.64/-3.78	-2.46/-2.95	-5.68/-6.83	-7.84/-12.43	-8.41/-11.34	-8.2/-5.86	-6.04/-7.78	-3.24/-4.18	-2.97/-4.94	-5.75/-5.03	-6.94/-6.29	-6.37/-6.44	-4.3/-3.18	-5.12/-5.6	-4.75/-4.79	-7.41/-15.06	-11.14/-10.73	-8.59/-5.93	-5.11/-6.86	-7.28/-7.54	-3.17/-5.27	-7.59/-7.77	-3.21/-4.2	
Θ(97.5°)	-5.25/-4.3	-4.8/-5.19	-5.63/-7.63	-8.74/-12.45	-11.72/-14.74	-8.32/-7.21	-7.44/-8.85	-5.6/-5.24	-4.73/-7.63	-6.96/-6.78	-8.1/-9.03	-7.95/-7.94	-6.71/-2.8	-5.58/-7.89	-4.42/-5.38	-7.18/-12.3	-11.32/-12.3	-12.64/-10.54	-7.78/-8.62	-12.78/-11.06	-9.75/-9.78	-5.69/-11.36	-8.25/-8.33	-3.84/-6.96
Θ(105°)	-4.93/-5.03	-6.74/-7.06	-8.34/-8.32	-11.81/-13.89	-13.04/-14.36	-9.04/-7.46	-7.3/-9.25	-5.46/-6.76	-6.32/-9.55	-8.3/-8.91	-10.42/-10.25	-8.62/-10.77	-8.18/-4.29	-7.17/-7.62	-6.33/-6.16	-9.75/-13.73	-9.58/-9.73	-14.03/-11.64	-10.87/-10.31	-9.52/-12.69	-14.85/-12.88	-10.96/-13.53	-9.07/-8.52	-4.97/-9.27
Θ(112.5°)	-5.97/-7.7	-10.67/-7.74	-9.52/-13.47	-13.74/-13.68	-15.16/-12.84	-8.66/-7.23	-8.51/-9.58	-7.9/-8.78	-8.68/-10.99	-8.65/-10.54	-12.19/-12.8	-9.25/-9.84	-8.94/-4.62	-8.78/-8.1	-6.26/-6.57	-7.45/-8.97	-11/-13.9	-12.47/-9.57	-12.58/-12.13	-11.38/-12.21	-9.95/-9.53	-11.34/-11.76	-10.61/-9.02	-6.59/-10.03
Θ(120°)	-10.29/-9.93	-11.34/-10.01	-12.12/-13.97	-11.27/-12.05	-13.43/-8.69	-7.69/-9.3	-8.73/-9.7	-8.16/-10.05	-10.76/-14.16	-11.77/-10.26	-14.55/-12.51	-7.95/-12.16	-9.77/-4.96	-7.23/-7.58	-8.05/-8.49	-9.36/-8.76	-7.58/-11.59	-11.75/-8.88	-11.15/-13.67	-12.45/-12.15	-9.39/-12.82	-10.46/-12.35	-12.18/-9.77	-11.71/-9.05
Θ(127.5°)	-14.98/-11.26	-13.52/-10.48	-10.33/-11.3	-7.77/-11.48	-10.47/-7.69	-8.43/-14.7	-8.43/-9.64	-9.77/-8.89	-13.17/-14.61	-14.86/-14.32	-11.68/-12.35	-8.61/-8.74	-13.5/-12.47	-6.61/-7.59	-9.95/-7.69	-6.47/-12.32	-14.31/-12.71	-6.62/-9.89	-15.93/-15.16	-14.68/-9.99	-15.4/-15.91	-7.27/-15.34	-10.26/-13.02	-14.93/-8.79
Θ(135°)	-12.29/-10.85	-10.45/-12.46	-9.05/-11.04	-10.4/-11.59	-8.73/-9.21	-15.14/-9.89	-9.51/-14.23	-12.68/-12.43	-15.28/-13.06	-15.39/-15.58	-11.47/-12.82	-12.09/-10.06	-13.67/-15.88	-10.76/-10.06	-9.79/-9.42	-9.99/-12.19	-11.11/-10.65	-11.4/-8.66	-7.22/-9.02	-15.41/-9.14	-11.62/-10.62	-8.72/-12.54	-8.69/-11.25	-8.75/-5.99
Θ(142.5°)	-8.14/-7.3	-7.93/-9.17	-7.77/-11.12	-12.27/-13.64	-13.46/-13.24	-13.25/-12.57	-15.7/-14.81	-10.29/-11.65	-15.49/-14.68	-13.45/-15.53	-15.17/-15.8	-13.37/-9.68	-11.84/-11.95	-8.56/-13.7	-14.87/-15.14	-10.28/-10.84	-9.11/-10.29	-13.54/-13.94	-9.16/-9.69	-10.05/-11.97	-14.45/-10.71	-12.33/-12	-8.98/-9.23	-7.6/-5.33
Θ(150°)	-10.68/-6.31	-7.16/-10.07	-9.58/-9.07	-12.65/-10.99	-12.64/-13.27	-10.85/-11.01	-14.56/-12.69	-11.53/-13.59	-15.33/-14.72	-13/-14.85	-15.91/-15.62	-13.35/-9.5	-11.42/-10.84	-10.69/-13.34	-15.15/-14.77	-15.28/-15.91	-15.84/-14.62	-15.27/-12.97	-13.58/-12.08	-11.41/-14.47	-14.78/-12.7	-13.44/-14.82	-10.58/-10.61	-9.85/-9.08
Θ(157.5°)	-10.18/-12.64	-11.93/-9.76	-9.79/-11.11	-11.64/-10.32	-10.16/-13.42	-15.5/-15.44	-14.17/-12.18	-14.08/-15.53	-11.9/-11.11	-11.84/-15.23	-15.57/-15.28	-15.18/-15.69	-13.87/-12.32	-11.41/-12.27	-13.16/-12.54	-13.82/-13.99	-13.95/-14.34	-12.96/-13.9	-11.54/-11.5	-13.49/-14.13	-12.38/-14.07	-15.01/-15.4	-12.66/-10.31	-10.25/-8.55
Θ(165°)	-13.14/-10.51	-9.25/-12.04	-13.77/-12.8	-9.81/-9.77	-11.08/-11.74	-10.93/-12.08	-12.98/-15.52	-15.27/-15.19	-14.96/-14.08	-13.47/-15.45	-15.06/-14.72	-12.18/-12.2	-13.65/-13.73	-16.07/-14.14	-13.04/-12.98	-15.67/-14.53	-12.15/-11.07	-10.74/-14.41	-15.26/-14.83	-15.7/-13.97	-14.77/-15.83	-14.86/-11.89	-9.39/-10.93	-12.43/-12.2
Θ(172.5°)	-12.71/-11.82	-11.52/-11.62	-11.14/-12.08	-12.43/-13.15	-13.64/-13.67	-13.79/-13.67	-14.49/-15.74	-15.27/-15.06	-15.66/-12.53	-11.31/-10.33	-9.9/-10.05	-9.42/-9.83	-11.16/-12.47	-14.26/-15.43	-15.31/-13.63	-12.57/-9.87	-9.3/-10.22	-12/-14.44	-14.91/-14.99	-14.87/-13.58	-11.31/-9.66	-8.65/-9.48	-10.75/-12.38	-13.71/-12.33
Θ(180°)	-14.43/-14.26	-13.73/-14.11	-13.68/-13.84	-13.84/-13.31	-13.73/-13.31	-13.55/-13.02	-13.24/-13.32	-14.08/-15.9	-15.23/-15.64	-14.7/-12.85	-12.67/-12.93	-15.36/-15.07	-15.11/-15.53	-15.4/-14.53	-15.64/-14.87	-15.17/-15.2	-15.49/-15.46	-14.76/-13.22	-13.07/-13.75	-15.69/-15.33	-15.5/-15.5	-15.46/-14.6	-13.33/-13.66	-15.53/-15.17
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°)	-6.07/-5.23	-4.25/-3.76	-3.21/-2.86	-2.82/-2.9	-3.13/-3.2	-3.64/-3.92	-5.02/-5.34	-6.61/-8.53	-8.3/-10.26	-9.86/-9.72	-9.67/-8.67	-8.53/-8.27	-7.36/-7.15	-5.86/-4.68	-4.19/-3.93	-3.73/-3.34	-3.22/-3.32	-3.97/-4.5	-5.33/-6.17	-7.28/-8.85	-9.99/-9.74	-9.86/-9.57	-8.66/-9.12	-8.42/-6.64
Θ(7.5°)	-9.57/-9.56	-8.49/-6.84	-5.32/-4.31	-3.55/-3	-3.01/-3.03	-3.61/-3.87	-3.88/-5.98	-7.13/-8.01	-7.99/-7.56	-8.95/-8.96	-8.82/-9.37	-9.42/-9.32	-7.35/-5.89	-5.35/-4.33	-3.14/-2.74	-2.99/-3.52	-3.66/-3.97	-4.51/-4.94	-5.76/-6.12	-7.92/-9.06	-9.23/-10.63	-10.61/-11.66	-11.71/-13.73	-12.33/-10.77
Θ(15°)	-6/-4.61	-3.29/-1.97	-1.24/-0.86	-1.1/-1.63	-1.96/-1.53	-1.18/-1.25	-1.92/-3.37	-6.19/-9.77	-9.76/-9.97	-9.29/-9.77	-8.92/-8.65	-10.36/-11.82	-11.87/-10.99	-9.6/-7.79	-6.33/-4.93	-4.01/-3.62	-2.96/-2.84	-2.33/-2.3	-2.16/-1.74	-2.41/-2.98	-3.81/-6.07	-7.7/-9.24	-2.96/-10.55	-9.17/-7.35
Θ(22.5°)	-2.53/-0.85	-0.06/-0.39	0.94/-1.41	1.01/-0.38	-1.82/-2.27	-2.28/-1.65	-1.78/-2.73	-4.05/-7.13	-9.07/-7.17	-7.49/-7.81	-7.58/-6.57	-6.77/-8.13	-7.74/-7.83	-8.5/-8.3	-7.25/-7.04	-6.61/-4.77	-3.18/-2.95	-2.03/-1.27	-1.18/-2.42	-3.93/-4.4	-4.12/-3.84	-4.57/-5.04	-5.19/-4.6	-5.49/-4.61
Θ(30°)	0.81/-2.52	3.73/-3.73	2.39/-1.42	0.01/-1.25	-1.02/-1.87	-4.01/-3.5	-2.14/-2.63	-4.28/-7.27	-7.29/-5.13	-6.05/-6.7	-13.96/-11.39	-11.7/-9.9	-7.94/-8.38	-7.81/-7.47	-7.83/-5.19	-3.93/-3.53	-3.45/-3.24	-1.94/-0.21	0.71/-0.95	-1.94/-0.87	-0.53/-0.48	-0.82/-1.34	-3.23/-2.31	-1.48/-1.68
Θ(37.5°)	0.02/-0.84	2.82/-3.53	3.12/-2.46	0.5/-1.59	-0.35/-0.02	-0.42/-1.29	-1.35/-2.38	-4.67/-3.72	-2.33/-4	-3.9/-4.24	-4.01/-4.2	-4.45/-5.39	-6.13/-5.11	-2.61/-3.56	-6.26/-3.25	-2.8/-2.51	-0.94/-0.53	0.38/-2.1	2.03/-0.11	0.37/-2.19	0.75/-1.18	1/-1.17	-3.07/-2.57	-1.29/-0.5
Θ(45°)	3.31/-4.15	4.16/-4.61	4.66/-4.27	3.31/-6.5	1.62/-0.83	-0.04/-0.09	-0.8/-0.86	1.21/-0.27	-0.49/-2.53	-0.83/-0.15	0.97/-0.73	-0.31/-1.27	-4.32/-3.46	-1.26/-0.7	0.25/-0.16	-1.68/-0.27	0.26/-0.06	-0.22/-0.17	1.77/-1.61	3.04/-0.41	4.11/-5.15	3.34/-1.68	-0.68/-1.46	1.46/-2.27
Θ(52.5°)	3.56/-5	4.51/-4.59	5.25/-4.44	3.73/-1.86	2.7/-0.63	-0.91/-1.7	-0.53/-2.1	2.97/-1.67	-0.77/-2.44	-1.38/-0.78	-0.09/-2.62	3.17/-2.12	-0.82/-1.48	-0.36/-1.09	0.94/-1.89	-1.2/-0.81	0.76/-1.75	2.05/-0.68	2.61/-2.65	3.43/-3.71	3.45/-4.28	2.4/-0.54	2/-1.23	1.53/-2.93
Θ(60°)	2.11/-2.64	2.39/-2.44	4.11/-2.64	3.44/-2.34	1.95/-0.95	0.79/-2.14	-1.04/-1.53	2.51/-4	-0.15/-0.33	-1.59/-1.21	-0.77/-2.03	2.97/-1.57	-1.19/-0.43	0.88/-0.29	1.18/-1.6	-1.10/-3.1	0.87/-2.65	2.99/-1.18	0.82/-1.63	2.11/-4.9	-0.96/-1.21	-0.22/-1.22	2.76/-0.09	1.64/-3.23
Θ(67.5°)	2.63/-1.61	1.19/-2.08	4.73/-2.49	3.81/-3.36	1.91/-1.57	2.21/-2.41	0.61/-0.39	0.11/-0.87	0.45/-1.09	-1.33/-0.16	-1.54/-0.96	0.95/-2.64	-1.43/-1.31	0.99/-0.21	0.83/-0.35	-2.47/-0.34	1.36/-2.01	2.72/-0.3	0.39/-0.59	1.38/-1.68	-1.24/-0.28	1.76/-1.12	2.79/-0.53	2.21/-4.06
Θ(75°)	3.28/-3.35	1.62/-3.42	5.81/-3.15	2.81/-3.43	1.86/-0.73	1.99/-3.07	2.3/-0.37	-2.66/-1.09	1.01/-0.94	-1.45/-0.75	-0.75/-0.48	1.5/-0.8	-0.71/-1.06	1.58/-0.13	-0.02/-0.65	-2.03/-0.93	1.09/-1.82	2.62/-34	1.46/-0.91	1.91/-85	0.38/-2.59	2.31/-0.18	2.05/-0.9	1.81/-3.81
Θ(82.5°)	3.37/-3.59	1.89/-9.92	5.36/-2.96	1.37/-2.21	1.48/-0.5	1.43/-2.53	2.08/-1.74	-2.51/-3.2	1.4/-0.28	-3.78/-0.23	-0.87/-0.84	1.92/-0.73	-0.95/-2.56	0.48/-0.49	-0.73/-1.98	-1.15/-2.54	0.09/-1.65	2.55/-2.86	3.18/-147	2.27/-2.14	0.93/-931	2.25/-0.26	-1.22/-0.05	1.22/-81
Θ(90°)	2.74/-2.07	0.91/-3.73	3.54/-1.52	-0.9/-0.15	-0.02/-0.98	0.38/-1.81	0.53/-3.5	-3.2/-1.32	0.63/-0.53	-6.68/-0.29	-1.08/-1.12	2.04/-1.42	-1.49/-4.47	-2.53/-0.92	-1.33/-4.12	0.06/-3.29	-1.61/-2	0.32/-2.1	2.64/-0.75	2.42/-2.76	0.67/-3.36	1.51/-0.05	-2.67/-0.96	0.01/-0.31
Θ(97.5°)	1.1/-0.29	-2.25/-2.76	1.7/-0.48	-1.88/-2.18	-1.38/-2.27	-0.69/-0.44	-0.71/-3.94	-4.31/-0.7	-0.79/-2.28	-7.24/-0.11	-1.01/-0.4	1.49/-0.14	-1.62/-6.54	-3.08/-1.23	-1.96/-5.06	-1.15/-2.27	-2.73/-0.71	-2.14/-0.27	1.11/-2.07	1.46/-1.08	-1.37/-1.27	-0.02/-2.82	-4.2/-0.8	-2.05/-2.29
Θ(105°)	-0.61/-4.71	-3.31/-1.36	-1.13/-0.87	-2.27/-3.54	-2.18/-3.24	-1.4/-0.71	-3.15/-3.63	-5.76/-0.11	-1															



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Freq(Hz)	2.45G	5.2G	5.3G	5.6G	5.785G
Ant. 3 Max Gain (dBi)	2.98	4.49	4.06	4.4	3.93
Ant. 4 Max Gain (dBi)	2.64	4.75	4.07	4.71	4.4
Ant. 3 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/45/195	Theta/67.5/52.5	Theta/52.5/90	Theta/67.5/52.5	Theta/52.5/82.5
Ant. 4 Polarization/ $\theta(^{\circ})/\phi(^{\circ})$	Theta/60/30	Theta/52.5/150	Theta/52.5/157.5	Theta/52.5/142.5	Theta/52.5/142.5
Max Gain (dBi)	2.98	4.75	4.07	4.71	4.4
DG [1SS] (dBi)	3.05	5.48	5.79	6.26	5.87
DG [2SS] (dBi)	2.98	4.75	4.07	4.71	4.4



Radiated Composite Gain Data_2G5G (2TX / Ant 3~4)

Appendix C

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°)	-10.4/-10.41	-9.8/-5.8	-8.1/-1.69	-5.72/-1.3	-4.73/-4.4	-4.11/-3.8	-3.54/-3.42	-3.47/-3.69	-3.89/-4.15	-4.79/-5.72	-6.83/-8.28	-9.88/-11.36	-11.98/-11.36	-10.94/-9.9	-8.84/-7.35	-6.03/-4.9	-3.95/-3.19	-2.57/-2.14	-1.93/-1.98	-2.31/-2.77	-3.3/-3.89	-4.57/-5.37	-6.3/-7.48	-8.7/-9.99
Θ(7.5°)	-12.84/-12.63	-12.08/-10.99	-10.18/-8.23	-6.97/-6.13	-5.51/-4.83	-4.19/-3.67	-3.24/-3.03	-3.14/-3.4	-3.55/-3.71	-4.17/-4.91	-6.89/-8.97	-9.56/-11.89	-8.52/-7.92	-7.01/-6.16	-5.35/-4.65	-4.02/-3.49	-3.09/-2.82	-2.73/-2.84	-3.13/-3.54	-4.08/-4.77	-5.48/-6.28	-7.21/-8.48	-10.08/-11.85	
Θ(15°)	-13.57/-12.11	-11.32/-10.56	-9.56/-8.66	-7.94/-7.25	-6.41/-5.43	-4.55/-3.95	-3.55/-3.46	-3.77/-4.23	-4.38/-4.19	-4.09/-4.25	-4.71/-5.47	-6.35/-7.16	-7.55/-7.49	-7.08/-6.56	-6.13/-5.8	-5.52/-5.26	-5.02/-4.89	-4.8/-4.58	-4.21/-3.85	-3.6/-3.63	-3.98/-4.63	-5.38/-6.18	-7.36/-9.05	-11.38/-12.51
Θ(22.5°)	-8.42/-7.19	-6.82/-6.79	-6.99/-7.26	-6.74/-6.99	-6.13/-5	-4.25/-3.98	-4.03/-4.38	-5.06/-5.86	-6.32/-5.84	-4.93/-4.24	-4.02/-4.3	-5/-5.83	-6.31/-6.26	-6.03/-5.99	-6.06/-6.1	-6.18/-5.77	-4.81/-3.84	-3.15/-2.89	-3.09/-3.72	-4.56/-5.53	-6.94/-9	-10.45/-10.62		
Θ(30°)	-4.87/-4.26	-4/-3.99	-4.33/-4.76	-5.04/-4.91	-4.29/-3.53	-3.08/-3.24	-3.88/-4.95	-6.38/-7.72	-8.58/-7.92	-6.71/-5.63	-4.61/-4.09	-4.08/-4.39	-4.76/-4.91	-5.06/-5.45	-6.31/-7.18	-7.19/-6.76	-6.33/-6.23	-6.39/-6.07	-4.84/-3.55	-2.71/-2.49	-2.73/-3.36	-4.31/-5.43	-6.94/-8.26	-7.45/-5.88
Θ(37.5°)	-2.73/-2.78	-2.91/-2.93	-2.96/-3.05	-3.14/-3.05	-2.78/-2.42	-2.28/-2.44	-3.15/-4.7	-6.89/-9.11	-10.41/-9.08	-7.58/-6.43	-5.12/-4.28	-3.91/-3.85	-3.9/-3.97	-4.06/-4.72	-6.21/-7.36	-6.82/-5.99	-5.37/-5.42	-5.9/-5.66	-4.33/-3.14	-2.65/-2.84	-3.38/-4.1	-5.12/-6.44	-7.69/-6.64	-4.49/-3.2
Θ(45°)	-2.68/-3.01	-3.45/-3.41	-2.97/-2.56	-2.32/-2.24	-2.26/-2.44	-2.53/-2.55	-3.24/-4.69	-6.56/-8.7	-10.94/-10.9	-9.11/-8.01	-6.25/-5.08	-4.49/-4.29	-4.38/-4.36	-4.12/-4.46	-5.91/-7.22	-6.37/-5.04	-4.32/-4.69	-5.53/-5.36	-3.9/-2.85	-2.79/-3.54	-4.49/-5.39	-6.36/-7.24	-7.45/-6.09	-4.15/-2.99
Θ(52.5°)	-4.73/-5.27	-5.67/-4.92	-3.47/-2.39	-1.93/-2.13	-2.97/-4.22	-4.49/-4.34	-4.96/-5.51	-5.82/-7.18	-9.85/-11.6	-9.44/-8.48	-7.52/-5.68	-4.44/-3.91	-4.18/-4.7	-4.51/-4.45	-6.53/-6.82	-6.17/-4.81	-4.32/-5.05	-5.67/-4.63	-3.07/-2.34	-2.4/-2.92	-3.74/-4.78	-6.06/-7.38	-7.96/-7.01	-5.62/-4.89
Θ(60°)	-7.82/-8.53	-7.91/-5.48	-3.31/-2.2	-2.15/-3.2	-5.51/-7.4	-7.29/-6.87	-7.25/-6.72	-6.25/-6.95	-8.85/-10.21	-9.41/-7.74	-8.07/-6.55	-4.83/-3.37	-3.01/-3.65	-4.18/-4.24	-5.17/-6.71	-6.52/-5.07	-4.46/-5.31	-5.77/-4.3	-2.32/-1.35	-1.26/-1.83	-3.07/-4.97	-7.58/-10.35	-11.08/-10.25	-8.98/-8.17
Θ(67.5°)	-9.15/-8.59	-6.97/-4.74	-3.15/-2.68	-3.26/-4.97	-8.07/-8.76	-8.35/-8.88	-10.74/-10.13	-8.9/-8.9	-9.59/-8.99	-7.72/-7.08	-7.04/-5.74	-4.7/-3.7	-3.06/-3.38	-3.86/-4.51	-5.89/-4.79	-7.09/-5.23	-4.49/-4.85	-5.71/-4.53	-2/-0.77	-0.92/-0.66	-4.26/-7.65	-12.42/-14.29	-12.14/-10.29	-8.93/-9.07
Θ(75°)	-7.44/-7.5	-7.3/-8.53	-4.84/-4.76	-5.48/-6.97	-9.83/-9.66	-9.24/-11.08	-15.02/-12.28	-9.43/-8.71	-8.84/-8.36	-7.12/-7.38	-6.57/-5.06	-3.83/-3.7	-3.44/-3.38	-3.86/-4.49	-5.27/-6.62	-7.02/-5.76	-5.02/-5.18	-5.86/-4.71	-2.01/-0.71	-1.01/-2.63	-5.34/-8.73	-12.02/-12.85	-11.74/-10.18	-9.49/-8.43
Θ(82.5°)	-6.39/-6.53	-7.86/-8.11	-6.67/-6.19	-6.44/-7.76	-10.24/-9.86	-9.53/-11.22	-14.16/-12.81	-11.27/-10.1	-9.53/-8.03	-7.36/-7.49	-6.15/-4.91	-3.65/-3.76	-3.35/-2.89	-2.89/-3.81	-4.81/-5.82	-6.02/-5.71	-5.34/-4.99	-5.09/-4.7	-2.57/-1.69	-2.05/-3.64	-6.12/-8.72	-11.61/-12.63	-11.96/-10.79	-9.47/-7.81
Θ(90°)	-7.77/-8.32	-9.23/-9.01	-7.41/-7.12	-7.25/-9.07	-10.43/-9.71	-9.05/-10.21	-13.28/-13.54	-13.01/-11.93	-8.59/-8.62	-6.92/-7.29	-5.85/-4.77	-3.78/-4.04	-3.81/-3.25	-2.99/-3.66	-5.07/-6.71	-6.65/-6.08	-5.39/-4.9	-5.56/-5.1	-3.24/-2.34	-2.57/-3.86	-6.09/-8.83	-11.91/-12.18	-11.49/-10.37	-9.67/-8.57
Θ(97.5°)	-9.58/-10.31	-9.82/-8.91	-7.64/-7.37	-7.2/-9.08	-10.88/-10.36	-9.56/-11.13	-13.71/-13.12	-12.92/-11.69	-7.84/-6.51	-6.68/-6.98	-6.11/-4.95	-4.28/-4.54	-3.78/-3.56	-3.52/-4.15	-5.78/-7.7	-7.29/-6.46	-5.69/-5.65	-7.03/-5.67	-2.89/-1.78	-2.08/-4.39	-5.68/-8.24	-11.29/-11.84	-10.39/-9.14	-9.09/-9.48
Θ(105°)	-8.59/-8.37	-8.01/-8.28	-7.83/-7.53	-8.61/-12.34	-11.48/-12.98	-15.25/-12.29	-11.61/-11.23	-8.75/-7.67	-8.11/-8.24	-6.41/-4.77	-4.34/-5.67	-5.05/-5.07	-4.68/-4.82	-5.95/-6.81	-6.83/-6.28	-6.15/-6.18	-5.77/-5.04	-5.97/-6.81	-3.88/-2.34	-2.47/-3.81	-5.97/-8.32	-11.19/-11.62	-11.21/-10.44	-10.27/-9.42
Θ(112.5°)	-6.65/-4.74	-8.12/-7.63	-7.54/-7.42	-7.44/-9	-8.75/-7.98	-7.78/-9.37	-12.95/-13.19	-12.47/-10.77	-9.36/-8.75	-8.83/-8.88	-6.85/-5.34	-4.86/-5.85	-6.17/-5.91	-5.23/-5.49	-4.48/-6.45	-6.07/-6.14	-6.71/-7.26	-8.22/-7.03	-4.59/-3.47	-3.77/-5.17	-7.01/-8.34	-9.45/-10.96	-11.35/-11.36	-10.28/-7.75
Θ(120°)	-6.62/-7.2	-8.19/-7.26	-6.02/-4.96	-4.95/-6.7	-7.98/-7.58	-8.61/-11.4	-15.4/-14.21	-12.48/-10.82	-9.78/-9.32	-8.33/-8.1	-6.9/-6.97	-7.72/-8.02	-7.76/-6.63	-5.26/-4.82	-5.79/-6.25	-5.58/-5.64	-6.77/-7.95	-10.9/-16	-5.61/-3.76	-3.41/-4	-4.93/-5.64	-6.51/-7.49	-10.31/-10.98	-10.94/-8.26
Θ(127.5°)	-8.03/-7.45	-7.74/-7.12	-6.27/-5.61	-6.35/-9.44	-9.7/-8.07	-8.47/-8.71	-9.82/-9.24	-8.65/-9.3	-11.58/-13.16	-11.81/-8.88	-7.17/-7.77	-9.59/-10.1	-8.3/-6.11	-4.69/-4.22	-5.02/-5.3	-4.89/-4.96	-5.66/-6.75	-8.88/-8.87	-6.33/-4.54	-4.05/-4.3	-4.81/-5.4	-6.5/-8.99	-11.46/-10.35	-9.77/-8.47
Θ(135°)	-5.94/-6.19	-6.82/-7.07	-6.68/-6.16	-6.25/-6.48	-5.98/-4.36	-3.32/-3.82	-5.42/-7.42	-9.11/-10.79	-13.61/-14.63	-13.32/-10.79	-8.81/-9.37	-11.12/-10.31	-8.18/-6.79	-6.09/-5.6	-5.47/-5.34	-5.49/-5.94	-6.45/-7.06	-9.03/-9.24	-6.67/-4.99	-4.4/-4.46	-4.59/-4.94	-6.11/-8.11	-10.12/-10.4	-8.4/-6.72
Θ(142.5°)	-4.91/-5.55	-7.08/-7.72	-6.9/-5.65	-4.72/-4.19	-3.99/-3.96	-3.91/-4.84	-7.15/-10.47	-11.93/-13.44	-13.87/-13.07	-11.51/-9.43	-8.04/-8.53	-9.53/-9.79	-8.81/-8.49	-8.61/-8.38	-7.77/-7.18	-7.05/-6.77	-6.73/-7.54	-7.87/-8.16	-7.19/-5.7	-4.69/-4.19	-3.96/-4.15	-5.01/-6.23	-7.39/-7.86	-6.66/-5.47
Θ(150°)	-6.42/-7.09	-8.16/-7.68	-6.52/-4.72	-4.38/-4.83	-5.81/-7.44	-13.62/-14.4	-14.54/-14.99	-15.41/-13.21	-9.96/-7.48	-5.82/-7.54	-6.87/-7.87	-8.56/-7.99	-7.74/-7.71	-8.11/-8.1	-8.26/-8.11	-6.66/-7.99	-6.81/-6.28	-5.91/-5.33	-4.74/-4.18	-3.97/-4.07	-4.69/-5.78	-6.66/-7.13	-7.45/-6.65	
Θ(157.5°)	-7.21/-7.44	-7.23/-6.24	-5.48/-5.6	-6.61/-8.57	-10.76/-11.78	-12.59/-11.49	-11.27/-12.24	-13.04/-16.21	-15.24/-13.33	-10.38/-7.55	-6.15/-5.97	-6.8/-7.71	-8.17/-8.27	-7.71/-7.65	-8.05/-8.76	-9.55/-10.45	-10.07/-9.24	-7.6/-6.58	-5.98/-5.72	-5.69/-5.82	-6.1/-6.71	-7.81/-8.52	-9.18/-8.21	-7.48/-7.26
Θ(165°)	-7.32/-6.77	-6.25/-6.09	-6.57/-7.74	-9.48/-10.94	-11.45/-11.38	-10.64/-9.51	-9.08/-9.54	-10.77/-12.1	-12.54/-12.89	-11.91/-10.86	-10.33/-8.82	-10.10/-10.28	-10.59/-10.86	-9.83/-9.39	-9.59/-10.16	-10.89/-11.33	-10.97/-9.97	-9.22/-8.84	-8.66/-8.63	-8.94/-9.6	-10.83/-12.75	-14.54/-15.66	-15.78/-16.42	-9.77/-8.2
Θ(172.5°)	-7.34/-7.25	-7.46/-7.92	-8.64/-9.54	-10.25/-10.57	-10.62/-10.54	-9.92/-9.98	-9.9/-10.09	-10.39/-10.76	-11.42/-12.19	-12.46/-12.99	-12.31/-12.7	-13.06/-13.98	-14.04/-13.12	-11.61/-10.97	-10.57/-10.79	-10.31/-10.01	-9.54/-4.4	-9.28/-8.18	-13.1/-12.08	-12.43/-12.75	-15.31/-14.84	-13.63/-11.61	-9.05/-7.8	
Θ(180°)	-8.61/-8.82	-9.3/-9.85	-10.25/-10.43	-10.53/-10.72	-10.89/-11.17	-11.56/-11.94	-12.66/-13.5	-14.33/-13.79	-13.38/-13.03	-12.39/-11.6	-10.93/-10.95	-11.23/-11.28	-10.98/-10.72	-10.6/-10.64	-10.13/-9.24	-8.34/-7.79	-7.73/-8.11	-8.81/-9.76	-10.43/-11.18	-12.1/-12.91	-12.87/-12.73	-12.13/-11.31	-11.04/-10.36	-9.18/-8.64
Freq(Hz)	2.45G/Pol.	Theta-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
DG(dB)	Φ(0°)/Φ(7.5°)	Φ(15°)/Φ(22.5°)	Φ(30°)/Φ(37.5°)	Φ(45°)/Φ(52.5°)	Φ(60°)/Φ(67.5°)	Φ(75°)/Φ(82.5°)	Φ(90°)/Φ(97.5°)	Φ(105°)/Φ(112.5°)	Φ(120°)/Φ(127.5°)	Φ(135°)/Φ(142.5°)	Φ(150°)/Φ(157.5°)	Φ(165°)/Φ(172.5°)	Φ(180°)/Φ(187.5°)	Φ(195°)/Φ(202.5°)	Φ(210°)/Φ(217.5°)	Φ(225°)/Φ(232.5°)	Φ(240°)/Φ(247.5°)	Φ(255°)/Φ(262.5°)	Φ(270°)/Φ(277.5°)	Φ(285°)/Φ(292.5°)	Φ(300°)/Φ(307.5°)	Φ(315°)/Φ(322.5°)	Φ(330°)/Φ(337.5°)	Φ(345°)/Φ(352.5°)
Θ(0°)	-3.94/-4.16	-4.52/-4.69	-4.87/-5.07	-5.45/-6.21	-7.49/-8.94	-10.41/-11.82	-11.15/-11.07	-10.32/-10.27	-9.88/-8.98	-8.12/-7.28	-6.82/-6.07	-5.58/-5.14	-4.91/-4.87	-4.9/-5.02	-5.28/-5.75	-6.45/-7.33	-8.35/-9.44	-10.76/-12.09	-12.21/-12.04	-11.82/-10.75	-9.89/-8.79	-7.69/-6.47	-5.35/-4.5	-4.1/-3.86
Θ(7.5°)	-4.7/-8.41	-4.88/-4.9	-4.95/-5.18	-5.66/-6.57	-7.88/-9.7	-11.89/-14.41	-15.1/-14.17	-13.1/-12.13	-10.05/-8.58	-7.31/-6.25	-5.54/-5.04	-4.63/-4.35	-4.26/-4.37	-4.47/-4.58	-4.72/-5.05	-5.62/-6.3	-6.91/-7.51	-8.13/-8.87	-9.32/-9.4	-9.49/-9.37	-9.19/-9.2	-8.76/-7.7	-6.59/-5.66	-5.4/-7.1
Θ(15°)	-3.74/-3.95	-4.17/-4.3	-4.46/-4.85	-5.59/-6.7	-8.11/-9.99	-12.64/-14.87	-14.99/-16.21	-13.48/-11.88	-10.16/-8.59	-7.29/-6.2	-5.37/-4.66	-4.1/-3.61	-3.35/-3.35	-3.4/-3.35	-3.25/-3.21	-3.31/-3.48	-3.62/-3.75	-4.91/-4.43	-5.22/-6.24	-7.46/-7.83	-8.61/-8.58	-7.52/-6.44	-5.42/-4.53	-3.94/-3.7
Θ(22.5°)	-1.11/-1.76	-2.56/-3.25	-3.82/-4.38	-5.14/-6.12	-7.06/-7.91	-9.15/-11.02	-12.76/-12.36	-11.68/-10.59	-9.96/-9.11	-7.94/-6.68	-5.45/-4.31	-3.34/-2.5	-2/-1.77	-1.66/-1.45	-1.21/-1.1	-1.16/-1.31	-1.38/-1.42	-1.58/-2.01	-2.85/-3.99	-5.53/-7.03	-7.1/-5.81	-4.35/-3.2	-2.23/-1.49	-1.01/-0.89
Θ(30°)	0.91/0.39	-0.44/-1.3	-2.17/-2.92	-3.51/-3.84	-3.93/-4.07	-4.62/-5.69	-6.44/-6.73	-6.53/-6.51	-7.15/-7.89	-7.92/-7.2	-6.02/-4.6	-3.13/-1.74	-0.75/-0.27	-0.03/0.1	0.63/0.64	0.31/-0.06	-0.3/-0.39	-0.65/-1.21	-2.12/-3.29	-4.65/-4.52	-4.78/-3.17	-1.61/-0.53	0.25/0.76	1.06/-1.13
Θ(37.5°)	1.91/53	10.31	-0.49/-1.21	-1.51/-1.28	-0.93/-0.89	-1.46/-2.57	-3.65/-4.1	-3.96/-4.01	-4.94/-4.87	-4.94/-4.87	-4.43/-3.44	-2.16/-0.82	0.23/0.82	1.09/1.4	0.04/-0.1	0.43/-1.22	-2.52/-4.15	-5.34/-5	-3.35/-3.61	-0.03/0.17	1.82/18	2.24/12		
Θ(45°)	1.761/67	1.661/47	1.050/59																					



Radiated Composite Gain Data_2G5G (2TX / Ant 3~4)

Appendix C

Θ(22.5°)	-2.65/2.49	-3.73/5.77	-9.17/14.53	-13.87/8.38	-5.79/3.84	-2.78/2.52	-2.13/1.39	-0.64/0.61	-1/1-9	-3.19/5.63	-6.25/4.79	-3.74/4.47	-6.5/8.03	-8.31/7.69	-7.56/8.48	-9.88/10.34	-10.21/7.45	-6.01/5.79	-6.33/7.21	-8.31/9.93	-12.33/11.18	-10.03/8.18	-7.54/7.37	-5.79/3.8
Θ(30°)	-2.57/2.55	-3.28/4.52	-6.7/11.1	-13.49/-5.89	-1.78/-0.59	-1.51/-3.46	-2.43/0.08	0.6/-0.42	-2.3/-4.31	-5.75/-7.3	-7.55/-6.28	-5.05/-4.18	-3.68/-4.18	-6.57/-7.76	-9.04/-8.99	-7.05/7.08	-5.57/4.62	-5.2/6.2	-5.44/-7.47	-4.12/-4.44	-5.87/-6.89	-5.73/-4.15	-4.38/-5.72	-5.62/-3.86
Θ(142.5°)	-3.79/3	-1.21/2.01	-5.4/-9.34	-3.81/-6.1	-1.17/-2.96	0.22/0.12	-0.12/-3.79	-2.25/-0.81	-2.29/-1.55	-3.38/-5.39	-4.96/-6.83	-8.06/-9.07	-8.02/-7.52	-6.43/-6.79	-8.17/-7.38	-5.37/-4.08	-6.18/-8.82	-4.84/-3.47	-4.31/-5.49	-3.01/-2.97	-3.93/-4.83	-3.73/-2.58	-2.28/-2.69	-2.97/-3.58
Θ(45°)	-3.99/4.48	-2.46/2.33	-7.63/-6.8	-4.96/-2.53	-0.26/-1.18	-1.58/-0.07	-0.81/2.29	-2.86/-3.77	-5.48/-5.83	-5.95/5.87	-4.68/-6.59	-9.41/-6.54	-6.12/-8.47	-6.04/-6.59	-5.17/2.22	-4.25/-8.18	-4.26/-4.19	-5.49/-6.16	-6.1/5.68	-4.57/-4.93	-4.89/-4.11	-3.22/-3.3	-3.15/-1.68	-0.86/-1.34
Θ(52.5°)	-2.79/-5.08	-3.49/-3.3	-5.52/-5.52	-4.44/-4.48	-2.03/-2.03	-0.25/0.69	-1.31/-3.07	-3.6/-3.32	-3.81/-3.31	-3.89/-6.69	-3.19/-3.5	-6.81/8	-8.34/-5.18	-1.64/-3.08	-6.89/-2.84	-6.29/-6.29	-5.14/-5.7	-5.56/-6.87	-9.5/-8.72	-7.77/-6.1	-6.73/-7.8	-3.59/-3.5	-4.71/-2.67	0.33/0.55
Θ(60°)	-2.98/-3.05	-3.69/-4.55	-3.81/-6.1	-3.14/-2.76	-1.17/-1.01	-1.14/-1.03	-0.02/0.3	-1.89/-1.29	-2.14/-3.01	-1.9/-3.53	-2.7/0.81	-2.69/-5.73	-1.51/-10.55	-2.99/-1.81	-6.89/-2.58	-4.82/-7.73	-4.15/-4.59	-6.89/-6.54	-6.08/-7.27	-9.89/-9.32	-5.67/-6.29	-3.62/-1.49	-2.21/-3.7	-1.27/0.03
Θ(67.5°)	-3.72/-2.96	-3.21/4.37	-3.45/-5.91	-3.4/2.38	0.6/0.89	0.52/-1.3	1.34/0.53	-1.39/-0.73	-0.67/-2.04	-1.28/-2.37	-3.78/-1.15	-2.82/-4.03	-7.47/-10.55	-4.73/-3.35	-5.3/-1.85	-4.7/-6.78	-4.17/-4.48	-4.81/-5.29	-5.66/-7.36	-9.51/-8.25	-7.41/-6.72	-3.42/-2.19	-2.49/-3.45	-1.19/-0.95
Θ(75°)	-5.62/-4.76	-4.87/-4.32	-3.32/-7.09	-4.59/-2.79	-0.32/0.08	1.53/0.56	1.89/0.41	-2.09/-2.4	-0.34/-2.26	-3.3/-2.46	-4.18/-3.01	-2.55/-2.41	-4.61/-4.2	-5.39/-3.59	-5.11/-2.23	-4.13/-5.03	-3.95/-8.78	-5.31/-4.55	-3.67/-8.4	-9.2/-5.96	-5.67/-6.48	-4.18/-3.34	-3.27/-4.64	-3.35/-2.6
Θ(82.5°)	-7.06/-5.48	-6.22/-5.27	-4.64/-7.79	-5.86/-4.13	-0.73/-0.4	0.76/0.12	1.23/-0.29	-3.45/-5.89	-0.92/-1.96	-4.58/-3.27	-3.89/-1.41	-4.67/-3.99	-3.9/-3.52	-4.63/-5.16	-5.85/-1.89	-4.24/-4.58	-3.84/-4.93	-5.19/-5.09	-9.25/-6.14	-6.45/-6.95	-4.77/-4.69	-4.88/-5.36	-3.8/-3.23	
Θ(90°)	-7.7/6.6	-6.6/7.58	-7.44/-9.64	-7.03/-7.49	-3.44/-2.99	-0.36/-1.08	-0.86/-1.48	-3.81/-6.91	-3.19/-3.65	-4.28/-4.57	-4.64/-2.82	-5.64/-4.9	-5.72/-4.12	-2.8/-6.5	-6.43/-3.38	-4.75/-6.33	-5.05/-6.15	-7.73/-6.27	-4.7/-10.95	-10.69/-6.11	-7.22/-7.63	-6.14/-7.6	-6.71/-7.87	-5.77/-5.05
Θ(97.5°)	-9.64/8.09	-7.31/-10.14	-9.92/-10.32	-8.02/-8.33	-5.69/-5.49	-2.11/-1.48	-1.69/-2.7	-6.96/-7.86	-5.14/-4.85	-5.02/-8.29	-6.15/-3.8	-8.01/-8.18	-1.73/-5.71	-4.2/-0.05	-8.8/-6.31	-6.33/-7.22	-6.4/-6.7	-8.74/-8.62	-6.18/-10.37	-11.81/-8.53	-10.93/-8.99	-7.92/-9.7	-8.18/-7.28	-6.47/-7.41
Θ(105°)	-10.72/-9.36	-9.73/-12.21	-12.36/-13.23	-11.44/-12.43	-6.97/-6.21	-4.49/-3.51	-3.3/-3.42	-7.85/-7.89	-6.87/-6.77	-10.38/-11.59	-6.26/-6.22	-10.63/-15.51	-5.84/-9.67	-9.47/-8.53	-6.78/-12.47	-8.47/-10.92	-13.46/-11.16	-7.43/-13.33	-13.77/-13.91	-15.91/-12.29	-9.32/-12.1	-8.06/-9.68	-6.39/-8.94	
Θ(112.5°)	-11.72/-8.75	-11.1/15.68	-14.89/-13.59	-11.11/-13.28	-11.13/-8.14	-6.28/-4.22	-5.26/-5.26	-6.19/-6.75	-8.35/-8.37	-6.59/-10.85	-10.43/-12.44	-15.46/-13.39	-5.03/-5.62	-5.98/-12.5	-11.19/-11.5	-10.36/-12.21	-8.55/-10.79	-13.55/-12.77	-9.01/-14.58	-15.06/-14.66	-15.28/-13.44	-11.48/-12.05	-11.9/-11.38	-8.18/-9.93
Θ(120°)	-13.4/-10.67	-10.03/-12.51	-12.92/-15.07	-12.93/-13.42	-14.47/-14.27	-9.93/-2.99	-6.21/-5.98	-5.85/-6.22	-10.92/-11.01	-8.05/-7.83	-9.56/-13.75	-11.76/-13.64	-7.75/-6.2	-9.52/-9.46	-10.13/-10.12	-10.99/-10.81	-8.39/-11.3	-11.35/-15.69	-9.69/-11.69	-11.34/-14.7	-14.38/-13.84	-15.17/-15.48	-13.46/-15.02	-14.74/-12.4
Θ(127.5°)	-12.41/-13.04	-10.31/-14.44	-12.68/-13.02	-14.27/-14.67	-14.8/-13.65	-15.2/-9.73	-10.3/-6.82	-8.51/-9.08	-12.24/-12.67	-8.21/-8.89	-11.73/-8.66	-11.44/-13.51	-7.1/-8.08	-10.63/-14.6	-12.83/-11.54	-9.12/-14.81	-15.12/-11.01	-11.28/-13.08	-13.07/-11.69	-12.13/-15.18	-15.56/-14.89	-15.58/-12.49	-15.82/-14.5	
Θ(135°)	-12.27/-10.99	-10.72/-13.1	-11.85/-13.05	-14.01/-11.3	-13/-13.92	-14.39/-13.58	-11.78/-11.52	-13.53/-13.72	-12.49/-13.89	-11.88/-11.84	-15.43/-9.05	-11.64/-13.85	-10.16/-11.09	-11.55/-12.23	-8.71/-6.57	-9.3/-9.59	-13.9/-7.52	-8.37/-12.27	-13.14/-11.3	-13.52/-14.31	-15.9/-14.11	-10.8/-14.25	-12.94/-13.46	-14.36/-14.19
Θ(142.5°)	-13.69/-12.7	-13.95/-14.42	-15.66/-14.91	-10.11/-7.26	-11.38/-9.66	-10.91/-15.21	-8.35/-7.78	-12.82/-10.33	-7.61/-10.36	-14.46/-10.68	-11.27/-10.23	-13.99/-12.1	-10.85/-12	-10.68/-14.05	-9.19/-8.42	-11.42/-10.25	-13.58/-12.43	-13.26/-9.32	-9.99/-12.54	-15.58/-12.57	-10.83/-14	-12.11/-12.58	-14.96/-15.66	-14.9/-15
Θ(150°)	-16.15/-15.12	-15.09/-13.82	-13.89/-11.7	-9.85/-12.51	-13.17/-7.28	-6.79/-11	-7.03/-4.56	-7.27/-12.29	-7.82/-6.67	-8.46/-12	-13.62/-10.53	-14.77/-15.63	-10.68/-11.73	-10.66/-15	-10.88/-10.33	-11.48/-12.44	-12.95/-11.58	-10.61/-11.15	-12.93/-13.54	-15.71/-13.98	-14.31/-15.8	-15.51/-15.58	-15.63/-15.72	-14.28/-15.4
Θ(157.5°)	-13.98/-11.24	-10.98/-11.47	-12.78/-13.2	-13.67/-13.17	-8.38/-5.56	-6.6/-10.11	-9.18/-7.04	-10.32/-15.87	-11.43/-10.75	-12.94/-15.67	-12.25/-10.5	-10.92/-11.45	-9.28/-9.05	-13.87/-12.18	-8.33/-7.94	-9.93/-10.28	-9.64/-10.01	-9.94/-9.41	-10.12/-12.49	-13.88/-15.56	-16.1/-15.25	-15.64/-15.25	-15.93/-15.03	-15.32/-15.41
Θ(165°)	-14.68/-14.78	-15.44/-15.03	-13.86/-13.4	-15.09/-13.67	-10.65/-8.89	-8.88/-9.83	-12.06/-12.62	-11.42/-9.69	-8.83/-10.18	-13.53/-15.51	-15.08/-14.45	-12.32/-8.78	-7.83/-10.03	-13.63/-15.59	-11.29/-11.02	-12.43/-14.35	-13.89/-12.51	-10.79/-10.32	-12.01/-15.01	-15.59/-15.43	-15.68/-14.84	-15.38/-14.54	-12.87/-12.12	-11.78/-15.03
Θ(172.5°)	-15.28/-15.28	-15.78/-14.68	-15.49/-15.26	-13.71/-11.94	-11.29/-10.26	-10.49/-12.31	-13.45/-12.8	-11.89/-10.81	-10/-9.53	-10.73/-12.86	-13.6/-13.8	-14.87/-15.36	-14.22/-15.52	-14.78/-14.79	-12.32/-11.2	-12.3/-15.11	-14.63/-12.85	-11.71/-11.34	-12/-14.01	-15.41/-15.47	-14.34/-13.7	-14.03/-14.86	-15.19/-13.76	-13.01/-15.03
Θ(180°)	-13.02/-13.04	-12.99/-13.64	-12.52/-12.69	-13.17/-13.28	-13.88/-14.06	-14.02/-14.61	-14.74/-13.82	-13.29/-13.38	-13.56/-13.95	-13.42/-13.56	-14.54/-14.78	-14.85/-14.06	-13.71/-13.42	-12.55/-11.7	-12.56/-13.36	-13.39/-13.88	-13.48/-12.38	-12.51/-12.71	-12.75/-12.31	-14.24/-13.11	-11.61/-13.82	-14.27/-12.98	-11.56/-12.31	
Freq(Pol)	5.3GPol	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°)	-7.79/7.99	-7.7/1.24	-7.01/-6.74	-6.73/-6.67	-6.69/-6.47	-6.26/-5.96	-5.62/-5.72	-5.89/-6.11	-6.24/-6.62	-6.86/-6.99	-7.65/-6.85	-5.55/-4.74	-5.05/-5.61	-5.57/-5.74	-6.4/-6.39	-7.14/-7.37	-7.61/-7.53	-7.89/-8.31	-8.92/-9.74	-11.22/-11.69	-12.25/-11	-9.93/-9.21	-9.85/-9.35	-7.67/-7.28
Θ(7.5°)	-5.32/-5.45	-6.02/-5.99	-5.59/-5.36	-5.56/-5.64	-5.77/-6.28	-7.1/-7.88	-8.86/-12.94	-14.05/-14.65	-14.41/-14.41	-12.22/-9.85	-8.47/-8.55	-8.2/-7.5	-7.34/-7.69	-8.44/-8.12	-7.85/-7.9	-8.16/-8.37	-7.61/-6.6	-5.99/-5.15	-4.27/-9.33	-4.1/-4.45	-5.16/-5.38	-5.91/-6.09	-7.04/-6.84	-6.02/-5.64
Θ(15°)	-6.81/-7.02	-6.4/-4.88	-3.84/-2.96	-2.57/-2.42	-2.69/-3.21	-3.35/-3.53	-2.87/-2.28	-2.93/-3.55	-2.74/-2.28	-3.43/-2.77	-2.52/-2.23	-2.72/-3.79	-4.5/-4.74	-5.94/-7.66	-13.47/-13.27	-13.47/-13.49	-13.77/-14.56	-15.01/-13.57	-10.79/-10.18	-9.04/-8.69	-7.85/-6.69	-5.93/-5.39	-5.7/-6.54	-6.4/-6.62
Θ(22.5°)	-7.85/-5.71	-3.8/-2.64	-2.87/-3	-2.79/-2.64	-3.52/-5.04	-4.87/-3.59	-3.01/-2.89	-3.1/-2.95	-2.79/-2.94	-3.48/-2.76	-2.17/-1.59	-2.07/-3.19	-4.69/-6.11	-6.5/-6.97	-10.27/-12.82	-10.82/-8.82	-6.94/-6.55	-7.72/-8.24	-10.1/-9.1	-8.15/-7.82	-8.03/-8.12	-6.87/-5.55	-4.79/-5.09	-5.3/-6.73
Θ(30°)	-3.88/-2.45	-0.96/0.52	1.11/1.04	-0.96/0.15	0.1/-56	-1.82/-0.99	-1.53/-3.76	-7.78/-7.07	-4.05/-2.78	-2.6/-1.32	-2.75/-0.93	-0.18/-8.07	-2.74/-0.43	-3.7/-3.52	-4.19/-5.63	-4.8/-3.17	-3.49/-4.76	-5.59/-4.83	-3.78/-2.97	-2.78/-2.53	-2.93/-3.97	-6/-6.46	-4.94/-4.49	-4.49/-4.42
Θ(37.5°)	-0.08/0.34	-0.24/-0.26	0.83/0.29	-1.56/0.61	0.38/-2.54	-2.33/-0.62	-0.93/-3.03	-4.95/-3.13	-0.56/0.07	-0.8/-2.29	-1.22/0.55	0.5/-0.14	-0.87/-1.3	-0.57/-0.24	-0.91/-1.78	-1.61/-2.31	-5.65/-3.59	-3.78/-4.13	-2.67/-1.62	-1.17/-1.23	-1.17/-1.89	-3.59/-3.96	-3.8/-4.8	-3.96/-1.62
Θ(45°)	1.52/1.59	0.32/-1.08	-1.05/0.6	0.9/8.2	2.32/0.82	2.22/3.65	3.99/2.98	1.2/-0.26	0.51/0.05	-0.24/0.23	1.55/2.56	1.76/0.61	1.08/-0.21	-1.83/-0.22	0.44/0.04	0.2/-1.96	-2.34/-0.75	-1.59/-1.33	-0.32/-1.1	-2.91/-1.89	-0.02/-0.21	-2.23/-2.77	-2.08/-2.71	-1.79/-0.14
Θ(52.5°)	1.62/1.31	1.13/0.63	-0.41/2.57	3.43/4.08	2.96/2.43	3.46/4.61	5.36/4.54	2.92/1.07	1.38/2.21	1.72/-39	3.96/4.57	3.54/0.73	0.47/1.51	0.54/-0.15	0.95/0.9	-0.05/-2.77	-1.43/-0.91	-2.31/-1.7	-1.02/-1.65	-2.25/-0.57	0.68/0.3	-2.32/-3.06	-2.58/-2.48	-0.53/-1.06
Θ(60°)	2.19/1.32	0.52/1.66	1.4/3.81	4.72/4.77	2.83/2.32	2.28/3.03	0.07/0.44	1.51/2.05	0.06/0.09	2.94/4.42	4.28/1.72	3.15/0.15	1.39/-0.12	0.61/1.4	0.72/-0.77	-0.9/-1.92	-3.49/-3.47	-2.63/-1.66	-0.21/0.88	1.07/0.32	-1.19/-1.49	-2.17/-1.82	0.74/1.62	
Θ(67.5°)	1.98/1.58	-0.37/1.84	2.62/7.2	4.28/6.33	3.73/2.99	3.17/8.32	1.56/-1.47	-0.02/-2.39	1.38/2.71	2.15/1.74	3.73/4.29	4.12/8.21	-2.89/-1.53	0.74/-1.2	-0.67/0.57	0.37/-0.78	-1.54/-1.47	-2.56/-1.75	-1.12/-0.27	0.14/0.17	0.3/-0.63	-1.44/-0.89	-0.1/-7.01	
Θ(75°)	0.8/0.74	-1.09/0.71	1.54/1.61	3.78/5.79	4.02/3.99	4.85/5.55	3.65/1.81	3.23/4.36	3.83/3.97	4.65/4.97	4.56/4.52	2.73/3.												



Radiated Composite Gain Data_2G5G (2TX / Ant 3~4)

Appendix C

Θ(75°)	-1.5/-5.66	-9.25/-10.51	-5.58/-2.78	-5.56/-2.01	-1.68/-1.49	-1.74/-0.03	0.70/3.31	-2.92/-3.12	-1.43/-1.09	-1.63/-2.32	-3.57/-3.21	-3.63/-4.6	-4.35/-4.5	-4.97/-5.96	-5.17/-6.34	-4.89/-4.68	-7.28/-6.99	-9.47/-4.81	-4.52/-3.58	-6.46/-9.36	-7.33/-5.1	-5.78/-5.83	-5.23/-5.98	-3.39/-2.73
Θ(82.5°)	-3.05/-7.97	-9.81/-11.14	-6.55/-4.12	-6.16/-3.84	-2.77/-1.7	-1.56/-0.09	0.46/-0.54	-4.33/-5.12	-1.88/-3.01	-4.24/-1.55	-3.64/-2.55	-4.01/-4.09	-4.84/-2.97	-4.69/-5.94	-6.19/-5.91	-5.21/-4.39	-6.49/-8.17	-9.54/-5.62	-6.39/-4.12	-6.6/-8.4	-8.09/-4.54	-5.13/-6.26	-6.85/-5.58	-4.14/-2.14
Θ(90°)	-5.71/-9.7	-12.62/-13.4	-8.23/-4.9	-6.89/-5.77	-3.98/-2.68	-2.87/-1.22	-0.76/-2.69	-6.29/-9.01	-3.08/-3.48	-6.15/-3.46	-5.52/-3.65	-5.66/-4.36	-5.08/-3.32	-5.4/-5.34	-7.54/-6.24	-5.63/-5.5	-6.77/-9.52	-8.4/-7.07	-7.64/-6.1	-7.97/-9.75	-8.99/-6.53	-6.43/-6.86	-8.14/-6.46	-8.46/-3.69
Θ(97.5°)	-6.34/-9.63	-13.71/-14.54	-8.38/-6.42	-6.96/-6.17	-5.57/-4.75	-4.6/-3.75	-2.9/-4.52	-8.33/-10.64	-5.05/-5.44	-6.55/-4.71	-6.28/-5.29	-9.52/-6.24	-6.71/-3.15	-4.65/-6.94	-9.42/-7.37	-9.69/-8.24	-7.92/-12.66	-10.39/-10.82	-12.73/-8.06	-11.23/-10.59	-10.24/-8.78	-9.41/-10.25	-11.33/-8.14	-11.22/-4
Θ(105°)	-7.71/-9.9	-12.27/-15.53	-10.48/-9.99	-8.6/-9.5	-8.94/-6.34	-5.88/-6.35	-5.33/-6.78	-8.8/-9.56	-6.86/-5.87	-6.64/-7.52	-9.5/-7.19	-11.73/-9.94	-8.32/-4.85	-5.42/-7.45	-13.13/-8.61	-12.71/-12.67	-14.95/-12.51	-12.63/-12.4	-12.15/-8.43	-12.29/-11.2	-11.7/-11.4	-10.64/-14.14	-11.88/-8.12	-11.56/-5.05
Θ(112.5°)	-8.66/-11.46	-13.19/-16.03	-12.81/-13.44	-10.65/-10.08	-11.15/-10	-7.56/-9.26	-7.17/-7.2	-10.22/-8.69	-9.03/-9.14	-8.21/-10.51	-9.24/-13.54	-14.19/-13.48	-7.81/-5.01	-8.18/-10.02	-11.26/-8.41	-14.6/-12.5	-14.04/-14.34	-13.85/-9.99	-11.93/-7.75	-11.63/-11.71	-11.42/-12.29	-12.39/-15.32	-12.46/-11.77	-13.17/-6.91
Θ(120°)	-13.7/-12.1	-10.7/-12.63	-12.76/-9.89	-11.24/-10.59	-10.69/-12.99	-11.5/-11.76	-6.35/-9.33	-9.53/-10.54	-15.32/-13.4	-8.89/-8.98	-9.29/-10.56	-13.55/-10.65	-7.89/-6.06	-9.86/-12.78	-11.67/-10.07	-12.48/-9.11	-12.86/-14.7	-14.95/-13.07	-7.21/-7.94	-11.03/-15.78	-12.68/-11.15	-12.66/-13.16	-14.31/-10.99	-13.01/-10.34
Θ(127.5°)	-14.23/-13.48	-13.53/-14.64	-15.72/-9.6	-9.84/-15.11	-12.4/-12.5	-11.96/-14.02	-13.29/-13.8	-13.05/-12.95	-13.56/-13.66	-9.46/-13.58	-10.55/-11.86	-10.53/-12.8	-10.29/-8.02	-13.01/-13.16	-12.81/-15.36	-14.89/-12.78	-13.82/-15.86	-15.55/-14.22	-7.78/-7.53	-9.51/-14.7	-12.6/-15.11	-14.49/-11.06	-9.41/-12.71	-13.98/-13.51
Θ(135°)	-14.83/-15.46	-10.62/-12.44	-14.91/-13.31	-14.13/-10.27	-6.48/-11.36	-14.16/-11.27	-9.74/-9.37	-13.3/-15.21	-13.51/-15.24	-10.16/-9.96	-12.37/-10.1	-15.81/-13.97	-9.84/-11.09	-15.16/-10.82	-13.14/-11.63	-14.23/-15.1	-10.48/-15.79	-15.92/-13.51	-13.75/-10.19	-9.97/-14.03	-14.47/-13.6	-11.9/-10.48	-10.08/-14.81	-15.34/-12.58
Θ(142.5°)	-14.34/-15.46	-14.06/-10.08	-10.82/-10.09	-14.23/-13.85	-9.47/-10.4	-7.04/-10.67	-15.22/-7.54	-10.54/-12.58	-9.28/-10.4	-13.4/-11.37	-9.72/-10.62	-13.02/-12.74	-15.89/-9.03	-11.06/-12.81	-10.96/-11.49	-15.52/-15.42	-13.03/-15.08	-13.92/-11.68	-12.74/-13.95	-13.43/-12.71	-14/-12.22	-15.48/-14.75	-15.34/-15.67	-13.74/-15.94
Θ(150°)	-16.36/-13.07	-12.03/-12.38	-11.79/-12.67	-12.83/-9.89	-11.88/-10.57	-5.93/-5.98	-10.18/-8.45	-9.74/-11.31	-7.97/-6.2	-7.21/-9.87	-11.76/-11.53	-10.41/-11.15	-11.15/-7.98	-13.19/-9.6	-9.71/-14.78	-12.51/-14.36	-15.05/-15.19	-14.68/-12.23	-14.17/-14.98	-13.38/-14.11	-14.27/-14.51	-10.46/-10.11	-11.67/-13.58	-14.4/-15.82
Θ(157.5°)	-11.94/-12.32	-9.63/-9.44	-10.55/-12.84	-12.06/-12.65	-13.61/-10.02	-7.61/-8.56	-9.18/-10.75	-12.91/-14.79	-12.85/-13.36	-15.58/-9.64	-8.14/-12.29	-14.41/-11.47	-8.75/-7.95	-10.55/-8.67	-9.83/-13.67	-13.59/-11.04	-10.55/-11.13	-11.82/-12.59	-14.96/-13.62	-11.55/-11.45	-10.69/-11.94	-13.12/-13.73	-13.26/-10.36	-9.76/-9.69
Θ(165°)	-12.86/-15.39	-15.64/-15.94	-15.35/-13.54	-12.52/-15	-15.03/-15.85	-12.7/-12.74	-13.93/-14.72	-13.32/-11.52	-10.36/-11.19	-13.27/-11.92	-11.03/-13.36	-14.7/-14.51	-11.64/-10.79	-11.51/-14.33	-15.13/-14.82	-13.98/-12.41	-11.51/-11.79	-13.73/-16.14	-15.48/-15.79	-15.56/-13.47	-12.49/-14.6	-14.95/-14.24	-12.43/-10.72	-10.78/-11.46
Θ(172.5°)	-11.81/-12.94	-13.2/-11.22	-10.33/-10.22	-10.04/-10.65	-12.35/-12.94	-13.76/-13.7	-12.61/-11.74	-11.64/-11.75	-11.37/-13.06	-15.19/-14.32	-13.84/-15.66	-15.29/-15.32	-15.39/-14.47	-13.32/-12.96	-12.93/-13.7	-13.5/-12.83	-12.15/-11.25	-12.81/-13.76	-15.3/-15.49	-15.47/-15.83	-15.09/-13.68	-14.24/-14.44	-15.13/-12.87	-11.63/-11.47
Θ(180°)	-11.08/-10.39	-9.08/-8.8	-9.13/-9.79	-10.87/-12.52	-13.88/-13.92	-12.68/-12.02	-12.36/-12.61	-12.67/-12.12	-11.86/-11.94	-11.99/-12.06	-11.45/-11.6	-11.36/-10.34	-10.45/-10.38	-9.49/-9.35	-9.53/-9.26	-9.46/-9.85	-9.93/-10.1	-10.88/-11.24	-11.59/-11.59	-11.49/-11.77	-12.36/-12.27	-12.25/-11.4	-11.23/-10.97	-11.24/-10.67
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°)	-5.19/-5.59	-6.47/-6.82	-7.48/-8.26	-9.91/-11.98	-12.3/-12.01	-12.76/-13.52	-12.26/-10.63	-10.36/-9.46	-8.77/-8.46	-8.51/-8.16	-7.34/-7.47	-7.21/-6.45	-6.8/-6.74	-6.59/-6.71	-6.52/-6.99	-7.85/-8.54	-9.01/-9.27	-8.73/-8.07	-7.41/-6.94	-6.46/-6.25	-6.44/-7.07	-7.31/-6.56	-5.78/-6.05	-6.3/-5.84
Θ(7.5°)	-5.74/-6.6	-3.98/-4	-4.4/-4.73	-5.26/-5.81	-6.2/-6.51	-6.24/-6.22	-6.25/-6.25	-6.32/-6.45	-6.1/-5.42	-5.5/-6.06	-6.07/-6.35	-5.53/-5.31	-5.55/-6.23	-6.55/-6.82	-7.71/-9.05	-11.04/-12.81	-14.1/-15.29	-16.31/-13.22	-13/-12.22	-9.4/-7.49	-7.07/-7.18	-7.96/-8.28	-7.32/-6.71	-6.42/-6.3
Θ(15°)	-3.84/-4.01	-3.89/-4.19	-5.17/-5.36	-4.36/-3.54	-2.9/-2.55	-2.61/-2.79	-3.73/-4.74	-5.84/-7.32	-7.14/-6.62	-5.67/-5.15	-5.01/-5.39	-6.03/-5.59	-5.82/-6.96	-6.63/-6.34	-6.28/-6.53	-6.7/-5.65	-5.11/-5.23	-5.44/-5.63	-6.1/-7.12	-8.24/-8.31	-8.9/-9.55	-9.8/-9.06	-7.35/-5.7	-4.56/-3.83
Θ(22.5°)	-3.62/-4.54	-4.77/-4.28	-3.3/-2.45	-1.99/-1.97	-2.66/-3.13	-3.13/-3.11	-2.04/-0.94	-0.53/-0.71	-1.78/-2.63	-1.56/-0.25	-0/-0.56	-1.38/-3.02	-4.51/-6.23	-8.45/-8.15	-8.46/-8.72	-8.53/-6.98	-6.29/-5.99	-5.53/-5.56	-6.39/-7.93	-9.3/-9.38	-8.8/-8.91	-9.62/-10.38	-9.68/-6.61	-4.71/-3.73
Θ(30°)	-7.3/-4.04	-2.16/-2.25	-2.08/-0	1.010.11	-0.360.54	-0.21/-1.62	-1.210.33	1.622.15	1.690.21	-2.76/-2.42	-0.310.86	0.07/-2.39	-2.64/-1.89	-3.81/-9.89	-9.19/-8.22	-11.64/-11.68	-9.56/-8.55	-7.04/-4.83	-4.35/-6.7	-11/-8.38	-4.78/-4.11	-5.07/-6.89	-5.35/-3.6	-3.7/-6.33
Θ(37.5°)	-6.37/-2.59	-1.48/-1.31	-1.21/-1.3	2.512.07	1.822.07	0.65/-0.78	0.350.86	1.091.28	1.160.62	-0.72/-0.29	1.462.16	1.36/-0.36	0.140.68	-1.8/-6.23	-4.78/-2.69	-5.12/-4.62	-3.5/-3.02	-1.51/-1.6	-4.08/-7.99	-8.21/-4.35	-0.90.38	-1.05/-4.38	-3.69/-3.43	-5.13/-9.58
Θ(45°)	-1.92/-0.32	-3.1/-1.81	1.670.15	0.811.54	1.761.77	1.532.21	2.942.25	1.392.21	2.622.2	1.551.38	2.452.61	0.720.7	0.890.83	1.290.34	0.140.85	-1.56/-1.52	-2.01/-2.31	-0.76/-1.75	-6.22/-6.55	-4.58/-3.45	-1.24/-1.46	1.12/-1.3	-2.06/-2.21	-5.24/-7.61
Θ(52.5°)	0.223.7	0.08/-0.29	3.282.18	1.912.73	2.343.37	4.815.25	5.064	2.853.26	2.632.3	4.064.66	4.84.22	1.651.96	2.150.95	2.141.41	1.630.81	-0.69/-0.42	-0.41/-0.07	-0.16/-1.24	-3.44/-5.19	-5.05/-4.9	-4.44/-0.47	1.170.31	-2.12/-0.69	-2.2/-2.58
Θ(60°)	0.072.79	2.411.55	3.583.44	3.073.26	3.143.02	4.143.9	4.473.88	2.332.32	2.211.05	3.334.04	4.374.48	2.031.82	3.653.39	3.212.25	1.501.65	-0.14/-0.83	-1.52/-0	-0.850.5	0.63/-0.72	-2.61/-2.81	-3.8/-1.41	-0.3/-0.13	-2.76/-0.7	0.410.49
Θ(67.5°)	-1.972.05	2.442.28	3.547.71	4.643.39	3.241.31	2.522.67	3.062.1	2.223.65	3.42/-1.57	-1.130.72	2.183.42	2.660.61	2.343.8	3.752.11	1.350.68	0.74/-0.68	-1.170.67	-1.01/-1.7	1.720.5	-2.4/-0.77	-0.49/-0.54	-1.01/-0.97	-2.15/-0.55	1.170.77
Θ(75°)	-3.640.2	0.692.19	2.994.95	4.293.41	4.021.86	3.885.11	3.730.6	1.644.24	4.531.43	2.172.78	2.453.1	2.721.24	0.792.2	3.211.85	1.391.79	0.21/-0.08	-2.080.37	-1.942.37	3.072.03	-0.950.32	-0.3/-0.03	-1.73/-2.01	-3.32/-1.43	1.28/-0.02
Θ(82.5°)	-5.06/-0.59	-1.65/-1.33	1.994.69	3.593.75	3.982.19	4.745.87	4.020.2	1.714.42	4.082.74	3.963.07	2.52.76	2.080.02	0.060.78	2.110.74	1.271.87	-0.28/-1.48	-1.170.66	-2.192.37	3.283.26	0.51/-0.13	-0.48/-0.34	-2.14/-2.8	-5.2/-2.5	-0.05/-2.23
Θ(90°)	-3.34/-0.85	-4.120.84	1.313.76	2.644.01	3.171.1	3.745.05	2.950.18	0.833.29	2.671.66	2.491.07	2.061.93	1.36/-0.12	-1.28/-0.75	0.44/-1.02	-0.171.83	0.89/-4.16	-1.470.94	-1.612.2	2.592.73	0.01/-2.19	-0.58/-0.77	-2.8/-2.86	-5.58/-4.21	-0.91/-3.04
Θ(97.5°)	-4.27/-2.48	-5.84/-0.31	-0.052.46	1.823.39	1.81/-0.25	1.733.2	1.37/-0.67	0.252.4	0.940.33	0.78/-0.37	0.660.95	-1.06/-2.15	-3.55/-0.63	-0.44/-2.03	-2.05/-1	-0.41/-5.68	-3.25/-0.97	-4.55/-0.52	0.490.61	-1.36/-4.84	-2.54/-1.62	-4.19/-4.13	-4.47/-6.31	-2.52/-4.03
Θ(105°)	-5.73/-3.49	-7.35/-1.82	-1.780.96	1.072.04	0.06/-2.59	-1.770.59	-0.57/-2.72	-2.050.19	-0.74/-1.43	-0.230.79	-0.6/-4.4	-3.42/-2.73	-6.89/-3.51	-1.01/-3.3	-4.55/-2.43	-1.49/-5.93	-9.43/-3.89	-8.85/-3.25	-2.93/-2.62	-2.98/-6.34	-3.83/-3.91	-6.6/-4.84	-6.37/-4.78	-3.37/-5.05
Θ(112.5°)	-7.32/-6.07	-7.72/-4.39	-6.03/-1.44	-0.65/-0.19	-2.74/-4.32	-2.8/-0.97	-2.43/-5.7	-8.59/-6	-5.25/-1.52	0.521.59	-1.67/-1.51	-5.68/-2.58	-4.47/-3.34	-1.48/-3.81	-5.67/-4.43	-5.31/-6.53	-7.31/-5.45	-7.51/-5.1	-2.37/-2.59	-2.51/-8.19	-6.67/-7.2	-5.81/-3.29	-5.37/-5.49	-3.73/-5.37
Θ(120°)	-8.3/-9.33	-9.43/-10.61	-8.28/-4.52	-4.06/-3.71	-6.3/-6.21	-3.49/-1.44	-1.78/-3.07	-6.49/-7.14	-7.19/-3.57	-2.76/-2.72	-6.56/-5.96	-6.59/-5.45	-3.32/-3.45	-4.43/-5.3	-4.92/-4.81	-3.76/-4.98	-5.68/-5.53	-4.96/-6.57	-1.92/-1.8	-3.75/-5.41	-5.26/-6.65	-3.67/-5.76	-5.36/-5.91	-2.1/-5.86
Θ(127.5°)	-7.54/-7.8	-7.48/-10.6	-6.88/-5.51	-6.17/-7.18	-7.79/-7.97	-11.57/-8.34	-6.61/-4.3	-3.48/-2.67	-5.06/-7.58	-15.48/-6.82	-7.48/-9.57	-8.7/-8.52	-5.01/-2.96	-6.74/-6.31	-4.6/-6.27									



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Freq(Hz)	5.2G	5.3G	5.6G	5.785G	6.175G	6.475G	6.695G	6.995G
Ant. 1 Max Gain (dBi)	3.07	2.35	2.59	3.21	2.71	2.66	4.37	3.21
Ant. 2 Max Gain (dBi)	3.01	2.66	3.88	4.23	4.41	3.82	3.37	4.42
Ant. 1 Polarization/Θ(°)/Φ(°)	Theta/67.5/345	Theta/60/345	Theta/67.5/337.5	Theta/67.5/337.5	Theta/82.5/0	Theta/60/0	Theta/90/270	Theta/90/270
Ant. 2 Polarization/Θ(°)/Φ(°)	Theta/75/172.5	Theta/75/172.5	Theta/75/172.5	Theta/75/172.5	Theta/82.5/165	Theta/60/337.5	Theta/60/165	Theta/67.5/330
Max Gain (dBi)	3.07	2.66	3.88	4.23	4.41	3.82	4.37	4.42
DG [1SS] (dBi)	4.51	4.52	6	5.95	5.82	4.82	5.36	5.47
DG [2SS] (dBi)	3.07	2.66	3.88	4.23	4.41	3.82	4.37	4.42