



Radiated Composite Gain Data_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

| Theta | 0(7.5) | 0(15) | 0(22.5) | 0(30) | 0(37.5) | 0(45) | 0(52.5) | 0(60) | 0(67.5) | 0(75) | 0(82.5) | 0(90) | 0(97.5) | 0(105) | 0(112.5) | 0(120) | 0(127.5) | 0(135) | 0(142.5) | 0(150) | 0(157.5) | 0(165) | 0(172.5) | 0(180) | | |
|-------|------------|----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------|
| Gain | 6.475GPaol | Phi(7.5) | Phi(15) | Phi(22.5) | Phi(30) | Phi(37.5) | Phi(45) | Phi(52.5) | Phi(60) | Phi(67.5) | Phi(75) | Phi(82.5) | Phi(90) | Phi(97.5) | Phi(105) | Phi(112.5) | Phi(120) | Phi(127.5) | Phi(135) | Phi(142.5) | Phi(150) | Phi(157.5) | Phi(165) | Phi(172.5) | Phi(180) | |
| Theta | 0(7.5) | 0(15) | 0(22.5) | 0(30) | 0(37.5) | 0(45) | 0(52.5) | 0(60) | 0(67.5) | 0(75) | 0(82.5) | 0(90) | 0(97.5) | 0(105) | 0(112.5) | 0(120) | 0(127.5) | 0(135) | 0(142.5) | 0(150) | 0(157.5) | 0(165) | 0(172.5) | 0(180) | Theta | |
| Gain | 6.475GPaol | Phi(7.5) | Phi(15) | Phi(22.5) | Phi(30) | Phi(37.5) | Phi(45) | Phi(52.5) | Phi(60) | Phi(67.5) | Phi(75) | Phi(82.5) | Phi(90) | Phi(97.5) | Phi(105) | Phi(112.5) | Phi(120) | Phi(127.5) | Phi(135) | Phi(142.5) | Phi(150) | Phi(157.5) | Phi(165) | Phi(172.5) | Phi(180) | Gain |
| Theta | 0(7.5) | 0(15) | 0(22.5) | 0(30) | 0(37.5) | 0(45) | 0(52.5) | 0(60) | 0(67.5) | 0(75) | 0(82.5) | 0(90) | 0(97.5) | 0(105) | 0(112.5) | 0(120) | 0(127.5) | 0(135) | 0(142.5) | 0(150) | 0(157.5) | 0(165) | 0(172.5) | 0(180) | Theta | |
| Gain | 6.475GPaol | Phi(7.5) | Phi(15) | Phi(22.5) | Phi(30) | Phi(37.5) | Phi(45) | Phi(52.5) | Phi(60) | Phi(67.5) | Phi(75) | Phi(82.5) | Phi(90) | Phi(97.5) | Phi(105) | Phi(112.5) | Phi(120) | Phi(127.5) | Phi(135) | Phi(142.5) | Phi(150) | Phi(157.5) | Phi(165) | Phi(172.5) | Phi(180) | Gain |

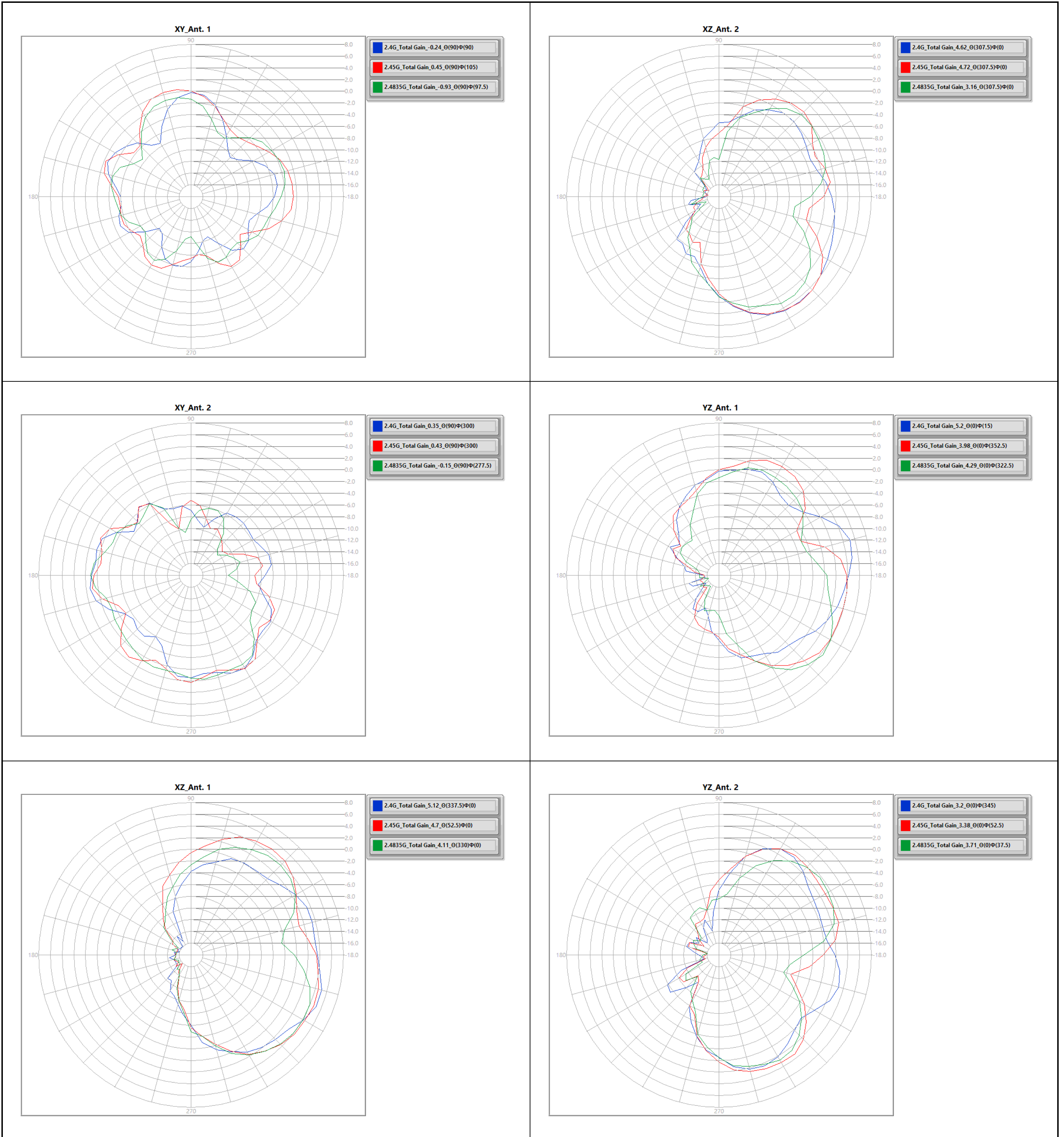


Radiated Composite Gain Data_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix C

Table with columns for Frequency (MHz), Azimuth (Theta) in degrees, and Elevation (Phi) in degrees. The table contains gain data for various frequency bands (6.995GHz, 5.6GHz, 5.8GHz) and antenna configurations (0 to 180 degrees azimuth and elevation). Values range from approximately -18.96 to 4.42.

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



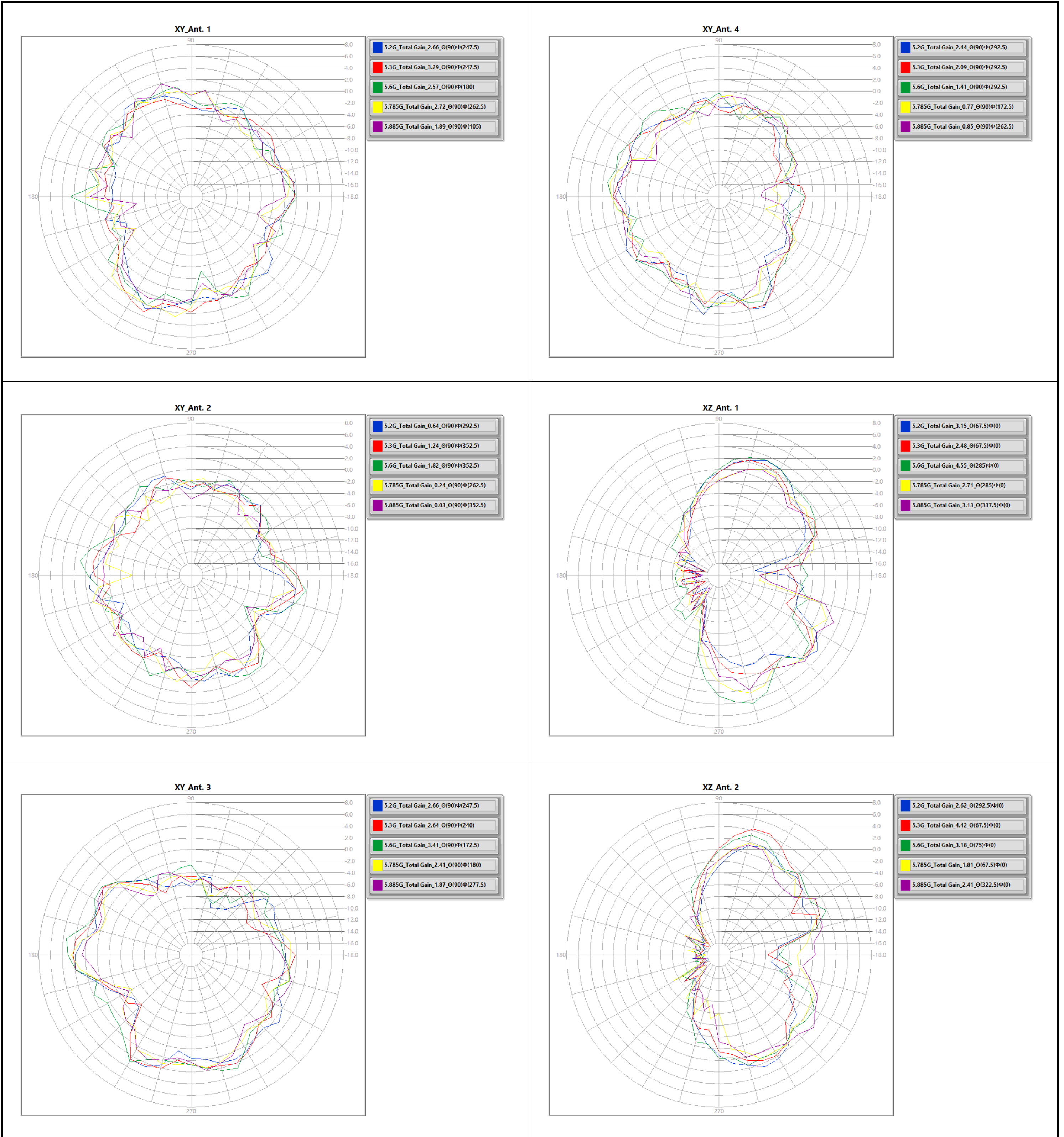


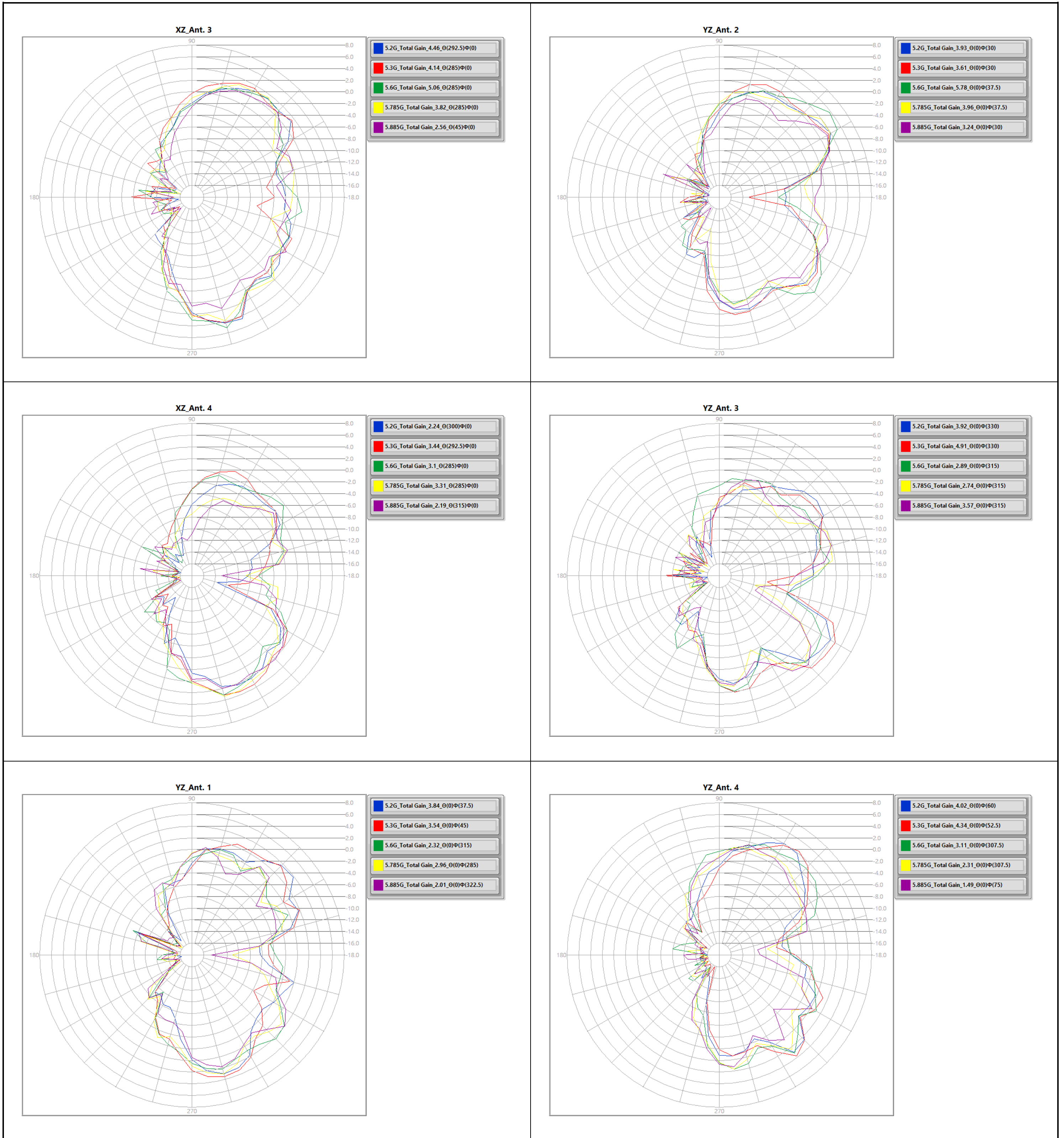
Antenna Pattern_Radio 2_5GHz

Appendix E

| | Θ(157.5°) | Θ(165°) | Θ(172.5°) | Θ(180°) | Freq(Hz) | Gain | Θ(0°) | Θ(7.5°) | Θ(15°) | Θ(22.5°) | Θ(30°) | Θ(37.5°) | Θ(45°) | Θ(52.5°) | Θ(60°) | Θ(67.5°) | Θ(75°) | Θ(82.5°) | Θ(90°) | Θ(97.5°) | Θ(105°) | Θ(112.5°) | Θ(120°) | Θ(127.5°) | Θ(135°) | Θ(142.5°) | Θ(150°) | Θ(157.5°) | Θ(165°) | Θ(172.5°) | Θ(180°) | Θ(187.5°) | Θ(195°) | Θ(202.5°) | Θ(210°) | Θ(217.5°) | Θ(225°) | Θ(232.5°) | Θ(240°) | Θ(247.5°) | Θ(255°) | Θ(262.5°) | Θ(270°) | Θ(277.5°) | Θ(285°) | Θ(292.5°) | Θ(300°) | Θ(307.5°) | Θ(315°) | Θ(322.5°) | Θ(330°) | Θ(337.5°) | Θ(345°) | Θ(352.5°) |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Θ(157.5°) | -14.69/15.19 | -15.12/13.41 | -14.22/15.21 | -15.16/14.72 | -14.94/15.35 | -14.03/14.22 | -14.43/15.21 | -14.69/13.46 | -12.51/13.23 | -14.57/15.42 | -15.75/15.55 | -15.42/15.27 | -14.62/12.50 | -13.12/15.46 | -15.25/15.31 | -15.41/14.91 | -15.14/15.72 | -15.44/15.09 | -15.10/14.92 | -11.90/12.40 | -14.94/15.06 | -14.81/14.38 | -13.87/14.82 | -15.29/15.55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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







Antenna Pattern_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix F

Total Gain Data

| Freq(Hz) | 5.6GPol | TotalAnt.1 | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 | | | | |
|----------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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°) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 |
| 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°) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 |
| 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°) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 |
| 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°) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | 360 |



Antenna Pattern_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix F

Table with columns for frequency (Freq), gain, and various antenna patterns (Theta) ranging from 0 to 180 degrees. It contains a large grid of numerical values representing antenna performance metrics.



Antenna Pattern_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix F

Table with 20 columns (Theta values) and 20 rows (Phi values), containing numerical gain data for various frequencies from 5.885 to 6.875 GHz.



Antenna Pattern_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix F

| Freq(Hz) | -10.56/11.93 | -13.78/13.75 | -12.06/12.38 | -13.29/12.98 | -13.00/12.59 | -12.40/12.39 | -12.10/12.81 | -12.65/12.23 | -10.95/11.36 | -12.19/12.08 | -11.93/12.05 | -13.18/14.37 | -13.88/14.58 | -13.38/13.74 | -13.52/13.00 | -13.97/13.34 | -12.41/13.40 | -12.47/10.25 | -9.85/11.19 | -11.64/10.94 | -11.57/11.75 | -12.08/13.19 | -13.29/10.94 | -9.53/9.97 |
|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|------------|
| Gain | 6.175GPol | TotalAnt.3 | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- |
| Theta(°) | 0(°) | Phi(15°) | Phi(30°) | Phi(45°) | Phi(60°) | Phi(75°) | Phi(90°) | Phi(105°) | Phi(120°) | Phi(135°) | Phi(150°) | Phi(165°) | Phi(180°) | Phi(195°) | Phi(210°) | Phi(225°) | Phi(240°) | Phi(255°) | Phi(270°) | Phi(285°) | Phi(300°) | Phi(315°) | Phi(330°) | Phi(345°) |
| Gain | 6.175GPol | TotalAnt.3 | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- | +/- |
| Theta(°) | 0(°) | Phi(15°) | Phi(30°) | Phi(45°) | Phi(60°) | Phi(75°) | Phi(90°) | Phi(105°) | Phi(120°) | Phi(135°) | Phi(150°) | Phi(165°) | Phi(180°) | Phi(195°) | Phi(210°) | Phi(225°) | Phi(240°) | Phi(255°) | Phi(270°) | Phi(285°) | Phi(300°) | Phi(315°) | Phi(330°) | Phi(345°) |
| Theta(°) | 0(°) | Phi(15°) | Phi(30°) | Phi(45°) | Phi(60°) | Phi(75°) | Phi(90°) | Phi(105°) | Phi(120°) | Phi(135°) | Phi(150°) | Phi(165°) | Phi(180°) | Phi(195°) | Phi(210°) | Phi(225°) | Phi(240°) | Phi(255°) | Phi(270°) | Phi(285°) | Phi(300°) | Phi(315°) | Phi(330°) | Phi(345°) |



Antenna Pattern_Radio 4_5GHz UNII 2C-4 and 6GHz

Appendix F

Table with 30 columns and 100 rows. Columns include elevation angle (Theta), azimuth angle (Phi), and gain values. Rows represent different elevation angles from 0 to 180 degrees. The table contains numerical data for gain in dBi across various azimuth angles.

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

