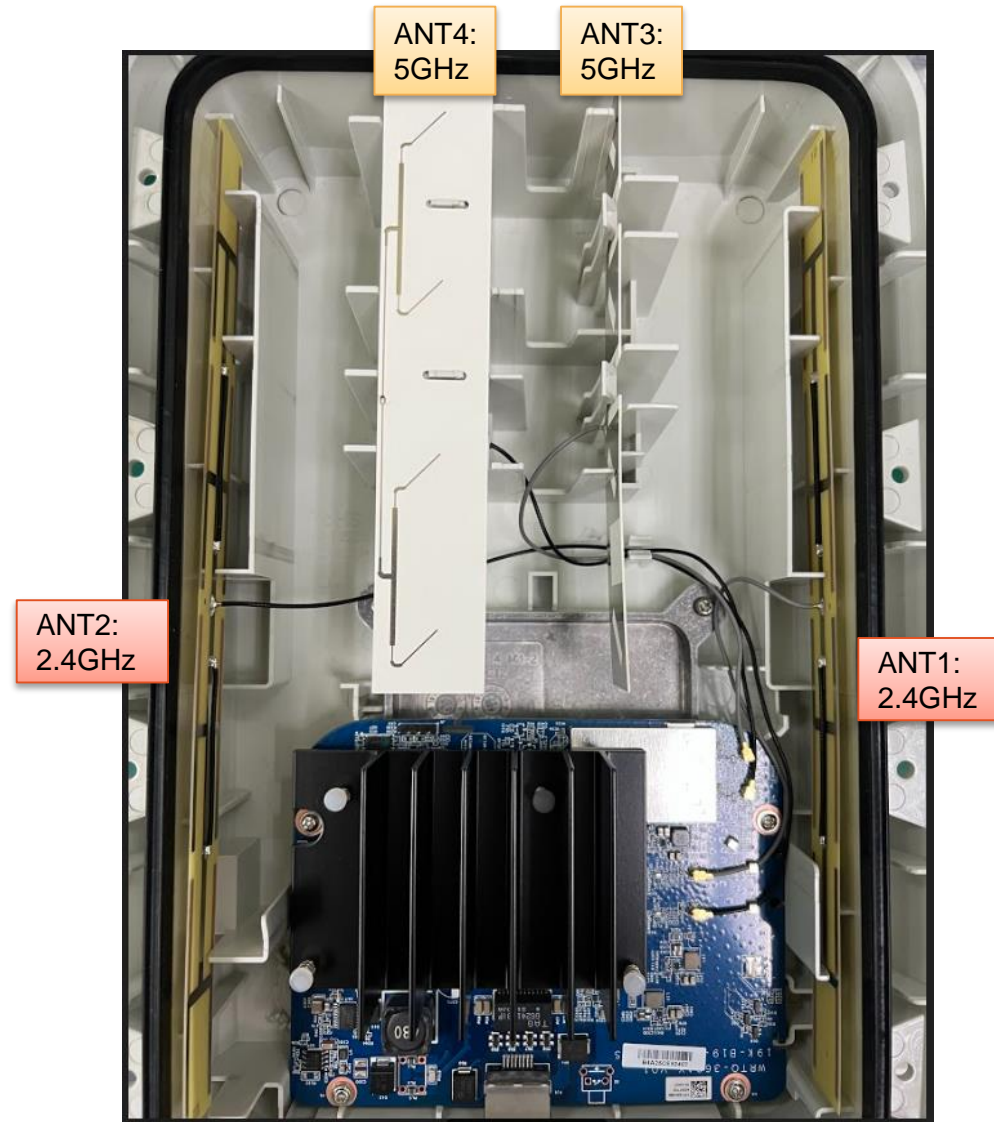


Cambium XV2-23T Antenna Test Report Vt03

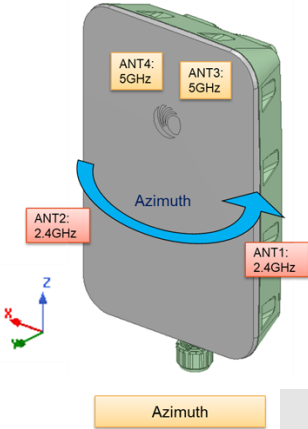


Antenna Team
August 8, 2022

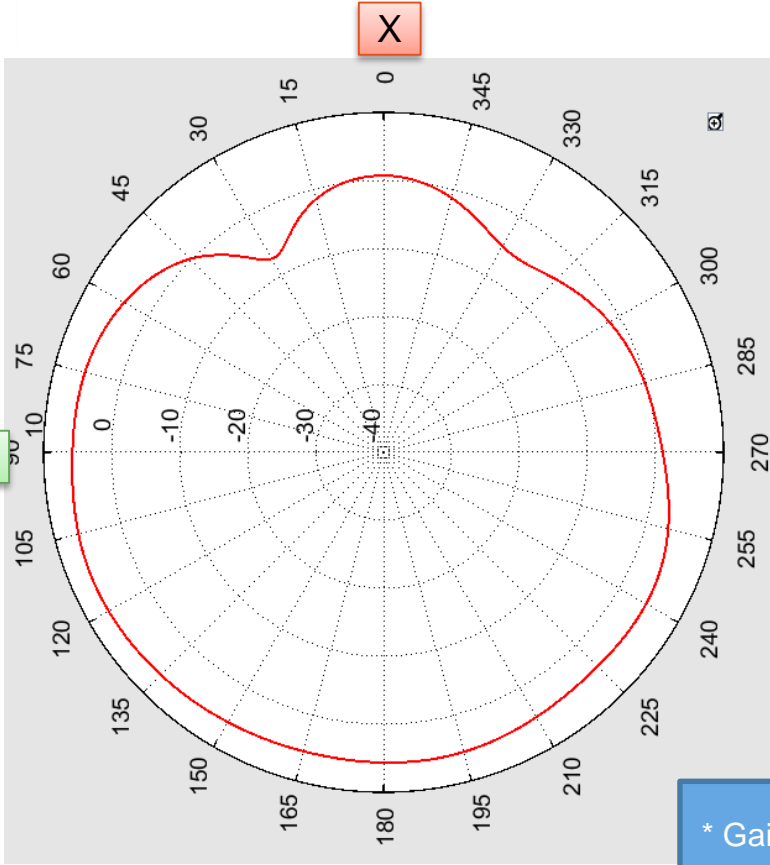
Overview



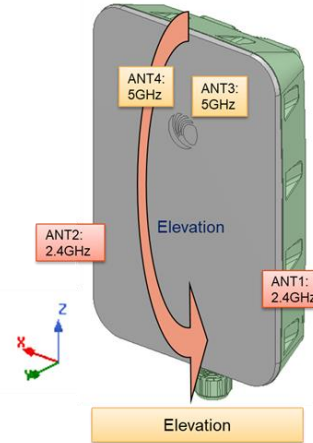
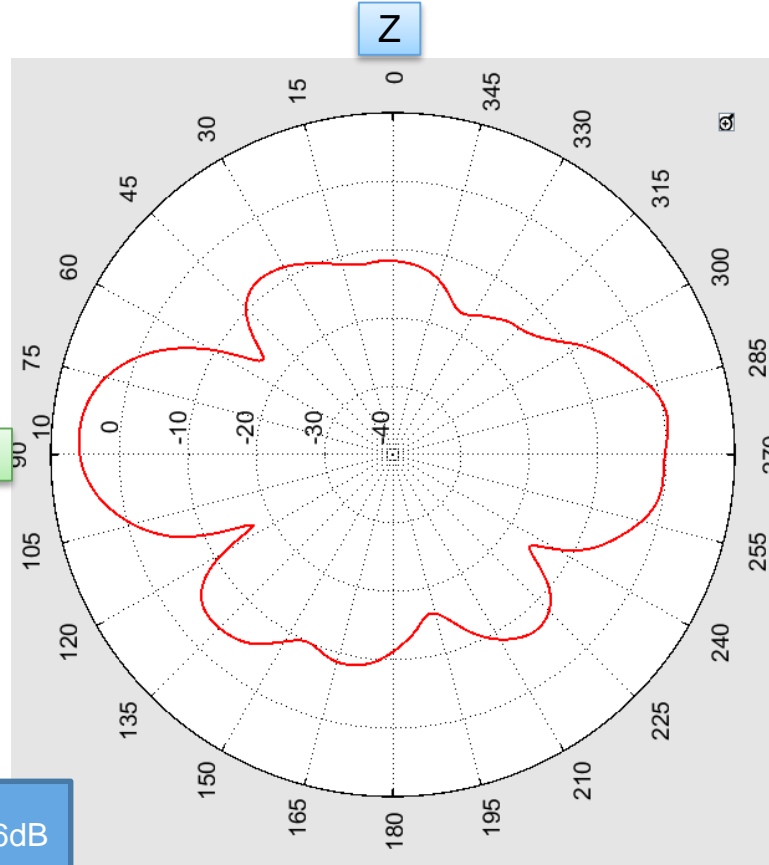
ANT1 2.4GHz GainTotal 2D Pattern



Azimuth	Gain	Average Gain
2.45GHz	6.71dBi	3.7dBi

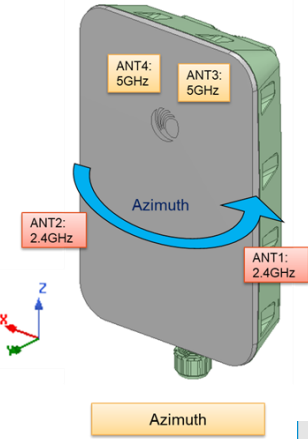


Elevation	Gain
2.45GHz	5.94dBi

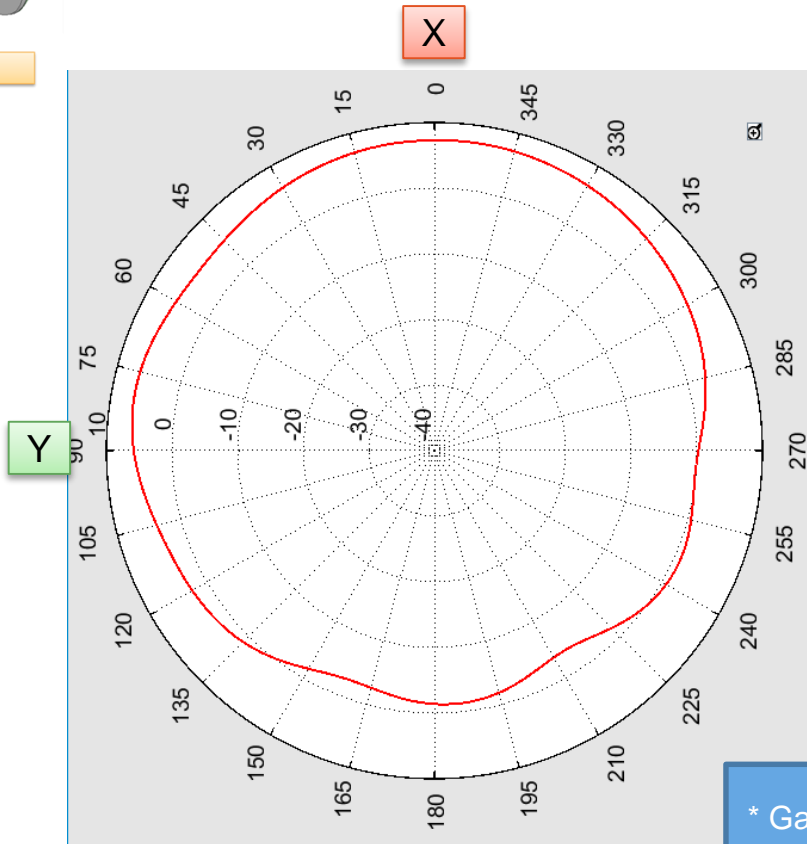


* Gain includes cable loss 0.6dB

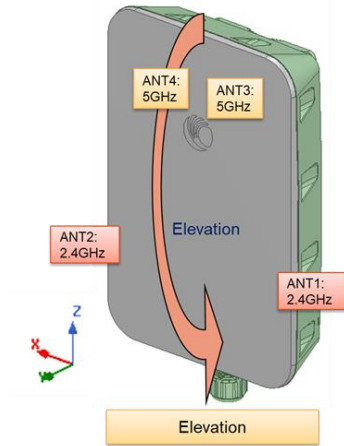
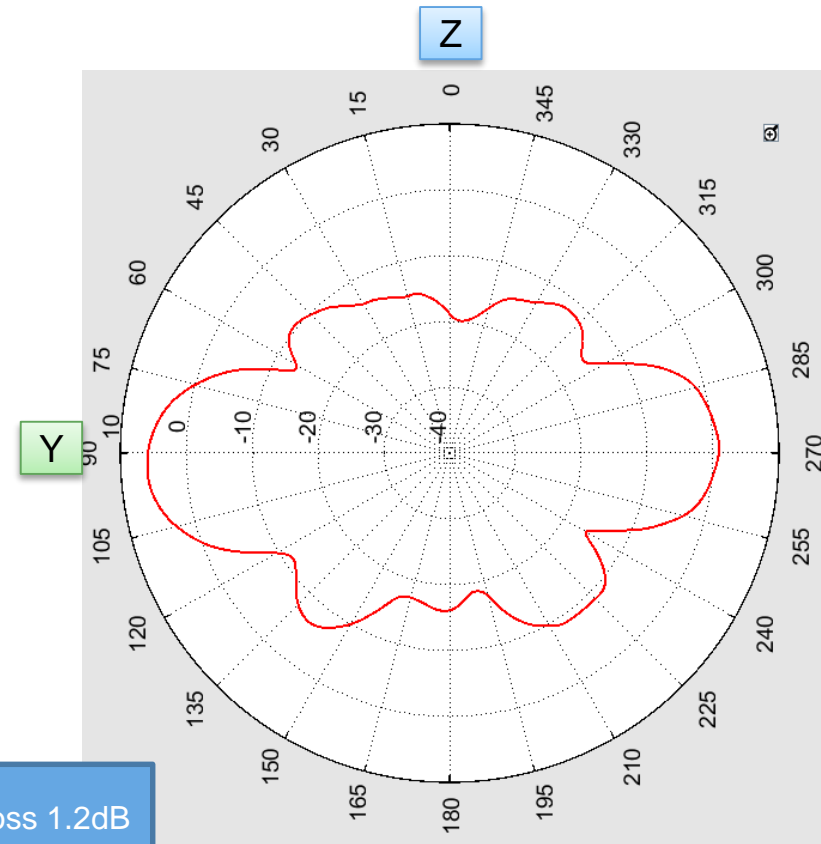
ANT2 2.4GHz GainTotal 2D Pattern



Azimuth	Gain	Average Gain
2.45GHz	7.34dBi	4.04dBi

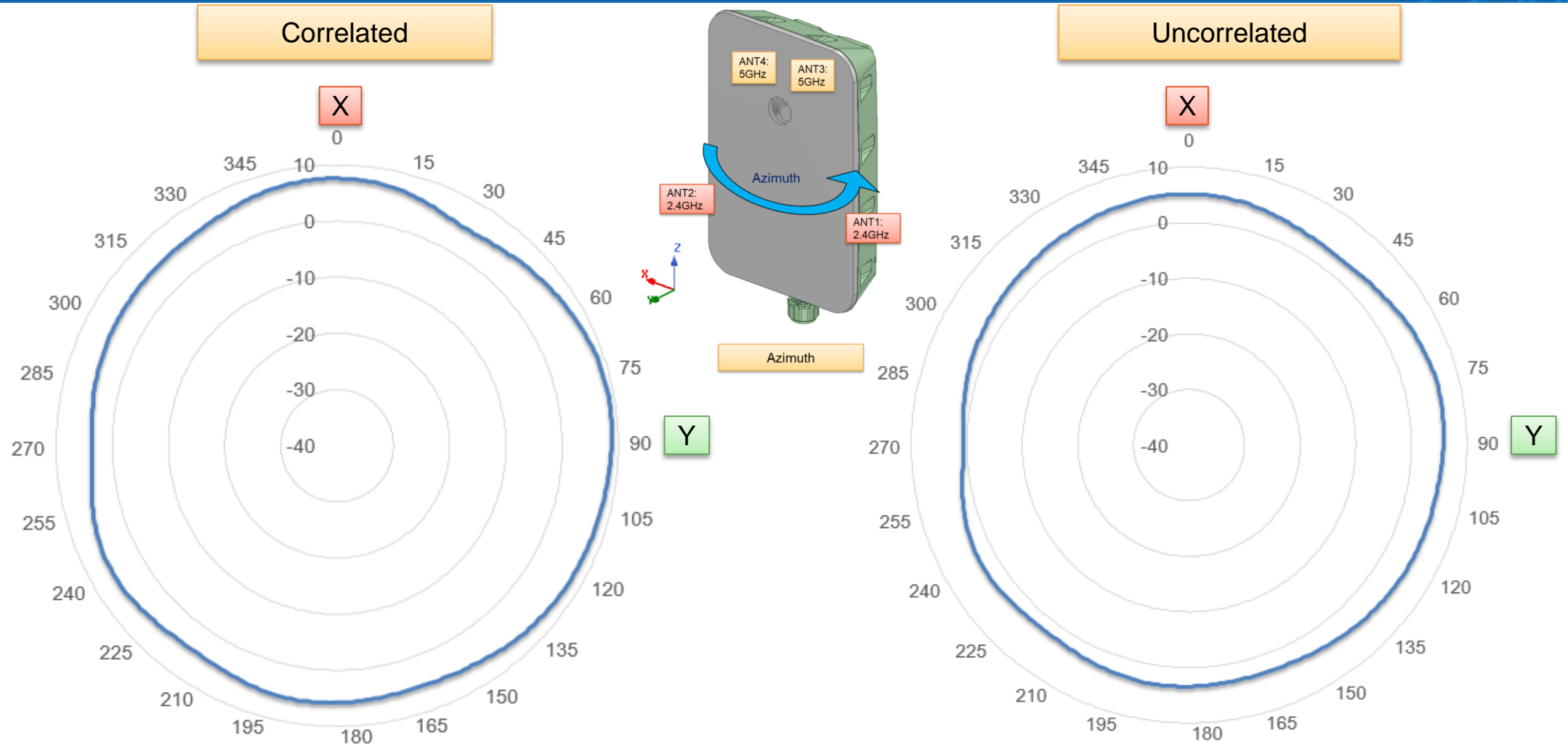


Elevation	Gain
2.45GHz	5.95dBi



* Gain includes cable loss 1.2dB

ANT1+ANT2: Azimuth-Plane Composite Gain Pattern @ 2.4GHz

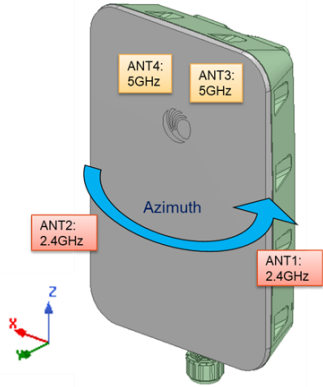


Correlated Gain	Max	Min	Average
2.45GHz	9.06dBi	3.67dBi	6.19dBi

* Gain includes cable loss

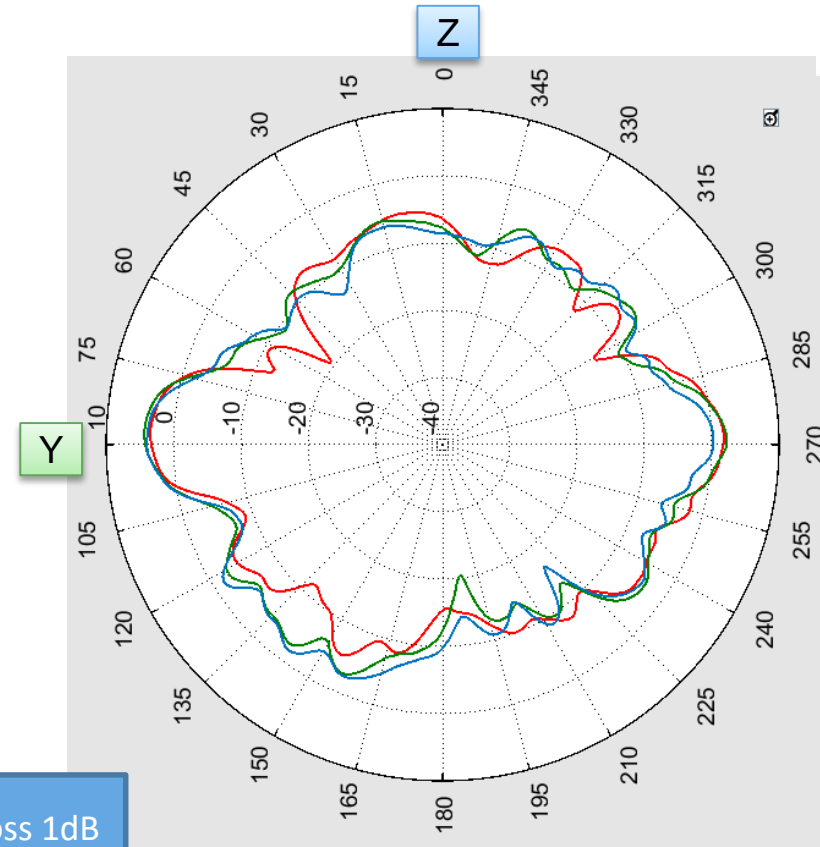
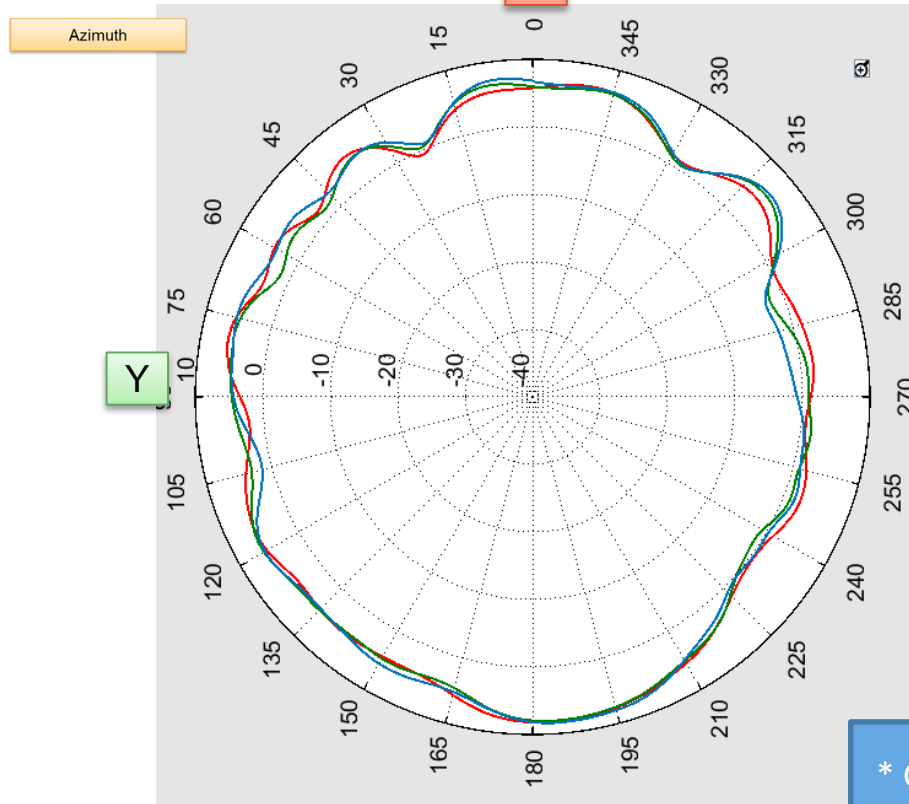
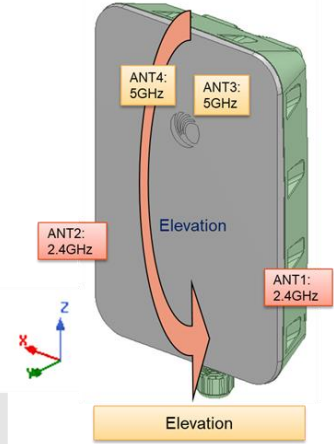
Uncorrelated Gain	Max	Min	Average
2.45GHz	6.06dBi	0.66dBi	3.68dBi

ANT3 5GHz GainTotal 2D Pattern



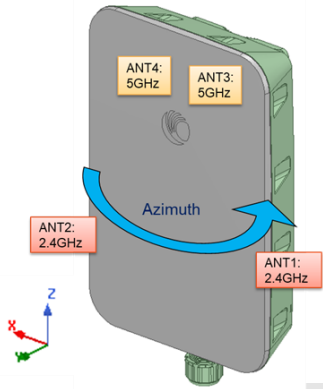
Trace Color	Azimuth	Max Gain (dBi)	Min Gain (dBi)	Average Gain (dBi)
Red	5.0GHz	8.19	-0.6	4.42
Green	5.5GHz	8.05	-2.06	4.28
Blue	6.0GHz	8.4	-2.84	4.54

Trace Color	Elevation	Max Gain (dBi)
Red	5.0GHz	3.47
Green	5.5GHz	4.34
Blue	6.0GHz	3.95



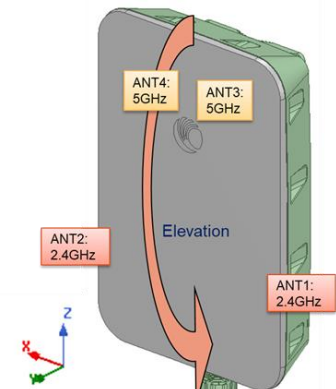
* Gain includes cable loss 1dB

ANT4 5GHz GainTotal 2D Pattern

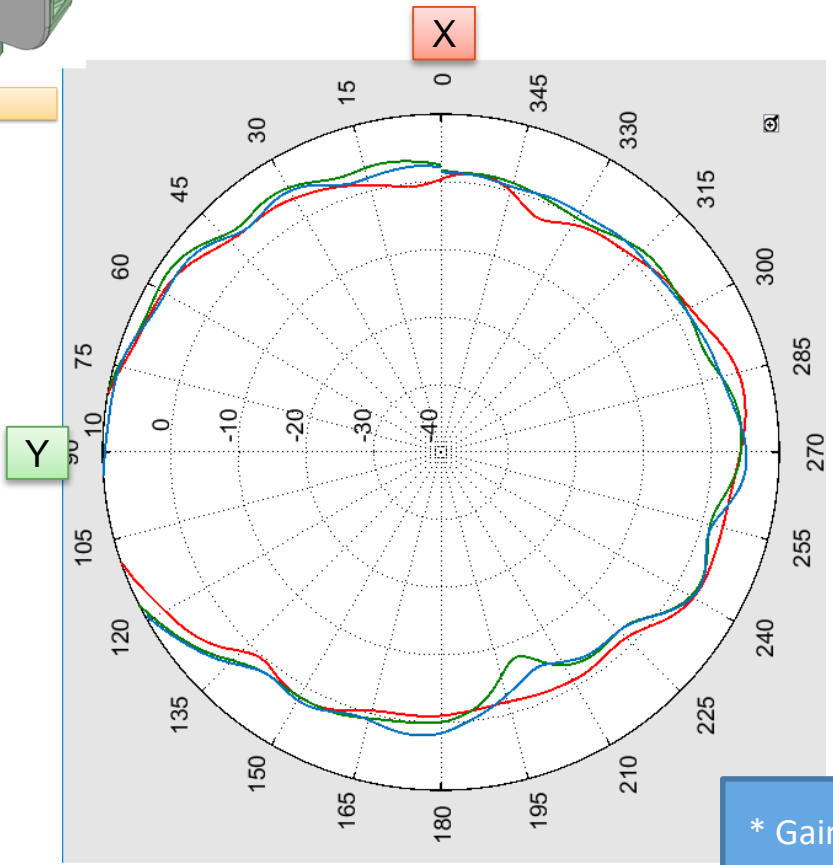


Trace Color	Azimuth	Max Gain (dBi)	Min Gain (dBi)	Average Gain (dBi)
Red	5.0GHz	11.07	-2.52	4.73
Green	5.5GHz	11.43	-7.71	5.18
Blue	6.0GHz	10.98	-5.13	4.91

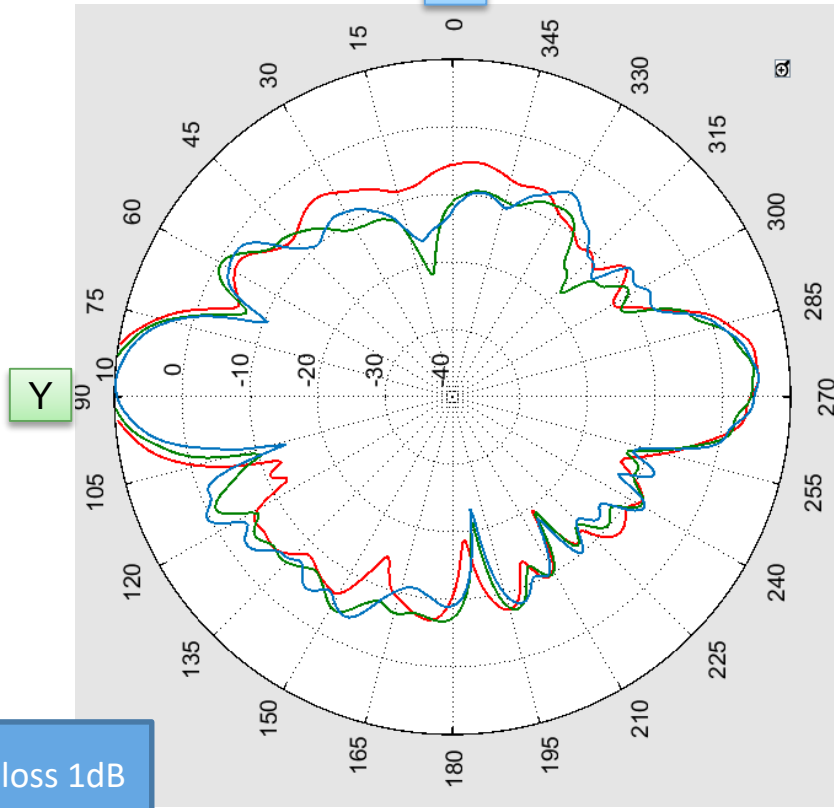
Trace Color	Elevation	Max Gain (dBi)
Red	5.0GHz	11.33
Green	5.5GHz	10.92
Blue	6.0GHz	9.86



Azimuth

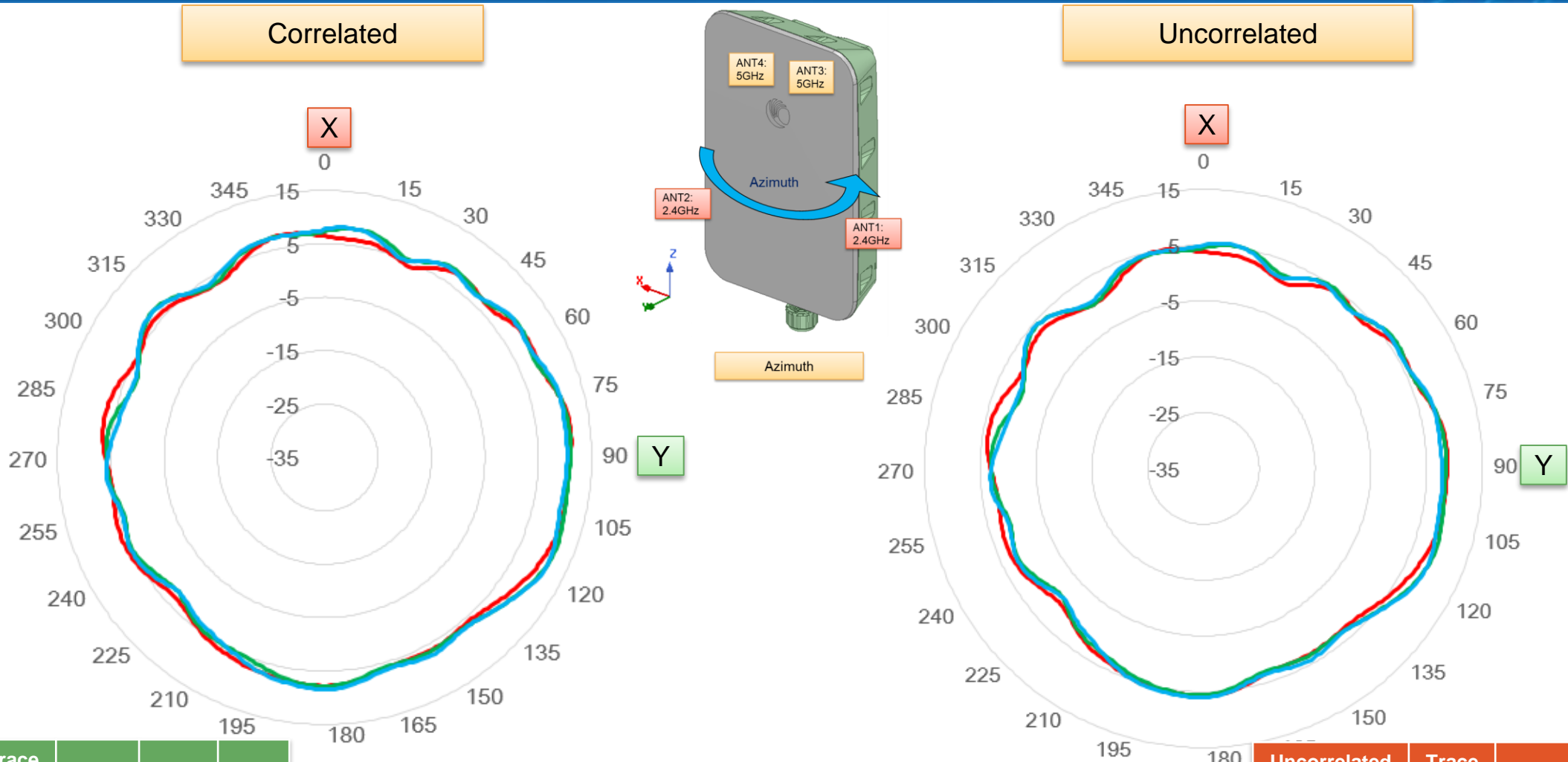


Z



* Gain includes cable loss 1dB

ANT3+ANT4: Azimuth-Plane Composite Gain Pattern @ 5GHz



Correlated Gain	Trace Color	Max	Min	Avg
5GHz	Red	11.36	3.26	6.74
5.5GHz	Green	11.57	2.18	6.76
6GHz	Blue	11.3	2.15	6.83

Uncorrelated Gain	Trace Color	Max	Min	Avg
5GHz	Red	8.75	0.32	4.01
5.5GHz	Green	9.1	-0.77	4.06
6GHz	Blue	8.74	-0.75	4.12

* Gain includes cable loss

Conclusion

- The PCB substrate of 2.4GHz is FR4($DF=0.02$).
The PCB substrate of 5GHz is Kappa($DF=0.005$).
- The antenna test result includes cable loss.
- The measured step size is 1deg.