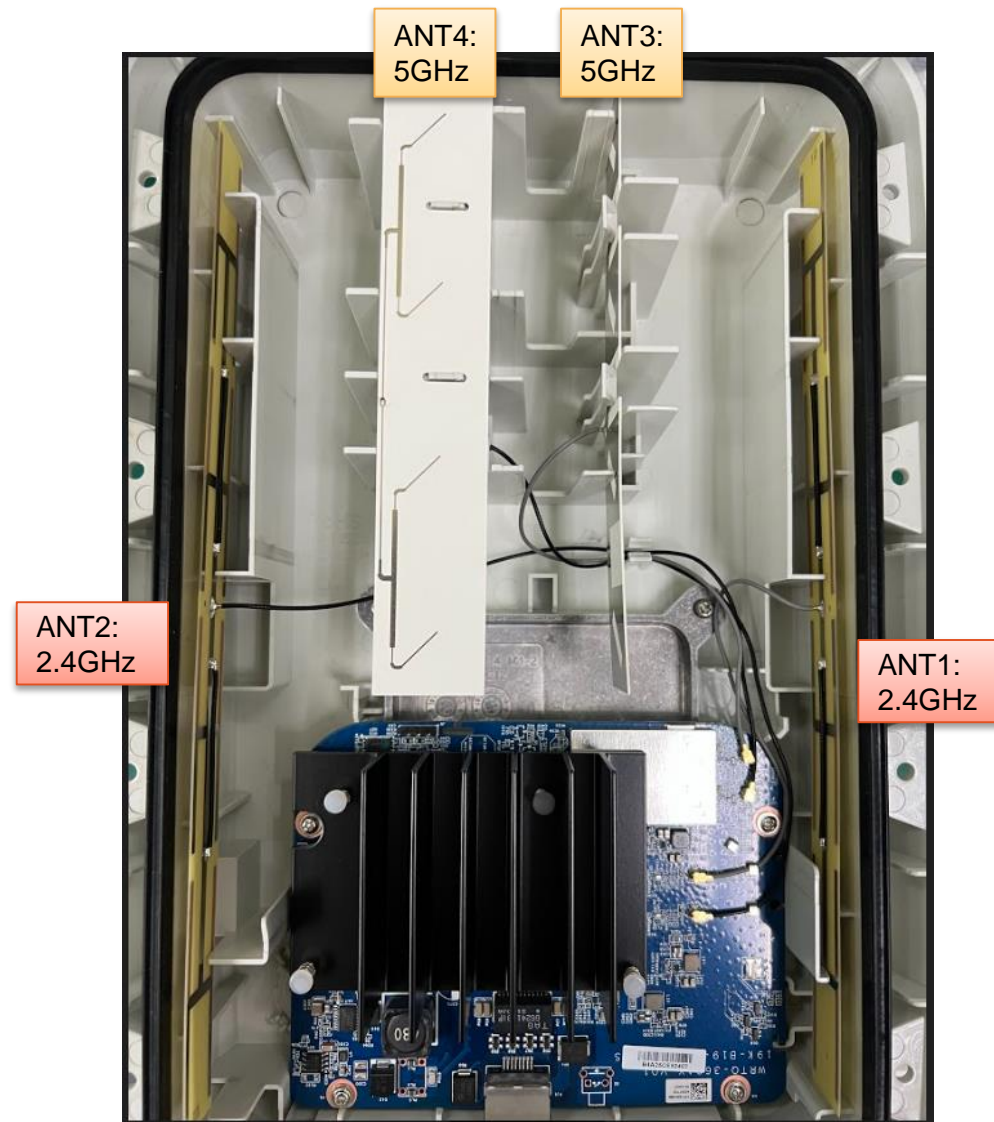


# Cambium XV2-23T Antenna Test Report Vt03

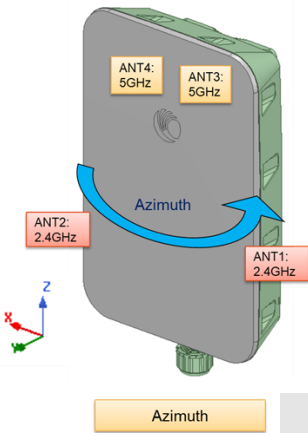


Antenna Team  
August 8, 2022

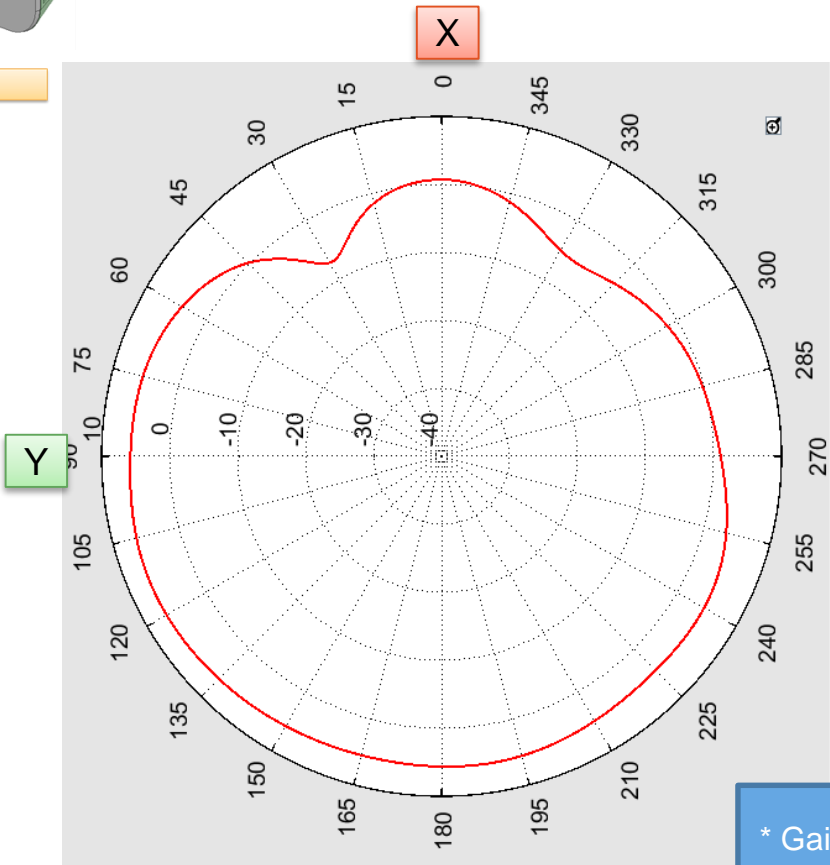
# Overview



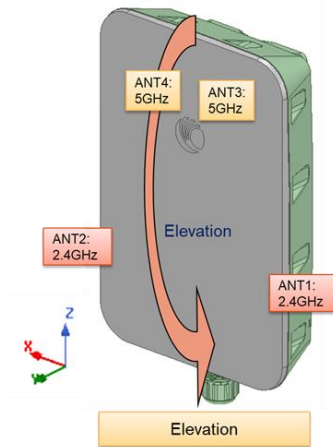
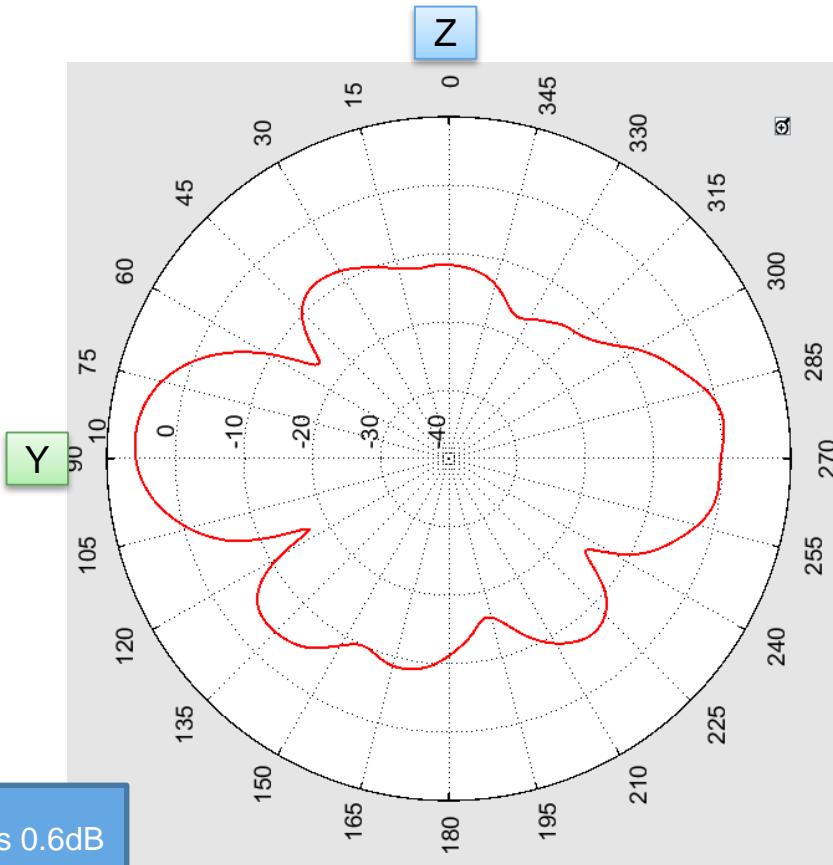
# ANT1 2.4GHz GainTotal 2D Pattern



Azimuth	Gain	Average Gain
2.45GHz	6.71dBi	3.7dBi

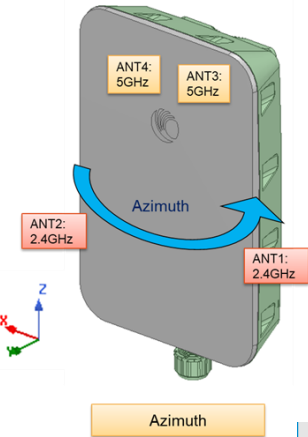


Elevation	Gain
2.45GHz	5.94dBi

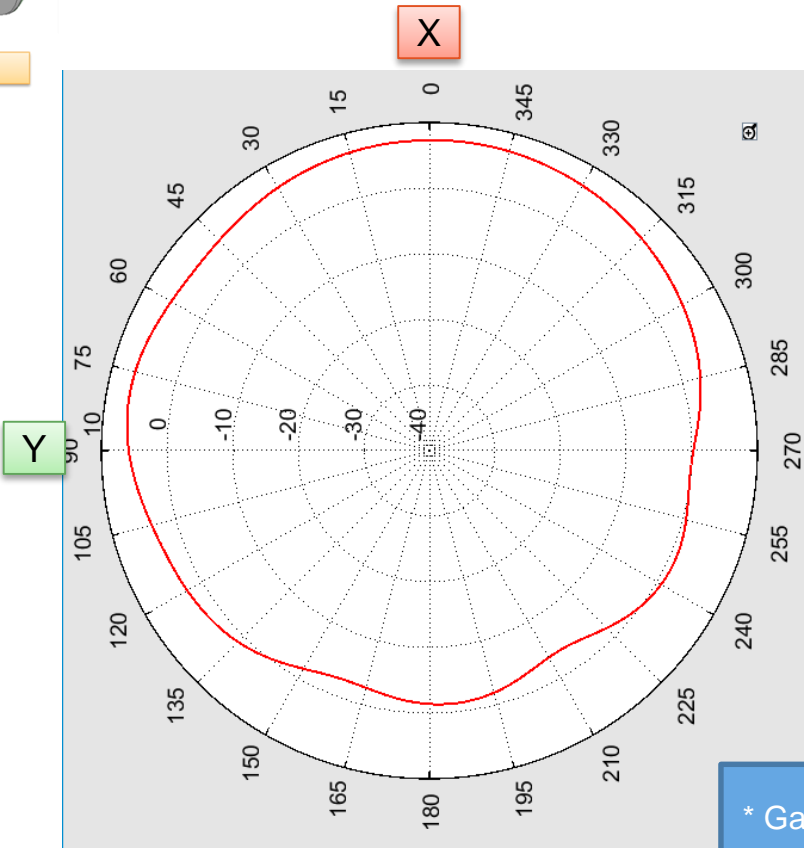


\* Gain includes cable loss 0.6dB

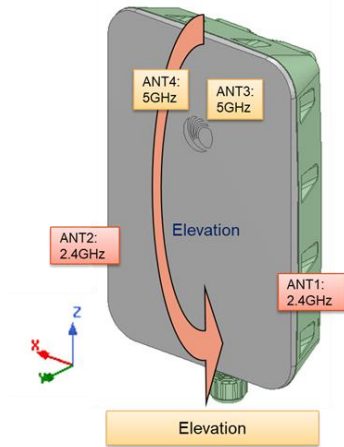
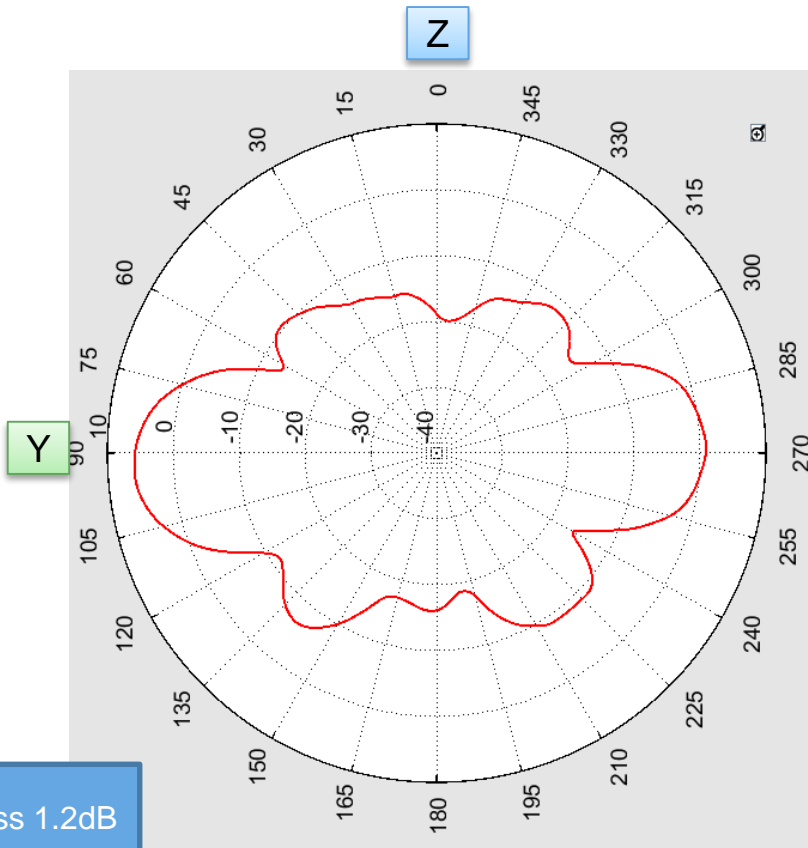
# ANT2 2.4GHz GainTotal 2D Pattern



Azimuth	Gain	Average Gain
2.45GHz	7.34dBi	4.04dBi



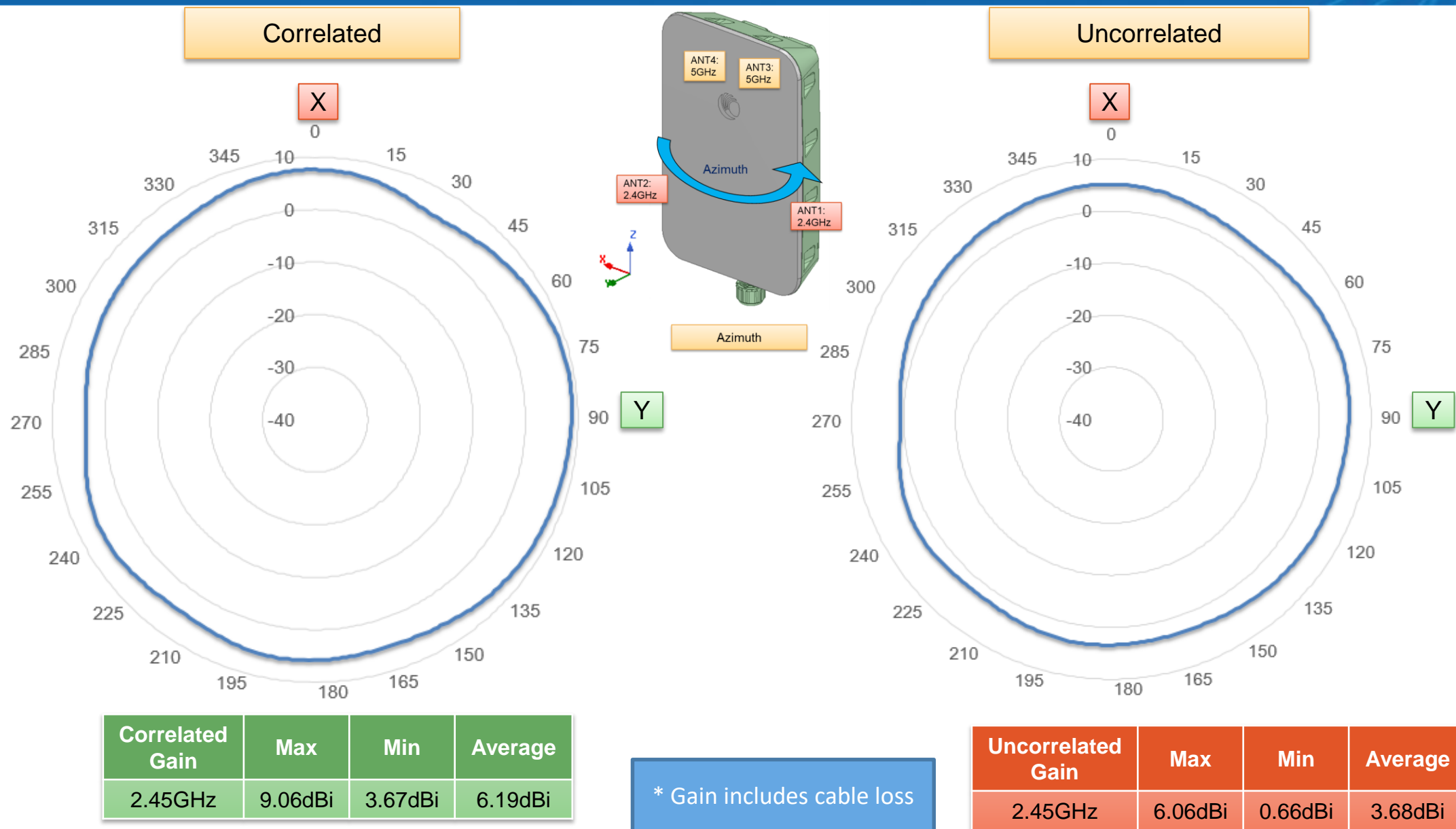
Elevation	Gain
2.45GHz	5.95dBi



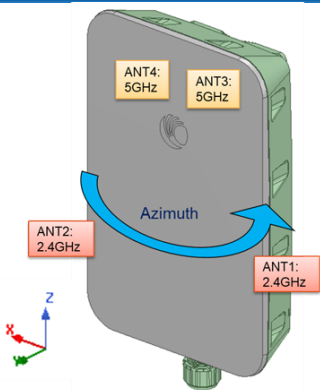
\* Gain includes cable loss 1.2dB



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

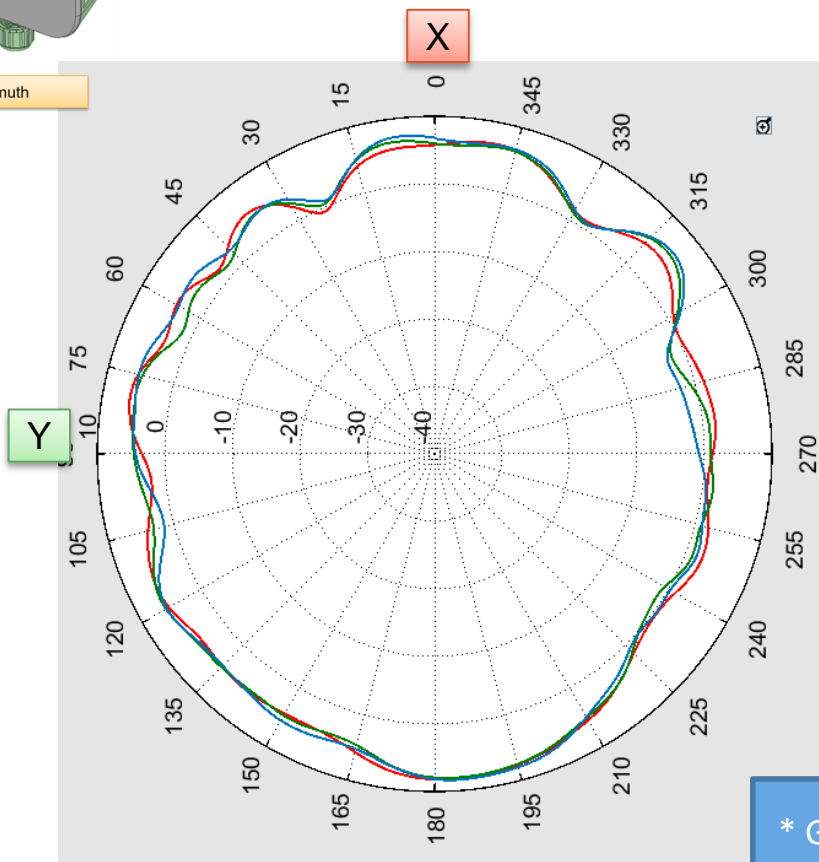


# ANT3 5GHz GainTotal 2D Pattern

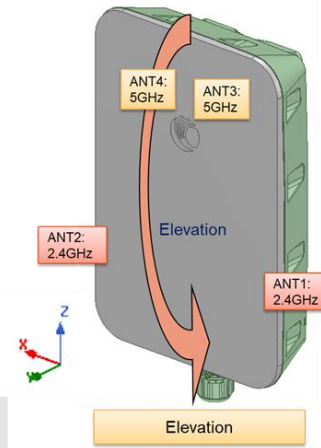


Trace Color	Azimuth	Max Gain (dBi)	Min Gain (dBi)	Average Gain (dBi)
	5.0GHz	8.19	-0.6	4.42
	5.5GHz	8.05	-2.06	4.28
	6.0GHz	8.4	-2.84	4.54

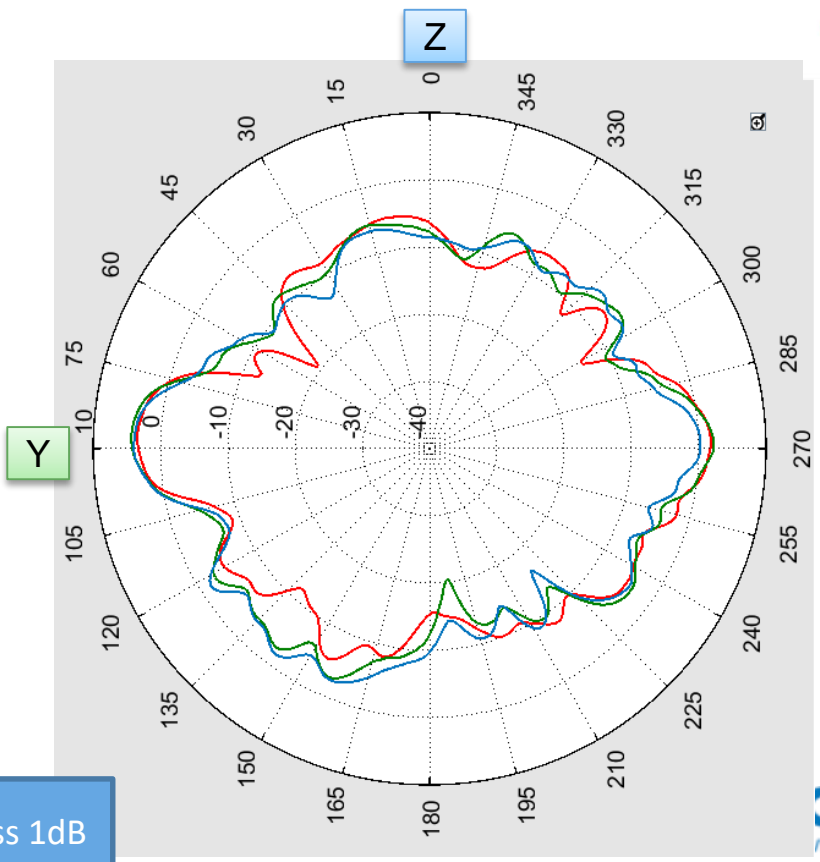
Azimuth



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

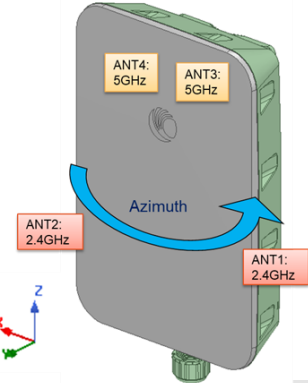


Elevation

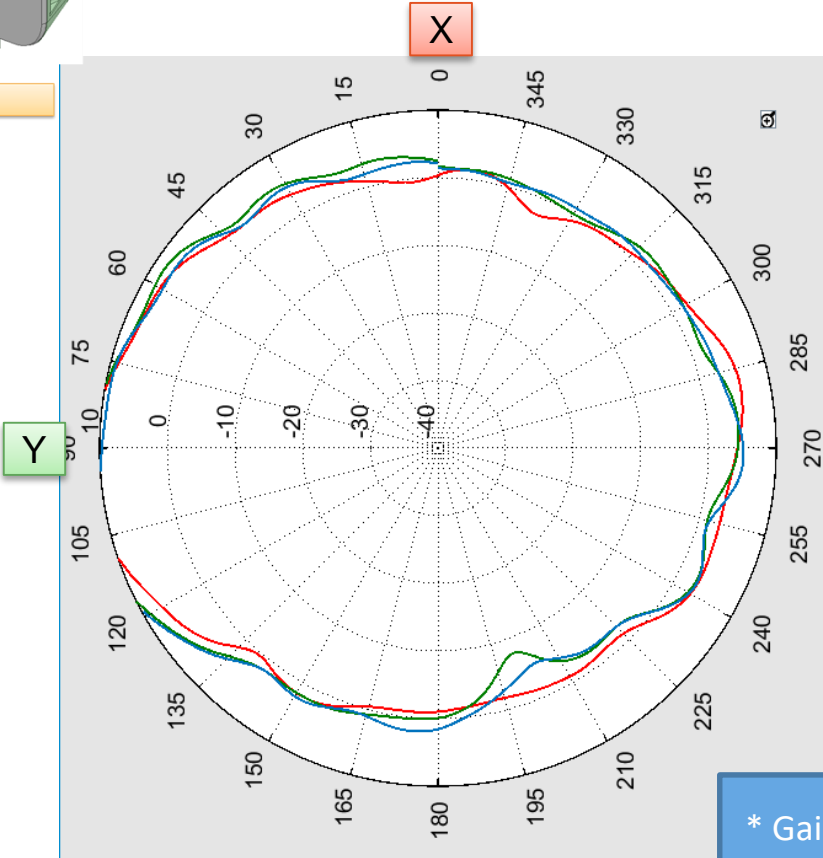


\* Gain includes cable loss 1dB

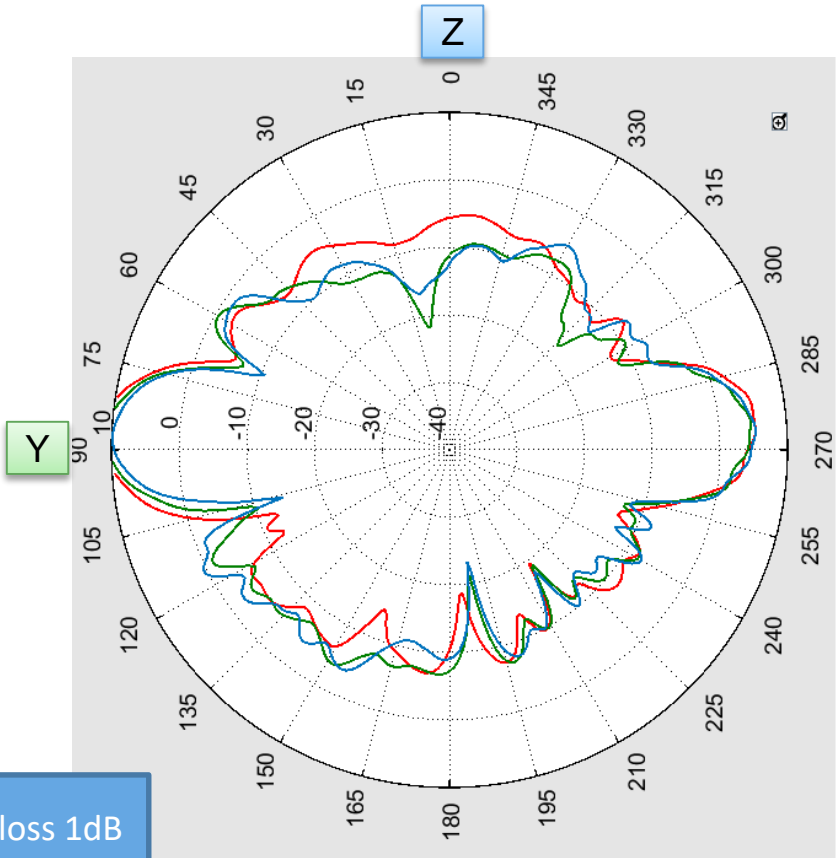
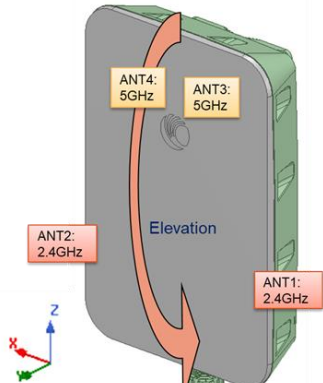
# ANT4 5GHz GainTotal 2D Pattern



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

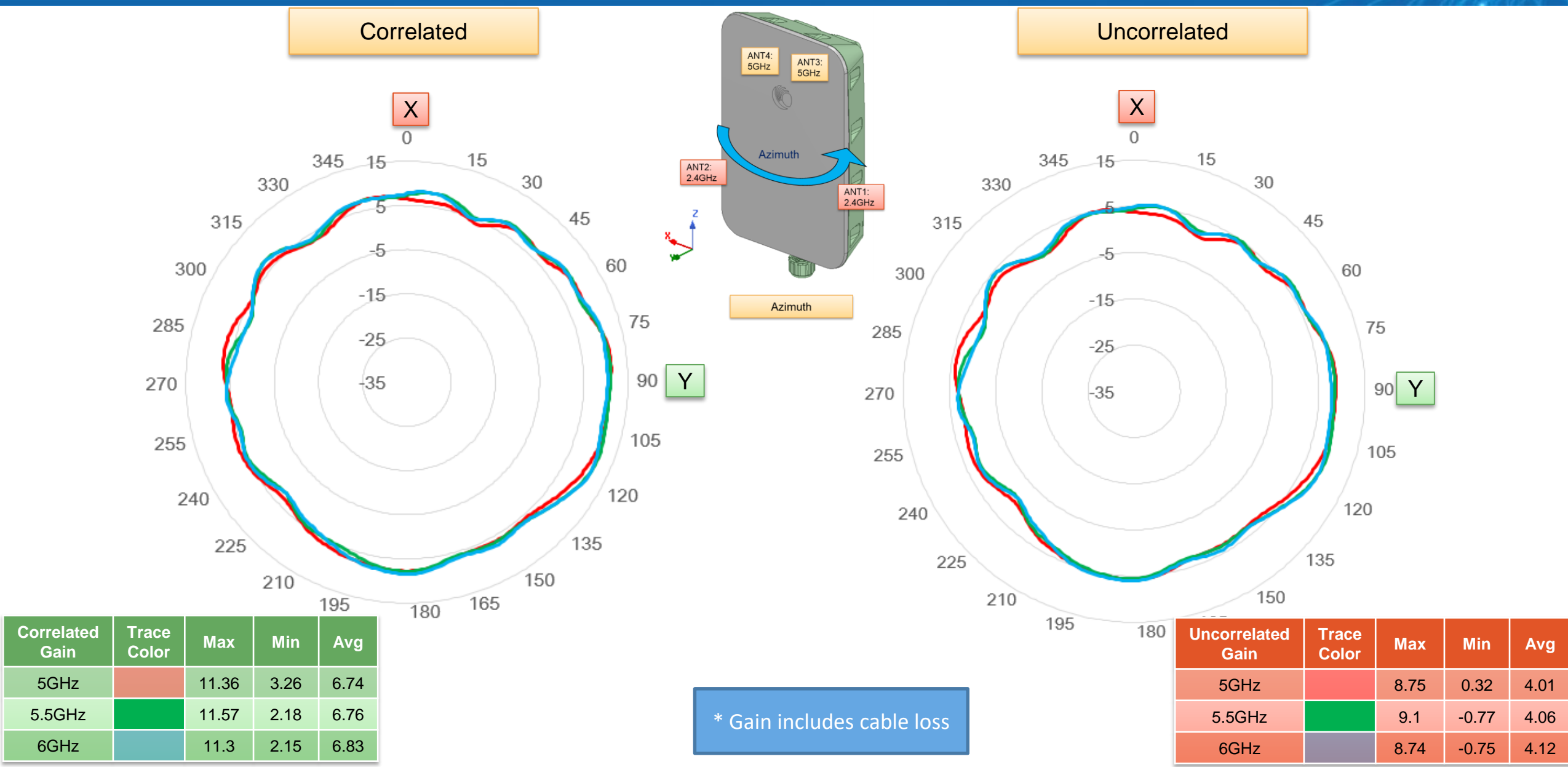


Trace Color	Elevation	Max Gain (dBi)
Red	5.0GHz	11.33
Green	5.5GHz	10.92
Blue	6.0GHz	9.86



\* Gain includes cable loss 1dB

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





# 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.