



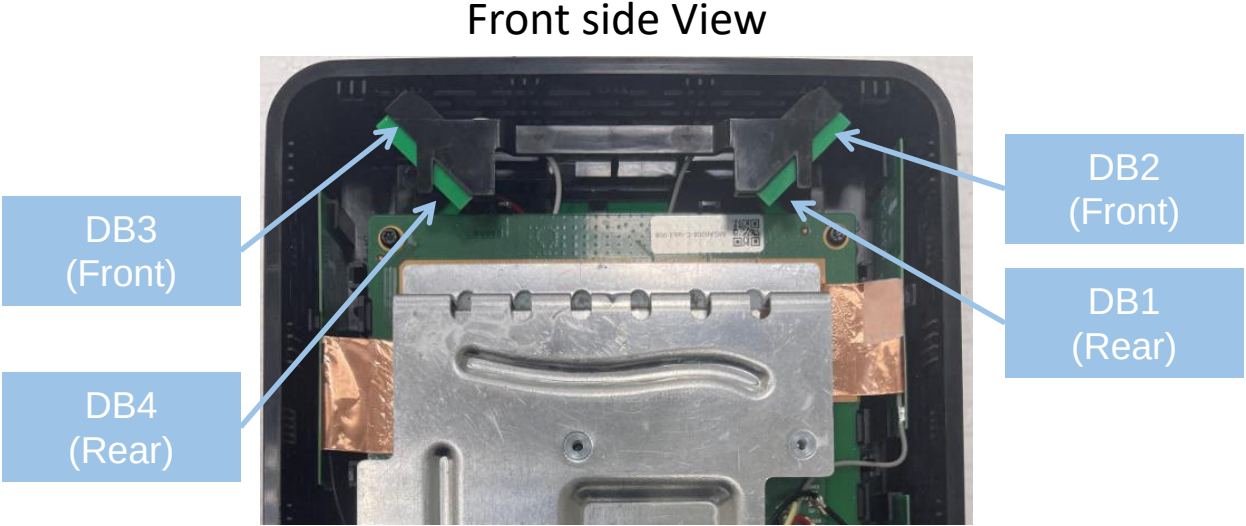
We connect the wireless world.

Antenna passive measurement results for MGA600B NA_Lab3

WIFI antenna only

Date: 2025/02/07

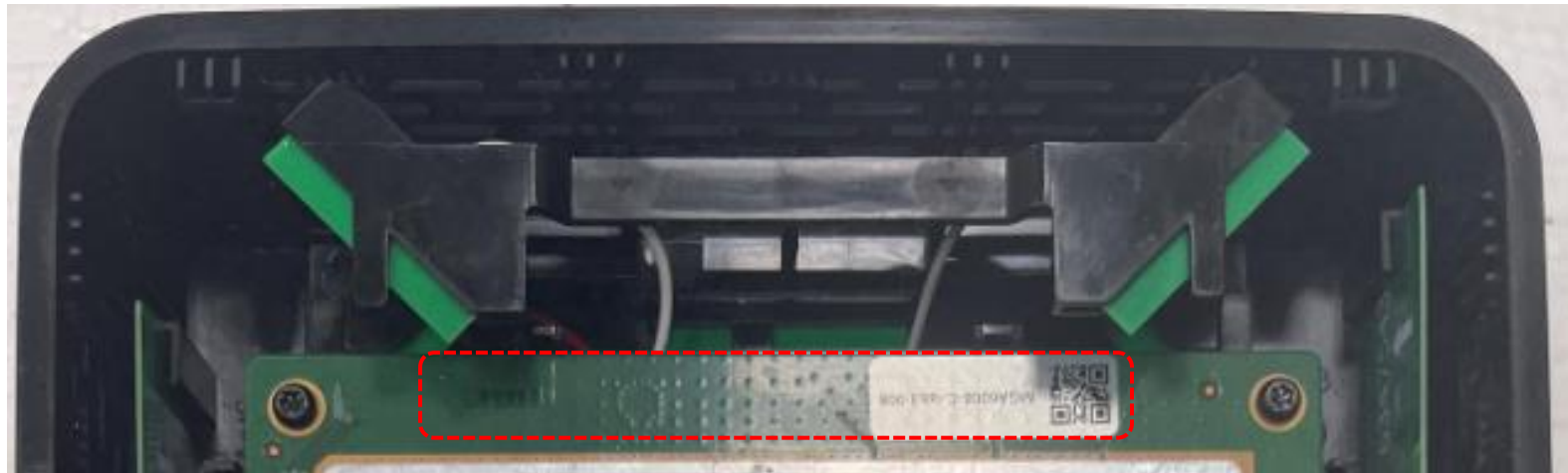
Antenna information



Antenna	Vantiva PN	WY PN	Dimension of Ant PCB	Cable Length (mm)	Cable color	Notes
DB1	6347548B	C2074-510207-A	29.6mm x 11mm, T=0.6mm	43	Black	
DB2	6347549B	C2074-510216-A	29.6mm x 11mm, T=0.6mm	46	Grey	
DB3	6347550B	C2074-510217-A	29.6mm x 11mm, T=0.6mm	49.5	White	
DB4	6347551B	C2074-510208-A	29.6mm x 11mm, T=0.6mm	43.5	Red	

- All antenna cable is OD 1.37mm cable.
- Cable length is measured from PCB edge to connector.

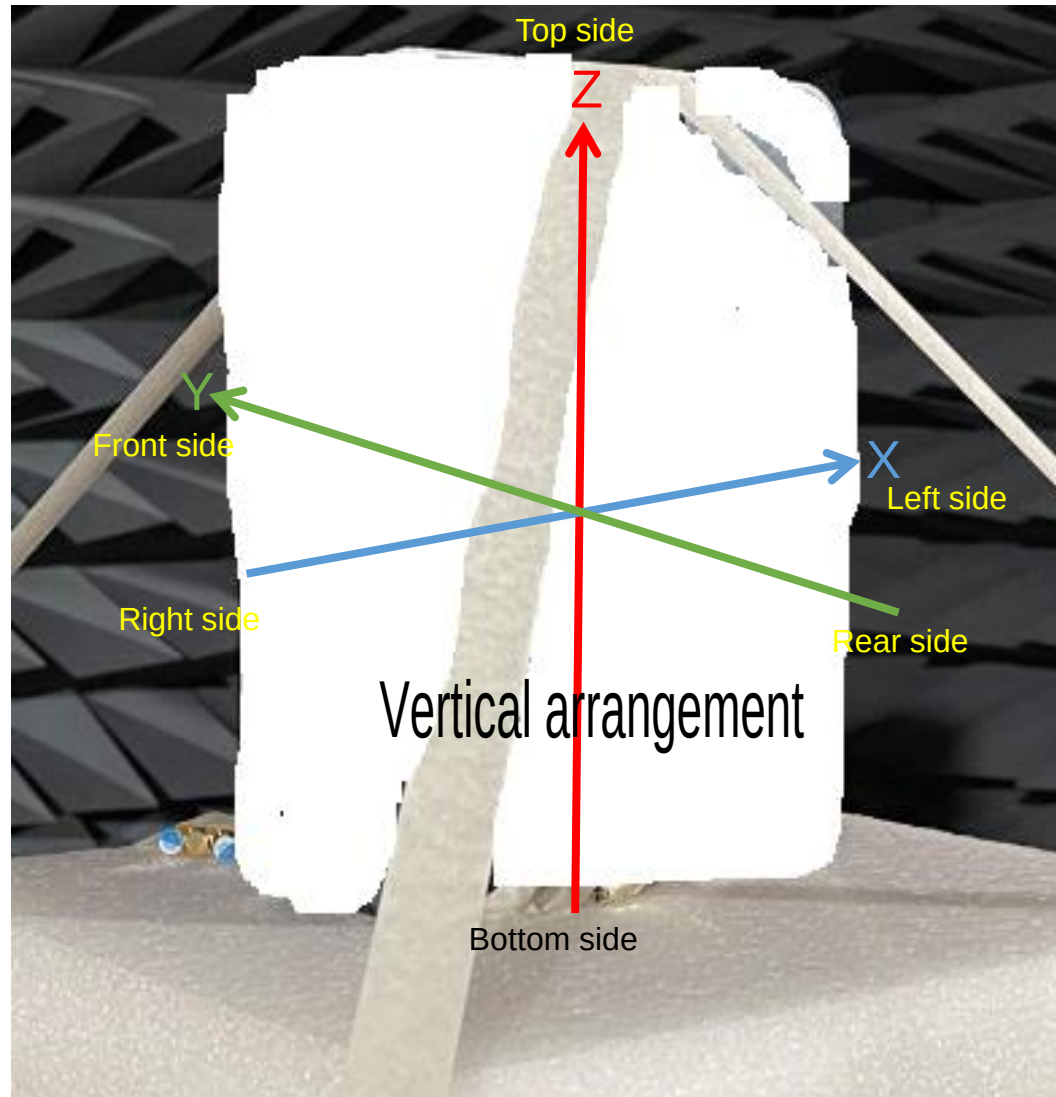
Receptacles location



Receptacles for DB antennas
on the rear side

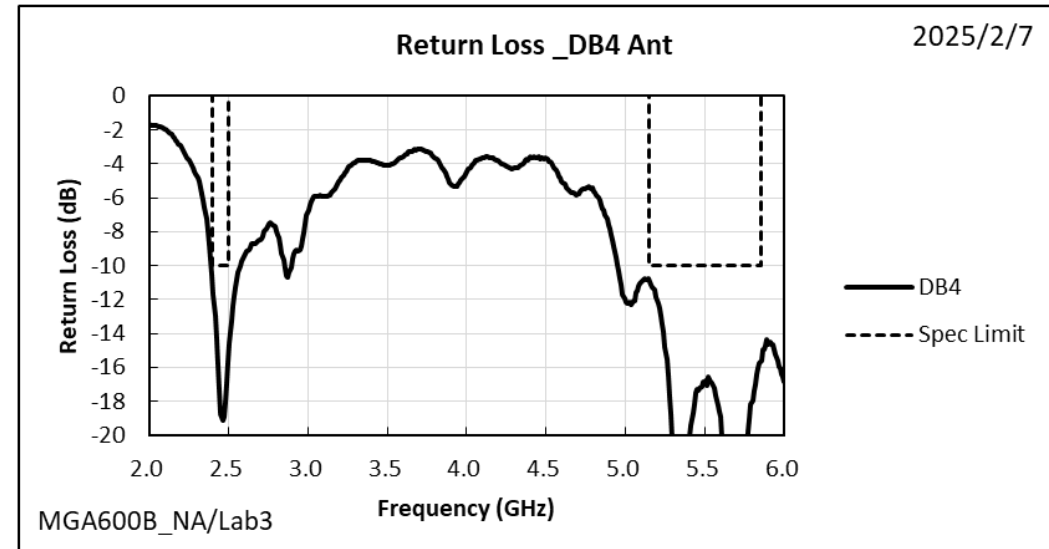
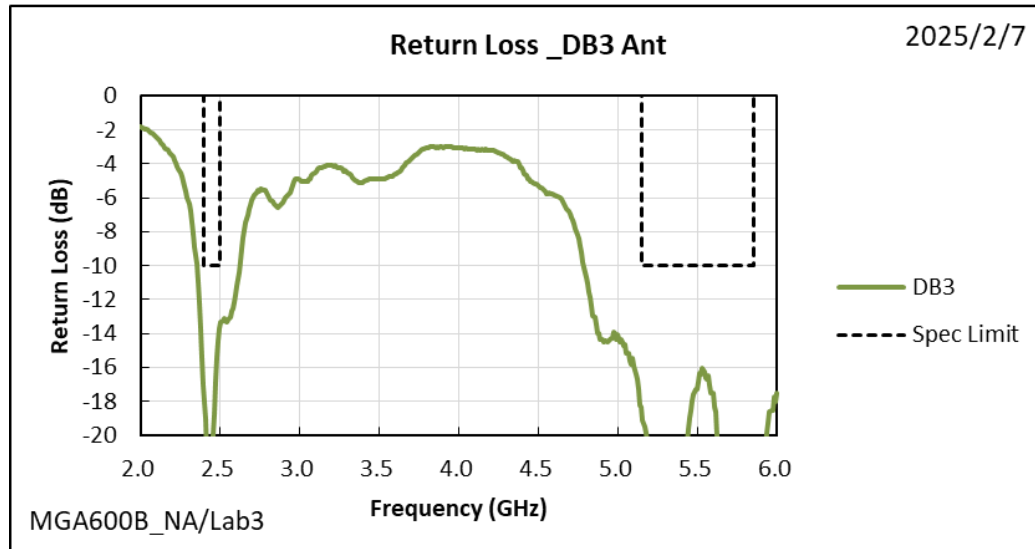
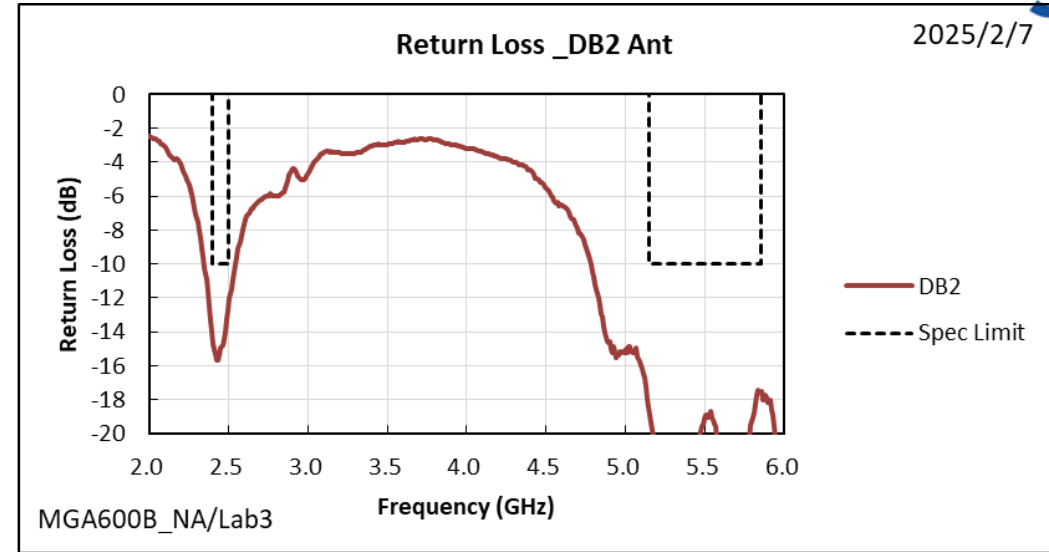
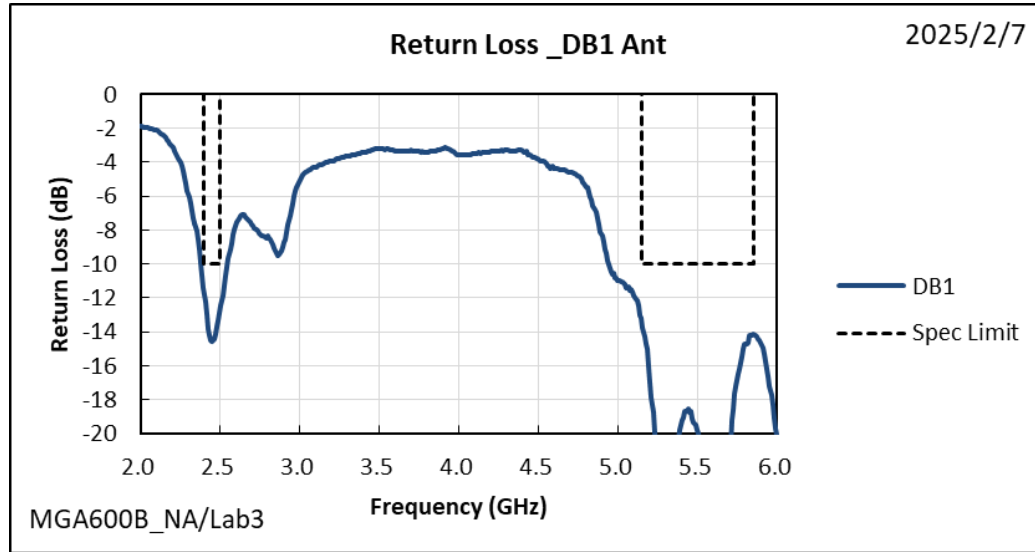
Front side View

Antenna information and Orientation

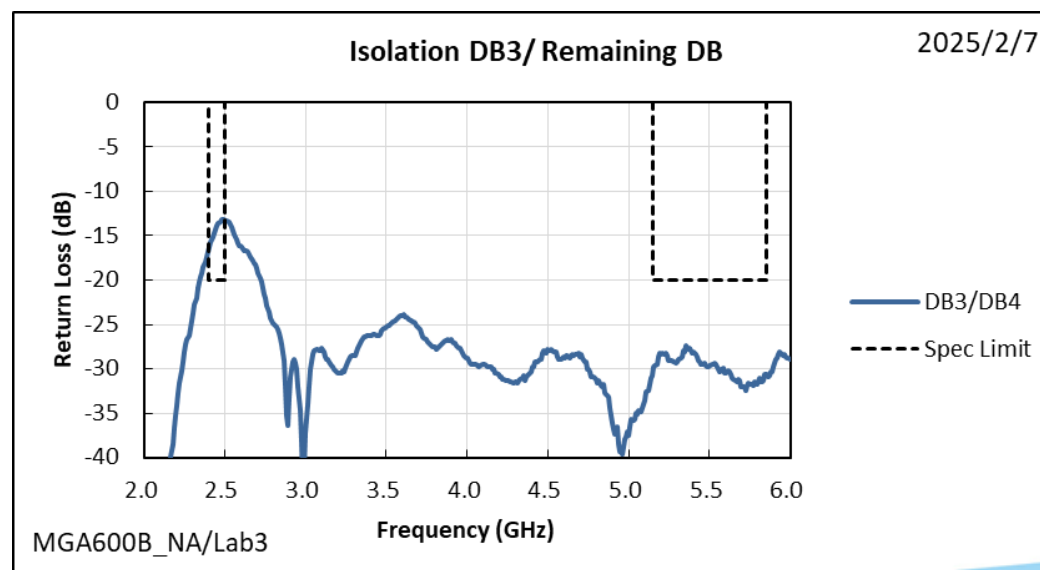
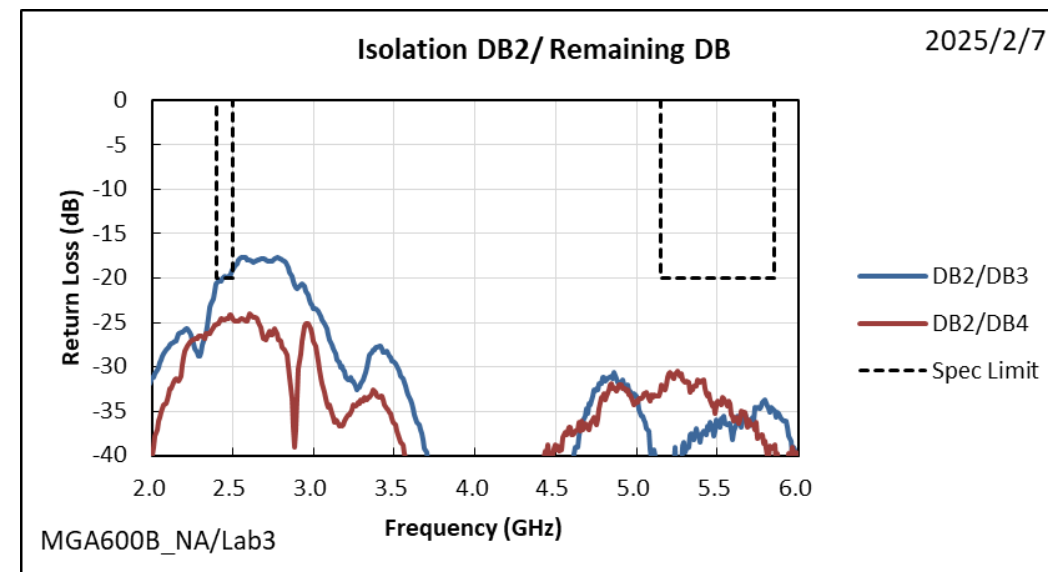
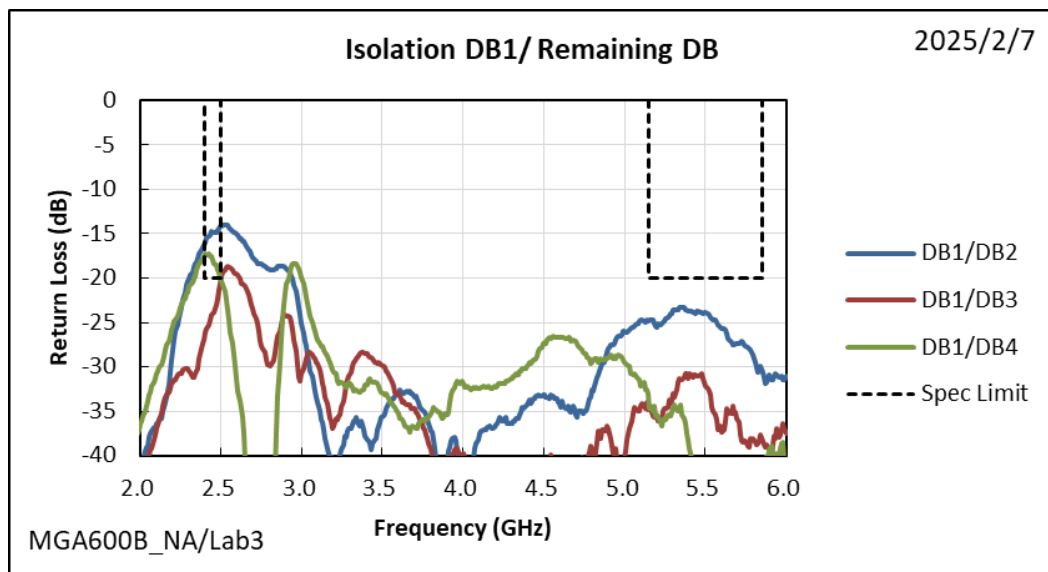


Return Loss & Isolation

Return loss of DB antennas

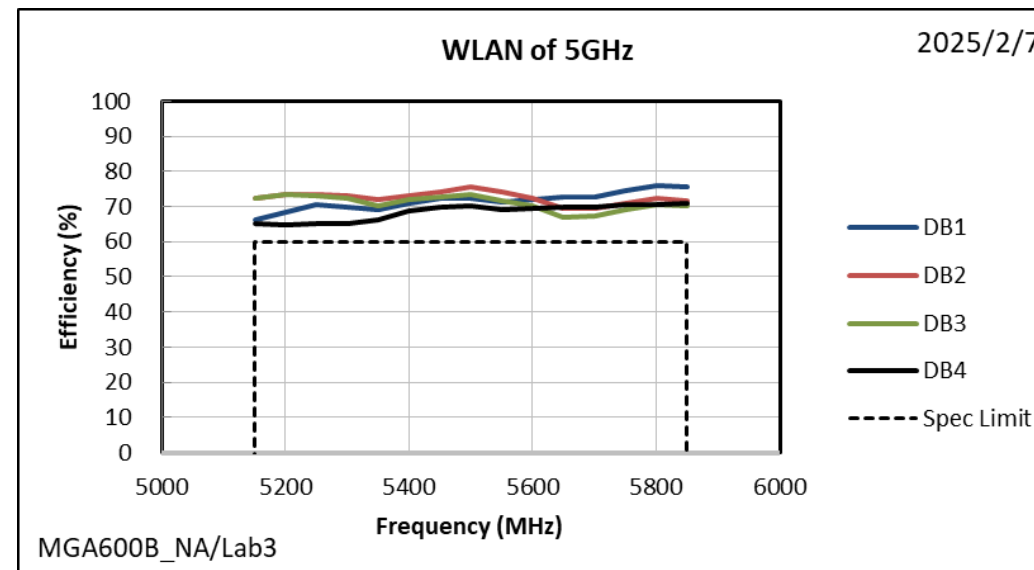
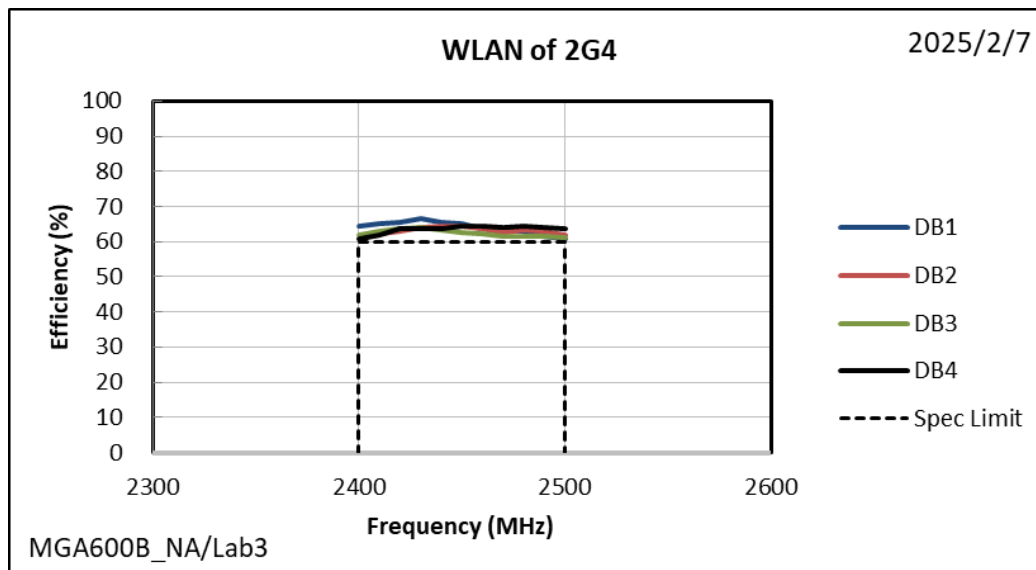
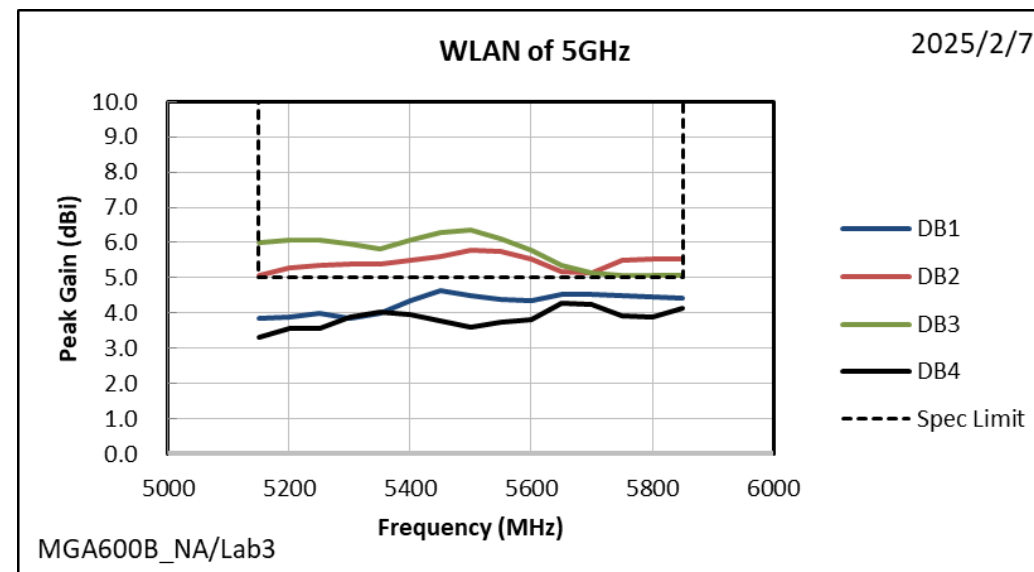
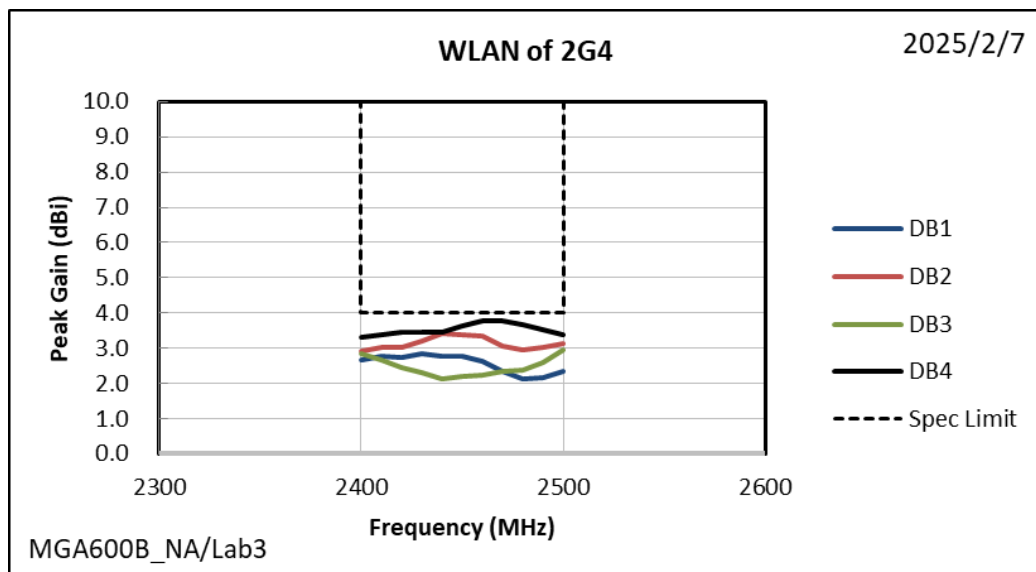


Isolation DB $\leftrightarrow$ DB



Efficiency & Peak gain

Efficiency & Peak Gain of DB antennas



Efficiency & Peak Gain of DB antennas - 2G4_tables /1



Peak Gain (dBi)				
Freq (MHz)	DB1	DB2	DB3	DB4
2400	2.7	2.9	2.8	3.3
2410	2.8	3.0	2.7	3.4
2420	2.7	3.0	2.5	3.5
2430	2.8	3.2	2.3	3.5
2440	2.8	3.4	2.1	3.5
2450	2.8	3.4	2.2	3.7
2460	2.6	3.4	2.2	3.8
2470	2.3	3.1	2.3	3.8
2480	2.1	3.0	2.4	3.7
2490	2.2	3.0	2.6	3.5
2500	2.4	3.1	2.9	3.4

Efficiency (%)				
Freq (MHz)	DB1	DB2	DB3	DB4
2400	64	61	62	61
2410	65	62	63	62
2420	66	63	64	64
2430	67	64	64	64
2440	65	64	63	64
2450	65	64	63	65
2460	64	64	62	65
2470	63	63	62	64
2480	63	63	62	64
2490	62	63	61	64
2500	61	62	61	64

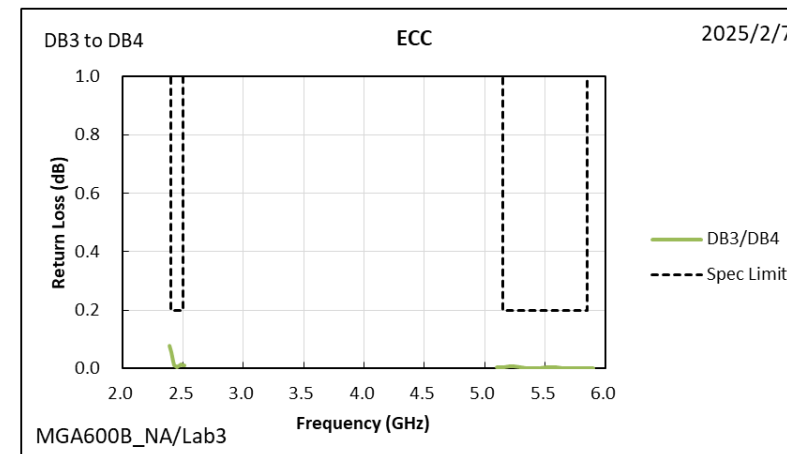
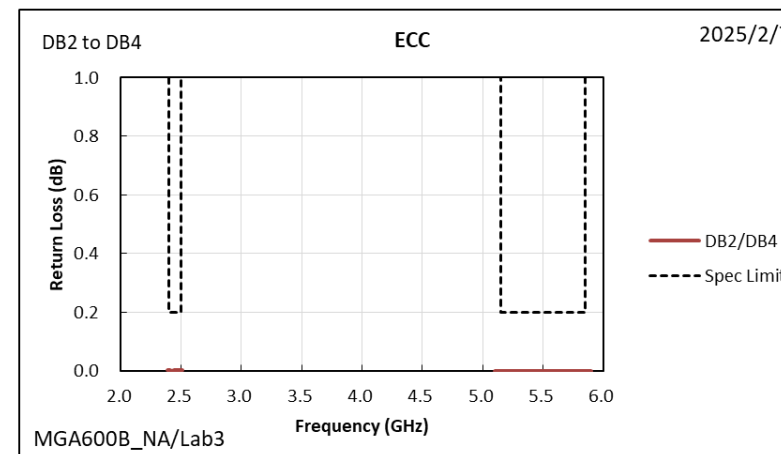
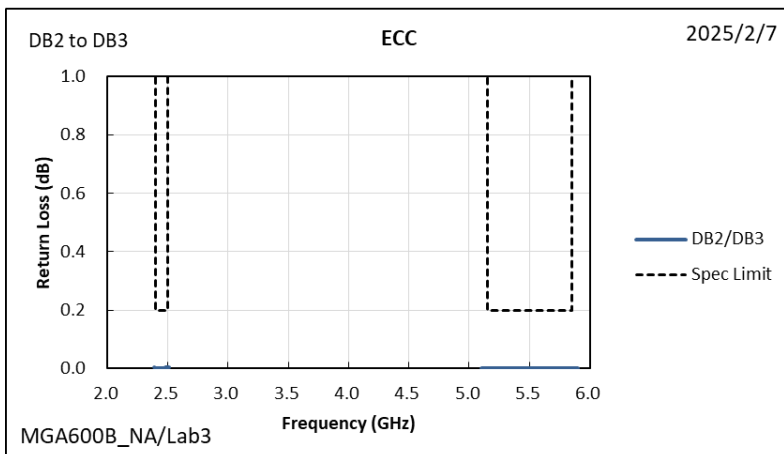
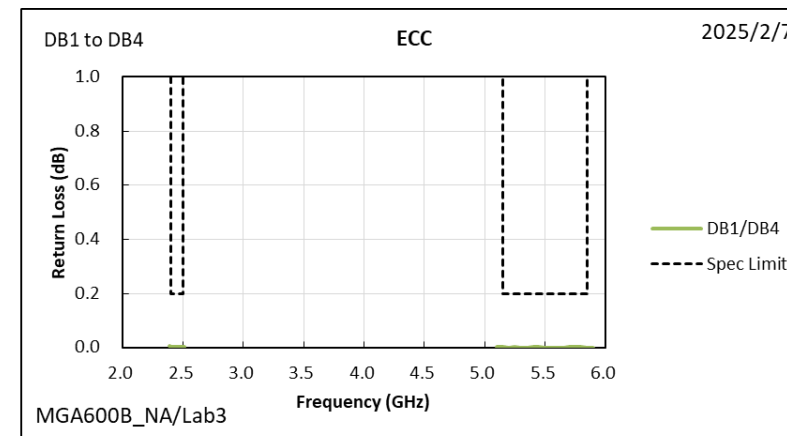
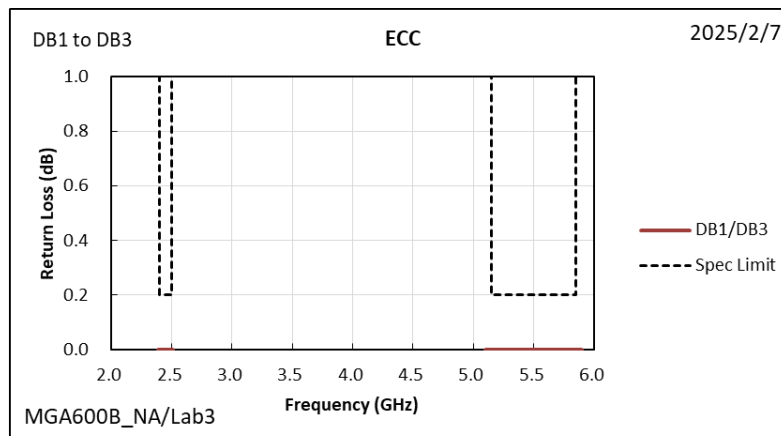
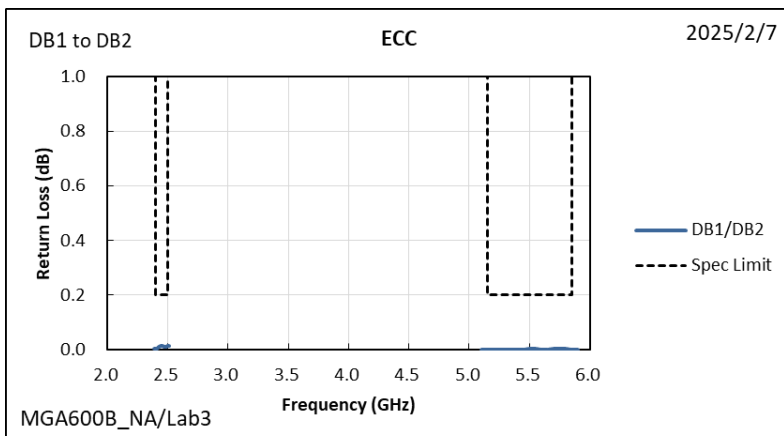
Efficiency & Peak Gain of DB antennas – 5GHz_tables /2

Peak Gain (dBi)				
Freq (MHz)	DB1	DB2	DB3	DB4
5150	3.8	5.1	6.0	3.3
5200	3.9	5.3	6.1	3.6
5250	4.0	5.4	6.1	3.6
5300	3.9	5.4	6.0	3.9
5350	4.0	5.4	5.8	4.0
5400	4.4	5.5	6.1	4.0
5450	4.7	5.6	6.3	3.8
5500	4.5	5.8	6.4	3.6
5550	4.4	5.7	6.1	3.7
5600	4.4	5.5	5.8	3.8
5650	4.5	5.2	5.3	4.3
5700	4.5	5.1	5.1	4.2
5750	4.5	5.5	5.1	3.9
5800	4.5	5.5	5.1	3.9
5850	4.4	5.5	5.1	4.1

Efficiency (%)				
Freq (MHz)	DB1	DB2	DB3	DB4
5150	66	72	72	65
5200	68	74	73	65
5250	70	73	73	65
5300	70	73	72	65
5350	69	72	70	66
5400	71	73	72	69
5450	72	74	73	70
5500	72	76	73	70
5550	71	74	72	69
5600	72	72	70	70
5650	73	70	67	70
5700	73	69	67	70
5750	74	71	69	71
5800	76	72	71	70
5850	76	72	70	71

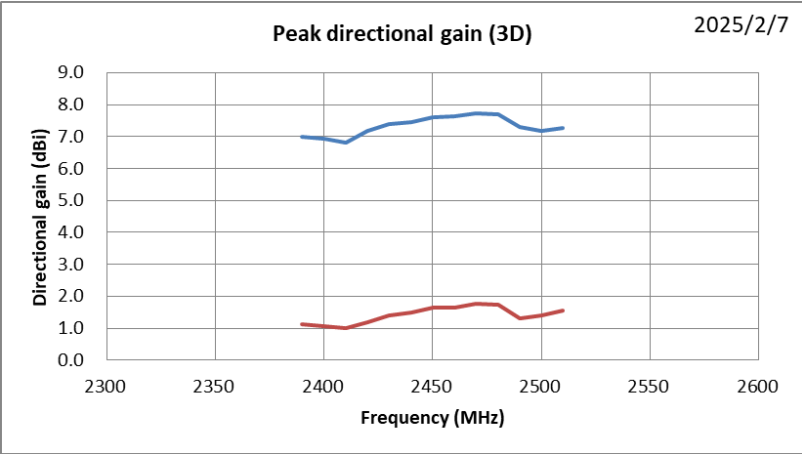
ECC

ECC of DB antennas

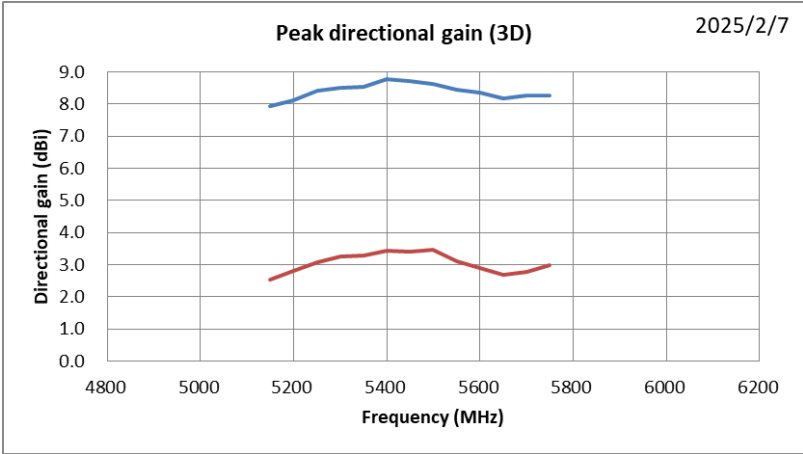


Directional gain

Directional gain of DB antenna

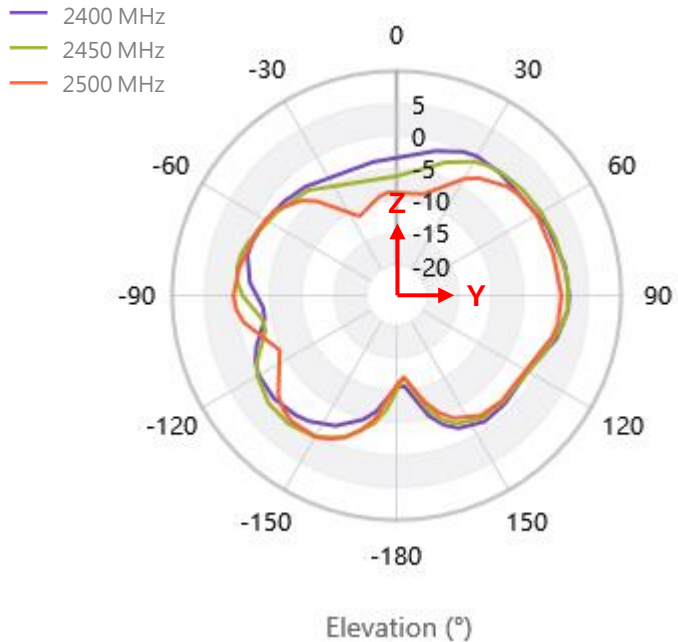
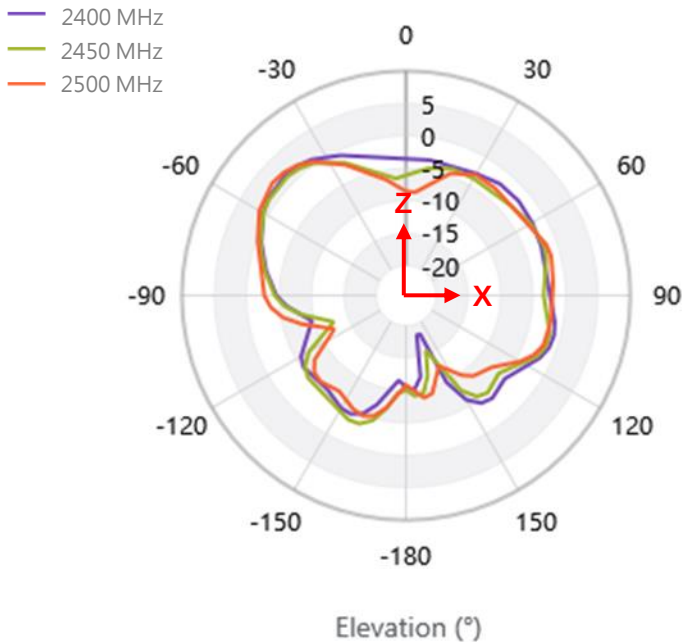
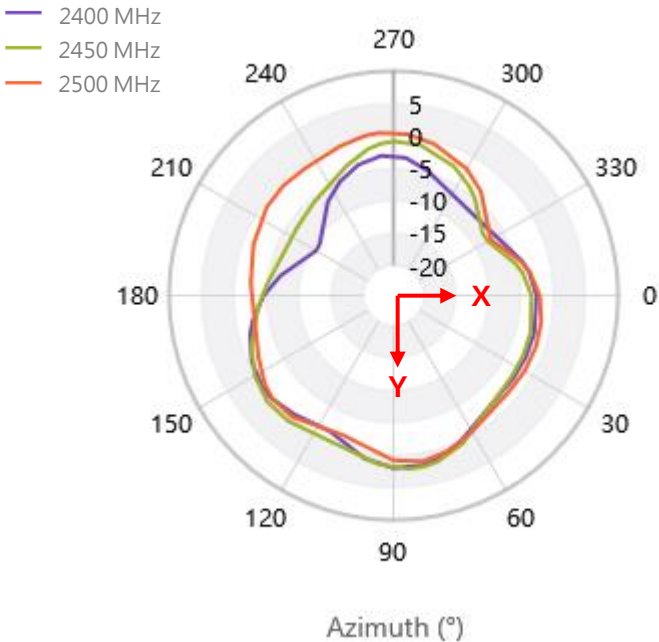
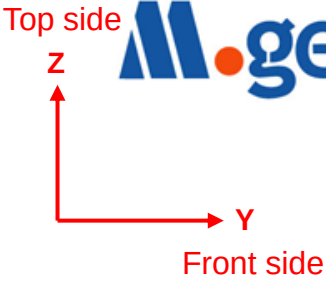
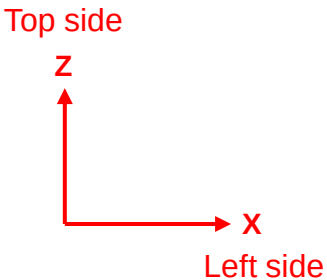
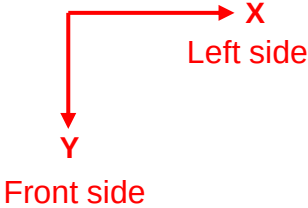


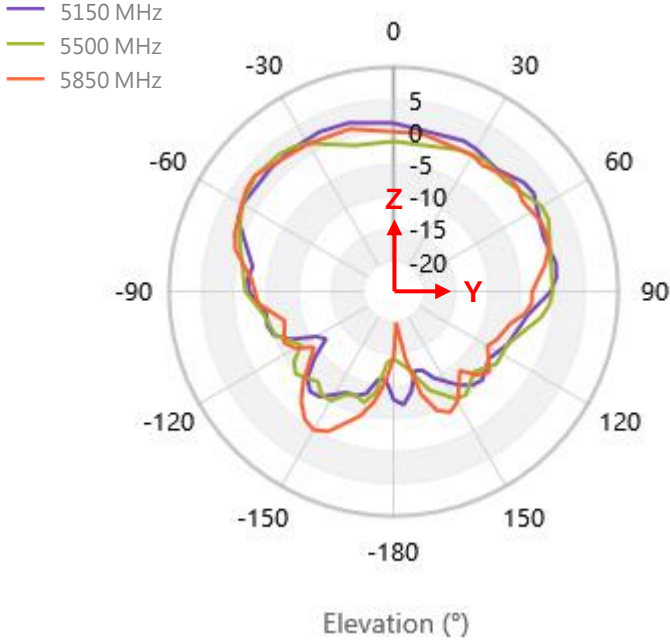
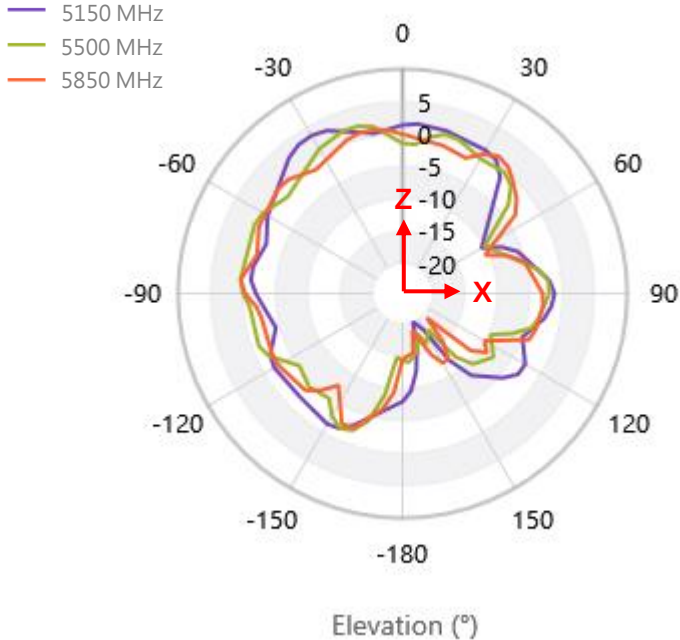
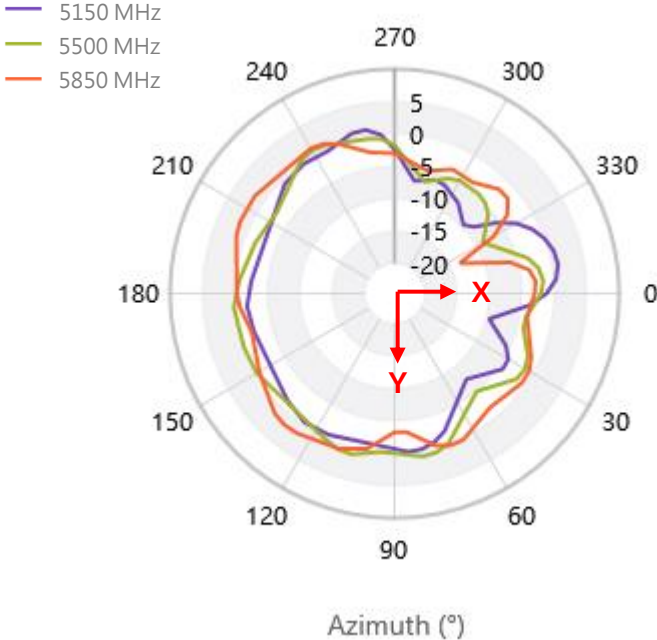
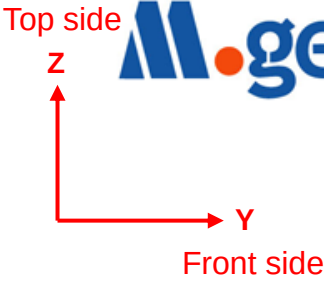
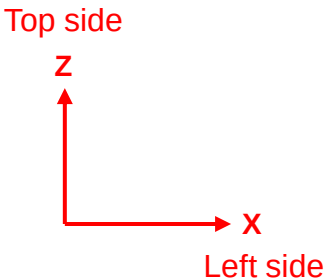
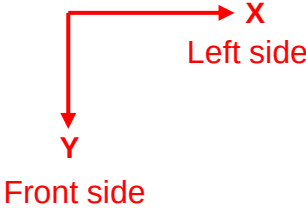
Freq (MHz)	Correlated Gain (dBi)	Uncorrelated Gain (dBi)
2400	6.9	1.1
2410	6.8	1.0
2420	7.2	1.2
2430	7.4	1.4
2440	7.5	1.5
2450	7.6	1.6
2460	7.6	1.7
2470	7.7	1.8
2480	7.7	1.8
2490	7.3	1.3
2500	7.2	1.4

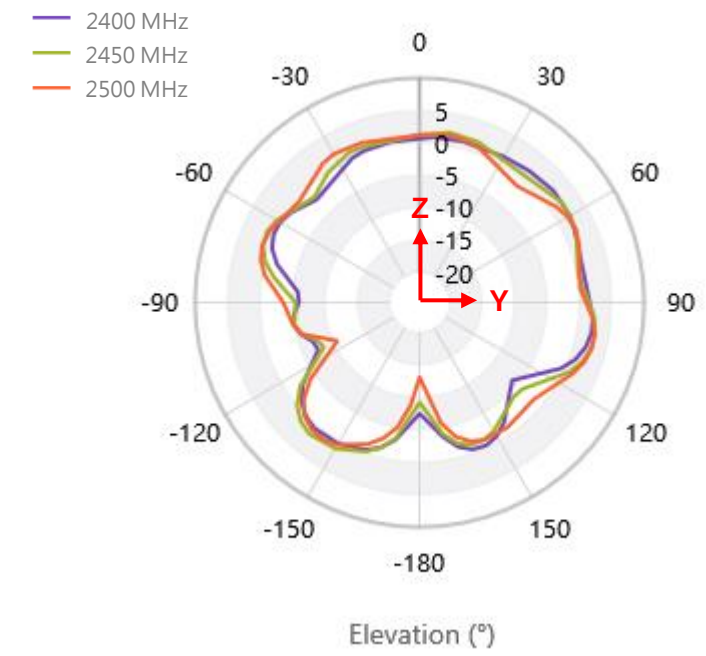
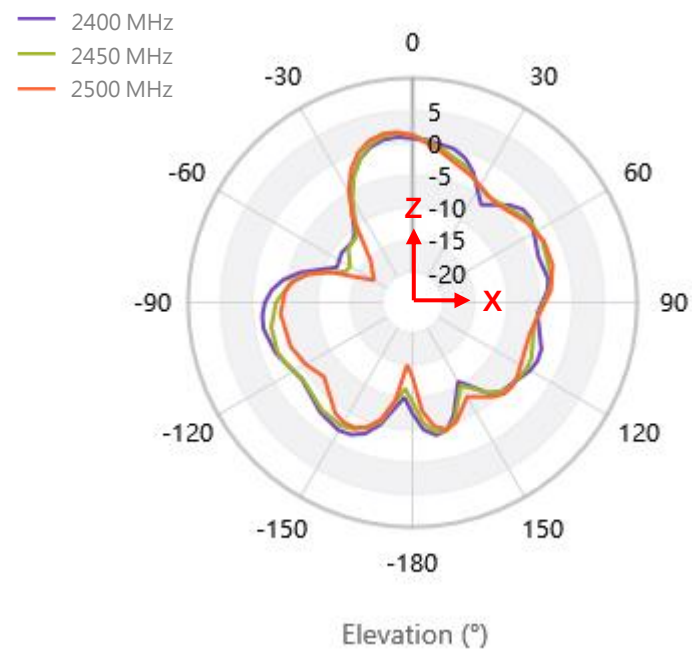
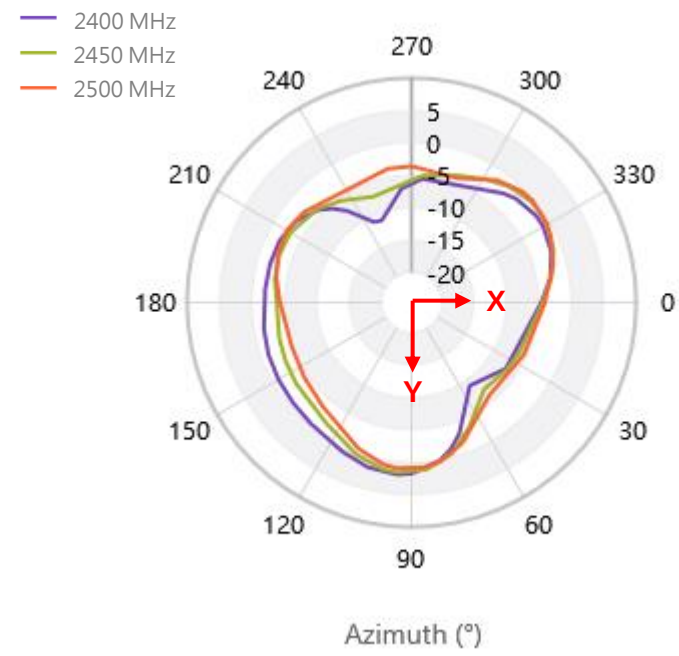
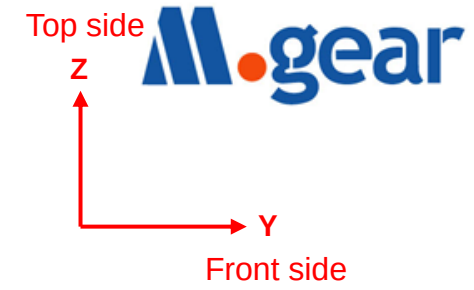
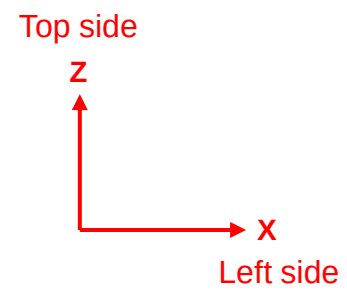
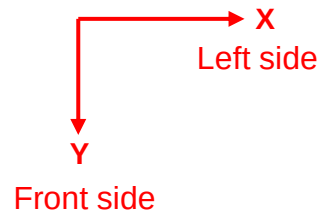


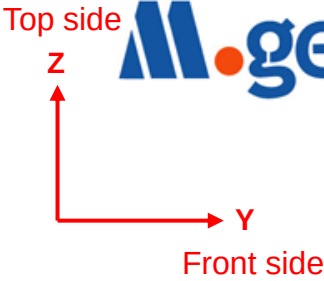
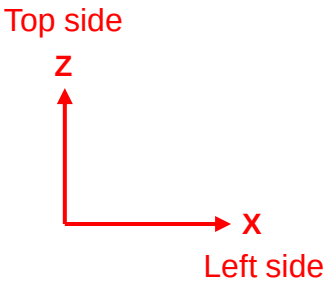
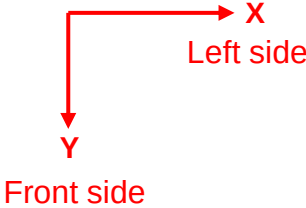
Freq (MHz)	Correlated Gain (dBi)	Uncorrelated Gain (dBi)
5150	7.9	2.5
5200	8.1	2.8
5250	8.4	3.1
5300	8.5	3.3
5350	8.5	3.3
5400	8.8	3.4
5450	8.7	3.4
5500	8.6	3.5
5550	8.4	3.1
5600	8.3	2.9
5650	8.2	2.7
5700	8.3	2.8
5750	8.3	3.0
5800	8.2	3.0
5850	8.2	3.0

2D Radiation pattern

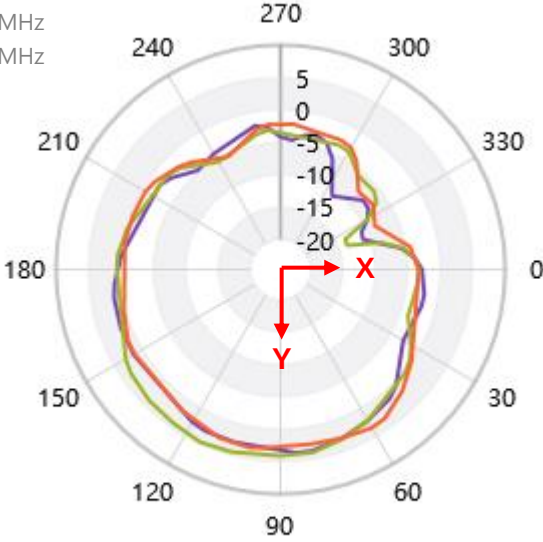






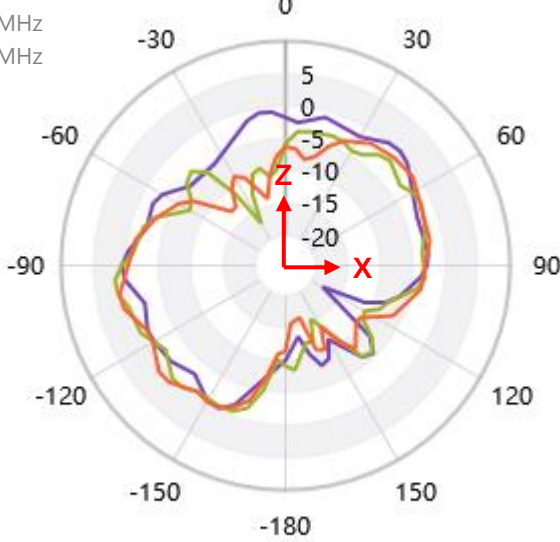


5150 MHz
5500 MHz
5850 MHz



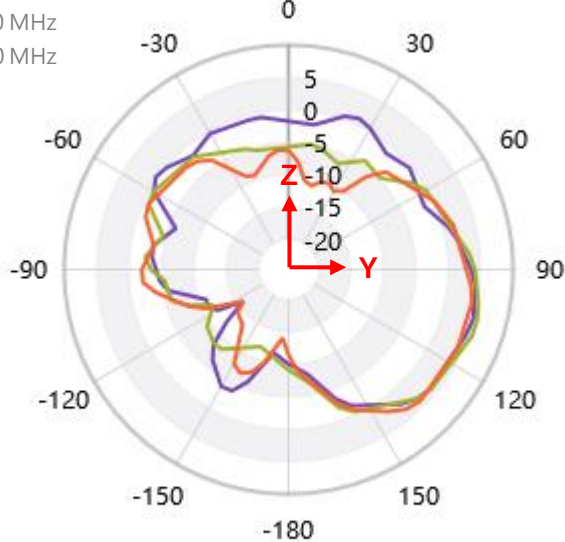
Azimuth (°)

5150 MHz
5500 MHz
5850 MHz

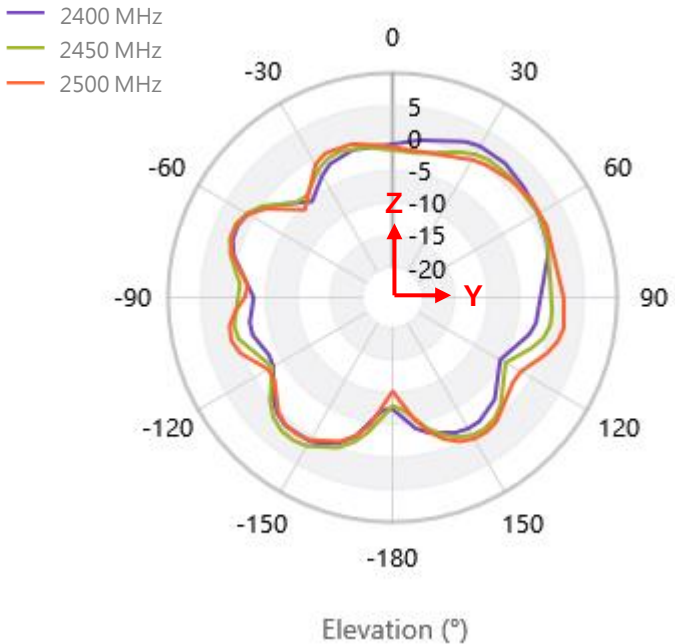
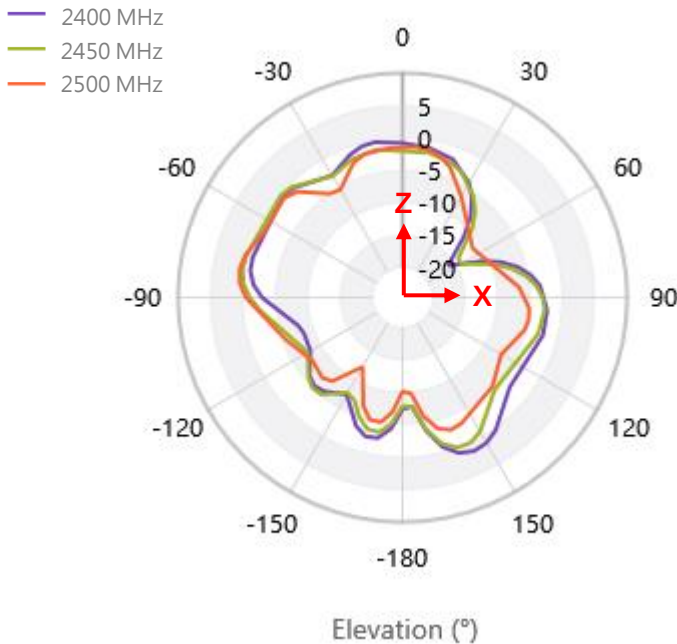
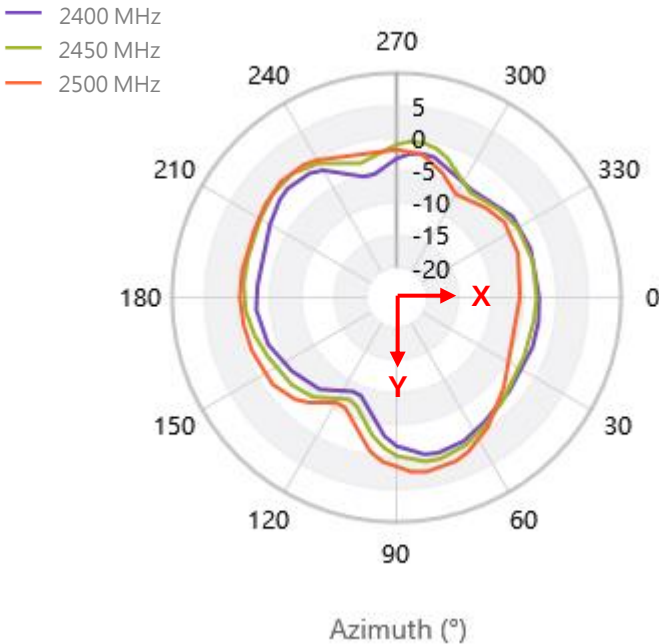
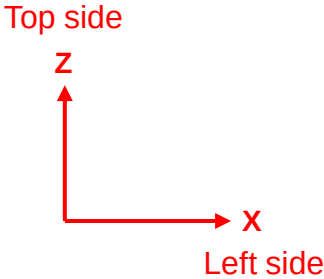
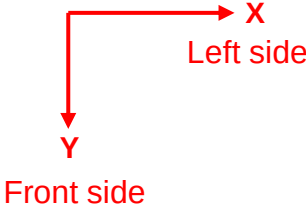


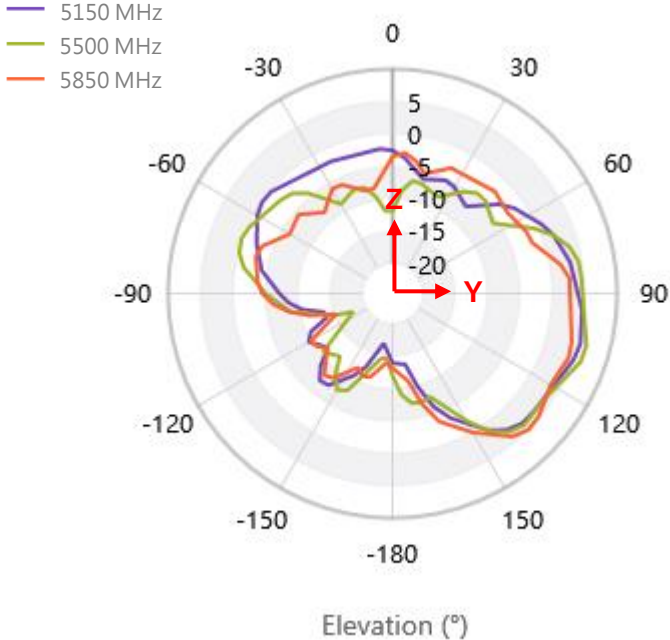
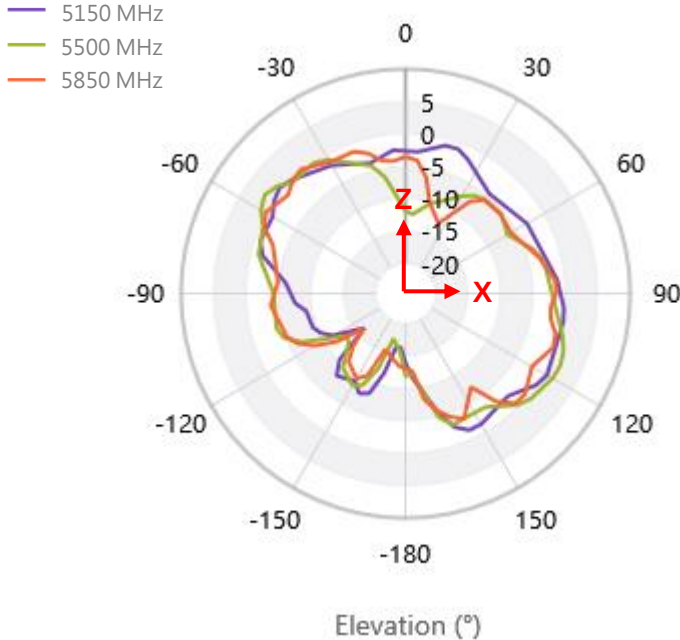
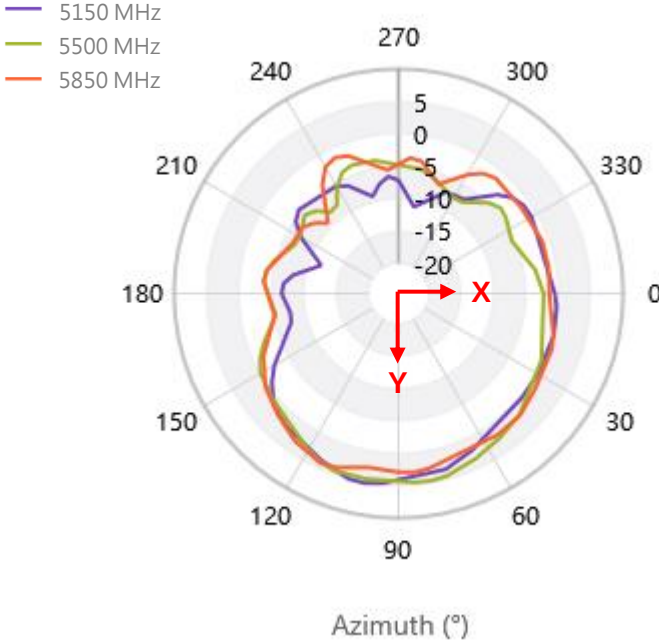
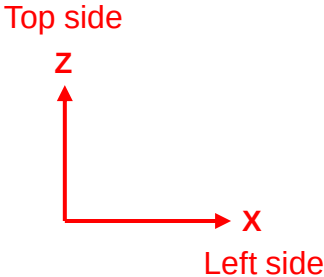
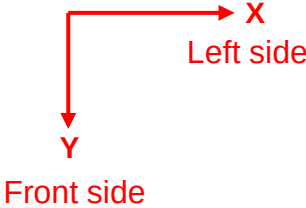
Elevation (°)

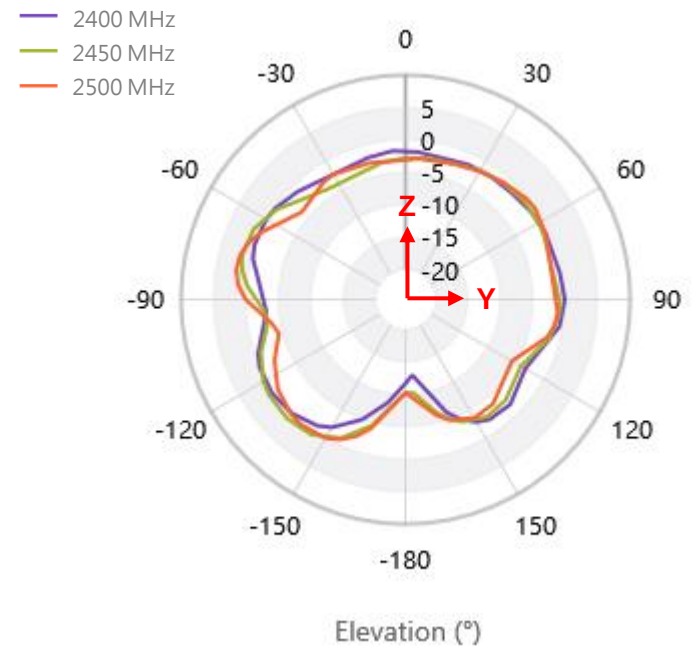
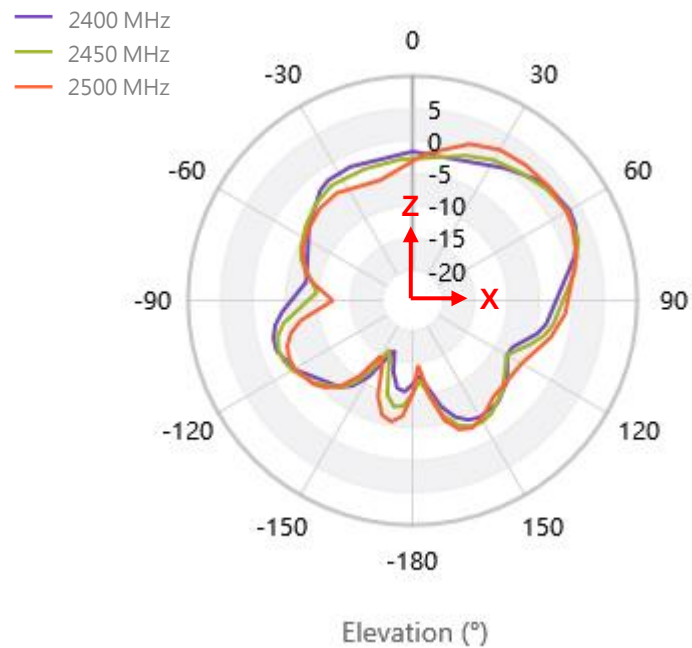
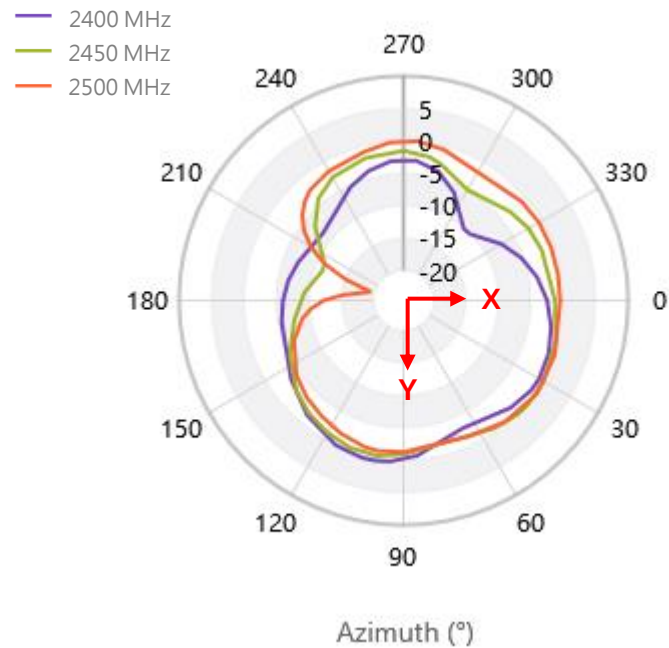
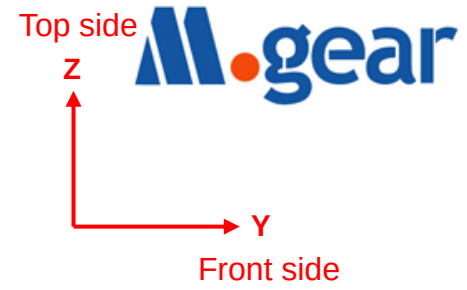
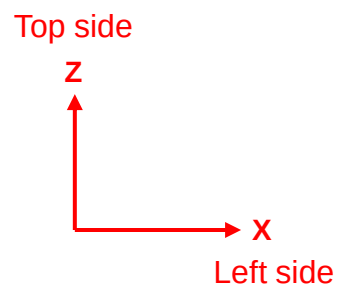
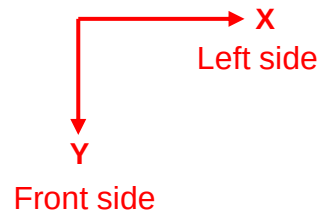
5150 MHz
5500 MHz
5850 MHz

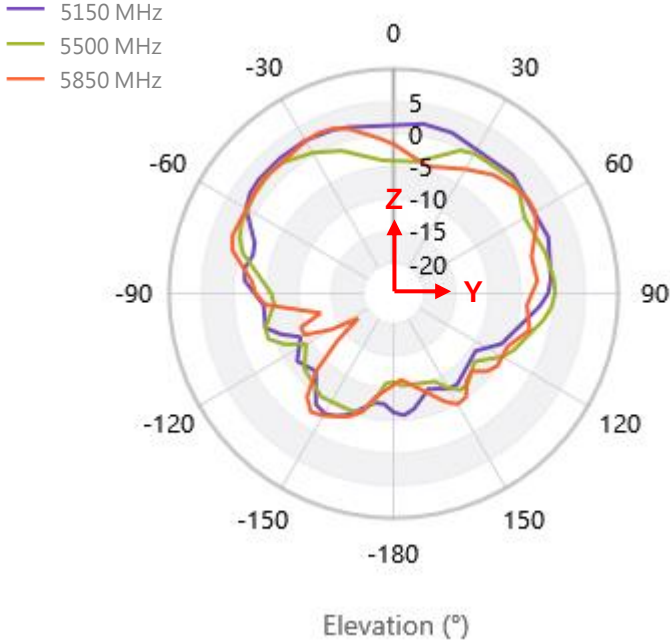
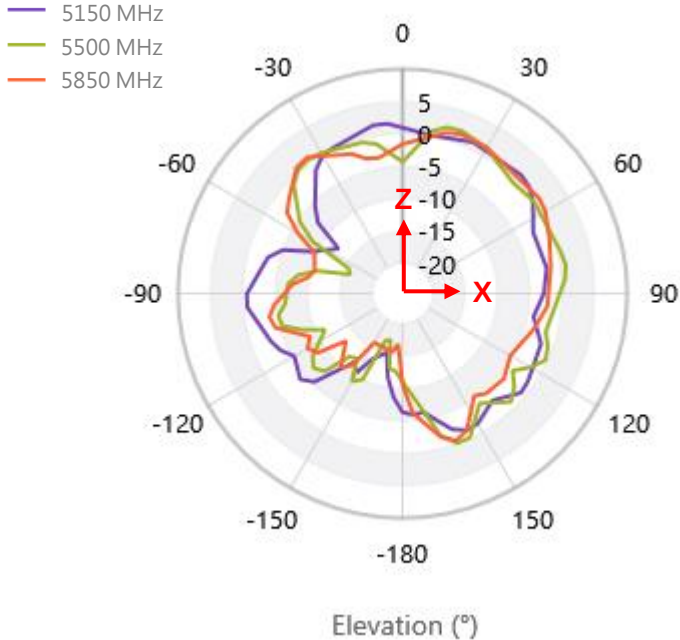
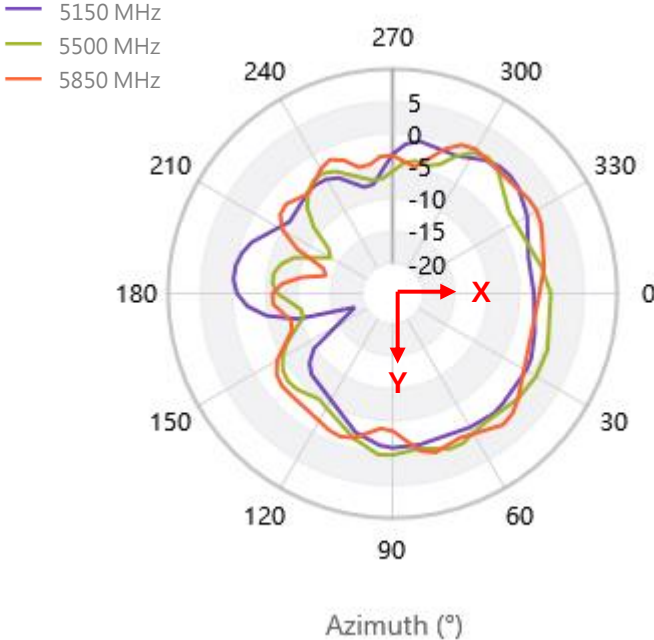
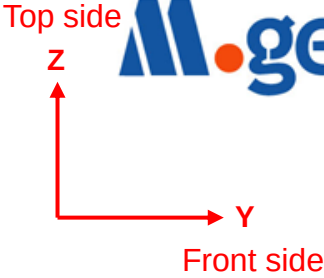
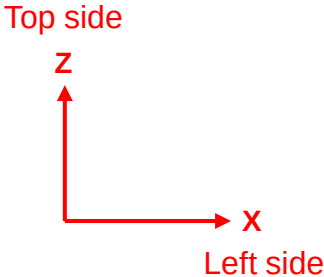
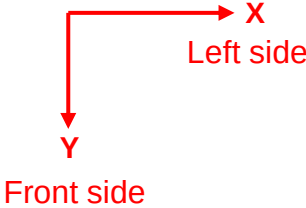


Elevation (°)











Thank You

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