

AP511 Antenna Test Report

Version:V1
2024-6-14

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1. Test Information

Equipment	EMT Chamber
Applicant	Han-Networks
Manufacturer	AOT

2. Testing Location

Testing Location	
AOT	ADD: 289 Jinghua Road,Shipai, BachengTown, Kunshan City, Jiangsu Province

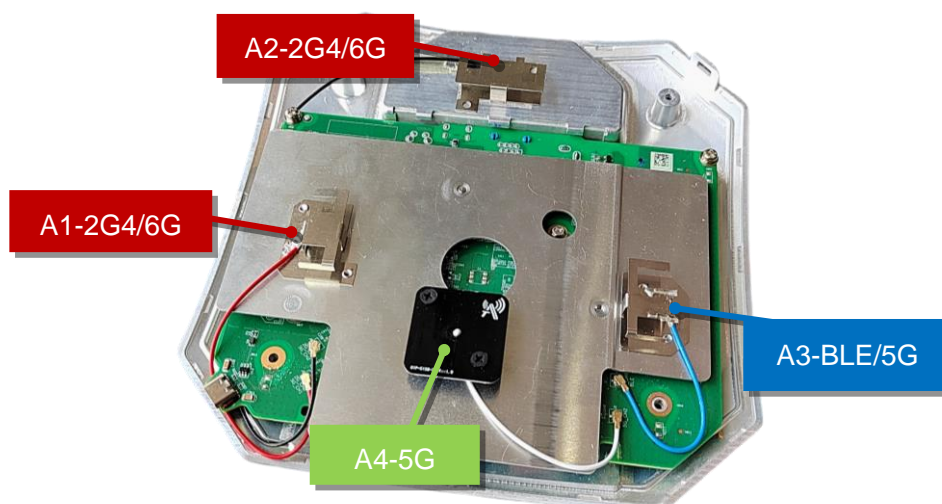
Test Condition	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	Changgan Lai	20-24 / 45-60	5.27.2024~5.27.2024

3. Test Frequency

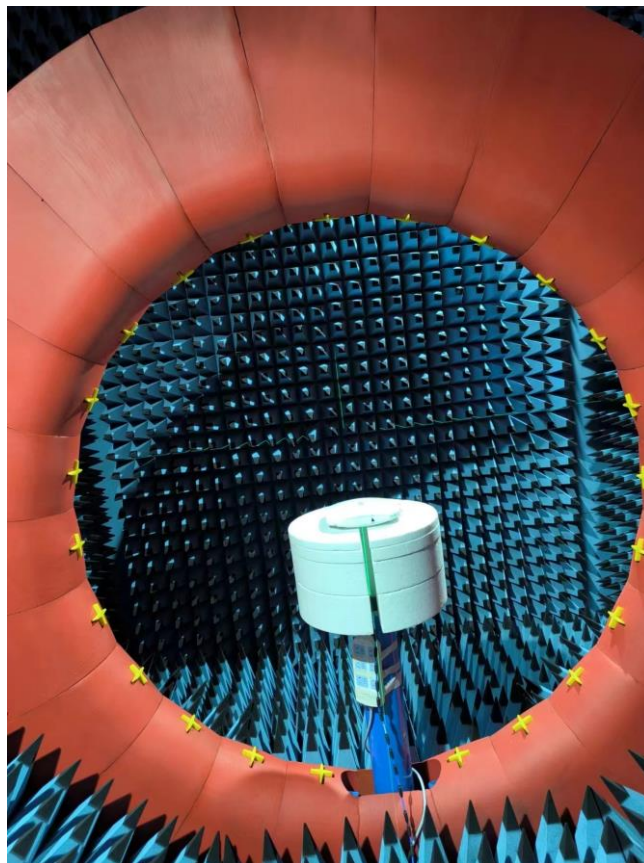
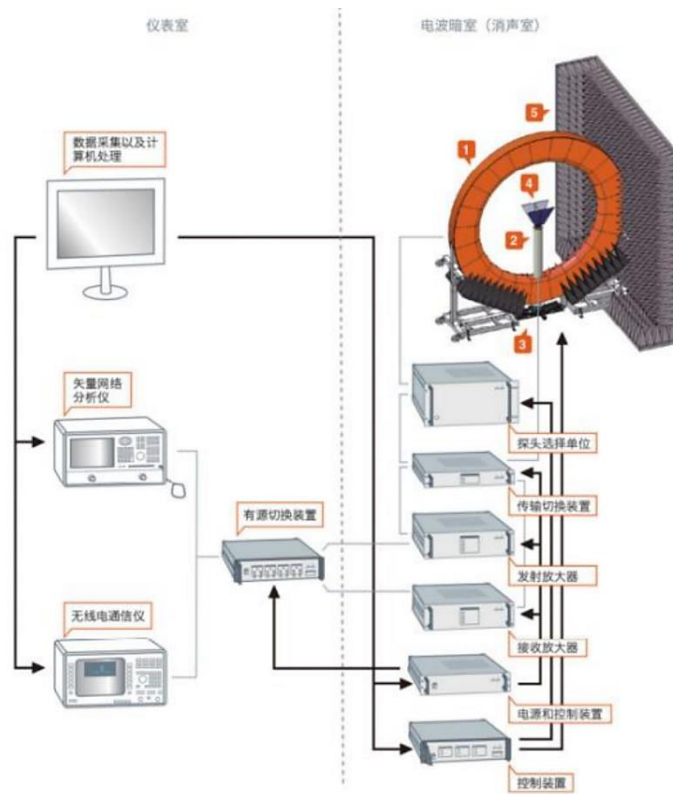
Band (MHz)	Test Frequency (MHz)
2400-2500	2450
5150-5850	5150/5500/5850
5925-7125	5925/6500/7125

4. Antenna Information

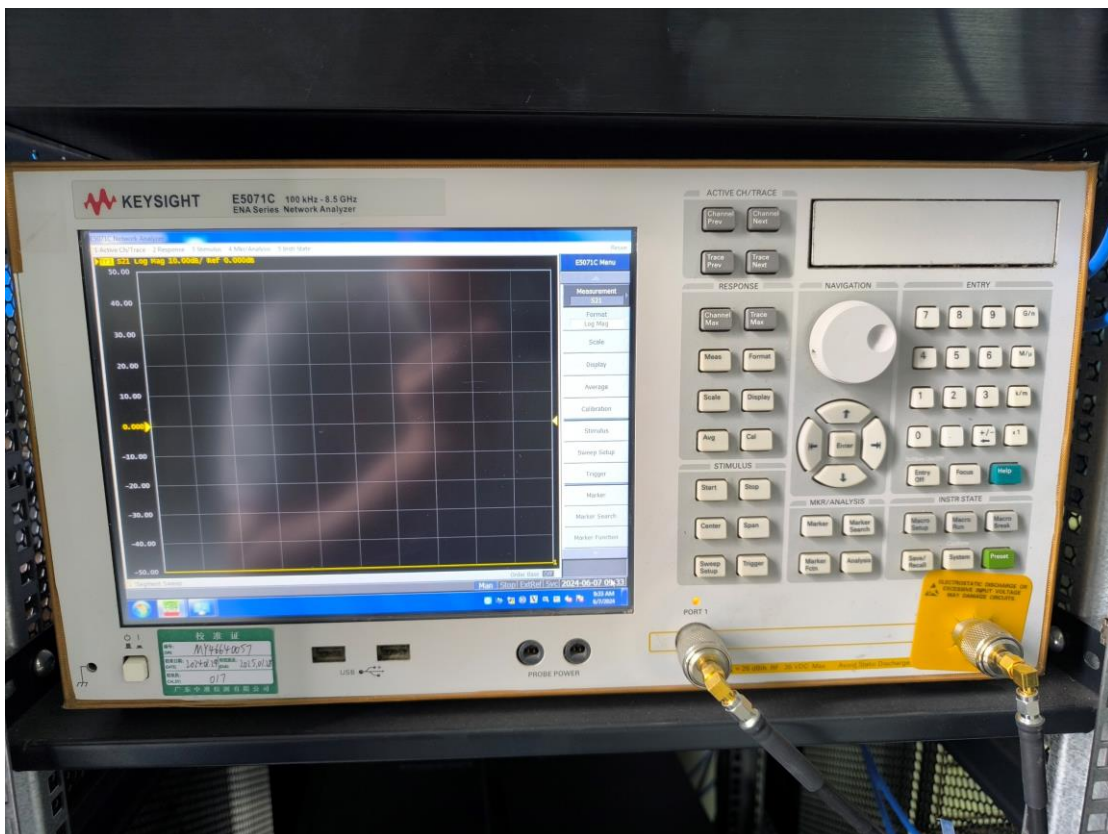
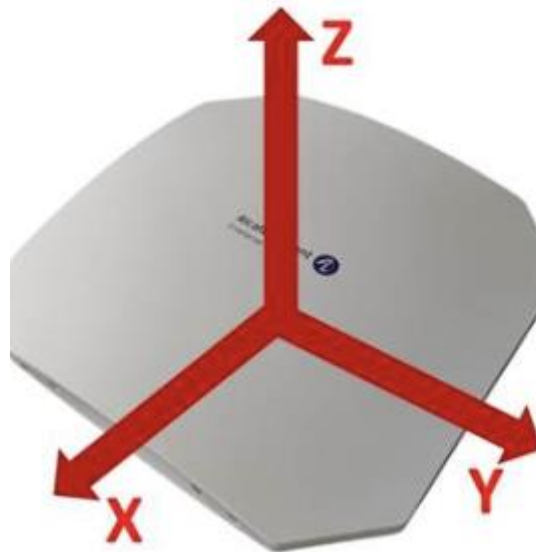
Ant. Position	Polarization Type	Ant. Type	Connector
Antenna 1 (2.4G/6G)	Vertical	Dipole	I-PEX
Antenna 2 (2.4G/6G)	Vertical	Dipole	I-PEX
Antenna 3 (BLE/Zigbee/5G)	Vertical	Dipole	I-PEX
Antenna 4 (5G)	Horizontal	Dipole	I-PEX



5. Test Configuration



6. Reference Calibration



CALIBRATION PASS

CAL.DATA: 2024.1.29

NEXT CAL.DATA: 2025.1.29

7. Test Method

The “great circle” cut method, whereby the Measurement Antenna remains fixed and the EUT is rotated about two axes in sequential order. The radiated RF performance of the Equipment Under Test (EUT) is measured by sampling the radiated transmit power of the mobile at various locations surrounding the device. A three-dimensional characterization of the 'transmit' performance of the EUT is pieced together by analyzing the data from the spatially distributed measurements.

Data points taken every 2 degrees in the theta and in the phi axes are deemed sufficient to fully characterize the EUT's Far-Field radiation pattern and total radiated power All of the measured power values will be integrated.

8. Measured Values and Calculation of Correlated / Uncorrelated Gains

Summary of Antenna Peak Gain

Antenna Peak Gain Table (Ant. Position: 2.4G Ant.1~2)

Band (MHz)	2400-2500
Ant.1 Max Gain (dBi)	5.6
Ant.2 Max Gain (dBi)	3.5

Antenna Peak Gain Table (Ant. Position: 5G Ant.3~4)

Band (MHz)	5150 ~ 5350	5470 ~ 5725	5725 ~ 5850
Ant.3 Max Gain (dBi)	5.3	5.9	5.7
Ant.4 Max Gain (dBi)	4.6	4.3	3.7

Antenna Peak Gain Table (Ant. Position: 6G Ant.1~2)

Band (MHz)	5925 ~ 6425	6425 ~ 6875	6875 ~ 7125
Ant.1 Max Gain (dBi)	6.4	6.4	5.9
Ant.1 Min Gain (dBi)	4.7		
Ant.2 Max Gain (dBi)	5.1	5.7	5.9
Ant.2 Min Gain (dBi)	4.0		

Antenna Peak Gain Table (Ant. Position: BLE/Zigbee Ant.3)

Band (MHz)	2400-2500
Ant.3 Max Gain (dBi)	4.3

Correlated / Uncorrelated Directional Gain for 5GHz (Ant. Position: 5G Ant.3~4)

Frequency (MHz)	5150	5500	5850
Directional Gain	3.75	4.21	3.9

Note: Two 5GHz outputs drive a cross-polarized pair of linearly polarized antennas. Therefore, the results are the same for correlated and uncorrelated gains.

Ant.3~4 @5.15GHz

Phi (deg)	Theta (deg)	0	-10	-20	-30	-40	-50	-60	-70	-80	-90	-100	-110	-120	-130	-140	-150	-160	-170	-180	-170	-160	-150	-140	-130	-120	-110	-100	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
0	0	0	-0.02	-0.04	-0.06	-0.08	-0.10	-0.12	-0.14	-0.16	-0.18	-0.20	-0.22	-0.24	-0.26	-0.28	-0.30	-0.32	-0.34	-0.36	-0.38	-0.40	-0.42	-0.44	-0.46	-0.48	-0.50	-0.52	-0.54	-0.56	-0.58	-0.60	-0.62	-0.64	-0.66	-0.68	-0.70	-0.72	-0.74	-0.76	-0.78	-0.80	-0.82	-0.84	-0.86	-0.88	-0.90	-0.92	-0.94	-0.96	-0.98	-1.00	-1.02	-1.04	-1.06	-1.08	-1.10	-1.12	-1.14	-1.16	-1.18	-1.20	-1.22	-1.24	-1.26	-1.28	-1.30	-1.32	-1.34	-1.36	-1.38	-1.40	-1.42	-1.44	-1.46	-1.48	-1.50	-1.52	-1.54	-1.56	-1.58	-1.60	-1.62	-1.64	-1.66	-1.68	-1.70	-1.72	-1.74	-1.76	-1.78	-1.80	-1.82	-1.84	-1.86	-1.88	-1.90	-1.92	-1.94	-1.96	-1.98	-2.00	-2.02	-2.04	-2.06	-2.08	-2.10	-2.12	-2.14	-2.16	-2.18	-2.20	-2.22	-2.24	-2.26	-2.28	-2.30	-2.32	-2.34	-2.36	-2.38	-2.40	-2.42	-2.44	-2.46	-2.48	-2.50	-2.52	-2.54	-2.56	-2.58	-2.60	-2.62	-2.64	-2.66	-2.68	-2.70	-2.72	-2.74	-2.76	-2.78	-2.80	-2.82	-2.84	-2.86	-2.88	-2.90	-2.92	-2.94	-2.96	-2.98	-3.00	-3.02	-3.04	-3.06	-3.08	-3.10	-3.12	-3.14	-3.16	-3.18	-3.20	-3.22	-3.24	-3.26	-3.28	-3.30	-3.32	-3.34	-3.36	-3.38	-3.40	-3.42	-3.44	-3.46	-3.48	-3.50	-3.52	-3.54	-3.56	-3.58	-3.60	-3.62	-3.64	-3.66	-3.68	-3.70	-3.72	-3.74	-3.76	-3.78	-3.80	-3.82	-3.84	-3.86	-3.88	-3.90	-3.92	-3.94	-3.96	-3.98	-4.00	-4.02	-4.04	-4.06	-4.08	-4.10	-4.12	-4.14	-4.16	-4.18	-4.20	-4.22	-4.24	-4.26	-4.28	-4.30	-4.32	-4.34	-4.36	-4.38	-4.40	-4.42	-4.44	-4.46	-4.48	-4.50	-4.52	-4.54	-4.56	-4.58	-4.60	-4.62	-4.64	-4.66	-4.68	-4.70	-4.72	-4.74	-4.76	-4.78	-4.80	-4.82	-4.84	-4.86	-4.88	-4.90	-4.92	-4.94	-4.96	-4.98	-5.00	-5.02	-5.04	-5.06	-5.08	-5.10	-5.12	-5.14	-5.16	-5.18	-5.20	-5.22	-5.24	-5.26	-5.28	-5.30	-5.32	-5.34	-5.36	-5.38	-5.40	-5.42	-5.44	-5.46	-5.48	-5.50	-5.52	-5.54	-5.56	-5.58	-5.60	-5.62	-5.64	-5.66	-5.68	-5.70	-5.72	-5.74	-5.76	-5.78	-5.80	-5.82	-5.84	-5.86	-5.88	-5.90	-5.92	-5.94	-5.96	-5.98	-6.00	-6.02	-6.04	-6.06	-6.08	-6.10	-6.12	-6.14	-6.16	-6.18	-6.20	-6.22	-6.24	-6.26	-6.28	-6.30	-6.32	-6.34	-6.36	-6.38	-6.40	-6.42	-6.44	-6.46	-6.48	-6.50	-6.52	-6.54	-6.56	-6.58	-6.60	-6.62	-6.64	-6.66	-6.68	-6.70	-6.72	-6.74	-6.76	-6.78	-6.80	-6.82	-6.84	-6.86	-6.88	-6.90	-6.92	-6.94	-6.96	-6.98	-7.00	-7.02	-7.04	-7.06	-7.08	-7.10	-7.12	-7.14	-7.16	-7.18	-7.20	-7.22	-7.24	-7.26	-7.28	-7.30	-7.32	-7.34	-7.36	-7.38	-7.40	-7.42	-7.44	-7.46	-7.48	-7.50	-7.52	-7.54	-7.56	-7.58	-7.60	-7.62	-7.64	-7.66	-7.68	-7.70	-7.72	-7.74	-7.76	-7.78	-7.80	-7.82	-7.84	-7.86	-7.88	-7.90	-7.92	-7.94	-7.96	-7.98	-8.00	-8.02	-8.04	-8.06	-8.08	-8.10	-8.12	-8.14	-8.16	-8.18	-8.20	-8.22	-8.24	-8.26	-8.28	-8.30	-8.32	-8.34	-8.36	-8.38	-8.40	-8.42	-8.44	-8.46	-8.48	-8.50	-8.52	-8.54	-8.56	-8.58	-8.60	-8.62	-8.64	-8.66	-8.68	-8.70	-8.72	-8.74	-8.76	-8.78	-8.80	-8.82	-8.84	-8.86	-8.88	-8.90	-8.92	-8.94	-8.96	-8.98	-9.00	-9.02	-9.04	-9.06	-9.08	-9.10	-9.12	-9.14	-9.16	-9.18	-9.20	-9.22	-9.24	-9.26	-9.28	-9.30	-9.32	-9.34	-9.36	-9.38	-9.40	-9.42	-9.44	-9.46	-9.48	-9.50	-9.52	-9.54	-9.56	-9.58	-9.60	-9.62	-9.64	-9.66	-9.68	-9.70	-9.72	-9.74	-9.76	-9.78	-9.80	-9.82	-9.84	-9.86	-9.88	-9.90	-9.92	-9.94	-9.96	-9.98	-10.00	-10.02	-10.04	-10.06	-10.08	-10.10	-10.12	-10.14	-10.16	-10.18	-10.20	-10.22	-10.24	-10.26	-10.28	-10.30	-10.32	-10.34	-10.36	-10.38	-10.40	-10.42	-10.44	-10.46	-10.48	-10.50	-10.52	-10.54	-10.56	-10.58	-10.60	-10.62	-10.64	-10.66	-10.68	-10.70	-10.72	-10.74	-10.76	-10.78	-10.80	-10.82	-10.84	-10.86	-10.88	-10.90	-10.92	-10.94	-10.96	-10.98	-11.00	-11.02	-11.04	-11.06	-11.08	-11.10	-11.12	-11.14	-11.16	-11.18	-11.20	-11.22	-11.24	-11.26	-11.28	-11.30	-11.32	-11.34	-11.36	-11.38	-11.40	-11.42	-11.44	-11.46	-11.48	-11.50	-11.52	-11.54	-11.56	-11.58	-11.60	-11.62	-11.64	-11.66	-11.68	-11.70	-11.72	-11.74	-11.76	-11.78	-11.80	-11.82	-11.84	-11.86	-11.88	-11.90	-11.92	-11.94	-11.96	-11.98	-12.00	-12.02	-12.04	-12.06	-12.08	-12.10	-12.12	-12.14	-12.16	-12.18	-12.20	-12.22	-12.24	-12.26	-12.28	-12.30	-12.32	-12.34	-12.36	-12.38	-12.40	-12.42	-12.44	-12.46	-12.48	-12.50	-12.52	-12.54	-12.56	-12.58	-12.60	-12.62	-12.64	-12.66	-12.68	-12.70	-12.72	-12.74	-12.76	-12.78	-12.80	-12.82	-12.84	-12.86	-12.88	-12.90	-12.92	-12.94	-12.96	-12.98	-13.00	-13.02	-13.04	-13.06	-13.08	-13.10	-13.12	-13.14	-13.16	-13.18	-13.20	-13.22	-13.24	-13.26	-13.28	-13.30	-13.32	-13.34	-13.36	-13.38	-13.40	-13.42	-13.44	-13.46	-13.48	-13.50	-13.52	-13.54	-13.56	-13.58	-13.60	-13.62	-13.64	-13.66	-13.68	-13.70	-13.72	-13.74	-13.76	-13.78	-13.80	-13.82	-13.84	-13.86	-13.88	-13.90	-13.92	-13.94	-13.96	-13.98	-14.00	-14.02	-14.04	-14.06	-14.08	-14.10	-14.12	-14.14	-14.16	-14.18	-14.20	-14.22	-14.24	-14.26	-14.28	-14.30	-14.32	-14.34	-14.36	-14.38	-14.40	-14.42	-14.44	-14.46	-14.48	-14.50	-14.52	-14.54	-14.56	-14.58	-14.60	-14.62	-14.64	-14.66	-14.68	-14.70	-14.72	-14.74	-14.76	-14.78	-14.80	-14.82	-14.84	-14.86	-14.88	-14.90	-14.92	-14.94	-14.96	-14.98	-15.00	-15.02	-15.04	-15.06	-15.08	-15.10	-15.12	-15.14	-15.16	-15.18	-15.20	-15.22	-15.24	-15.26	-15.28	-15.30	-15.32	-15.34	-15.36	-15.38	-15.40	-15.42	-15.44	-15.46	-15.48	-15.50	-15.52	-15.54	-15.56	-15.58	-15.60	-15.62	-15.64	-15.66	-15.68	-15.70	-15.72	-15.74	-15.76	-15.78	-15.80	-15.82	-15.84	-15.86	-15.88	-15.90	-15.92	-15.94	-15.96	-15.98	-16.00	-16.02	-16.04	-16.06	-16.08	-16.10	-16.12	-16.14	-16.16	-16.18	-16.20	-16.22	-16.24	-16.26	-16.28	-16.30	-16.32	-16.34	-16.36	-16.38	-16.40	-16.42	-16.44	-16.46	-16.48	-16.50	-16.52	-16.54	-16.56	-16.58	-16.60	-16.62	-16.64	-16.66	-16.68	-16.70	-16.72	-16.74	-16.76	-16.78	-16.80	-16.82	-16.84	-16.86	-16.88	-16.90	-16.92	-16.94	-16.96	-16.98	-17.00	-17.02	-17.04	-17.06	-17.08	-17.10	-17.12	-17.14	-17.16	-17.18	-17.20	-17.22	-17.24	-17.26	-17.28	-17.30	-17.32	-17.34	-17.36	-17.38	-17.40	-17.42	-17.44	-17.46	-17.48	-17.50	-17.52	-17.54	-17.56	-17.58	-17.60	-17.62	-17.64	-17.66	-17.68	-17.70	-17.72	-17.74	-17.76	-17.78	-17.80	-17.82	-17.84	-17.86	-17.88	-17.90	-17.92	-17.94	-17.96	-17.98	-18.00	-18.02	-18.04	-18.06	-18.08	-18.10	-18.12	-18.14	-18.16	-18.18	-18.20	-18.22	-18.24	-18.26	-18.28	-18.30	-18.32	-18.34	-18.36	-18.38	-18.40	-18.42	-18.44	-18.46	-18.48	-18.50	-18.52	-18.54	-18.56	-18.58	-18.60	-18.62	-18.64	-18.66	-18.68	-18.70	-18.72	-18.74	-18.76	-18.78	-18.80	-18.82	-18.84	-18.86	-18.88	-18.90	-18.92	-18.94	-18.96	-18.98	-19.00	-19.02	-19.04	-19.06	-19.08	-19.10	-19.12	-19.14	-19.16	-19.18	-19.20	-19.22	-19.24	-19.26	-19.28	-19.30	-19.32	-19.34	-19.36	-19.38	-19.40	-19.42	-19.44	-19.46	-19.48	-19.50	-19.52	-19.54	-19.56	-19.58	-19.60	-19.62	-19.64	-19.66	-19.68	-19.70	-19.72	-19.74	-19.76	-19.78	-19.80	-19.82	-19.84	-19.86	-19.88	-19.90	-19.92	-19.94	-19.96	-19.98	-20.00	-20.02	-20.04	-20.06	-20.08	-20.10	-20.12	-20.14	-20.16	-20.18	-20.20	-20.22	-20.24	-20.26	-20.28	-20.30	-20.32	-20.34	-20.36	-20.38	-20.40	-20.42	-20.44	-20.46	-20.48	-20.50	-20.52	-20.54	-20.56	-20.58	-20.60	-20.62	-20.64	-20.66	-20.68	-20.70	-20.72	-20.74	-20.76	-20.78	-20.80	-20.82	-20.84	-20.86	-20.88	-20.90	-20.92	-20.94	-20.96	-20.98	-21.00	-21.02	-21.04	-21.06	-21.08	-21.10	-21.12	-21.14	-21.16	-21.18	-21.20	-21.22	-21.24	-21.26	-21.28	-21.30	-21.32	-21.34	-21.36	-21.38	-21.40	-21.42	-21.44	-21.46	-21.48	-21.50	-21.52	-21.54	-21.56	-21.58	-21.60	-21.62	-21.64	-21.66	-21.68	-21.70	-21.72	-21.74	-21.76	-21.78	-21.80

Correlated Directional Gain for 6GHz (Ant. Position: 6G Ant.1~2)

Frequency (MHz)	5925	6500	7125
Directional Gain	6.22	6.88	6.87

Ant.1~2 @5.925GHz

Phi(deg)	Theta(deg)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
0	0	-18.00	-17.90	-17.80	-17.70	-17.60	-17.50	-17.40	-17.30	-17.20	-17.10	-17.00	-16.90	-16.80	-16.70	-16.60	-16.50	-16.40	-16.30	-16.20	-16.10	-16.00	-15.90	-15.80	-15.70	-15.60	-15.50	-15.40	-15.30	-15.20	-15.10	-15.00	-14.90	-14.80	-14.70	-14.60	-14.50	-14.40	-14.30	-14.20	-14.10	-14.00	-13.90	-13.80	-13.70	-13.60	-13.50	-13.40	-13.30	-13.20	-13.10	-13.00	-12.90	-12.80	-12.70	-12.60	-12.50	-12.40	-12.30	-12.20	-12.10	-12.00	-11.90	-11.80	-11.70	-11.60	-11.50	-11.40	-11.30	-11.20	-11.10	-11.00	-10.90	-10.80	-10.70	-10.60	-10.50	-10.40	-10.30	-10.20	-10.10	-10.00	-9.90	-9.80	-9.70	-9.60	-9.50	-9.40	-9.30	-9.20	-9.10	-9.00	-8.90	-8.80	-8.70	-8.60	-8.50	-8.40	-8.30	-8.20	-8.10	-8.00	-7.90	-7.80	-7.70	-7.60	-7.50	-7.40	-7.30	-7.20	-7.10	-7.00	-6.90	-6.80	-6.70	-6.60	-6.50	-6.40	-6.30	-6.20	-6.10	-6.00	-5.90	-5.80	-5.70	-5.60	-5.50	-5.40	-5.30	-5.20	-5.10	-5.00	-4.90	-4.80	-4.70	-4.60	-4.50	-4.40	-4.30	-4.20	-4.10	-4.00	-3.90	-3.80	-3.70	-3.60	-3.50	-3.40	-3.30	-3.20	-3.10	-3.00	-2.90	-2.80	-2.70	-2.60	-2.50	-2.40	-2.30	-2.20	-2.10	-2.00	-1.90	-1.80	-1.70	-1.60	-1.50	-1.40	-1.30	-1.20	-1.10	-1.00	-0.90	-0.80	-0.70	-0.60	-0.50	-0.40	-0.30	-0.20	-0.10	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	51.00	51.10	51.20	51.30	51.40	51.50	51.60	51.70	51.80	51.90	52.00	52.10	52.20	52.30	52.40	52.50	52.60	52.70	52.80	52.90	53.00	53.10	53.20	53.30	53.40	53.50	53.60	53.70	53.80	53.90	54.00	54.10	54.20	54.30	54.40	54.50	54.60	54.70	54.80	54.90	55.00	55.10	55.20	55.30	55.40	55.50	55.60	55.70	55.80	55.90	56.00	56.10	56.20	56.30	56.40	56.50	56.60	56.70	56.80	56.90	57.00	57.10	57.20	57.30	57.40	57.50	57.60	57.70	57.80	57.90	58.00	58.10	58.20	58.30	58.40	58.50	58.60	58.70	58.80	58.90	59.00	59.10	59.20	59.30	59.40	59.50	59.60	59.70	59.80	59.90	60.00	60.10	60.20	60.30	60.40	60.50	60.60	60.70	60.80	60.90	61.00	61.10	61.20	61.30	61.40	61.50	61.60	61.70	61.80	61.90	62.00	62.10	62.20	62.30	62.40	62.50	62.60	62.70	62.80	62.90	63.00	63.10	63.20	63.30	63.40	63.50	63.60	63.70	63.80	63.90	64.00	64.10	64.20	64.30	64.40	64.50	64.60	64.70	64.80	64.90	65.00	65.10	65.20	65.30	65.40	65.50	65.60	65.70	65.80	65.90	66.00	66.10	66.20	66.30	66.40	66.50	66.60	66.70	66.80	66.90	67.00	67.10	67.20	67.30	67.40	67.50	67.60	67.70	67.80	67.90	68.00	68.10	68.20	68.30	68.40	68.50	68.60	68.70	68.80	68.90	69.00	69.10	69.20	69.30	69.40	69.50	69.60	69.70	69.80	69.90	70.00	70.10	70.20	70.30	70.40	70.50	70.60	70.70	70.80	70.90	71.00	71.10	71.20	71.30	71.40	71.50	71.60	71.70	71.80	71.90	72.00	72.10	72.20	72.30	72.40	72.50	72.60	72.70	72.80	72.90	73.00	73.10	73.20	73.30	73.40	73.50	73.60	73.70	73.80	73.90	74.00	74.10	74.20	74.30	74.40	74.50	74.60	74.70	74.80	74.90	75.00	75.10	75.20	75.30	75.40	75.50	75.60	75.70	75.80	75.90	76.00	76.10	76.20	76.30	76.40	76.50	76.60	76.70	76.80	76.90	77.00	77.10	77.20	77.30	77.40	77.50	77.60	77.70	77.80	77.90	78.00	78.10	78.20	78.30	78.40	78.50	78.60	78.70	78.80	78.90	79.00	79.10	79.20	79.30	79.40	79.50	79.60	79.70	79.80	79.90	80.00	80.10	80.20	80.30	80.40	80.50	80.60	80.70	80.80	80.90	81.00	81.10	81.20	81.30	81.40	81.50	81.60	81.70	81.80	81.90	82.00	82.10	82.20	82.30	82.40	82.50	82.60	82.70	82.80	82.90	83.00	83.10	83.20	83.30	83.40	83.50	83.60	83.70	83.80	83.90	84.00	84.10	84.20	84.30	84.40	84.50	84.60	84.70	84.80	84.90	85.00	85.10	85.20	85.30	85.40	85.50	85.60	85.70	85.80	85.90	86.00	86.10	86.20	86.30	86.40	86.50	86.60	86.70	86.80	86.90	87.00	87.10	87.20	87.30	87.40	87.50	87.60	87.70	87.80	87.90	88.00	88.10	88.20	88.30	88.40	88.50	88.60	88.70	88.80	88.90	89.00	89.10	89.20	89.30	89.40	89.50	89.60	89.70	89.80	89.90	90.00	90.10	90.20	90.30	90.40	

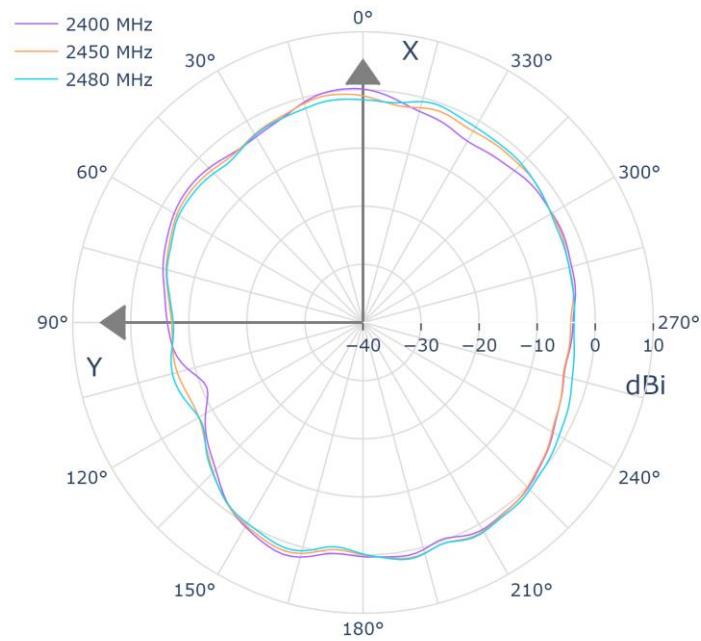
Ant.1~2 @7.125GHz

[°]	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
20	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16
30	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21
40	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25
50	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28
60	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30
70	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31
80	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31	-0.31
90	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30
100	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28
110	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25
120	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21
130	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16
140	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
150	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
160	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
170	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

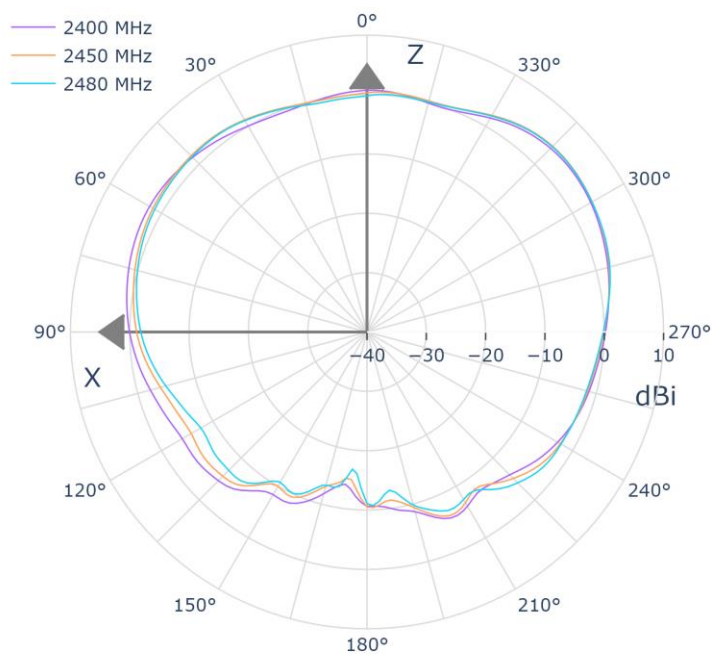
9. Radiation Pattern

Ant. Position: 2.4G Ant.1

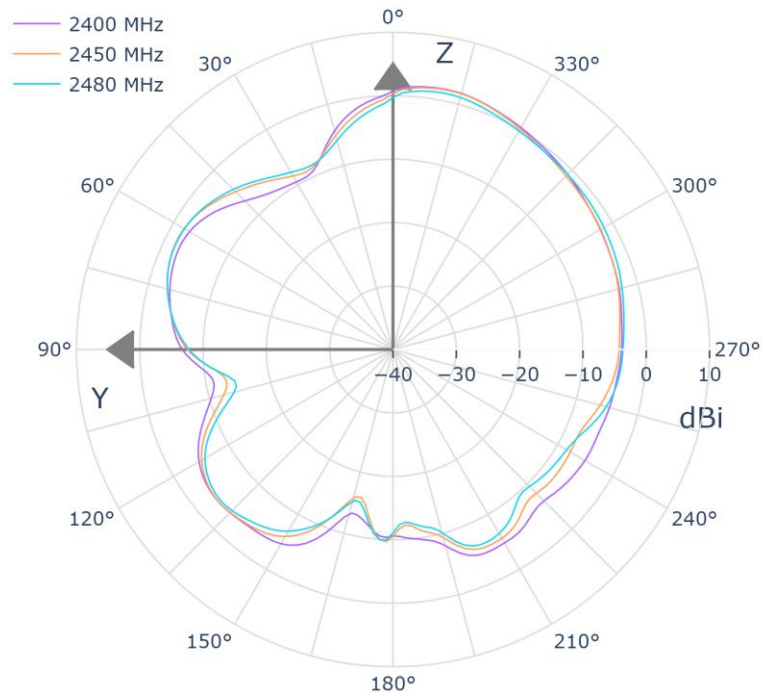
[XY_Ant.1@2.4G](#)



[XZ_Ant.1@2.4G](#)

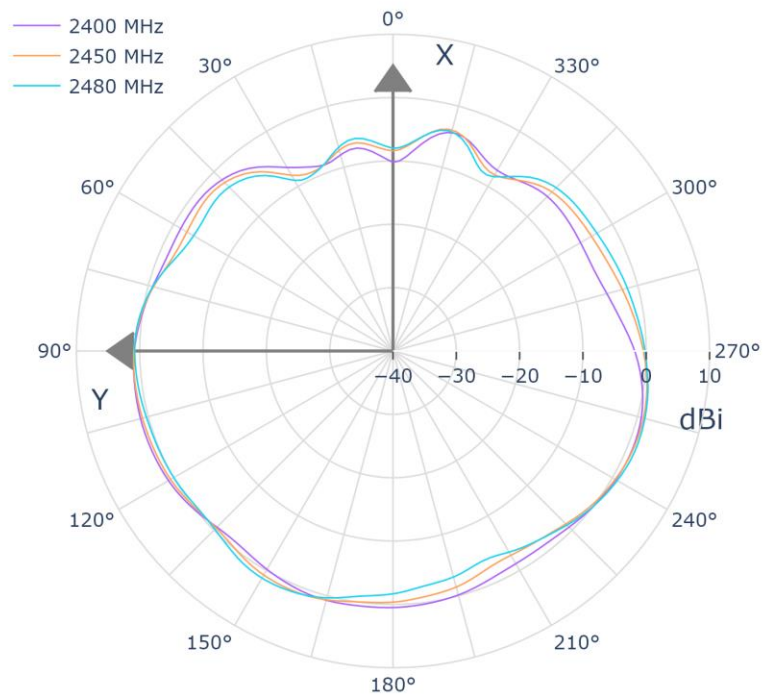


YZ Ant.1@2.4G

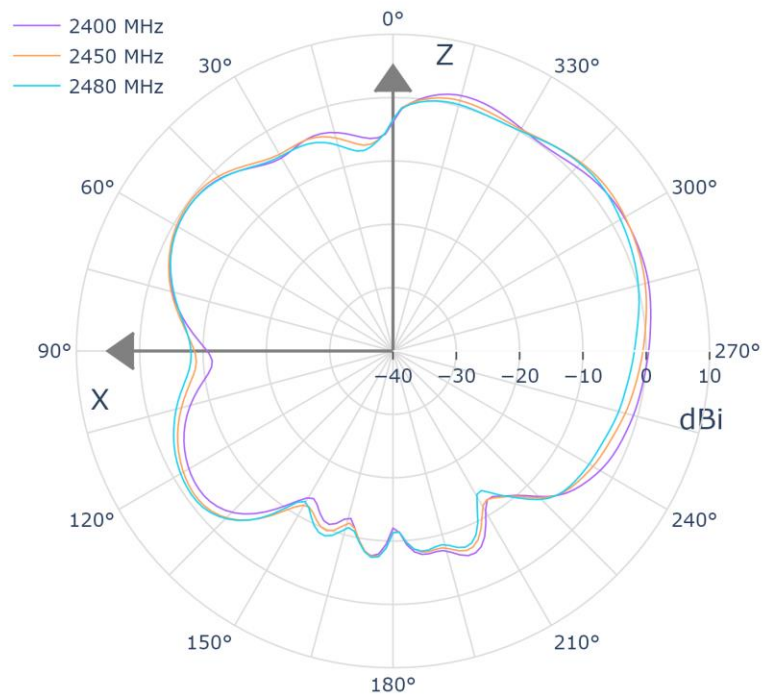


Ant. Position: 2.4G Ant.2

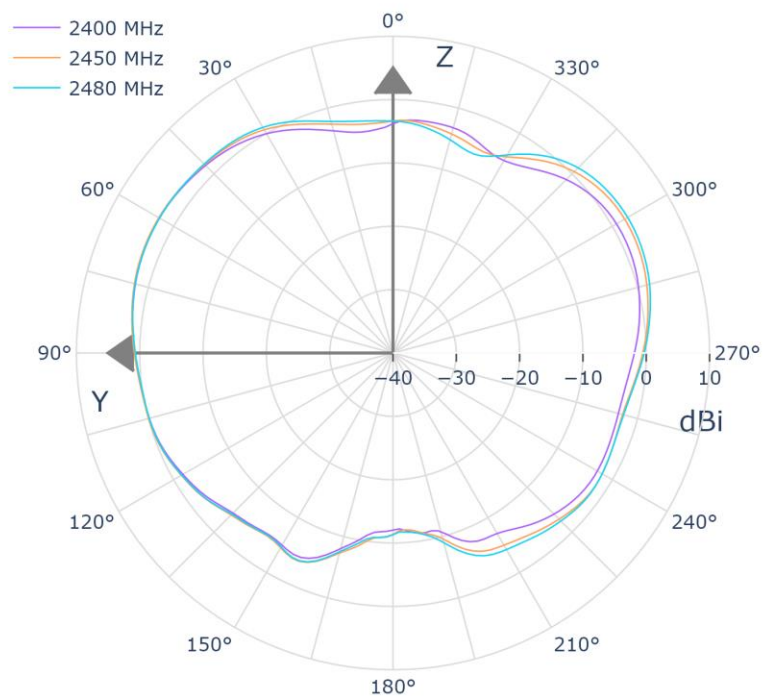
XY Ant.2@2.4G



XZ Ant.2@2.4G

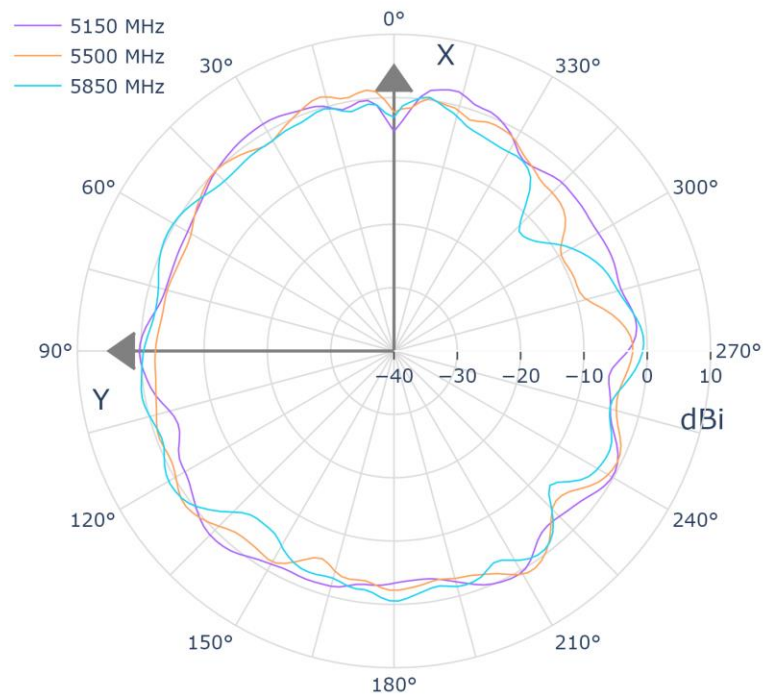


YZ Ant.2@2.4G

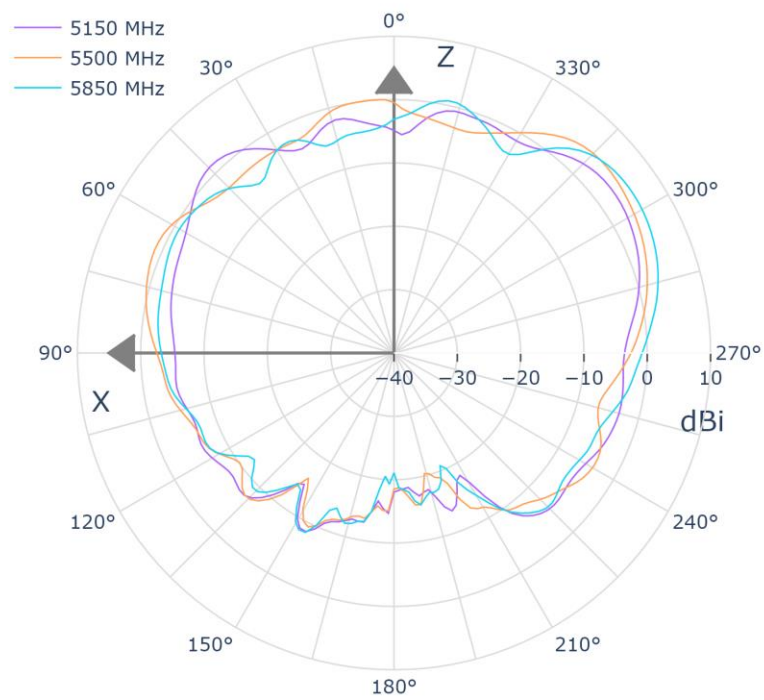


Ant. Position: 5G Ant.3

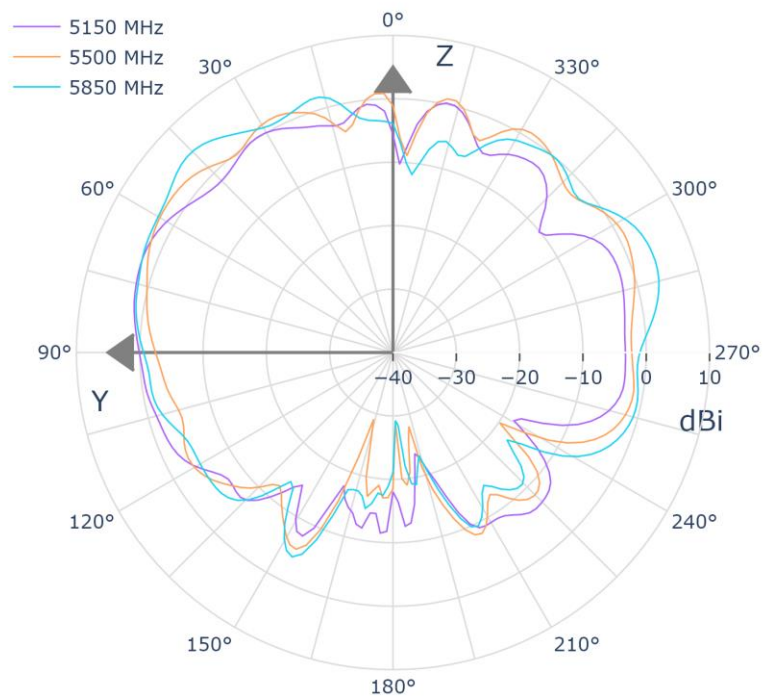
XY Ant.3@5G



XZ Ant.3@5G

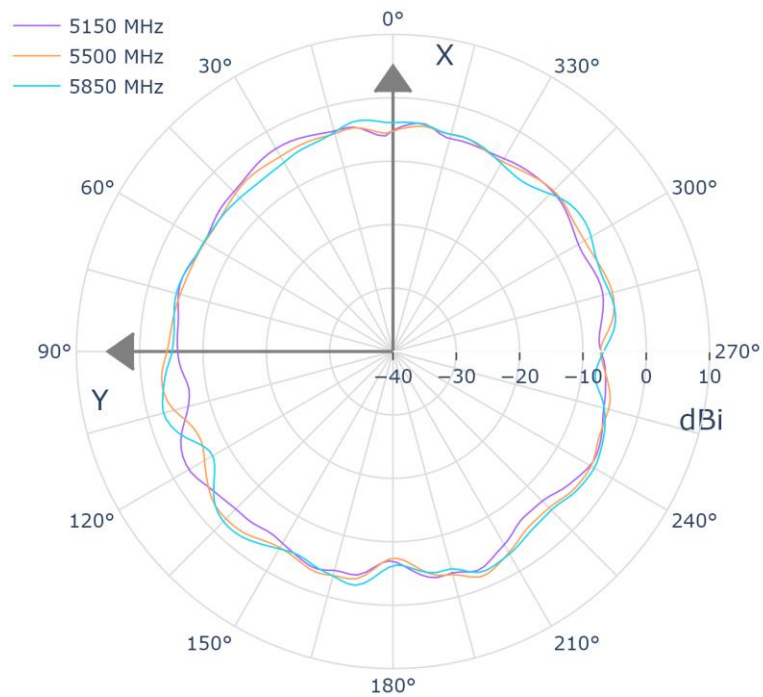


YZ Ant.3@5G

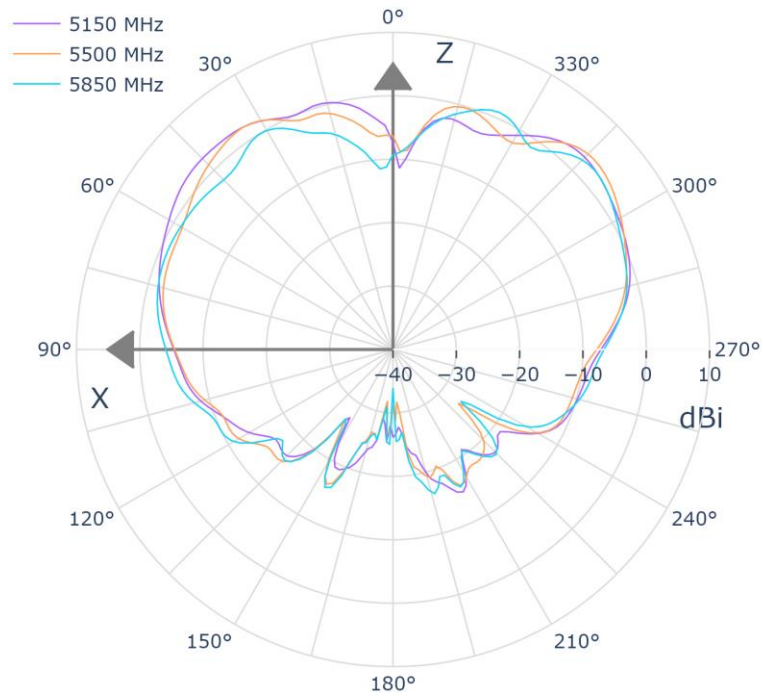


Ant. Position: 5G Ant.4

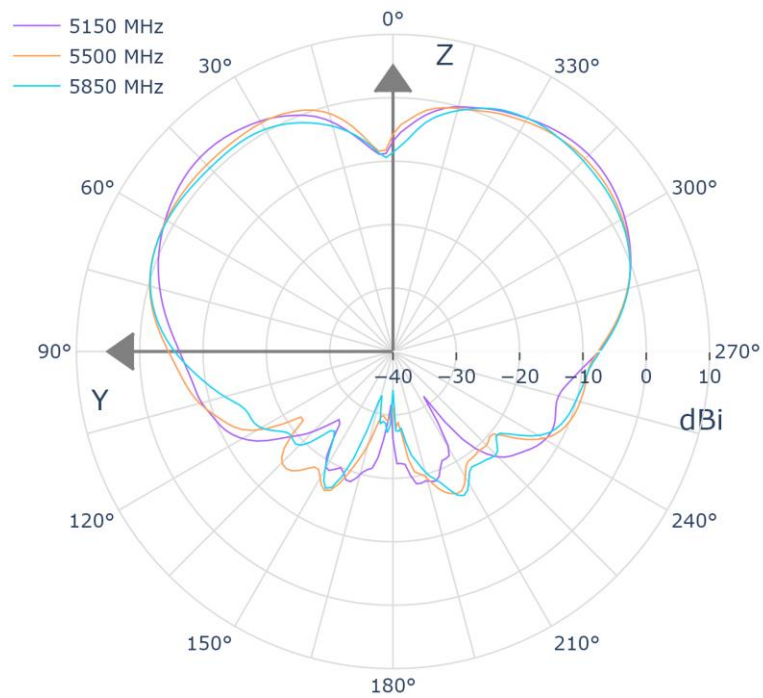
XY Ant.4@5G



XZ Ant.4@5G

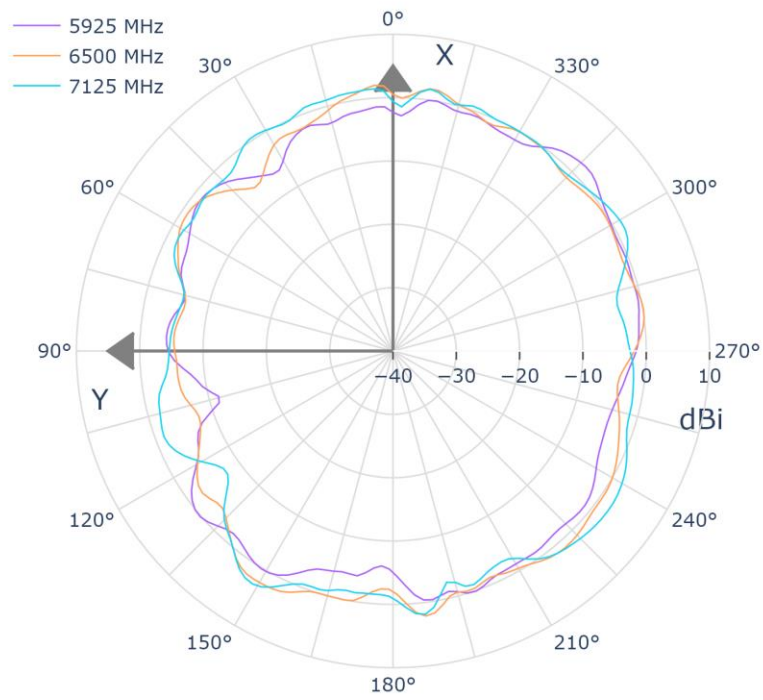


YZ Ant.4@5G

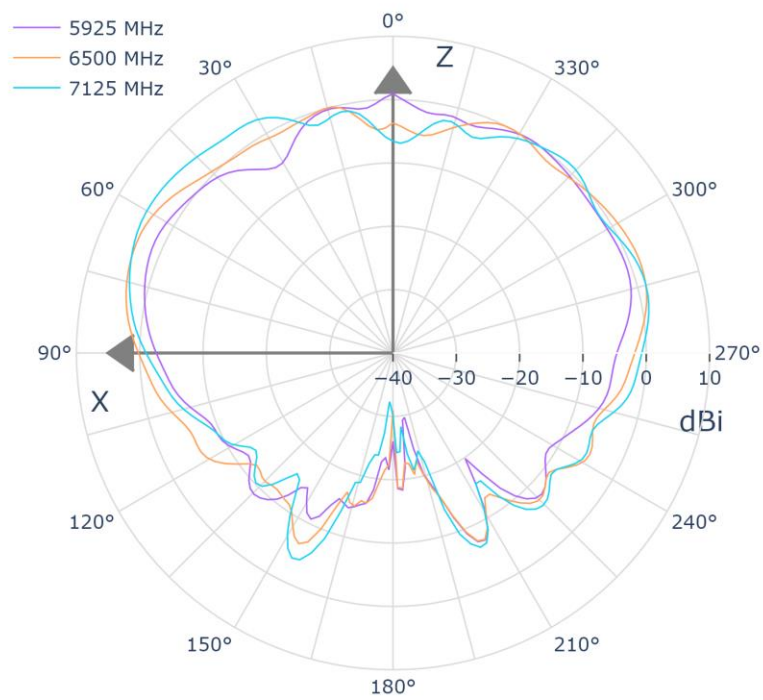


Ant. Position: 6G Ant.1

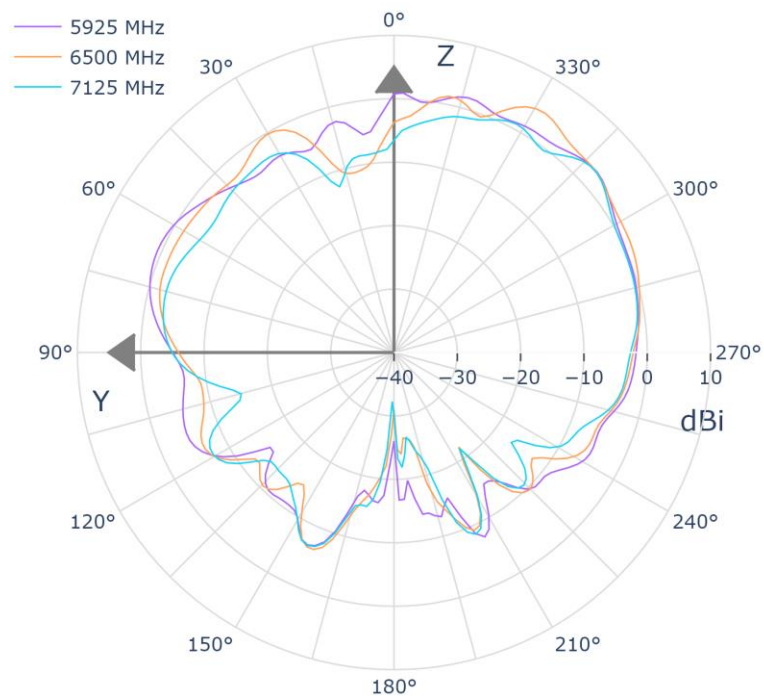
XY Ant.1@6G



XZ Ant.1@6G

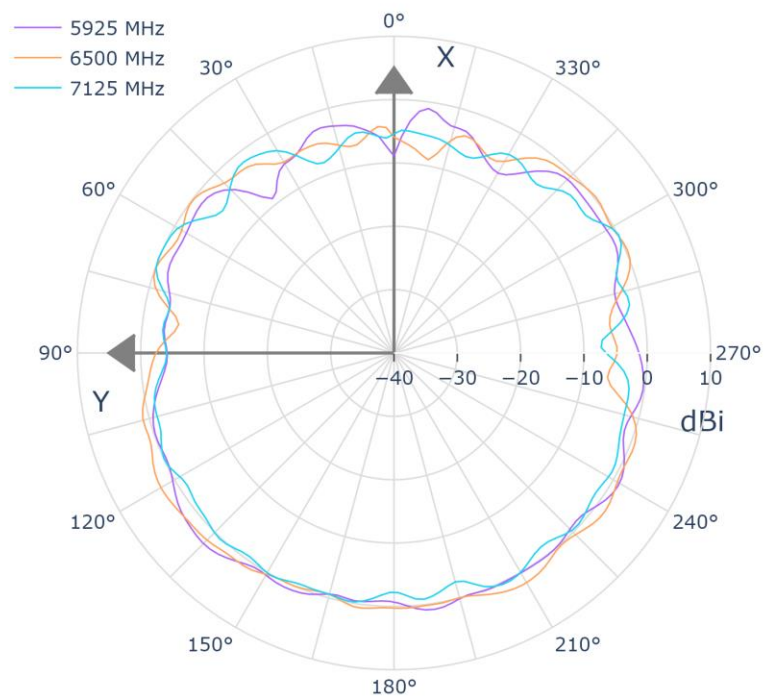


YZ Ant.1@6G

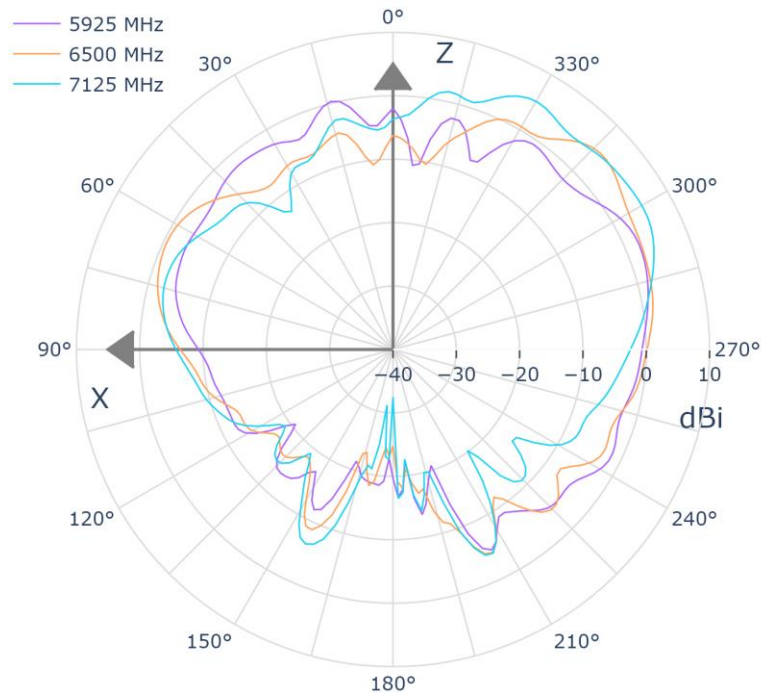


Ant. Position: 6G Ant.2

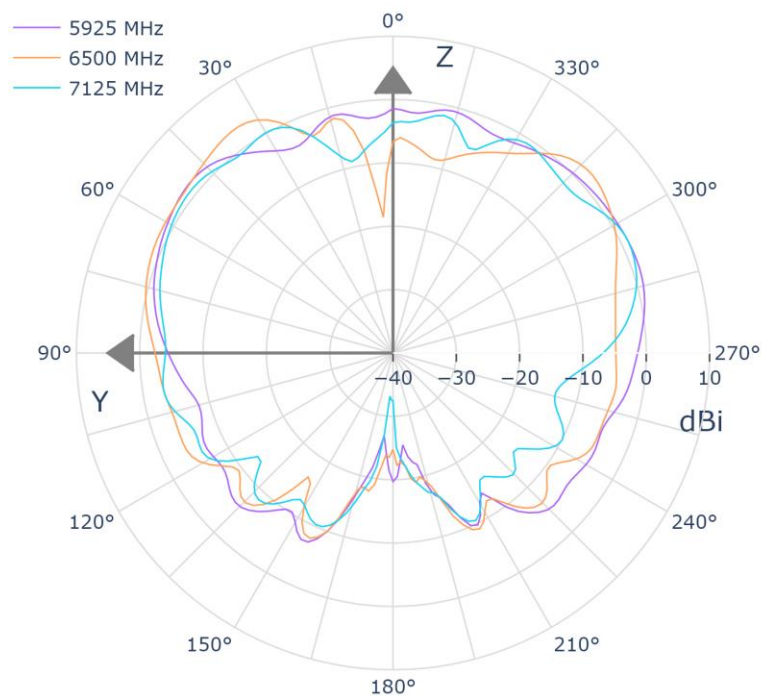
XY Ant.2@6G



XZ Ant.2@6G

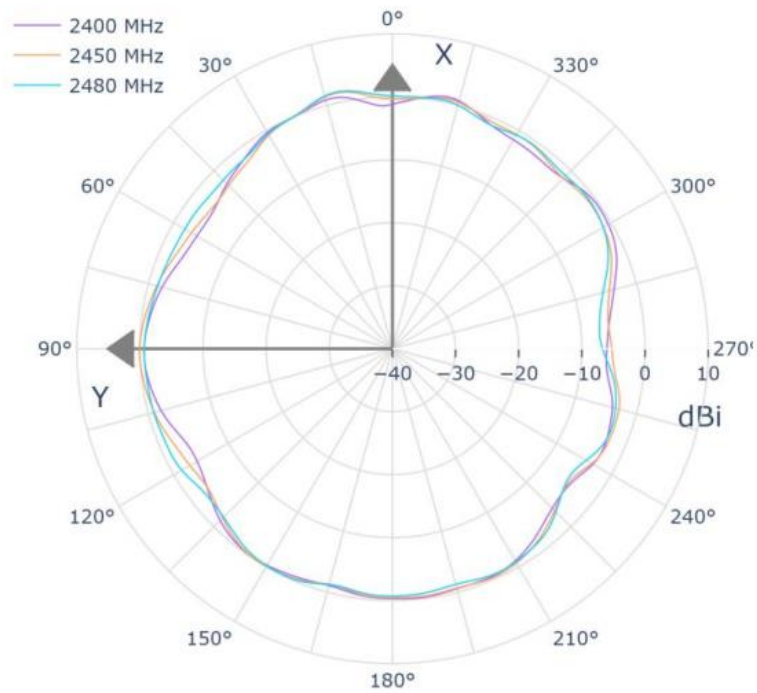


YZ Ant.2@6G

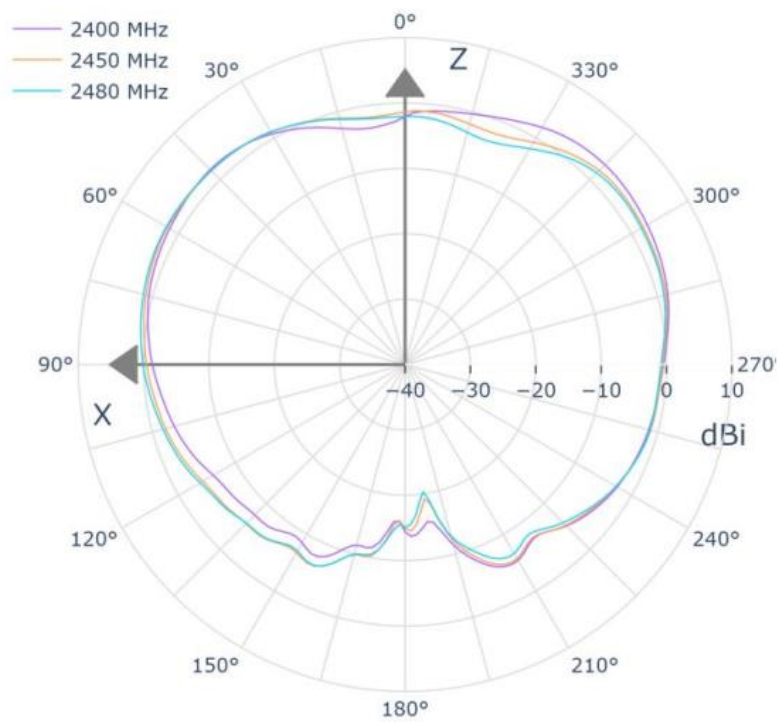


Ant. Position: BLE Ant.3

XY Ant.3@2.4G



XZ Ant.2@6G



YZ Ant.2@6G

