



AP561

Antenna Test Report

Version:V1
2025-9-29

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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

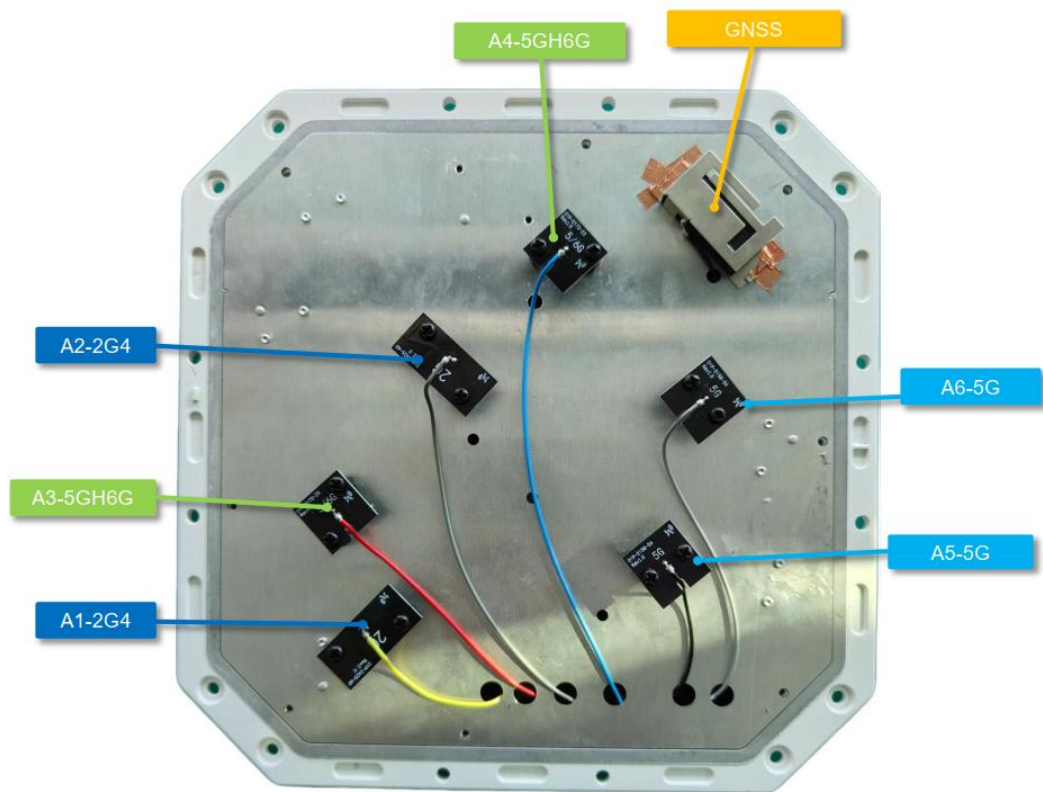
Test Condition	Test Engineer	Test Environment (°C / %)	Test Date
Radiated	Changgang Lai	20-24 / 45-60	20250714

3. Test Frequency

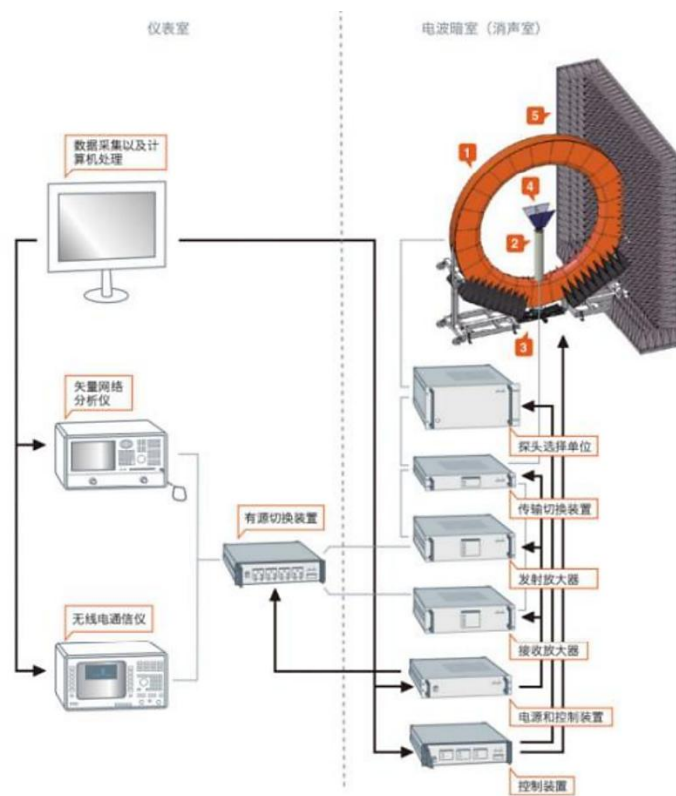
Band (MHz)	Test Frequency (MHz)
2400-2500	2450
5150-5850	5200/5300/5500/5800
5925-7125	6000/6800

4. Antenna Information

	Freq.	Type	Size(L*W*H)	Cable length (mm)	Polarization Type
ANT1	WiFi2G	Dipole	33*15.5*0.6	100	+45°
ANT2	WiFi2G	Dipole	33*15.5*0.6	165	-45°
ANT3	WiFi5/6G	Dipole	20*20*0.6	145	-45°
ANT4	WiFi5/6G	Dipole	20*20*0.6	200	+45°
ANT5	WiFi5G	Dipole	21*20*0.6	100	-45°
ANT6	WiFi5G	Dipole	21*20*0.6	165	+45°
ANT7	GNSS L1/L5	PIFA	35.5*20.9*8.5	150	Vertical



5. Test Configuration





Microwave anechoic chamber



6. Reference Test



Measurement Instrument

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)	6.87
Ant.2 Max Gain (dBi)	6.88

Antenna Peak Gain Table (Ant. Position: 5G Ant.5~6)

Band (MHz)	5150 ~ 5250	5250 ~ 5350	5470 ~ 5725	5725 ~ 5850
Ant.5 Max Gain (dBi)	6.53	6.88	7.27	7.31
Ant.6 Max Gain (dBi)	8.00	7.95	7.90	7.20

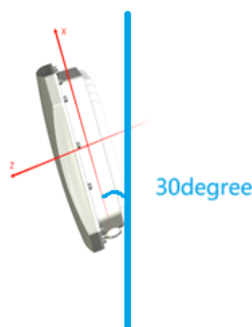
Antenna Peak Gain Table (Ant. Position: 5GH/6G Ant.3~4)

Band (MHz)	5470 ~ 5725	5725 ~ 5850	5925 ~ 6425	6525 ~ 6875
Ant.3 Max Gain (dBi)	8.13	8.58	8.24	7.65
Ant.4 Max Gain (dBi)	7.50	7.64	8.13	7.12

Antenna Peak Gain Table (Ant. Position: GNSS Ant.7)

Band (MHz)	1176.45	1575.42
Ant.7 Max Gain (dBi)	-1.52	1.71

The installation method of AP1561 is with the network port facing downward and the Z-axis tilted downward by 30 degrees, as shown in the figure below.



Peak Realized Gain of Antennas in angle 30° relative to horizontal

	Gain(dBi)		
Frequency MHz	5150 ~ 5250	5925 ~ 6425	6525 ~ 6875
Ant.3	/	-2.18	-1.22
Ant.4	/	-2.03	-1.19
Ant.5	2.33	/	/
Ant.6	1.65	/	

Two 5G (Ant.5 & Ant.6) and two 5G High/6GHz (Ant.3 & Ant.4) outputs drive a cross-polarized pair of linearly polarized antennas. Therefore,

The Uncorrelated Peak Realized Gain of Antennas in angle 30° relative to horizontal as below

	Gain(dBi)		
Frequency MHz	5150 ~ 5250	5925 ~ 6425	6525 ~ 6875
Ant.3~4	/	-2.51	-1.45
Ant.5~6	0.76	/	/

Result for Uncorrelated Gain and Correlated Gain

Maximum Correlated Gain Calculation

Because the antennas are fixed in location within the device the directional antenna gain for MIMO is calculated over a sphere using the raw spatial data taken at 10 degree steps of theta and 10 degree of theta phi for each antenna using the equations from KDB 662911 D01. The raw antenna data is located in the appendix of this report.

The correlated antenna gain was calculated using KDB 662911 D01 F(2)(d)(i).

$$\text{Directional gain} = 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{\text{ANT}}] \text{ dBi}$$

The uncorrelated antenna gain was calculated using KDB 662911 D01 F(2)(d)(ii)

$$\text{Directional gain} = 10 \log[(10^{G_1/10} + 10^{G_2/10} + \dots + 10^{G_N/10}) / N_{\text{ANT}}] \text{ dBi}$$

The correlated gains were calculated for each point in the spatial data and the highest values reported.

Correlated / Uncorrelated Directional Gain for 2.4GHz (Ant. Position: 2.4G Ant.1~2)

Frequency (MHz)	2450
Directional Gain	6.77

Ant.1~2 @2.45GHz

Φ (deg)	Theta (deg)																																											
Φ (deg)	-180.00	-170.00	-160.00	-150.00	-140.00	-130.00	-120.00	-110.00	-100.00	-90.00	-80.00	-70.00	-60.00	-50.00	-40.00	-30.00	-20.00	-10.00	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00							
0	-17.44	-15.17	-14.07	-12.66	-10.91	-9.69	-8.19	-6.74	-5.46	-4.40	-3.57	-2.92	-2.41	-2.00	-1.67	-1.40	-1.17	-0.96	-0.76	-0.57	-0.39	-0.23	-0.09	0.04	0.10	0.16	0.21	0.25	0.28	0.30	0.31	0.32	0.32	0.31	0.29	0.26	0.22	0.17	0.11	0.04	0.00			
10	-17.72	-14.82	-13.57	-12.01	-10.17	-8.94	-7.41	-6.00	-4.76	-3.69	-2.79	-2.07	-1.51	-1.07	-0.74	-0.51	-0.30	-0.11	0.08	0.27	0.45	0.62	0.78	0.93	1.07	1.19	1.29	1.37	1.43	1.47	1.49	1.49	1.47	1.43	1.37	1.28	1.17	1.04	0.89	0.71	0.51	0.29	0.06	
20	-17.88	-14.19	-12.80	-11.11	-9.21	-7.94	-6.39	-4.97	-3.70	-2.60	-1.67	-0.91	-0.24	0.15	0.50	0.84	1.16	1.46	1.73	1.95	2.18	2.37	2.53	2.66	2.76	2.83	2.87	2.89	2.89	2.87	2.83	2.77	2.69	2.58	2.44	2.28	2.09	1.87	1.61	1.32	0.99	0.64	0.29	0.00
30	-17.99	-13.79	-12.36	-10.55	-8.61	-7.31	-5.74	-4.30	-3.00	-1.87	-0.91	-0.24	0.15	0.50	0.84	1.16	1.46	1.73	1.97	2.18	2.35	2.49	2.60	2.68	2.73	2.75	2.75	2.73	2.68	2.60	2.49	2.35	2.19	2.00	1.79	1.55	1.28	0.97	0.64	0.33	0.00	0.00	0.00	
40	-17.91	-13.00	-11.53	-9.61	-7.64	-6.31	-4.74	-3.29	-1.96	-0.81	-0.03	0.34	0.69	1.03	1.35	1.65	1.91	2.14	2.34	2.50	2.62	2.70	2.75	2.77	2.76	2.73	2.68	2.60	2.49	2.32	2.18	1.99	1.76	1.51	1.24	0.95	0.64	0.37	0.00	0.00	0.00	0.00		
50	-17.84	-12.01	-10.50	-8.56	-6.56	-5.21	-3.64	-2.19	-0.94	-0.05	0.24	0.59	0.92	1.23	1.52	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00		
60	-17.81	-10.81	-9.26	-7.30	-5.30	-3.94	-2.37	-0.91	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
70	-17.85	-9.41	-7.84	-5.86	-3.86	-2.50	-0.93	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
80	-17.94	-8.67	-7.09	-5.10	-3.10	-1.74	-0.17	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
90	-17.98	-8.00	-6.42	-4.43	-2.43	-0.97	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
100	-17.99	-7.51	-5.93	-3.94	-1.94	-0.48	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
110	-18.00	-6.81	-5.23	-3.24	-1.24	-0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120	-18.01	-6.40	-4.81	-2.82	-0.82	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
130	-18.02	-6.40	-4.81	-2.82	-0.82	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
140	-18.03	-6.67	-5.09	-3.10	-1.10	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
150	-18.04	-6.43	-4.85	-2.86	-0.86	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
160	-18.05	-6.16	-4.67	-2.68	-0.68	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
170	-18.06	-5.44	-3.45	-1.46	0.00	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
180	-18.07	-4.67	-2.68	-0.68	0.00	0.00	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Note: Two 2.4GHz outputs drive a cross-polarized pair of linearly polarized antennas. Therefore, the results are the same for correlated and uncorrelated gains.

Correlated / Uncorrelated Directional Gain for 5GHz (Ant. Position: 5G Ant.5~6)

Frequency (MHz)	5200	5300	5500	5800
Directional Gain	7.11	7.26	7.44	7.17

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.5~6 @5.2GHz

Phi(deg)	Theta(deg)	-180.00	-170.00	-160.00	-150.00	-140.00	-130.00	-120.00	-110.00	-100.00	-90.00	-80.00	-70.00	-60.00	-50.00	-40.00	-30.00	-20.00	-10.00	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00						
0	-27.66	-28.87	-23.02	-14.77	-12.66	-10.17	-8.19	-6.74	-5.46	-4.40	-3.57	-2.92	-2.41	-2.00	-1.67	-1.40	-1.17	-0.96	-0.76	-0.57	-0.39	-0.23	-0.09	0.04	0.10	0.16	0.21	0.25	0.28	0.30	0.31	0.32	0.32	0.31	0.29	0.26	0.22	0.17	0.11	0.04	0.00	0.00		
10	-27.66	-29.08	-22.60	-13.36	-11.25	-8.76	-6.78	-5.33	-4.05	-3.00	-2.17	-1.52	-0.95	-0.38	0.01	0.36	0.71	1.06	1.40	1.73	2.05	2.35	2.62	2.86	3.07	3.24	3.37	3.47	3.54	3.58	3.59	3.57	3.52	3.44	3.32	3.17	2.99	2.77	2.51	2.16	1.75	1.30	0.84	0.38
20	-27.66	-29.40	-21.80	-12.56	-10.45	-7.96	-5.98	-4.53	-3.25	-2.20	-1.37	-0.72	-0.15	0.24	0.59	0.92	1.23	1.52	1.78	2.00	2.18	2.34	2.49	2.60	2.68	2.75	2.77	2.76	2.73	2.68	2.60	2.49	2.35	2.19	2.00	1.79	1.55	1.28	0.99	0.64	0.33	0.00	0.00	
30	-27.66	-29.83	-21.11	-11.76	-9.65	-7.16	-5.18	-3.73	-2.45	-1.40	-0.57	0.00	0.35	0.70	1.03	1.35	1.65	1.91	2.14	2.34	2.50	2.62	2.70	2.75	2.77	2.76	2.73	2.68	2.60	2.49	2.35	2.19	2.00	1.79	1.55	1.28	0.97	0.64	0.33	0.00	0.00	0.00		
40	-27.66	-30.36	-20.32	-11.07	-8.96	-6.47	-4.49	-3.04	-1.76	-0.71	0.00	0.35	0.70	1.03	1.35	1.65	1.91	2.14	2.34	2.50	2.62	2.70	2.75	2.77	2.76	2.73	2.68	2.60	2.49	2.35	2.19	2.00	1.79	1.55	1.28	0.97	0.64	0.33	0.00	0.00	0.00	0.00		
50	-27.66	-30.99	-19.45	-10.38	-8.27	-5.78	-3.80	-2.35	-1.07	-0.02	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00			
60	-27.66	-31.70	-18.50	-9.71	-7.60	-5.11	-3.13	-1.68	-0.40	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00			
70	-27.66	-32.58	-17.41	-9.04	-6.93	-4.44	-2.46	-1.01	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00			
80	-27.66	-33.61	-16.12	-8.37	-6.26	-3.77	-1.79	-0.34	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00			
90	-27.66	-34.78	-14.65	-7.7	-5.64	-3.15	-1.17	-0.22	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00			
100	-27.66	-36.00	-12.18	-6.93	-4.44	-1.95	-0.40	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
110	-27.66	-38.22	-9.71	-6.26	-3.77	-1.28	-0.22	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
120	-27.66	-40.44	-7.16	-5.59	-3.10	-0.69	-0.02	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
130	-27.66	-42.66	-4.53	-4.91	-2.42	-0.34	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
140	-27.66	-44.89	-1.95	-4.23	-1.73	-0.02	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
150	-27.66	-47.11	0.69	-3.57	-1.01	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
160	-27.66	-49.33	3.10	-2.86	-0.34	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
170	-27.66	-51.56	5.59	-2.17	0.31	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
180	-27.66	-53.78	8.00	-1.48	0.81	0.00	0.29	0.64	0.97	1.27	1.54	1.78	2.00	2.18	2.33	2.44	2.51	2.55	2.57	2.56	2.53	2.48	2.40	2.29	2.14	1.95	1.71	1.45	1.18	0.90	0.64	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

Ant.5~6 @5.5GHz

[illegible]

Ant.5~6 @5.8GHz

[illegible]

Frequency (MHz)	5500	5800	6000	6800
Directional Gain	7.77	7.71	7.75	6.70

Note: Two 5G High/6GHz outputs drive a cross-polarized pair of linearly polarized antennas. Therefore, results are the same for correlated and uncorrelated gains.

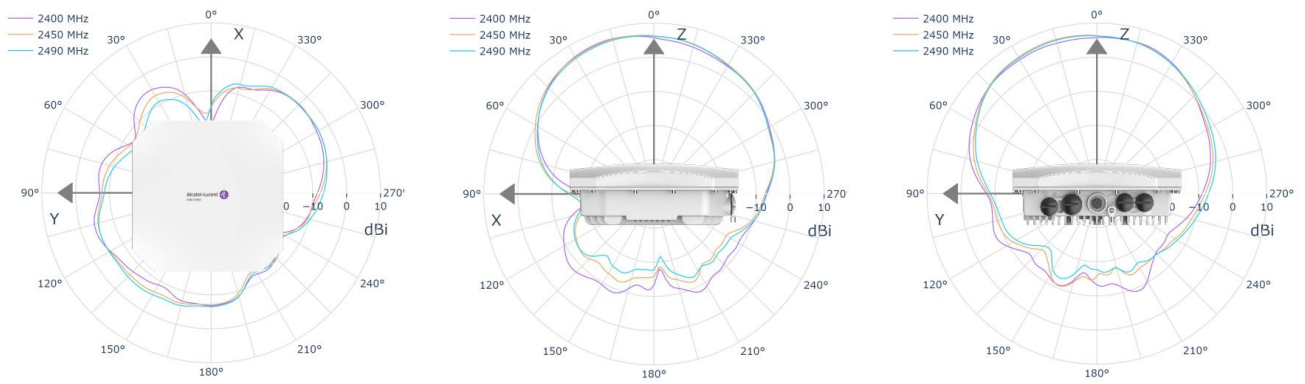
Year	1900	1905	1910	1915	1920	1925	1930	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080	2085	2090	2095	2100	2105	2110	2115	2120	2125	2130	2135	2140	2145	2150	2155	2160	2165	2170	2175	2180	2185	2190	2195	2200	2205	2210	2215	2220	2225	2230	2235	2240	2245	2250	2255	2260	2265	2270	2275	2280	2285	2290	2295	2300	2305	2310	2315	2320	2325	2330	2335	2340	2345	2350	2355	2360	2365	2370	2375	2380	2385	2390	2395	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480	2485	2490	2495	2500	2505	2510	2515	2520	2525	2530	2535	2540	2545	2550	2555	2560	2565	2570	2575	2580	2585	2590	2595	2600	2605	2610	2615	2620	2625	2630	2635	2640	2645	2650	2655	2660	2665	2670	2675	2680	2685	2690	2695	2700	2705	2710	2715	2720	2725	2730	2735	2740	2745	2750	2755	2760	2765	2770	2775	2780	2785	2790	2795	2800	2805	2810	2815	2820	2825	2830	2835	2840	2845	2850	2855	2860	2865	2870	2875	2880	2885	2890	2895	2900	2905	2910	2915	2920	2925	2930	2935	2940	2945	2950	2955	2960	2965	2970	2975	2980	2985	2990	2995	3000	3005	3010	3015	3020	3025	3030	3035	3040	3045	3050	3055	3060	3065	3070	3075	3080	3085	3090	3095	3100	3105	3110	3115	3120	3125	3130	3135	3140	3145	3150	3155	3160	3165	3170	3175	3180	3185	3190	3195	3200	3205	3210	3215	3220	3225	3230	3235	3240	3245	3250	3255	3260	3265	3270	3275	3280	3285	3290	3295	3300	3305	3310	3315	3320	3325	3330	3335	3340	3345	3350	3355	3360	3365	3370	3375	3380	3385	3390	3395	3400	3405	3410	3415	3420	3425	3430	3435	3440	3445	3450	3455	3460	3465	3470	3475	3480	3485	3490	3495	3500	3505	3510	3515	3520	3525	3530	3535	3540	3545	3550	3555	3560	3565	3570	3575	3580	3585	3590	3595	3600	3605	3610	3615	3620	3625	3630	3635	3640	3645	3650	3655	3660	3665	3670	3675	3680	3685	3690	3695	3700	3705	3710	3715	3720	3725	3730	3735	3740	3745	3750	3755	3760	3765	3770	3775	3780	3785	3790	3795	3800	3805	3810	3815	3820	3825	3830	3835	3840	3845	3850	3855	3860	3865	3870	3875	3880	3885	3890	3895	3900	3905	3910	3915	3920	3925	3930	3935	3940	3945	3950	3955	3960	3965	3970	3975	3980	3985	3990	3995	4000	4005	4010	4015	4020	4025	4030	4035	4040	4045	4050	4055	4060	4065	4070	4075	4080	4085	4090	4095	4100	4105	4110	4115	4120	4125	4130	4135	4140	4145	4150	4155	4160
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Time (hrs)	Level (m)	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000	3050	3100	3150	3200	3250	3300	3350	3400	3450	3500	3550	3600	3650	3700	3750	3800	3850	3900	3950	4000	4050	4100	4150	4200	4250	4300	4350	4400	4450	4500	4550	4600	4650	4700	4750	4800	4850	4900	4950	5000	5050	5100	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850	5900	5950	6000	6050	6100	6150	6200	6250	6300	6350	6400	6450	6500	6550	6600	6650	6700	6750	6800	6850	6900	6950	7000	7050	7100	7150	7200	7250	7300	7350	7400	7450	7500	7550	7600	7650	7700	7750	7800	7850	7900	7950	8000	8050	8100	8150	8200	8250	8300	8350	8400	8450	8500	8550	8600	8650	8700	8750	8800	8850	8900	8950	9000	9050	9100	9150	9200	9250	9300	9350	9400	9450	9500	9550	9600	9650	9700	9750	9800	9850	9900	9950	10000																																									
0.00	-28.27	-23.36	-18.44	-14.33	-10.24	-6.15	-2.06	2.03	6.14	10.25	14.36	18.47	22.58	26.69	30.80	34.91	39.02	43.13	47.24	51.35	55.46	59.57	63.68	67.79	71.90	76.01	80.12	84.23	88.34	92.45	96.56	100.67	104.78	108.89	113.00	117.11	121.22	125.33	129.44	133.55	137.66	141.77	145.88	149.99	154.10	158.21	162.32	166.43	170.54	174.65	178.76	182.87	186.98	191.09	195.20	199.31	203.42	207.53	211.64	215.75	219.86	223.97	228.08	232.19	236.30	240.41	244.52	248.63	252.74	256.85	260.96	265.07	269.18	273.29	277.40	281.51	285.62	289.73	293.84	297.95	302.06	306.17	310.28	314.39	318.50	322.61	326.72	330.83	334.94	339.05	343.16	347.27	351.38	355.49	359.60	363.71	367.82	371.93	376.04	380.15	384.26	388.37	392.48	396.59	400.70	404.81	408.92	413.03	417.14	421.25	425.36	429.47	433.58	437.69	441.80	445.91	450.02	454.13	458.24	462.35	466.46	470.57	474.68	478.79	482.90	487.01	491.12	495.23	499.34	503.45	507.56	511.67	515.78	519.89	524.00	528.11	532.22	536.33	540.44	544.55	548.66	552.77	556.88	560.99	565.10	569.21	573.32	577.43	581.54	585.65	589.76	593.87	597.98	602.09	606.20	610.31	614.42	618.53	622.64	626.75	630.86	634.97	639.08	643.19	647.30	651.41	655.52	659.63	663.74	667.85	671.96	676.07	680.18	684.29	688.40	692.51	696.62	700.73	704.84	708.95	713.06	717.17	721.28	725.39	729.50	733.61	737.72	741.83	745.94	750.05	754.16	758.27	762.38	766.49	770.60	774.71	778.82	782.93	787.04	791.15	795.26	799.37	803.48	807.59	811.70	815.81	819.92	824.03	828.14	832.25	836.36	840.47	844.58	848.69	852.80	856.91	861.02	865.13	869.24	873.35	877.46	881.57	885.68</

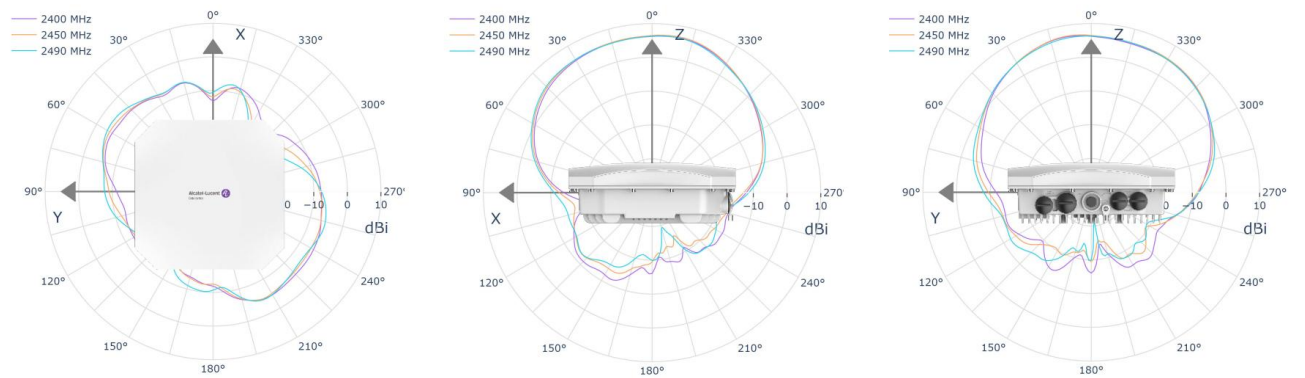
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9. Radiation Pattern

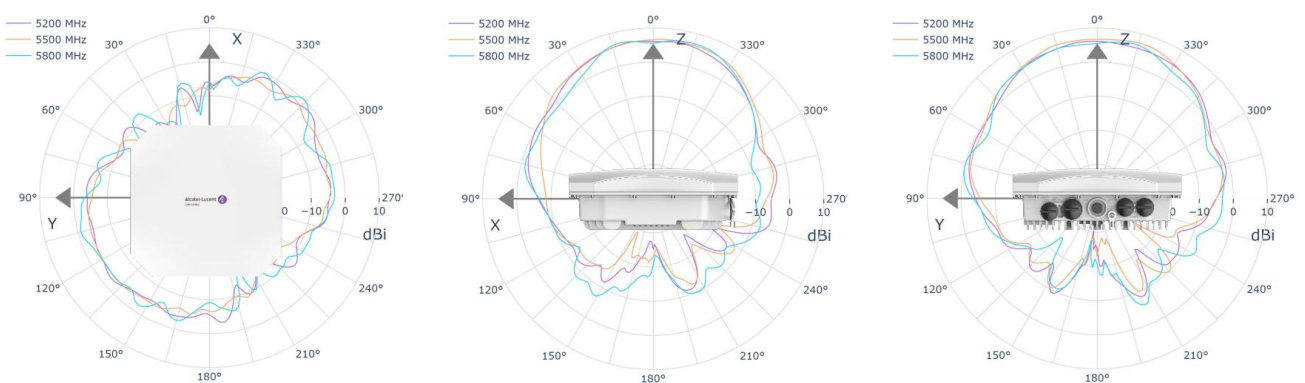
Ant. Position: 2.4G Ant.1



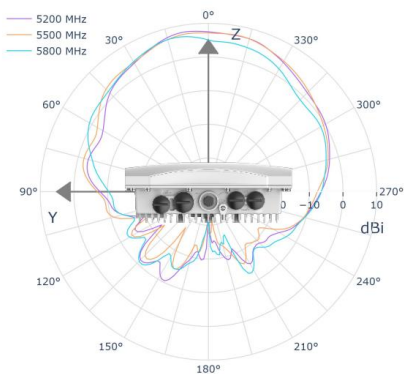
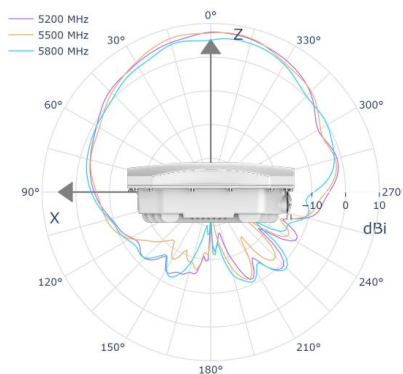
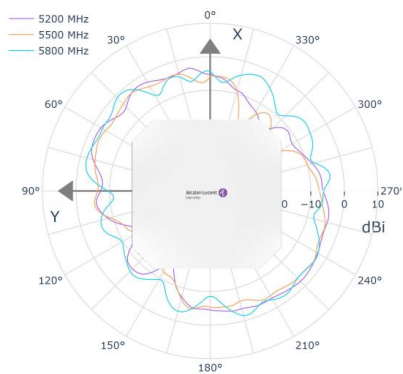
Ant. Position: 2.4G Ant.2



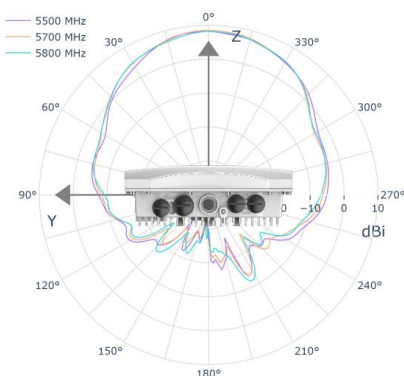
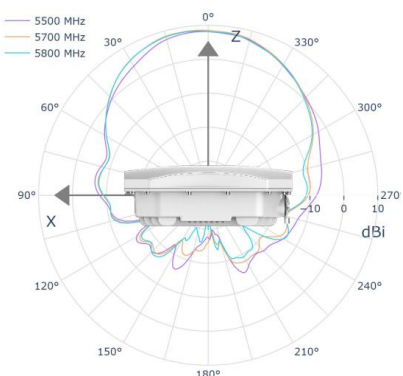
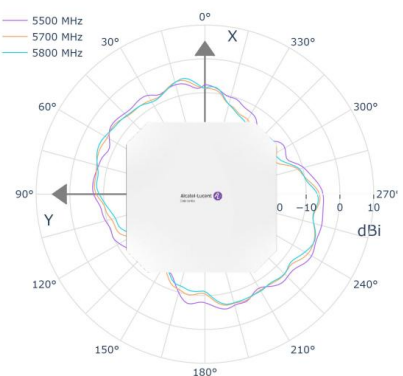
Ant. Position: 5G Ant.5



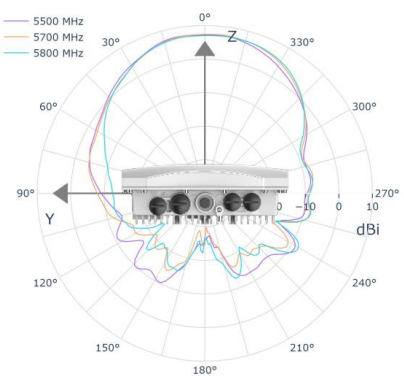
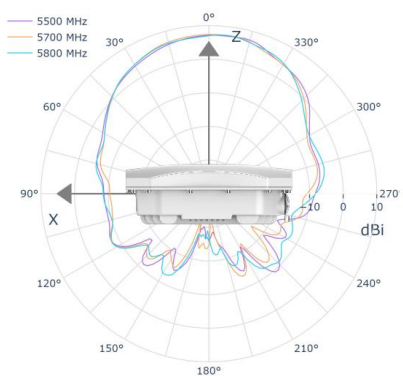
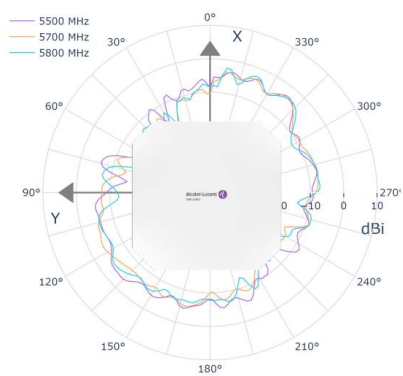
Ant. Position: 5G Ant.6



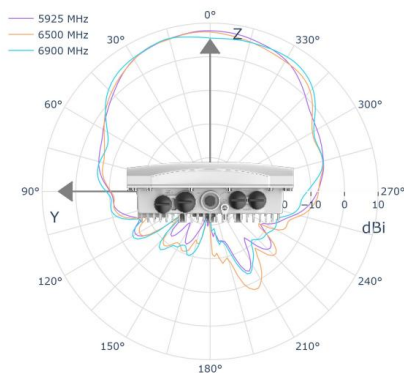
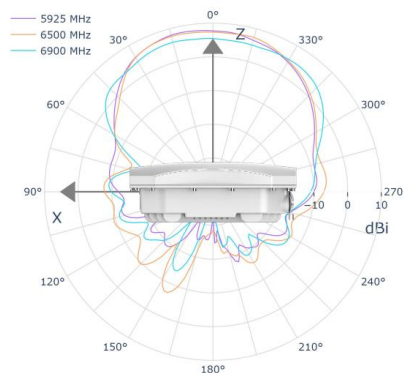
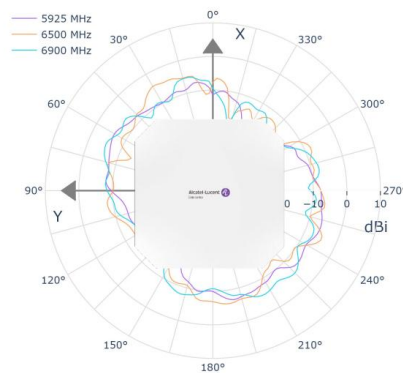
Ant. Position: 5G High Ant.3



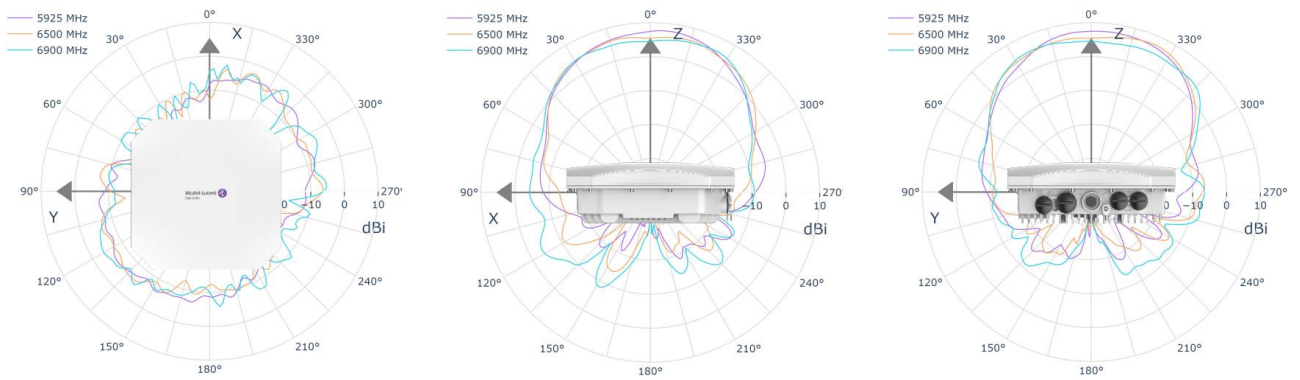
Ant. Position: 5G High Ant.4



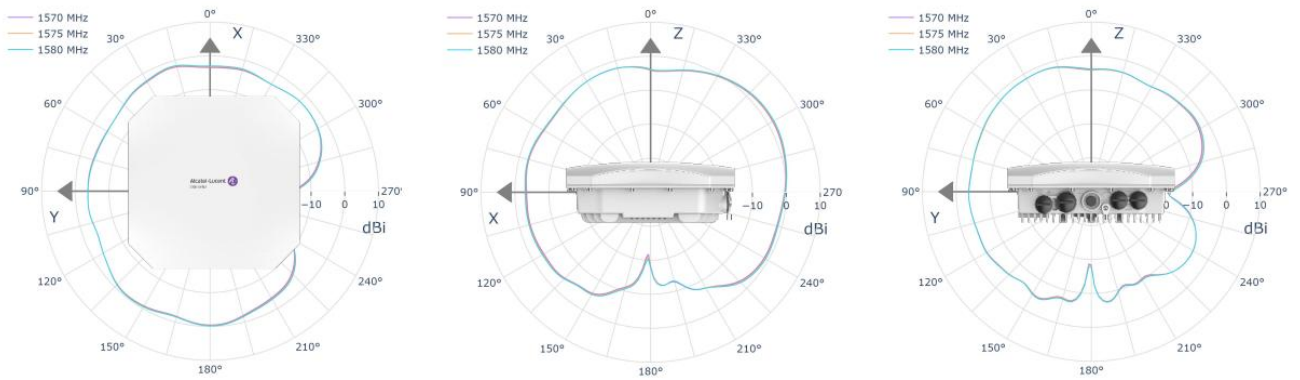
Ant. Position: 6G Ant.3



Ant. Position: 6G Ant.4



Ant. Position: GNSS-L5 Ant.7



Ant. Position: GNSS-L1 Ant.7

