



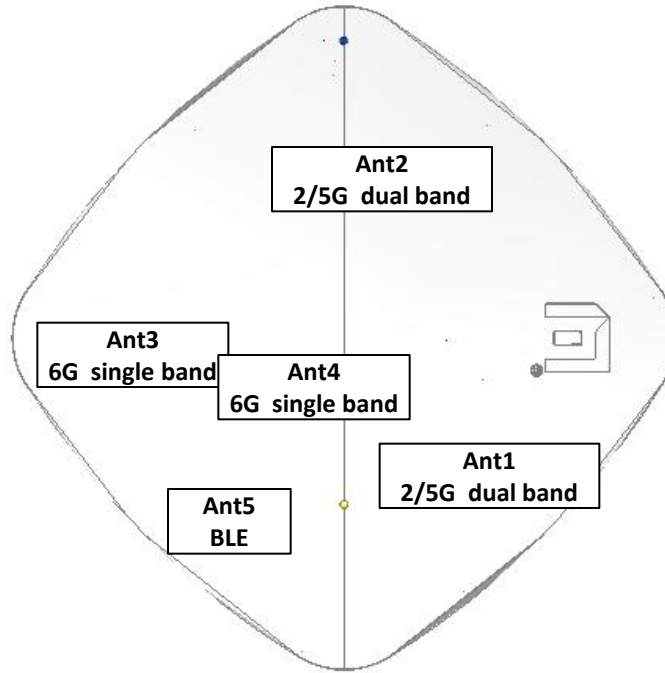
AP3000

Antenna Test Report

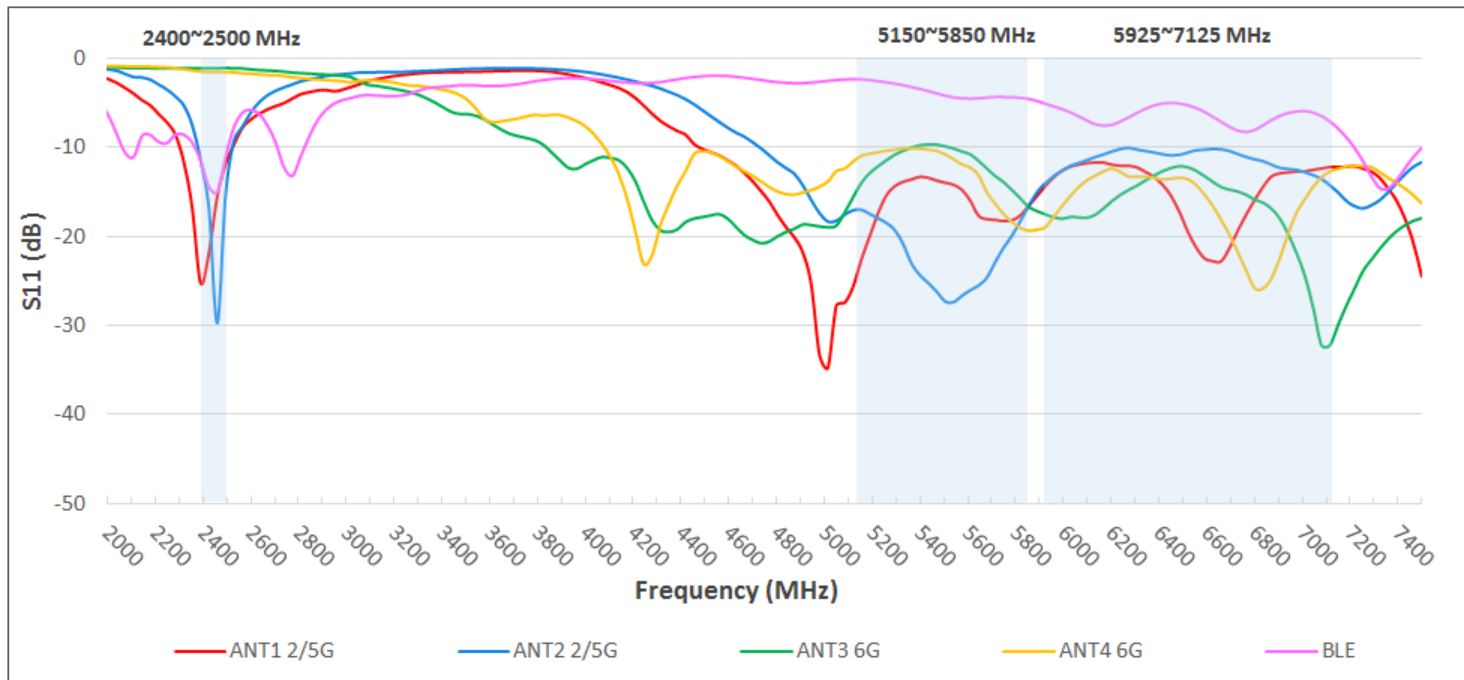
Senao Networks, Inc.

Customer	Extreme
Project	AP3000
Project Description	2/5G antenna*2 6G antenna*2 BLE antenna*1
Date	2022/03/17
Prepared by	Tony
Report Version	A07

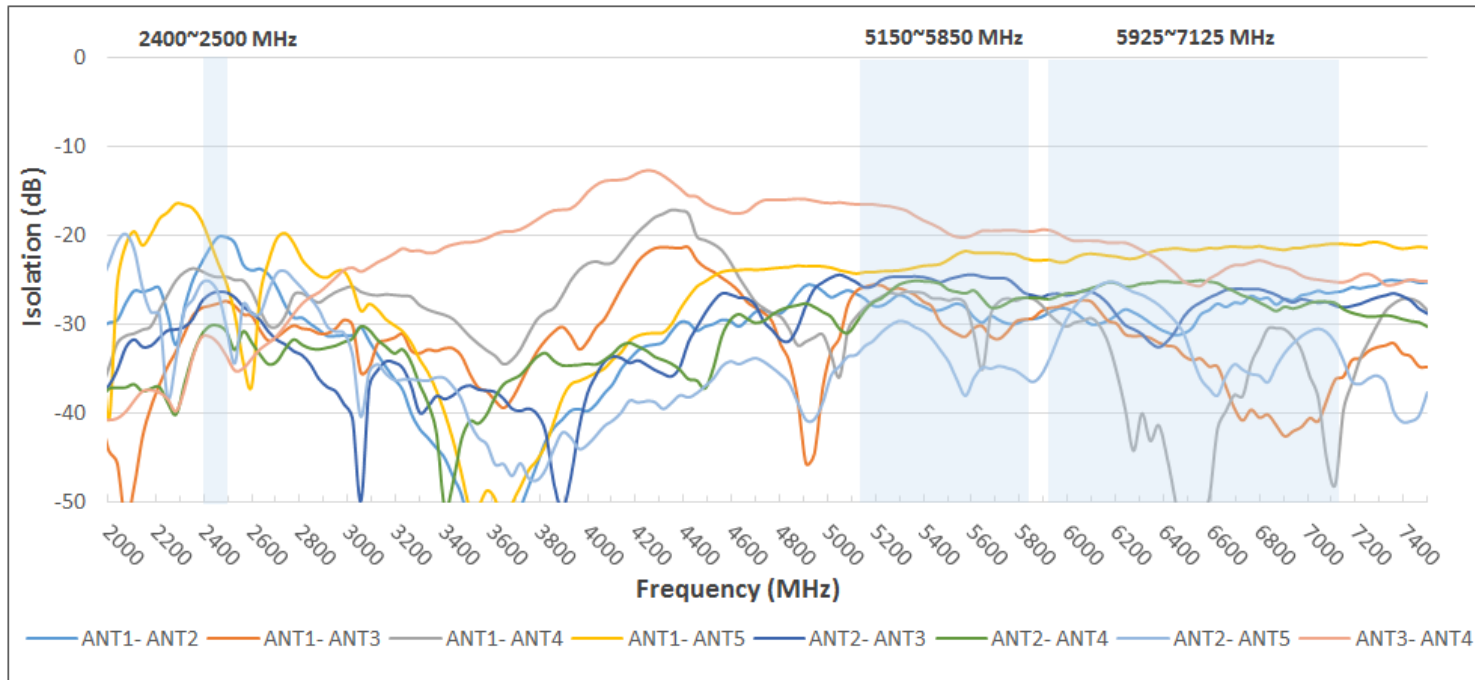
- **Agenda**
 - Placement and Specification
 - S11 & Isolation
 - Radiation Pattern
 - Combine Pattern
 - Efficiency and Gain



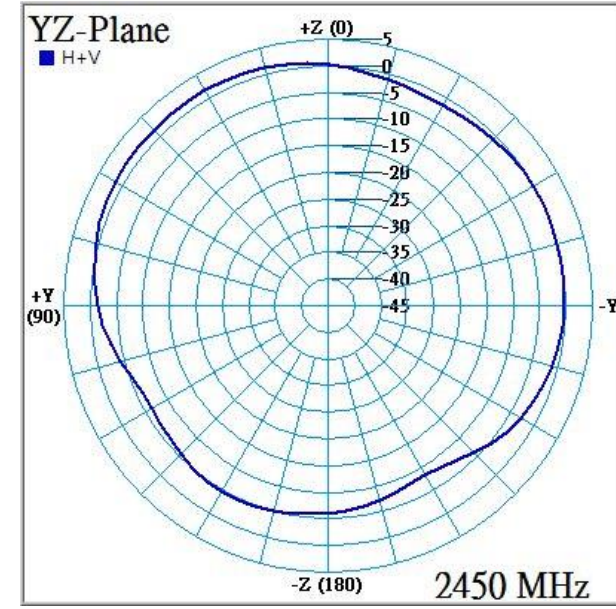
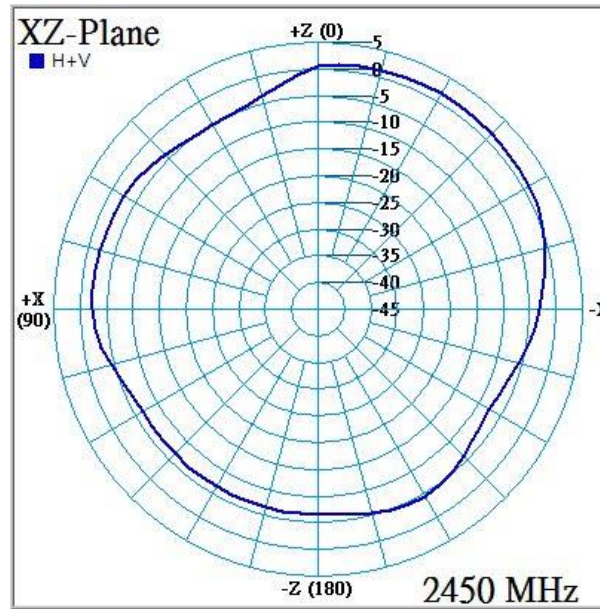
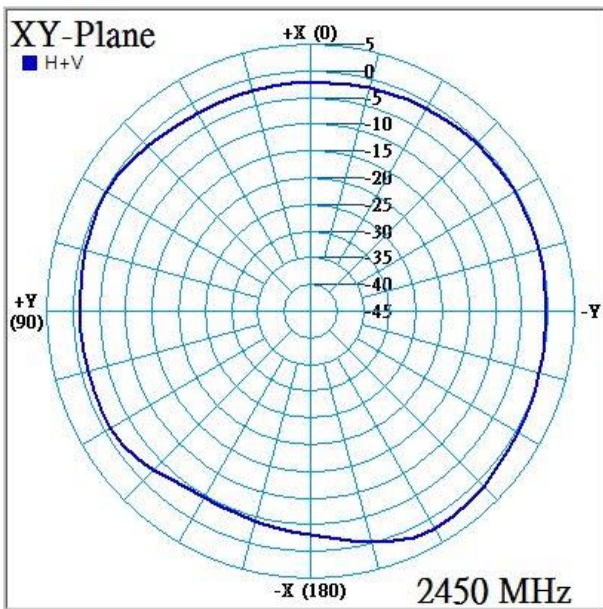
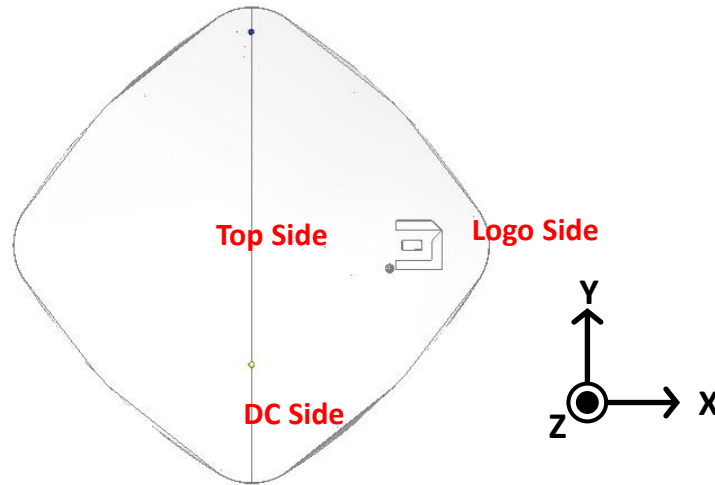
Ant No.	Brand Name	Model Name	Operating Band	Gain (dBi)	Efficiency (%)	Ant Type	Material	Feeding
Ant1 2/5G	SENAO	5718A0691300	2400MHz ~ 2500 MHz 5150MHz ~ 5850 MHz	4.40@2G 5.14@5G	66.56@2G 70.02@5G	PIFA	Metal	Cable
Ant2 2/5G	SENAO	5718A0690300		4.38@2G 5.13@5G	65.63@2G 68.32@5G	PIFA	Metal	Cable
Ant3 6G	SENAO	5718A0693300	5925MHz ~ 7125 MHz	5.22	66.67	PIFA	Metal	Cable
Ant4 6G	SENAO	5718A0692300		5.21	65.71	PIFA	Metal	Cable
Ant5 BLE	SENAO	5718A0694300	2400MHz ~ 2500 MHz	4.02	60.68	PIFA	Metal	Cable

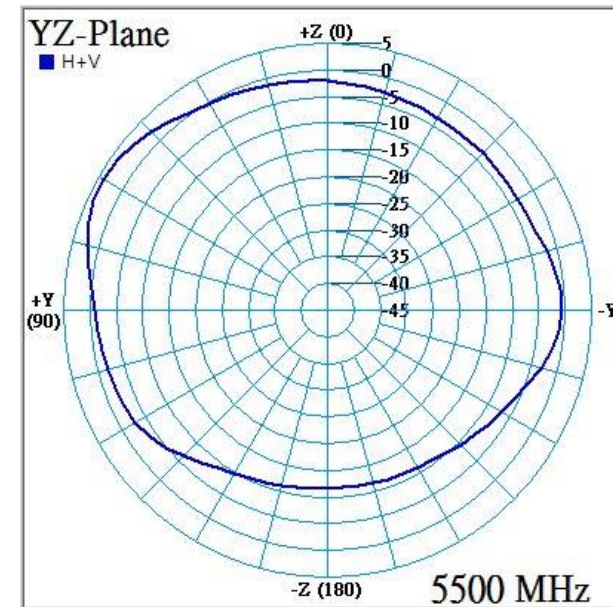
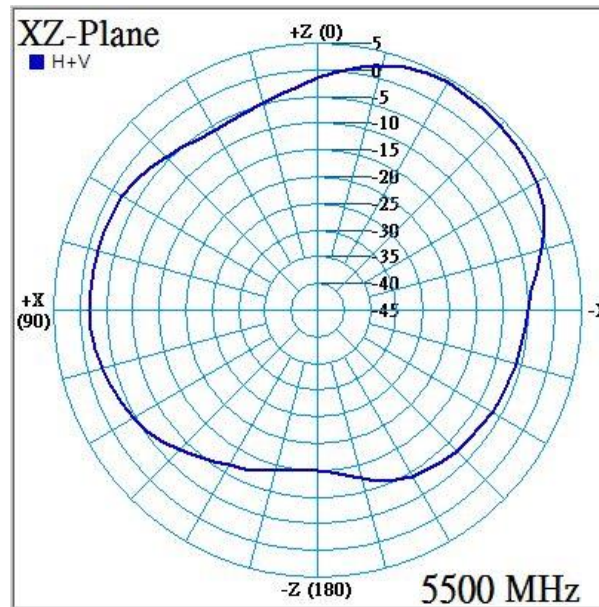
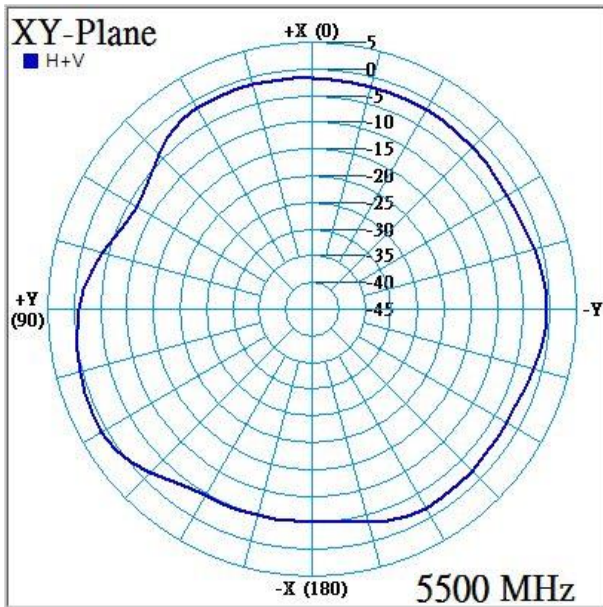
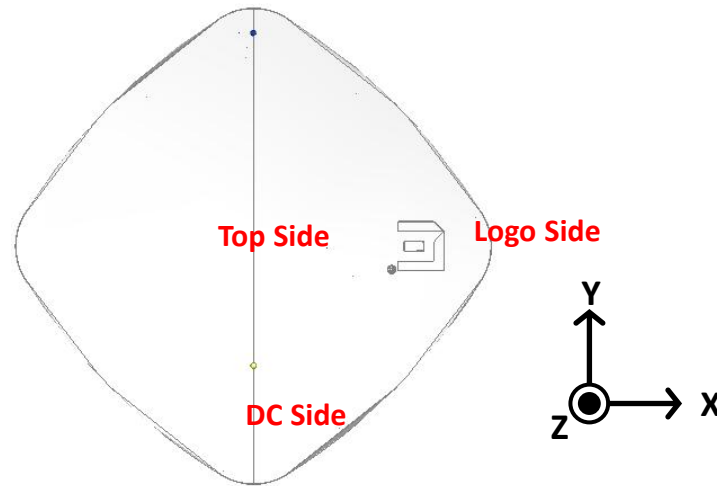


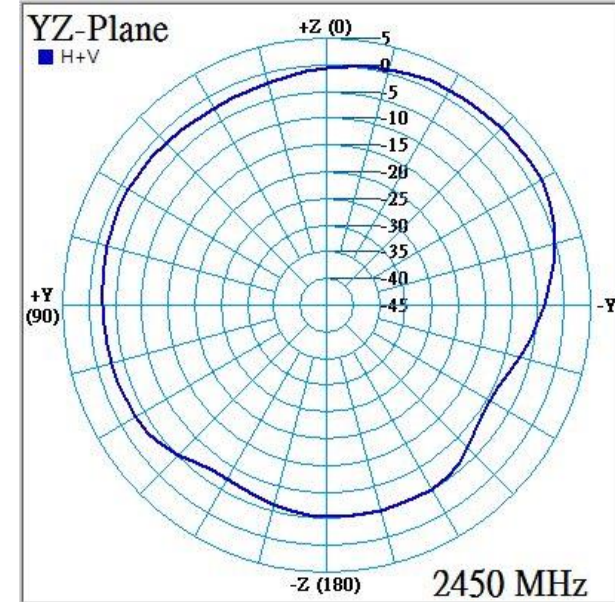
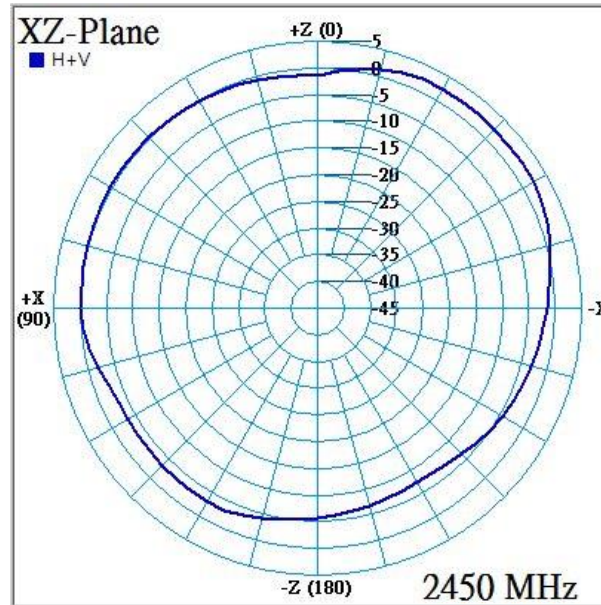
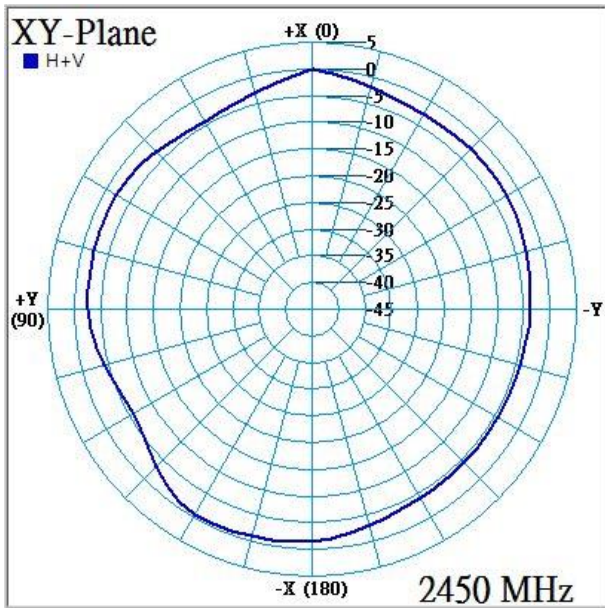
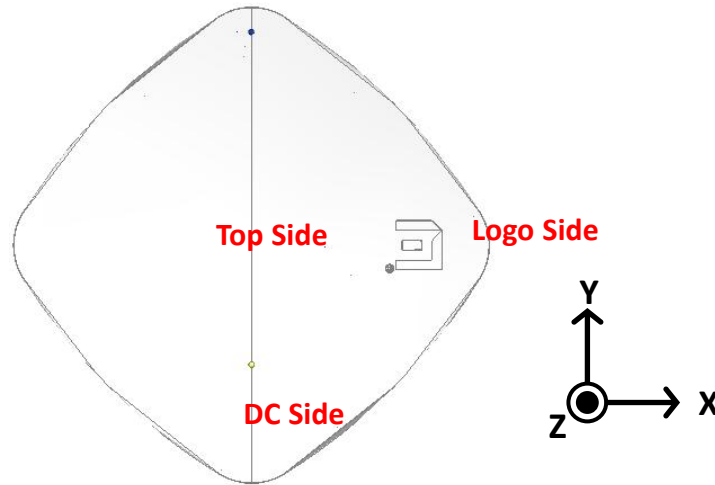
Antenna S11					
Freq. (MHz)	ANT1 2/5G	ANT2 2/5G	ANT3 6G	ANT4 6G	BLE
2400	-25.23	-11.45	-1.16	-1.50	-11.48
2450	-15.49	-29.75	-1.14	-1.56	-14.99
2500	-11.87	-15.27	-1.11	-1.57	-11.01
5150	-22.62	-17.02	-14.00	-10.97	-2.37
5500	-13.99	-27.30	-9.90	-10.79	-4.21
5850	-16.59	-16.61	-16.70	-19.39	-4.57
5925	-14.35	-14.04	-17.54	-18.97	-5.11
6500	-19.41	-10.60	-12.24	-13.58	-5.28
7125	-12.23	-14.26	-32.25	-12.74	-7.11

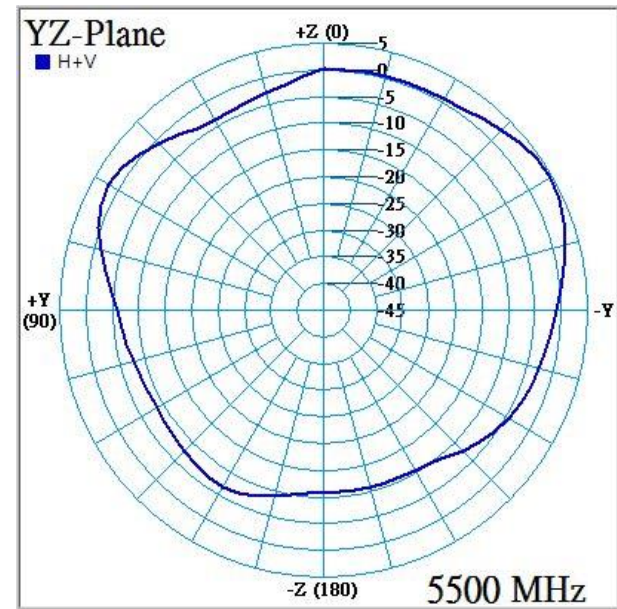
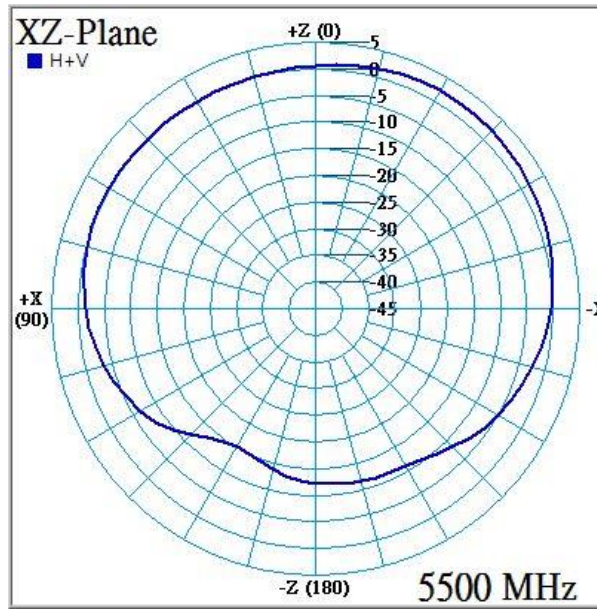
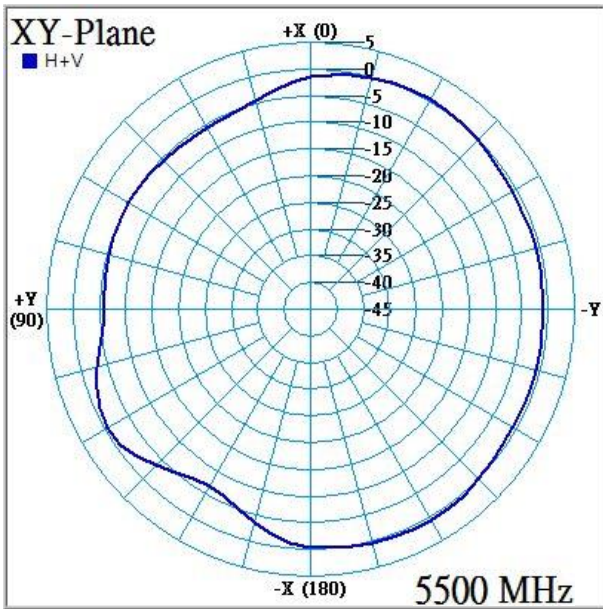
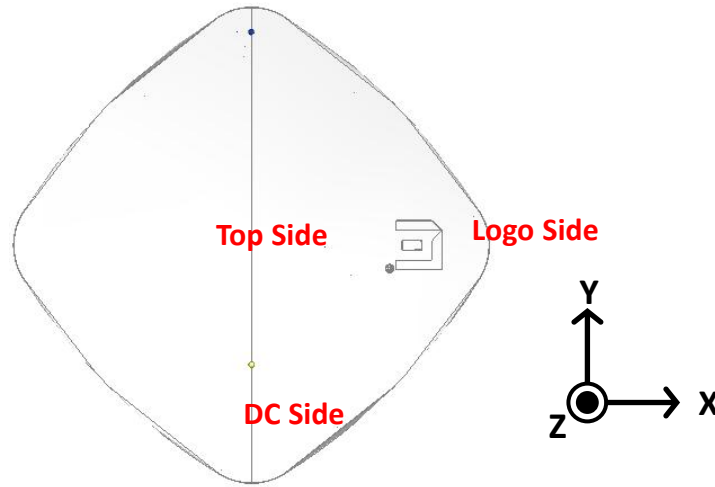


Isolation								
Freq. (MHz)	ANT1- ANT2	ANT1- ANT3	ANT1- ANT4	ANT1- ANT5	ANT2- ANT3	ANT2- ANT4	ANT2- ANT5	ANT3- ANT4
2400	-21.49	-27.94	-24.48	-20.63	-26.64	-30.22	-25.19	-31.37
2450	-20.21	-27.67	-24.71	-23.12	-26.34	-30.14	-26.48	-32.13
2500	-20.24	-27.42	-24.67	-25.42	-26.43	-30.84	-30.36	-33.58
5150	-27.13	-25.82	-28.13	-24.16	-25.87	-28.46	-32.46	-16.55
5500	-28.05	-30.54	-27.32	-22.73	-24.93	-26.14	-34.24	-19.84
5850	-29.41	-29.33	-27.13	-22.81	-26.74	-27.02	-36.48	-19.59
5925	-28.68	-28.18	-28.88	-22.77	-26.65	-27.19	-33.91	-19.43
6500	-30.40	-34.03	-51.90	-21.70	-28.13	-25.17	-33.71	-25.56
7125	-26.39	-36.24	-48.06	-20.95	-27.90	-27.60	-32.06	-25.24

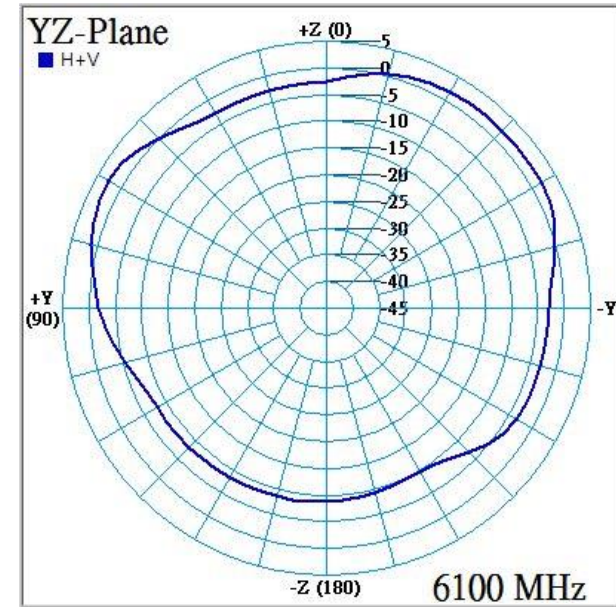
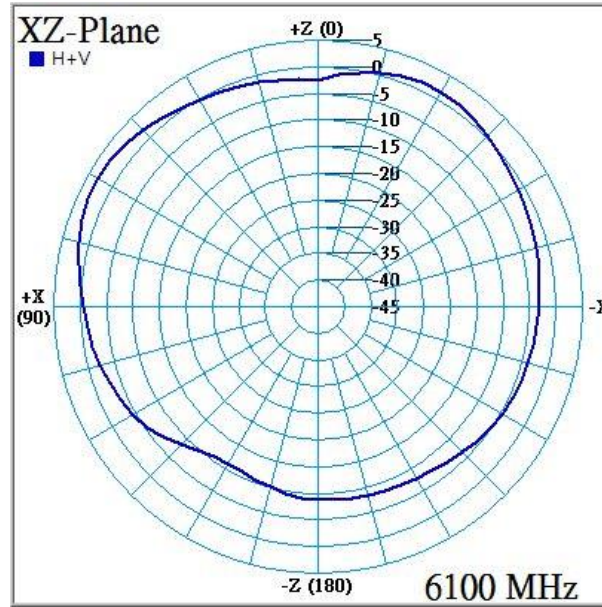
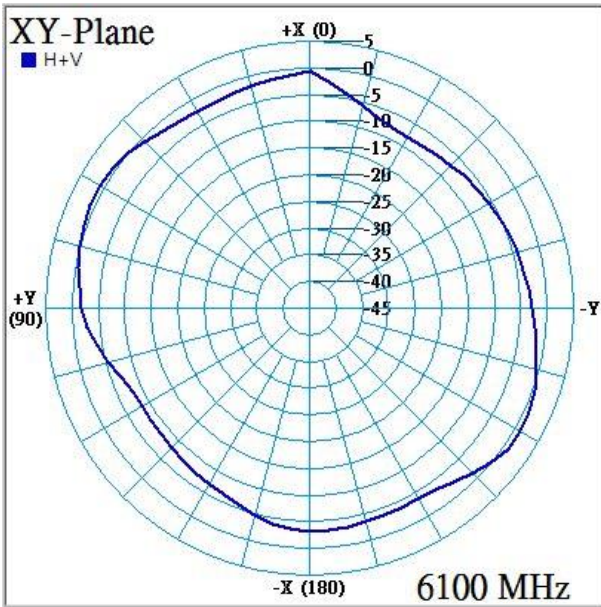
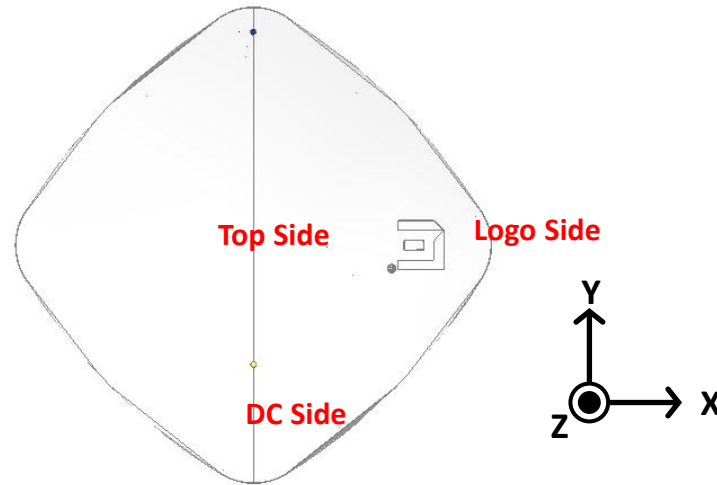


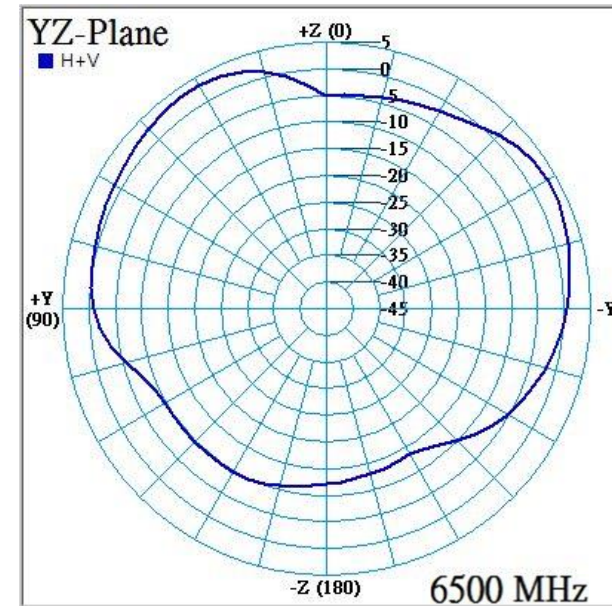
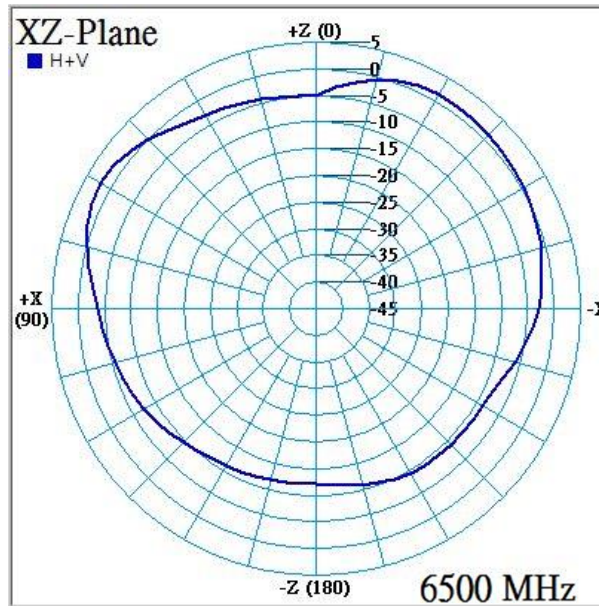
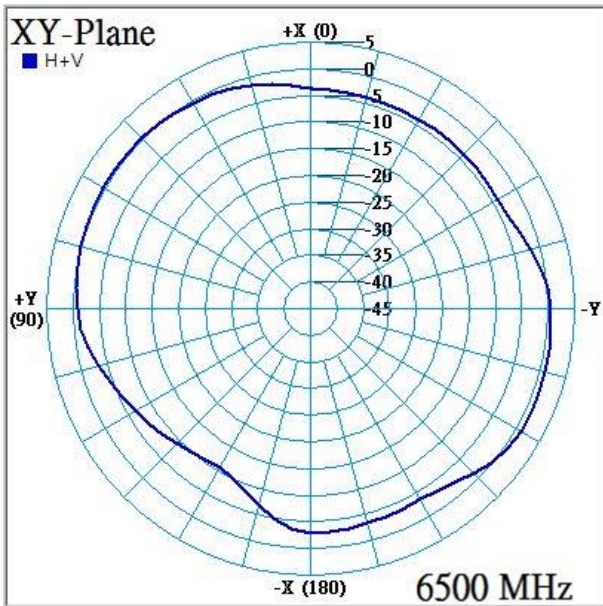
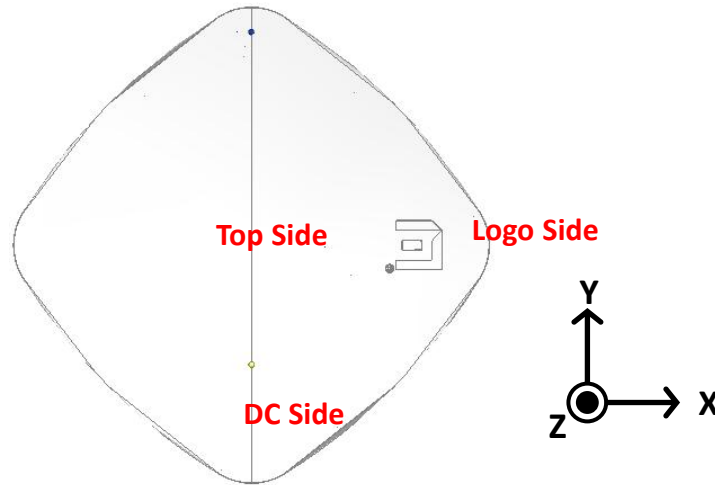


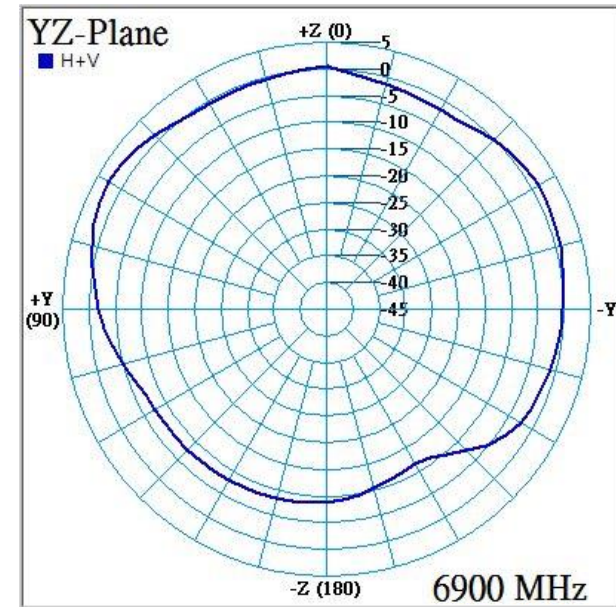
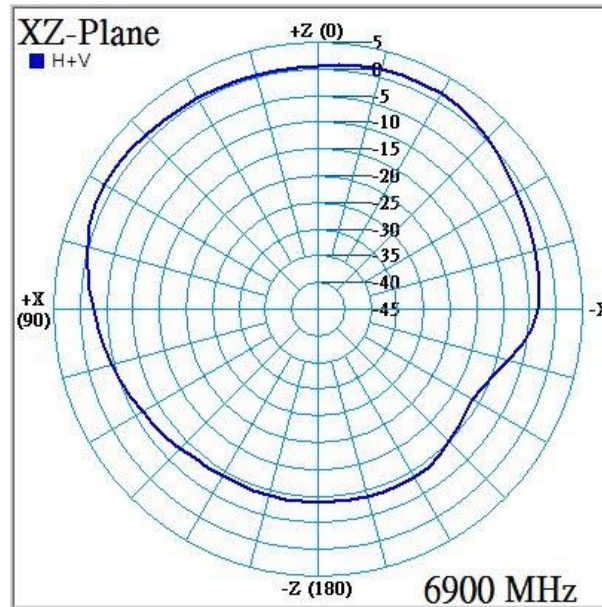
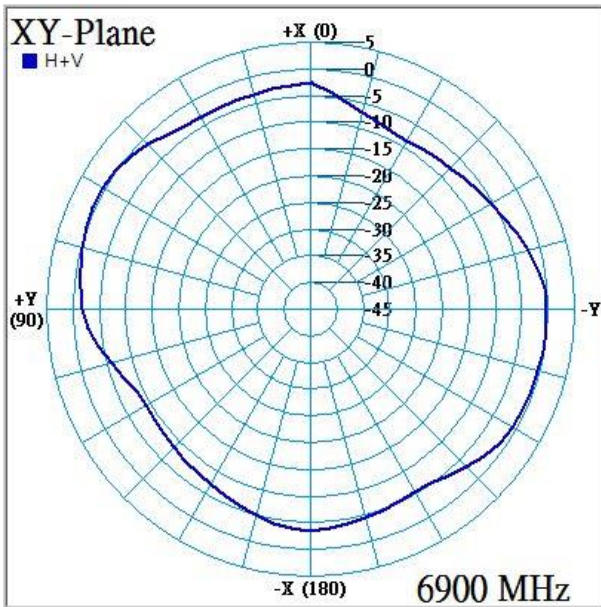
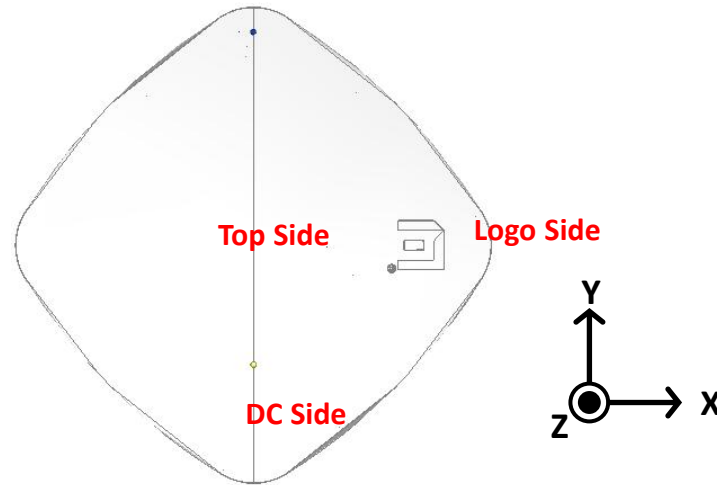


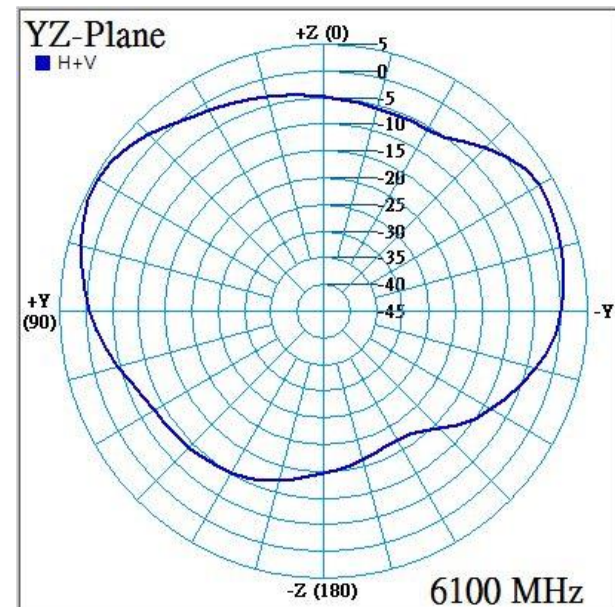
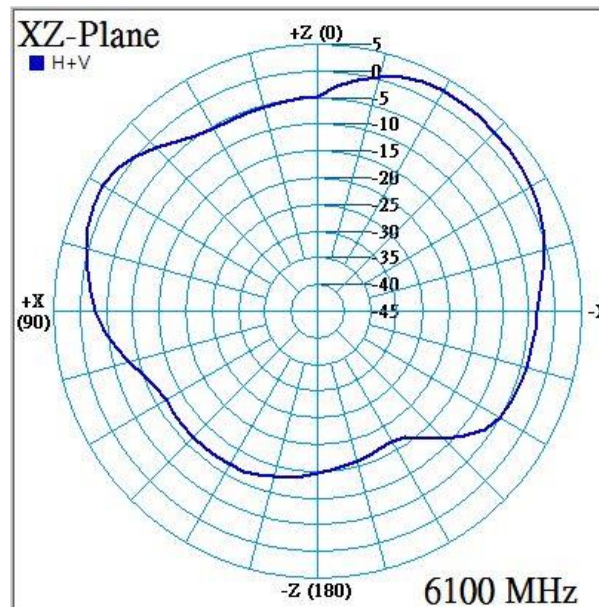
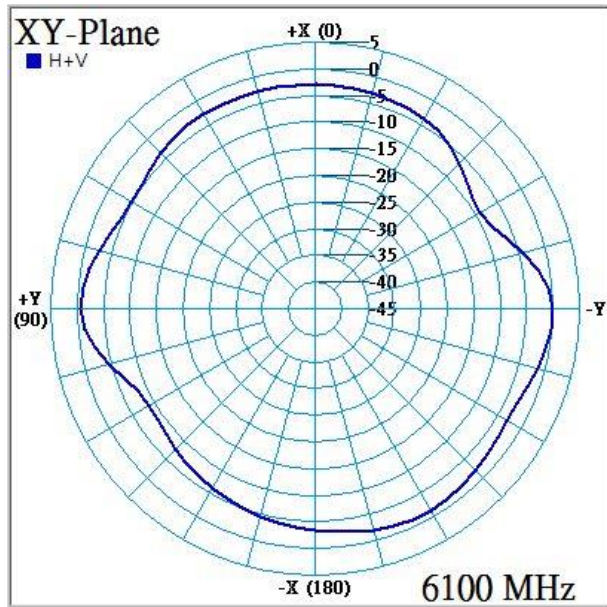
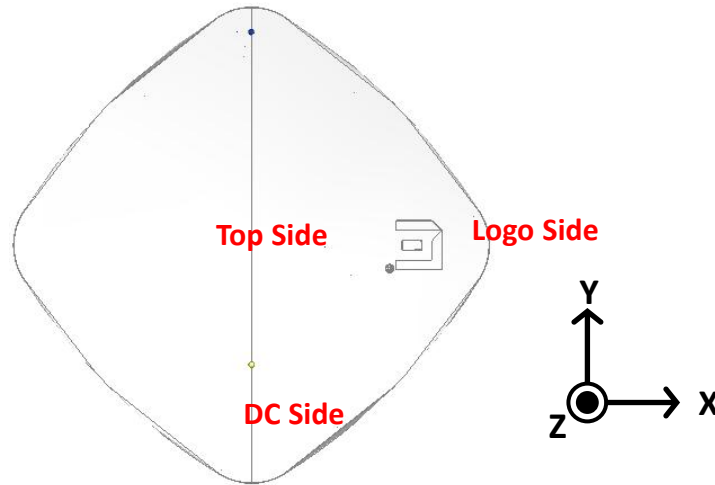


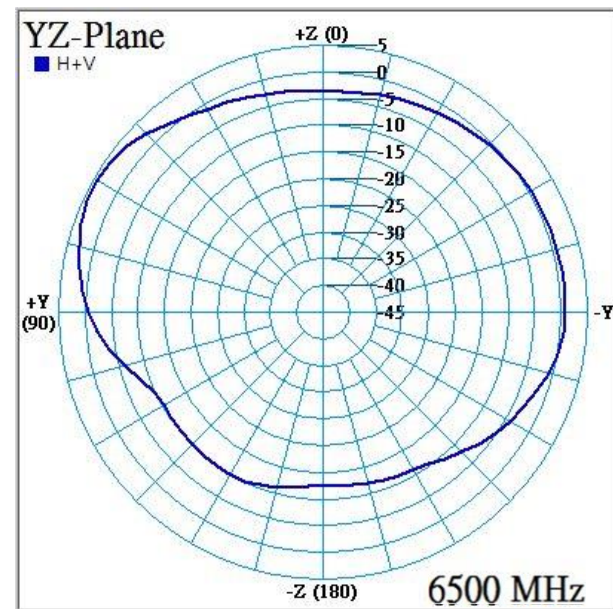
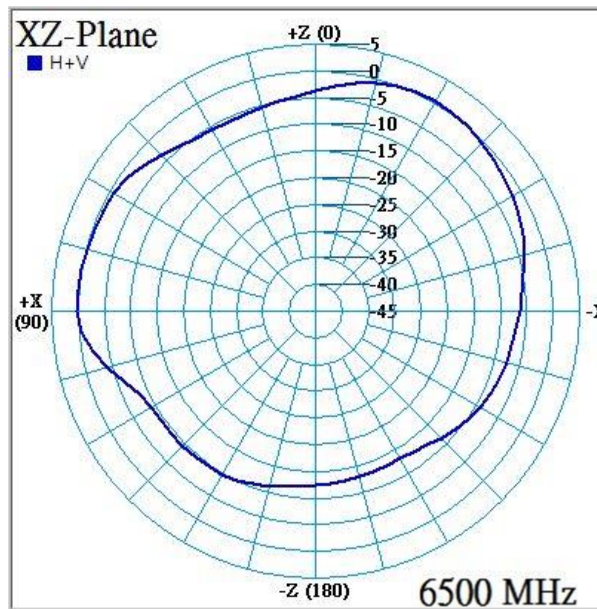
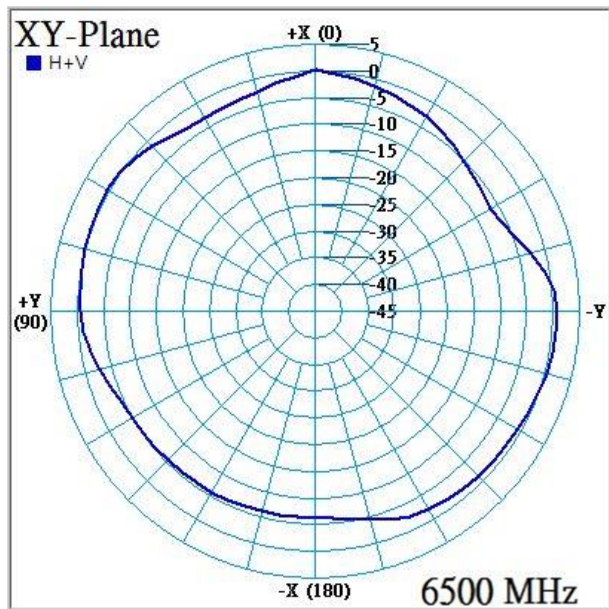
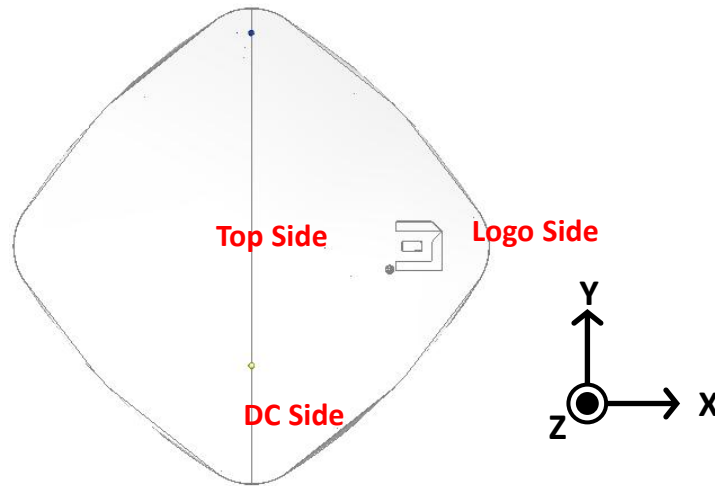
2D Radiation Pattern – ANT3 6G @ 6.1GHz



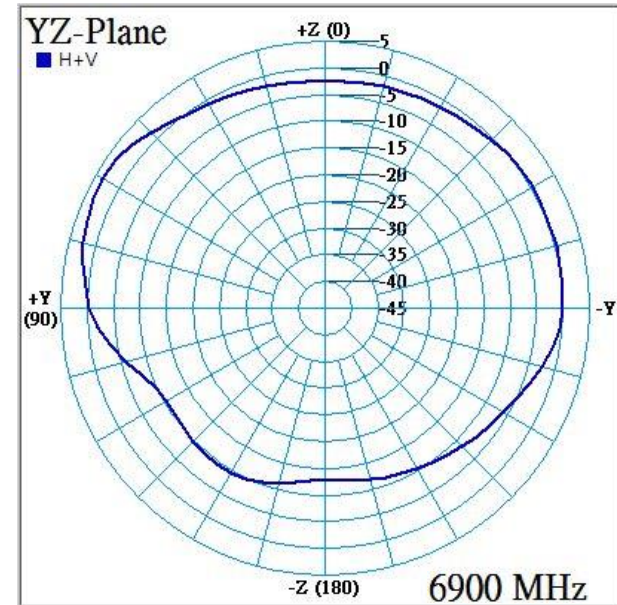
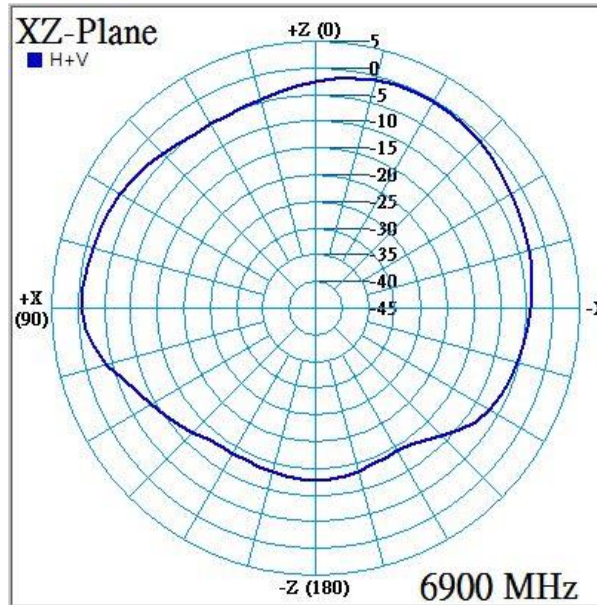
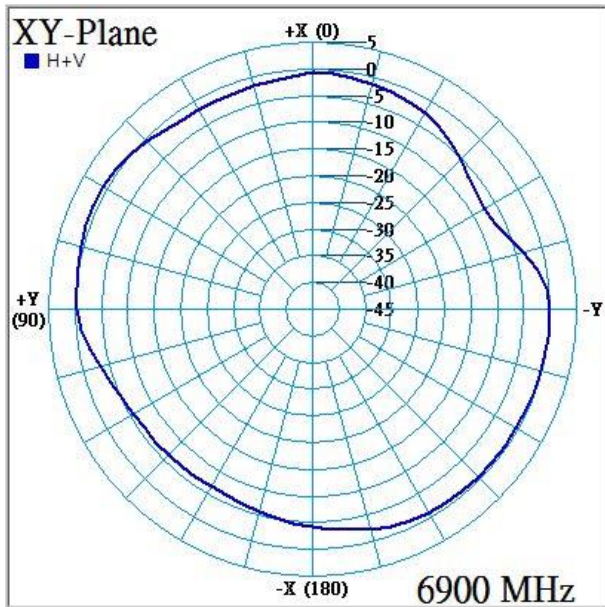
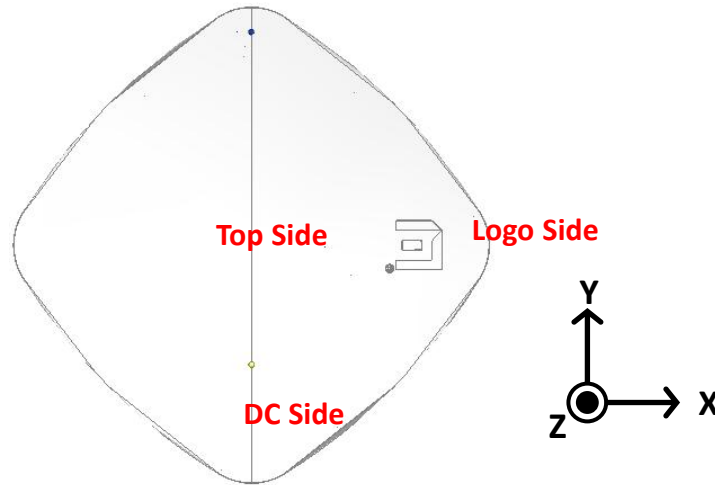




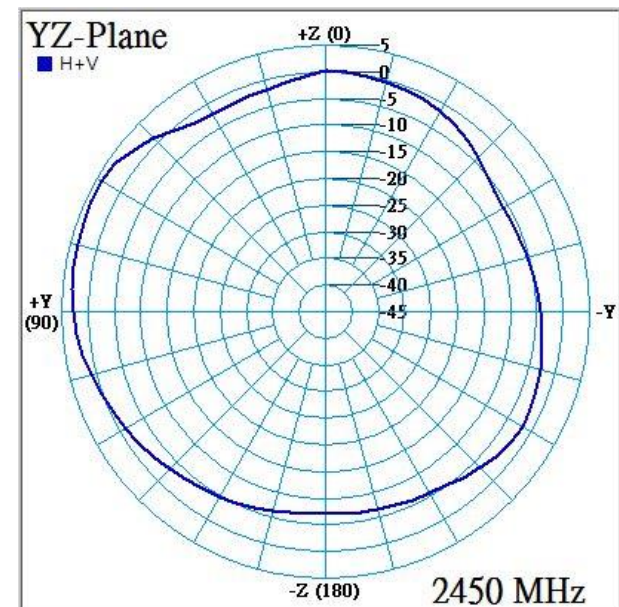
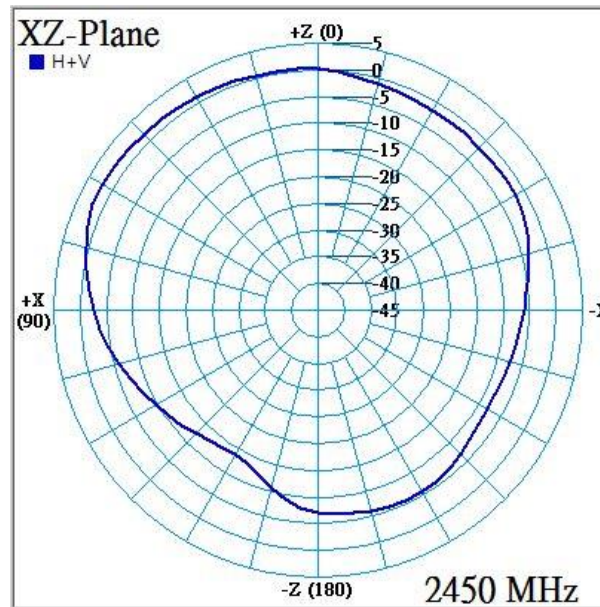
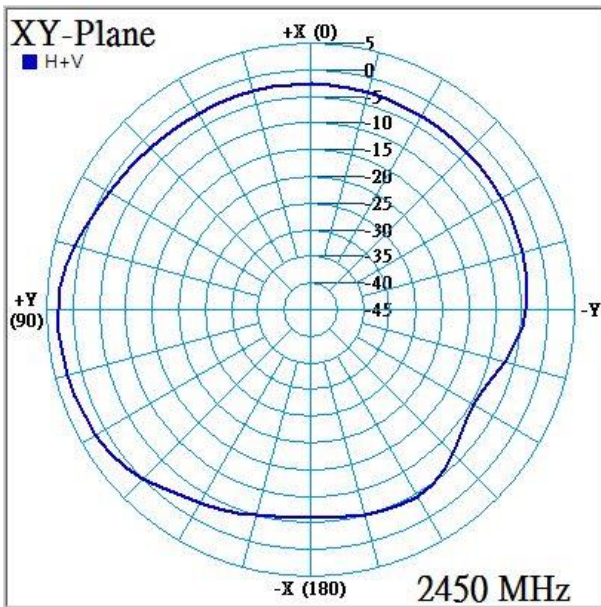
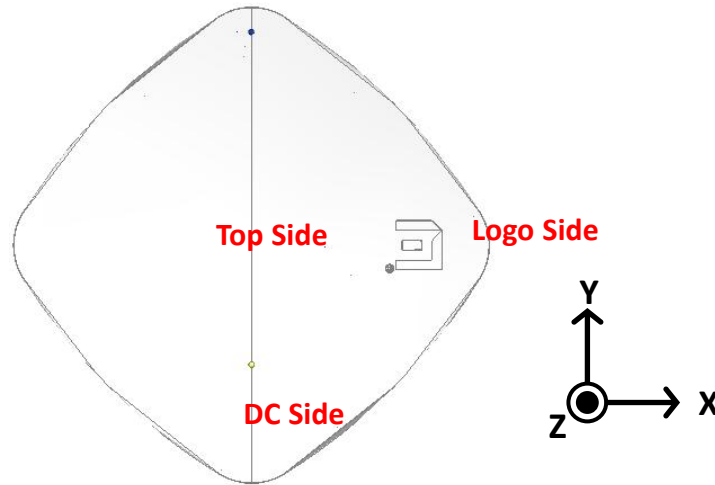




2D Radiation Pattern – ANT4 6G @ 6.9GHz



2D Radiation Pattern – ANT5 BLE @ 2.45GHz



2/5G Antenna Performance				
Freq. (MHz)	ANT 1		ANT 2	
	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)
2400	66.56	4.17	65.48	3.86
2450	64.48	4.40	65.63	4.19
2500	62.71	3.94	63.10	4.38
5150	65.14	5.07	68.32	4.97
5500	62.20	4.96	60.52	4.57
5850	70.02	5.14	67.42	5.13

6G Antenna Performance				
Freq. (MHz)	ANT 1		ANT 2	
	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)
5925	66.67	5.22	64.75	4.37
6100	65.18	4.78	61.97	4.93
6500	62.79	5.13	64.00	5.17
6900	61.64	5.15	62.09	4.71
7125	63.39	4.81	65.71	5.21

BLE Antenna Performance		
Freq. (MHz)	ANT 5	
	Efficiency (%)	Peak Gain (dBi)
2400	59.95	4.02
2450	60.68	3.98
2500	57.52	2.94