



Confidential Information

Shenzhen Yesheng Communication Technology Co.,Ltd

Antenna Specification

WIFI-2.4G/5.8G Black Antenna L=108mm Product Confirmation

Client	Bolin Technology Co.Ltd	Freq-Band	2400MHz-2500MHz 5100MHz-5900MHz
Product Name	WIFI 天线	Version	YST-V1.0-A
Item Number	/	Copies	/
Name specification	WIFI-2.4G /5.2G/5.8G Black Antenna L=108mm	Colour	Black
RF Designer		Structural design	
Department Manager		Date	May 3, 2023

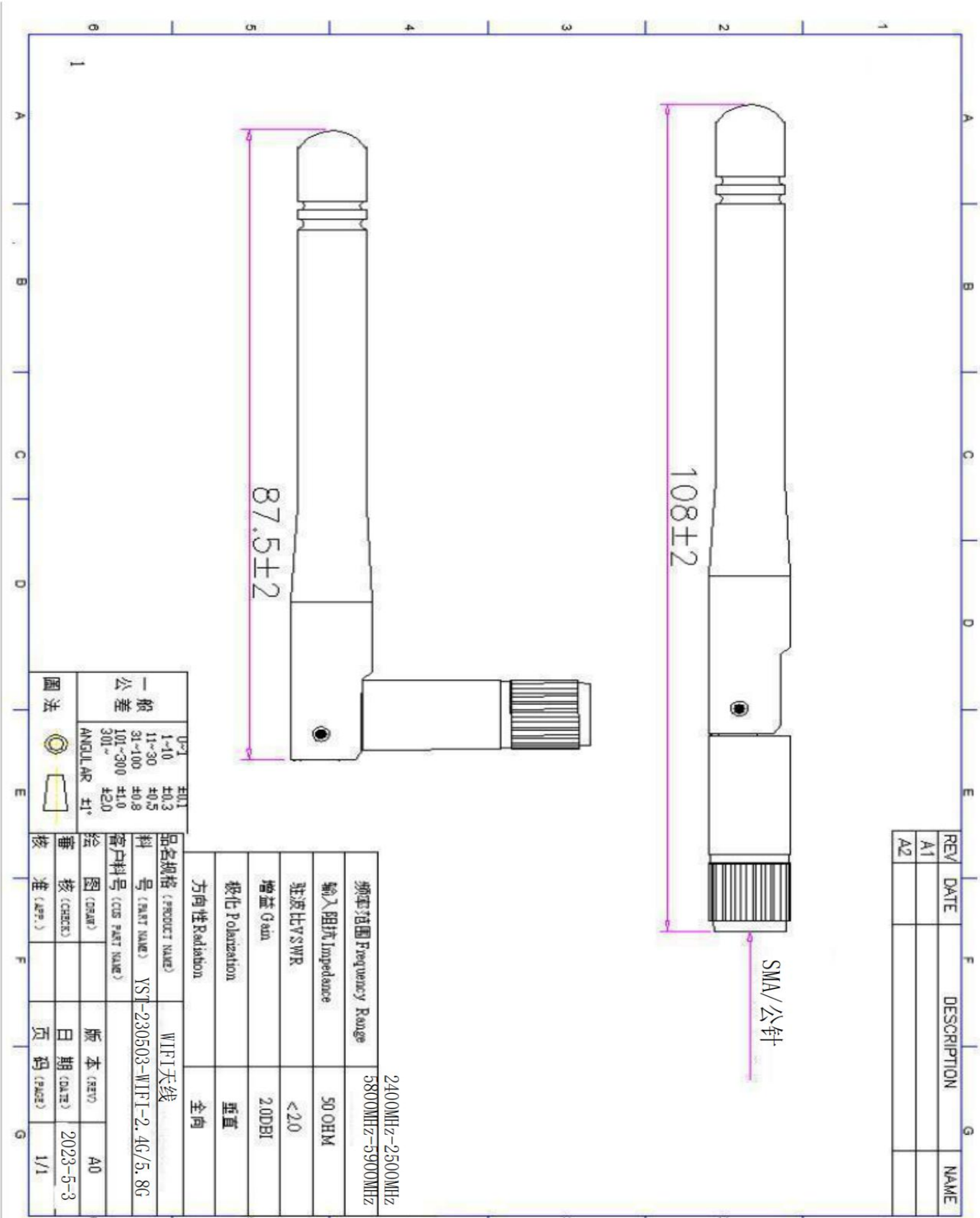
Supplementary notes:

Client confirms:

Producer: Ying Jia Bing

address: Room 308, building 64, Jin Long Industrial City (Tianmawei building) , 88 Daxin road,
Majarong, Nanshan district, Shenzhen. Tel: 0755-22678821 fax: 0755-22678890

一、Engineering drawing



Technical parameter

Electrical Specifications

Frequency Range	2400MHZ-2500MHZ 5100MHZ-5900MHZ
VSWR	≤ 2.0
Input Impedance	50 Ω

Mechanical Specifications

Antenna Color	BLACK
Input connector	SMA -WJ
Cable length	108mm
Working Temperature	-20℃~+75℃
Working Humidity	20~80%

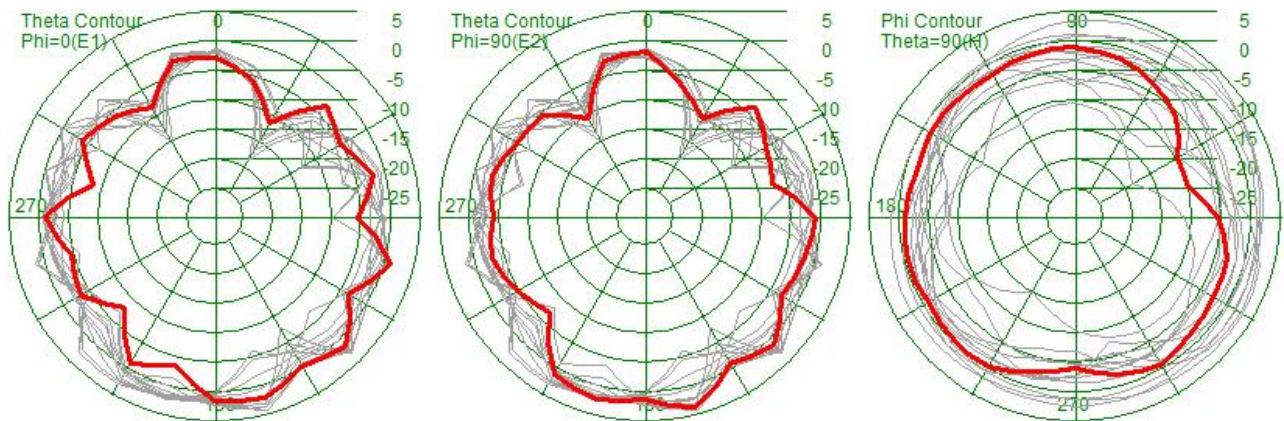
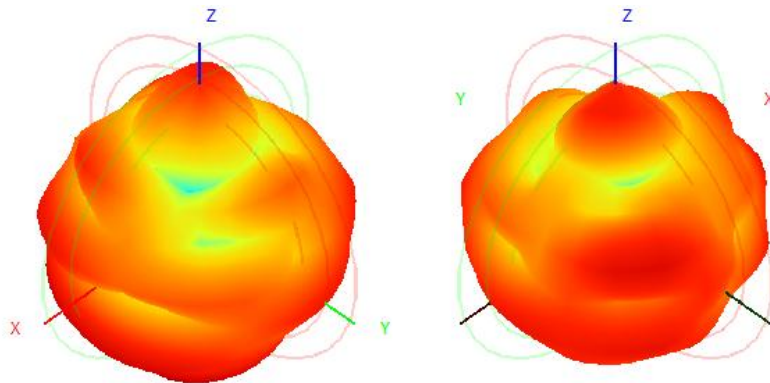
Environmental performance test

Project	Test condition	Description
Storage environment	Test temperature, humidity, and air pressure without specifying the following: 1. The temperature ranges from -30℃ to +80℃ 2. Relative humidity is 45%-85% 3. The air pressure is 86kpa-106kpa	Electrical and mechanical properties are normal
High and low temperature test	Five cycles were performed between 70℃ and 40℃, and then under normal conditions 1 to 2 hours, check the appearance quality.	The dimensions shall meet the requirements and shall meet the requirements Mechanical and electrical properties
Resistance to constant heat and humidity test	The relative humidity was $95 \pm 3\%$, and the test temperature was 40℃. The electrical properties were measured within 5 minutes after the sample was taken out, and the sample was in the normal bar After 1 to 2 hours, check the appearance quality	The dimensions shall meet the requirements and shall meet the requirements Mechanical and electrical properties
Vibration test	Vibration frequency range of 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/S, frequency sweep cycle: 30 times	Electrical and mechanical properties are normal
Drop test	1M altitude in accordance with the vertical axis of the direction of free fall 3 times	Electrical and mechanical properties are normal

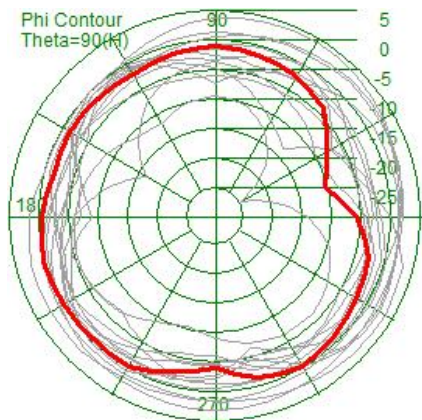
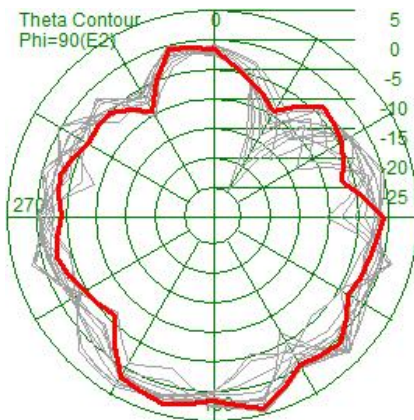
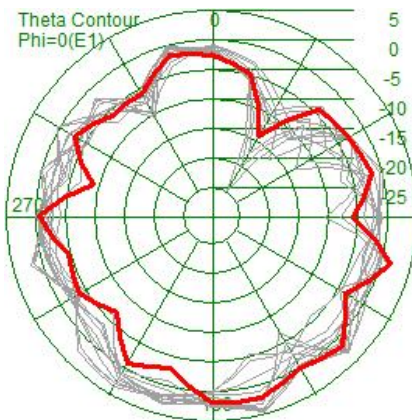
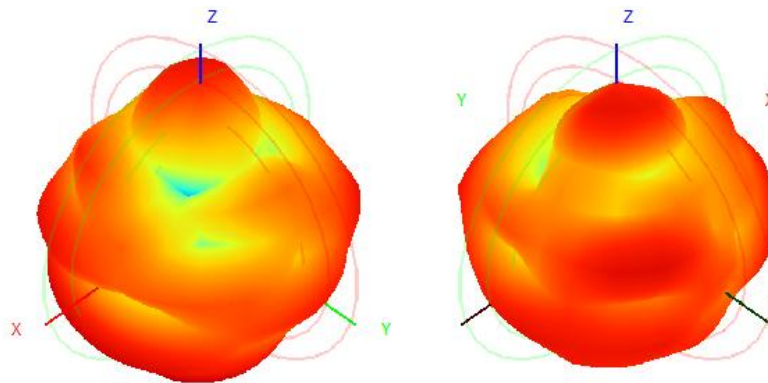
Antenna test data:

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Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Frequency (MHz)	2400	2420	2440	2460	2480	2500	5100	5200	5300	5400	5500	5600	5700	5800	5900
Efficiency (dBi)	-2.30	-2.03	-1.84	-1.77	-1.91	-1.91	-4.73	-3.97	-3.46	-3.11	-3.49	-2.65	-2.76	-3.38	-4.00
Gain (dBi)	3.06	3.28	3.60	3.33	2.90	2.43	1.23	1.50	1.49	1.73	1.34	2.33	2.08	2.24	1.72
Efficiency (%)	58.93	62.72	65.48	66.58	64.37	64.36	33.65	40.08	45.10	48.89	44.76	54.29	52.94	45.96	39.84
Directivity (dB)	6.36	6.30	6.44	6.49	6.44	6.35	4.45	5.21	4.95	4.84	4.83	4.98	4.84	5.62	5.72
Peak Gain Position (Theta)	165.00	165.00	165.00	165.00	165.00	165.00	90.00	150.00	150.00	150.00	165.00	165.00	165.00	165.00	165.00
Peak Gain Position (Phi)	60.00	60.00	60.00	60.00	60.00	75.00	180.00	165.00	165.00	180.00	135.00	135.00	90.00	90.00	90.00
Efficiency ThetaPol (%)	35.83	37.25	39.32	38.18	36.60	36.51	9.46	11.14	12.91	12.17	10.51	14.82	13.34	13.57	11.45
Efficiency PhiPol (%)	23.10	25.47	26.16	28.40	27.76	27.84	24.18	28.94	32.19	36.72	34.25	39.47	39.60	32.39	28.38
Upper Hem. Efficiency (%)	19.25	21.46	22.05	22.31	21.89	22.12	18.93	19.87	22.07	23.78	22.13	27.55	26.83	22.83	19.54
Lower Hem. Efficiency (%)	39.68	41.26	43.43	44.27	42.48	42.23	14.71	20.21	23.03	25.11	22.64	26.74	26.11	23.13	20.29

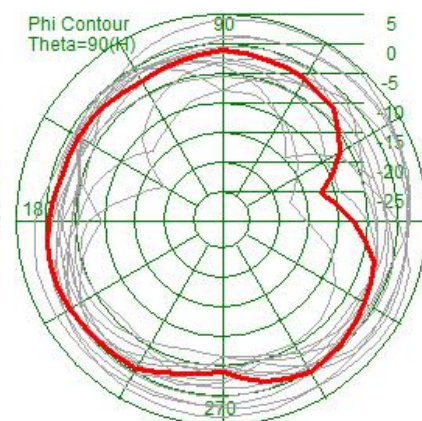
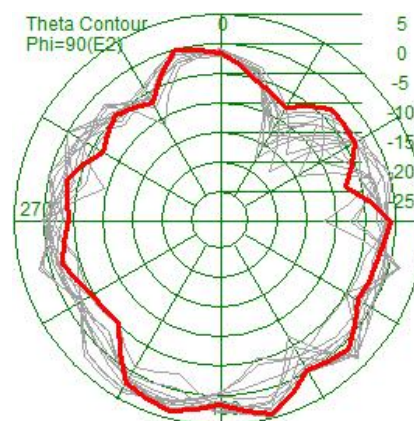
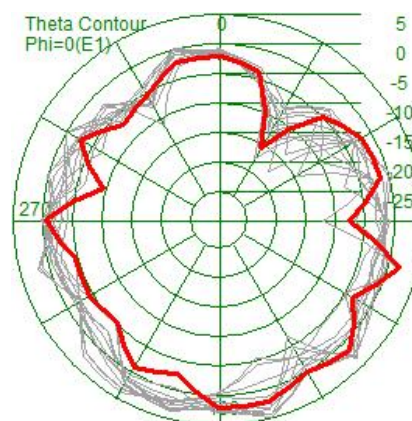
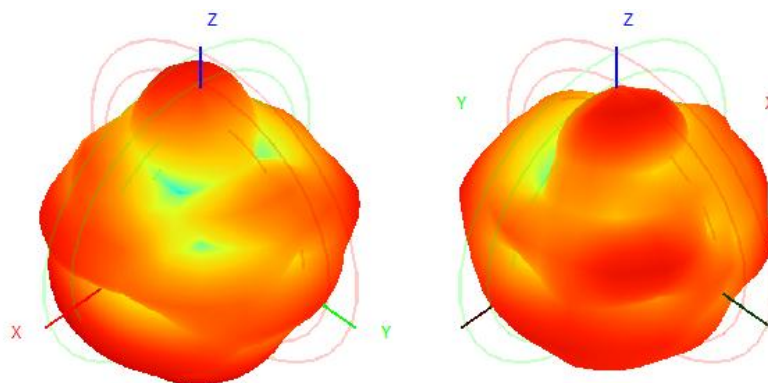
2400MHz



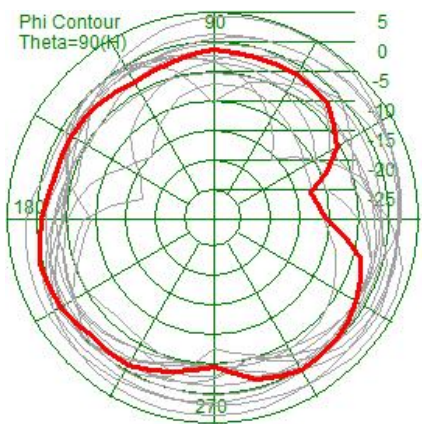
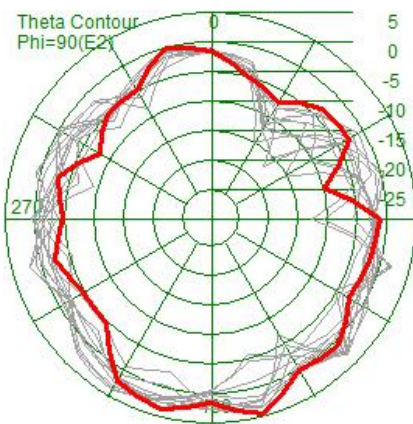
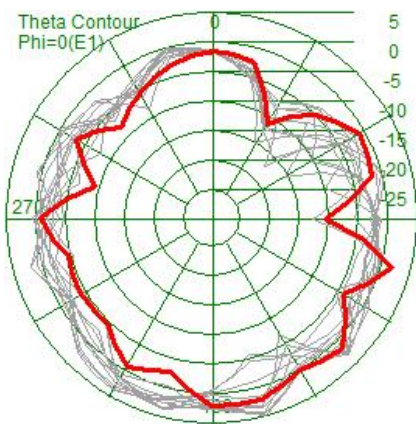
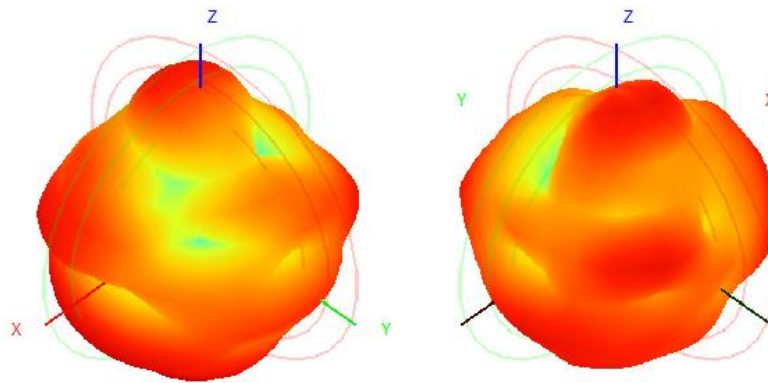
2420MHz



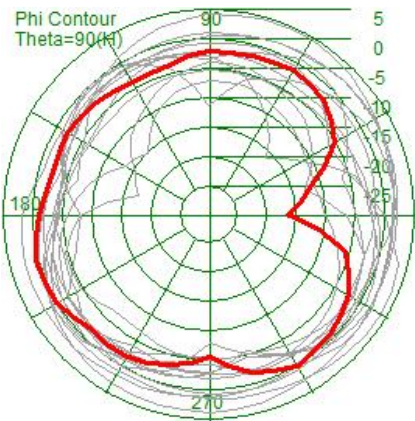
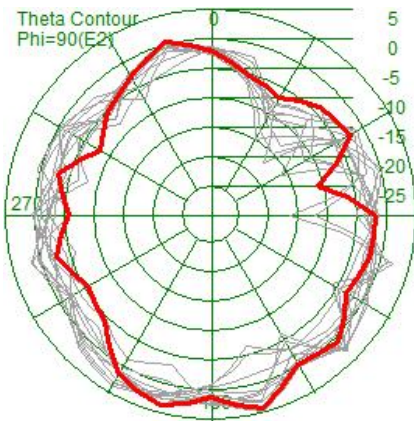
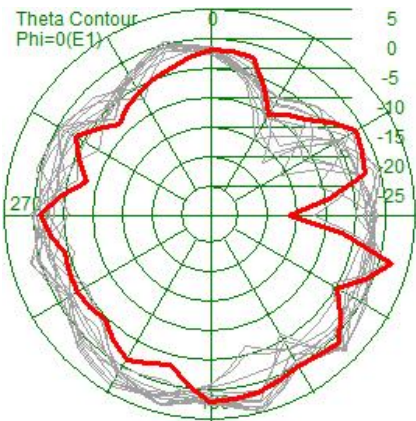
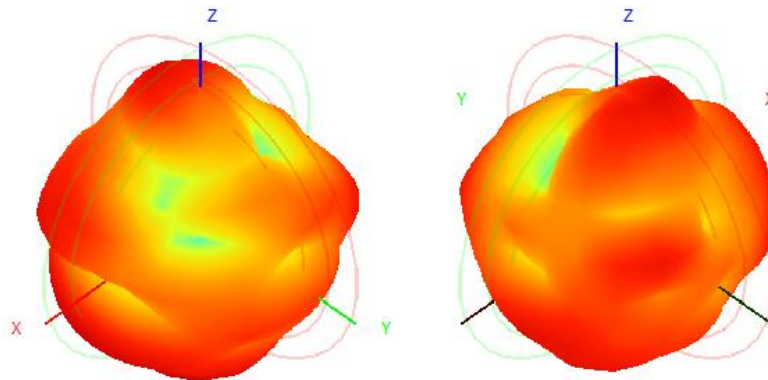
2440MHz



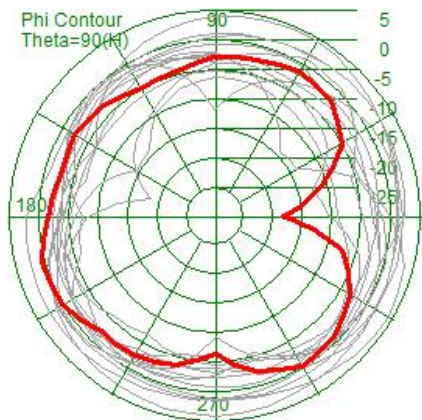
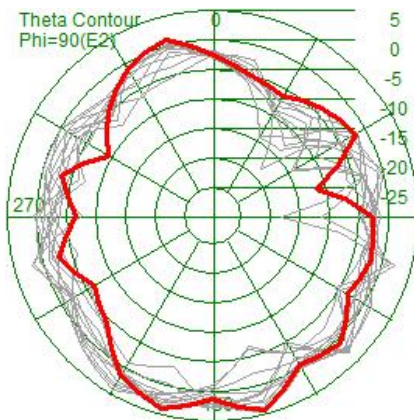
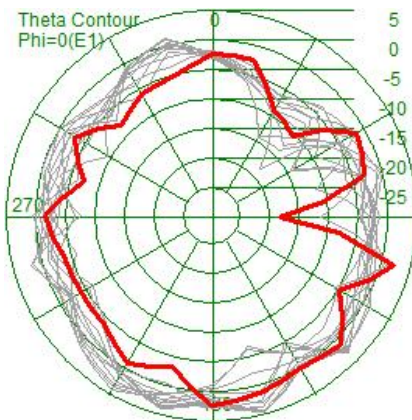
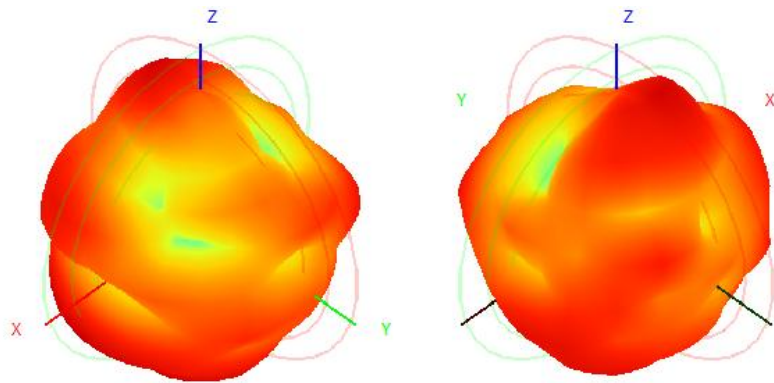
2460MHz



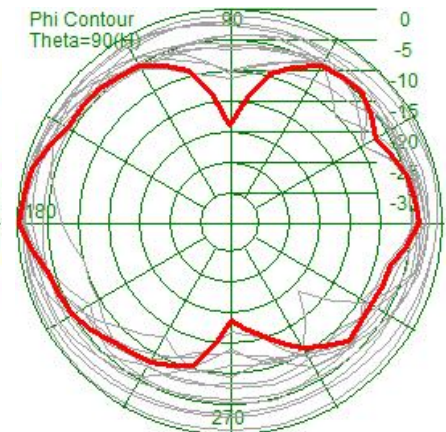
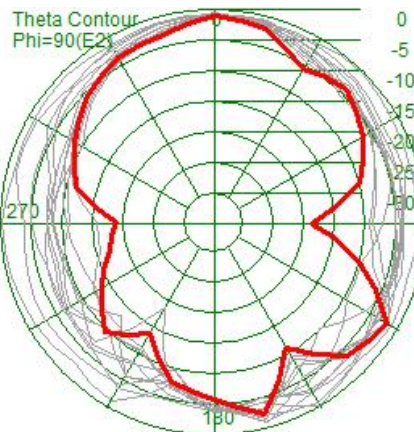
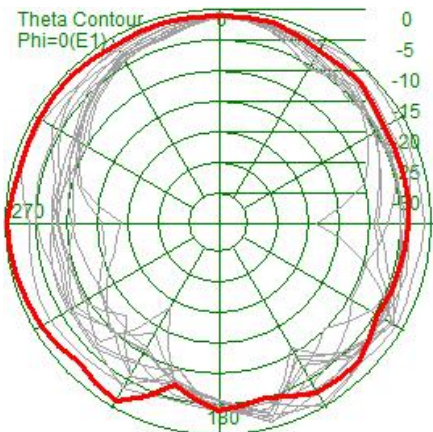
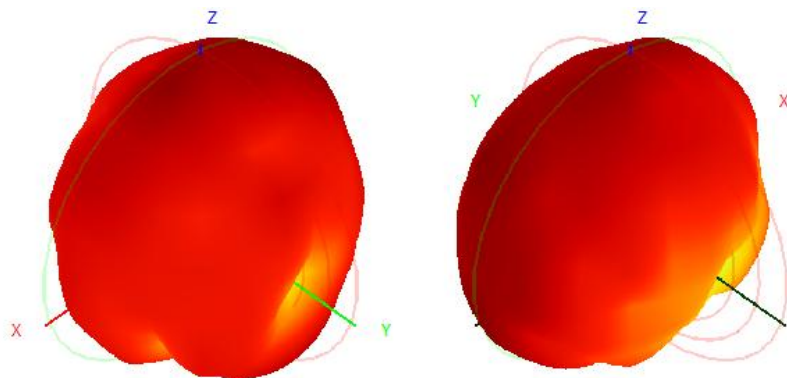
2480MHz



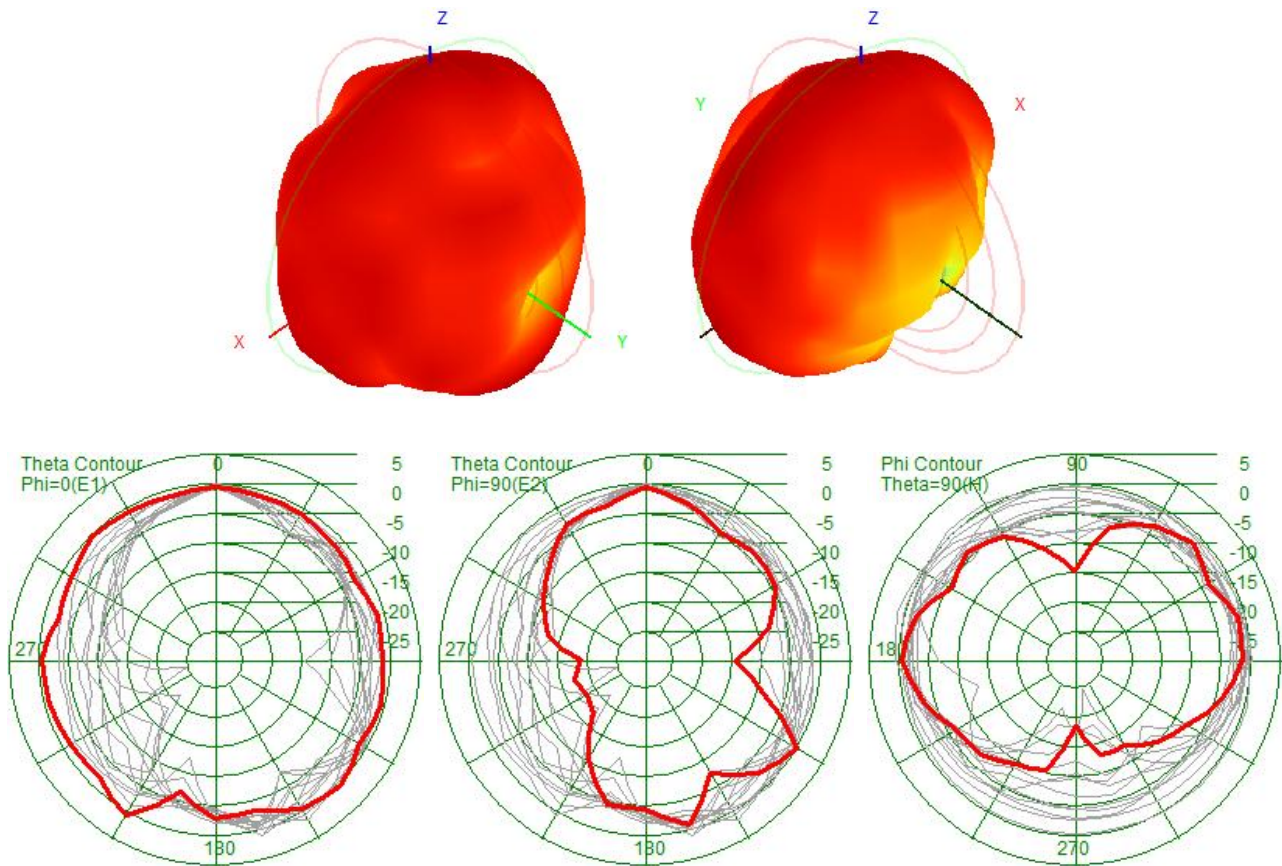
2500MHz



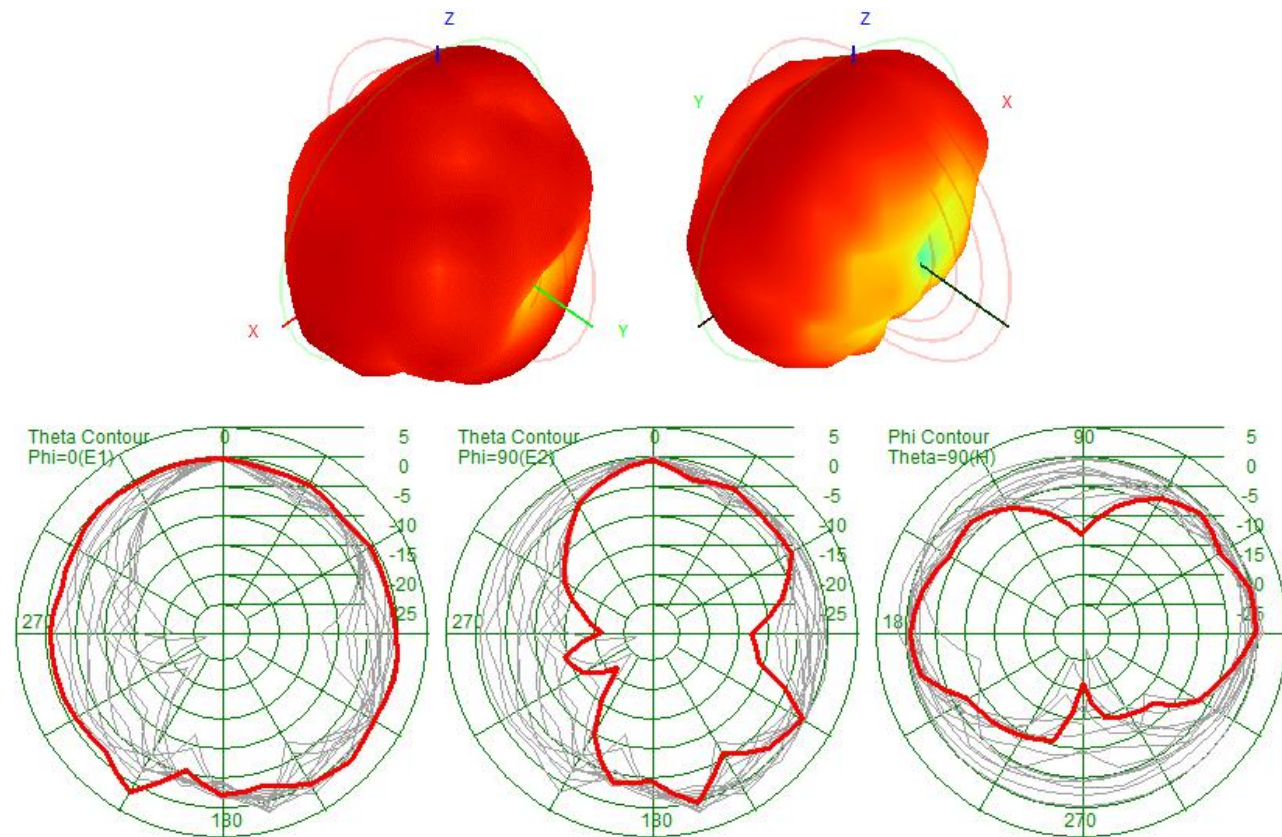
5100MHz



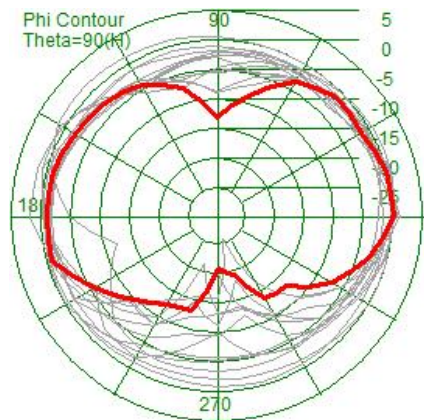
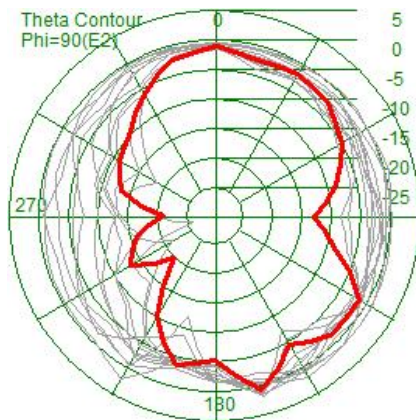
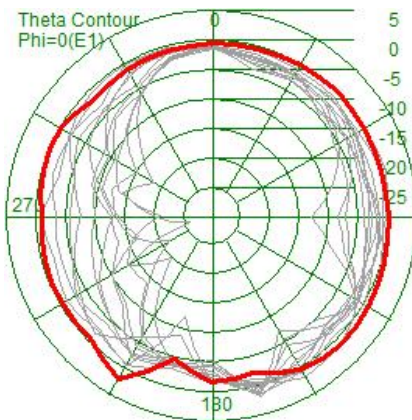
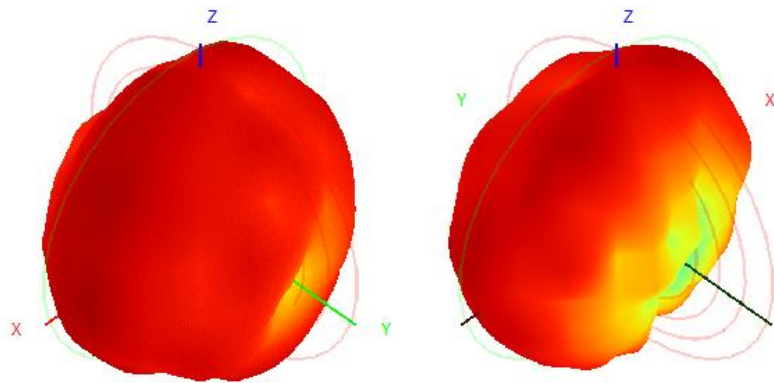
5200MHz



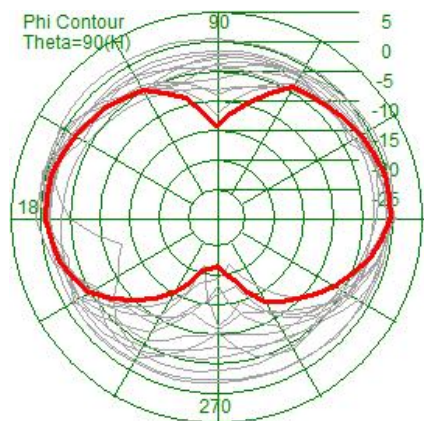
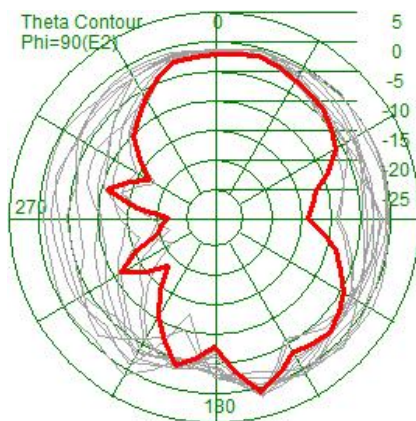
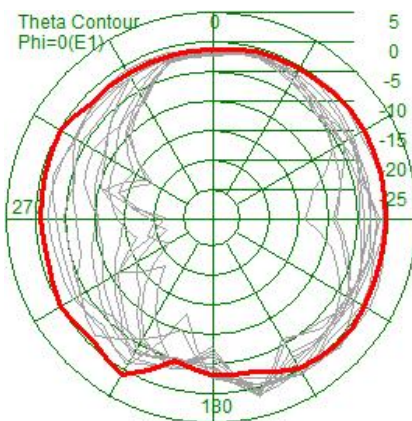
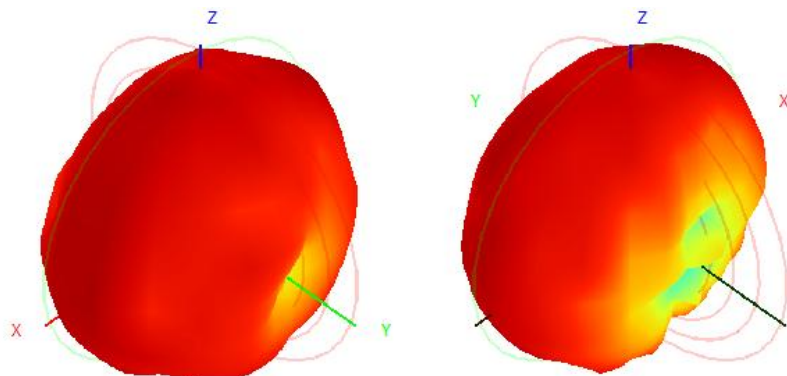
5300MHz



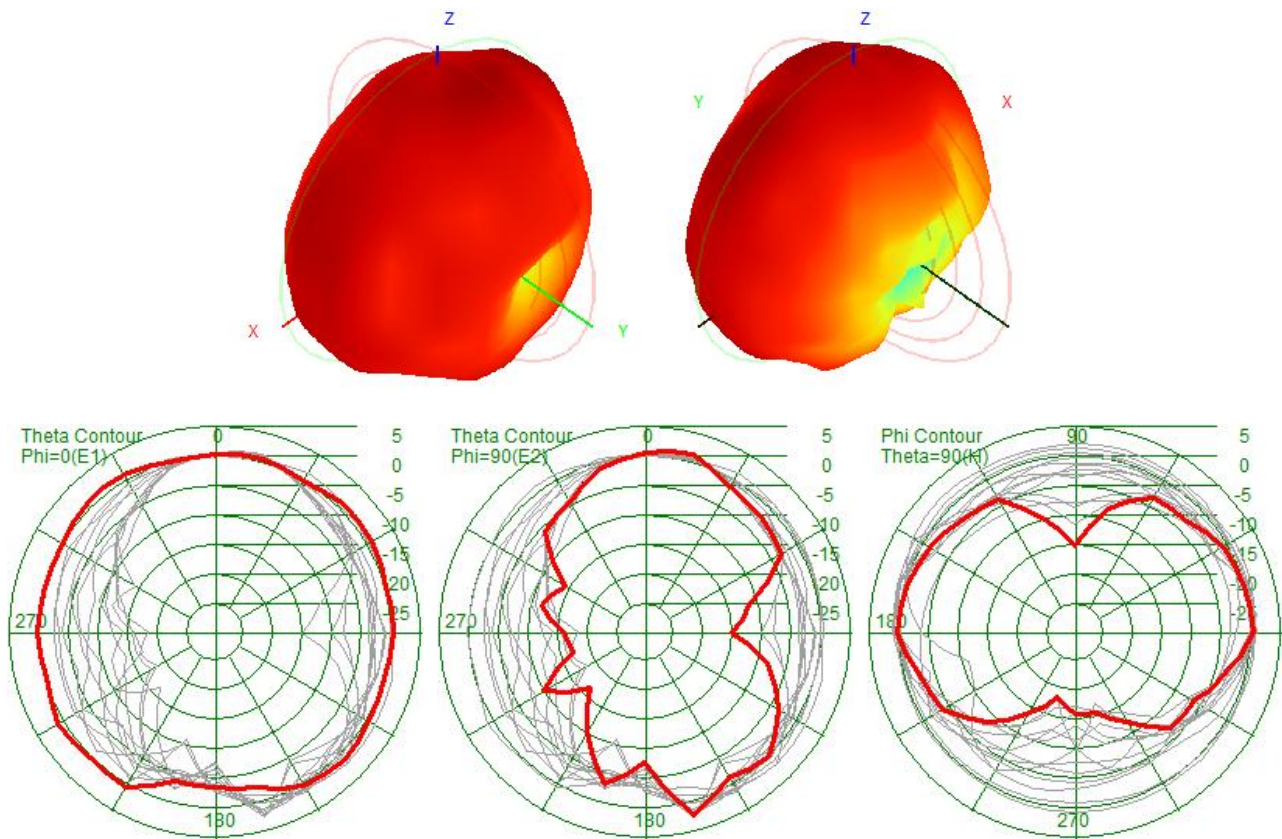
5400MHz



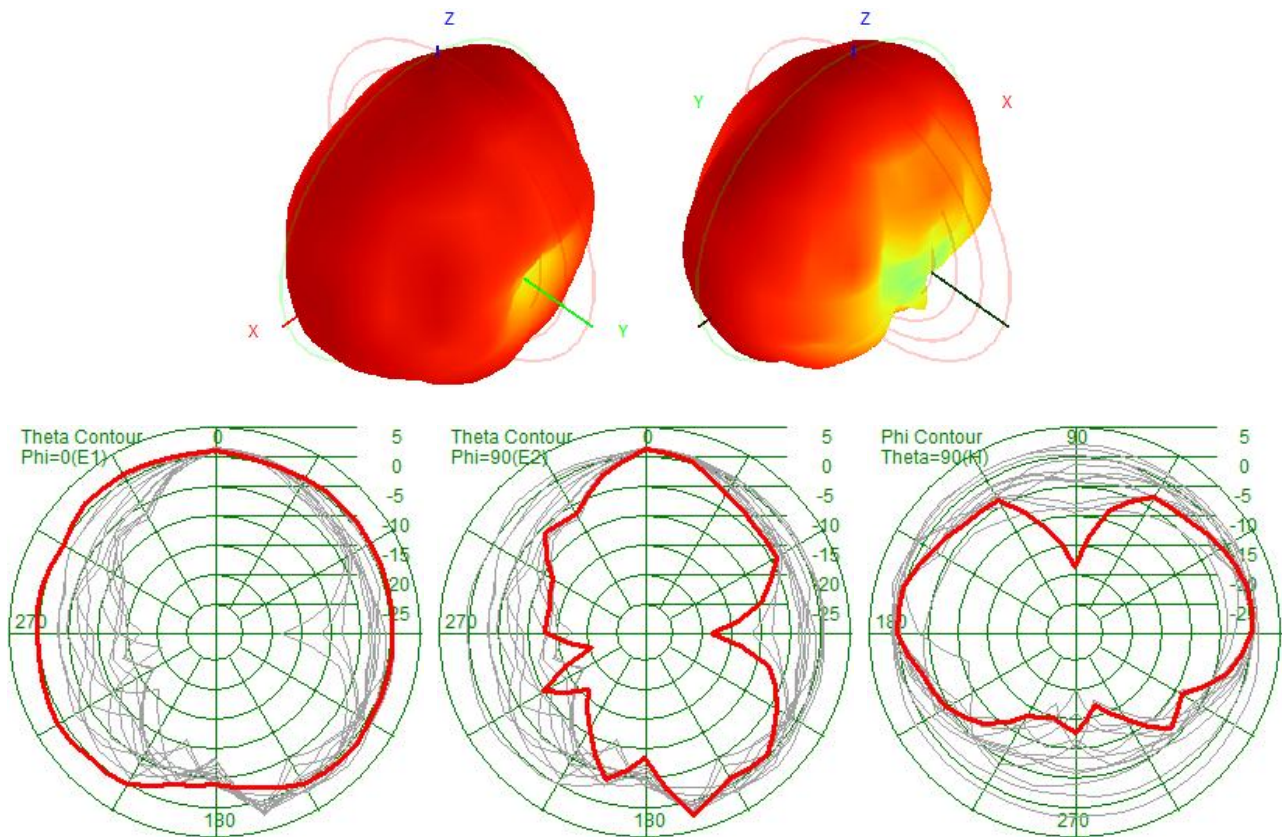
5500MHz



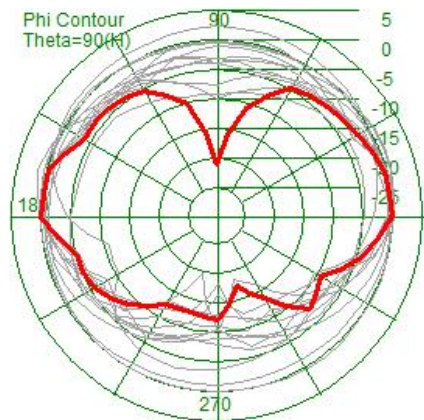
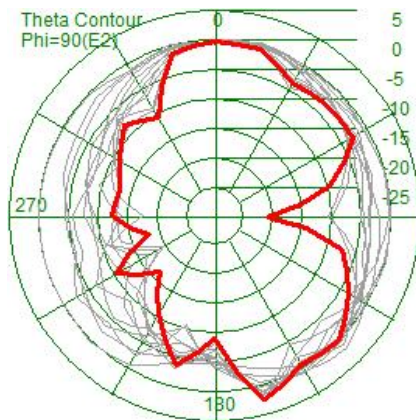
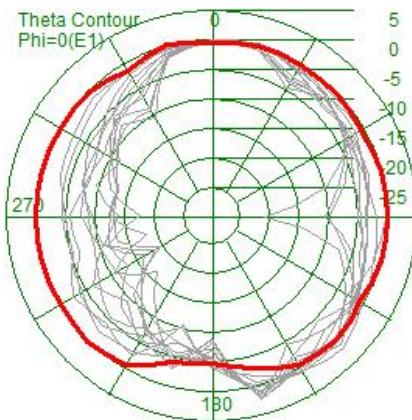
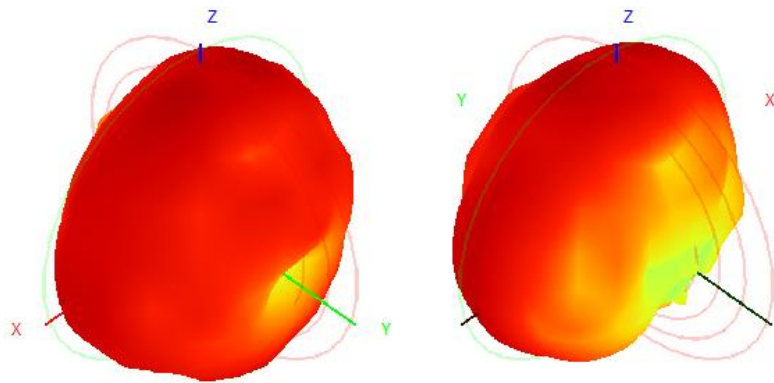
5600MHz



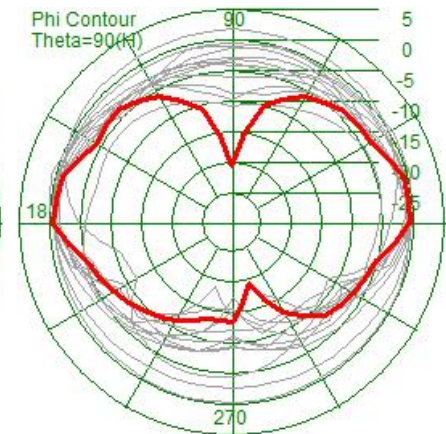
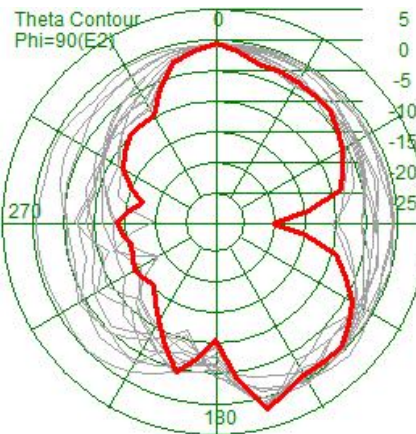
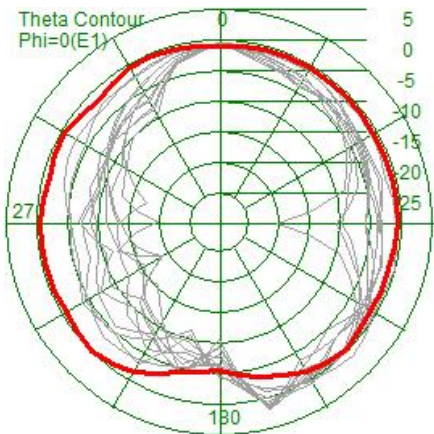
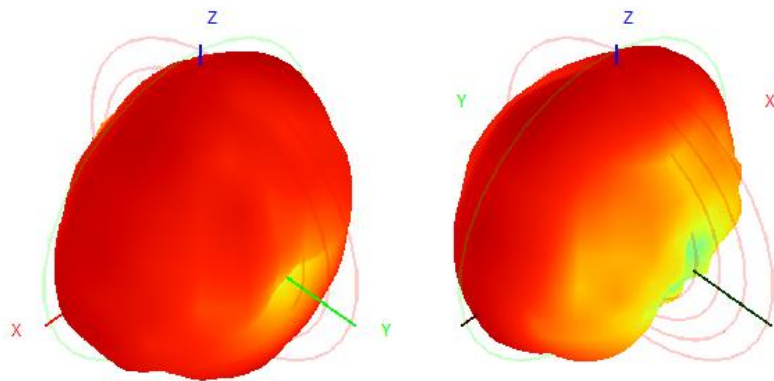
5700MHz



5800MHz



5900MHz



SWR

