Confidential Information

Shenzhen Yesheng Communication Technology Co.,Ltd

Antenna Specification

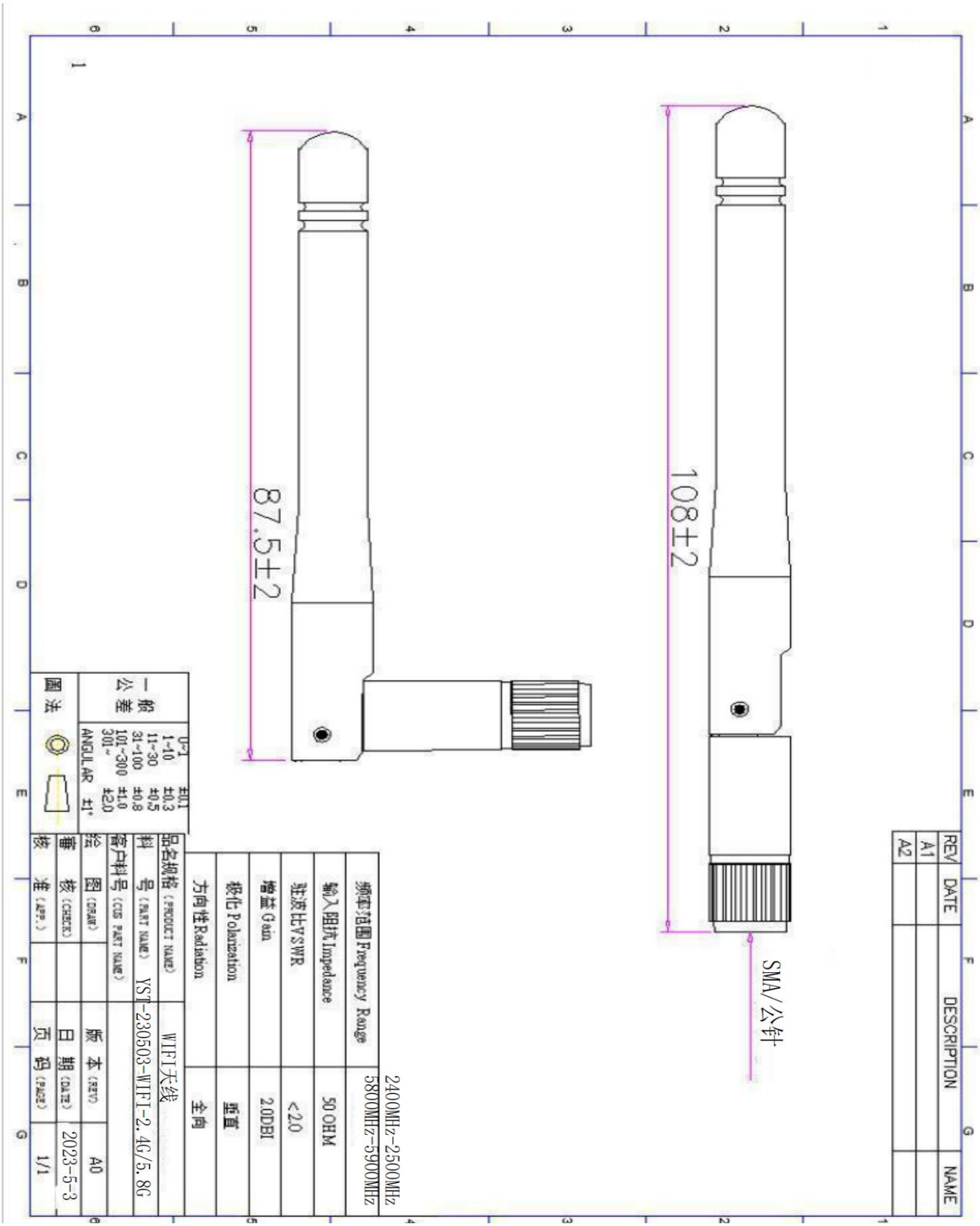
WIFI-2.4G/5.8G Black Antenna L=108mm
Product Confirmation

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±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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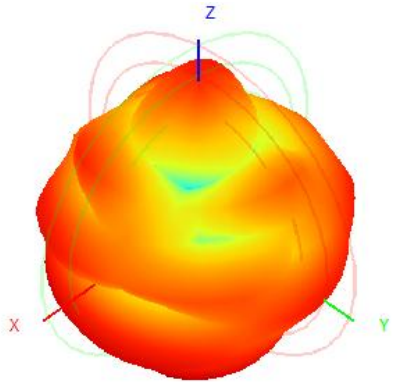
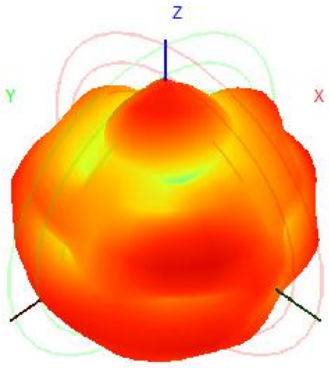
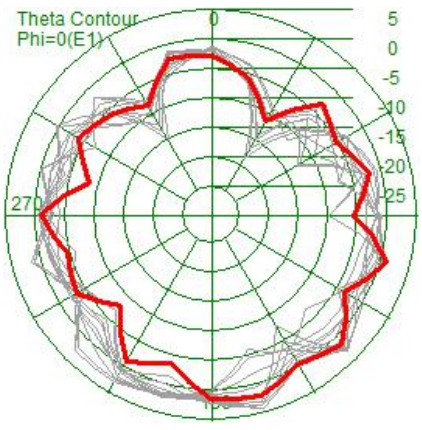
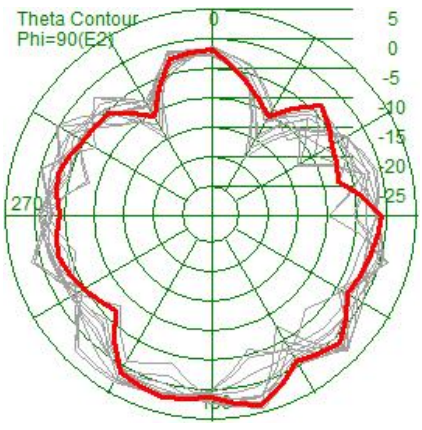
Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Frequency (MHz)	**2400**	**2420**	**2440**	**2460**	**2480**	**2500**	**5100**	**5200**	**5300**	**5400**	**5500**	**5600**	**5700**	**5800**	**5900**
Efficiency (dBi)	**-2.30**	**-2.03**	**-1.84**	**-1.77**	**-1.91**	**-1.91**	**-4.73**	**-3.97**	**-3.46**	**-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

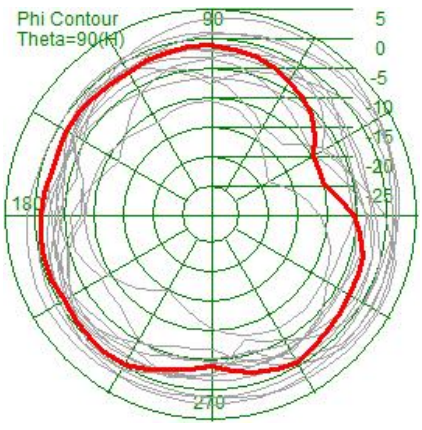
2400MHz



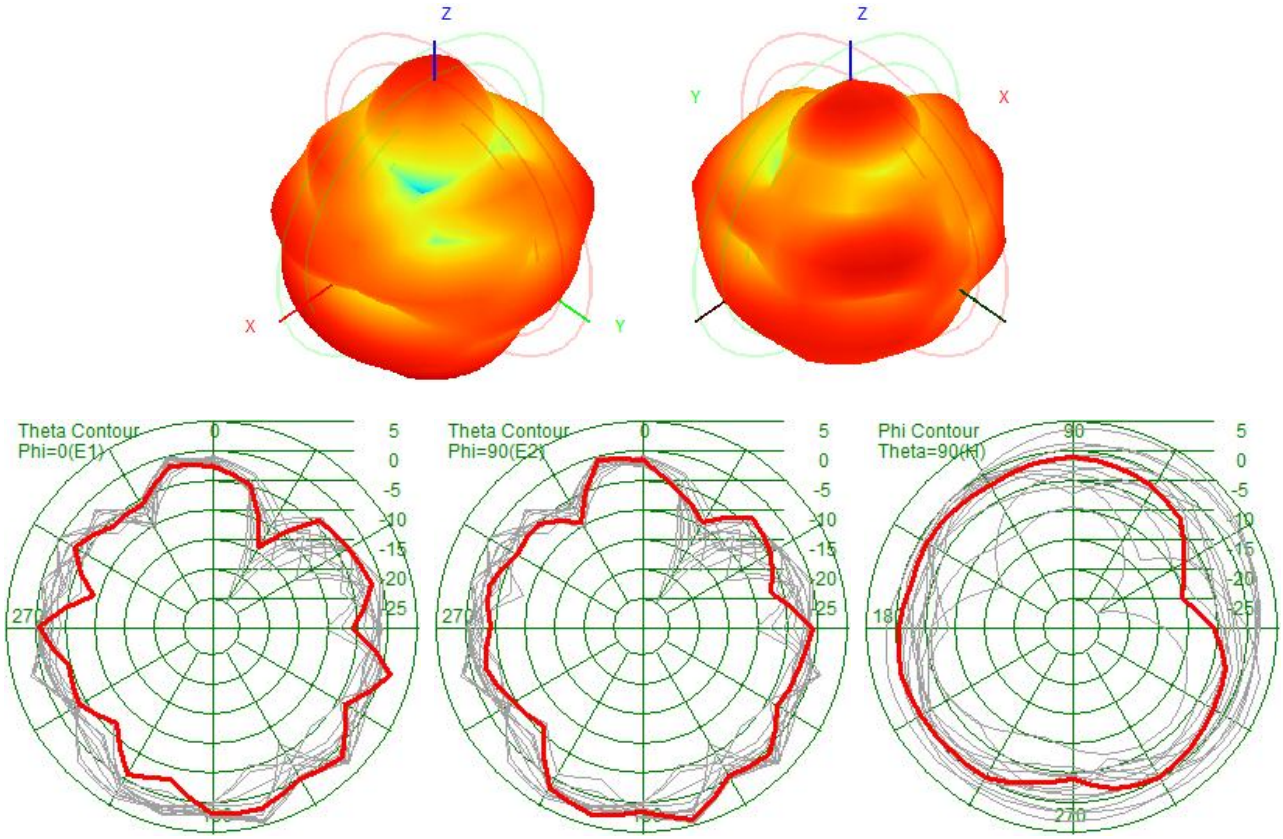




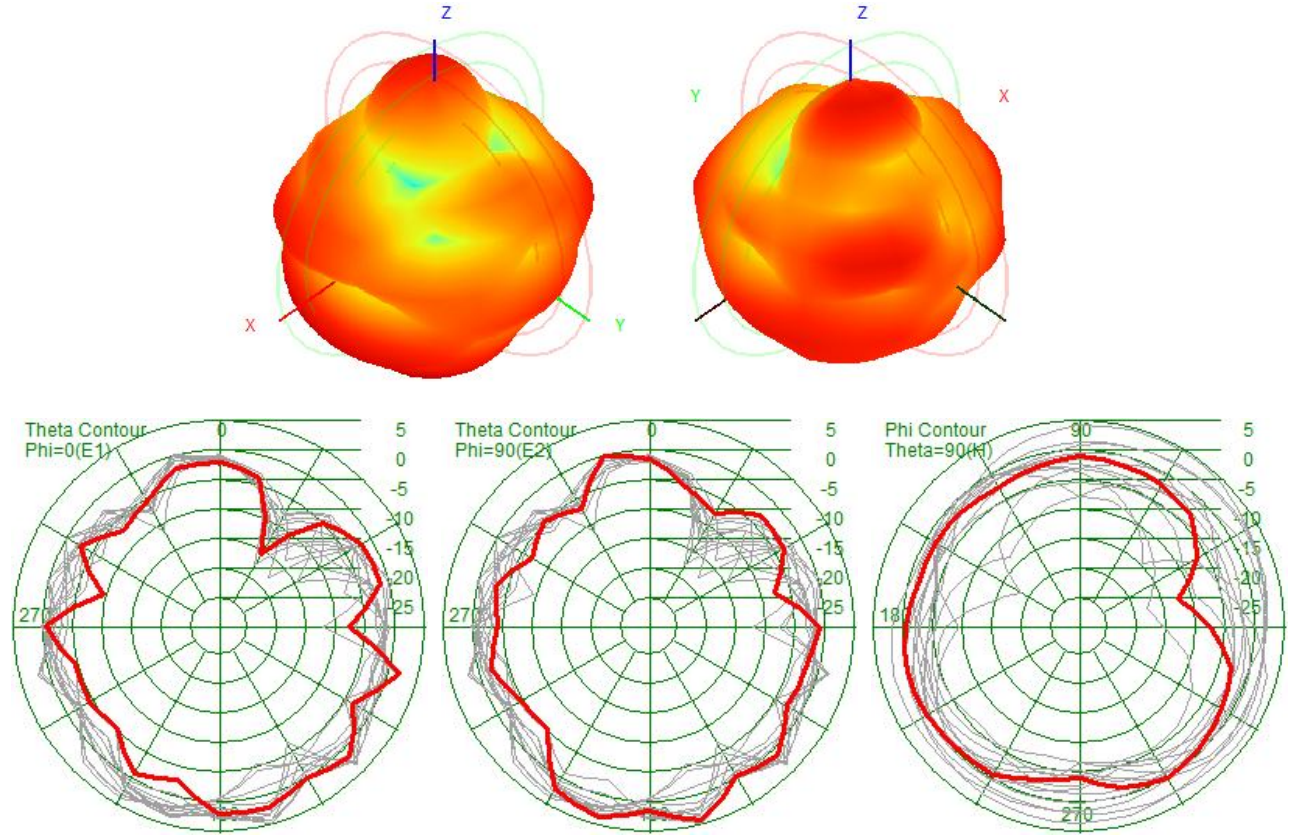




2420MHz



2440MHz



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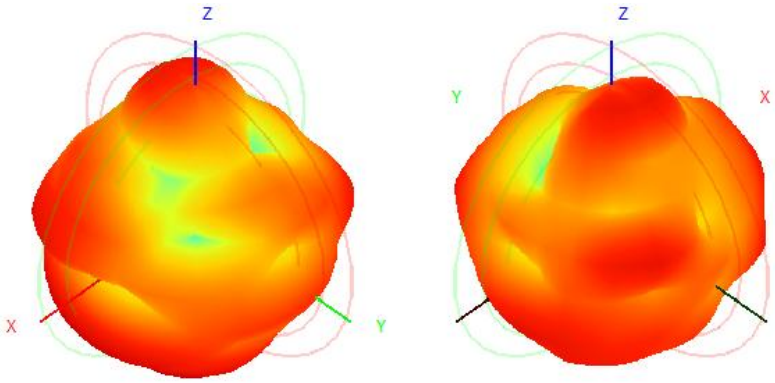
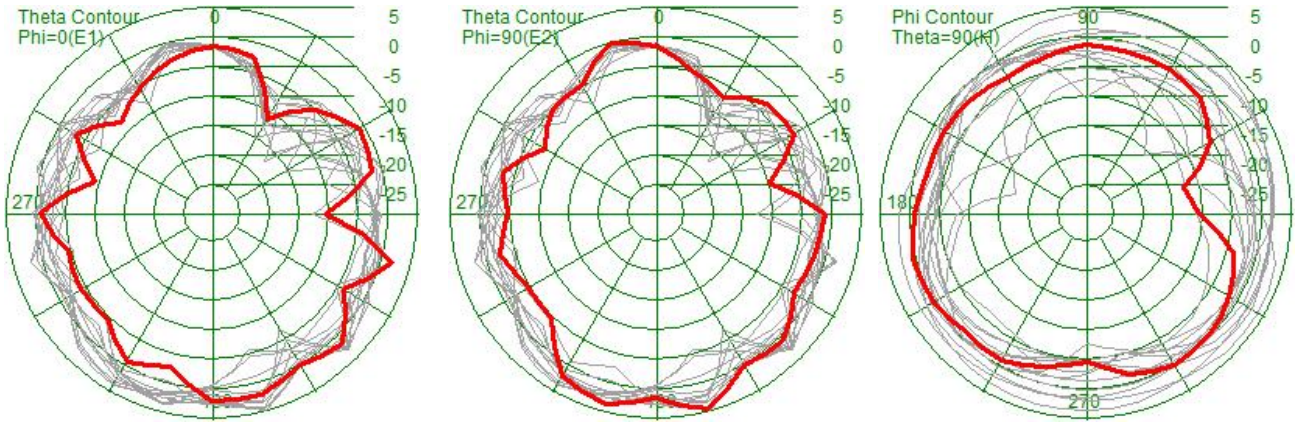
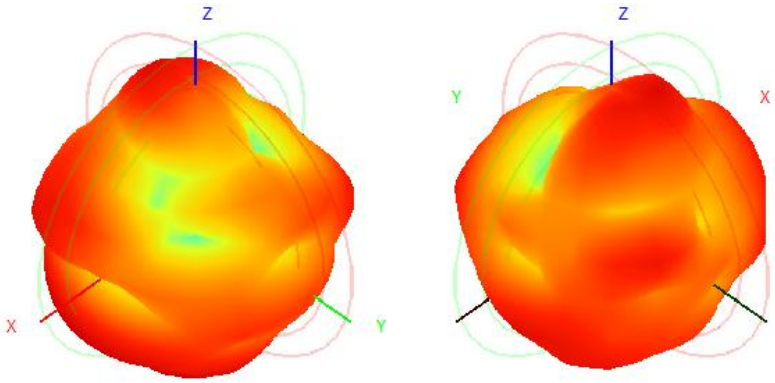
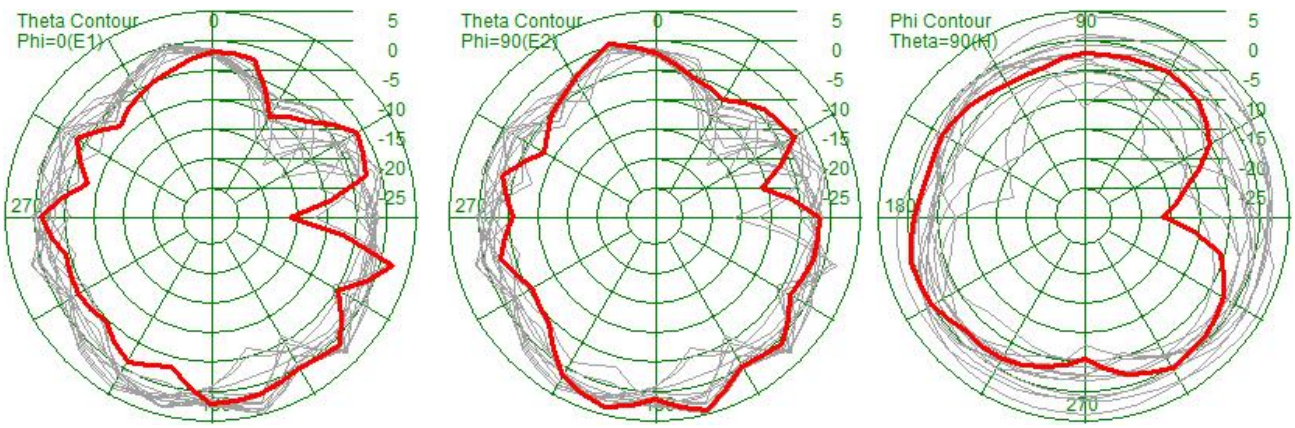


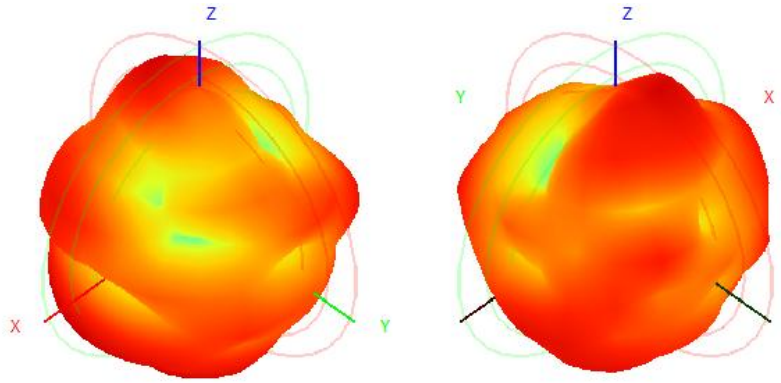


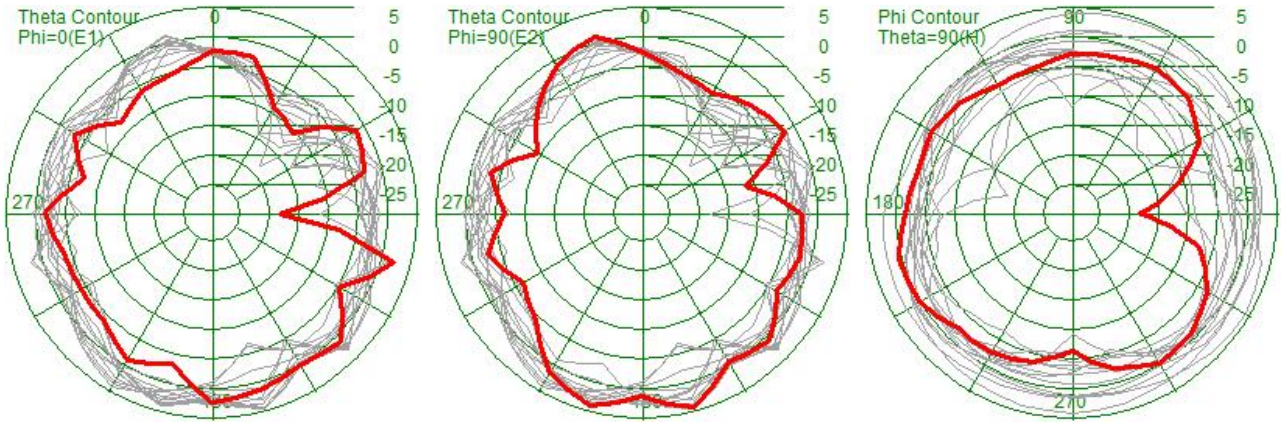
2480MHz



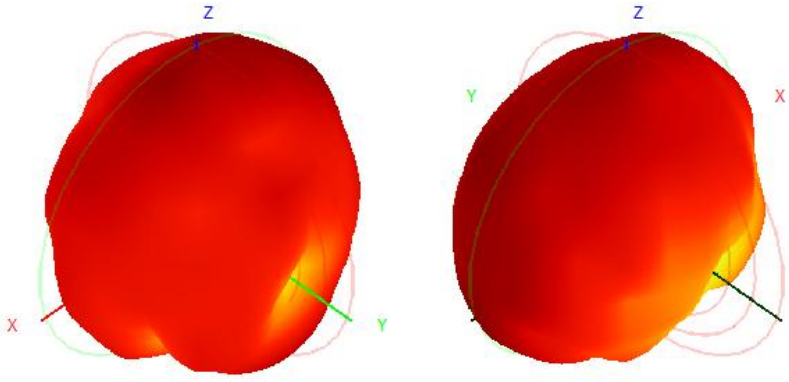


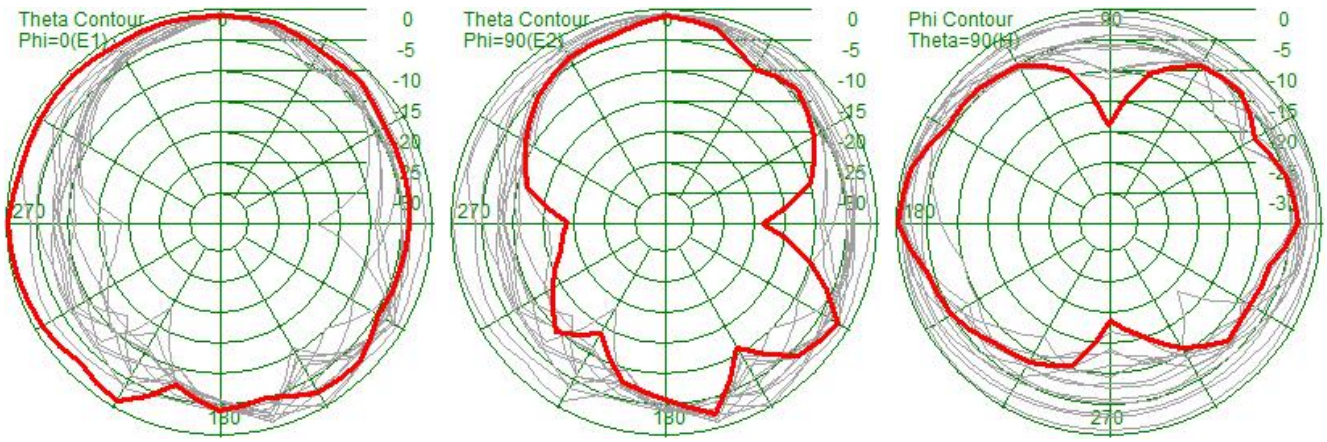
2500MHz



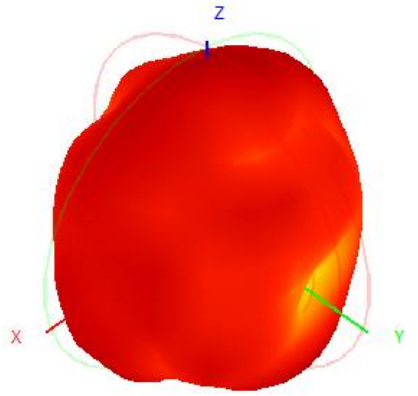


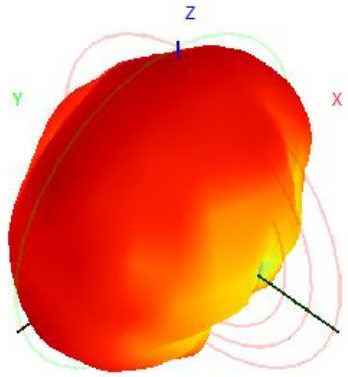
5100MHz

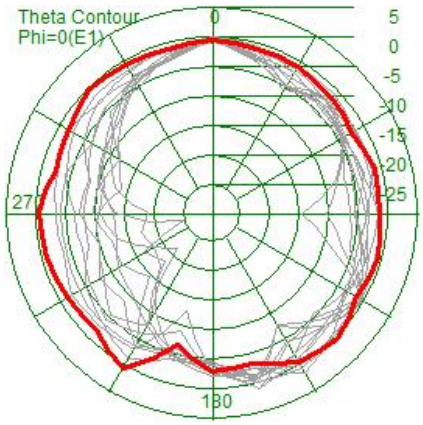


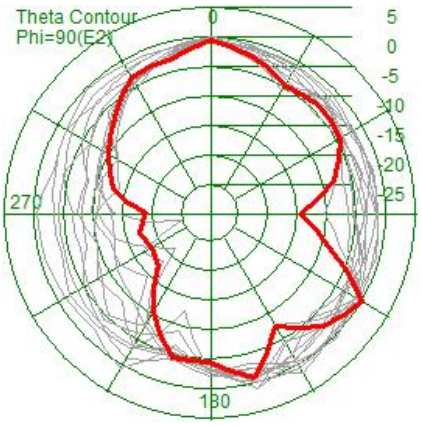


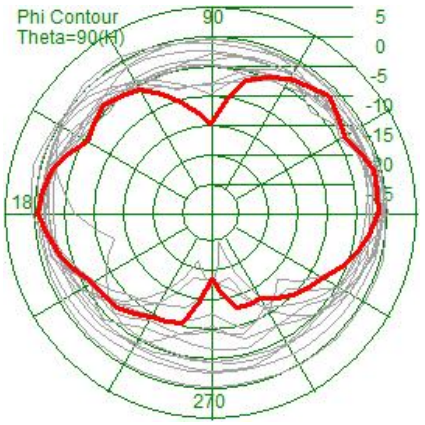
5200MHz











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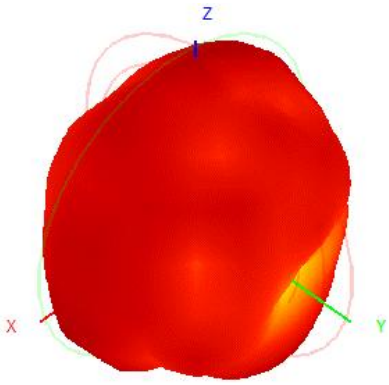
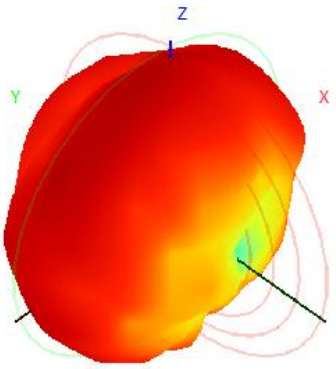
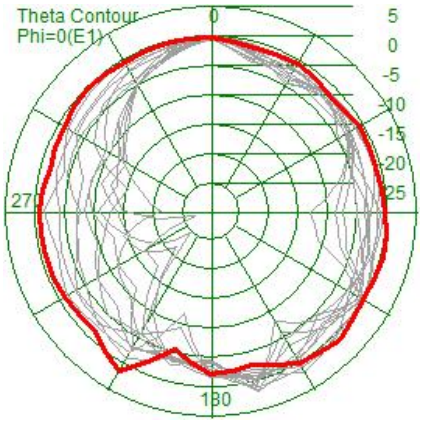
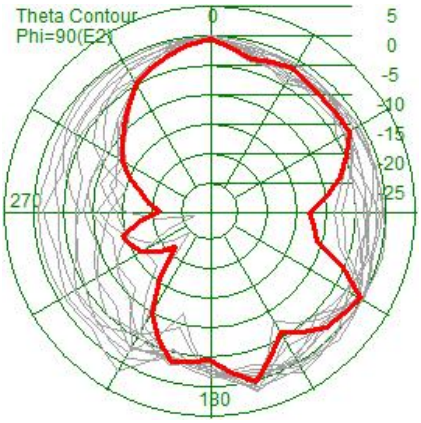
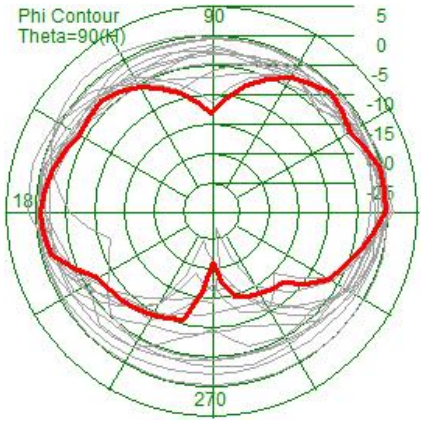


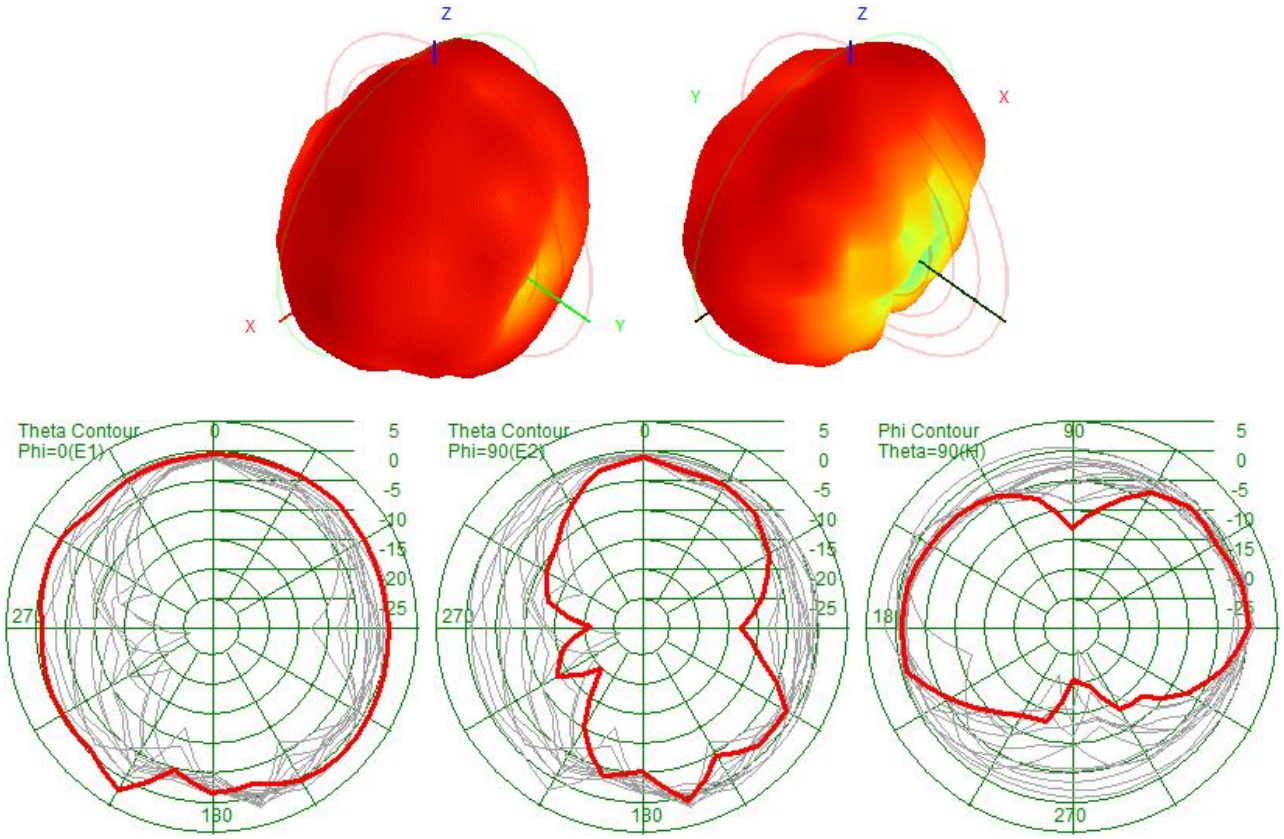




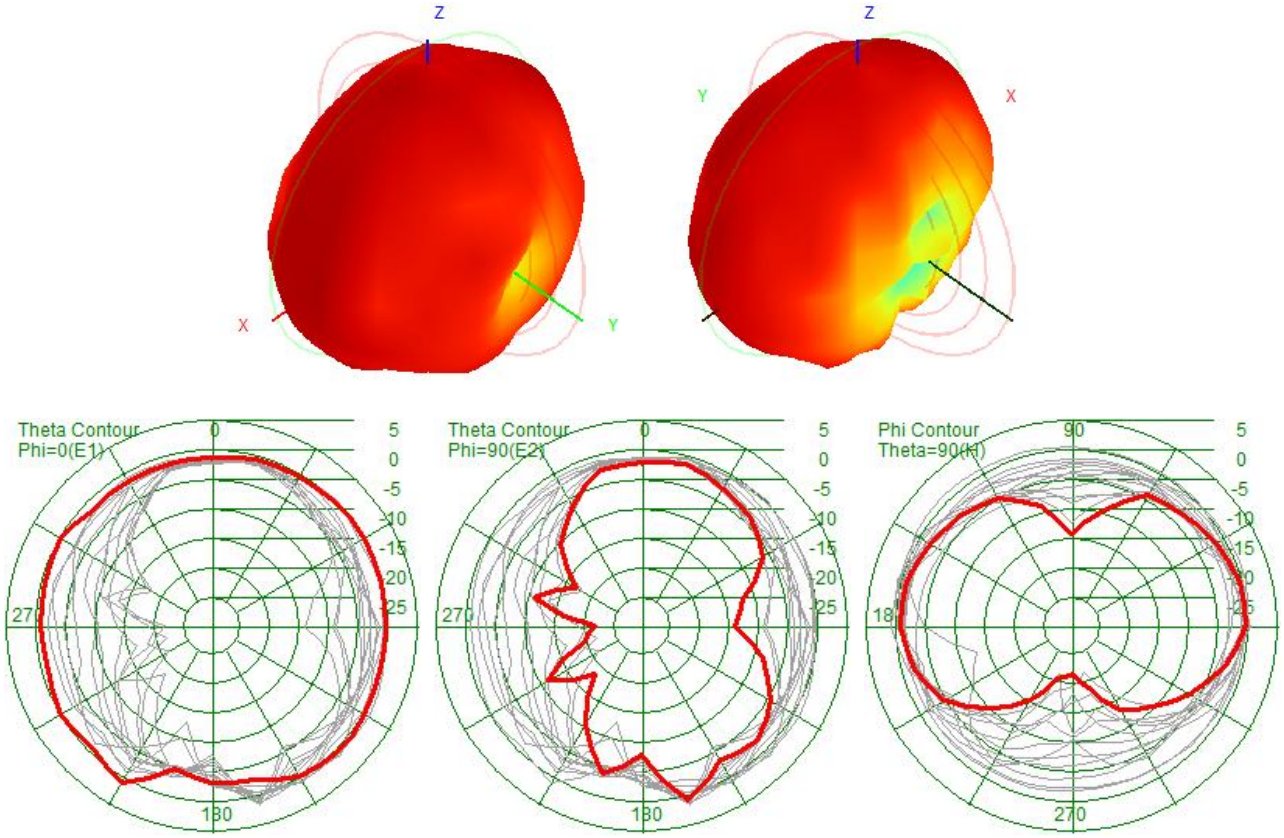




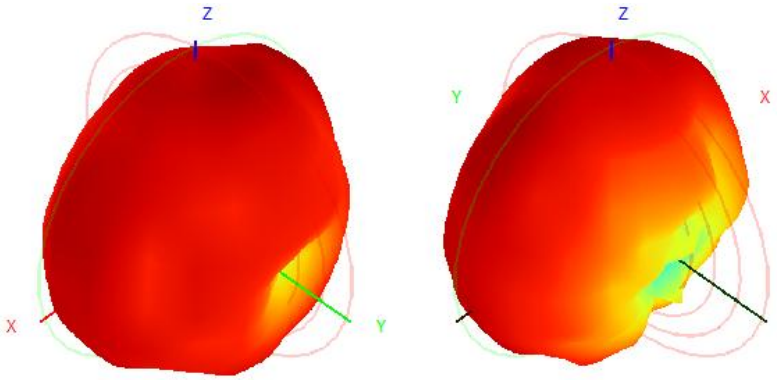
5400MHz

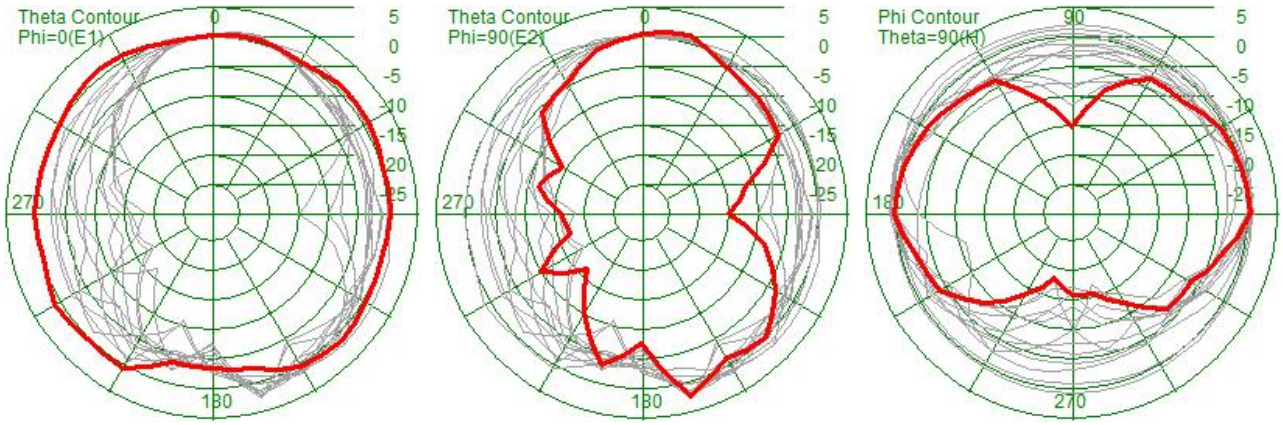


5500MHz



5600MHz





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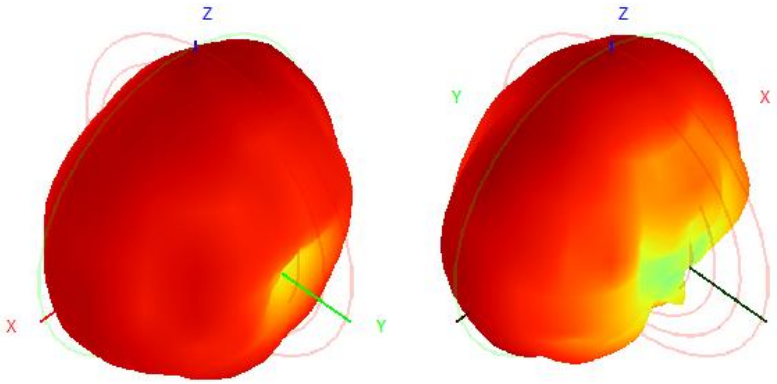
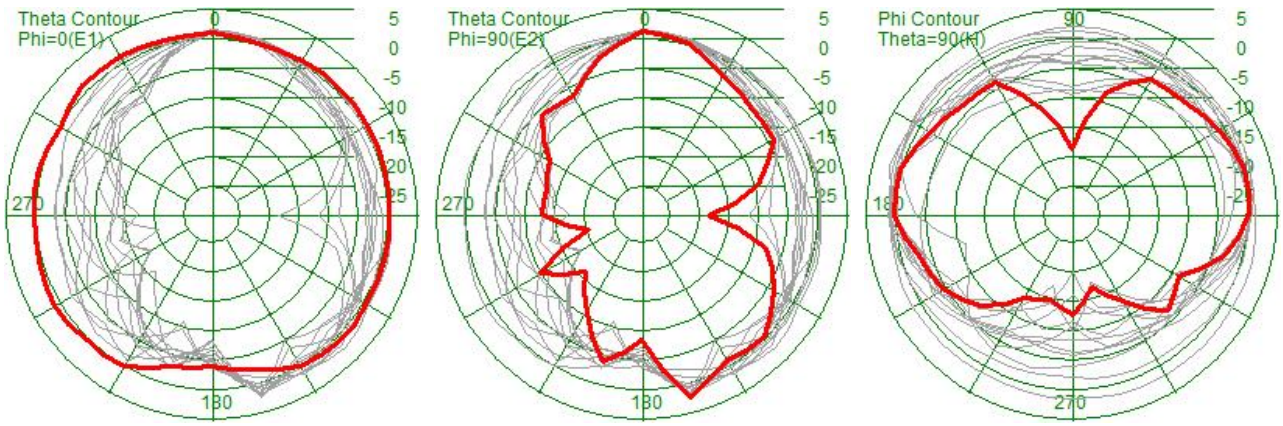
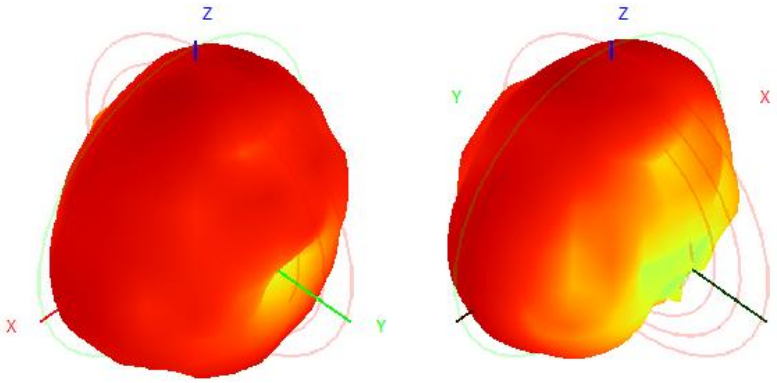
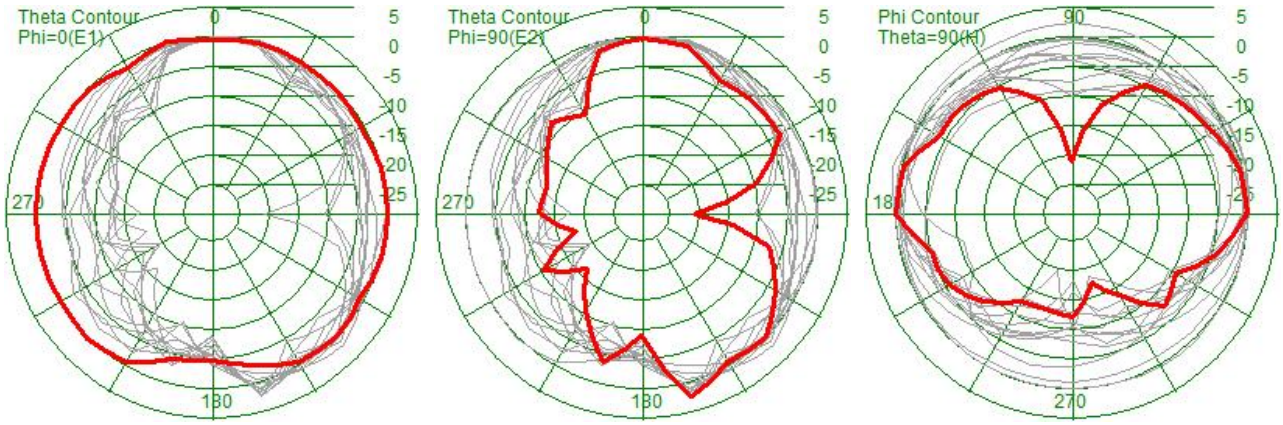


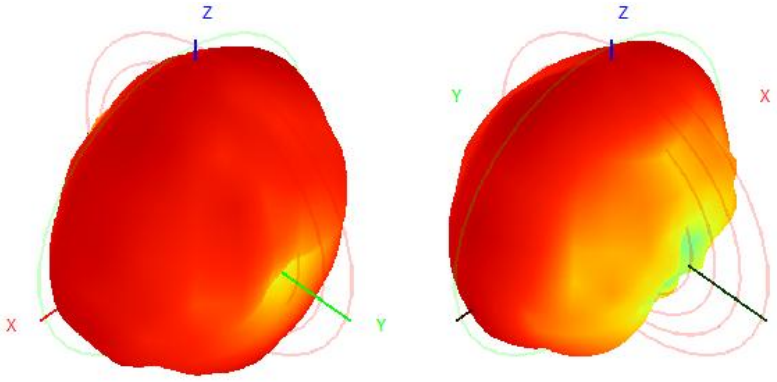


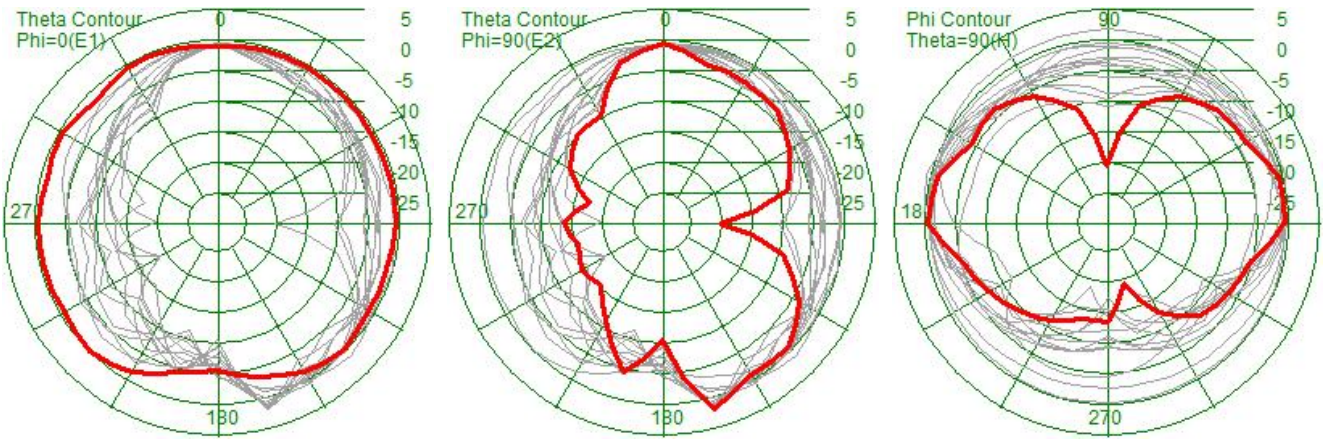
5800MHz



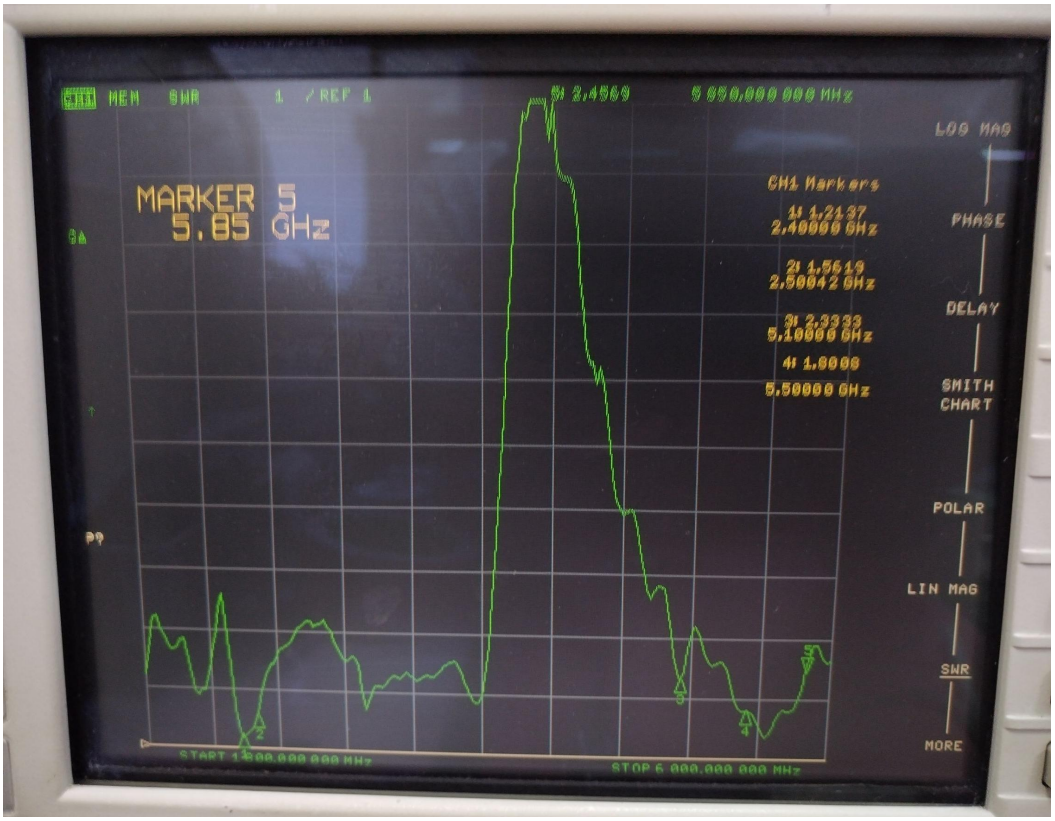


5900MHz





SWR


MEM SWR 1 / REF 1
MARKER 5
5.85 GHz
CH1 Markers
LOG MAG
PHASE
DELAY
SMITH CHART
POLAR
LIN MAG
SWR
MORE