OTA TEST REPORT

Applicant

Product

Issue Date September 6,2024

Shenzhen Maya communication equipment Co., LTD。 tested the above equipment in accordance with the requirements in ANTI/IEEE Std 149-2008.The test results show that the equipment tested is capable of demonstrating compliance with the Requirements as documented in this report.

Prepared by: Xiangqin WU

Approved by: Youchun Huan

Shenzhen Maya communication equipment Co., LTD

1. Test Laboratory

Notes of the Test report

This report shall not be reproduced in full or partial. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of applicable standards stated above.

Test facility

MVG Microwave Anechoic Chamber ： testing frequency ranges from 600MHz to 6GHz .

Testing Location

Company:

Shenzhen Maya communication equipment Co., LTD

Address: Room 202, Guanghui Science Park, Longhua District

Contact: Xiangqin WU

Telephone: 18589097712

E-mail: 1445425720@qq.com

Laboratory Environment

Temperature	Min.= 19℃, Max.=25℃	
Relative humidity	Min.=40%， Max.=72%	
Shield effect	0.6-7GHz	>100dB
Ground resistance	<0.5Ω	

2. General Description of Equipment under Test

Applicant and Manufacturer information

Applicant Name	
Applicant address	
Manufacturer Name	
Manufacturer address	

2.2 General information

EUT Description	
Product Name	
Model	GTS-ANT D-H
HW Version	RayZone1800 V1.0
SW Version	MaxSign 100
Antenna Type	FPC Antenna
Antenna Manufacturer	Shenzhen Maya communication equipment Co., LTD
Test Frequency	700MHz-5.8GHz

2.3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:
Test Method: **ANSI/IEEE Std 149-2008**

3. Test Conditions

Test Configuration

The method is used to measure the antenna 3D GAIN of EUT in OTA qualified anechoic chamber. Equipment Under Test (EUT) geometry centre vertical projection at the centre of platform, the distance from EUT to

measurement antenna is 1m.

3.2 Test Measurement

Spherical coordinate system

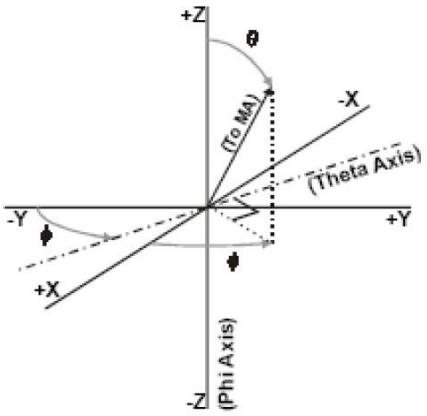
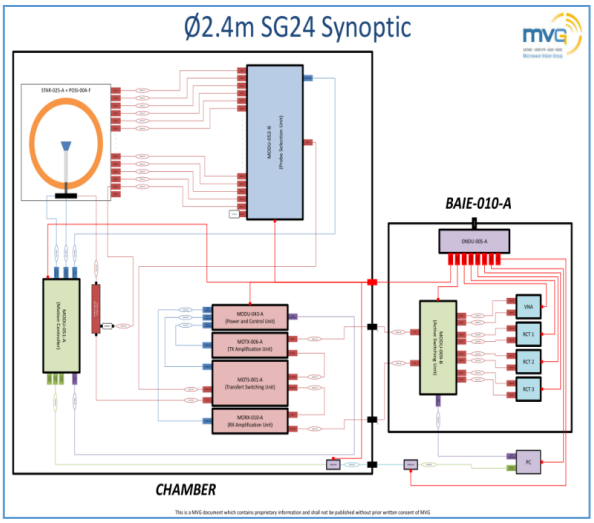


Figure 1 Test coordinate system

Note: Theta is from 0-180degree.Phi is from EUT and record the Date, the step of rotation is 15 degree.

Test Setup



4. Test Results

4.1 Gain and Efficiency

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space	**620**	15.4	-3.1	**2100**	25.8	-0.5	
		640	17.3	-2.9	**2200**	28.5	-0.5	
		680	19.5	-2.6	**2300**	25.5	0.9	
		700	20.1	-2.4	**2400**	33.9	1.2	
		720	20.6	-2.3	**2500**	30.9	1.6	
		740	19.1	-2.6	**2600**	35.5	1.9	
		760	18.3	-2.7	**2700**	38.6	1.3	
		780	16.4	-2.8	**3300**	23.4	1.5	
		800	16.1	-3.3	**3500**	25.3	1.8	
		820	18.4	-2.2	**3700**	26.5	1.5	
		840	20.4	-2.8	**3900**	28.6	1.6	
		860	21.2	-2.5	**4100**	25.7	1.9	
		880	18.5	-3.1	**4300**	28.3	1.3	
		900	19.2	-3.1	**4500**	36.8	2.0	
		920	20.8	-2.5	**4700**	30.2	1.6	
		940	18.2	-2.6	**4900**	26.9	1.5	
		960	17.7	-2.9	**5100**	23.2	1.4	
		1700	27.6	-1.0				
		1800	30.5	0.6				
		1900	34.6	0.4				
		2000	37.6	0.7				

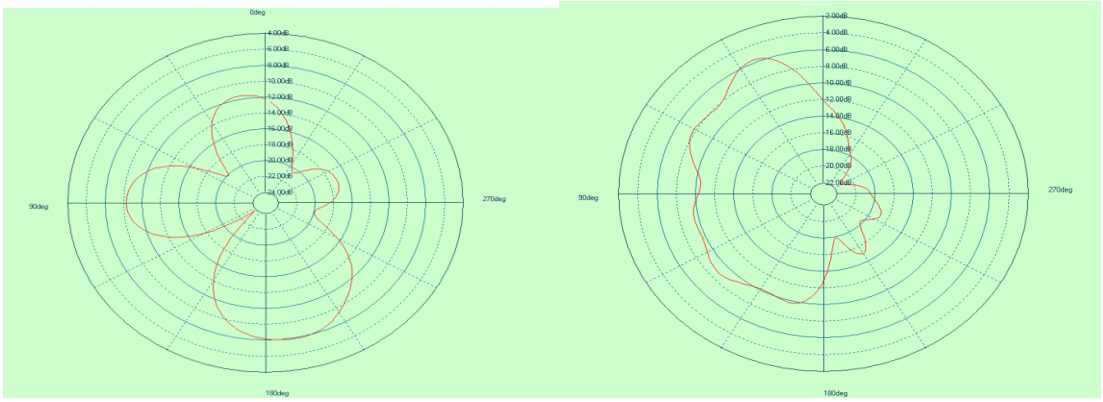
Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
		1550	31.0	-1.0	**5100**	32.3	2.9	
		1560	32.6	-0.7	**5200**	32.3	2.0	
		1570	33.0	-0.5	**5300**	35.3	2.8	
		1580	33.7	-0.4	**5400**	36.5	2.3	
		1590	32.9	-0.8	**5500**	37.0	2.0	
		1600	30.6	-1.1	**5600**	39.3	2.5	
					5700	40.8	2.1	
					5800	41.2	2.1	
		2400	38.6	1.0				
		2410	39.0	1.9				
		2420	40.3	1.5				
		2430	41.6	1.3				
		2440	42.1	1.2				
		2450	43.3	1.3				
	Free Space	**2460**	42.7	1.2				
		2470	42.2	1.2				
		2480	42.3	1.1				
		2490	42.5	1.2				
		2500	42.8	1.3				
		Note: WIFI and BT share an antenna						

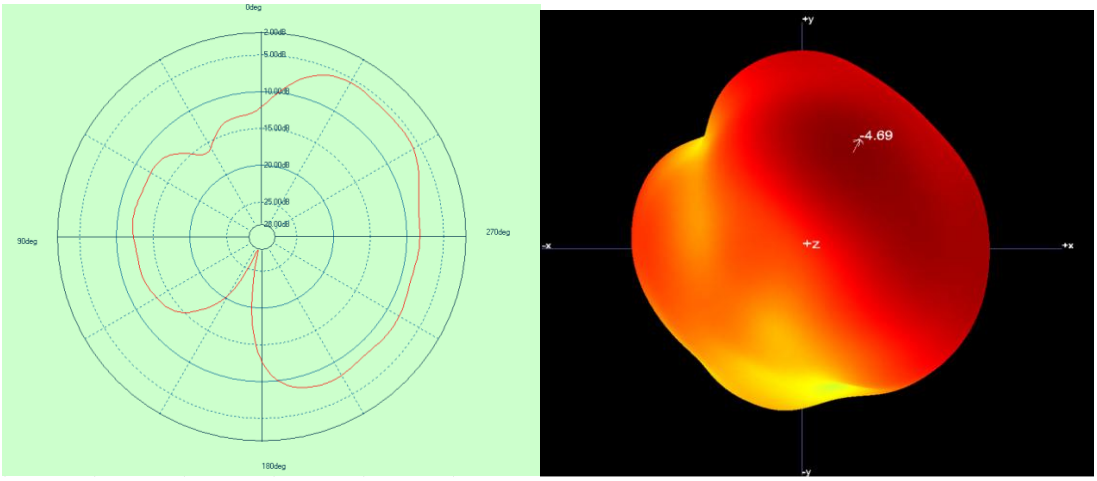
5. Equipment List

Type of Equipment	Manufacture	Model Number
Network Analyzer	Key sight	E5071C
Switch control System	MVG	

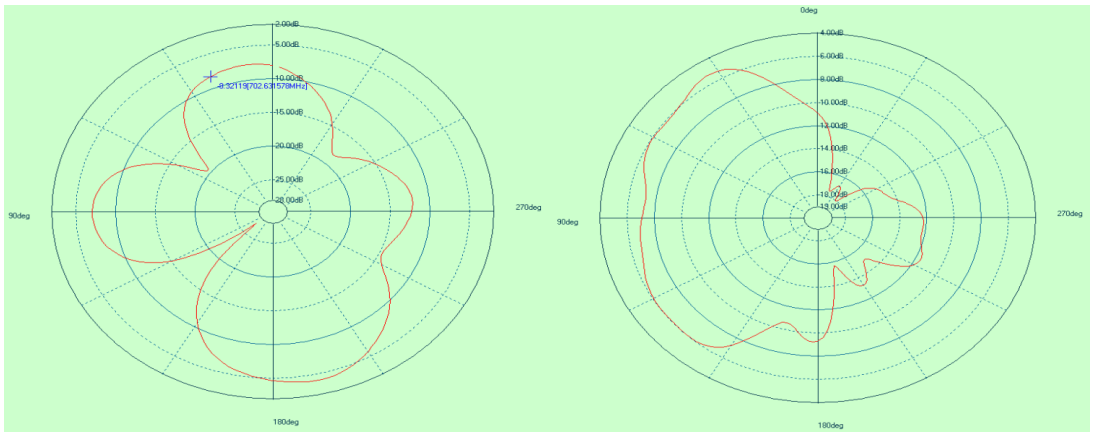
Software	MVG	MaxSign 100 Patten Measurement software

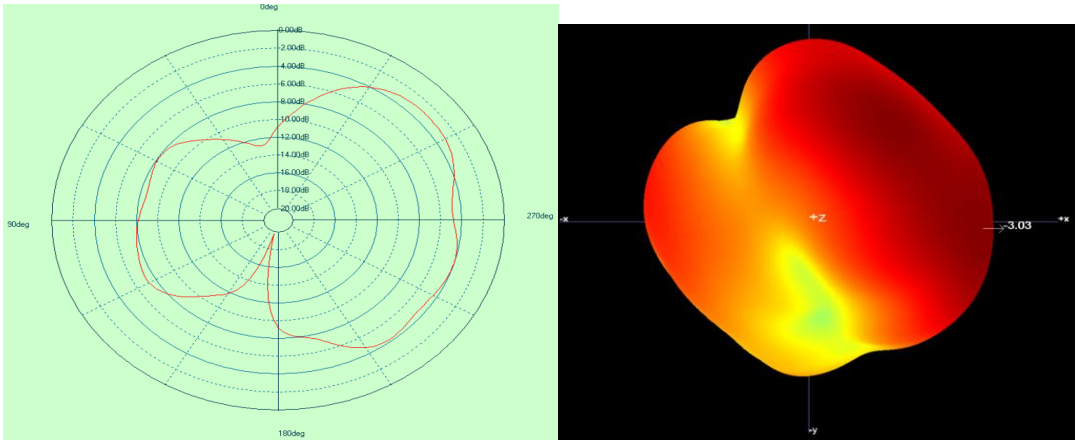
ANNEX A 3-D Patten Plots



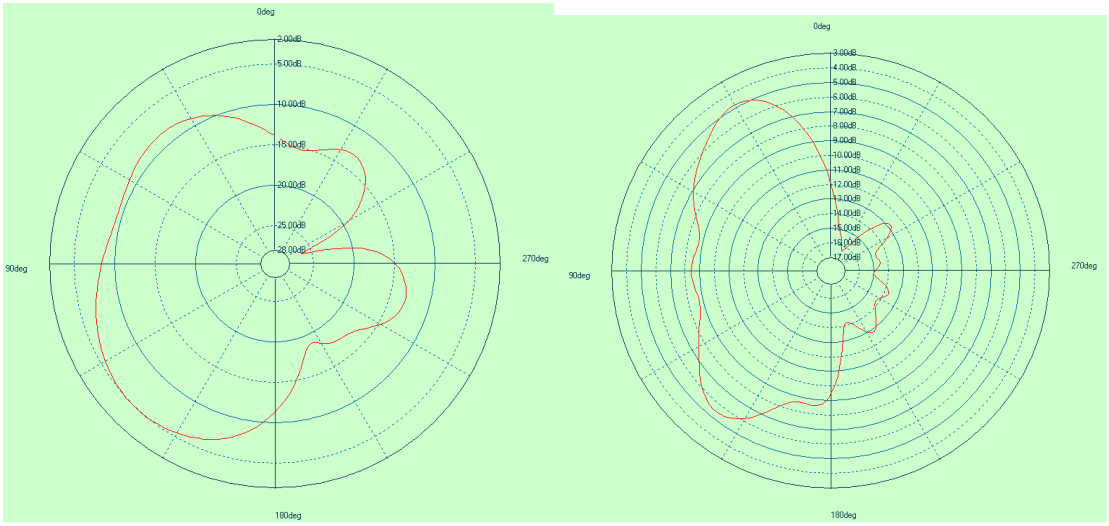


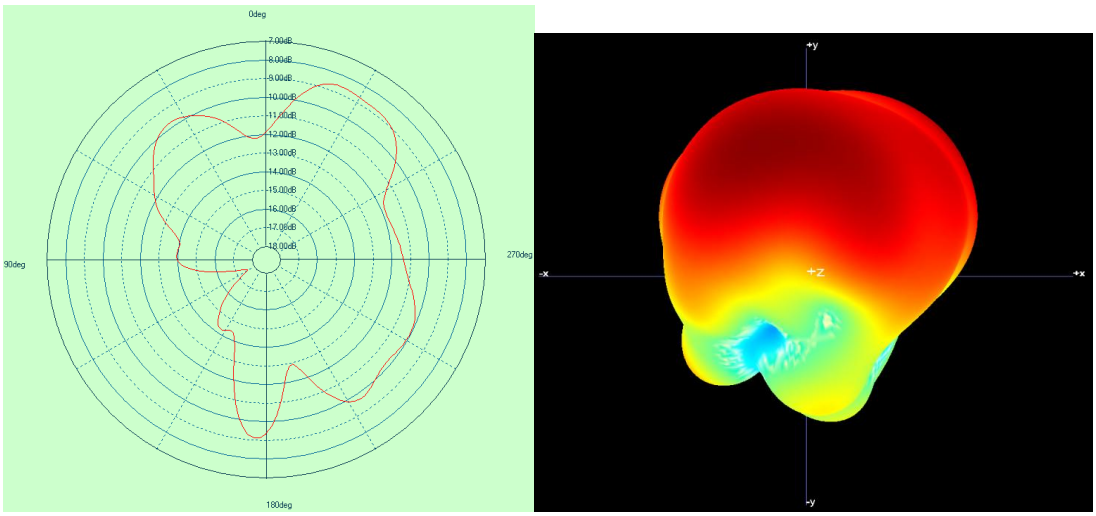
660MHz



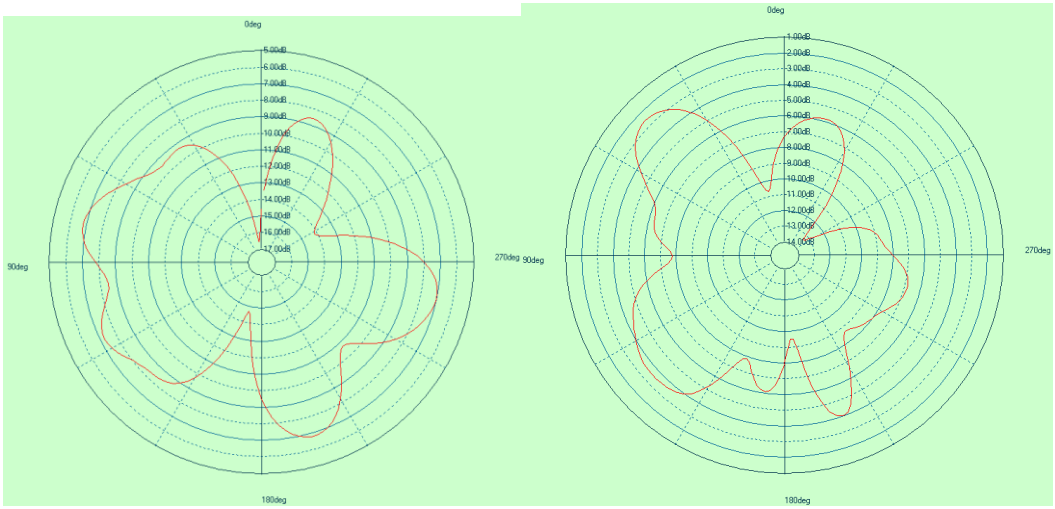


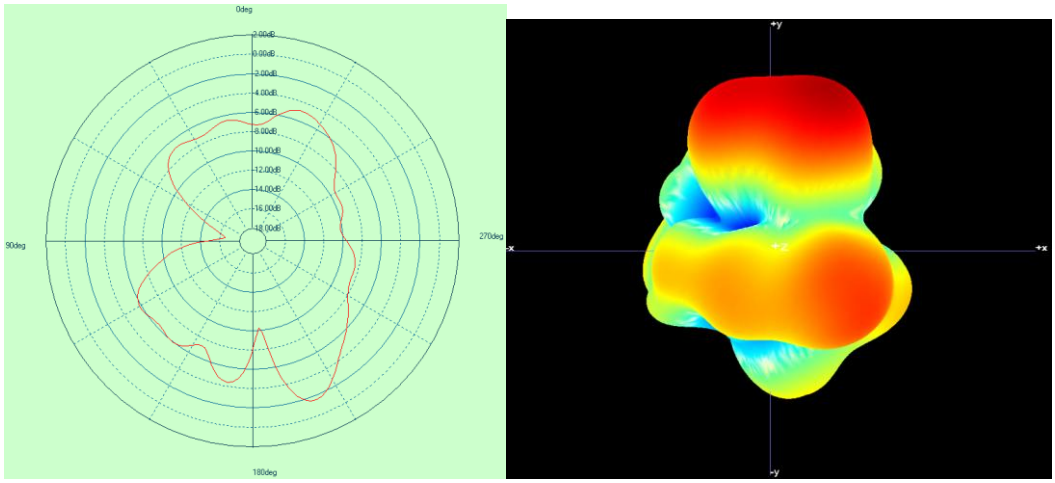
700MHz



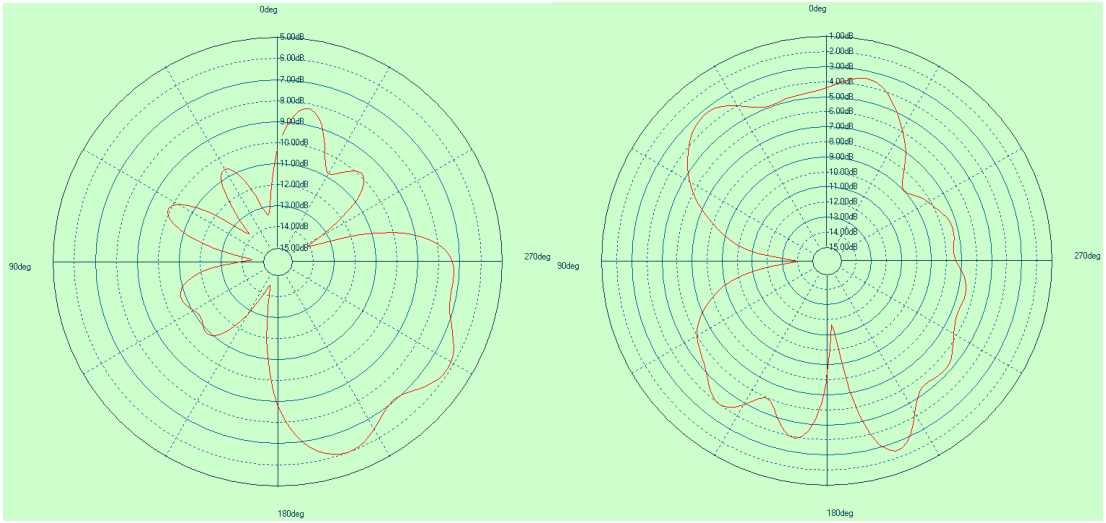


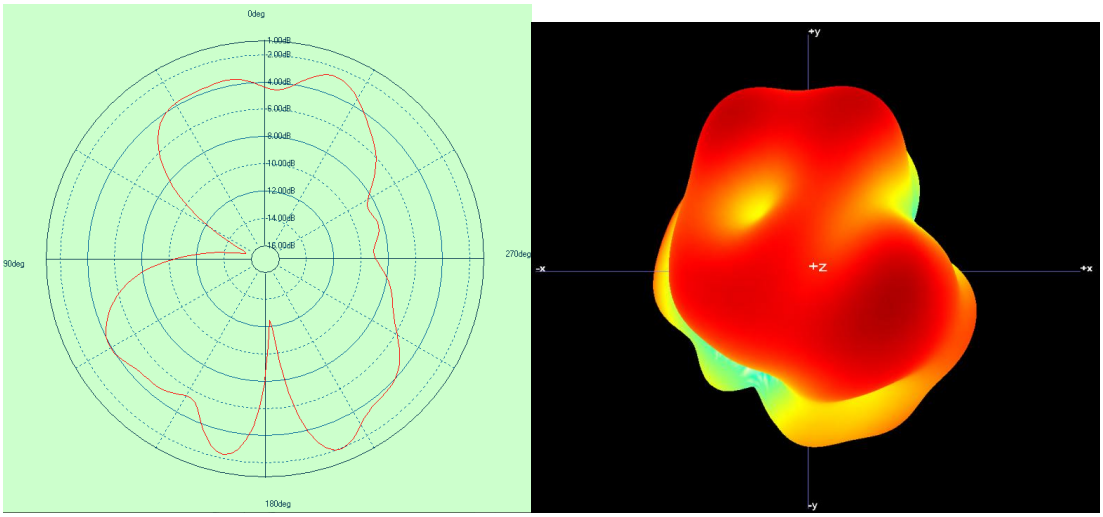
900MHz



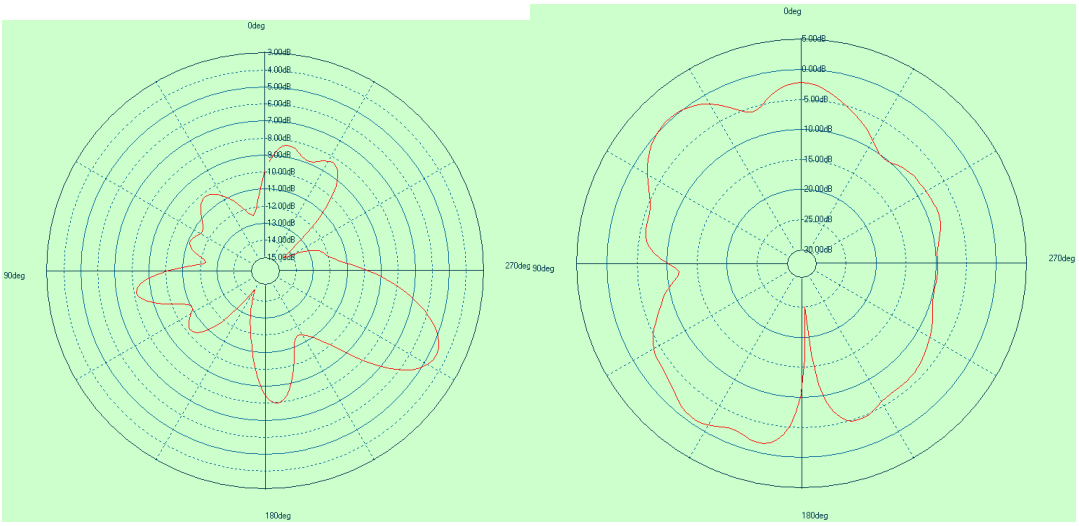


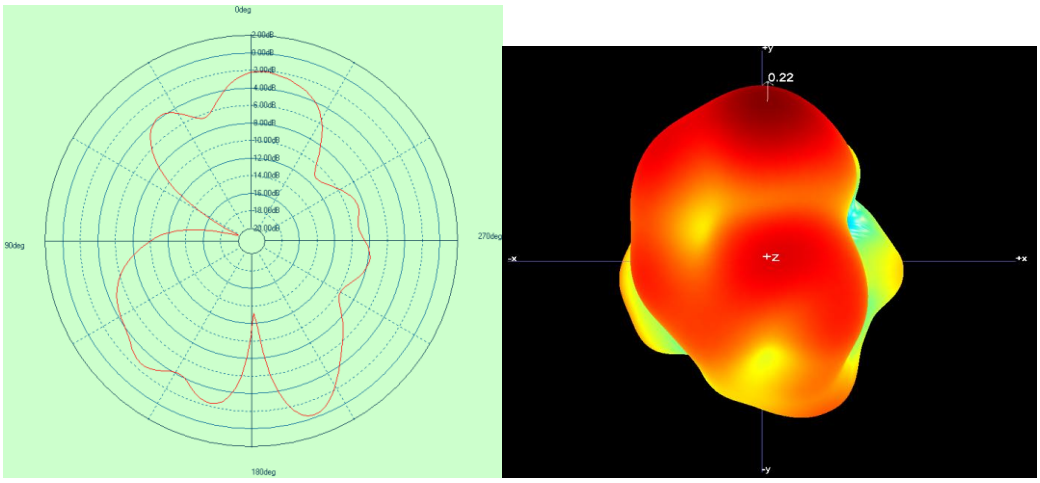
1800MHz



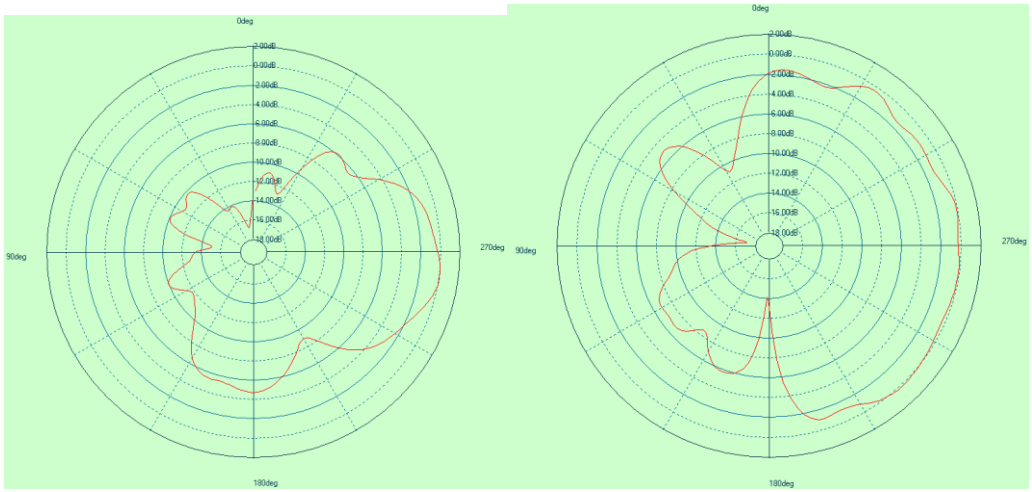


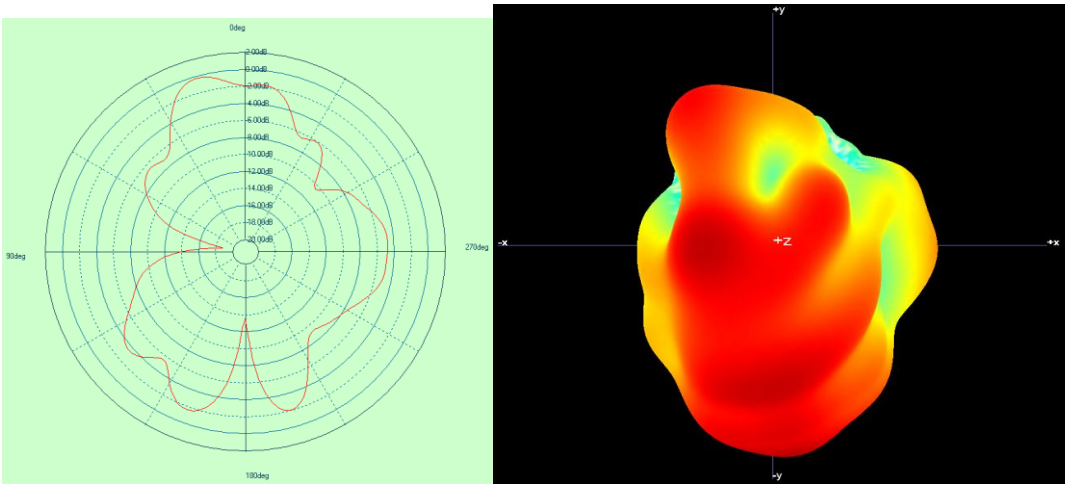
1900MHz



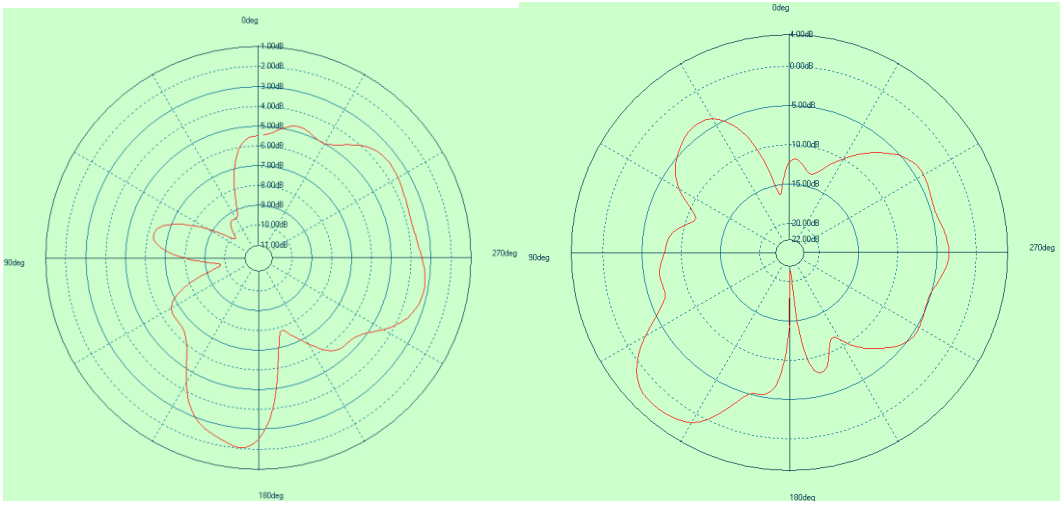


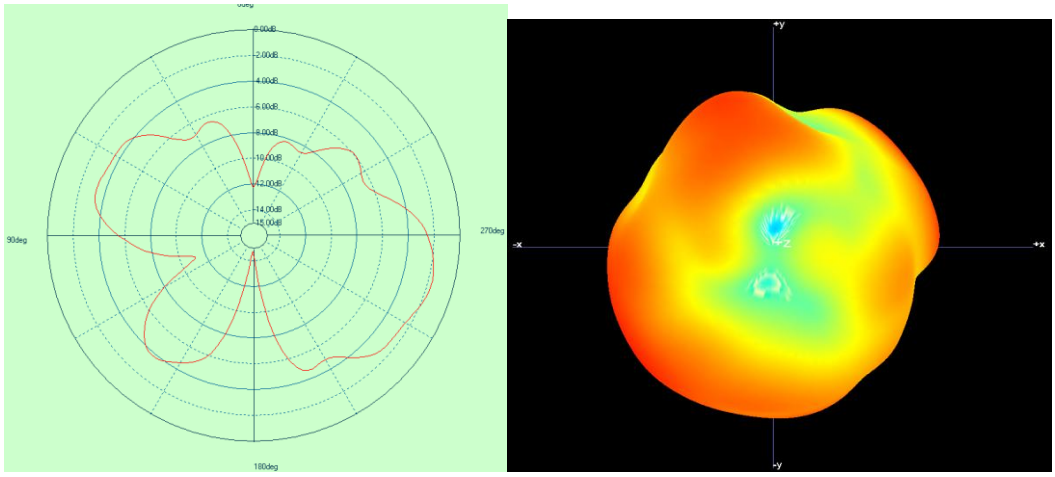
2100MHz



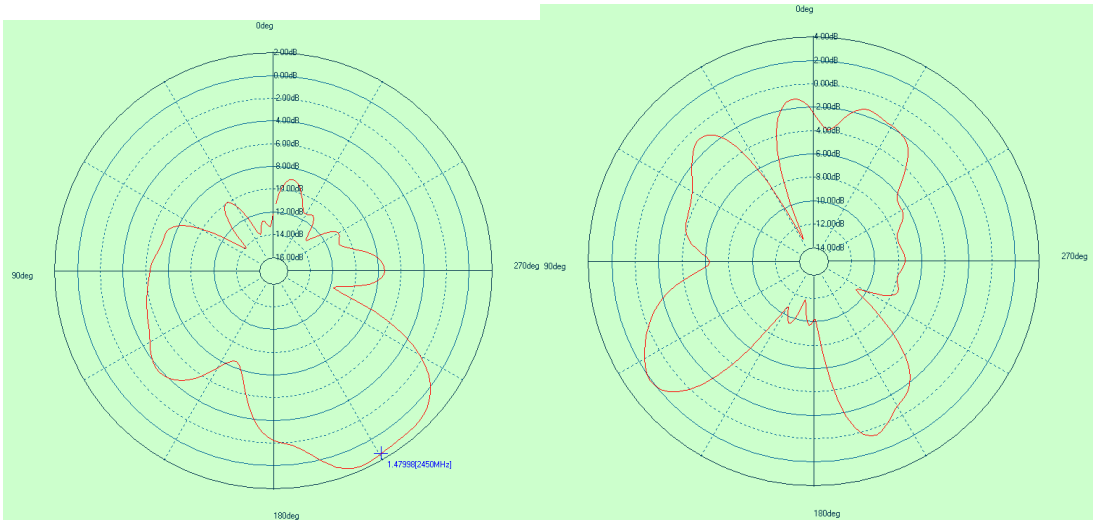


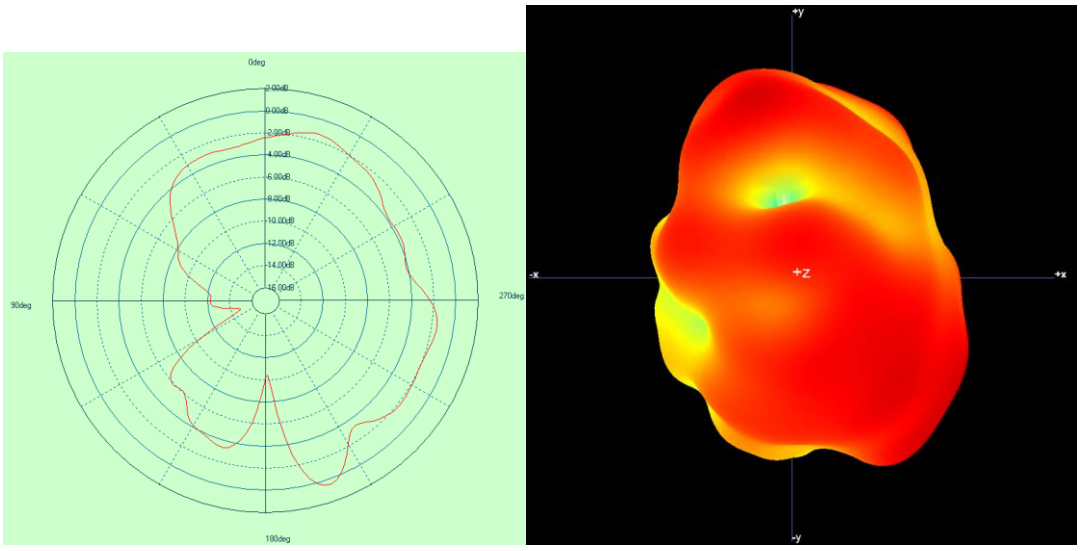
2650MHz



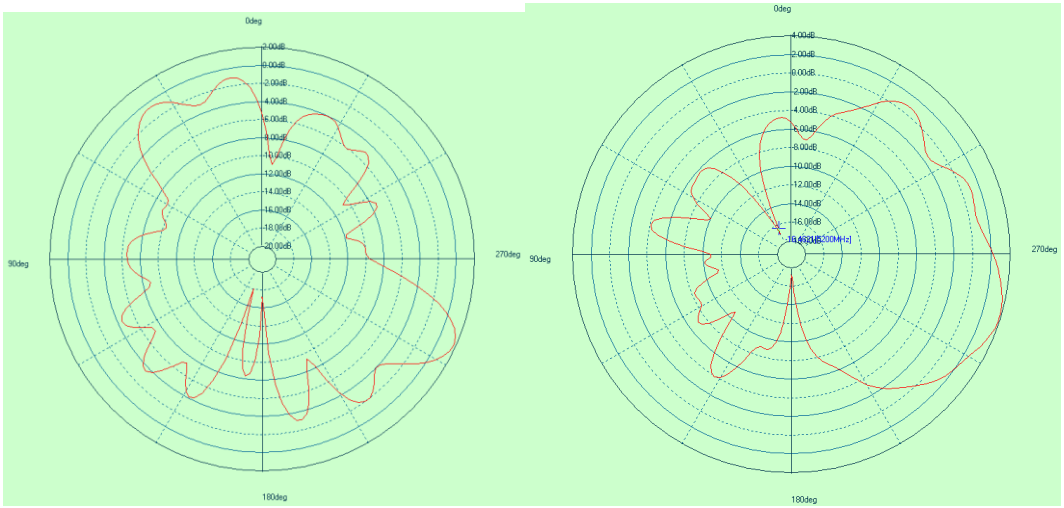


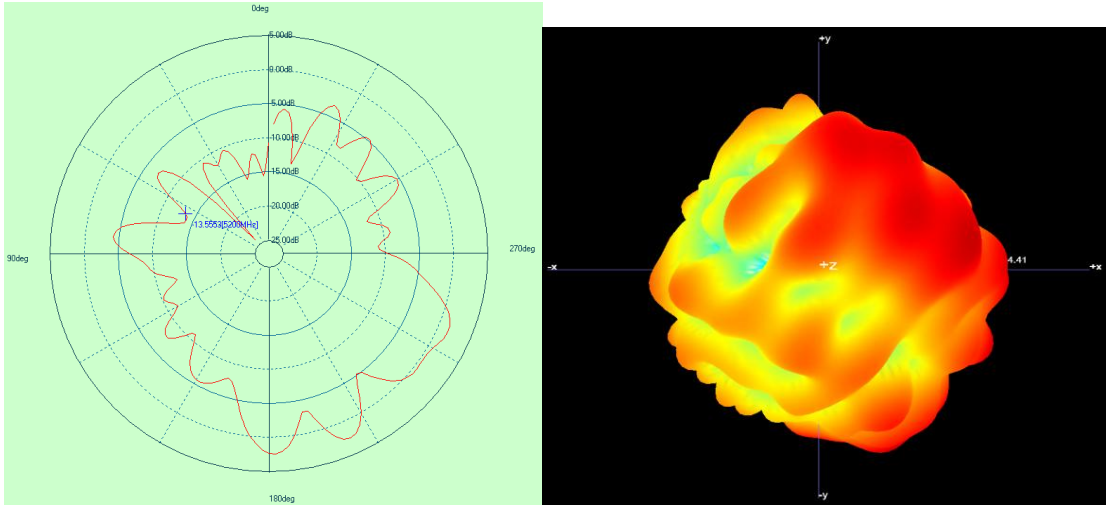
1575MHz



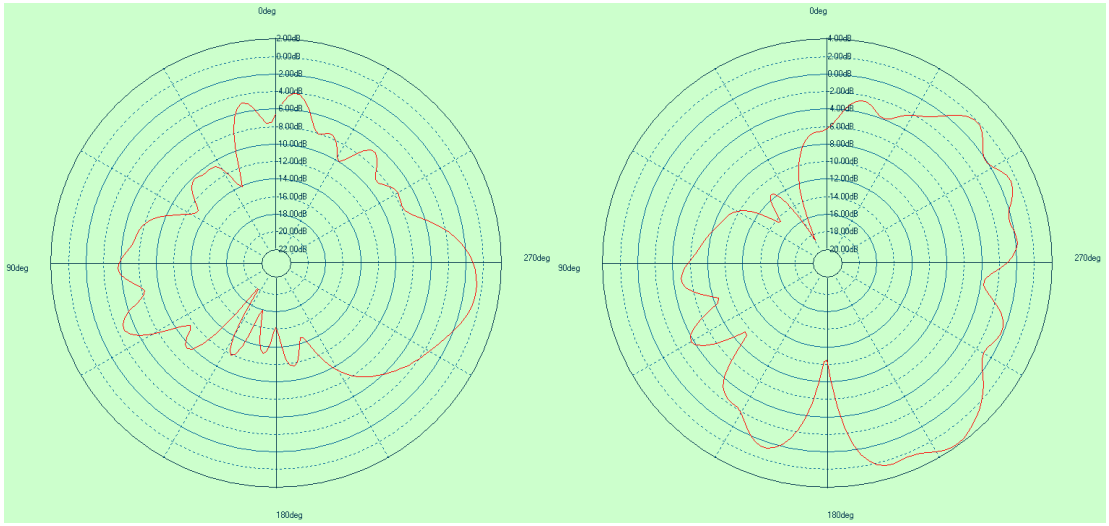


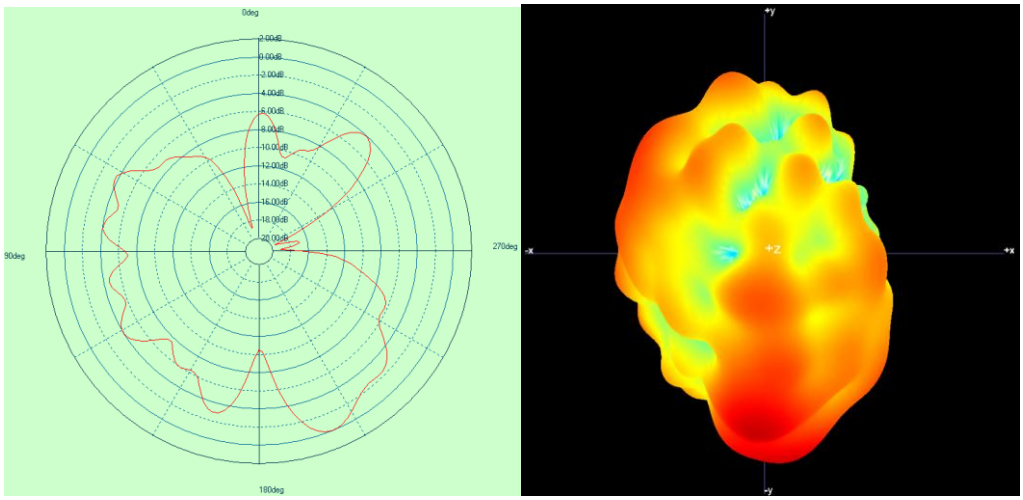
2450MHz





5200MHz

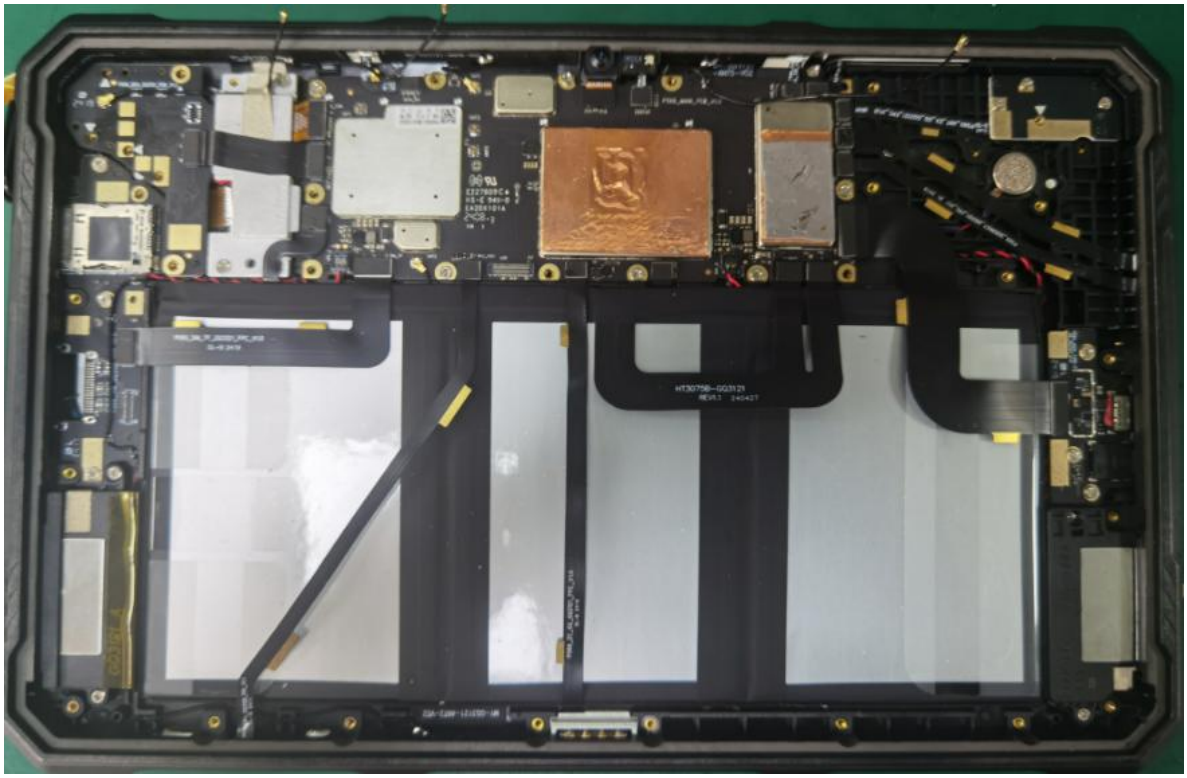




3800MHz

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance



B.2 Test Configuration