

No.:
WTSSZ2023-0841-E

TEST REPORT

NAME OF SAMPLE : EZ4 Antenna

CLIENT : Eastech (Huizhou) Co., Ltd.

CLASSIFICATION OF TEST : N/A

CVC Testing Technology (Shenzhen) Co., Ltd.



Client		Name : Eastech (Huizhou) Co., Ltd.	
		Address : Dong Fong District, Xin Xu, Hui Yang, Hui Zhou City, Guang Dong 516226, China	
Manufacturer		Name : Eastech (Huizhou) Co., Ltd.	
		Address : Dong Fong District, Xin Xu, Hui Yang, Hui Zhou City, Guang Dong 516226, China	
Equipment Under Test		Name : EZ4 Antenna	
		Model/Type: LRDWMOEZ4-H001	
		Additional Model: N/A	
		Trade mark : N/A	
		Serial NO.:N/A	
		Sample NO.: 1-1	
Date of Receipt.	2023.09.19	Date of Testing	2023.09.19~2023.09.21
Test Specification		Test Result	
ANSI/IEEE Std 149-1979 IEEE Standard Test Procedures for Antennas		N/A	
Evaluation of Test Result	The Gain, Efficiency and Radiation Pattern of EZ4 Antenna has been tested and the test results were shown on pages 8 to 24.		
	Seal of CVC Issue Date: 2023.09.26		
Tested by:  Cai Jianyu Name Signature	Reviewed by:  Huang Meng Name Signature	Approved by:  Dong Sanbi Name Signature	
Other Aspects: NONE.			
Abbreviations: OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
WTSSZ2023-0841-E	Original release	2023.09.26



1. SUMMARY OF TEST RESULTS

Test Item	Result
Gain(Peak Gain)	5.75 dBi(8000MHz)



2. GENERAL INFORMATION

2.1 General Product Information

PRODUCT	EZ4 Antenna
BRAND	N/A
TEST MODEL	LRDWMOEZ4-H001
ADDITIONAL MODEL	N/A
ANTENNA TYPE	PCB Antenna
FREQUENCY RANGE	0~26GHz
DIMENSIONS	N/A
Remark: 1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. Since the above data and/or information is provided by the client, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.	



2.2 Test Condition

ENVIRONMENT PARAMETER	Ambient Pressure (KPa)	Temperature (°C)	Voltage	Relative Humidity (%)
NORMAL TEMPERATURE,NORMAL VOLTAGE	101	22.5	N/A	54.5

2.3 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

Item	Uncertainty
Gain	$\pm 0.8\text{dB}$

2.4 Test Location

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology (Shenzhen) Co., Ltd.

Lab Address:No. 1301, Guanguang Road, Xinlan Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province 518110 P.R.China

Post Code: 518110 Tel: 0755-23763060-8805
Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn
<http://www.cvc.org.cn>



3. ANTENNA GAIN

3.1 Test Results

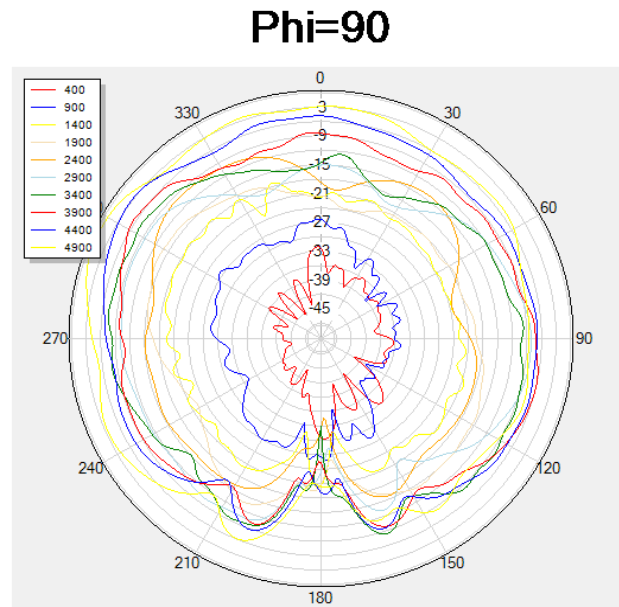
Test Model	LRDWMOEZ4-H001		
Sample No.	1-1		
Frequency (MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
400	-29.26	-38.06	0.02
900	-24.46	-29.36	0.12
1400	-17.15	-22.11	0.62
1900	-9.86	-16.20	2.40
2400	-7.98	-13.46	4.51
2900	-4.56	-10.20	9.54
3400	-2.73	-8.35	14.63
3900	-1.67	-7.32	18.53
4400	-0.97	-6.41	22.88
4900	0.91	-4.48	35.64
5400	3.18	-2.76	52.98
5900	1.39	-4.65	34.25
6240	1.30	-4.40	36.27
7000	0.58	-5.18	30.34
7500	4.33	-1.99	63.21
8000	5.75	-2.54	55.66
8500	3.54	-2.51	56.17
9400	3.92	-3.07	49.27
10000	3.02	-3.53	44.33



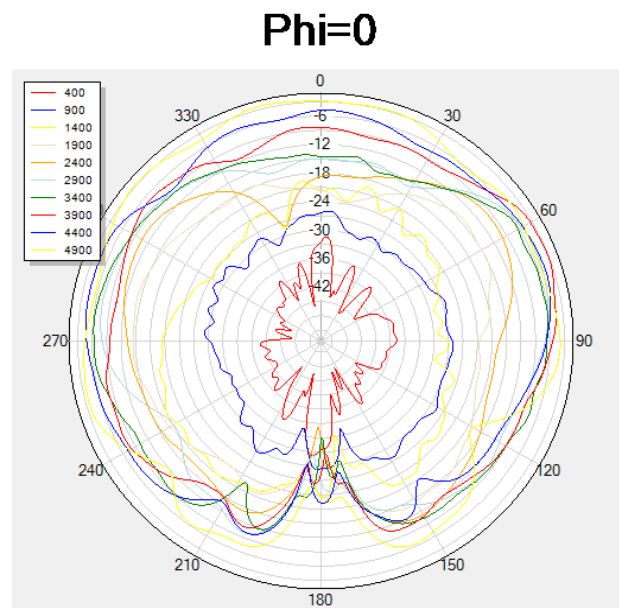
12800	0.27	-6.67	21.54
13200	-3.62	-10.01	9.98
15000	-0.69	-6.18	24.11
20000	-5.49	-12.89	5.14
23000	-0.62	-8.64	13.66
26000	0.48	-7.58	17.47

3.2 Radiation Pattern

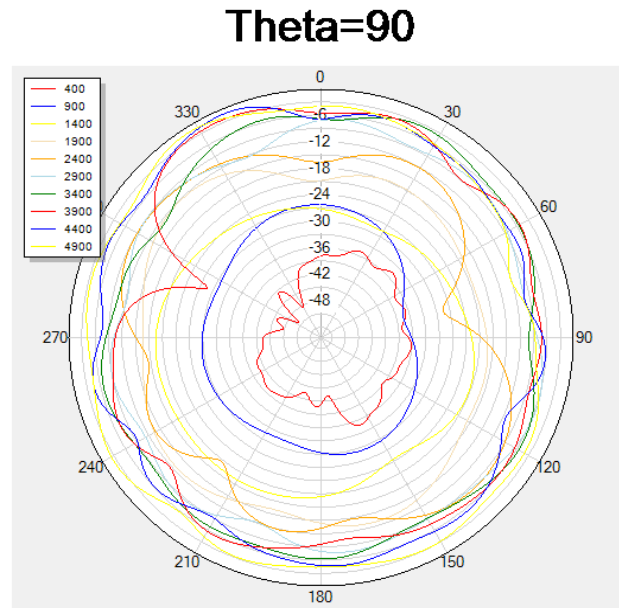
4900MHz-Phi90



4900MHz-Phi0

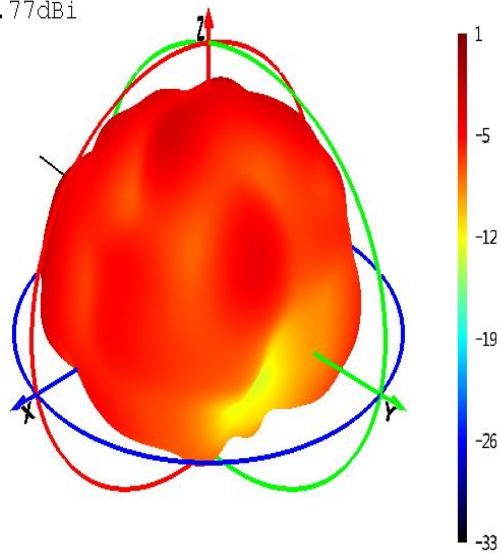


4900MHz-Theta90

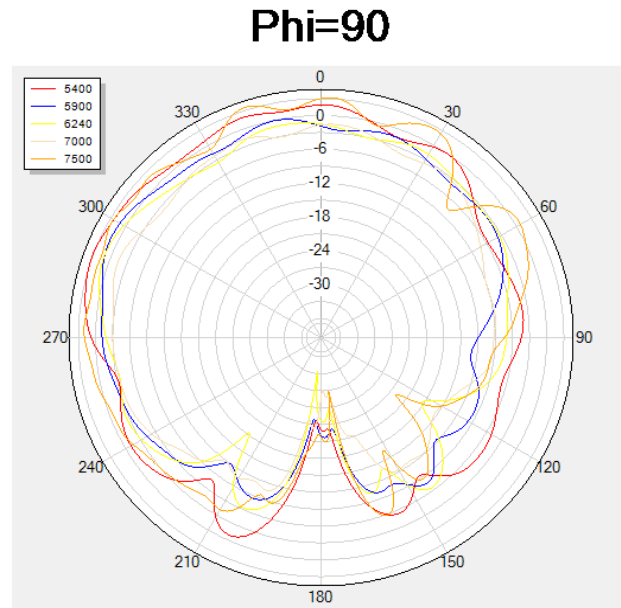


4900MHz-3D

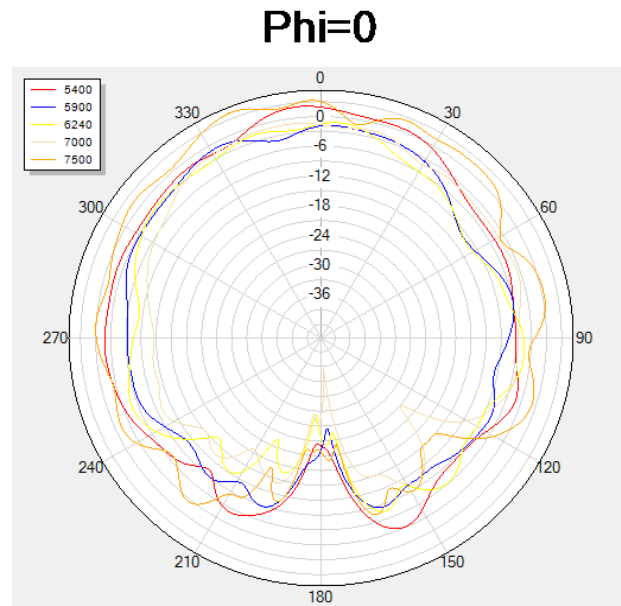
MAX:0.91dBi
MIN:-33.77dBi



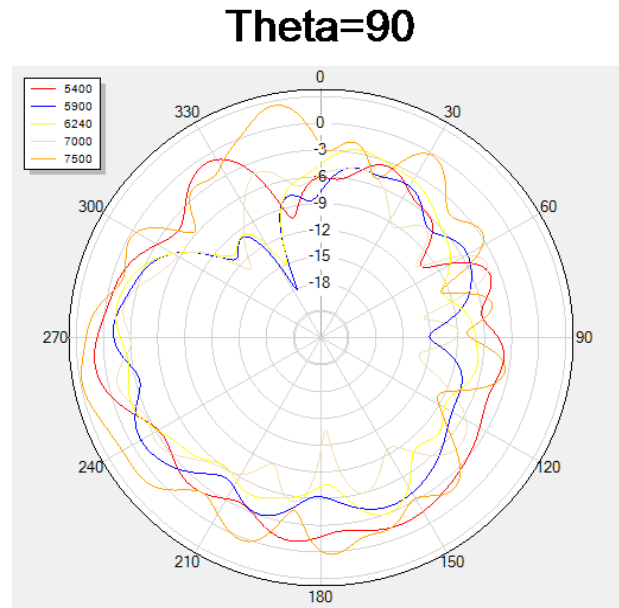
6240MHz,7000MHz,7500MHz-Phi90



6240MHz,7000MHz,7500MHz-Phi0

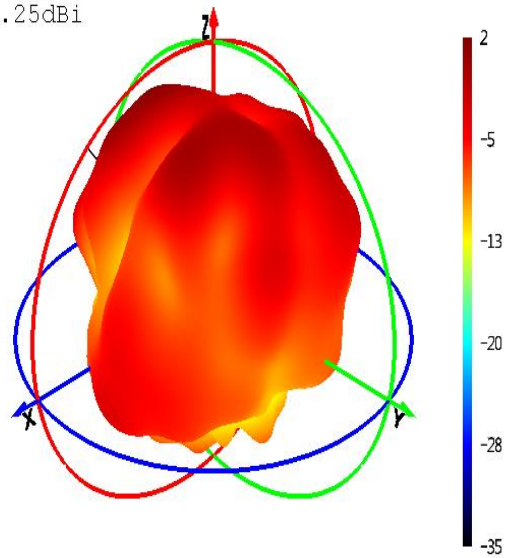


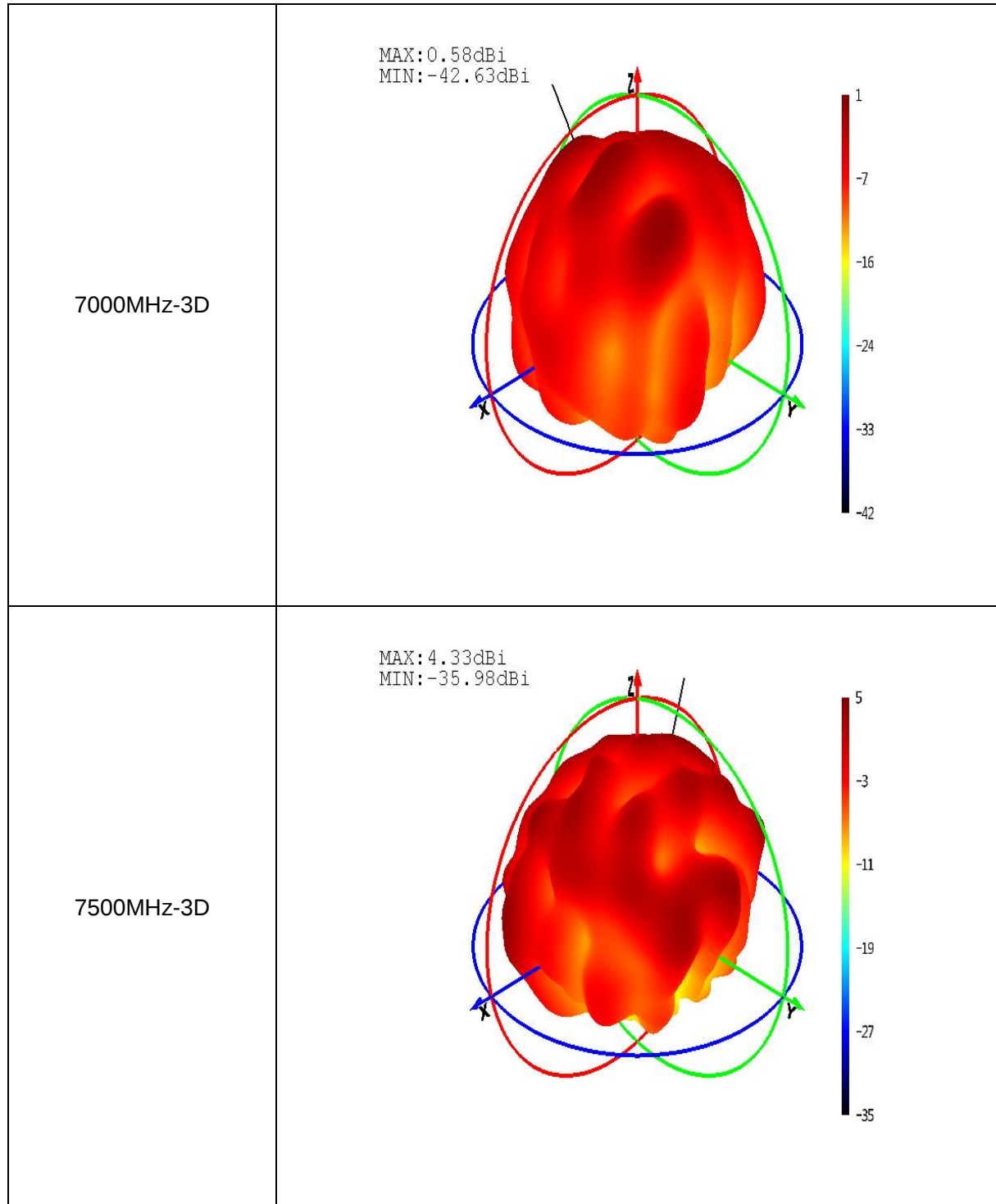
6240MHz,7000MHz,7500MHz-Theta90

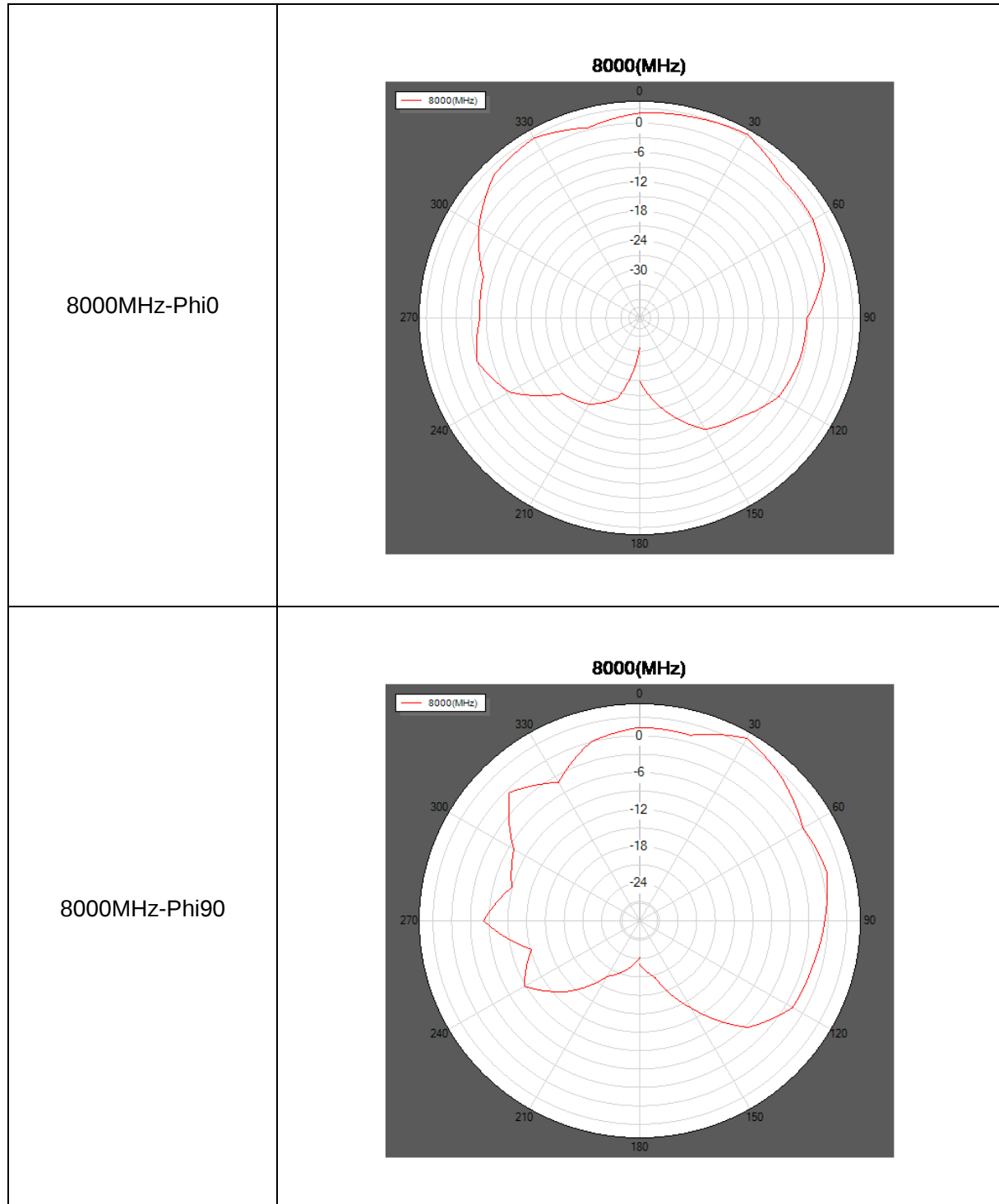


6240MHz-3D

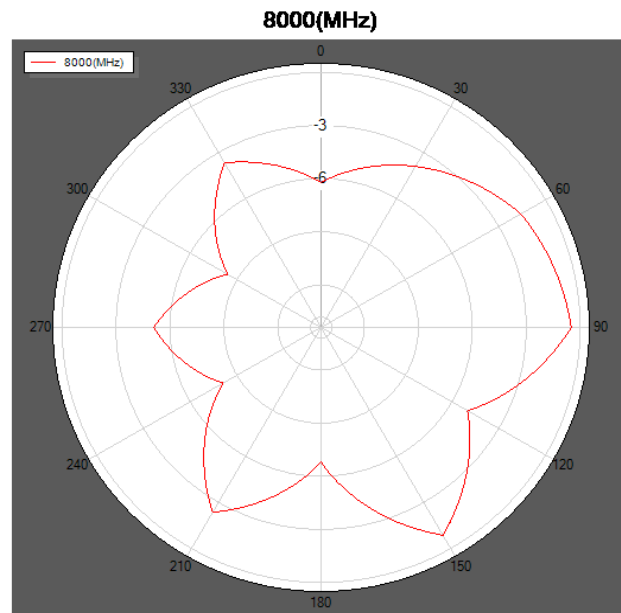
MAX:1.3dBi
MIN:-36.25dBi



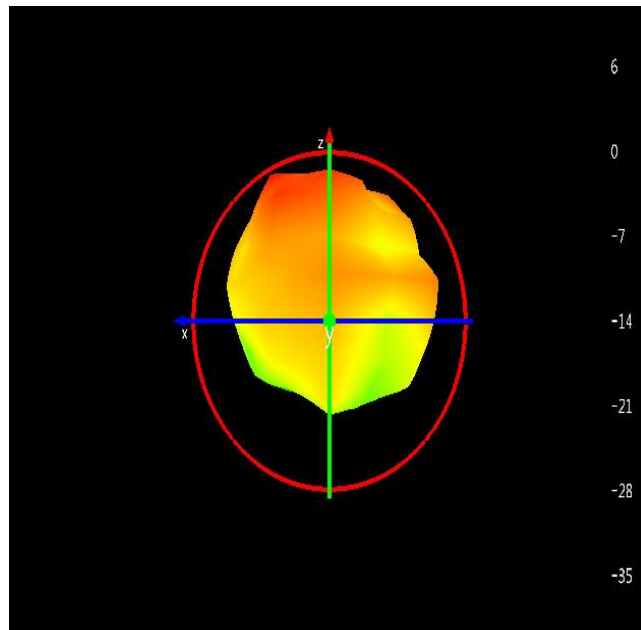




8000MHz-Theta90

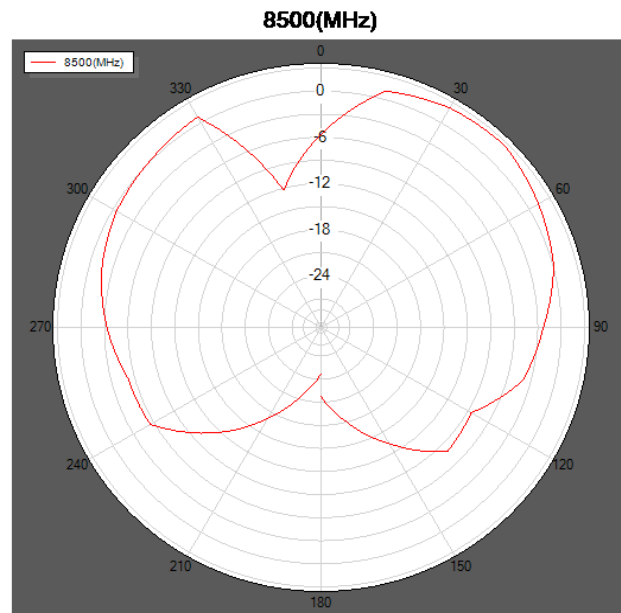


8000MHz-3D

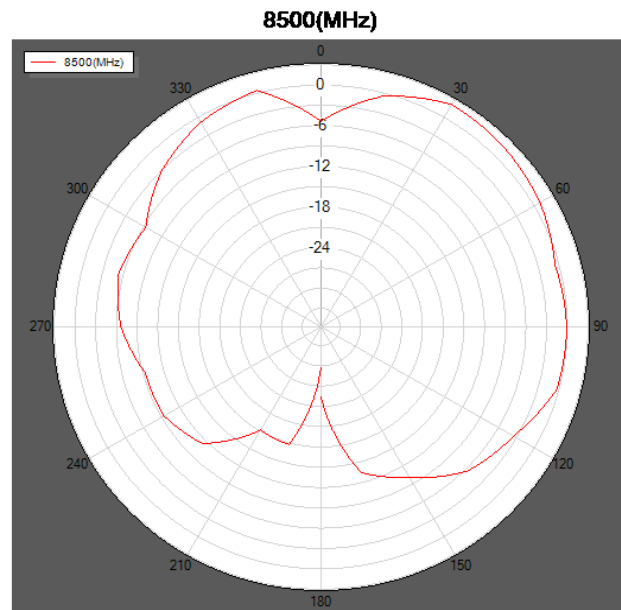


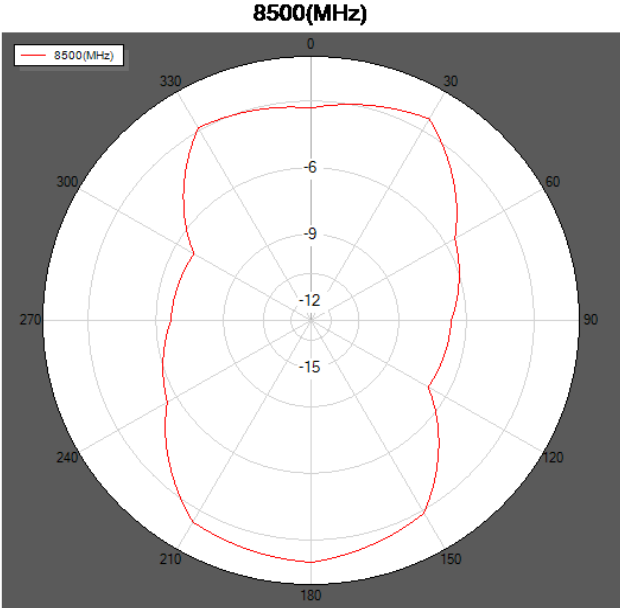
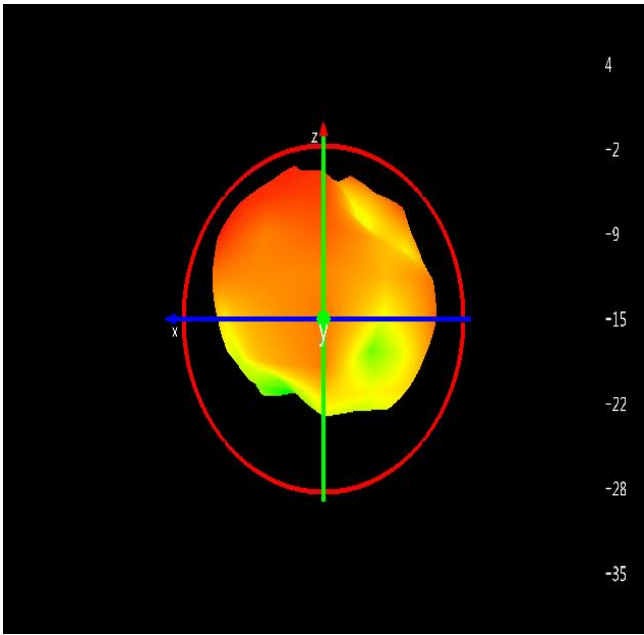


8500MHz-Phi0

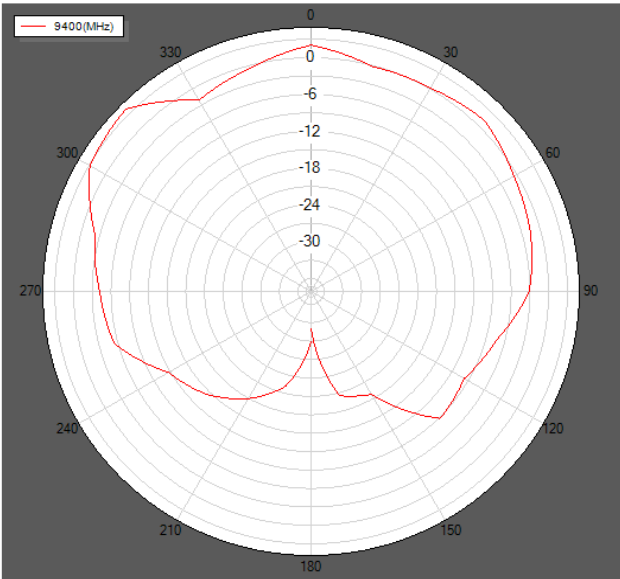
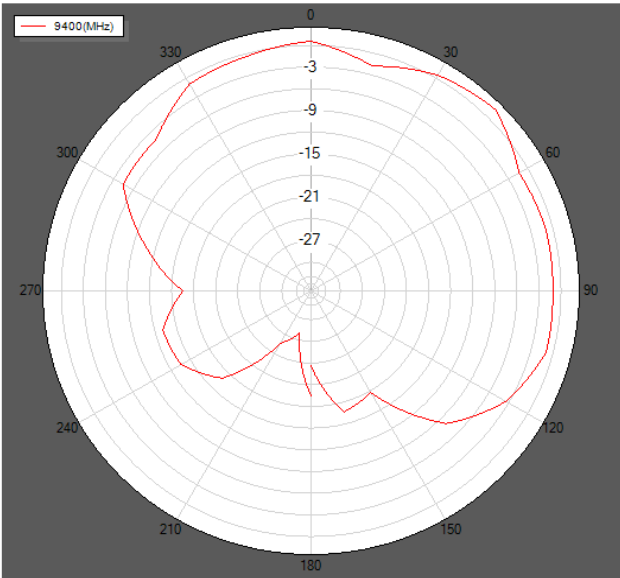


8500MHz-Phi90

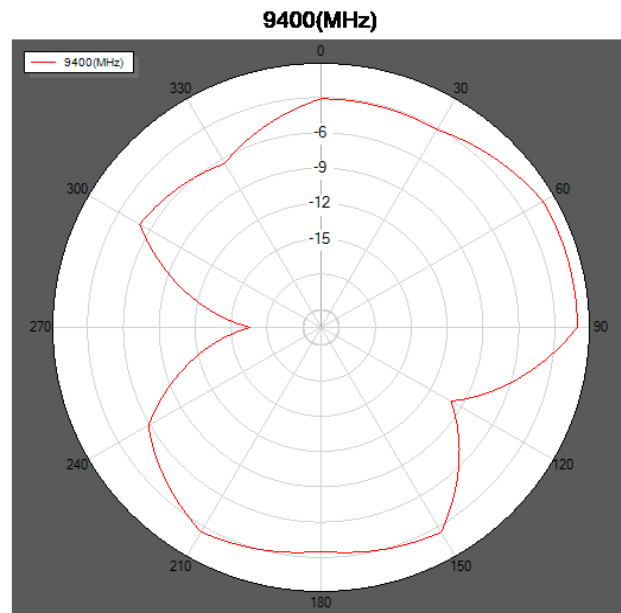


8500MHz-Theta90	
8500MHz-3D	

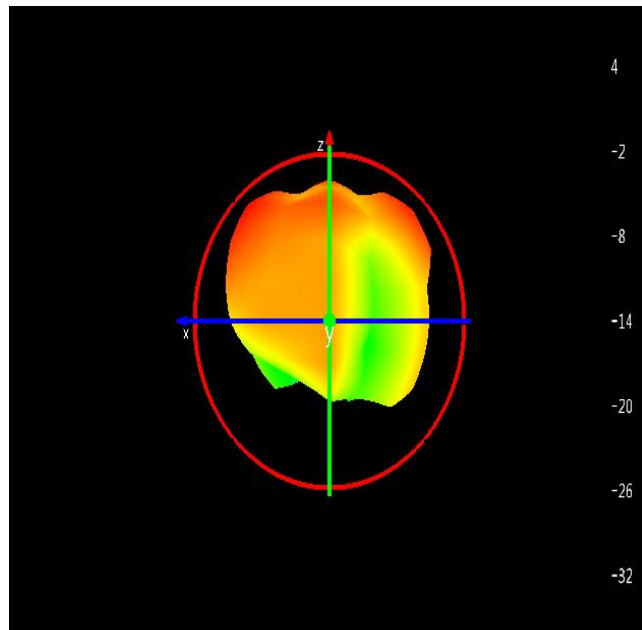


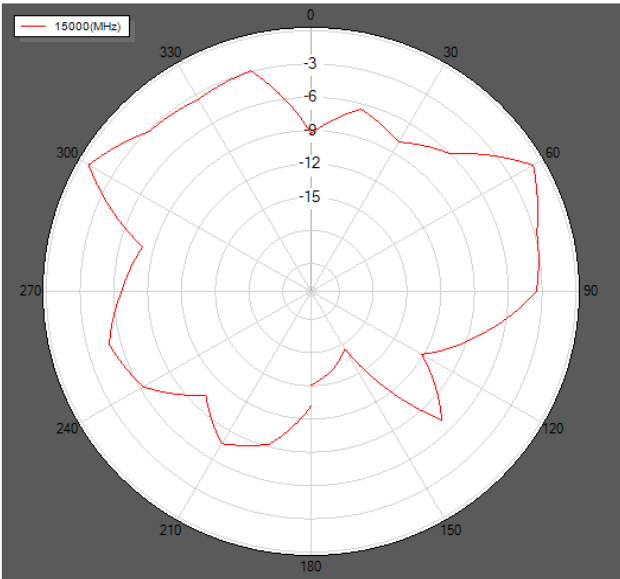
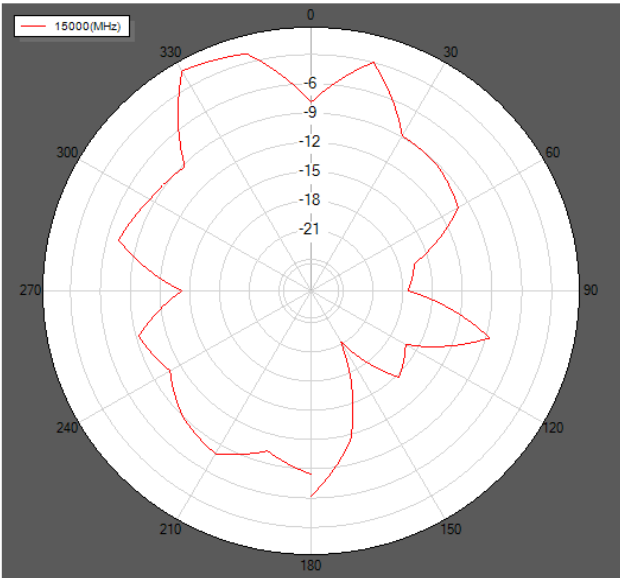
9400MHz-Phi0	9400(MHz) 
9400MHz-Phi90	9400(MHz) 

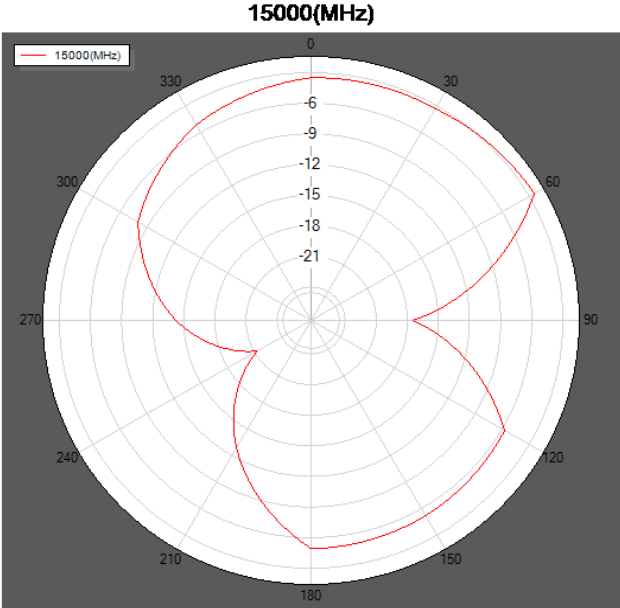
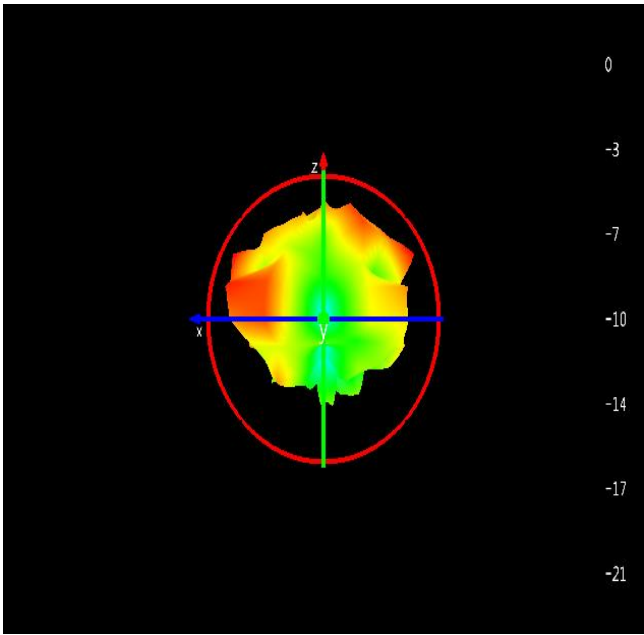
9400MHz-Theta90

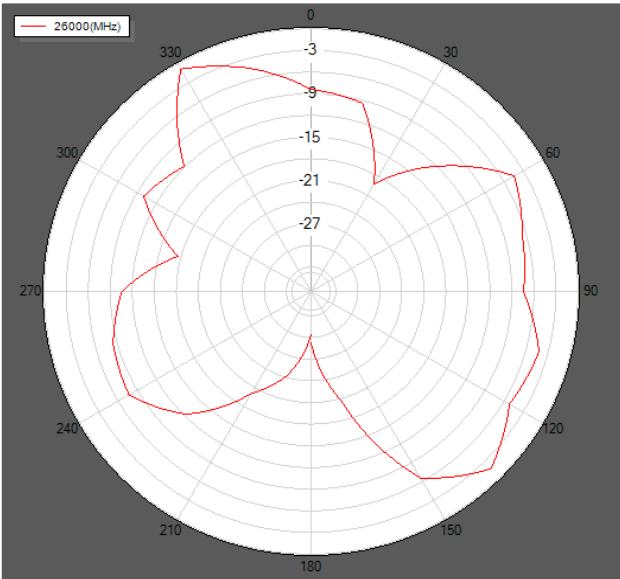
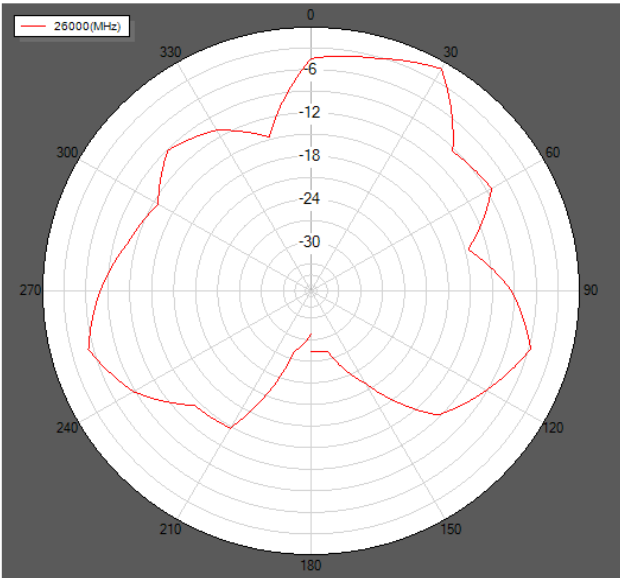


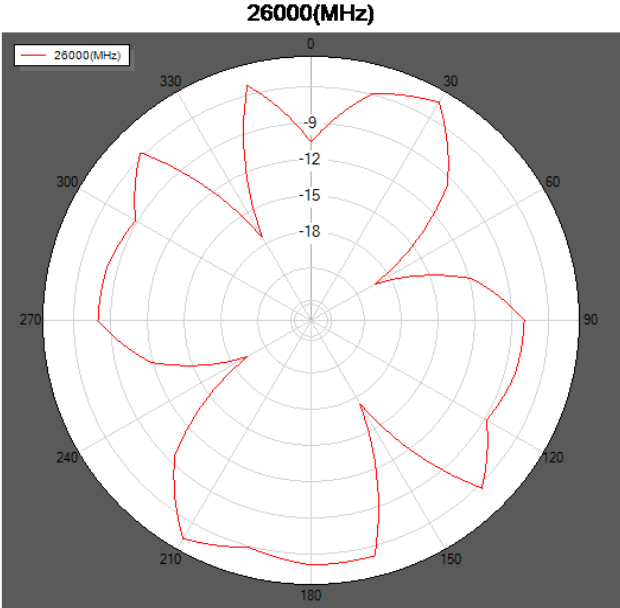
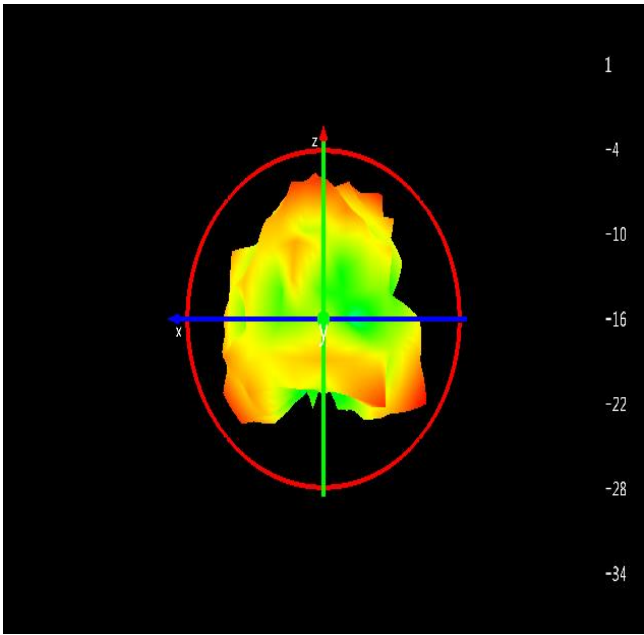
9400MHz-3D



15000MHz-Phi0	15000(MHz) 
15000MHz-Phi90	15000(MHz) 

15000MHz-Theta90	 A polar plot titled "15000(MHz)" showing the radiation pattern at 15000 MHz. The plot features concentric circles representing signal strength in dBm, ranging from 0 at the center to -21 at the outer edge, with major grid lines every 3 dBm. The angular scale is marked from 0 to 330 degrees in 30-degree increments. A red line traces the radiation pattern, which is roughly circular with a slight indentation at the 180-degree mark, indicating a main lobe centered around 90 and 270 degrees.
15000MHz-3D	 A 3D radiation pattern plot titled "15000MHz-3D". It shows a 3D surface plot of the radiation pattern against a black background. The surface is colored with a gradient from green (lower values) to red (higher values). A red circle is overlaid on the plot, and a blue line indicates the x-axis. The z-axis is labeled with values 0, -3, -7, -10, -14, -17, and -21, corresponding to the dBm scale.

26000MHz-Phi0	26000(MHz) 
26000MHz-Phi90	26000(MHz) 

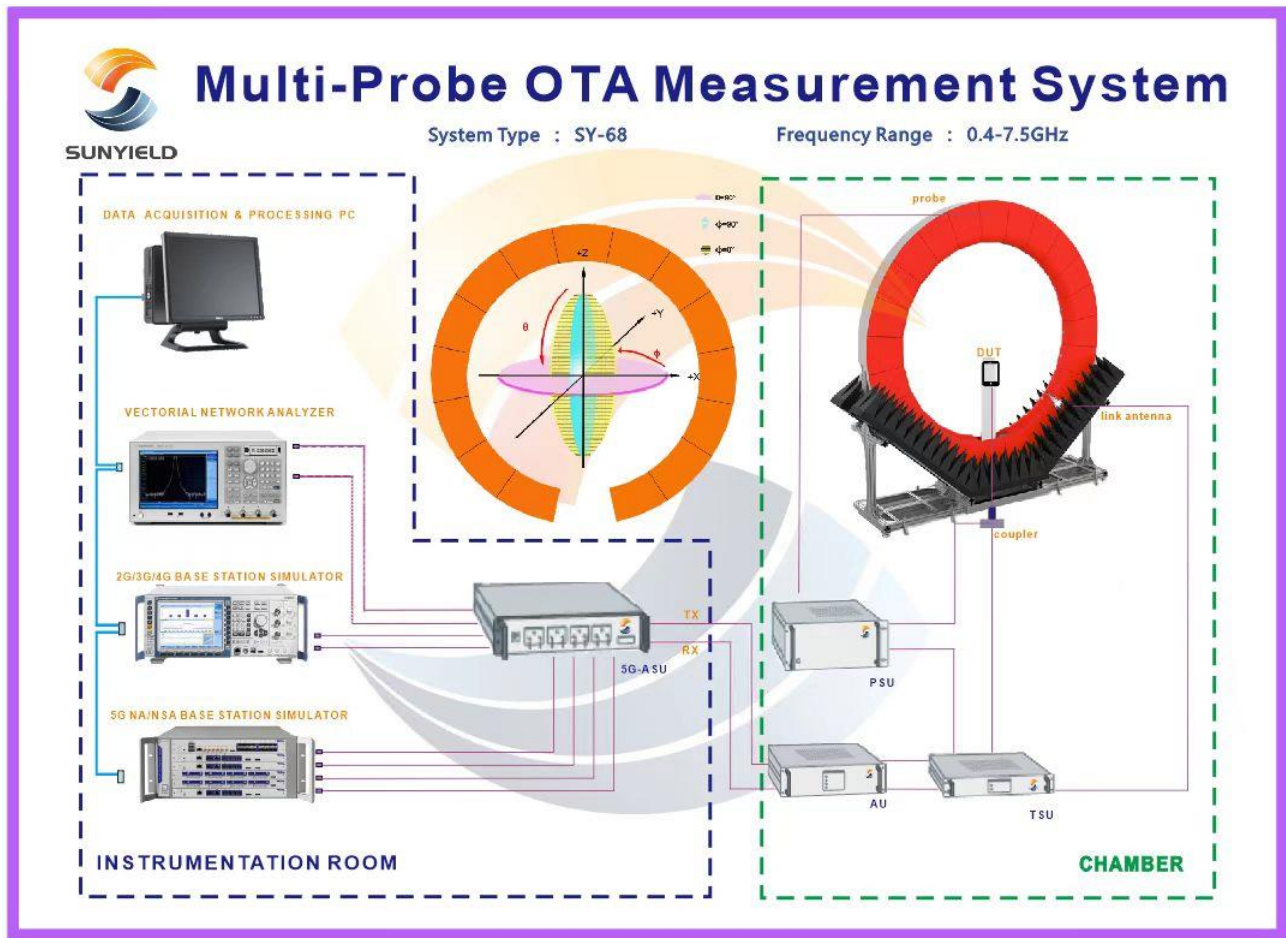
26000MHz-Theta90	 A polar plot titled "26000(MHz)" showing the radiation pattern at 26000 MHz for a Theta90 configuration. The plot features a red line representing the radiation pattern on a circular grid. The radial scale is marked from -9 to -18 in increments of 3. The angular scale is marked from 0 to 330 in increments of 30. The pattern shows a complex, multi-lobed structure with a primary lobe oriented towards the 0-degree mark.
26000MHz-3D	 A 3D surface plot titled "26000MHz-3D" showing the radiation pattern at 26000 MHz. The plot displays a complex, multi-lobed structure in a 3D coordinate system with x, y, and z axes. The z-axis is labeled with values from 1 to -34 in increments of 4. The surface is colored with a gradient from yellow to red, indicating the magnitude of the radiation pattern. The plot is enclosed within a red circular frame.

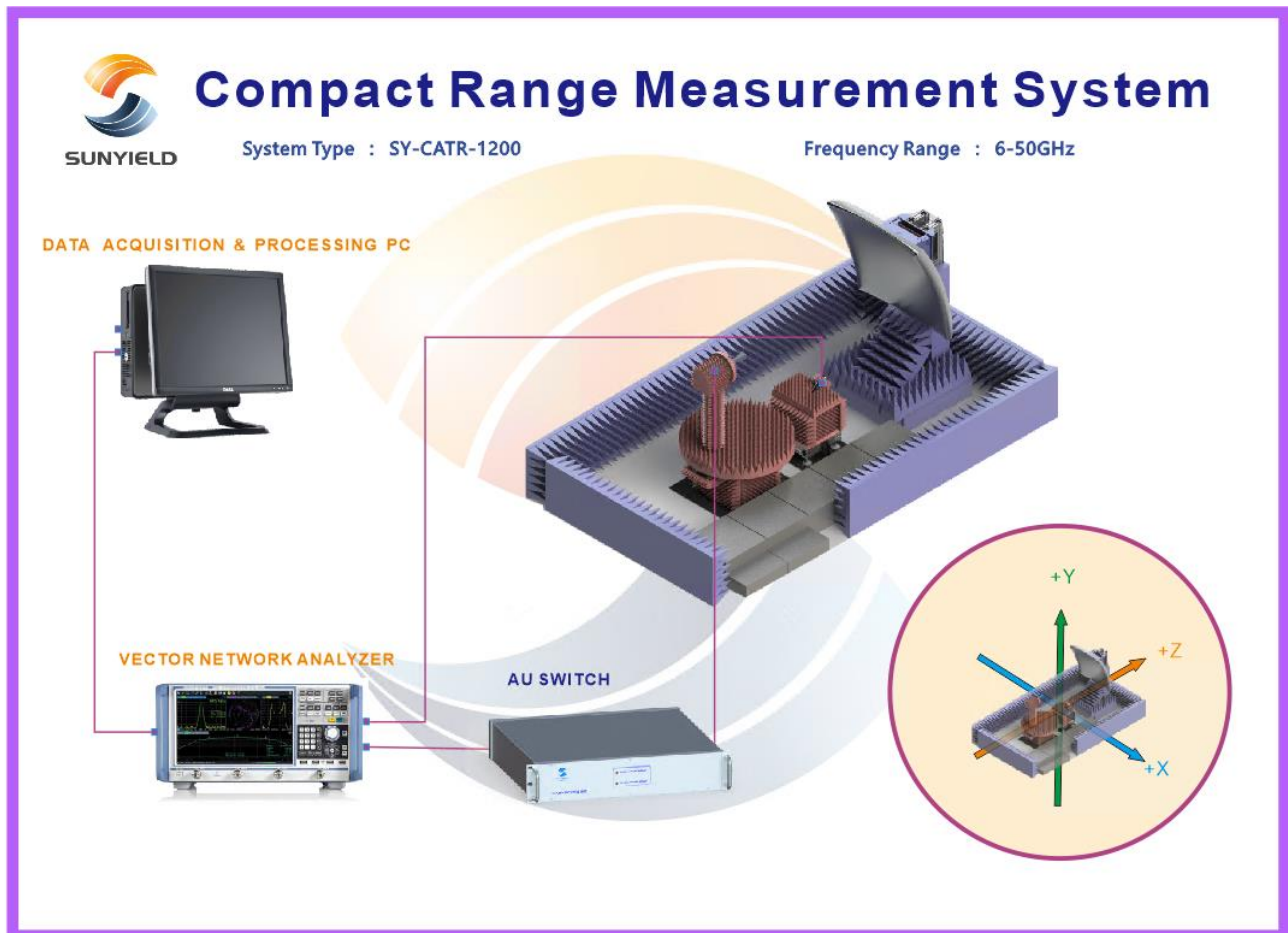


APPENDIX A

Test Equipment	Equipment No.	Serial No.	Manufacturer	Type/Model	Cal.Due	Using
OTA Chamber	CS0300038	20211221	SUN YIELD	6m*6m*6m	2024/12/20	√
Vector Network Analyzer	CS0300067	101544	R&S	ZNB40	2024/5/25	√
Automatic switching unit	CS0300039	81612472	/	5G ACTIVE SWITCHING UNIT	/	√
Compact Range	CS0300040	SI2131	SUNYIELD	5m*3m*3m	2025/5/20	√

APPENDIX B







Important

- (1) The test report is valid without the official stamp of CVC;
- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of Approval and Reviewer;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days.
- (6) Generally, commission test is responsible for the tested samples only.
- (7) As for the test result “-” or “N/A” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

****The test data and test results given in this test report should only be used for purposes of scientific research, teaching and internal quality control when the CMA symbol is not presented.****

Address of the laboratory:

CVC Testing Technology (Shenzhen) Co., Ltd.

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Longhua District, Shenzhen, Guangdong, 518110, P. R. China

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Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn

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