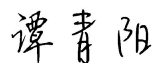


Industrial Internet Innovation Center (Shanghai) Co.,Ltd.**OTA TEST REPORT**

PRODUCT	smart photovoltaic optimizer
MODEL	YMX800A
APPLICANT	Yimeixu Witchip Energy Hitech Co.,Ltd
ISSUE DATE	January 14, 2025
STANDARD(S)	IEEE Std 149TM-2008 IEEE Standard Test Procedures for Antennas

Prepared by: **Tan Qingyang**Reviewed by: **Feng Yimin**Approved by: **Zhang Min****CAUTION:**

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CONTENTS

1 GENERAL INFORMATION OF THE LABORATORY	3
1.1 TESTING LABORATORY	3
1.2 LABORATORY ENVIRONMENTAL REQUIREMENTS	3
1.3 PROJECT INFORMATION	3
2 GENERAL INFORMATION OF THE CUSTOMER	4
2.1 APPLICANT	4
2.2 MANUFACTURER	4
3 GENERAL INFORMATION OF THE PRODUCT	5
3.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
4 TEST CONFIGURATION INFORMATION	6
4.1 TEST EQUIPMENTS UTILIZED	6
5 TEST RESULTS	7
6 FREE SPACE MEASUREMENT INFORMATION	8
ANNEX A: EUT PHOTOS	9
ANNEX B: TEST CONFIGURATION PHOTOS	10
Annex C: Detailed 2D Pattern Plots Results	11
Annex D: Detailed 3D Pattern Plots Results	15

1 General Information of The Laboratory

1.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4, No. 766, Jingang Road, Pudong, Shanghai, China
Telephone	021-68866880

1.2 Laboratory Environmental Requirements

Temperature	19℃~25℃
Relative Humidity	35%RH~75%RH

1.3 Project Information

Project Manager	Xu Yuting
Test Date	November 28, 2024

2 General Information of The Customer

2.1 Applicant

Company	Yimeixu Witchip Energy Hitech Co.,Ltd.
Address	No 355 Ruifeng Road, Gaozhao Street 31400 Jiaxing, Zhejiang, PEOPLE'S REPUBLIC OF CHINA
Telephone	N/A

2.2 Manufacturer

Company	Yimeixu Witchip Energy Hitech Co.,Ltd.
Address	No 355 Ruifeng Road, Gaozhao Street 31400 Jiaxing, Zhejiang, PEOPLE'S REPUBLIC OF CHINA
Telephone	N/A

3 General Information of The Product

3.1 Product Description for Equipment under Test (EUT)

Product	smart photovoltaic optimizer
Model	YMX800A
Date of Receipt	November 28, 2024
EUT ID*	S01
SN/IMEI	N/A
Hardware Version	N/A
Software Version	N/A
NOTE: EUT ID is the internal identification code of the laboratory.	

4 Test Configuration Information

4.1 Test Equipments Utilized

No.	Name	Model	S/N	Manufacturer	Cal. Date	Cal. Interval
1	EMQuest™ V1.14	Pattern Measurement Software	SN1529	ETS-Lindgren	N/A	N/A
2	AMS 8923	Fully Anechoic Chamber	CT-0001443-1280	ETS-Lindgren	2024-8-22	5 years
3	OSP120	Switch	100164	R&S	N/A	N/A
4	EMcenter	Switch	00162194	ETS-Lindgren	N/A	N/A
5	E5071C	N/A	MY46523563	Keysight	2024-10-11	1 year

5 Test Results

Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	3.94	-1.05	78.49	2.88
2410	3.99	-0.90	81.38	3.10
2420	4.17	-0.88	81.60	3.29
2430	3.95	-0.84	82.33	3.11
2440	3.91	-0.75	84.16	3.16
2450	4.07	-0.63	86.42	3.43
2460	4.10	-0.76	84.01	3.34
2470	4.01	-0.76	83.95	3.25
2480	3.96	-0.89	81.50	3.07
2490	4.11	-0.79	83.27	3.31
2500	4.26	-0.68	85.55	3.58

6 Free Space Measurement Information

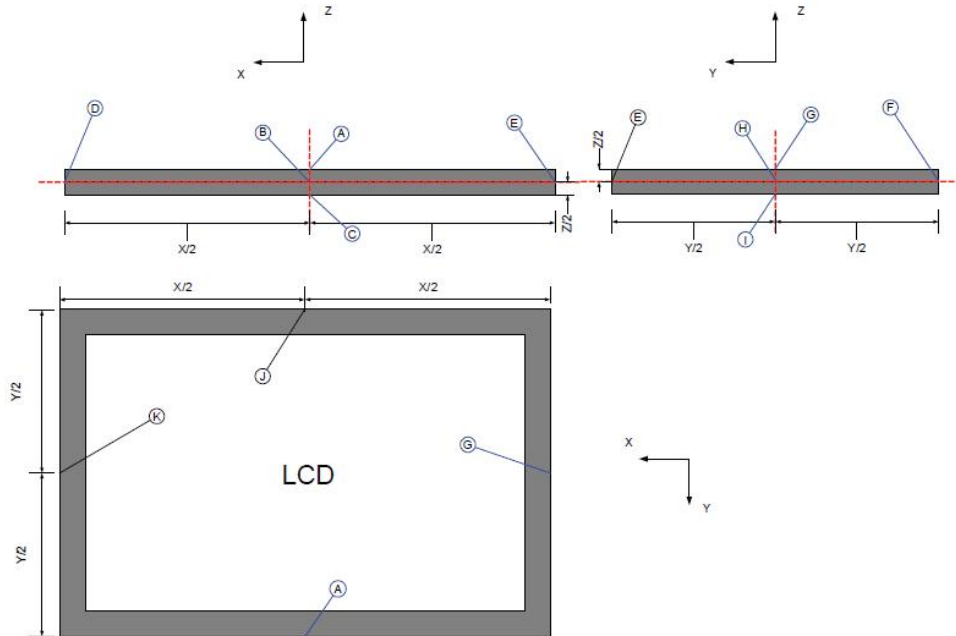


FIGURE P-1 INTERNAL ANTENNA

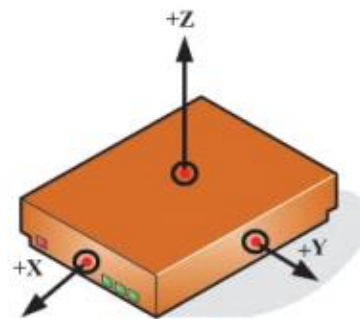
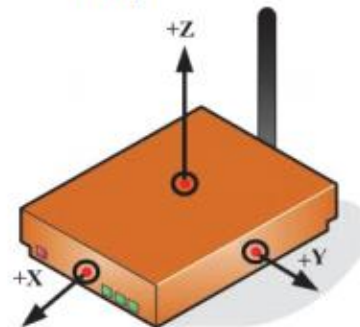
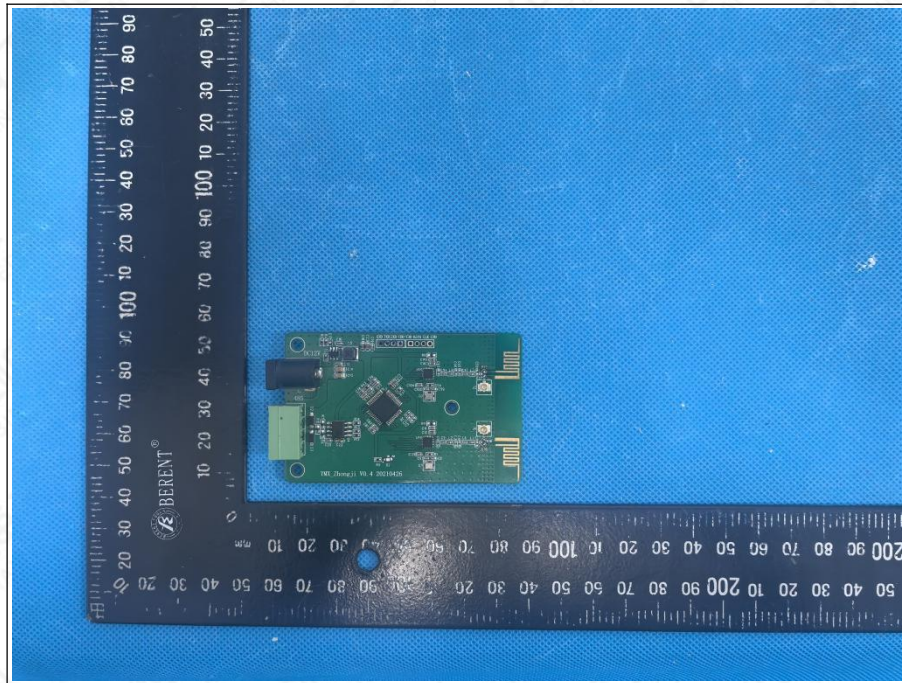


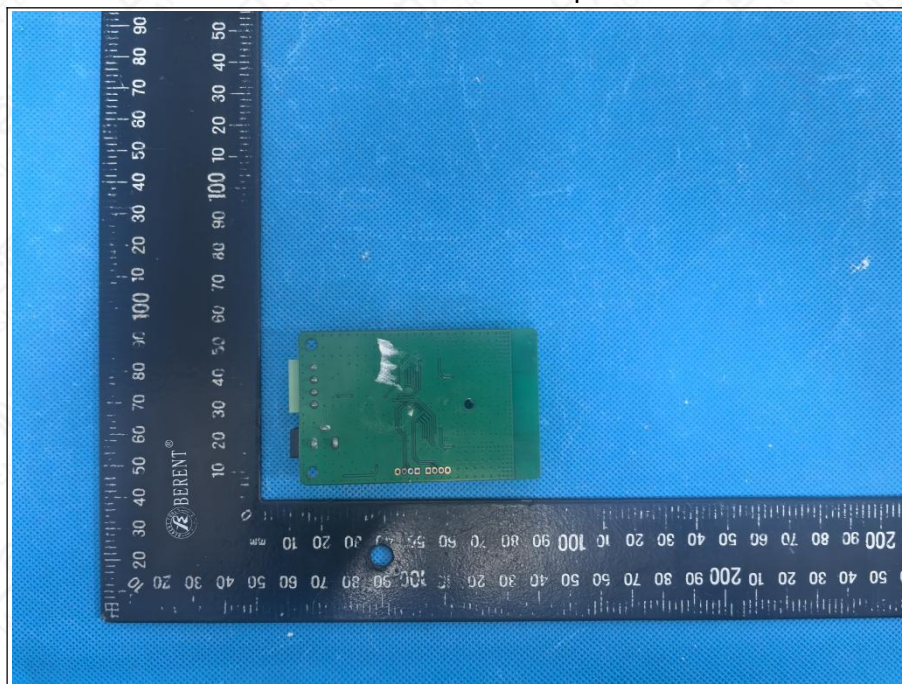
FIGURE P-2 DIRECT CONNECT EXTERNAL ANTENNA (IT DOES NOT MATTER WHERE THE ANTENNA IS LOCATED AS YOU WILL CENTER ON THE DEVICE)



Annex A: EUT Photos

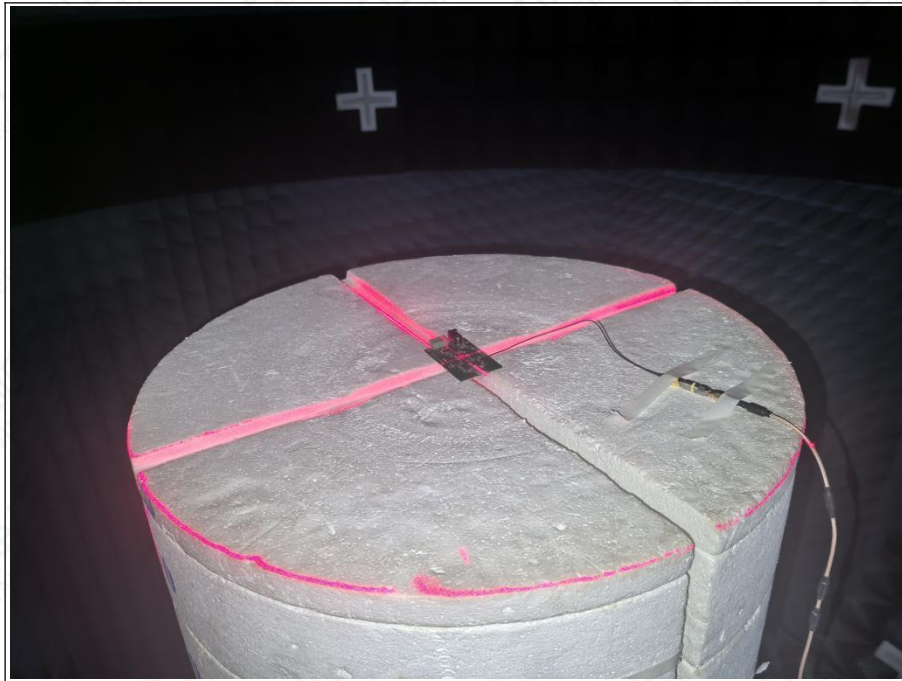


Picture A-1: Front view photo



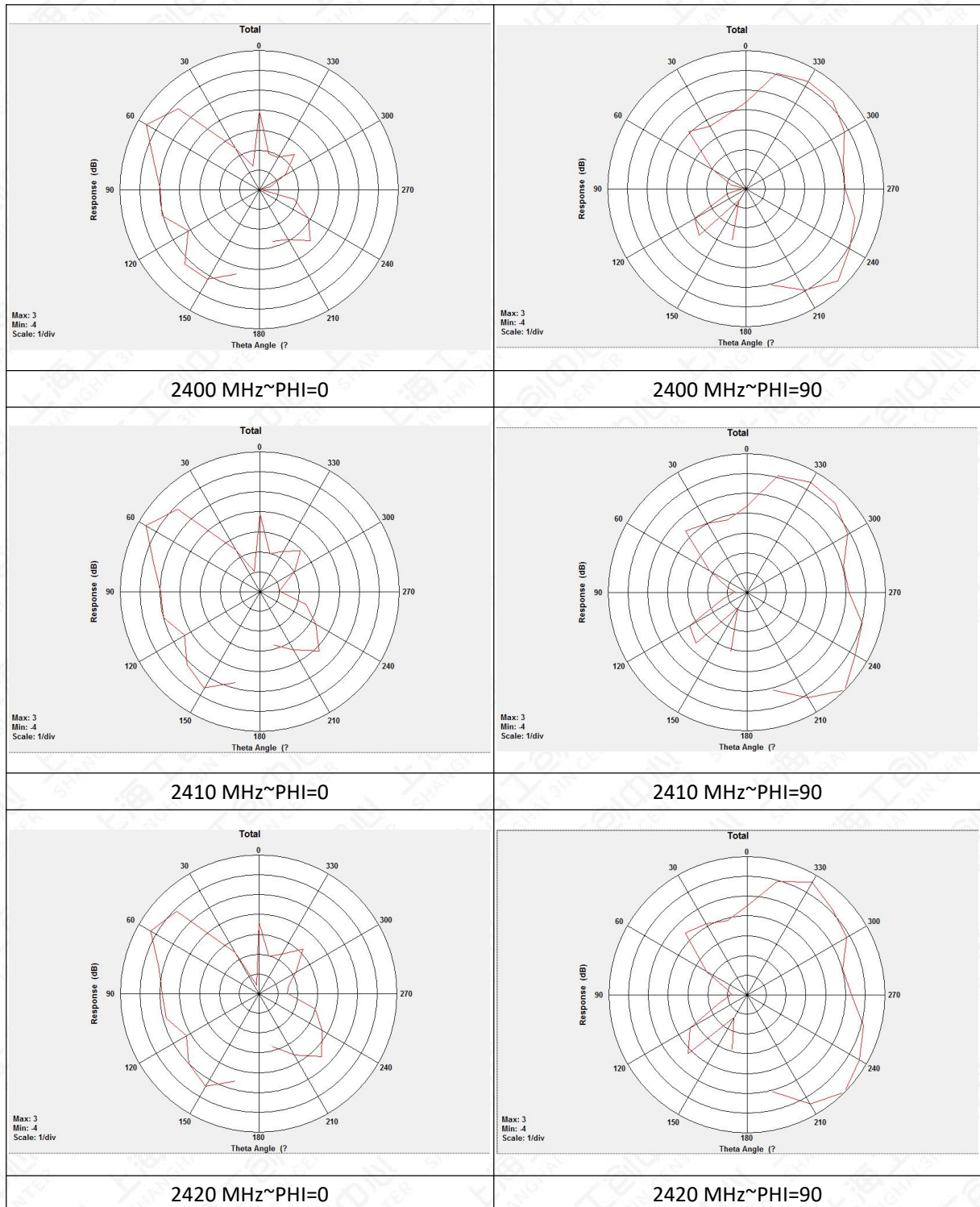
Picture A-2: Rear view photo

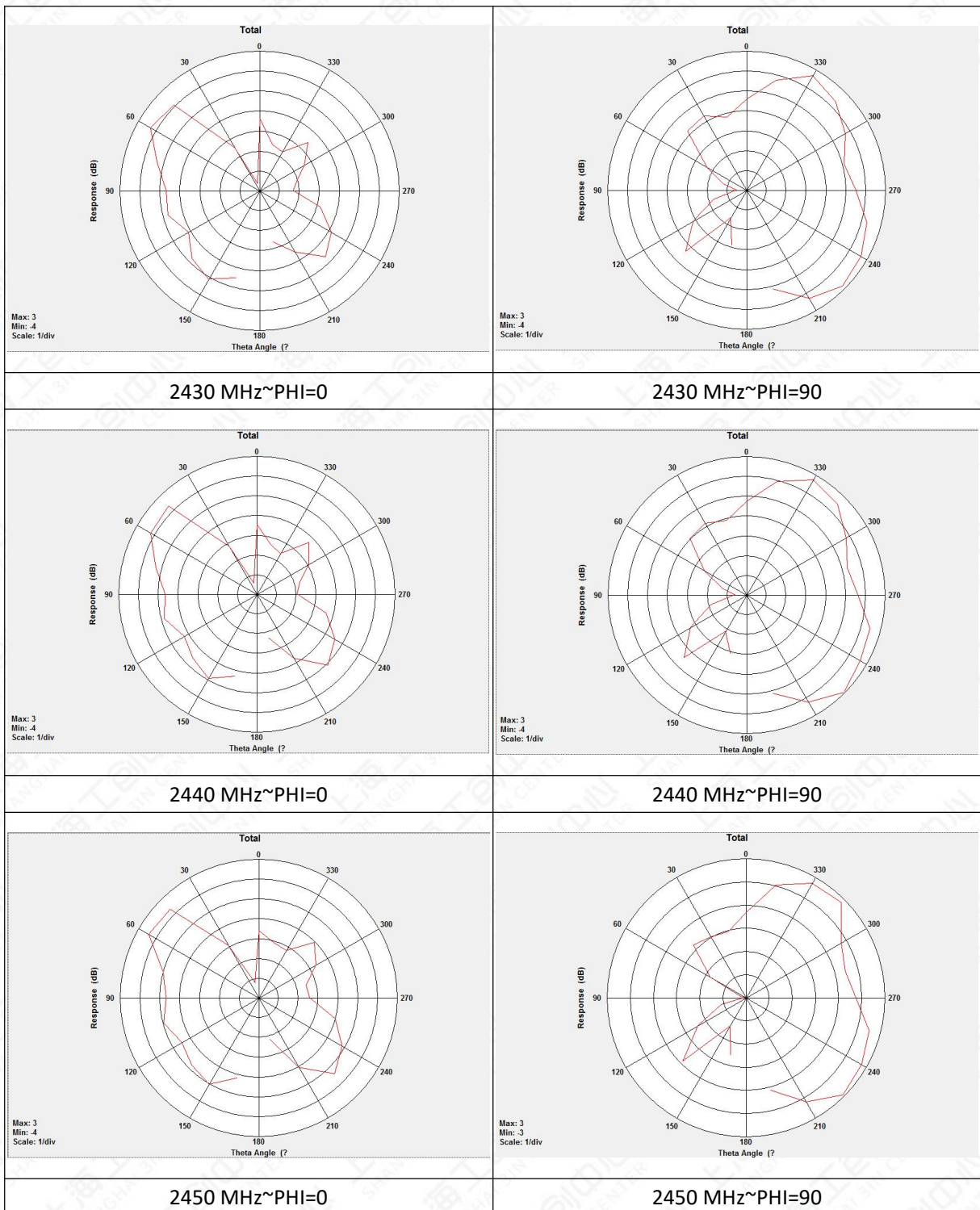
Annex B: Test Configuration Photos

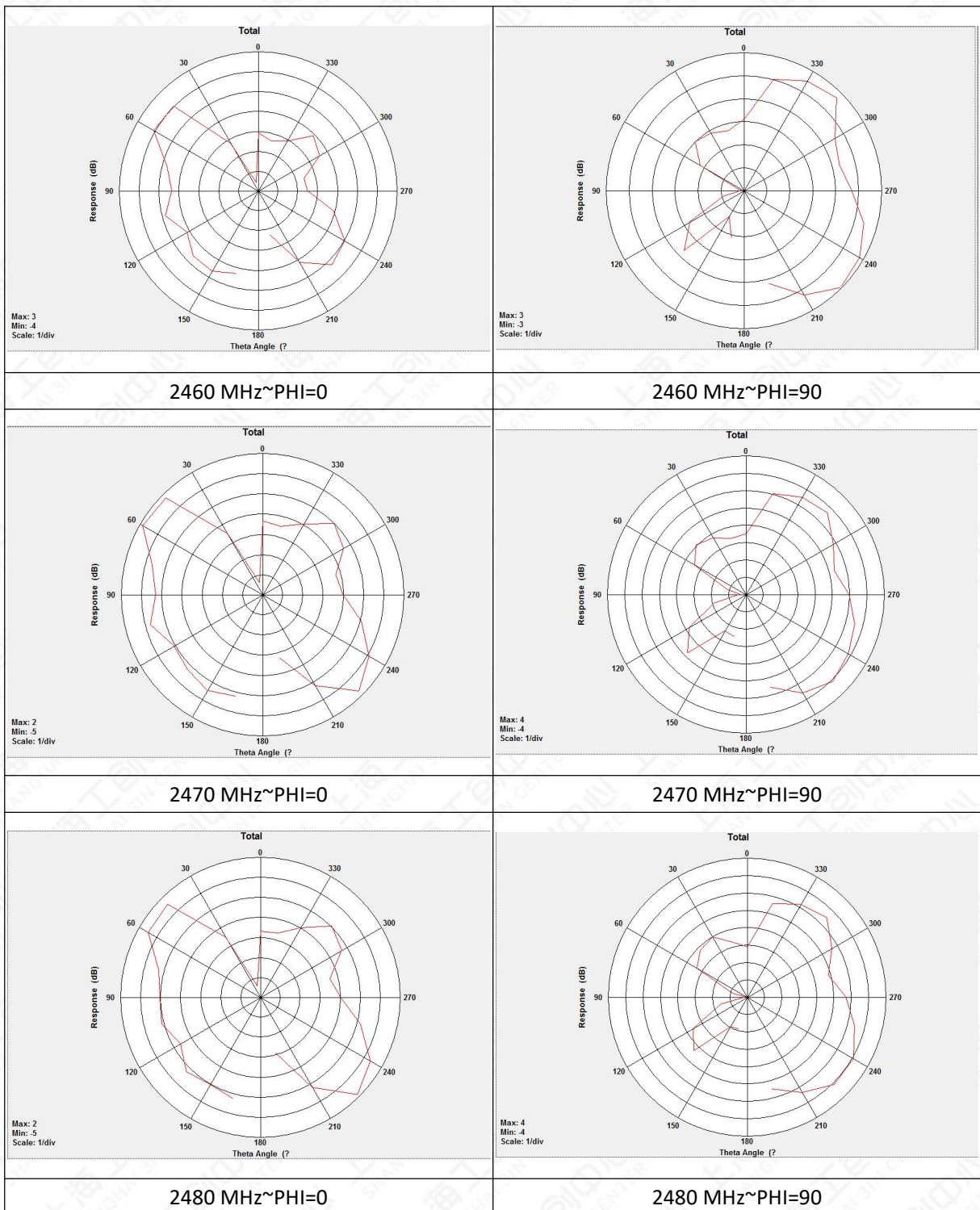


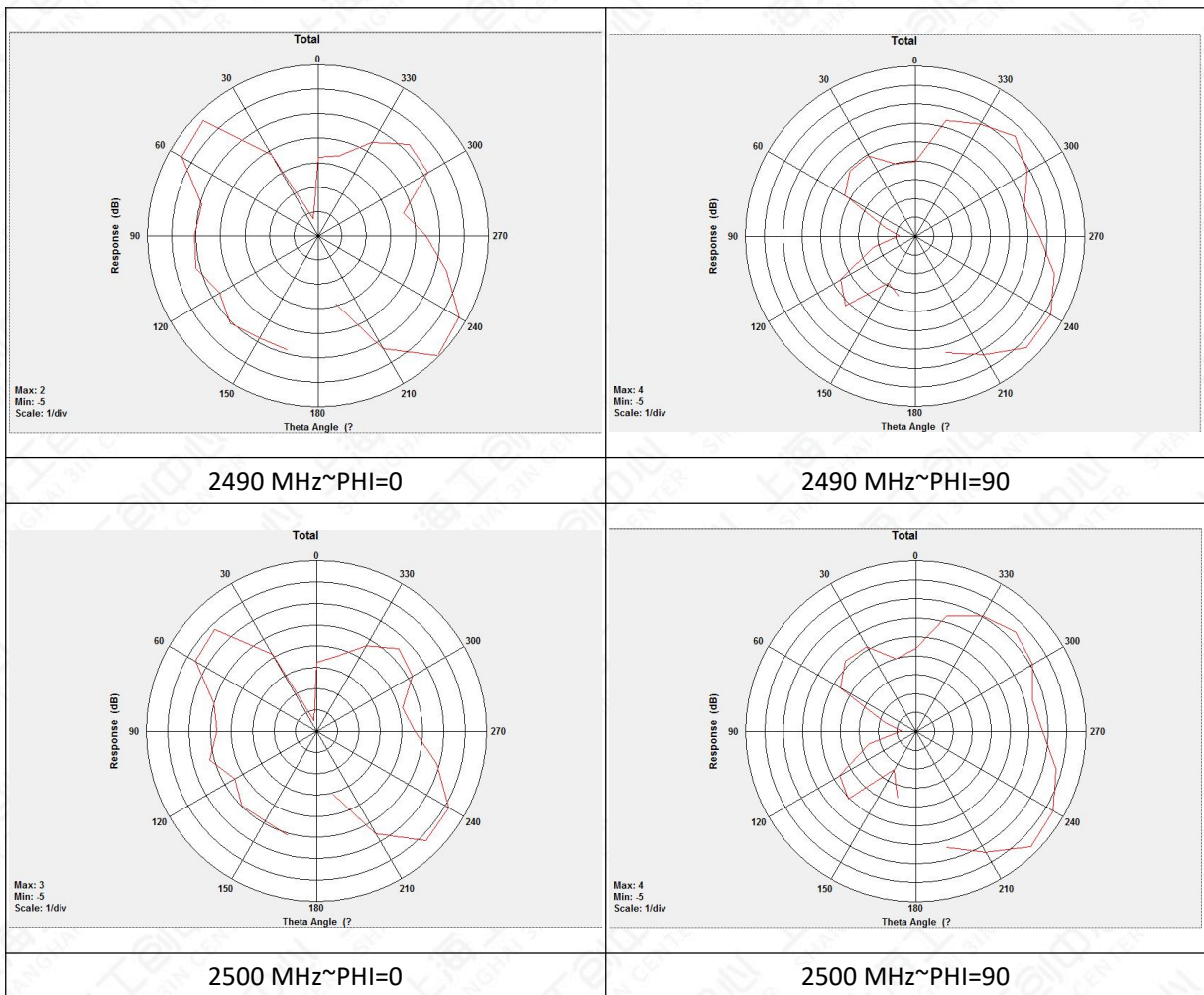
Picture B-1: Free Space

Annex C: Detailed 2D Pattern Plots Results

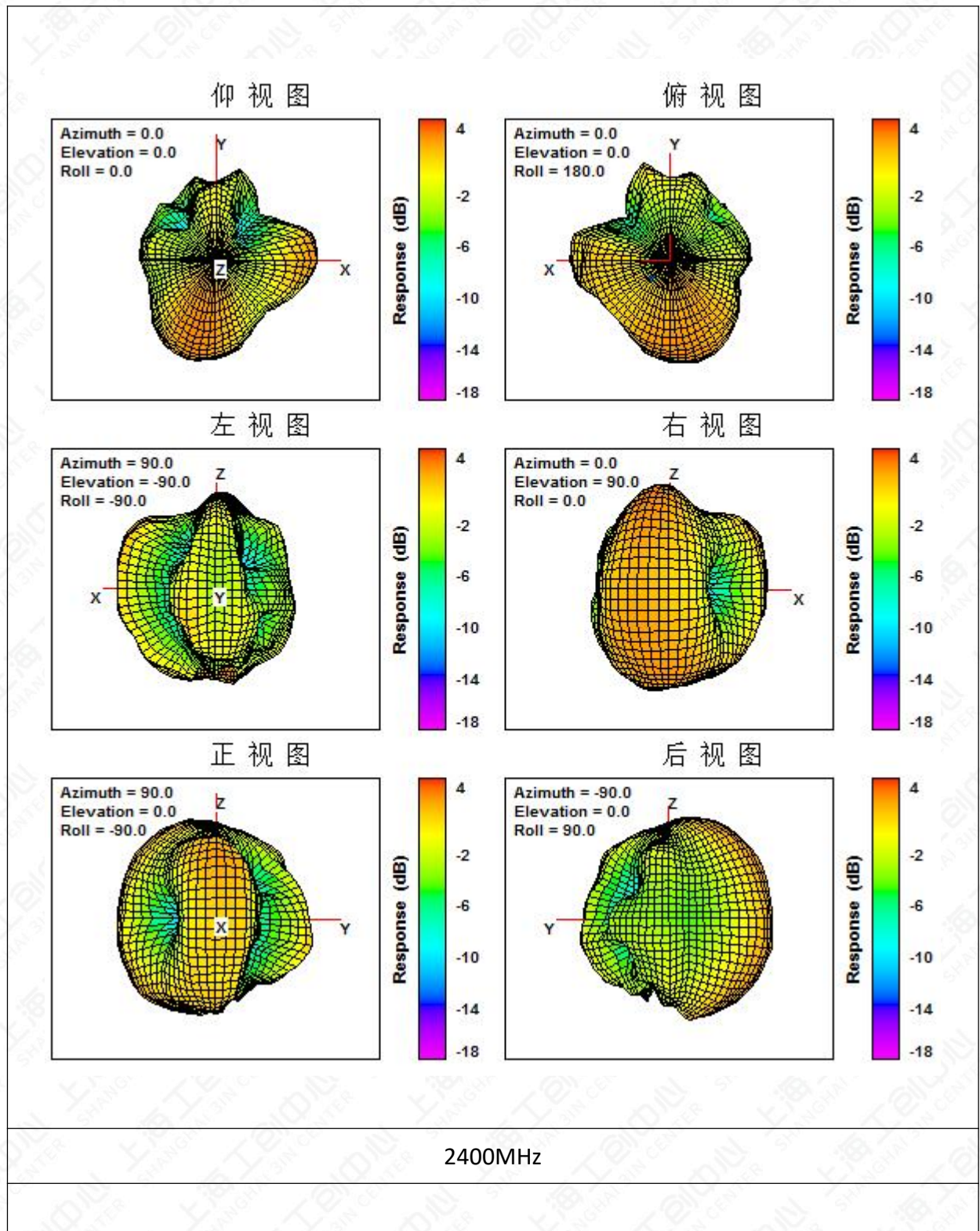


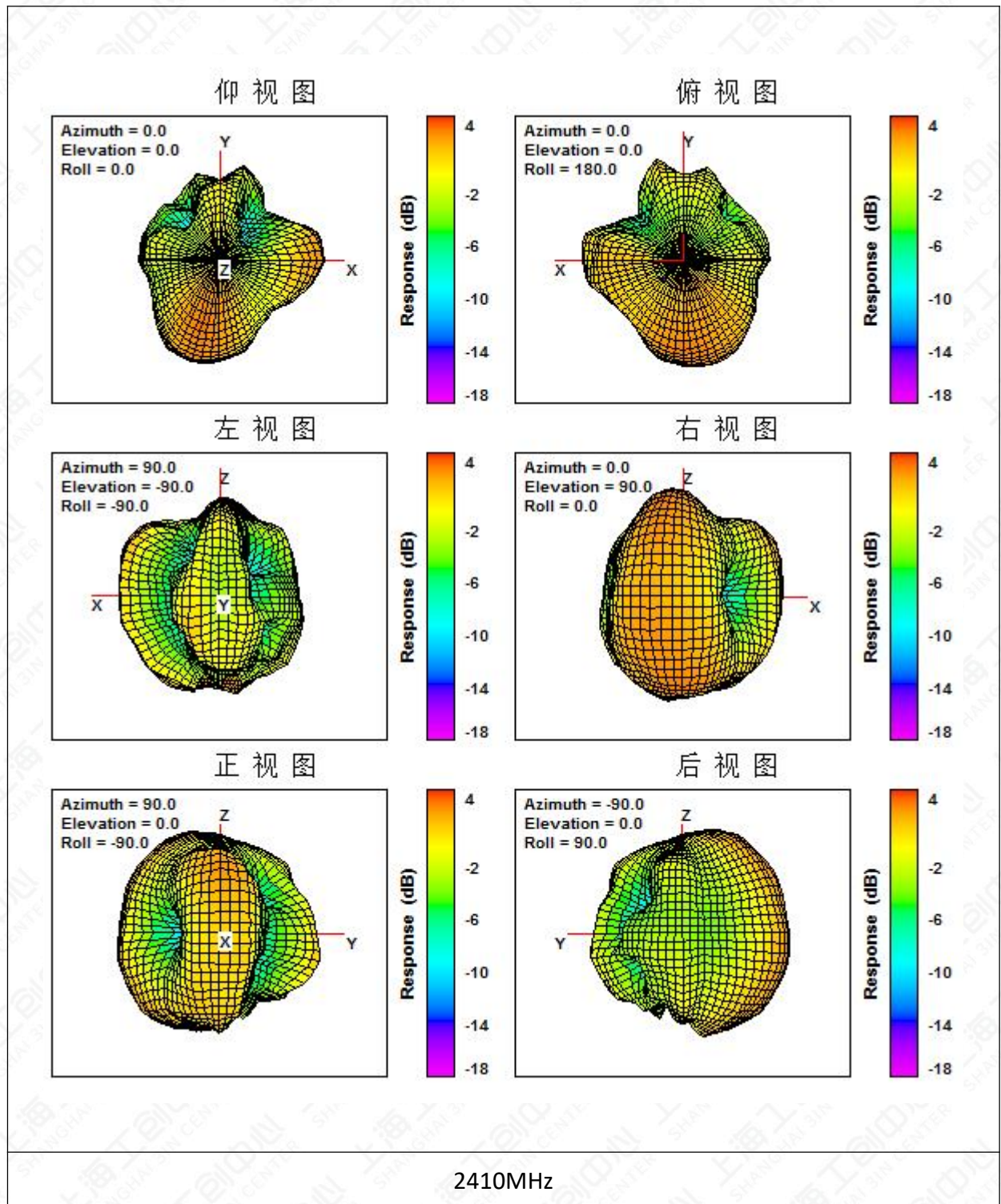


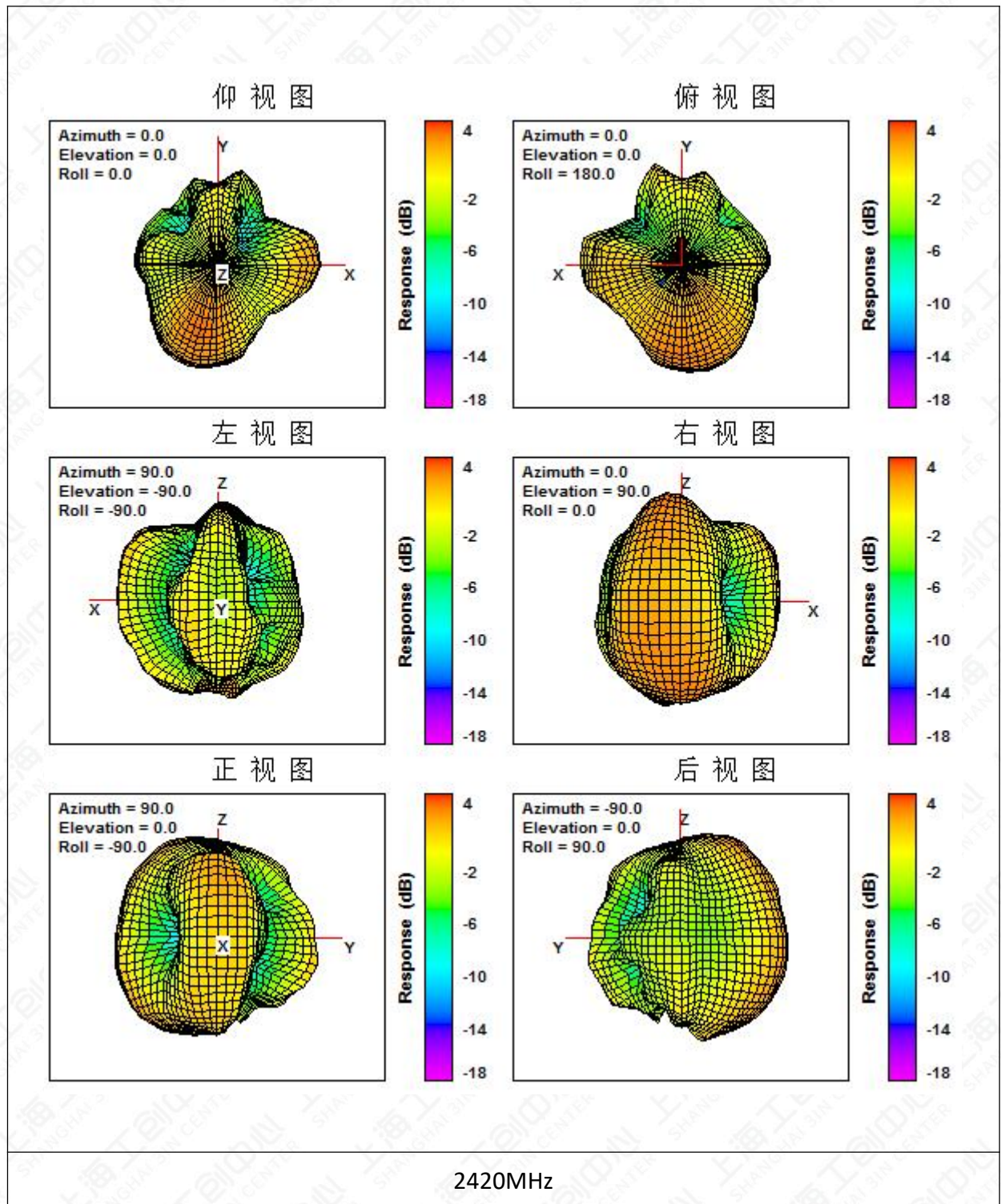


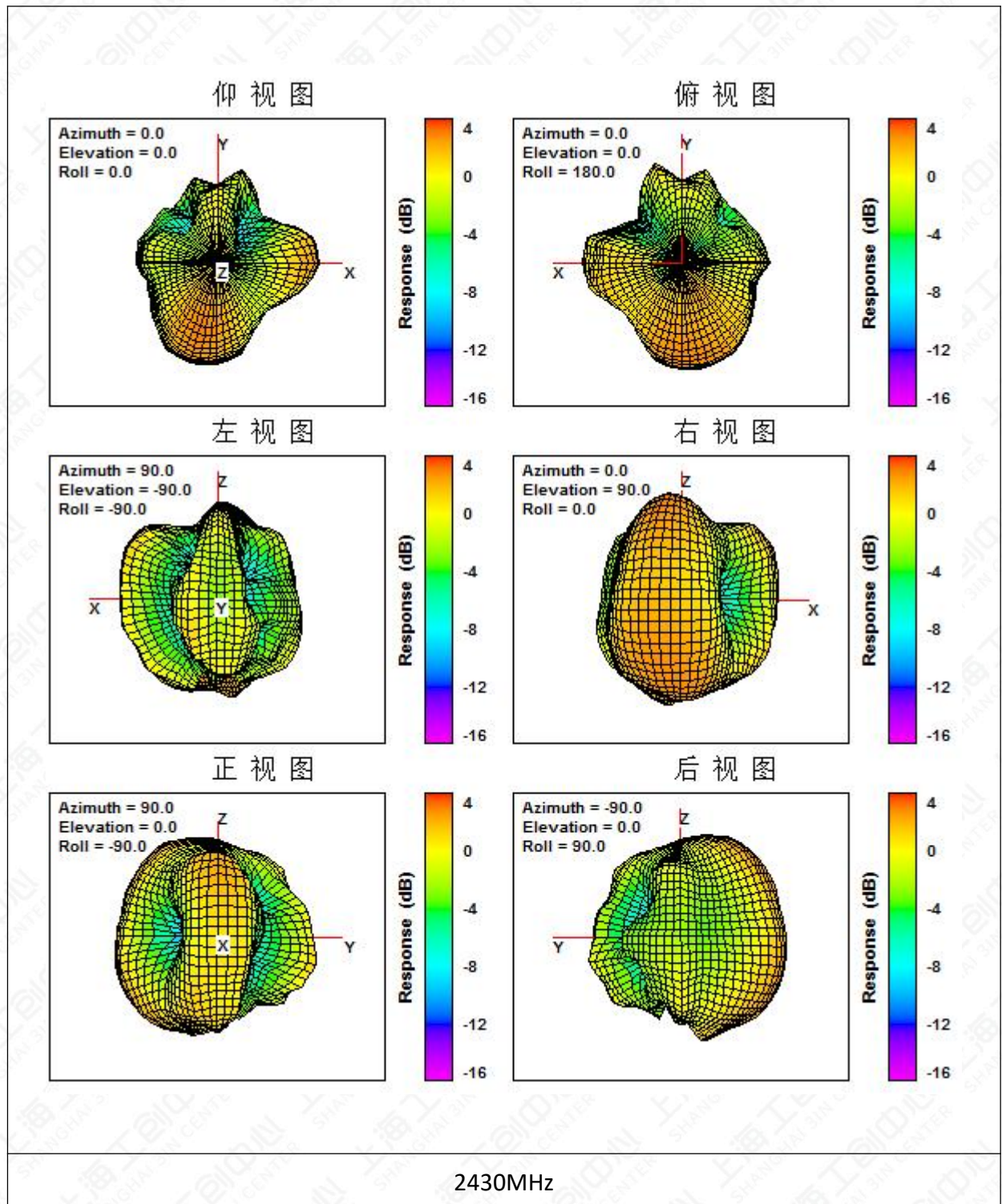


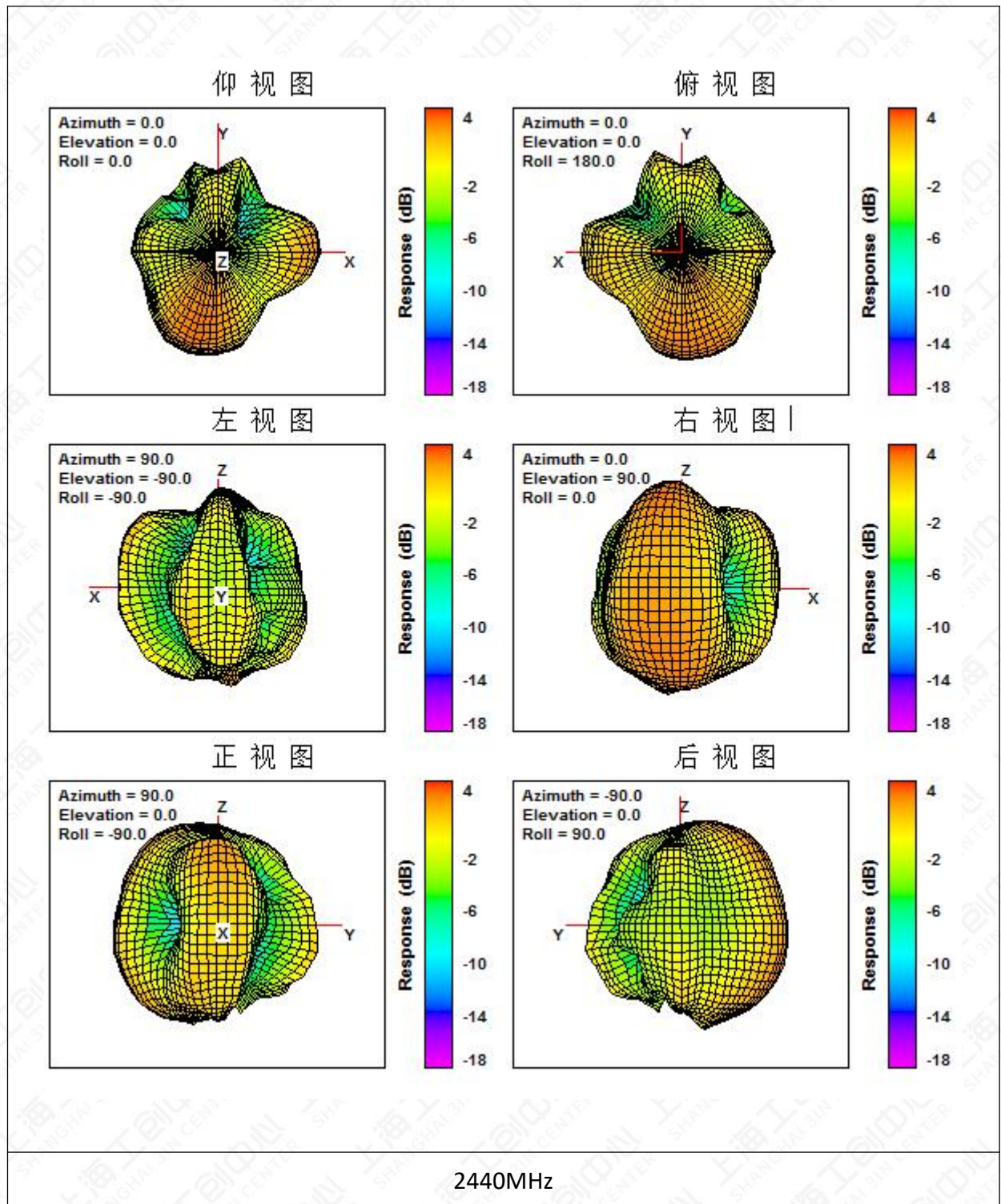
Annex D: Detailed 3D Pattern Plots Results

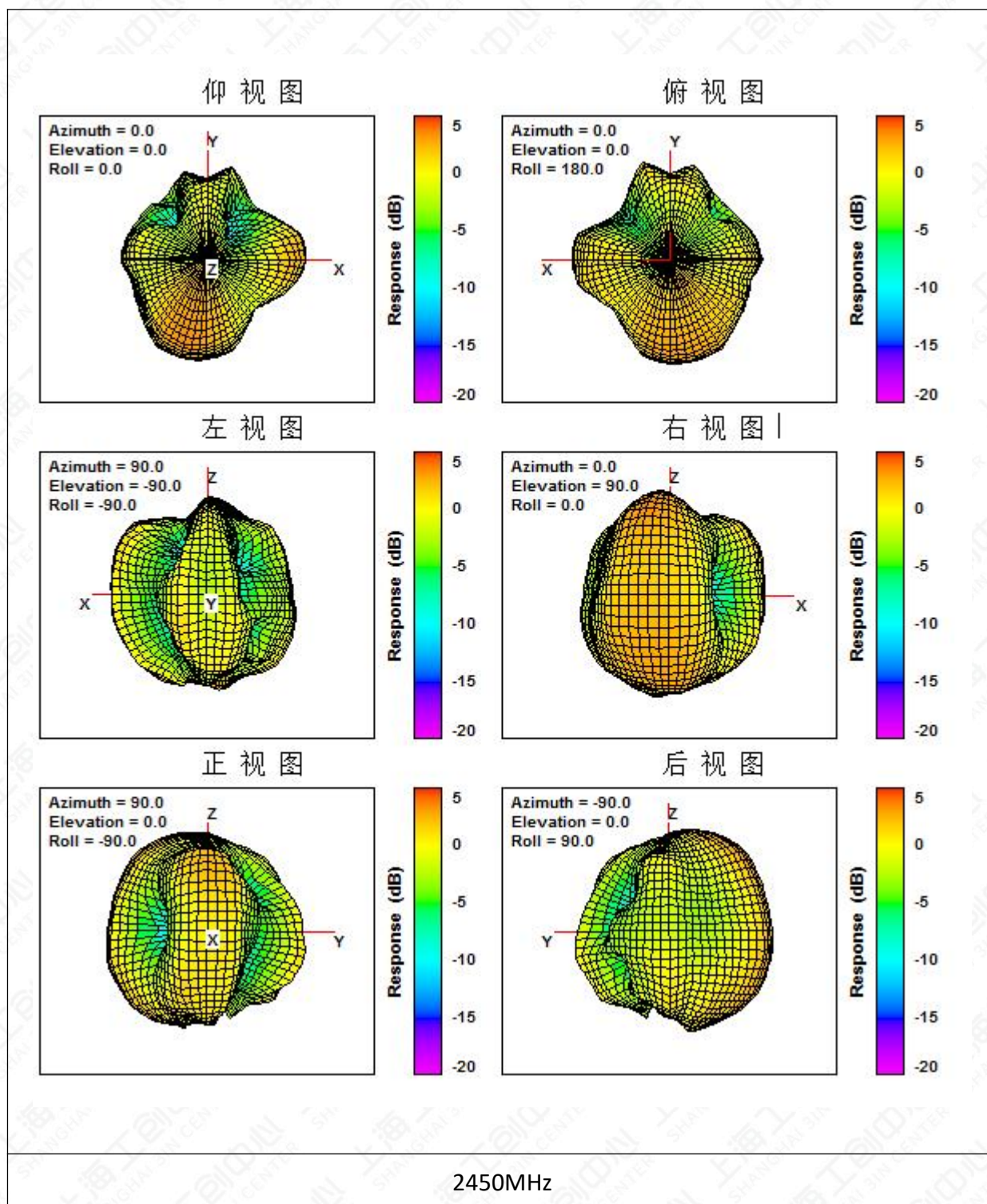


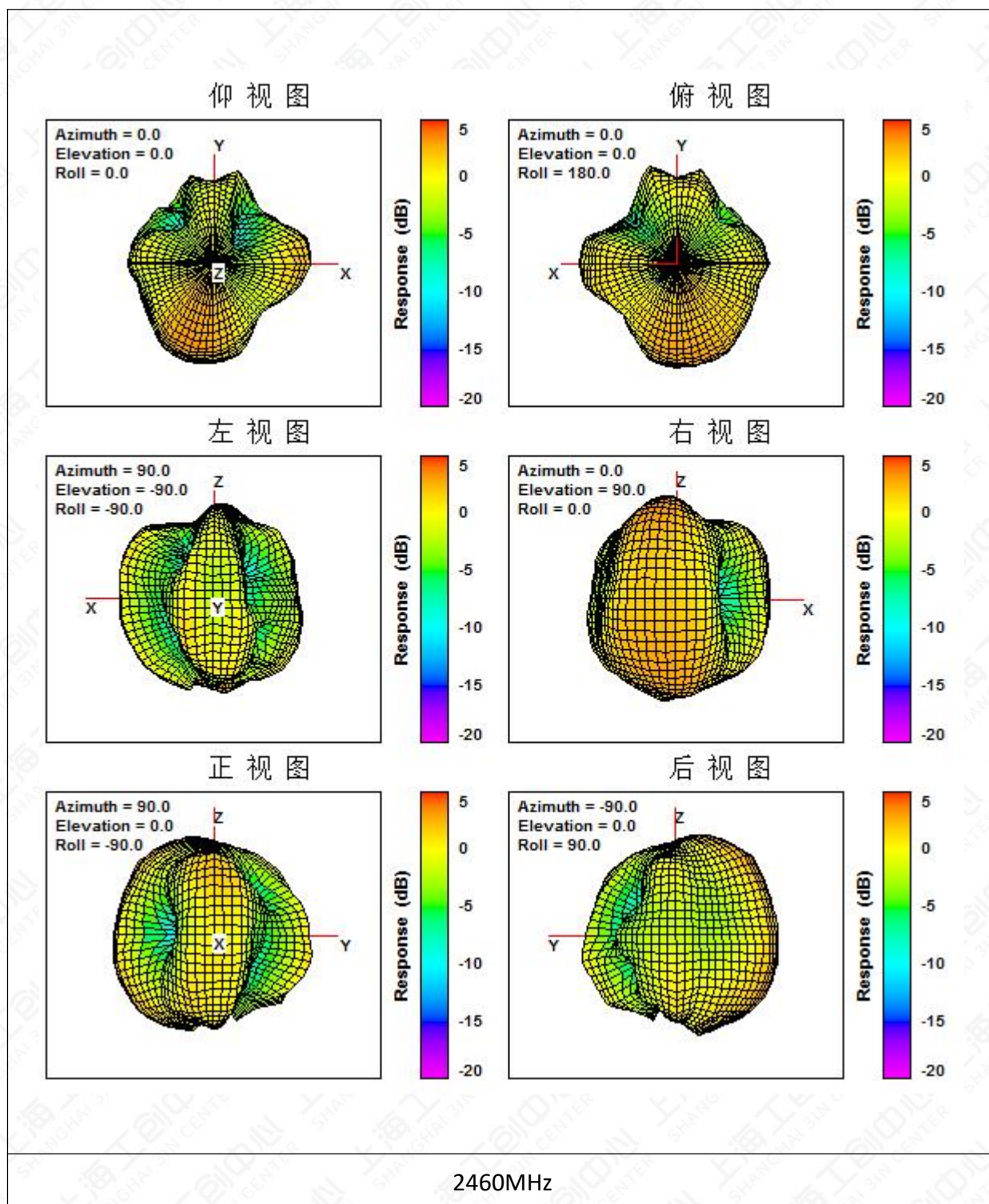


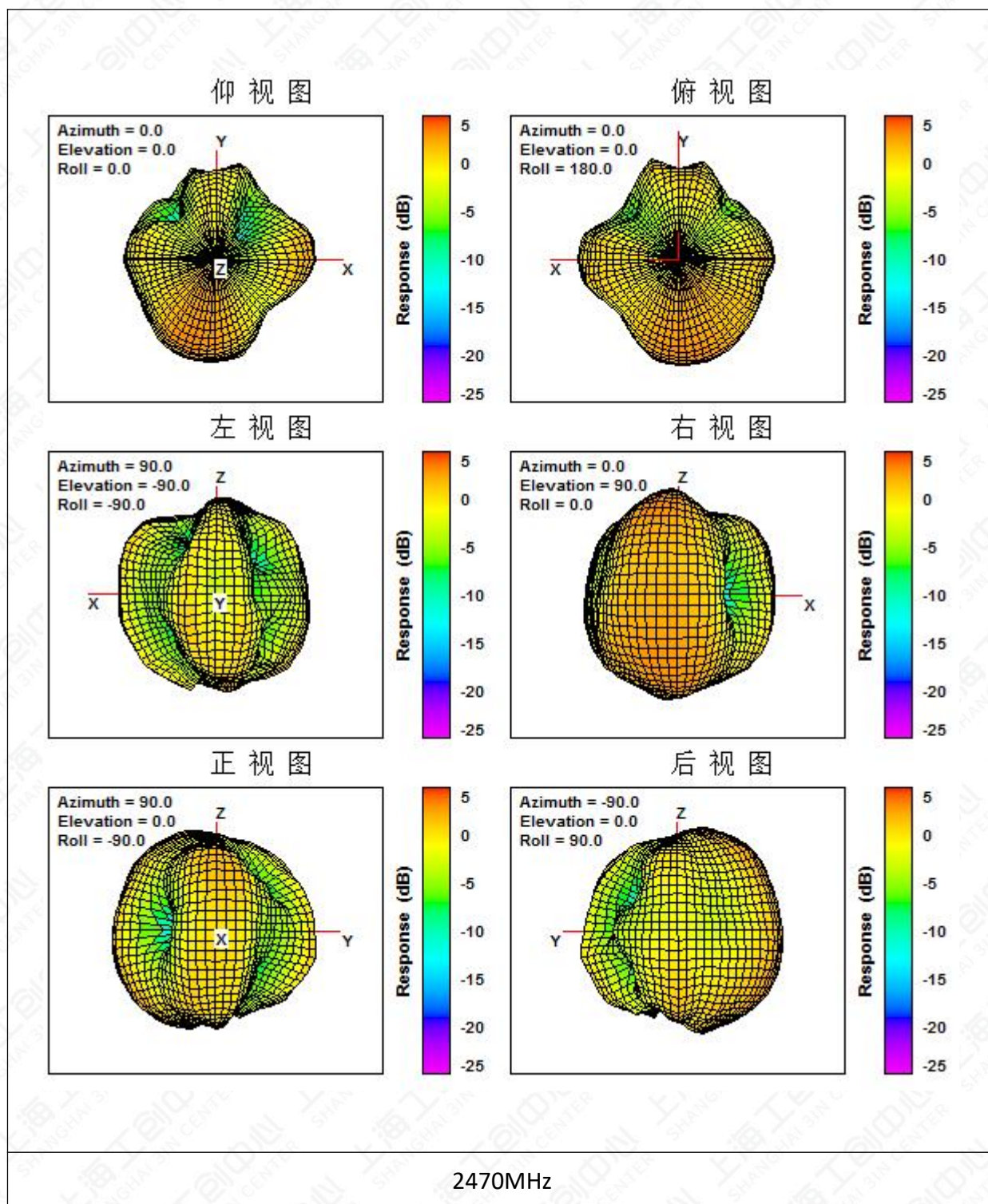


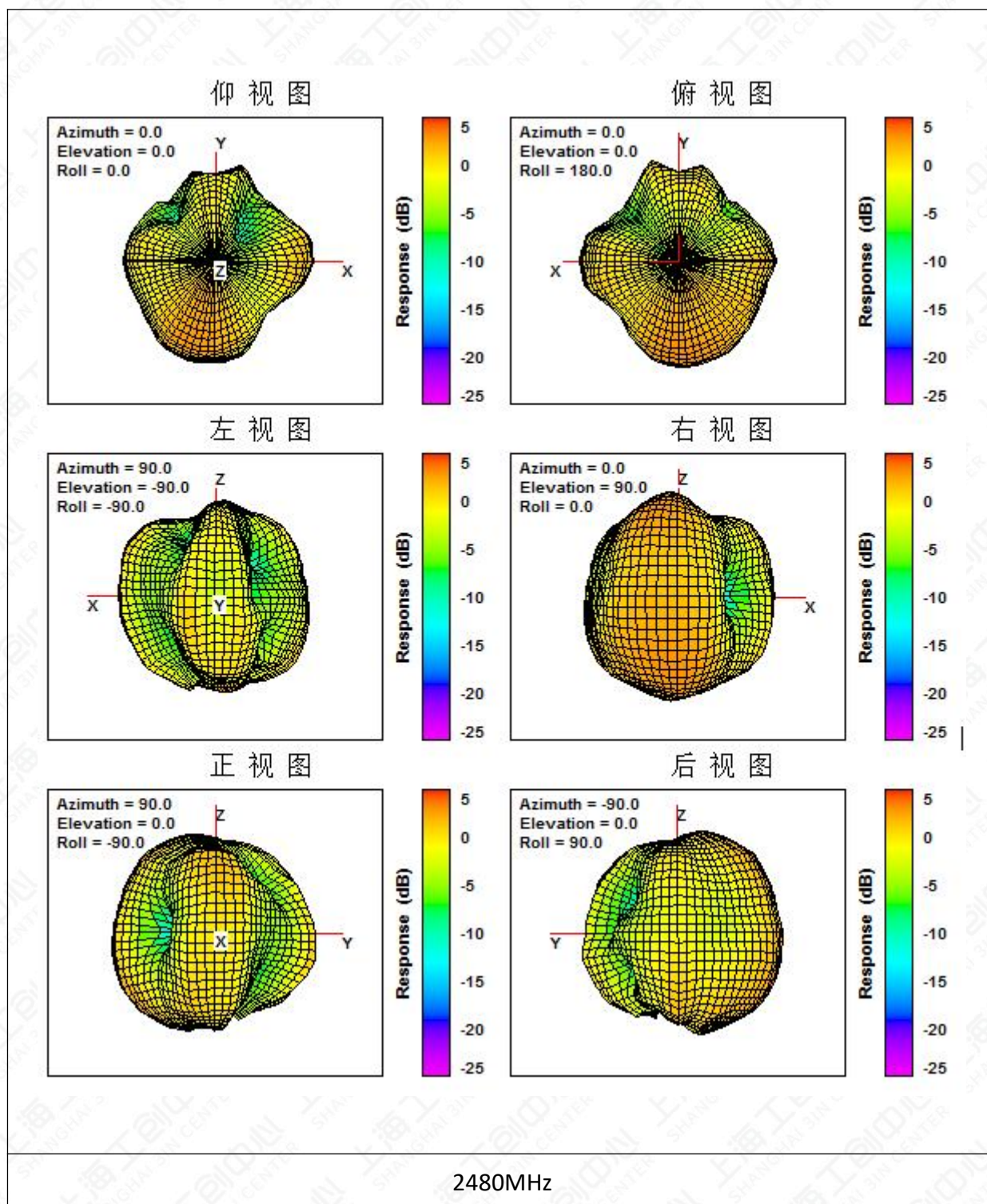


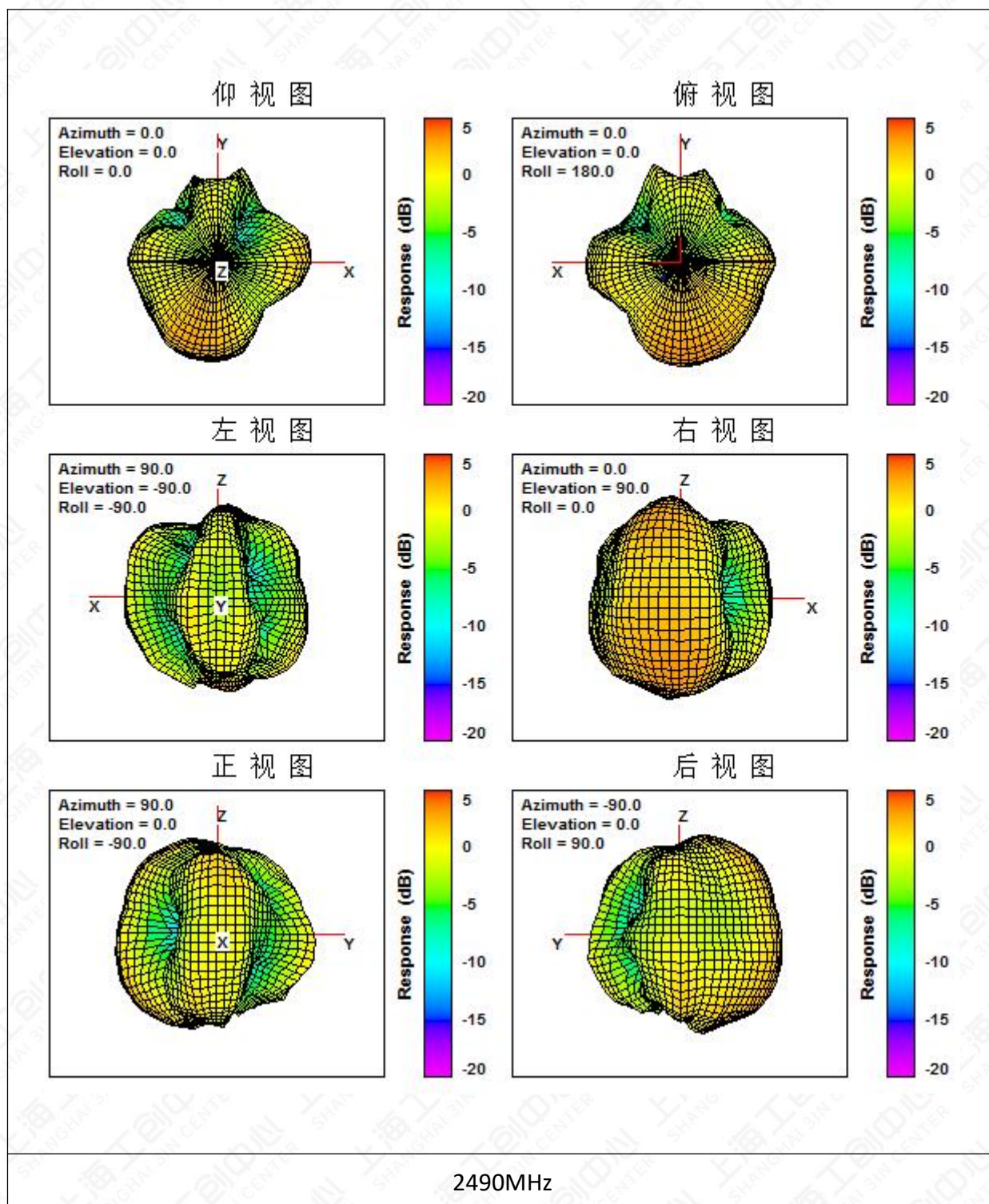


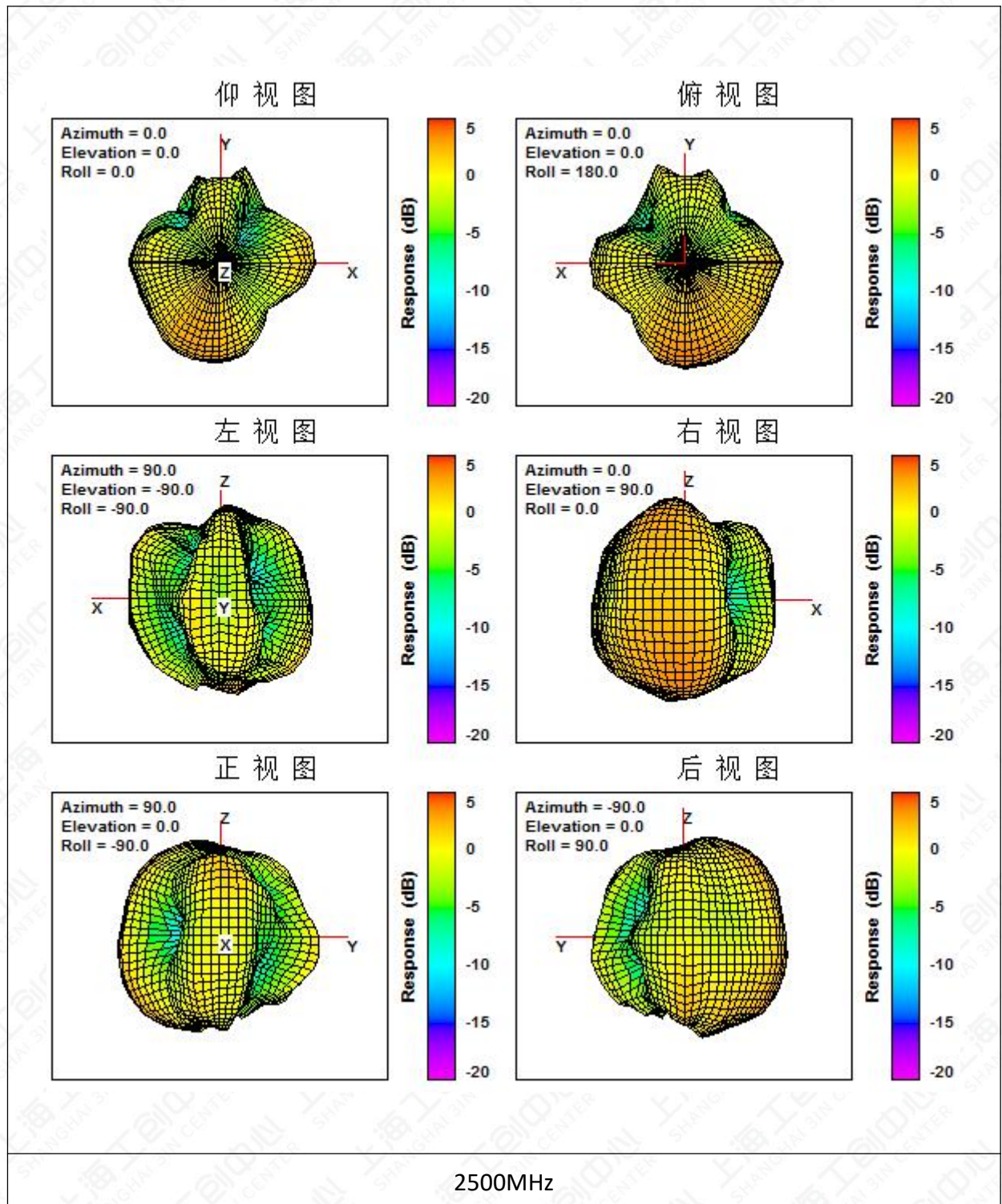












END OF REPORT