

Report No.: XGL-B-260319-001-002
Report version: Rev0.1
Release date: 2026-03-30

Test Report

Applicant	:	Tiandy Technologies Co., Ltd.
Address	:	No.8,Haitai Huake Rd2 (outside ring road) HuayuanNew Technology Industrial Prak
Product Name	:	PT Camera
Model No.	:	TC-H333K
Series No.	:	TC-L1; TC-H333K; TC-H343K; TC-H353K; TC-H363K; TC-H383K; TC-H3103K; TC-H3A3K; TC-H333D; TC-H343D; TC-H353D; TC-H363D; TC-H383D; TC-H3103D; TC-H3A3D; TC-H333E; TC-H343E; TC-H353E; TC-H363E; TC-H383E; TC-H3103E; TC-H3A3E; TD-H633K; TD-H643K; TD-H653K; TD-H663K; TD-H673K; TD-H693K; TD-H6113K; TD-H6A3K; TD-H633D; TD-H643D; TD-H653D; TD-H663D; TD-H673D; TD-H693D; TD-H6113D; TD-H6A3D; TD-H633E; TD-H643E; TD-H653E; TD-H663E; TD-H673E; TD-H693E; TD-H6113E; TD-H6A3E; TD-H633F; TD-H643F; TD-H653F; TD-H663F; TD-H673F; TD-H693F; TD-H6113F; TD-H6A3F; TD-H633G; TD-H643G; TD-H653G; TD-H663G; TD-H673G; TD-H693G; TD-H6113G; TD-H6A3G; TD-H633N; TD-H643N; TD-H653N; TD-H663N; TD-H673N; TD-H693N; TD-H6113N; TD-H6A3N
Trademark	:	N/A
Manufacturer	:	Tiandy Technologies Co., Ltd.
Address	:	No.8,Haitai Huake Rd2 (outside ring road) HuayuanNew Technology Industrial Prak
Test Category	:	Commissioned Test



Statement

1. The report is invalid without the testing and certification services special seal or office seal of the company.
2. This report is invalid without the signature of the authorized signatory for inspection, review, and approval.
3. The report is invalid if altered.
4. The samples in this report are provided by the commissioning unit, and the test results are only applicable to the samples received by the laboratory. The source information of the samples (such as product name, place of origin, production company, etc.) is provided by the commissioning unit, and the laboratory is not responsible for its authenticity.
5. This report shall not be reproduced, without the written approval of test laboratory. The copy of the report not stamped again with the testing and certification services special seal is invalid.
6. Item with “☆” was subcontracted to other laboratories.
7. Any objections must be raised to our company within 15 days on receiving the report, overdue will not be accepted.
8. The sample(s) must be collected within three months, overdue will be dealt with by our company.

Product Name		PT Camera	
Model No.		TC-H333K	
Series No.		TC-L1; TC-H333K; TC-H343K; TC-H353K; TC-H363K; TC-H383K; TC-H3103K; TC-H3A3K; TC-H333D; TC-H343D; TC-H353D; TC-H363D; TC-H383D; TC-H3103D; TC-H3A3D; TC-H333E; TC-H343E; TC-H353E; TC-H363E; TC-H383E; TC-H3103E; TC-H3A3E; TD-H633K; TD-H643K; TD-H653K; TD-H663K; TD-H673K; TD-H693K; TD-H6113K; TD-H6A3K; TD-H633D; TD-H643D; TD-H653D; TD-H663D; TD-H673D; TD-H693D; TD-H6113D; TD-H6A3D; TD-H633E; TD-H643E; TD-H653E; TD-H663E; TD-H673E; TD-H693E; TD-H6113E; TD-H6A3E; TD-H633F; TD-H643F; TD-H653F; TD-H663F; TD-H673F; TD-H693F; TD-H6113F; TD-H6A3F; TD-H633G; TD-H643G; TD-H653G; TD-H663G; TD-H673G; TD-H693G; TD-H6113G; TD-H6A3G, TD-H633N; TD-H643N; TD-H653N; TD-H663N; TD-H673N; TD-H693N; TD-H6113N; TD-H6A3N	
Model differences		Models applied for this application are the equipment color, sales area and sales man, which do not affect the material, electromagnetic compatibility and safety electrical performance of the product.	
Applicant	Name	Tiandy Technologies Co., Ltd.	
	Address	No.8,Haitai Huake Rd2 (outside ring road) HuayuanNew Technology Industrial Park	
Manufacturer	Name	Tiandy Technologies Co., Ltd.	
	Address	No.8,Haitai Huake Rd2 (outside ring road) HuayuanNew Technology Industrial Park	
Test Category		Commissioned Test	Date Received 2026-03-19
Start Date		2026-03-20	End Date 2026-03-20
Sampling/Sending		Sending	Samples Qty. 1
Sample No.		XGL-Y-260319-001-002	
Test Standard		IEEE Std 149-2021 IEEE Recommended Practice for Antenna Measurements	
Test Results		This test only provides test data results and does not make judgments.	
Prepared by: <i>Mexyu Lv</i> 2026-03-20		Reviewed by: <i>Jian wan shi</i> 2026-03-30	Approved by: <i>Leon Li</i> 2026-03-30



Version History

Report No.	Rev.	Revisions	Release Date	Revised by	Notes
XGL-B-260319-001-O02	Rev0.1	Original Issue	2026-03-30	-	-

Contents

1.	Summary of Test	7
2.	Information	8
2.1	Base Information of Device.....	8
2.2	Technical Information of Device	8
2.3	Sample Accessories.....	8
2.4	Sample auxiliary equipment	8
2.5	Test auxiliary equipment	9
2.6	Test Conditions.....	9
3.	Test Laboratory Information	10
4.	Antenna Gain	11
4.1	Test Environment	11
4.2	Test Equipments.....	11
4.3	Reference Standards.....	11
4.4	Sample configuration block diagram	11
4.5	Test layout	12
4.6	Limits.....	12
4.7	Test Procedures.....	12
4.8	Measurement Result Uncertainty.....	12
4.9	Test Result.....	12
5.	Antenna Efficiency.....	14
5.1	Test Environment	14
5.2	Test Equipments.....	14
5.3	Reference Standards.....	14
5.4	Sample configuration block diagram	14
5.5	Test layout	15
5.6	Limits.....	15
5.7	Test Procedures.....	15
5.8	Measurement Result Uncertainty.....	15
5.9	Test Result.....	15
6.	Antenna Directivity.....	17
6.1	Test Environment	17
6.2	Test Equipments.....	17
6.3	Reference Standards.....	17

6.4	Sample configuration block diagram	17
6.5	Test layout	18
6.6	Limits.....	18
6.7	Test Procedures.....	18
6.8	Measurement Result Uncertainty.....	18
6.9	Test Result.....	18
Appendix A Test Photos.....		23
Appendix B DUT Photos.....		24

1. Summary of Test

No.	Test Item	Test Standards	Test Method	Result
1	Antenna Gain	IEEE Std 149-2021	IEEE Std 149-2021 Clause 8.4	Refer to date
2	Antenna Efficiency	IEEE Std 149-2021	IEEE Std 149-2021 Clause 10.4	Refer to date
3	Antenna Directivity	IEEE Std 149-2021	IEEE Std 149-2021 Clause 8.6	Refer to date

2. Information

2.1 Base Information of Device

DUT* Name	PT Camera
Model No.	TC-H333K
Series No.	TC-L1; TC-H333K; TC-H343K; TC-H353K; TC-H363K; TC-H383K; TC-H3103K; TC-H3A3K; TC-H333D; TC-H343D; TC-H353D; TC-H363D; TC-H383D; TC-H3103D; TC-H3A3D; TC-H333E; TC-H343E; TC-H353E; TC-H363E; TC-H383E; TC-H3103E; TC-H3A3E; TD-H633K; TD-H643K; TD-H653K; TD-H663K; TD-H673K; TD-H693K; TD-H6113K; TD-H6A3K; TD-H633D; TD-H643D; TD-H653D; TD-H663D; TD-H673D; TD-H693D; TD-H6113D; TD-H6A3D; TD-H633E; TD-H643E; TD-H653E; TD-H663E; TD-H673E; TD-H693E; TD-H6113E; TD-H6A3E; TD-H633F; TD-H643F; TD-H653F; TD-H663F; TD-H673F; TD-H693F; TD-H6113F; TD-H6A3F; TD-H633G; TD-H643G; TD-H653G; TD-H663G; TD-H673G; TD-H693G; TD-H6113G; TD-H6A3G, TD-H633N; TD-H643N; TD-H653N; TD-H663N; TD-H673N; TD-H693N; TD-H6113N; TD-H6A3N
Model differences	Models applied for this application are the equipment color, sales area and sales man, which do not affect the material, electromagnetic compatibility and safety electrical performance of the product.

Note*: DUT is the abbreviation of device under test.

2.2 Technical Information of Device

Antenna Type*	PCB antenna
Operation Frequency*	2400MHz~2500MHz

Note: The information marked with * is provided by the customer.

2.3 Sample Accessories

Name	Manufacturer	Model number	Description	Remark
N/A	N/A	N/A	N/A	N/A

2.4 Sample auxiliary equipment

Name	Manufacturer	Model number	Description	Remark
N/A	N/A	N/A	N/A	N/A

2.5 Test auxiliary equipment

Name	Manufacturer	Model number	Description	Remark
N/A	N/A	N/A	N/A	N/A

2.6 Test Conditions

Condition	Normal Condition	Extreme Condition
Pressure range	86kPa ~ 106kPa	N/A
Relative Humidity	30% ~ 60%	N/A
Temperature	20°C~ 25°C	N/A
Note: During testing, the environmental conditions complied the above requirements.		

3. Test Laboratory Information

Name: Testing and Certification Center of Tianjin ENNEW Sensing Technology Co., Ltd.

Address: Building 5, No.50, ENNEW Sensing Technology Industrial Park, Haitai Chuangxin Avenue, Huayuan Industrial Zone (Outside the Ring), Binhai New District, Tianjin, China

Postal Code: 300384

Phone: +86-022-58388688

Fax: +86-022-58388688

Email: TESTING@ENN.CN

Website: <http://www.ngsense-tech.com/>

4. Antenna Gain

4.1 Test Environment

Test Date	2026.03.20		
sample number	XGL-Y-260319-001-002		
Environmental Condition	Temperature	Humidity	Atmospheric Pressure
	20.3°C	31.7%	102.1kPa
Test Site	OTA Chamber	Tester	Meiyu Lv

4.2 Test Equipments

Device Name	Manufacturer	Model	Serial Number	Calibration Date	Calibration Validity Date
Fully anechoic room	MVG	SG24	N/A	2023-12-19	2028-12-18
SG24-L testing system	MVG	SG24-L	1103570-0004	2023-12-10	2028-12-09
Vector Network Analyzer	Rohde&Schwarz	ZNB 8	101432	2025-11-18	2026-11-17
WaveStudio Testing Software	MVG	WaveStudio	N/A	N/A	N/A

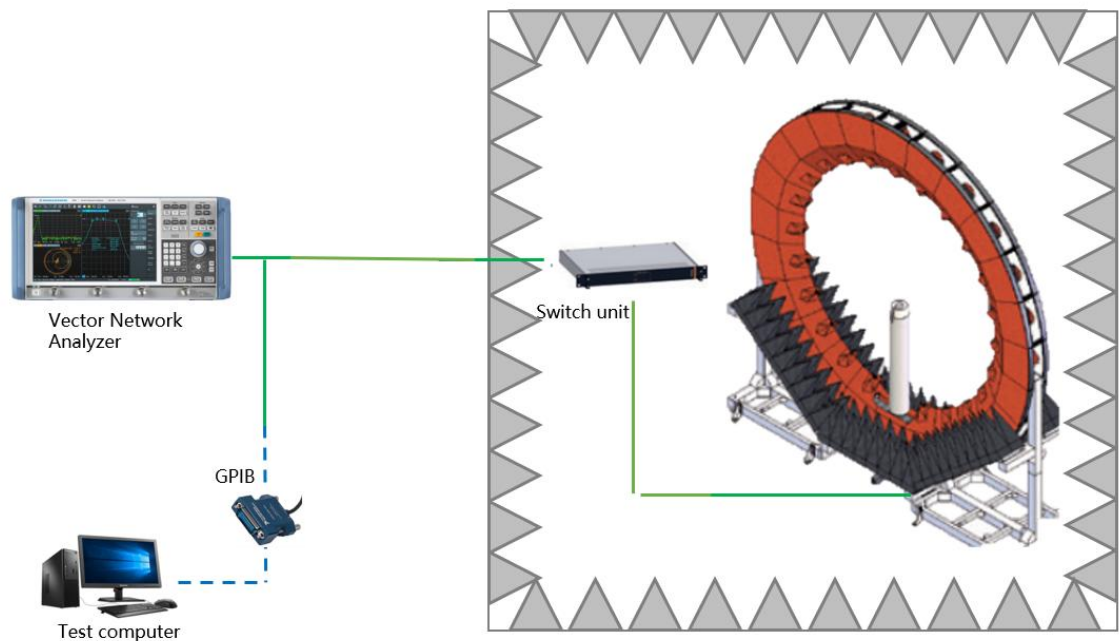
4.3 Reference Standards

IEEE Std 149-2021

4.4 Sample configuration block diagram



4.5 Test layout



4.6 Limits

N/A

4.7 Test Procedures

Refer to IEEE Std 149-2021 Clause 8.4.

4.8 Measurement Result Uncertainty

Test item	Uncertainty
Antenna Gain	0.98dB

Note: This uncertainty indicates that the extended uncertainty confidence interval is about 95% and the corresponding inclusion factor k=2 is obtained.

4.9 Test Result

The detailed test data is as follows

Frequency (MHz)	Gain (dBi)
2400	-2.21
2410	-1.81

2420	-1.4
2430	-0.96
2440	-0.67
2450	-0.43
2460	-0.12
2470	0.36
2480	0.68
2490	0.78
2500	1.1

5. Antenna Efficiency

5.1 Test Environment

Test Date	2026.03.20		
sample number	XGL-Y-260319-001-002		
Environmental Condition	Temperature	Humidity	Atmospheric Pressure
	20.3°C	31.7%	102.1kPa
Test Site	OTA Chamber	Tester	Meiyu Lv

5.2 Test Equipments

Device Name	Manufacturer	Model	Serial Number	Calibration Date	Calibration Validity Date
Fully anechoic room	MVG	SG24	N/A	2023-12-19	2028-12-18
SG24-L testing system	MVG	SG24-L	1103570-0004	2023-12-10	2028-12-09
Vector Network Analyzer	Rohde&Schwarz	ZNB 8	101432	2025-11-18	2026-11-17
WaveStudio Testing Software	MVG	WaveStudio	N/A	N/A	N/A

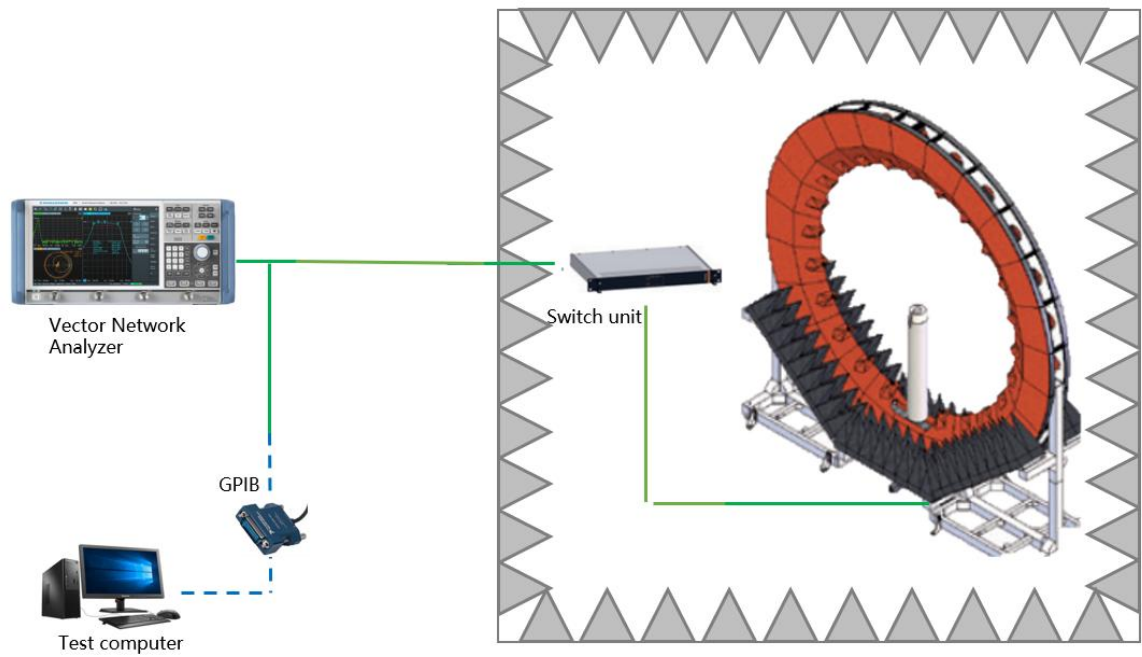
5.3 Reference Standards

IEEE Std 149-2021

5.4 Sample configuration block diagram



5.5 Test layout



5.6 Limits

N/A

5.7 Test Procedures

Refer to IEEE Std 149-2021 Clause 10.4

5.8 Measurement Result Uncertainty

Test item	Uncertainty
Antenna Efficiency	0.98dB
Note: This uncertainty indicates that the extended uncertainty confidence interval is about 95% and the corresponding inclusion factor k=2 is obtained.	

5.9 Test Result

The detailed test data is as follows

Frequency (MHz)	Eff. (dBi)	Eff. (%)
2400	-5.97	25%

2410	-5.59	28%
2420	-5.22	30%
2430	-4.76	33%
2440	-4.46	36%
2450	-4.24	38%
2460	-4.02	40%
2470	-3.67	43%
2480	-3.42	45%
2490	-3.19	48%
2500	-2.77	53%

6. Antenna Directivity

6.1 Test Environment

Test Date	2026.03.20		
sample number	XGL-Y-260319-001-002		
Environmental Condition	Temperature	Humidity	Atmospheric Pressure
	20.3°C	31.7%	102.1kPa
Test Site	OTA Chamber	Tester	Meiyu Lv

6.2 Test Equipments

Device Name	Manufacturer	Model	Serial Number	Calibration Date	Calibration Validity Date
Fully anechoic room	MVG	SG24	N/A	2023-12-19	2028-12-18
SG24-L testing system	MVG	SG24-L	1103570-0004	2023-12-10	2028-12-09
Vector Network Analyzer	Rohde&Schwarz	ZNB 8	101432	2025-11-18	2026-11-17
WaveStudio Testing Software	MVG	WaveStudio	N/A	N/A	N/A

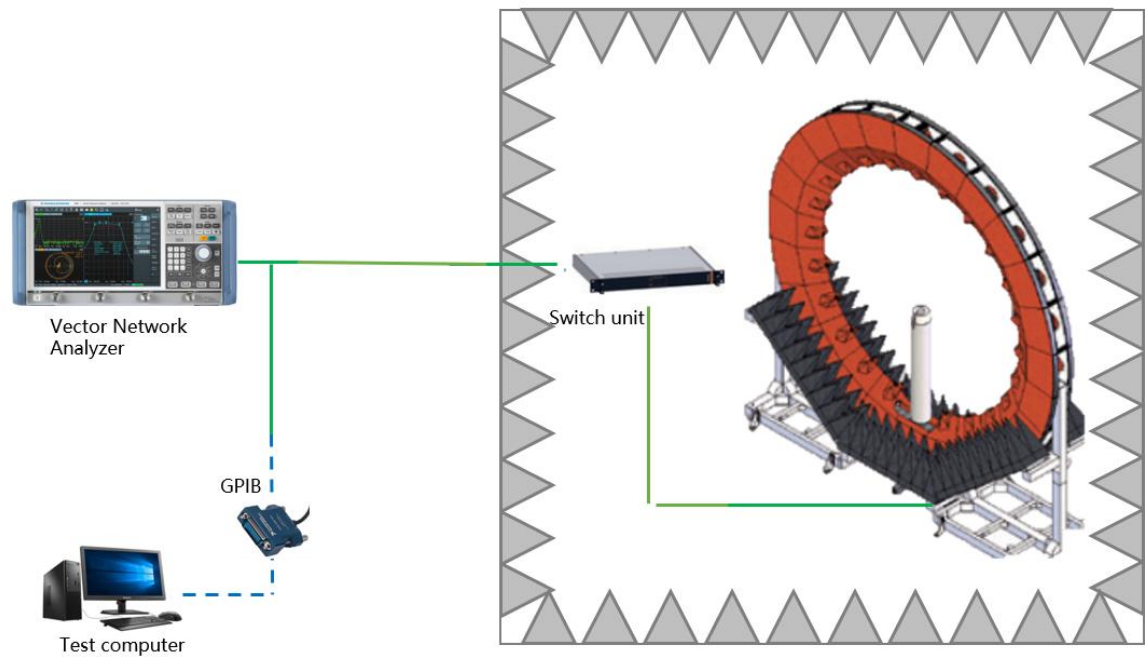
6.3 Reference Standards

IEEE Std 149-2021

6.4 Sample configuration block diagram



6.5 Test layout



6.6 Limits

N/A

6.7 Test Procedures

Refer to IEEE Std 149-2021 Clause 8.6

6.8 Measurement Result Uncertainty

Test item	Uncertainty
Antenna Directivity	0.98dB

Note: This uncertainty indicates that the extended uncertainty confidence interval is about 95% and the corresponding inclusion factor k=2 is obtained.

6.9 Test Result

The detailed test data is as follows

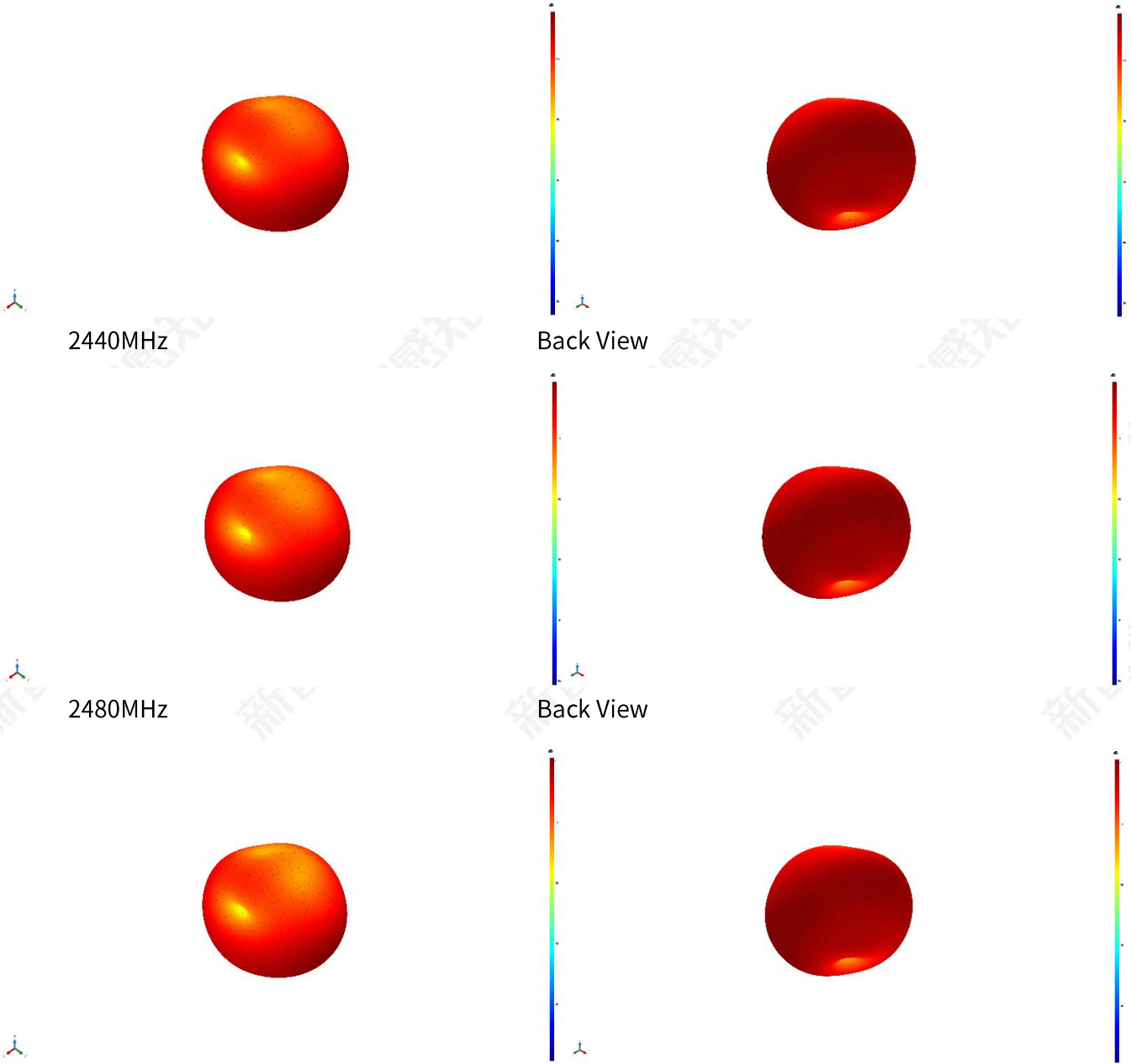
Frequency (MHz)	Directivity (dB)
2400	3.75
2410	3.78
2420	3.83

2430	3.80
2440	3.79
2450	3.81
2460	3.90
2470	4.02
2480	4.10
2490	3.97
2500	3.87

3D 方向图

2400MHz

Back View

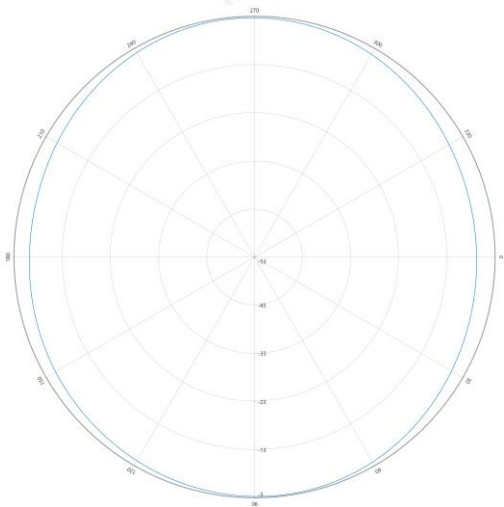


2D 方向图

2400MHz

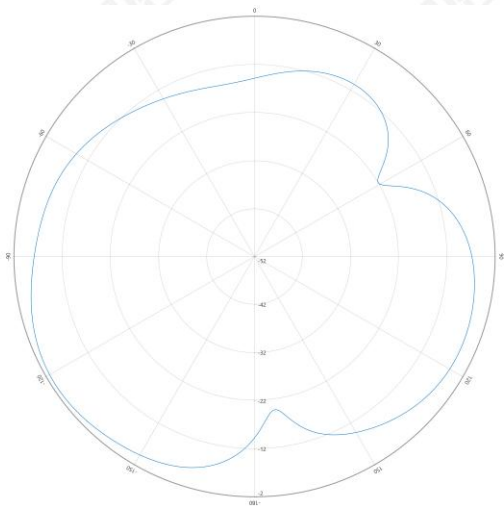
X-Y

0° 2400.00 MHz E Total



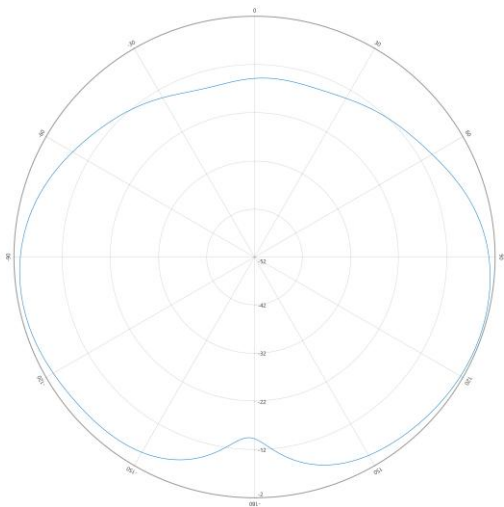
X-Z

0° 2400.00 MHz E Total



Y-Z

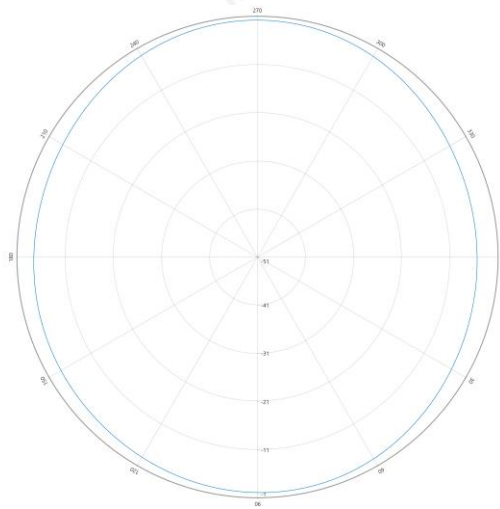
0° 2400.00 MHz E Total



2440MHz

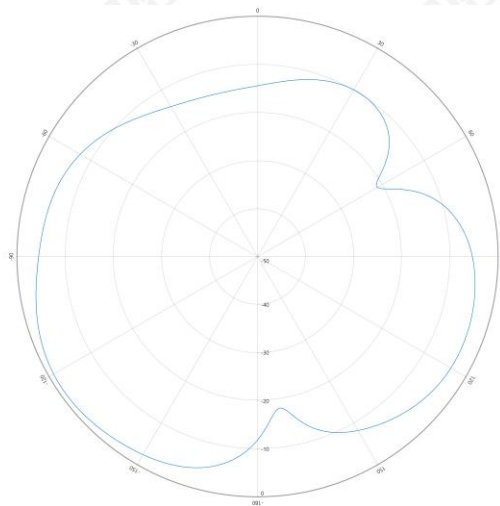
X-Y

✓ 30° 2440.00 MHz E Total



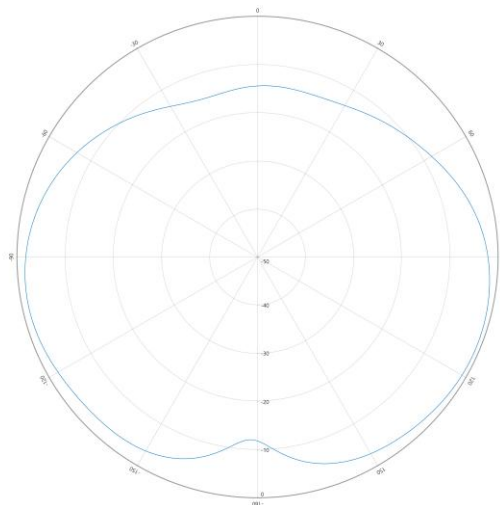
X-Z

✓ 0° 2440.00 MHz E Total



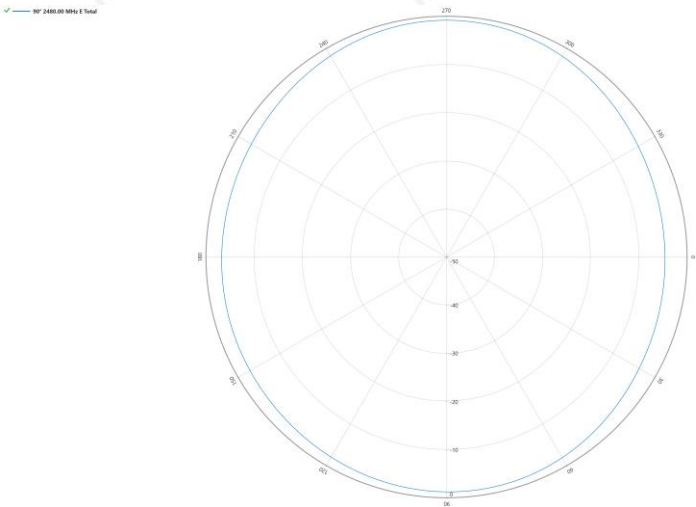
Y-Z

✓ 30° 2440.00 MHz E Total

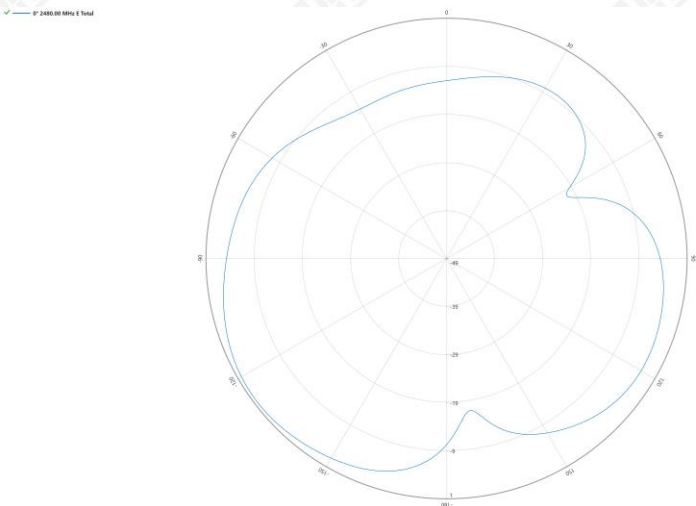


2480MHz

X-Y



X-Z



Y-Z

