



Report No.: XCL-AC202409-0067

TEST REPORT

Product Name: PCB Antenna

Model: AT-2.4TX-P01A

Test Sort: External Commission Test

Client: Huizhou Yuanyun Electronics Co., Ltd

Test by: Xingci Lab

GUANGDONG XINGCI TESTING TECHNOLOGY RESEARCH Co.,Ltd.



Announcement

1. This report is invalid without seal.
2. This report must not be partially duplicated without permission.
3. The manufacturer would be responsible for the test samples.
4. Xingci Lab would be only responsible for report items of the test sample, this test result is only used for scientific research, teaching, and internal control, and does not have a proof function to the society.
5. If the client has any question about the test report, please contact our lab as agreed within 15 days. Disagreement couldn't be accepted over 15 days.
6. Test report inquires telephone No.:+ 86-757-87744743

Add: No#4, Jinye 2nd road, Yundonghai street, Sanshui, Foshan,Guangdong
Province, China,528100

Tel: 0086-(0757)-87744743

Post Code: 528100

Test Report

Product Name		PCB Antenna	Manufacture Date	/
Product Model		AT-2.4TX-P01A	Brand Name	/
Client	Name	Huizhou Yuanyun Electronics Co., Ltd		
	Address	XiaZhao, Dameng Village, Xialiao Committee, Longxi Town, Bolou, Huizhou, Guangdong, China		
Test Type		External Commission Test		
Test Place		SG64 Anechoic Chamber (Guangdong Xingci testing technology research Co.,Ltd.)		
Sample Qty		1pc	Test Date	Sep. 20, 2024
Test Environment		Temperature: (21~22) °C	Relative Humidity: (63~66) %	
Test Item		Electrical performance: Radiation Pattern, Gain, Efficiency		
Test Standard		According to the client's requirements, refer to the following standard: IEEE Std 149 TM -2021 IEEE Recommended Practice for Antenna Measurements		
Test Description		Guangdong Xingci testing technology research Co., Ltd. tested the electrical performance of 1pc of PCB Antenna under the guideline of relevant standard. Please see test result in page 5, Radiation Patterns in pages 6-8.		
Remarks				
Tested by: <i>Lu guanze</i>		Checked by: <i>zhang xiao jun</i>		Approved by: (Authorized signatory) <i>luojianhua</i>
Date: <i>Sep. 20, 2024</i>		Date: <i>Sep. 23, 2024</i>		Date: <i>Sep. 23, 2024</i>

Sample Description

Accessories	☒ No ☐ Yes:
Outlook/Appearance	☒ Qualified ☐ Unqualified:
Status at the beginning of Test	☒ Working Normally ☐ Working Abnormally:
Status after Test	☒ Working Normally ☐ Other:
Photograph	☐ No ☒ In page 9
Remarks (Provided by the customer)	Antenna size: 20mm×7mm×1mm Device size: 45mm×35mm×12mm Device weight: 9.5g

Sample Number

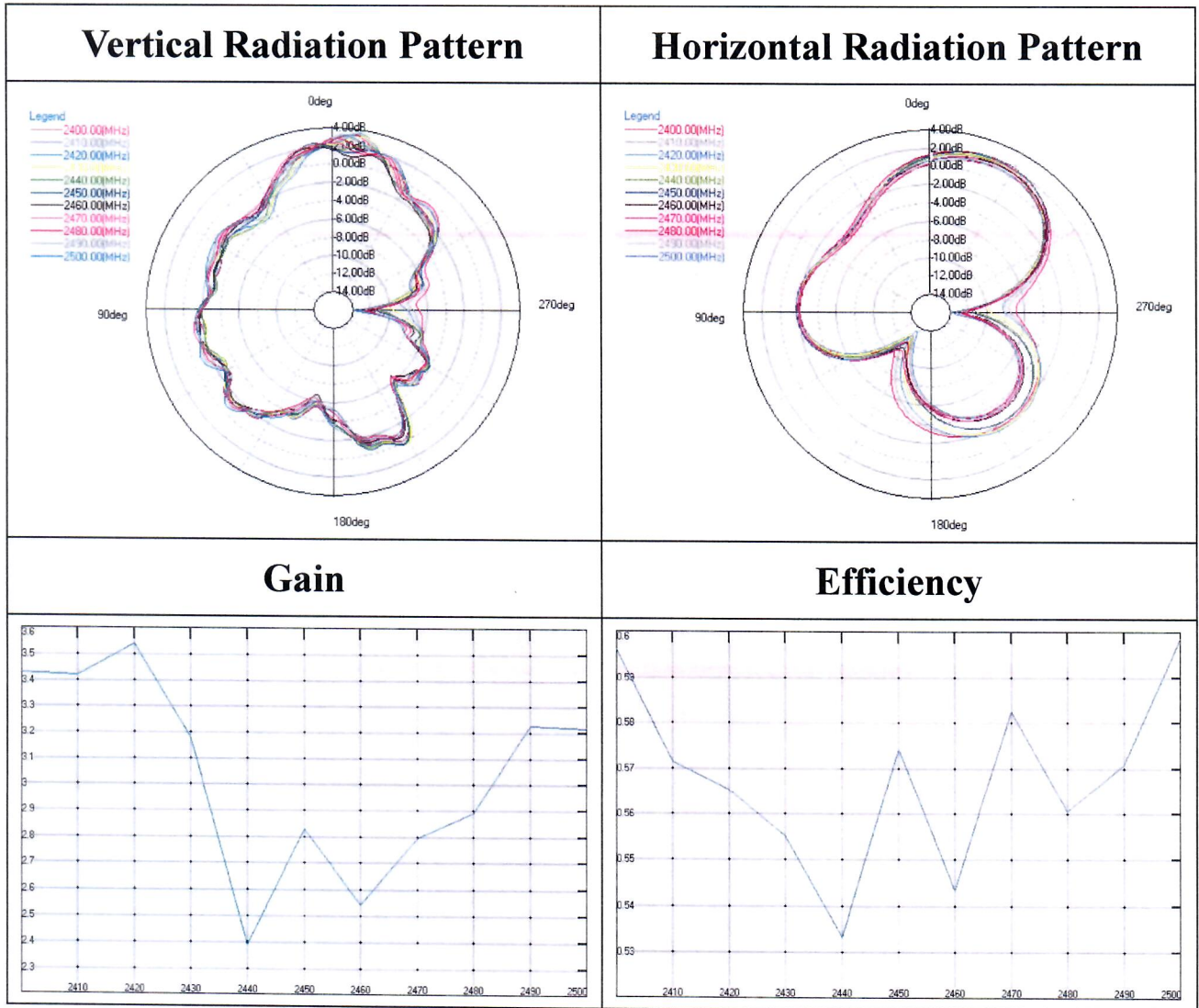
Item	Sample Number	Serial Number
1	AC2024092003	/

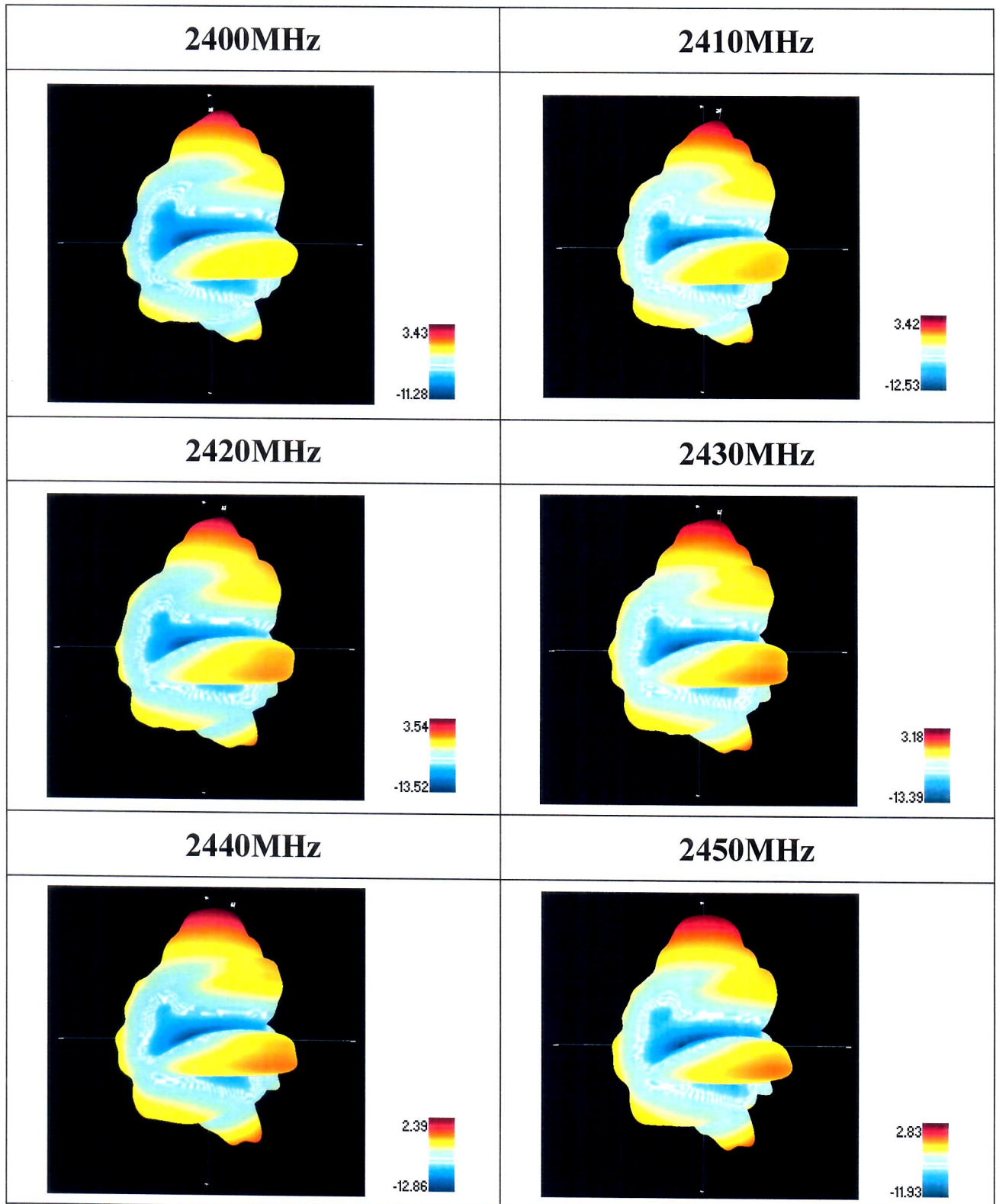
Electrical Performance Test Result

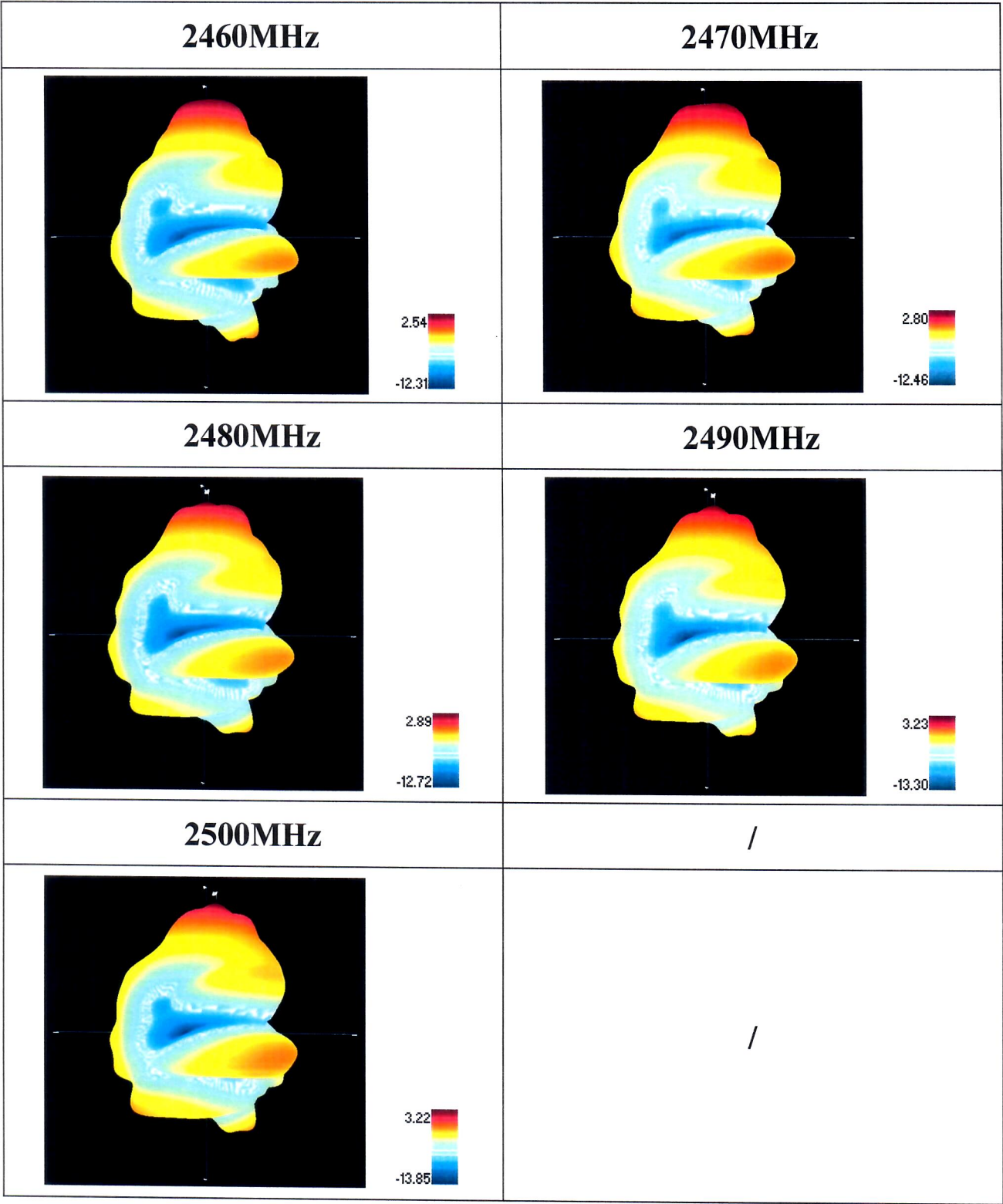
Item	Test Item	Technical Requirement	Unit	Test Frequency (MHz)	Test Result
1	Gain	/	dBi	2400	3.43
				2410	3.42
				2420	3.54
				2430	3.18
				2440	2.39
				2450	2.83
				2460	2.54
				2470	2.80
				2480	2.89
				2490	3.23
				2500	3.22
2	Efficiency	/	%	2400	59.61
				2410	57.14
				2420	56.53
				2430	55.51
				2440	53.32
				2450	57.43
				2460	54.34
				2470	58.26
				2480	56.05
				2490	57.08
				2500	59.89
3	Radiation Pattern	/	/	2400-2500	Pages 6-8
Note: Test Method: Near Field Measurement Method.					

Radiation Pattern

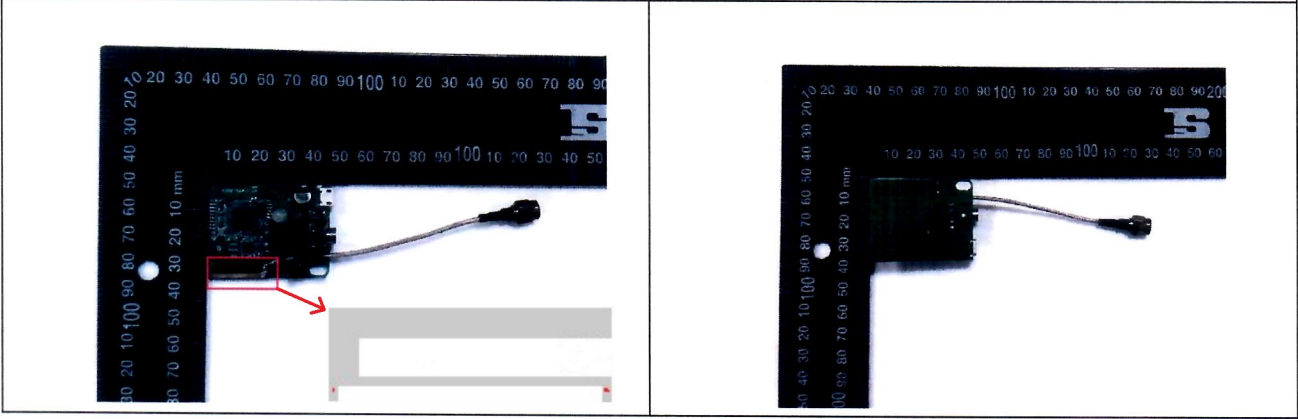
2D



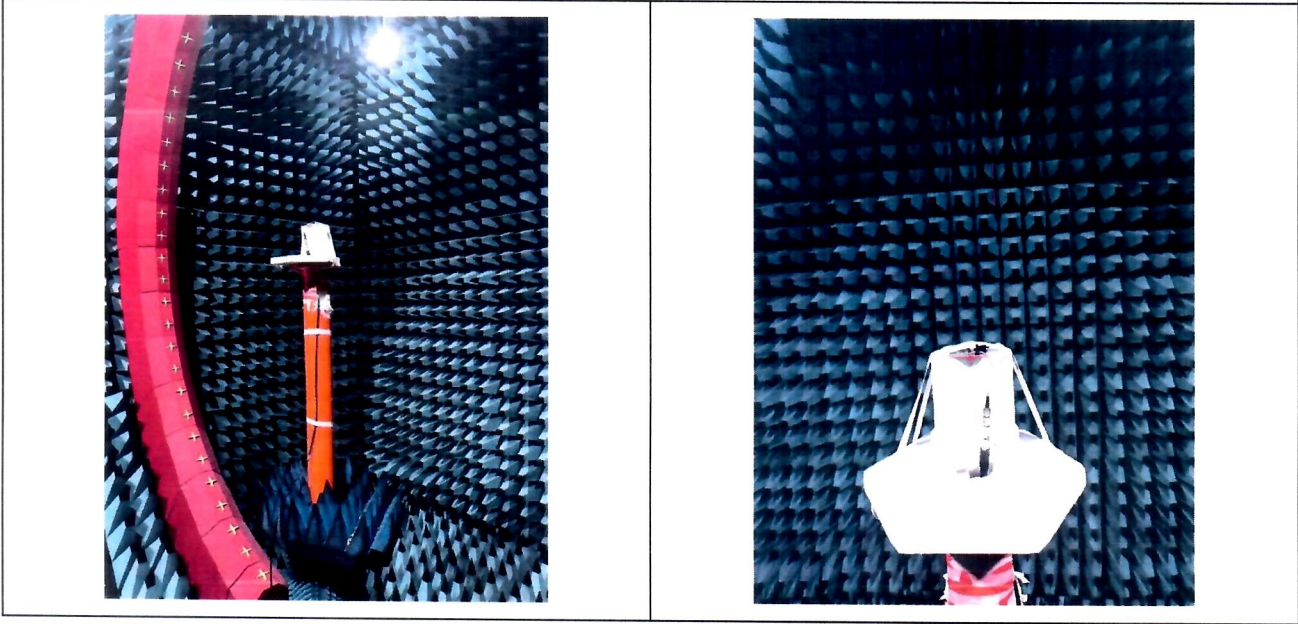
3D



Sample photo



Radiation Pattern Test site



Main instruments and equipment for testing and test system

No.	NAME	Model	SERIAL NUMBER	VALIDITY DATE (DD/MM/YY)
1	Analog Signal Generator	N5172B	MY59100269	05/03/2025
2	Analog Signal Generator	N5181A	MY50140747	05/03/2025
3	Standard Gain Antenna	SH400-440	XCA014	22/11/2024
4	Microwave Anechoic Chamber	5m×5m×5m	XCC03	22/08/2025
5	SG64 Antenna Test System	SATENV 2.0.1.5 Build12	XCXT03	N/A

-----End of Report-----