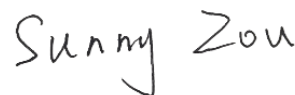
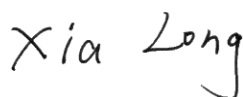


TEST REPORT

Applicant: Haily Inc
Address: 6722 East 47th Avenue Drive, Denver Colorado
80216, United States
Equipment Type: aerial
Model Name: Feet antenna 5260
Brand Name: N/A
Test Standard: IEEE Std 149-2021
Sample Arrival Date: May 26, 2025
Test Date: May 30, 2025 - Jun. 09, 2025
Date of Issue: Jun. 16, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Mai Jintian**Checked by:** Xia Long**Approved by:** Sunny Zou
(Testing Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Jun. 16, 2025</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Haily Inc
Address	6722 East 47th Avenue Drive, Denver Colorado 80216, United States
Contact Person	zhangchengyuan
Telephone Number	15800433839
E-mail Address	mureen@yeah.net

2.2 Manufacturer Information

Manufacturer	Shenzhen Defansi Technology Co., LTD
Address	Room 401, Building 14, No. 19, Guanlan Avenue, Xinhe Community, Fucheng Sub-district, Longhua District, Shenzhen City

2.3 General Description for Equipment under Test (EUT)

EUT Name	aerial
Model Name Under Test	Feet antenna 5260
Serial Model Name	N/A
Model Description	N/A
Antenna Type	aerial
Dimensions	60*5.1mm

2.4 Ancillary Equipment

Note: Not applicable.

2.5 Technical Information

Frequency Range	430MHz, 431MHz, 432MHz, 433MHz, 433.92MHz, 434MHz, 435MHz, 450MHz, 460MHz, 470MHz, 480MHz, 490MHz, 500MHz, 510MHz, 520MHz, 530MHz, 540MHz, 550MHz, 560MHz, 570MHz, 580MHz, 590MHz, 600MHz, 610MHz, 620MHz, 630MHz, 640MHz, 650MHz, 660MHz, 670MHz, 680MHz, 690MHz, 700MHz, 710MHz, 720MHz, 730MHz, 740MHz, 750MHz, 760MHz, 770MHz, 780MHz, 790MHz, 800MHz, 810MHz, 820MHz, 830MHz, 840MHz, 850MHz, 860MHz
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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	IEEE Std 149-2021	IEEE Standard Test Procedures for Antennas

3.2 Test Verdict

Report Section	Description	Remark
ANNEX A.1	Gain and Efficiency	--
ANNEX B	Radiation Pattern	--

3.3 Test Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Item	Uncertainty
Gain	$\pm 1.92\text{dB}$

4 GENERAL TEST CONFIGURATIONS

4.1 Test Condition

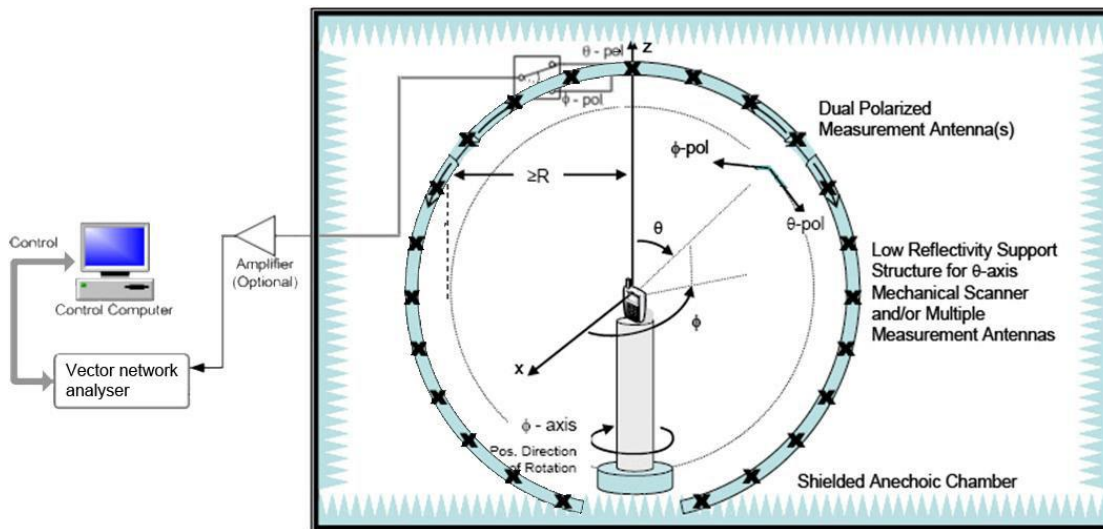
Environment Parameter	Selected Values During Tests			
	Ambient Pressure(KPa)	Temperature(°C)	Voltage	Relative Humidity (%)
Normal Temperature, Normal Voltage (NTNV)	100 to 102	21.8	N/A	47

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
SG24 Multi-probe Antenna Measurement System	SATIMO	SG24-L	1101855- 0001	2024/11/11	2027/11/10
Vector Network Analyzer	Agilent	E5071B	MY42404001	2025/1/23	2026/1/22
Description	Manufacturer	Name		Version	
Test Software	MVG	SPM		V 1.8	

4.3 Test Setup

4.3.1 Antenna gain, efficiency and radiation pattern test setup



4.4 Test Frequencies

Test Frequencies	430MHz, 431MHz, 432MHz, 433MHz, 433.92MHz, 434MHz, 435MHz, 450MHz, 460MHz, 470MHz, 480MHz, 490MHz, 500MHz, 510MHz, 520MHz, 530MHz, 540MHz, 550MHz, 560MHz, 570MHz, 580MHz, 590MHz, 600MHz, 610MHz, 620MHz, 630MHz, 640MHz, 650MHz, 660MHz, 670MHz, 680MHz, 690MHz, 700MHz, 710MHz, 720MHz, 730MHz, 740MHz, 750MHz, 760MHz, 770MHz, 780MHz, 790MHz, 800MHz, 810MHz, 820MHz, 830MHz, 840MHz, 850MHz, 860MHz
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ANNEX A TEST RESULTS

A.1 Gain and Efficiency

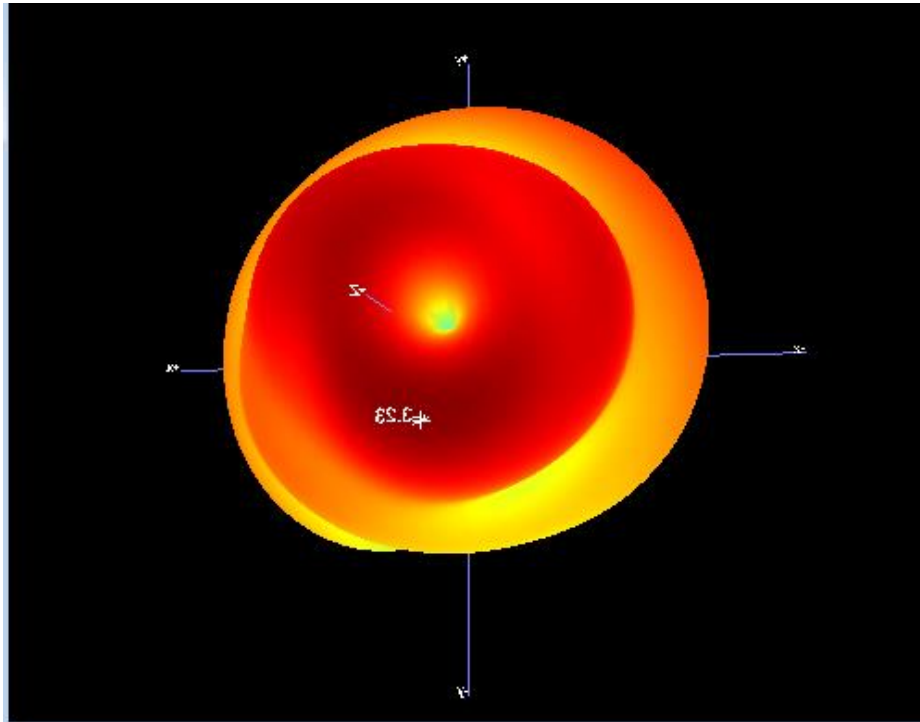
Frequency	Gain (dBi)	Efficiency (%)
430MHz	-2.22	14
431MHz	-2.15	14
432MHz	-2.02	14
433MHz	-1.82	14
433.92MHz	-1.67	14
434MHz	-1.66	14
450MHz	-3.23	12
460MHz	-2.57	12
470MHz	-2.72	12
480MHz	-1.40	15
490MHz	-0.13	20
500MHz	-0.15	22
510MHz	-0.74	20
520MHz	-1.71	18
530MHz	-2.96	17
540MHz	-3.92	20
550MHz	-3.97	21
560MHz	-3.70	21
570MHz	-3.91	19
580MHz	-5.89	13
590MHz	-8.37	7
600MHz	-6.99	9
610MHz	-6.02	11
620MHz	-4.90	14
630MHz	-4.64	14
640MHz	-4.35	16
650MHz	-4.16	17
660MHz	-3.37	18
670MHz	-3.37	18
680MHz	-3.39	19
690MHz	-2.72	21
700MHz	-2.25	23
710MHz	-2.51	22
720MHz	-2.66	22
730MHz	-2.63	22
740MHz	-1.73	25
750MHz	-1.69	24
760MHz	-1.92	23

770MHz	-2.01	24
780MHz	-1.71	26
790MHz	-1.75	24
800MHz	-1.08	24
810MHz	-0.73	24
820MHz	-0.98	23
830MHz	-1.27	22
840MHz	-1.18	24
850MHz	-1.47	23
860MHz	-1.25	23

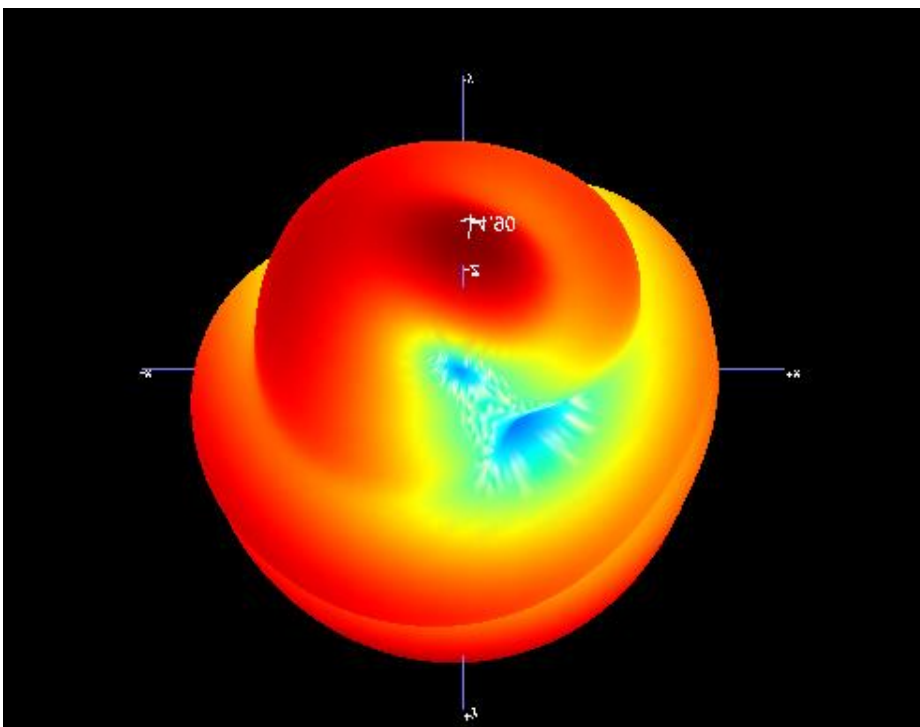
ANNEX B RADIATION PATTERN

B.1 3D Pattern

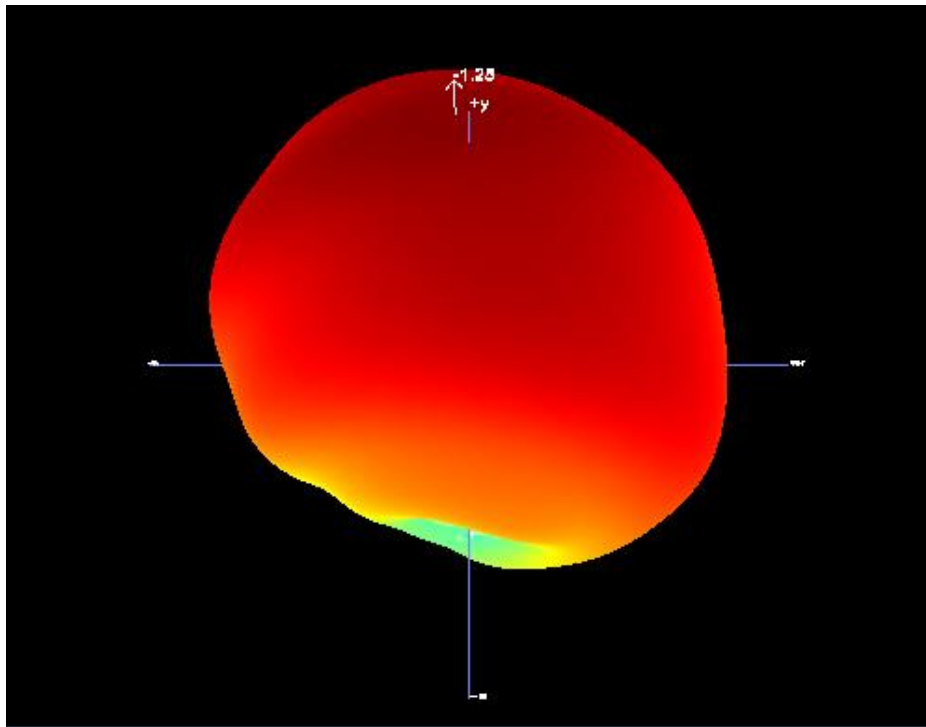
B1.1 3D Pattern for 450MHz



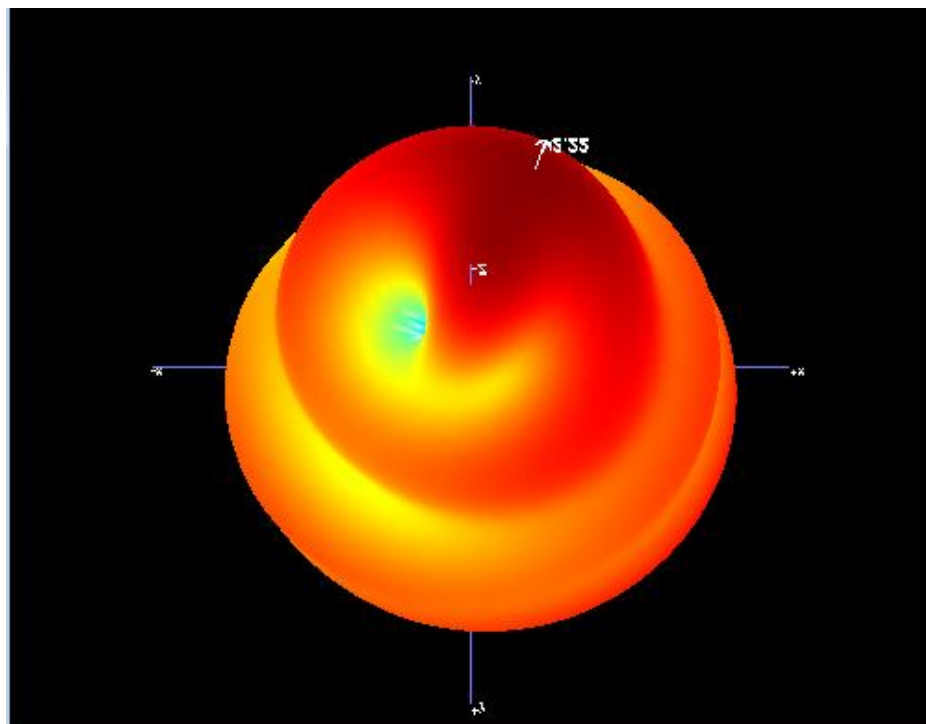
B1.2 3D Pattern for 620MHz



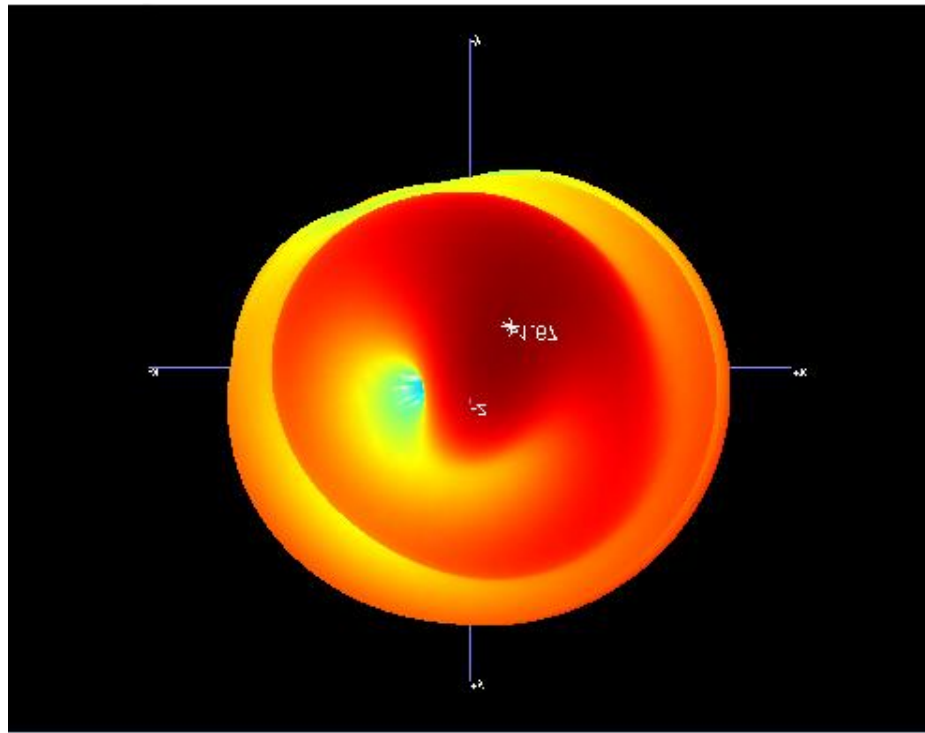
B1.3 3D Pattern for 860MHz



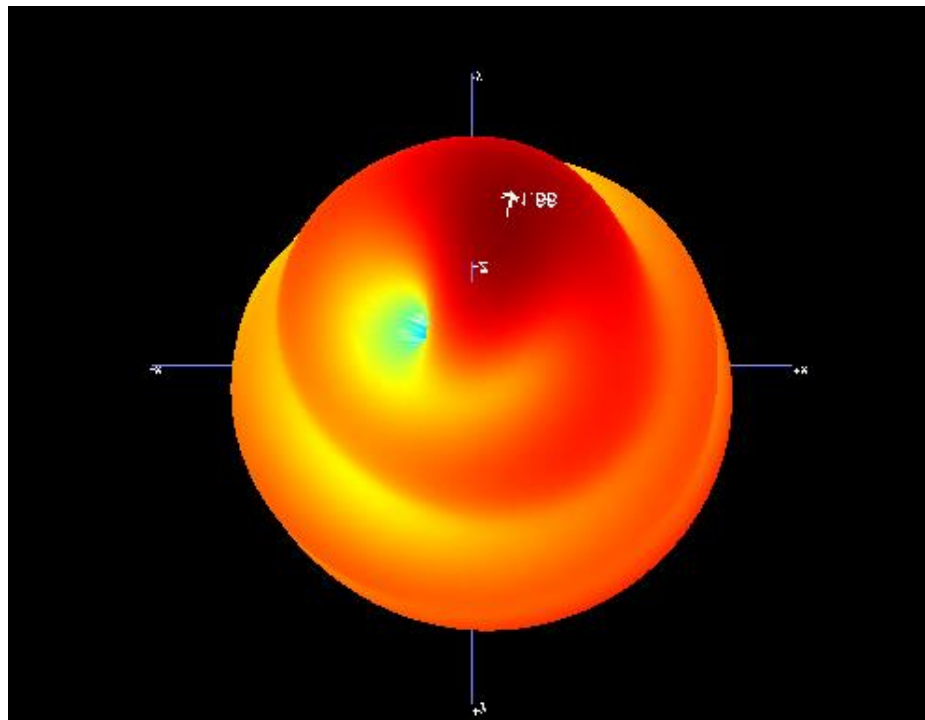
B1.4 3D Pattern for 430MHz



B1.5 3D Pattern for 433.92MHz

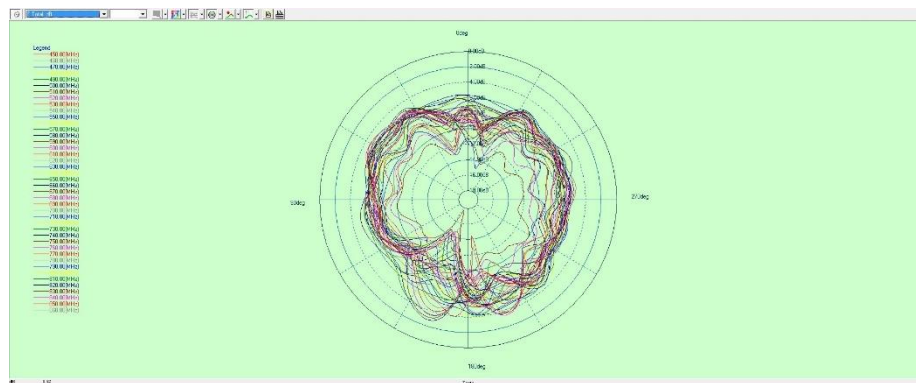


B1.6 3D Pattern for 435MHz

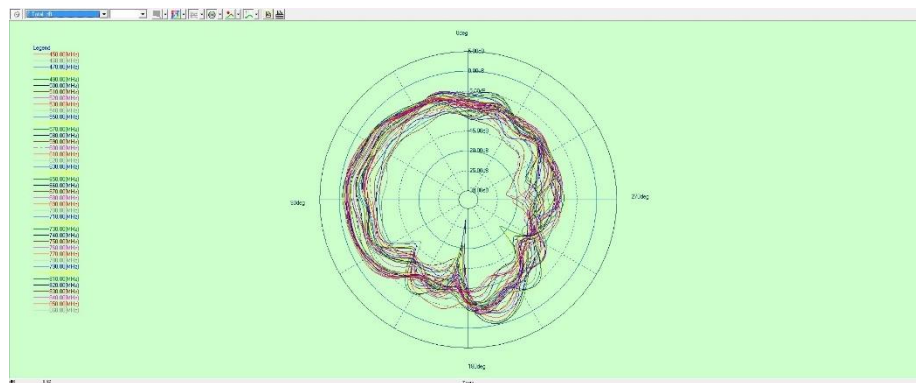


B.2 1D Radiation Pattern

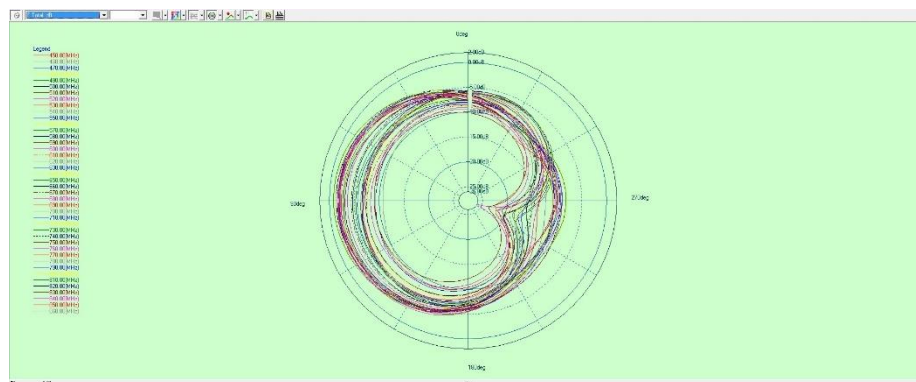
B2.1 PHI=0

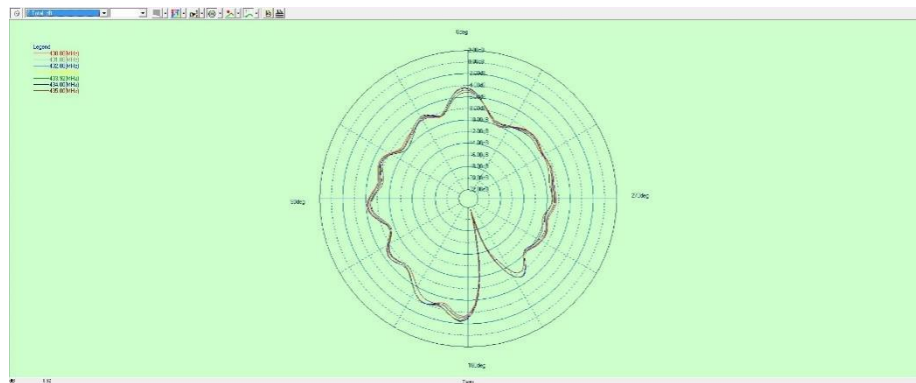
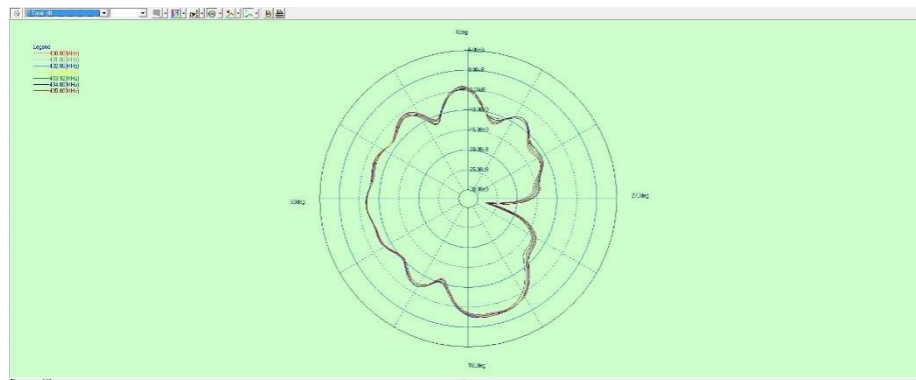
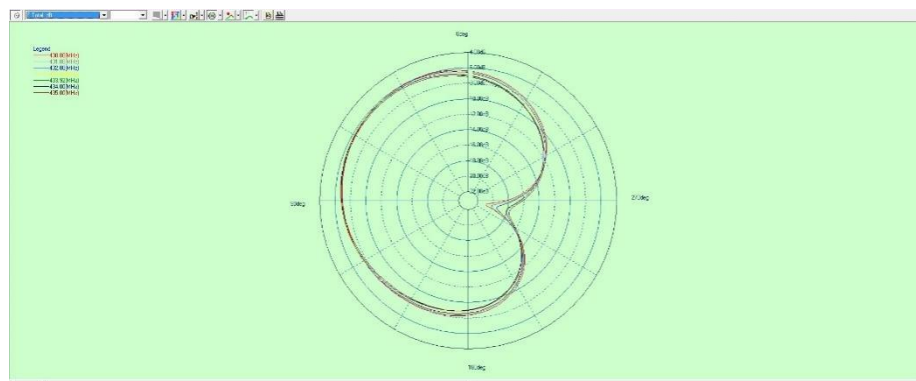


B2.2 PHI=90

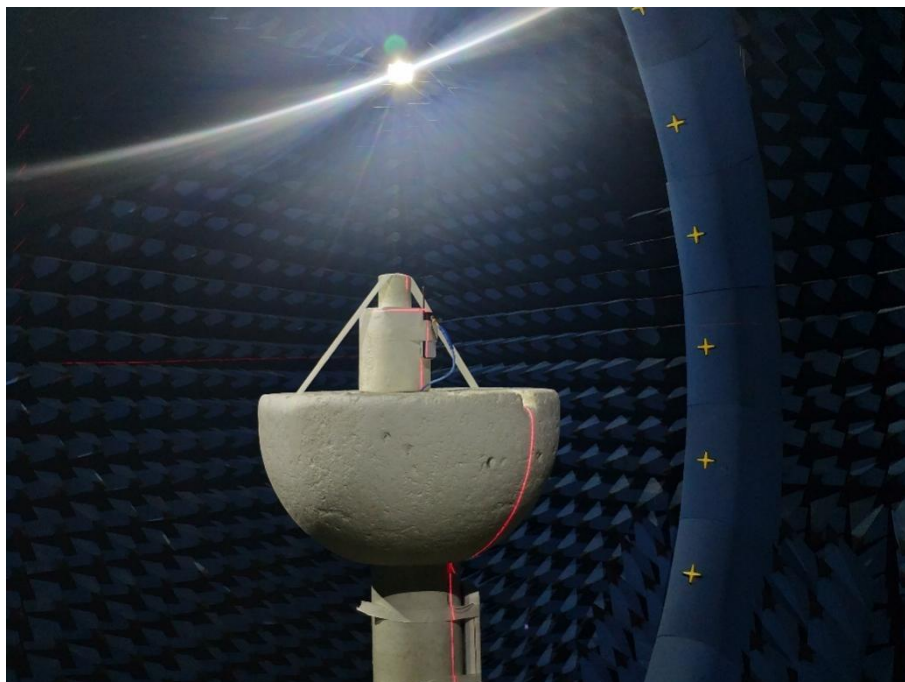


B2.3 THETA=90

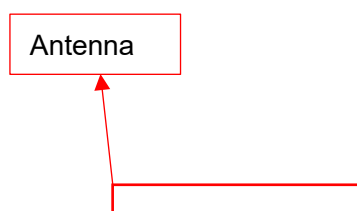


B2.4 PHI=0**B2.5 PHI=90****B2.6 THETA=90**

ANNEX C TEST SETUP PHOTO



ANNEX D EUT PHOTO



Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the "inspection and testing dedicated stamp" or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--