

Antenna Gain Test Report

Project No.: 4791366726

Client Name: Shenzhen Seauto Technology Co., Ltd.

Client Address: Room 501, Building 1, Phase 1, China Merchants Smart City,
Fenghuang Community, Fenghuang Street, Guangming District,
Shenzhen.

Product Name: Robotic Pool Cleaner

Product Model: Niya Sonar 50, Niya Tracker 55

Manufacture: Huizhou Seauto Intelligent Technology Co., LTD

Antenna Type: PCB

Antenna Size: Refer to section 6

Project Engineer: James Qin

Test Standards: ANSI/IEEE std 149-2021

Issued Date: 2024.6.13

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	2024.6.13	Initial Issue	\

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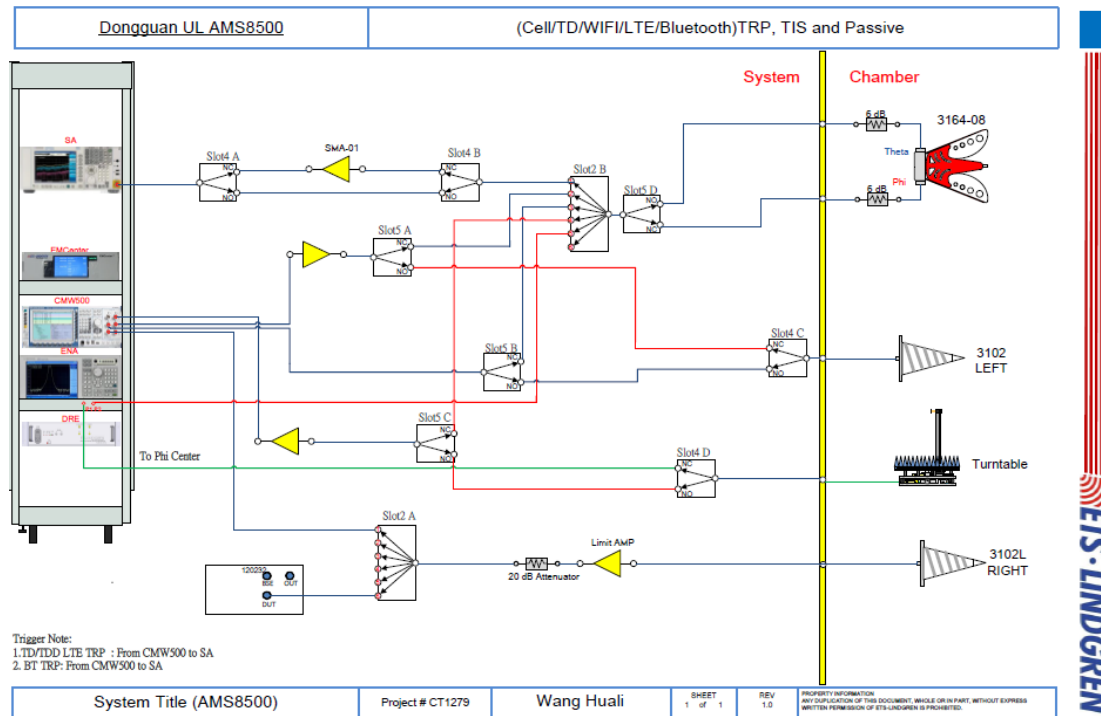
1 Test Equipment Information

Equipment	Manufacturer	Mode No.	Serial No.	Cal date	Cal Due
Test Chamber	ETS-Lindgren	8500	/	/	/
Test Software	ETS-Lindgren	EMQuest V1.12	1496	/	/
Network Analyzer	Keysight	E5071C	MY46524531	2023.10.12	2024.10.11
EXA Singal Analyzer	Keysight	N9010A	MY55150514	2023.10.12	2024.10.11

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2 Setup block diagram



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3 Test Temperature and Humidity

Temperature: 23.1°C

Humidity: 59.4%

4 Test Step Flow

- 1) Maintain the test ambient temperature of 23 ± 2 C, the instrument is powered on and preheated for more than 30 minutes;
- 2) Turn on the darkroom power supply, connect the test cable, and set up the sample according to the standard;
- 3) Outline sets the test content objectives and conducts calibration tests;
- 4) Run the software, when the test is completed, export the corresponding test diagram and test data, and save to the corresponding directory.

5 Test Result

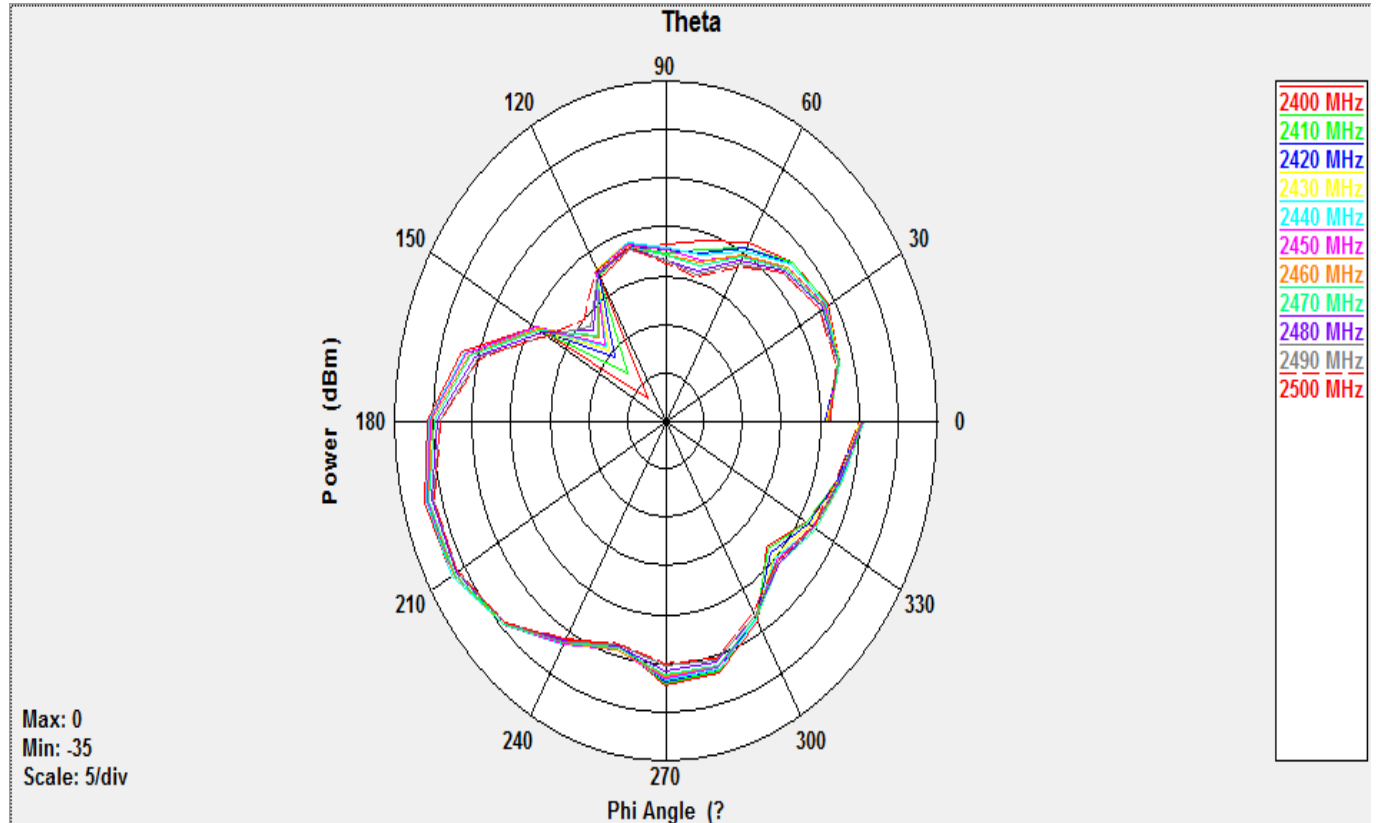
Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	17.25	-1.12
2410	16.49	-1.26
2420	16.07	-1.34
2430	15.89	-1.30
2440	15.68	-1.28
2450	14.97	-1.42
2460	14.27	-1.64
2470	13.69	-1.78
2480	12.83	-1.96
2490	12.16	-2.22
2500	11.90	-2.20

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Polarization Pattern Photos

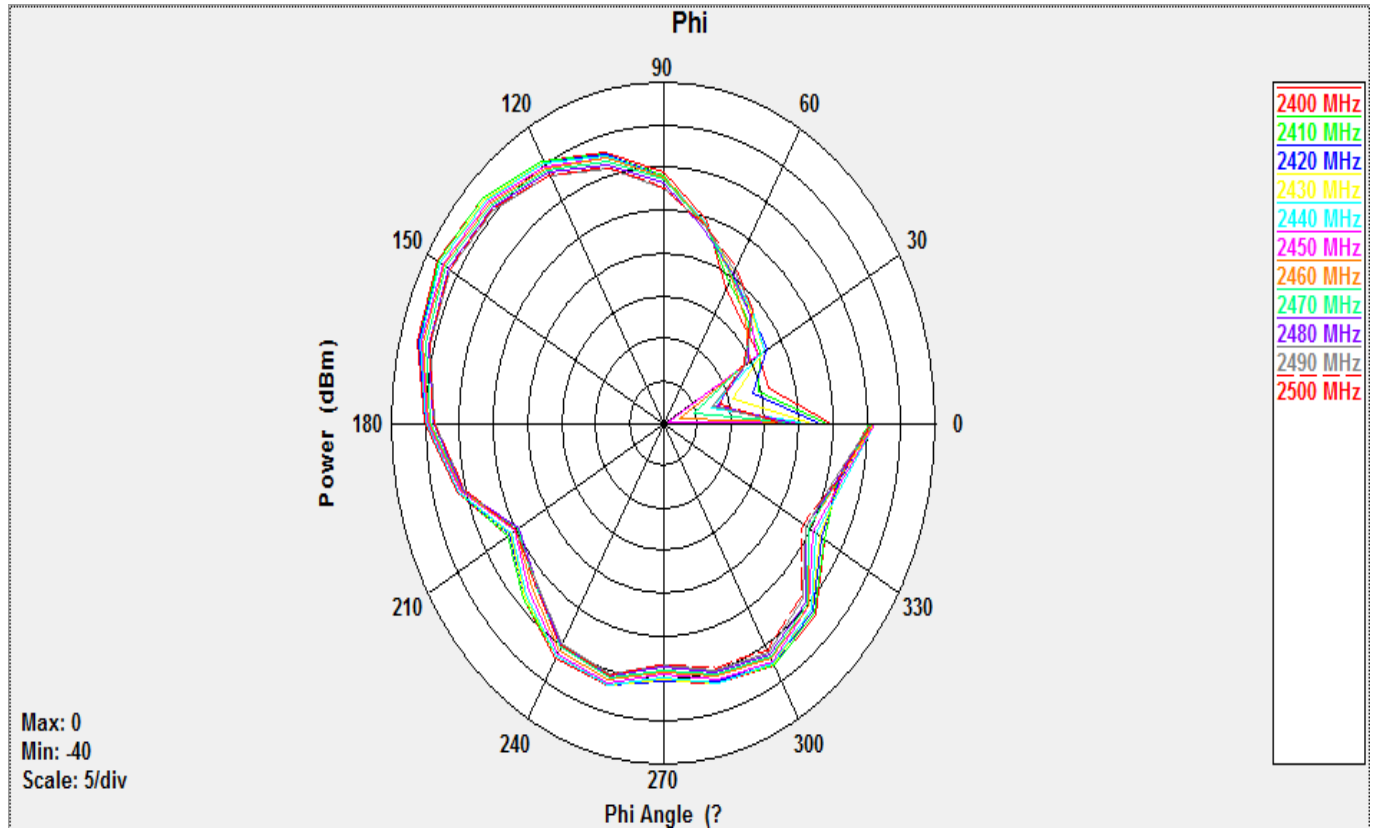
Theta Polarization(Theta Angle=90°)



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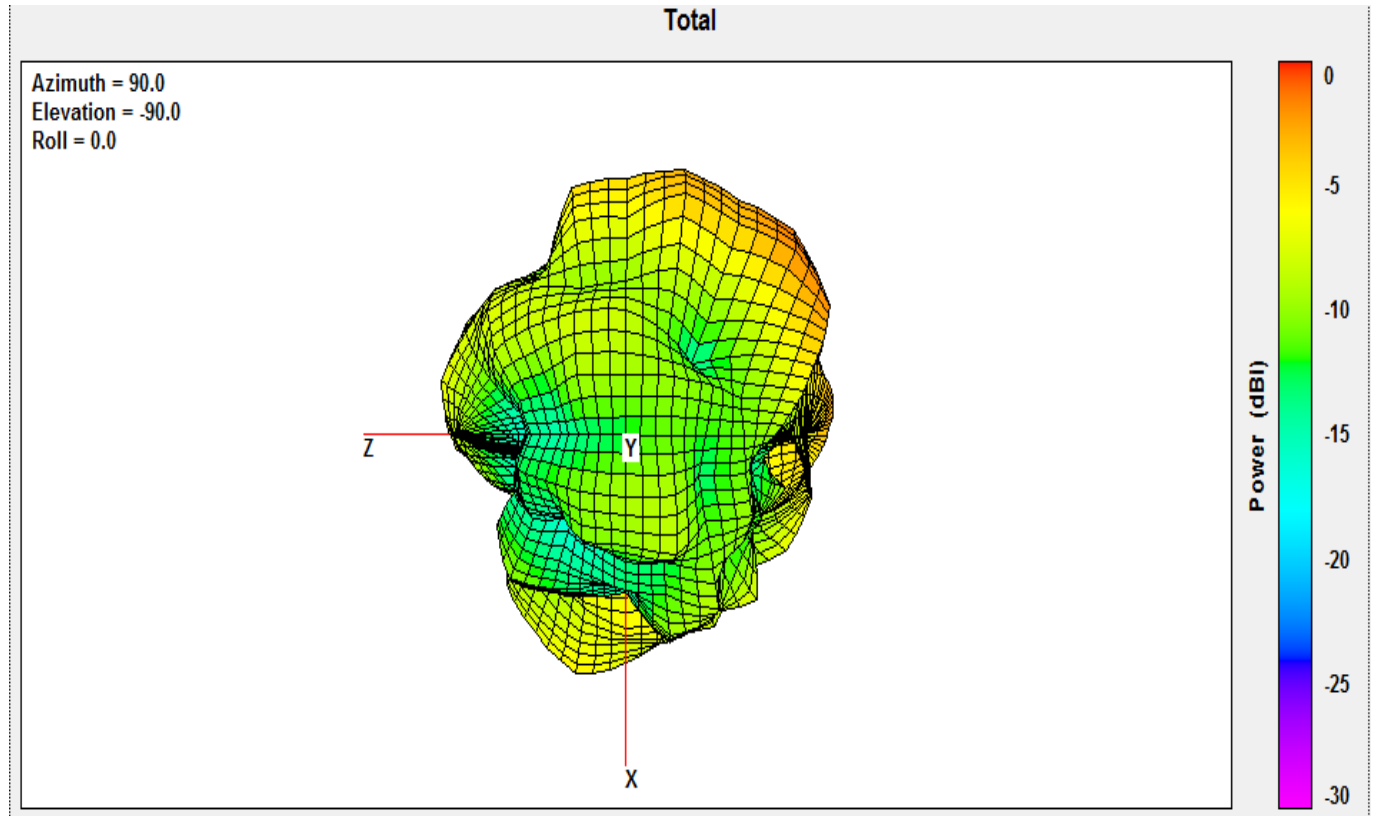
Phi Polarization(Theta Angle=90°)



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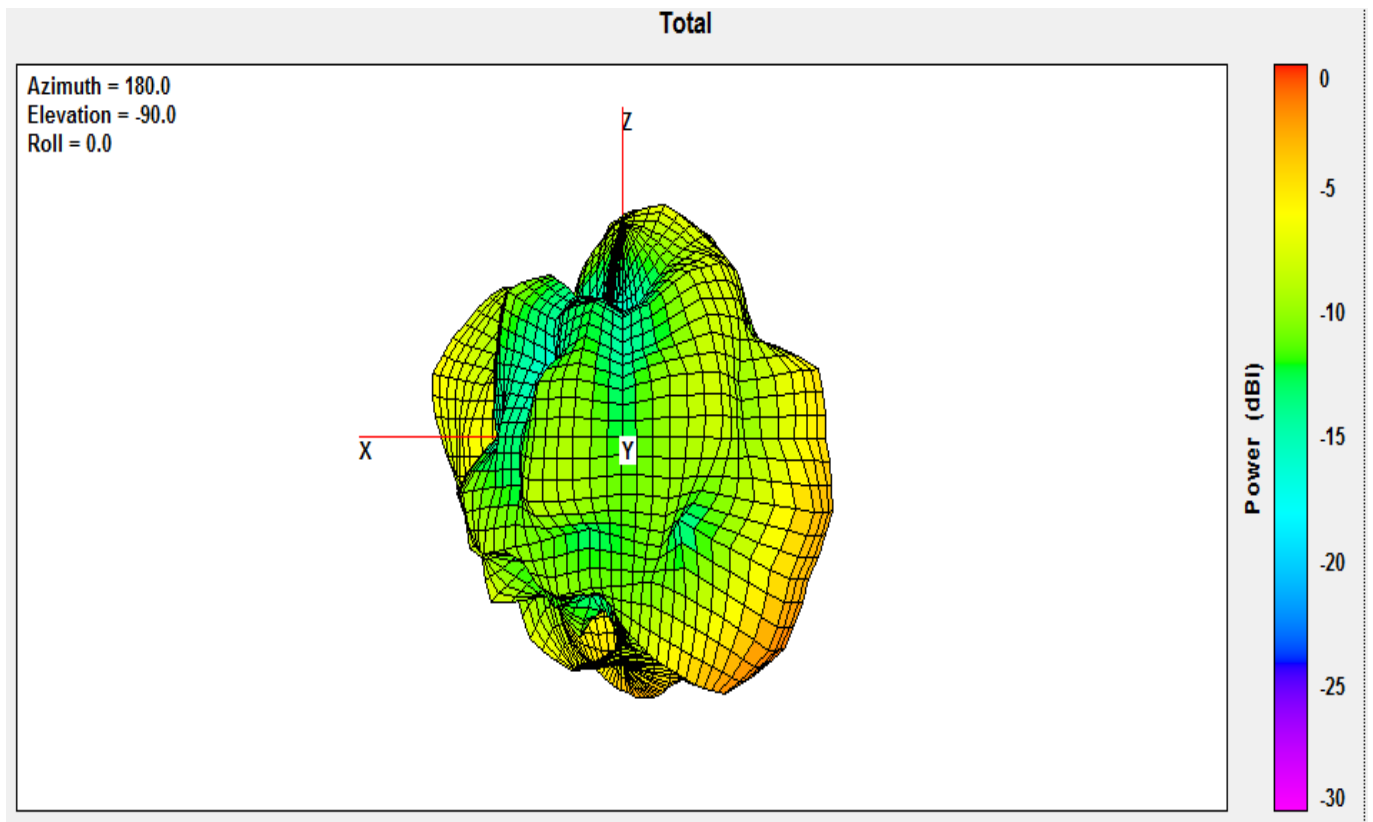
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Total 3D Plot(Fre.2500MHz)



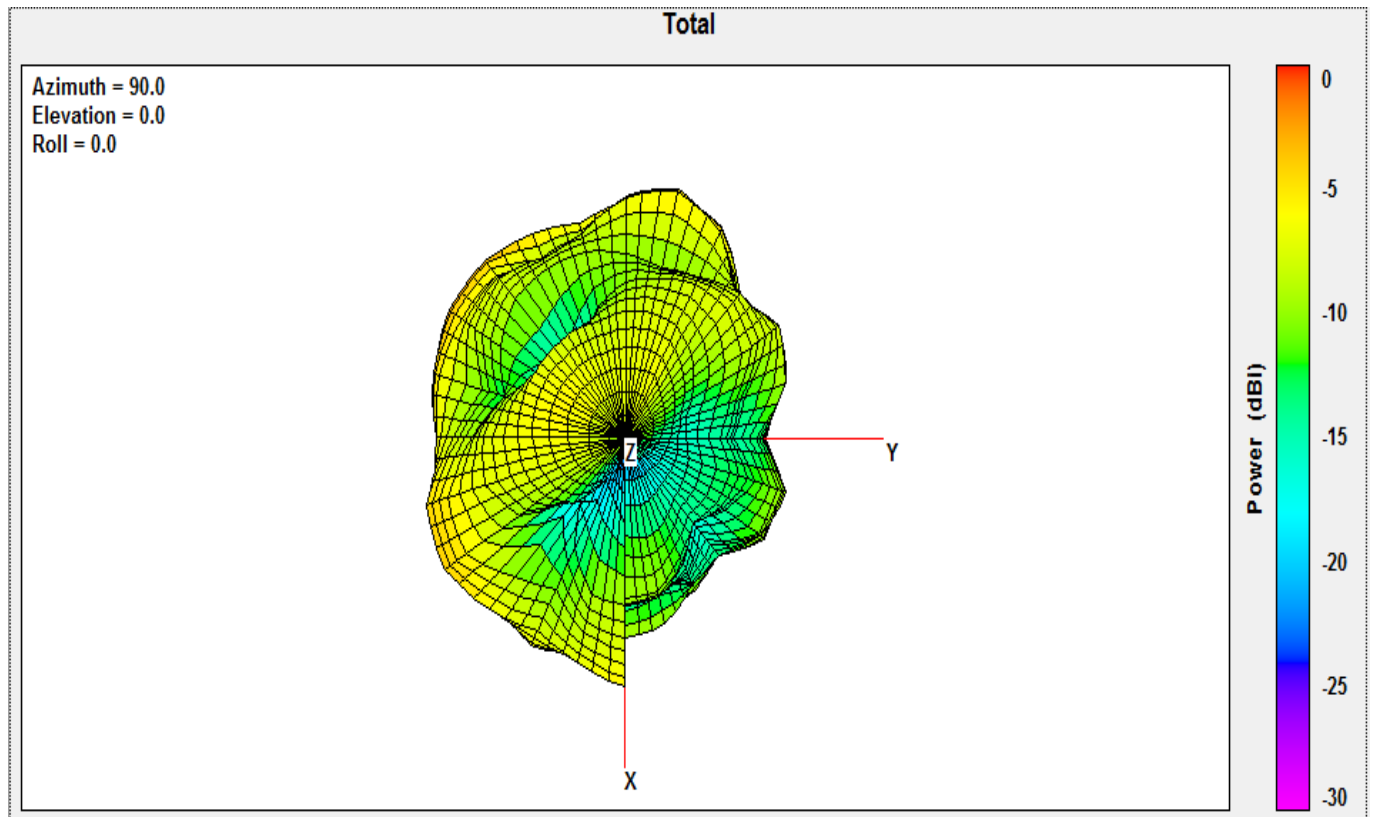
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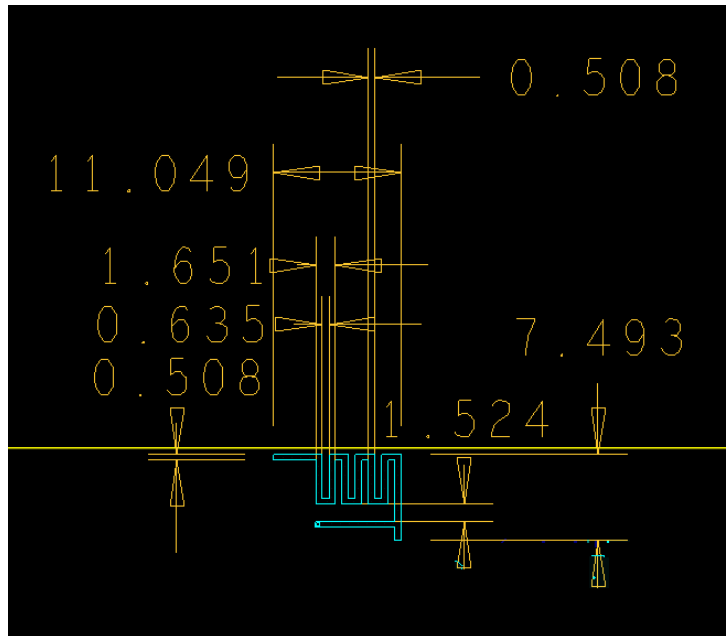
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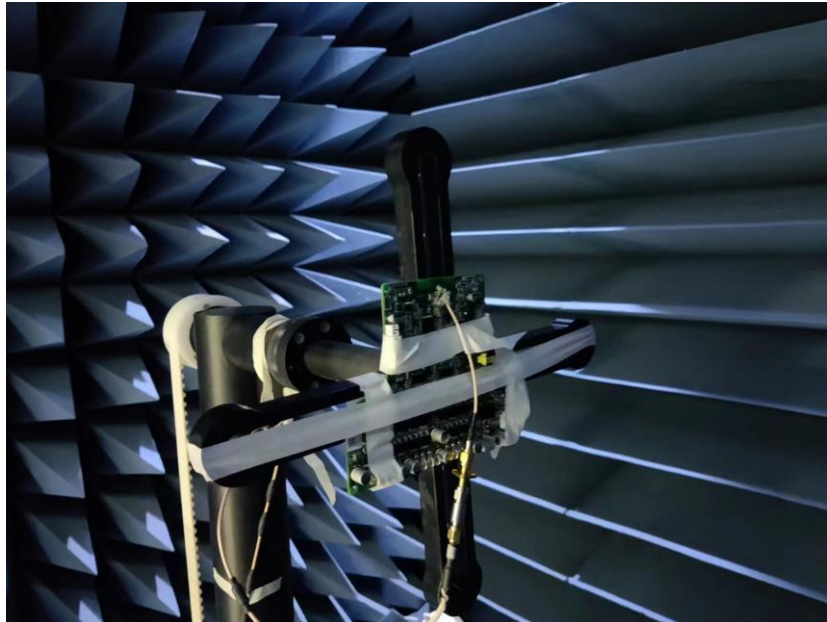
6 Antenna Dimension



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7 Photo



END OF REPORT

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