

Lenze Technology Co.,LTD

Tel:+86 0755-82031775;25332530 Fax:+86 0755-82713604

26c newspaper west tower, 6008 shennan Avenue,Futian District, Shenzhen City, GuangdongProvince,China

1 GENERAL INFORMATION

1.1 Test Environment Condition

| | |
|---------------------------|----------------------|
| Ambient Temperature | 19 to 25 °C |
| Ambient Relative Humidity | 45 to 55 % |
| Ambient Pressure | N/A (Not applicable) |

1.2 Announce

- (1) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (2) The test report is invalid if there is any evidence and/or falsification.
- (3) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (4) This document may not be altered or revised in any way unless done so and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

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2 PRODUCT INFORMATION

2.1 Applicant

| | |
|------------------|--|
| Applicant | Lenze Technology Co.,LTD |
| Address | d.c., 26c newspaper west tower, 6008 shennan Avenue, Futian District , |
| Contact Person | Tony |
| Telephone Number | +86 0755-82031775;25332530 |
| Fax Number | +86 0755-82713604 |
| E-mail Address | info@lenzotech.com |

2.2 Manufacturer

| | |
|------------------|--|
| Manufacturer | Lenze Technology Co.,LTD |
| Address | d.c., 26c newspaper west tower, 6008 shennan Avenue, Futian District , Shenzhen City, Guangdong Province, China |
| Contact Person | N/A |
| Telephone Number | N/A |
| Fax Number | N/A |
| E-mail Address | N/A |

2.3 General Description for Equipment under Test (EUT)

| | |
|------------------|-------------------|
| EUT Type | Bluetooth Antenna |
| Model Name | SDFD-V5 |
| Antenna Type | PCB Antenna |
| Hardware Version | N/A |
| Serial Number | N/A |
| Dimensions | N/A |

2.4 Technical Information

| | |
|------------------|---------------------------|
| Frequency Range | 2400MHz~ 2500MHz |
| Test Frequencies | 2402MHz, 2441MHz, 2480MHz |

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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

| No. | Identity | Document Title |
|-----|--------------|--|
| 1 | IEEE149-1979 | 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 |
|-----------|-------------|
| VSWR(S11) | 0.4dB |
| Gain | 0.5dB |

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4 GENERAL TEST CONFIGURATIONS

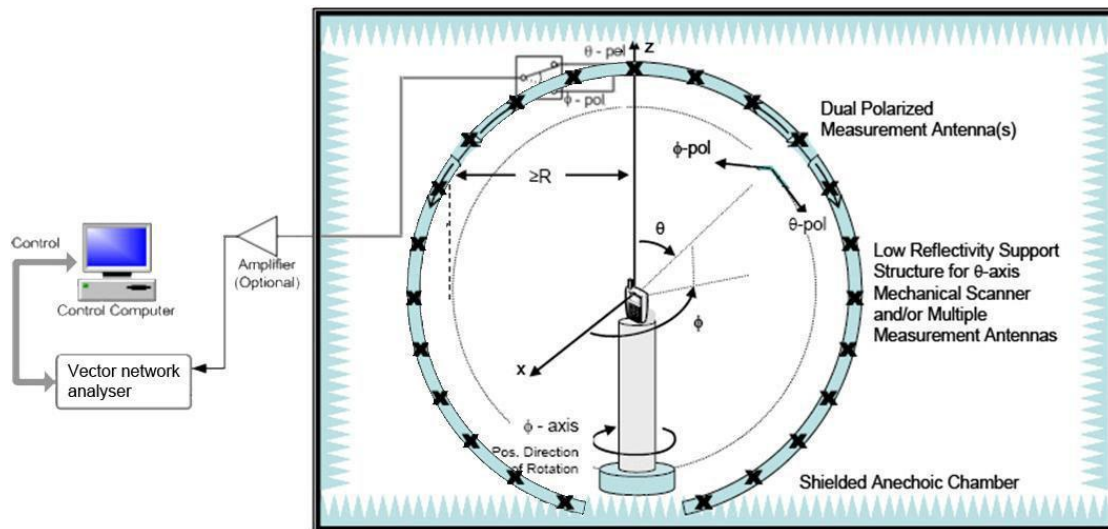
4.1 Test Condition

| Environment Parameter | Selected Values During Tests | | |
|---|------------------------------|---------|-------------------|
| | Temperature | Voltage | Relative Humidity |
| Normal Temperature, Normal Voltage (NTNV) | 25°C | N/A | 51% |

4.2 Test Equipment List

| Description | Manufacturer | Model | Serial No. | Cal. Date | Cal. Due |
|---|--------------|--------|--------------|------------|------------|
| Vector Network Analyzer | Agilent | E5071C | MY46103472 | 2014.09.07 | 2015.09.06 |
| 5*5*5 Full Anechoic Chamber | SATIMO | 5*5*5 | N/A | 2014.09.05 | 2015.09.04 |
| SG24 Multi-probe Antenna Measurement System | SATIMO | SG24-L | 1101855-0001 | 2014.10.25 | 2015.10.24 |

4.3 Test Setup



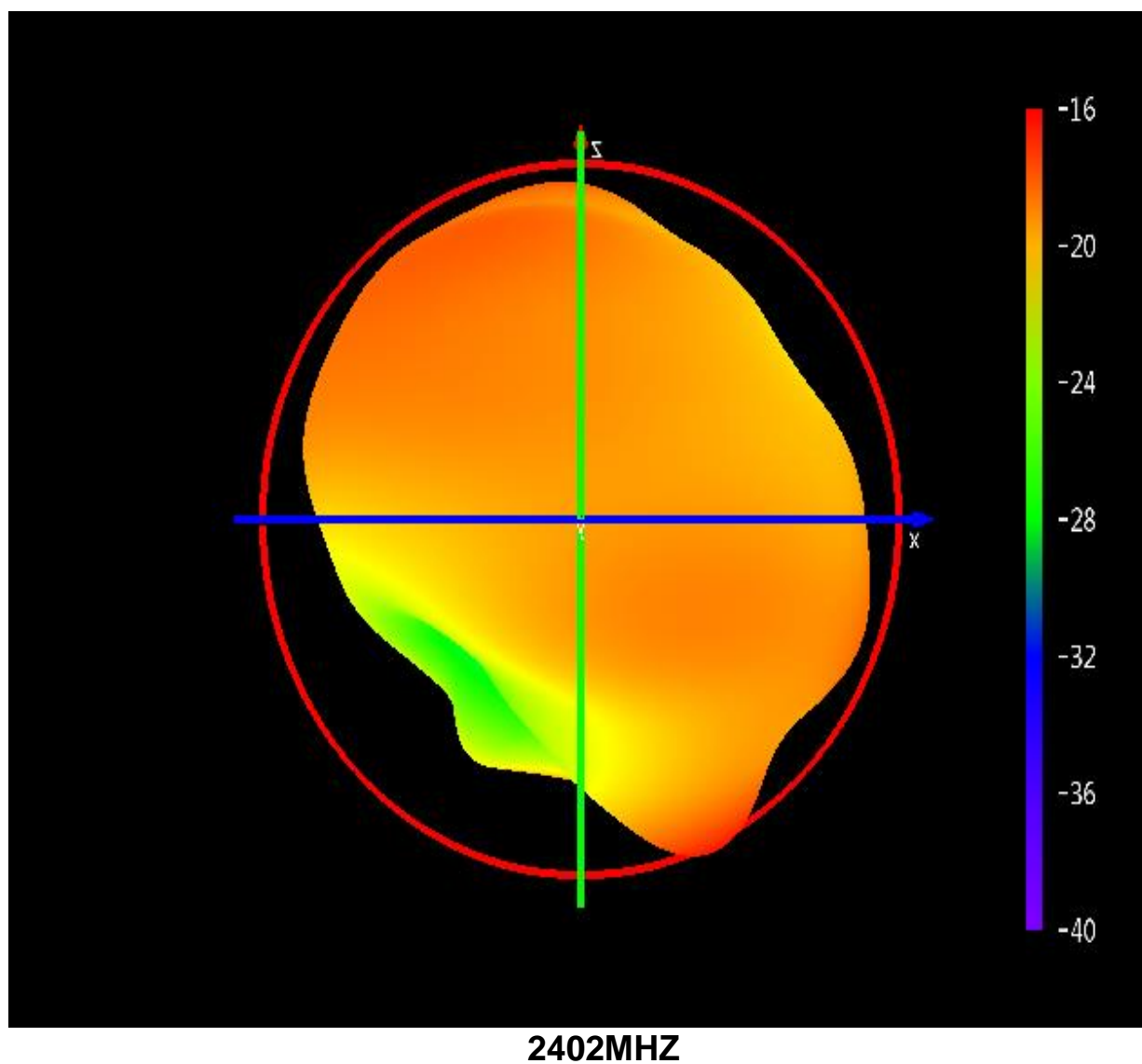
ANNEX A TEST RESULTS

A.1 Gain and Efficiency

| Frequency | Gain (dBi) | Efficiency (%) |
|-----------|------------|----------------|
| 2402MHz | -16.8 | 0.99 |
| 2441MHz | -16.4 | 1.06 |
| 2480MHz | -15.7 | 1.12 |

ANNEX B RADIATION PATTERN

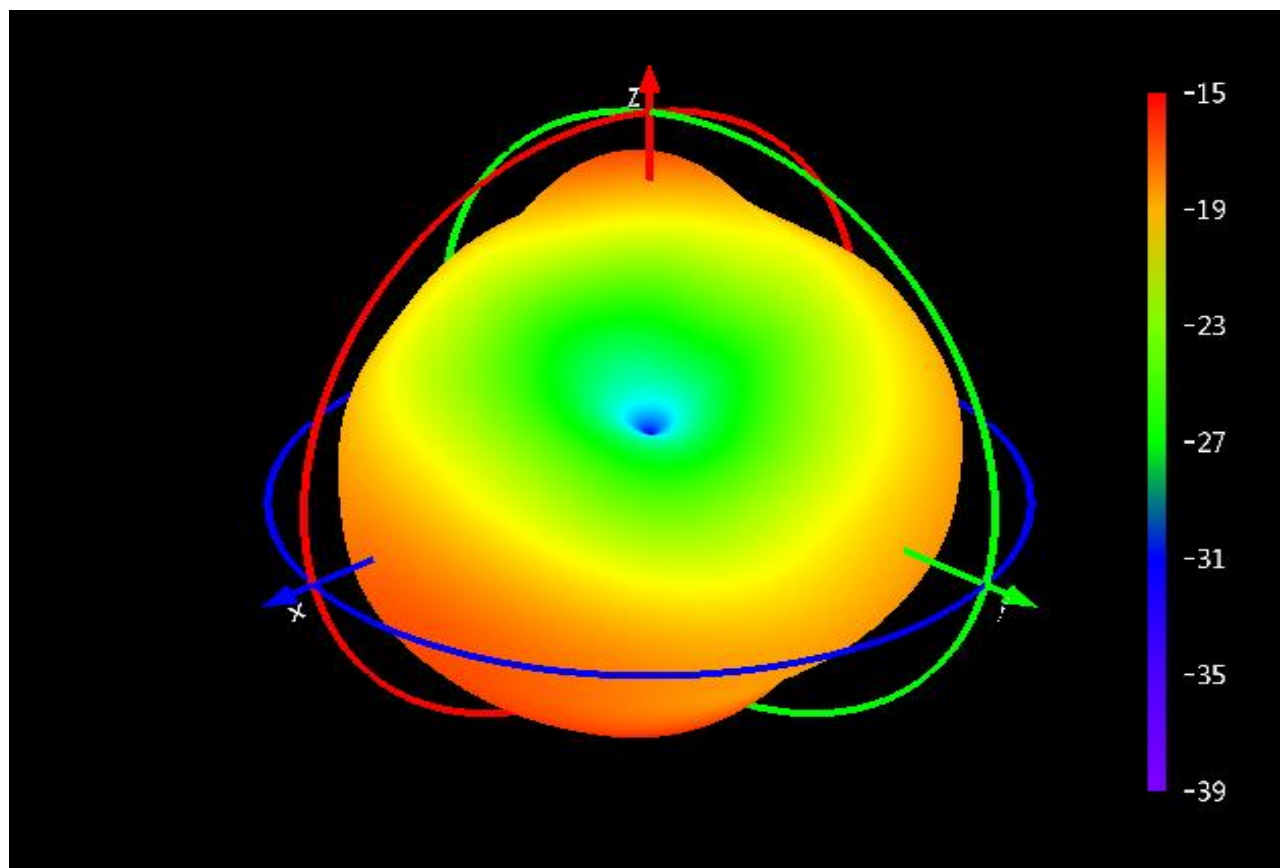
3DPattern



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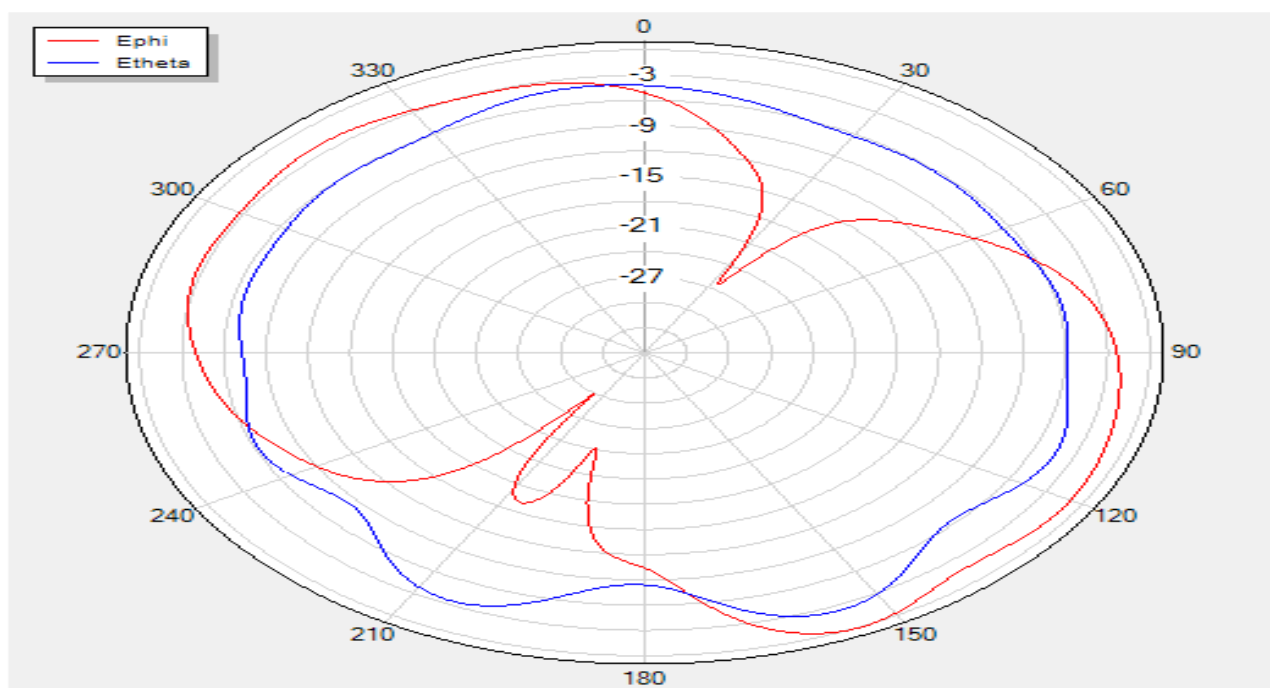


2480MHZ

1D Radiation Pattern

PHI = 0

Phi=0 freq=2400MHz



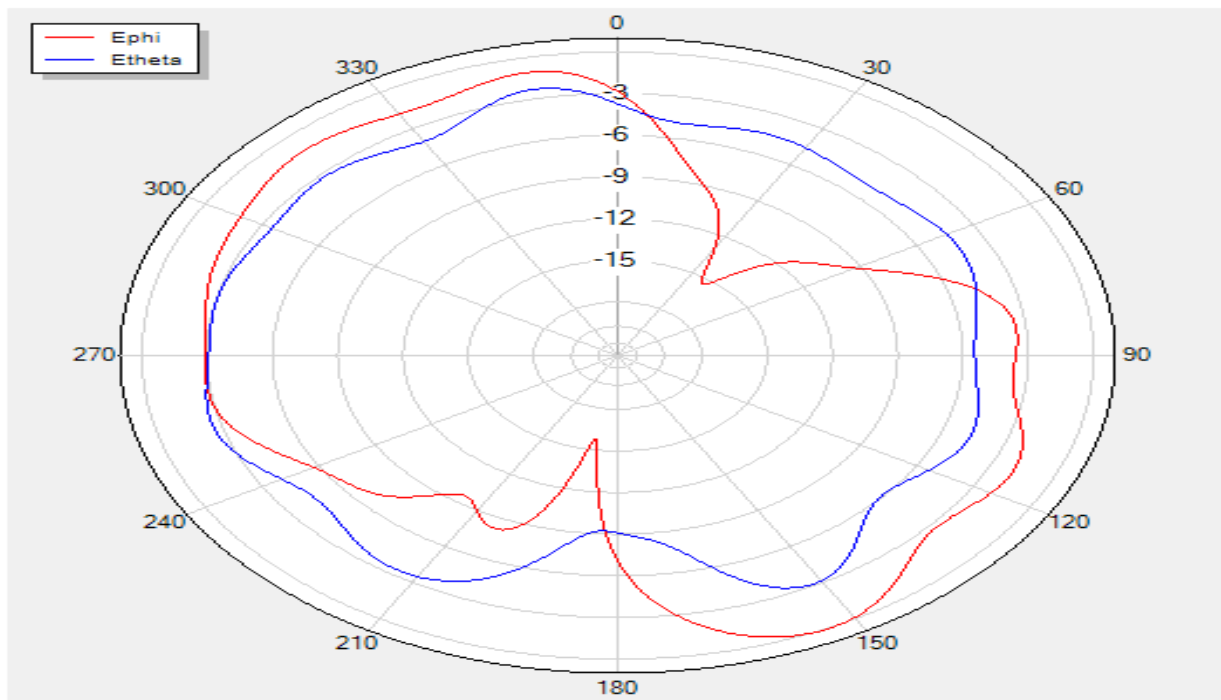
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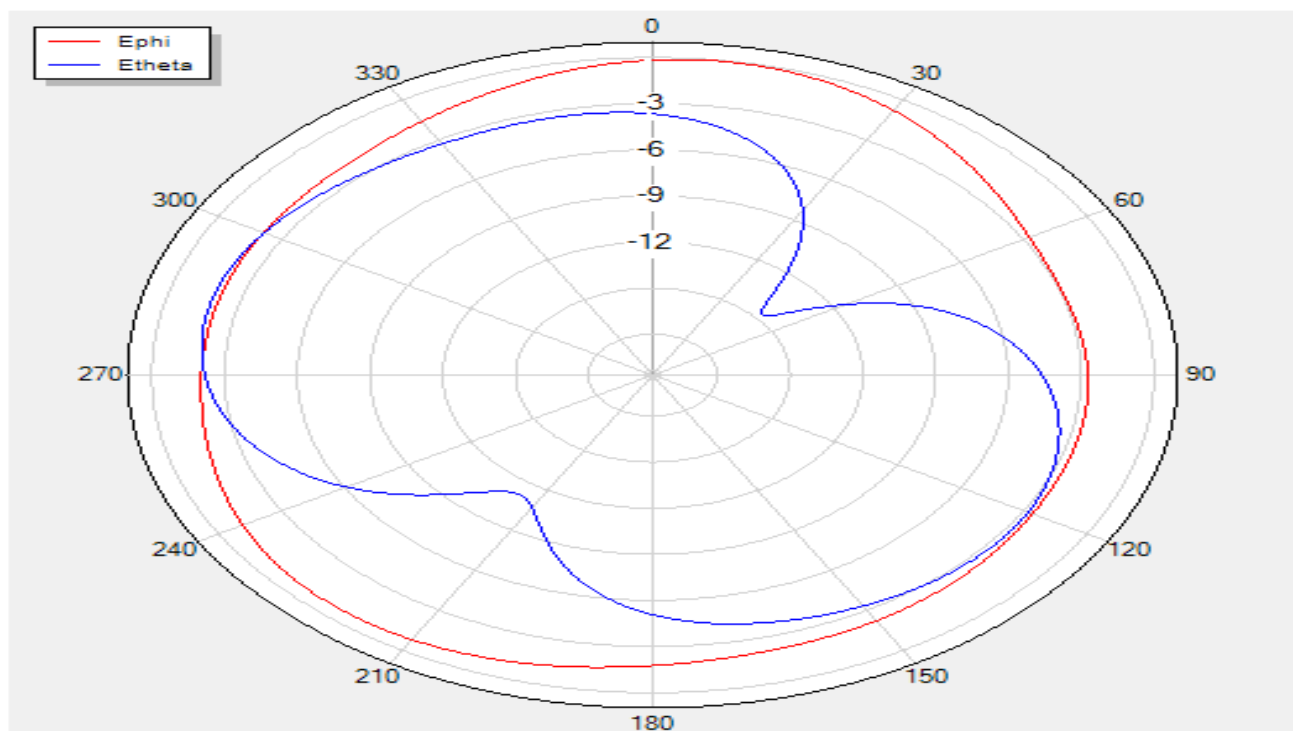
PHI =90

Phi=90 freq=2400MHz



THETA = 90

Theta=90 freq=2400MHz

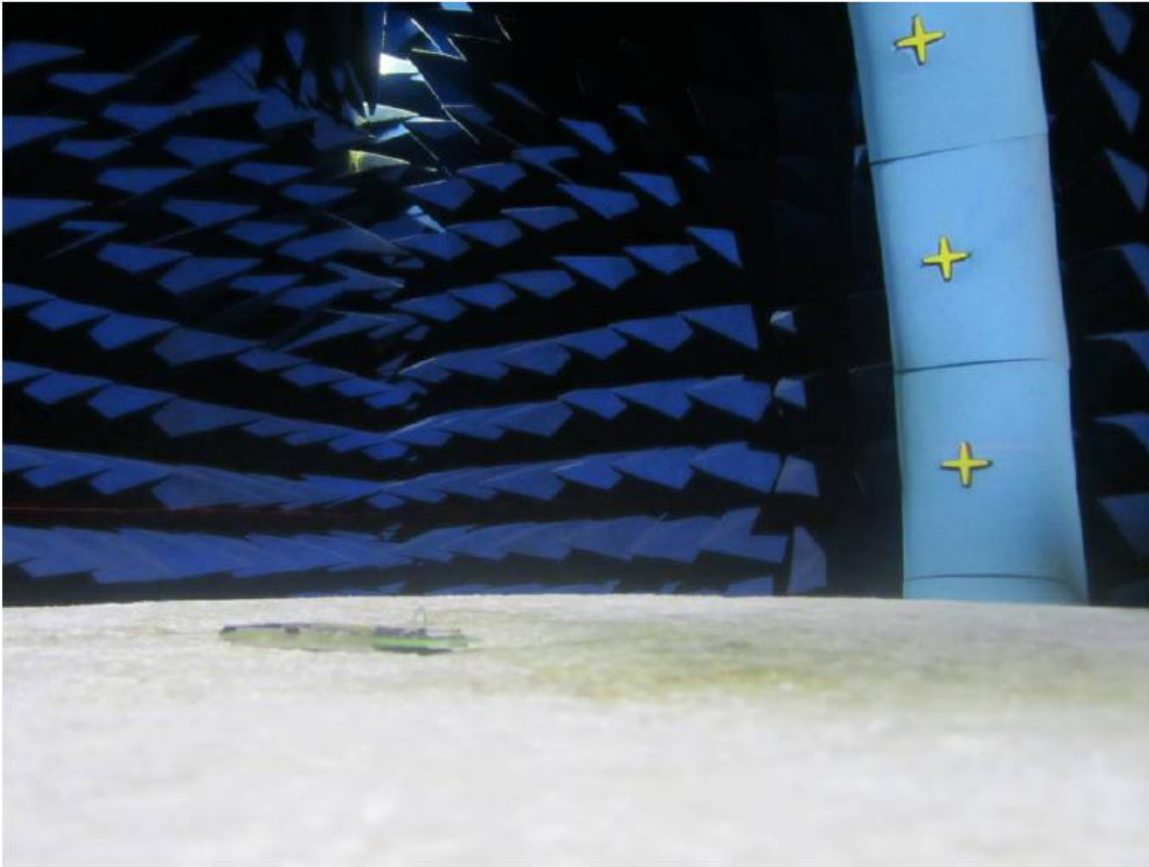


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ANNEX C TEST SETUP PHOTO



ANNEX D EUT PHOTO

