TEST REPORT

| | |
|---|---|
| Report No.: | TWN2509542E |
| Applicant: | Xplorys B.V. |
| Product: | Dooky Luxe Stroller Fan (J25-24KS79 - M) |
| Trademark: | N/A |
| Model No.: | 5728150 |
| Test Standards: | EN IEC 55014-1:2021<br>EN IEC 55014-2:2021<br>EN IEC 61000-3-2:2019/A2:2024<br>EN 61000-3-3:2013+A2:2021+AC:2022-01 |
| Test result: | The EMC testing has been performed on the submitted samples and found in compliance with council EMC Directive 2014/30/EU. |

Approved By

Terry Tang

Manager

Dated: September 26, 2025

**Results appearing herein relate only to the sample tested**
**The technical reports is issued errors and omissions exempt and is subject to withdrawal at**


**SHENZHEN TIMEWAY TESTING LABORATORIES.**

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China
Tel (755) 83448688 Fax (755) 83442996 Email: info@timeway-lab.com

## Special Statement:

**FCC-Registration No.: 744189**

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

**ISED—Registration No.:5205A**

The EMC Laboratory has been registered by Certification and Engineering Bureau of ISED for radio equipment testing with Registration No.: 5205A.

**A2LA (Certification Number:5013.01)**

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

**CAB identifier: CN0033**

Test Report Conclusion

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## 1.0 General Details

1.1 Test Lab Details

| | |
|---|---|
| Name: | SHENZHEN TIMEWAY TESTING LABORATORIES. |
| Address: | Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China |
| Telephone: | (086) 755-83448688 |
| Fax: | (086) 755-83442996 |

1.2 Applicant Details

| | |
|---|---|
| Applicant: | Xplorys B.V. |
| Address: | Dopplerstraat 12 - 1704 SR Heerhugowaard The Netherlands |

1.3 Description of EUT

| | |
|---|---|
| Product: | Dooky Luxe Stroller Fan (J25-24KS79 - M) |
| Manufacturer: | Xplorys B.V. |
| Address: | Dopplerstraat 12 - 1704 SR Heerhugowaard The Netherlands |
| Trademark: | N/A |
| Model Number: | 5728150 |
| Additional Model Number: | N/A |
| Rating: | Input: DC5V, 40mA, 0.2W |

EUT Type: ☐ Category I ☒ Category II
☐ Category III ☐ Category IV

1.4 Submitted Sample: 1 Sample

1.5 Test Duration:
Date of Receipt of Application: September 18, 2025
Date of Test: September 18, 2025 ~ September 26, 2025

1.6 Test Uncertainty
Conducted Emissions Uncertainty =3.6dB
Disturbance Power Uncertainty =4.2dB

1.7 Test or witness Engineer

The sample tested by

Print Name: Leo La

## 2.0 List of Measurement Equipment

2.1 Conducted Emission Test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| EMI Test Receiver | ESCS 30 | 834115/006 | RS | 2025.07.11 | 1Year |
| LISN | NNB42 | 00012 | SCHAFFNER | 2025.07.11 | 1Year |

2.2 Radiated Disturbance Test

| Name | Model No | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| EMI Test Receiver | ESPI 3 | 100379 | RS | 2025.07.11 | 1Year |
| Spectrum Analyzer | E4407B | MY50441392 | HP/Agilent | 2025.07.11 | 1Year |
| Amplifier | BBV9743 | #218 | HP/Agilent | 2025.07.11 | 1Year |
| Bilog Antenna | VULB9163 | 9163/340 | Schwarebeck | 2025.07.17 | 3Year |
| Horn Antenna | BBHA 9120D | 9120D-631 | RS | 2025.07.17 | 3Year |
| Amplifier | 8449B | 3008A00160 | HP/Agilent | 2025.07.11 | 1Year |

2.3 Harmonic & Flicker Test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| Harmonics Flicker Test System | PACS-1 | 72305 | CI | 2025.07.11 | 1Year |
| 5K VA AC Power Source | 5001iX | 56060 | CI | 2025.07.11 | N/A |

2.4 ESD Test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| ESD Simulator | ESS-2002 | ESS06Y6394 | NoiseKen | 2025.07.11 | 1Year |

2.5 RF field Strength Susceptibility

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| Signal Generator | SMT03 | 100059 | RS | 2025.07.11 | 1Year |
| Power Meter | NRVS | --- | RS | 2025.07.11 | 1Year |
| Voltage Probe | URV5-Z2 | 100012 | RS | 2025.07.11 | 1Year |
| Voltage Probe | URV5-Z2 | 100013 | RS | 2025.07.11 | 1Year |

| | | | | | |
|---|---|---|---|---|---|
| Power Amplifier | 150W1000 | 300999 | AR | 2025.07.11 | 1Year |
| Power Amplifier | 25S1G4AM1 | 305993 | AR | 2025.07.11 | 1Year |
| Field Probe | CBL6111C | 2576 | Holaday | 2025.07.11 | 1Year |
| Bilog Antenna | MCDC | --- | Chase | 2025.07.11 | 1Year |

2.6 Electrical Fast Transient/Burst (EFT/B) Immunity test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| EFT Generator | UCS 500 M4 | 0304-42 | EM TEST | 2025.07.11 | 1Year |
| Power Source | MV2616 | 0104-14 | EM TEST | 2025.07.11 | 1Year |

2.7 Surge Test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| Ultra Compact Simulator | UCS 500 M4 | 0304-42 | EM TEST | 2025.07.11 | 1Year |
| Power Source | MV2616 | 0104-14 | EM TEST | 2025.07.11 | 1Year |

2.8 Conducted Immunity Test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| Continuous Wave Simulator | CWS 500C | 0407-05 | EM TEST | 2025.07.11 | 1 Year |

2.9 Power-frequency Magnetic Field

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| Continuous Wave Simulator | UCS 500 M4 | 0304-42 | EM TEST | 2025.07.11 | 1 Year |
| Power Source Network | MV 2616 | 0104-14 | EM TEST | 2025.07.11 | 1 Year |
| Current Transformer | MC2630 | -- | EM TEST | 2025.07.11 | 1 Year |
| Magnetic Coil | MS100 | 0304-42 | EM TEST | 2025.07.11 | 1 Year |

2.10 Voltage Dips/Interruption Immunity Test

| Name | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Cycle |
|---|---|---|---|---|---|
| Ultra Compact Simulator | UCS 500 M4 | 0304-42 | EM TEST | 2025.07.11 | 1Year |
| Power Source | MV2616 | 0104-14 | EM TEST | 2025.07.11 | 1Year |

## 3.0 Technical Details

3.1 Investigations Requested

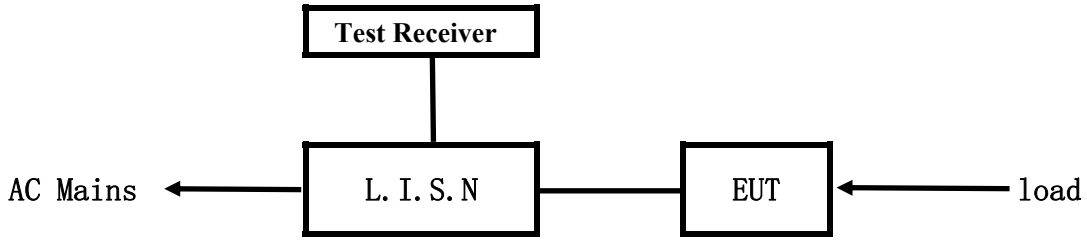
Perform Electromagnetic Interference [EMI] & Electromagnetic Susceptibility [ EMS] tests for CE Marking

3.2 Test Standards

| Test Standards | | |
|---|---|---|
| EN IEC 55014-1:2021 | Electromagnetic compatibility—Requirements household appliances, electric tools and similar apparatus—Part 1: Emission | |
| EN IEC 61000-3-2: 2019/A2:2024 | Electromagnetic compatibility (EMC)- Part 3-2:Limits-Limits for harmonic current emissions(equipment input current ≤16A per phase) | |
| EN 61000-3-3:2013 +A2:2021+AC:2022-01 | Electromagnetic compatibility (EMC)- Part 3-3: Limits-Limitation of voltage changes, Voltage fluctuations and flicker in public low-voltage supply systems. For equipment with rated current ≤16A per phase and not subject to conditional connection | |
| EN IEC 55014-2:2021 | Electromagnetic compatibility—Requirements household appliances, electric tools and similar apparatus— Part2: Immunity —Product family standard | |
| | EN 61000-4-2:2009 | Elect ostatic discharge |
| | EN IEC 61000-4-3:2020 | RF field strength susceptibility |
| | EN 61000-4-4:2012 | Electrical Fast transients |
| | EN 61000-4-5:2014 | Surge |
| | EN 61000-4-6:2014 | Conducted susceptibility |
| | EN 61000-4-8:2010 | Magnetic Field |
| | EN IEC 61000-4-11:2020 | Dips/Voltage Interruption Variation |

## 4.0 Power line Conducted Emission Test

4.1 Schematics of the test

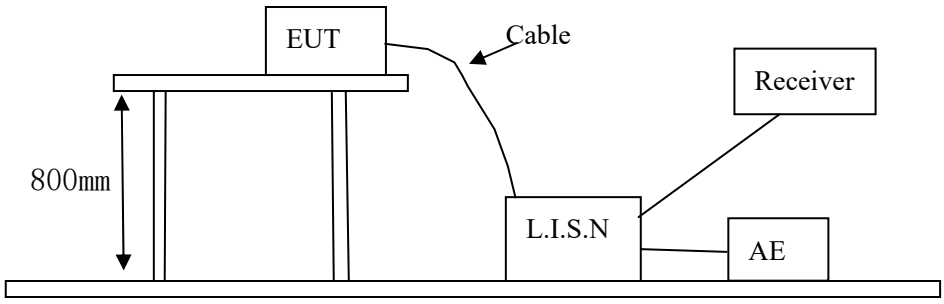



EUT: Equipment Under Test

4.2 Test Method:

The test was performed in accordance with EN IEC 55014-1:2021

Block diagram of Test setup




4.3 Power line conducted Emission Limit

| Frequency (MHz) | Limits dB( μ V) | |
|---|---|---|
| | Quasi-peak Level | Average Level |
| 0.15 ～ 0.50 | 66.0～56.0* | 59.0～46.0* |
| 0.50 ～ 5.00 | 56.0 | 46.00 |
| 5.00 ～ 30.00 | 60.0 | 50.00 |

Notes: 1. *decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies

4.4 Test Results

Limits for Conducted Emission test, Please refer to limit line (Quasi-peak) in the following diagram labelled as (QP)

**A: Disturbance Voltage Limits at mains on Live terminals (150kHz to 30MHz)**

**EUT Operating Environment**

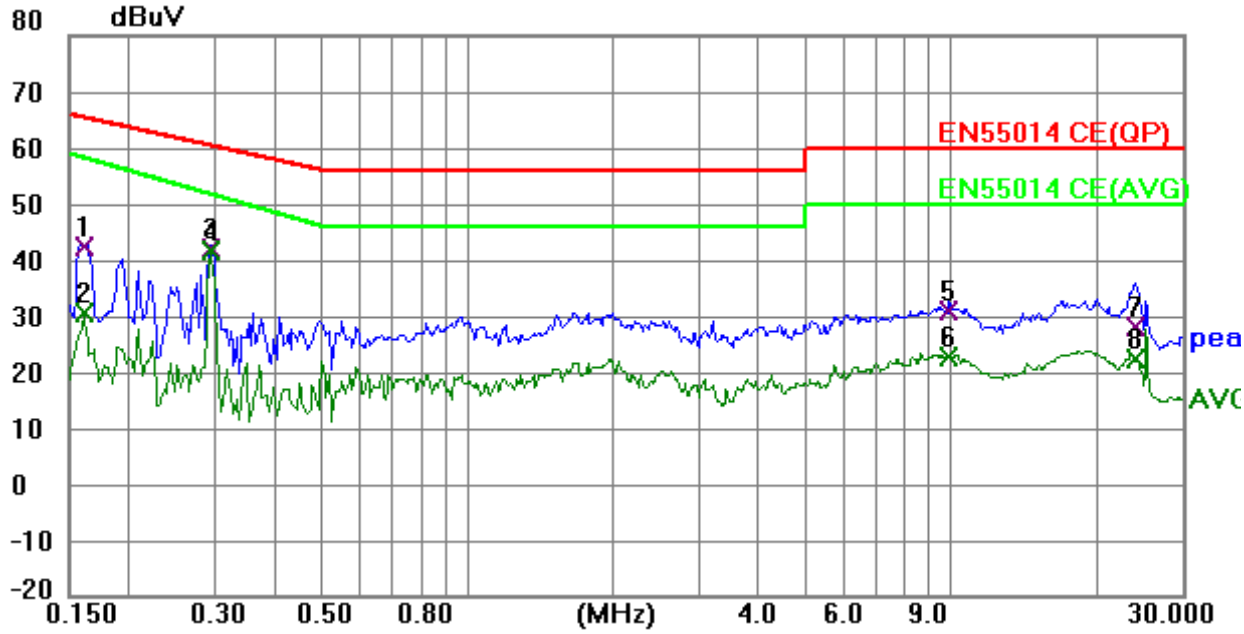
Temperature: 25℃ Humidity:65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Working + Charging**

**Power: AC230V/50Hz**

**Results: Pass**

Please refer to following diagram for individual




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.1617 | 32.10 | 10.34 | 42.44 | 65.38 | -22.94 | QP | P |
| 2 | 0.1617 | 20.23 | 10.34 | 30.57 | 58.19 | -27.62 | AVG | P |
| 3 | 0.2943 | 31.73 | 10.35 | 42.08 | 60.40 | -18.32 | QP | P |
| 4 | 0.2943 | 31.40 | 10.35 | 41.75 | 51.72 | -9.97 | AVG | P |
| 5 | 9.8718 | 17.01 | 13.78 | 30.79 | 60.00 | -29.21 | QP | P |
| 6 | 9.8718 | 9.04 | 13.78 | 22.82 | 50.00 | -27.18 | AVG | P |
| 7 | 23.9703 | 12.44 | 15.57 | 28.01 | 60.00 | -31.99 | QP | P |
| 8 | 23.9703 | 6.61 | 15.57 | 22.18 | 50.00 | -27.82 | AVG | P |

**B: Disturbance Voltage Limits at mains on Neutral terminals (150kHz to 30MHz)**

**EUT Operating Environment**

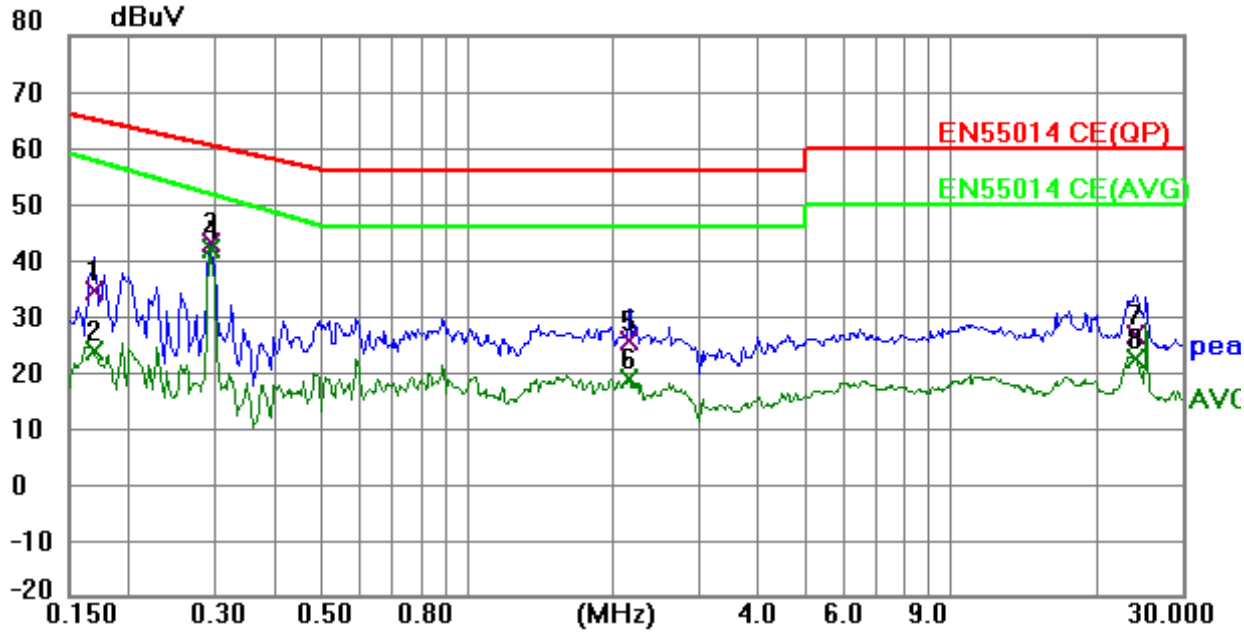
Temperature: 25℃ Humidity:65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Working + Charging**

**Power: AC230V/50Hz**

**Results: Pass**

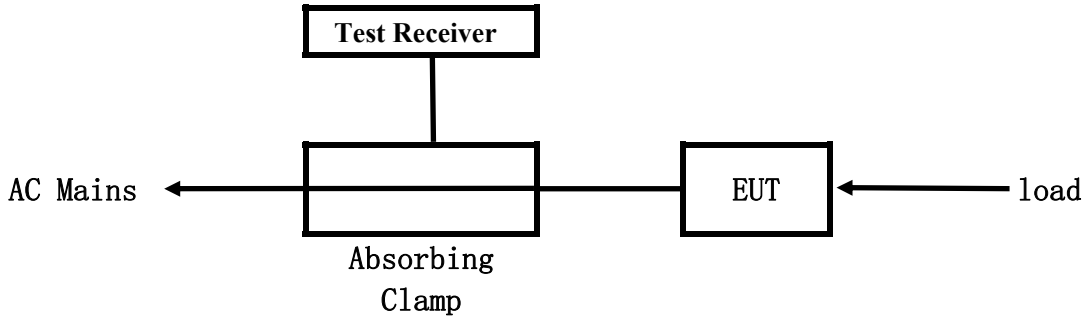
Please refer to following diagram for individual




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.1695 | 23.99 | 10.33 | 34.32 | 64.98 | -30.66 | QP | P |
| 2 | 0.1695 | 13.40 | 10.33 | 23.73 | 57.68 | -33.95 | AVG | P |
| 3 | 0.2943 | 32.53 | 10.35 | 42.88 | 60.40 | -17.52 | QP | P |
| 4 | 0.2943 | 31.50 | 10.35 | 41.85 | 51.72 | -9.87 | AVG | P |
| 5 | 2.1662 | 13.99 | 11.38 | 25.37 | 56.00 | -30.63 | QP | P |
| 6 | 2.1662 | 7.22 | 11.38 | 18.60 | 46.00 | -27.40 | AVG | P |
| 7 | 24.0834 | 11.15 | 15.55 | 26.70 | 60.00 | -33.30 | QP | P |
| 8 | 24.0834 | 6.78 | 15.55 | 22.33 | 50.00 | -27.67 | AVG | P |

## 5.0 Disturbance Power Test

5.1 Schematics of the test

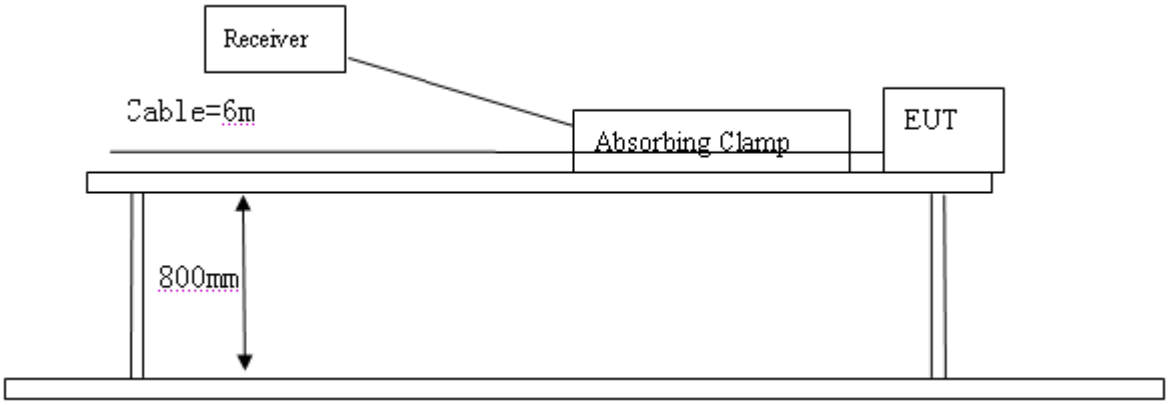



EUT: Equipment Under Test

5.2 Test Method:

The test was performed in accordance with EN IEC 55014-1:2021

**Block diagram of Test setup**




5.3 Results and limits line for Distance power N/A

Limits for Disturbance power Test, please refer to limit lines (Quasi-peak) in the following diagram labelled as (QP)

## 6.0 Radiated Disturbance Test

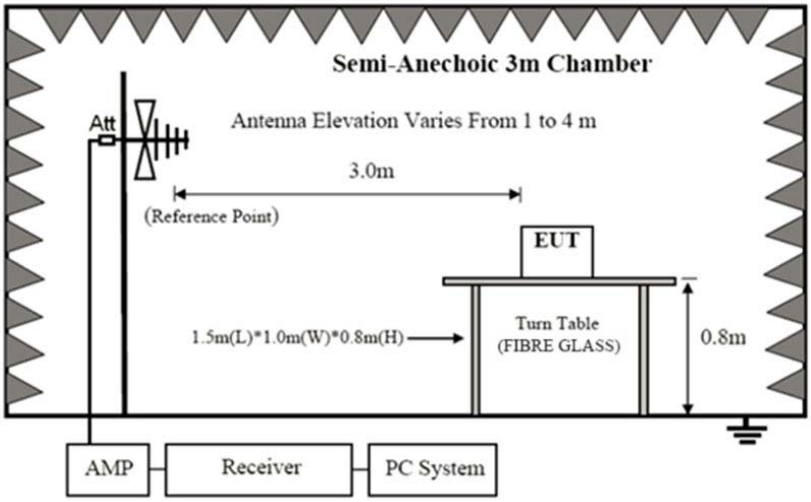
### 6.0.1 Schematics of the test


EUT: Equipment Under Test

### 6.0.2 Test Method:

The test was performed in accordance with EN IEC 55014-1:2021

**Block diagram of Test setup**




### 6.0.3 Radiated Disturbance Test Limit

| Frequency Range (MHz) | Quasi-Peak limits (dB μ V/m) | |
|---|---|---|
| | Class A Limits | Class B Limits |
| 30-300 | 50.00 | 40.00 |
| 300-1000 | 57.00 | 47.00 |

Note: The lower limit shall apply at the transition frequencies

### 6.0.4 Test result

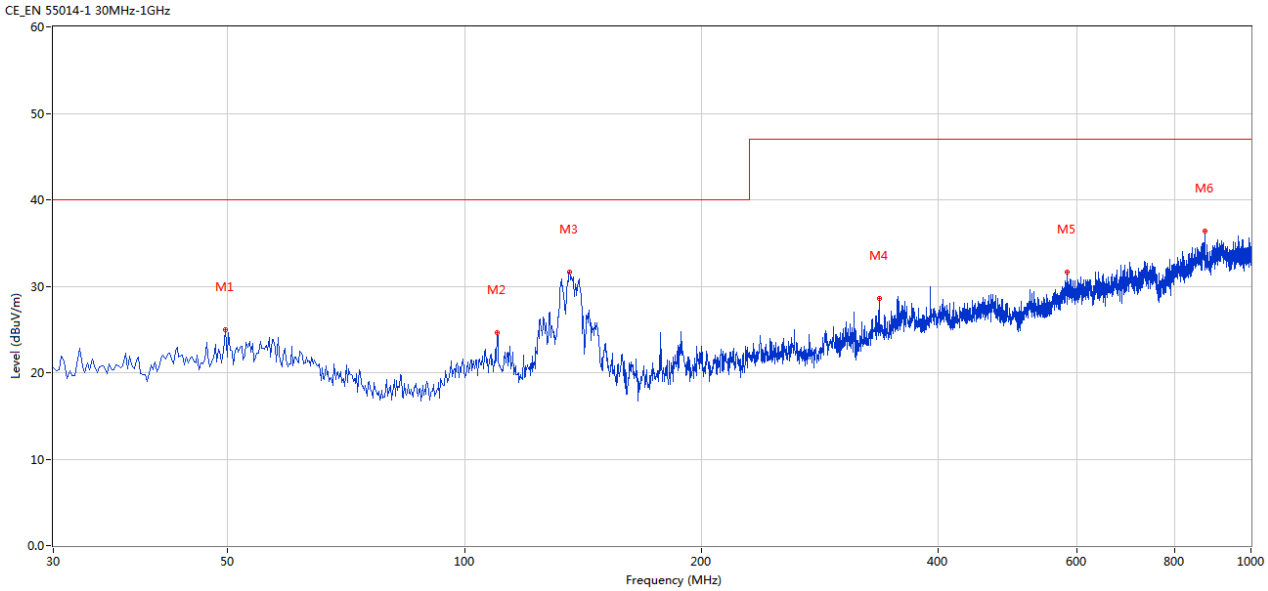
Limits for Radiated Disturbance test, Please refer to limit line (Quasi-peak) in the following diagram labelled as (QP)

**Remark:**

Calculated measurement uncertainty=4.7dB

## A: Radiated Disturbance (30MHz----1GHz)

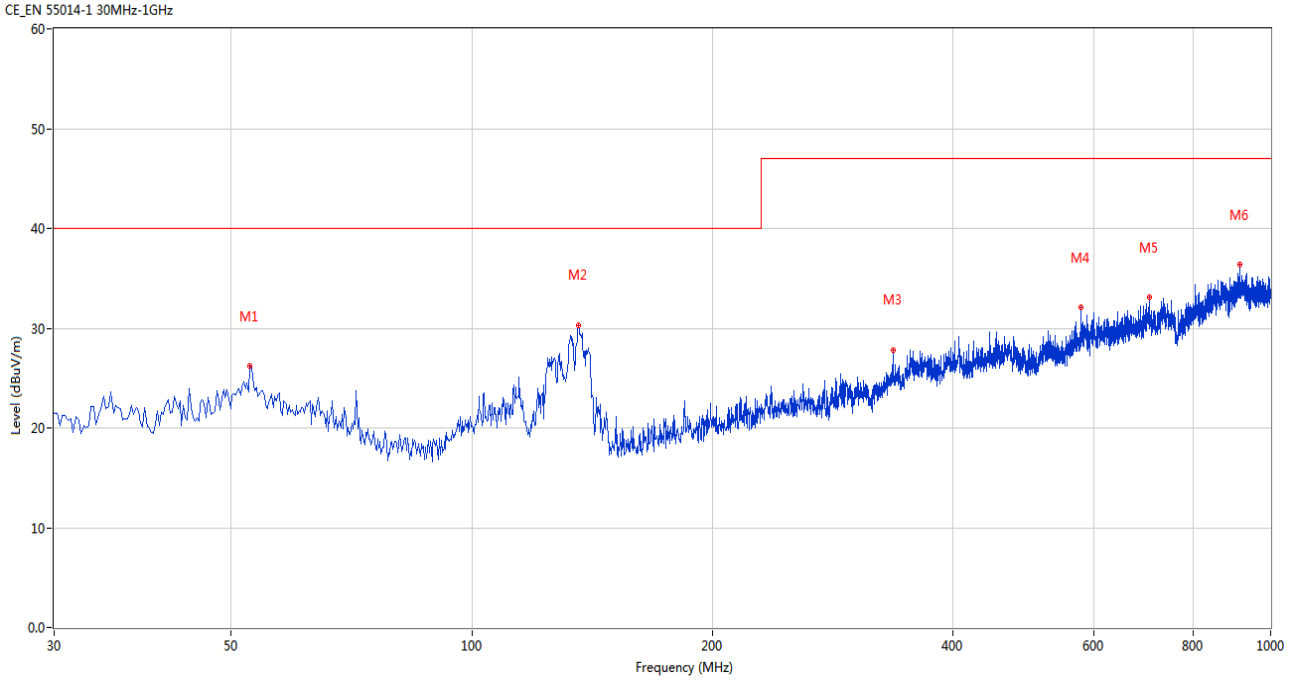
| | | | |
|---|---|---|---|
| Project Number: | CASE2 | Test Time: | 2025-09-25_14.02.33 |
| EUT Name: | Dooky Luxe Stroller Fan (J25-24KS79 - M) | Test Engineer: | CHASE |
| Manufacturer: | Xplorys B.V. | Test Standard: | EN 55014 |
| Model: | 5728150 | Work Addition: | Charging |
| Temp.(℃): | 25 | Load: | |
| Hum.: | 65% | Test Voltage: | |




| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 49.638 | 24.97 | -8.83 | 40.0 | 15.03 | Peak | 328.00 | 100 | Horizontal | Pass |
| 2 | 110.005 | 24.64 | -9.45 | 40.0 | 15.36 | Peak | 303.00 | 100 | Horizontal | Pass |
| 3 | 135.946 | 31.62 | -13.22 | 40.0 | 8.38 | Peak | 182.00 | 100 | Horizontal | Pass |
| 4 | 336.928 | 28.60 | -6.21 | 47.0 | 18.40 | Peak | 86.00 | 100 | Horizontal | Pass |
| 5 | 584.459 | 31.59 | -1.90 | 47.0 | 15.41 | Peak | 222.00 | 100 | Horizontal | Pass |
| 6 | 872.962 | 36.39 | 2.23 | 47.0 | 10.61 | Peak | 138.00 | 100 | Horizontal | Pass |

## B: Radiated Disturbance (30MHz----1GHz)

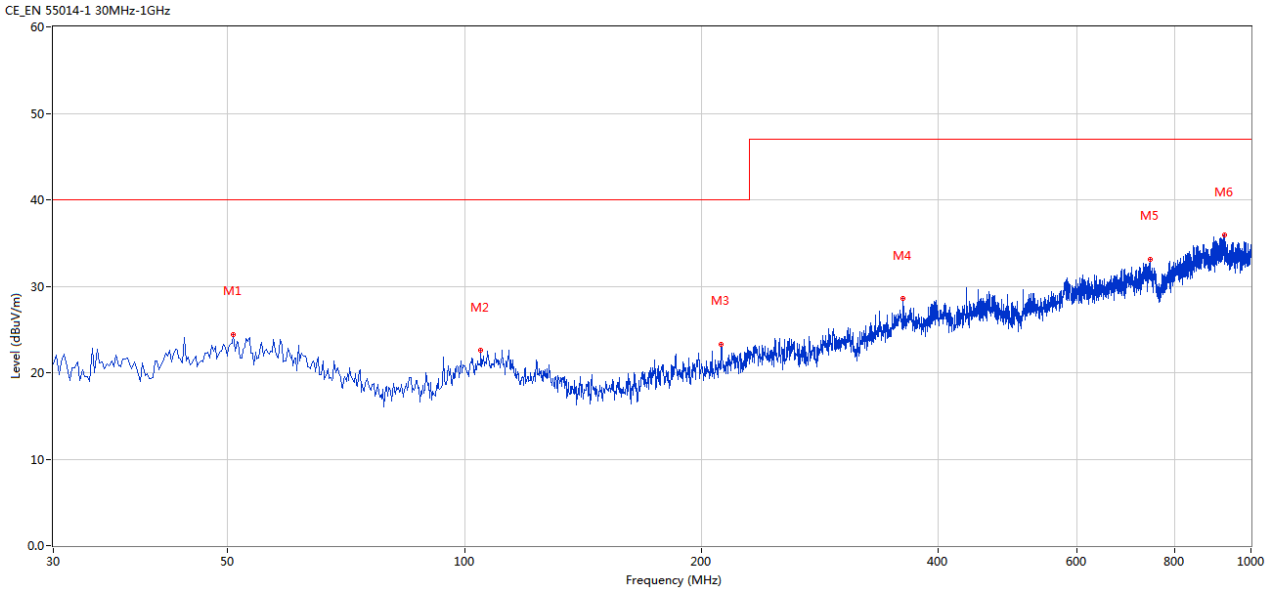
| | | | |
|---|---|---|---|
| Project Number: | CASE2 | Test Time: | 2025-09-25_14.01.12 |
| EUT Name: | Dooky Luxe Stroller Fan (J25-24KS79 - M) | Test Engineer: | CHASE |
| Manufacturer: | Xplorys B.V. | Test Standard: | EN 55014 |
| Model: | 5728150 | Work Addition: | Charging |
| Temp.(℃): | 25 | Load: | |
| Hum.: | 65% | Test Voltage: | |




| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 52.789 | 26.16 | -8.14 | 40.0 | 13.84 | Peak | 169.00 | 100 | Vertical | Pass |
| 2 | 135.946 | 30.32 | -13.22 | 40.0 | 9.68 | Peak | 31.00 | 100 | Vertical | Pass |
| 3 | 336.928 | 27.84 | -6.21 | 47.0 | 19.16 | Peak | 284.00 | 100 | Vertical | Pass |
| 4 | 579.125 | 32.04 | -1.75 | 47.0 | 14.96 | Peak | 187.00 | 100 | Vertical | Pass |
| 5 | 705.194 | 33.11 | -0.24 | 47.0 | 13.89 | Peak | 224.00 | 100 | Vertical | Pass |
| 6 | 914.661 | 36.33 | 2.80 | 47.0 | 10.67 | Peak | 62.00 | 100 | Vertical | Pass |

## C: Radiated Disturbance (30MHz----1GHz)

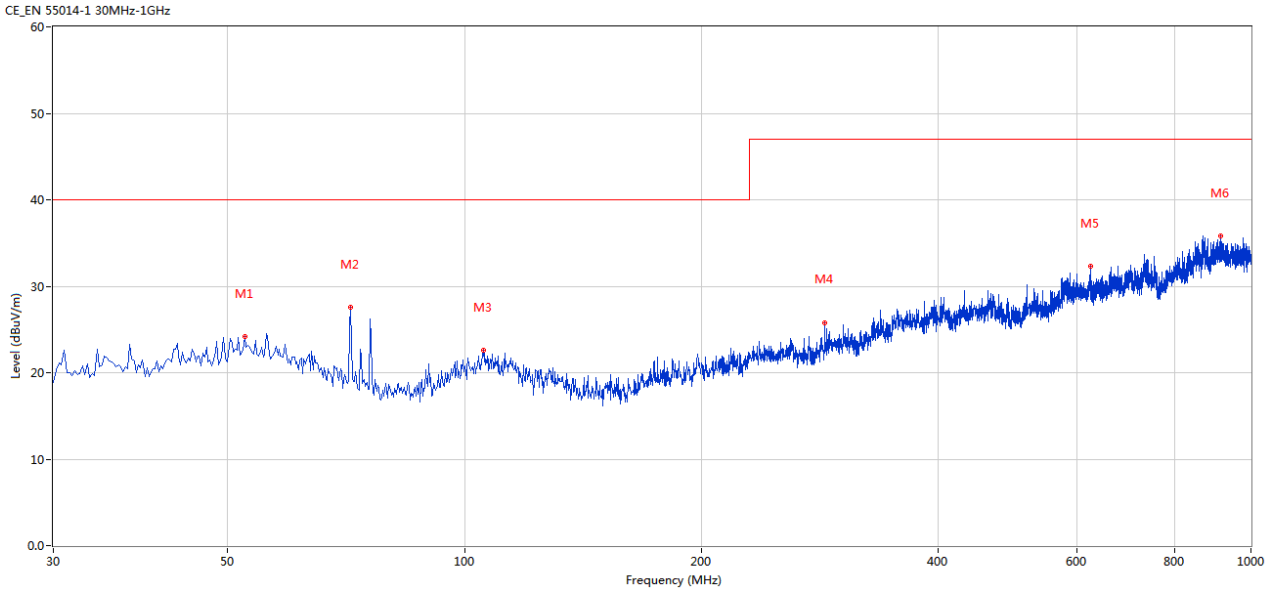
| | | | |
|---|---|---|---|
| Project Number: | CASE2 | Test Time: | 2025-09-25_14.05.00 |
| EUT Name: | Dooky Luxe Stroller Fan (J25-24KS79 - M) | Test Engineer: | CHASE |
| Manufacturer: | Xplorys B.V. | Test Standard: | EN 55014 |
| Model: | 5728150 | Work Addition: | Working |
| Temp.(℃): | 25 | Load: | |
| Hum.: | 65% | Test Voltage: | |




| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50.850 | 24.44 | -8.43 | 40.0 | 15.56 | Peak | 70.00 | 100 | Horizontal | Pass |
| 2 | 104.914 | 22.57 | -9.76 | 40.0 | 17.43 | Peak | 353.00 | 100 | Horizontal | Pass |
| 3 | 212.072 | 23.33 | -10.17 | 40.0 | 16.67 | Peak | 133.00 | 100 | Horizontal | Pass |
| 4 | 360.930 | 28.54 | -5.09 | 47.0 | 18.46 | Peak | 135.00 | 100 | Horizontal | Pass |
| 5 | 744.954 | 33.16 | -0.07 | 47.0 | 13.84 | Peak | 324.00 | 100 | Horizontal | Pass |
| 6 | 924.359 | 35.91 | 2.75 | 47.0 | 11.09 | Peak | 269.00 | 100 | Horizontal | Pass |

## D: Radiated Disturbance (30MHz----1GHz)

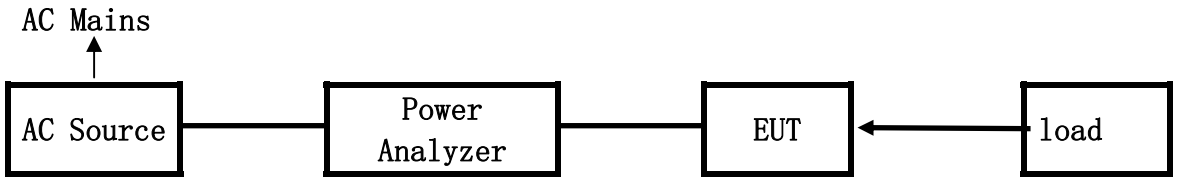
| | | | |
|---|---|---|---|
| Project Number: | CASE2 | Test Time: | 2025-09-25_14.23.29 |
| EUT Name: | Dooky Luxe Stroller Fan (J25-24KS79 - M) | Test Engineer: | CHASE |
| Manufacturer: | Xplorys B.V. | Test Standard: | EN 55014 |
| Model: | 5728150 | Work Addition: | Working |
| Temp.(℃): | 25 | Load: | |
| Hum.: | 65% | Test Voltage: | |




| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 52.547 | 24.20 | -8.24 | 40.0 | 15.80 | Peak | 144.00 | 100 | Vertical | Pass |
| 2 | 71.700 | 27.58 | -11.22 | 40.0 | 12.42 | Peak | 266.00 | 100 | Vertical | Pass |
| 3 | 105.641 | 22.58 | -9.57 | 40.0 | 17.42 | Peak | 87.00 | 100 | Vertical | Pass |
| 4 | 286.986 | 25.80 | -7.87 | 47.0 | 21.20 | Peak | 298.00 | 100 | Vertical | Pass |
| 5 | 624.946 | 32.30 | -1.47 | 47.0 | 14.70 | Peak | 276.00 | 100 | Vertical | Pass |
| 6 | 913.934 | 35.84 | 2.77 | 47.0 | 11.16 | Peak | 347.00 | 100 | Vertical | Pass |

## 7.0 Voltage Fluctuations &Flicker Test

7.1 Schematic of the test




EUT: Equipment Under Test

7.2 Test Method:

The test was performed in accordance with EN 61000-3-3:2013+A2:2021+AC:2022-01

7.3 Test Results

Result: N/A

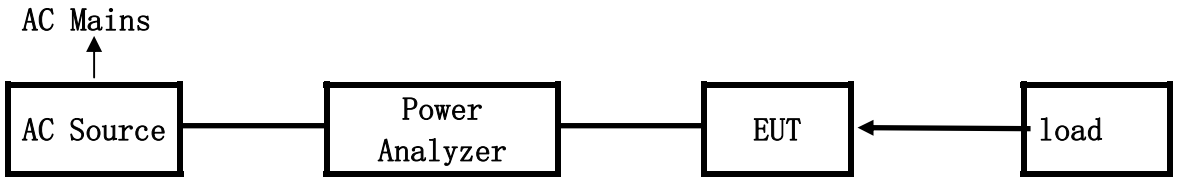
Maximum Occurring Levels:

Ut: 230.1 (EUT Test RMS Voltage)

| | | | |
|---|---|---|---|
| Pst: | Limit= | 1.0 | (The Highest short Term Flicker Value) |
| Plt: | Limit= | 0.65 | (The Highest Long Term Flicker Value) |
| dt(%): | Limit= | 3.3% | (The Highest instantaneous Voltage Change (10ms)) |
| dc(%): | Limit= | 3.3% | (The highest Relative steady state voltage change (1sec)) |
| dmax: | Limit= | 4% | (The highest Max Relative voltage change) |
| Tdt: | Limit= | 500ms | ( The Max Time(in milli-sec) that dt exceeds 3%) |

## 8.0 Harmonic Current Emission Test

8.1 Schematic of the test




EUT: Equipment Under Test

8.2 Test Method

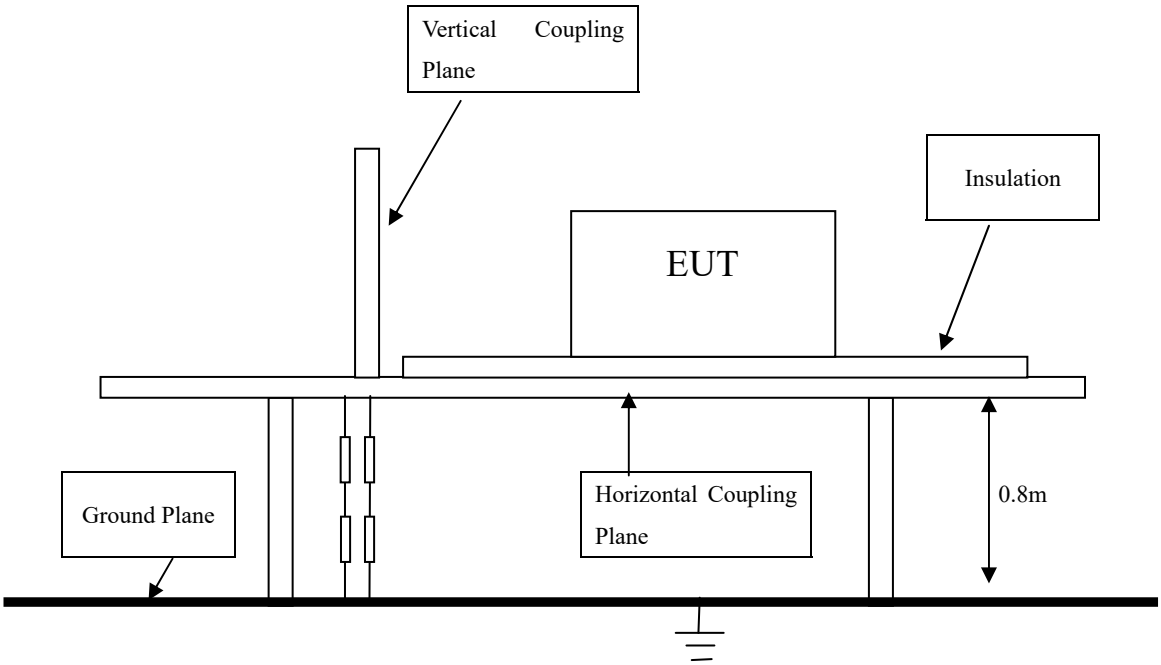
The test was performed in accordance with EN IEC 61000-3-2:2019/A2:2024

8.3 Test Results

Result: N/A

## 9.0 Electrostatic Discharge

9.1 Schematic of the test




9.2 Test method

The test was performed in accordance with EN 61000-4-2: 2009

9.3 Test severity

±4kV for direct & in-direct Contact Discharge

±8kV for air Discharge

Performance Criterion Require: B (Please see following table)

9.4 Susceptibility performance Criteria and Severity level

| | |
|---|---|
| A | Normal performance within the specification limits |
| B | Temporary degradation or loss of function or performance which is self recoverable |
| C | Temporary degradation or loss of function or performance which requires operator intervention or system reset |
| D | Degradation or loss of function which is not recoverable due to damage of equipment(components) or software, or loss of data |

Severity Level

| Level | Test Voltage Direct & in-direct contact Discharge (kV) | Test Voltage Air discharge(kV) |
|---|---|---|
| 1 | ±2kV | ±2kV |
| 2 | ±4kV | ±4kV |
| 3 | ±6kV | ±8kV |
| 4 | ±8kV | ±15kV |

9.5 Test Result

Please refer to the following table for individual results.

| Location | Discharge Method | Test Voltage | Results |
|---|---|---|---|
| HCP (Horizontal coupling plane) | In-Direct | ±2kV, ±4kV | Pass |
| VCP (Vertical Coupling plane) | In-Direct | ±2kV, ±4kV | Pass |
| -- | Contact Discharge | ±2kV, ±4kV | Pass |
| | | | |
| Enclosure | Air Discharge | ±2kV,±4kV,±8kV | Pass |
| Keys | Air Discharge | ±2kV,±4kV,±8kV | Pass |
| DC Jack | Air Discharge | ±2kV,±4kV,±8kV | Pass |

Remark: Calculated measurement uncertainty=0.2kV

**10.0 RF field strength susceptibility (80MHz------ 1000MHz)**

10.1 Schematics of the test


10.2 Test Method:

The test was performed in accordance with EN IEC 61000-4-3:2020

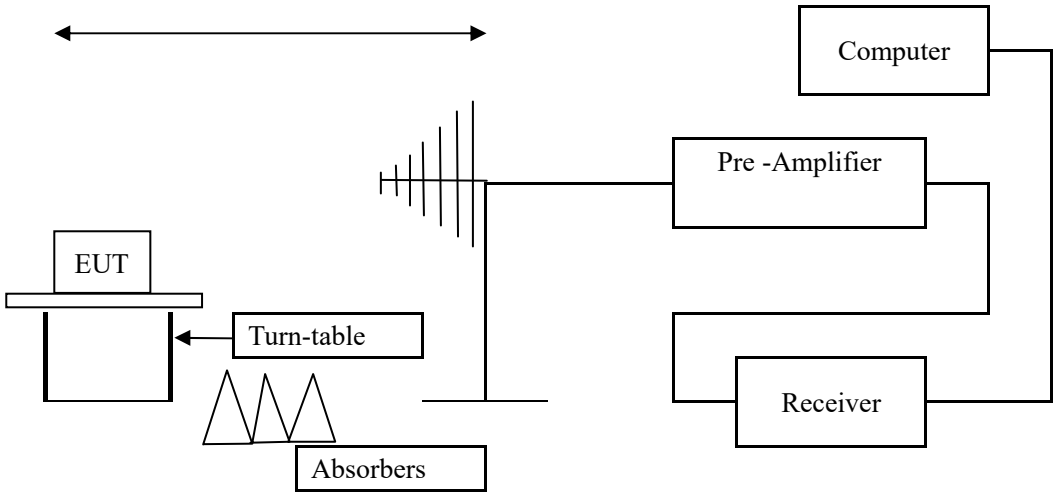
Severity: Level 2 (3V/m)

Modulation: 80% AM

Performance Criterion Require: A (Please see following table)

**Block diagram of Test setup**

Distance = 3m




10.3 Susceptibility performance Criteria and severity Level

Susceptibility performance Criteria

| | |
|---|---|
| A | Normal performance within the specification limits |
| B | Temporary degradation or loss of function or performance which is self recoverable |
| C | Temporary degradation or loss of function or performance which requires operator intervention or system reset |
| D | Degradation or loss of function which is not recoverable due to damage of equipment(components) or software, or loss of data |

Severity Level

| Level | Field Strength (V/m) |
|---|---|
| 1 | 1 |
| 2 | 3 |
| 3 | 10 |

10.4 Test Result:

Please refer to the following table for individual results.

| Frequency (MHz) | Face | Polarity | Level (V/m) | Dwell Time(s) | Sweep Rate (%) | Results |
|---|---|---|---|---|---|---|
| 80-1000 | 0° | Horizontal | 3 | 1 | 1 | Pass |
| 80-1000 | 90° | Horizontal | 3 | 1 | 1 | Pass |
| 80-1000 | 180° | Horizontal | 3 | 1 | 1 | Pass |
| 80-1000 | 270° | Horizontal | 3 | 1 | 1 | Pass |
| 80-1000 | 0° | Vertical | 3 | 1 | 1 | Pass |
| 80-1000 | 90° | Vertical | 3 | 1 | 1 | Pass |
| 80-1000 | 180° | Vertical | 3 | 1 | 1 | Pass |
| 80-1000 | 270° | Vertical | 3 | 1 | 1 | Pass |

Remark: Calculated measurement uncertainty= 80MHz to 1000MHz (+3.7/ -1.3) V/m

## 11.0 Electrical Fast Transient/Burst (EFT/B) immunity test

11.1 Schematics of the test

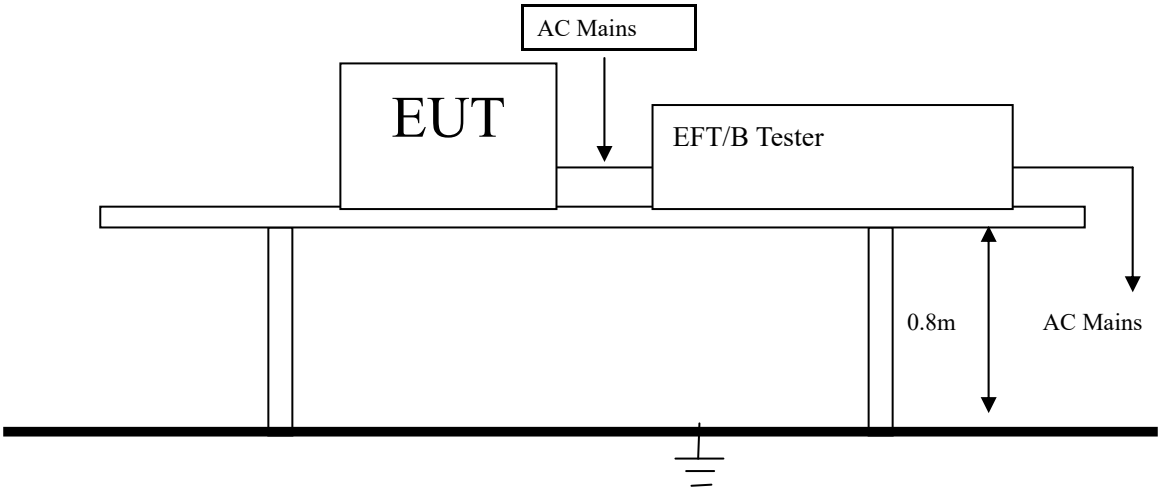

11.2 Test Method:

The test was performed in accordance with EN 61000-4-4: 2012

Severity: Level 2 (1kV)

Performance Criterion Require: B (Please see following table)

**Block diagram of Test setup**




11.3 Susceptibility performance Criteria and Severity Level

Susceptibility performance Criteria

| | |
|---|---|
| A | Normal performance within the specification limits |
| B | Temporary degradation or loss of function or performance which is self recoverable |
| C | Temporary degradation or loss of function or performance which requires operator intervention or system reset |
| D | Degradation or loss of function which is not recoverable due to damage of equipment(components) or software, or loss of data |

Severity Level

| Open Circuit output Test Voltage ±10% | | |
|---|---|---|
| Level | On power Supply Lines | On I/O (Input/output) Signal data and control lines |
| 1 | 0.5kV | 0.5kV |
| 2 | 1kV | 1kV |
| 3 | 2kV | 2kV |
| 4 | 4kV | 4kV |
| X | Special | Special |

11.4 Test Results

Please refer to following page.

Inject location:

| Inject Line | Voltage kV | Inject Times (s) | Method | Results |
|---|---|---|---|---|
| L | ±1 | 120 | Direct | Pass |
| N | ±1 | 120 | Direct | Pass |
| L-N | ±1 | 120 | Direct | Pass |
| PE | ±1 | 120 | Direct | N/A |
| L-PE | ±1 | 120 | Direct | N/A |
| N-PE | ±1 | 120 | Direct | N/A |
| L-N-PE | ±1 | 120 | Direct | N/A |

**12.0 Surge test**

12.1 Schematics of the test

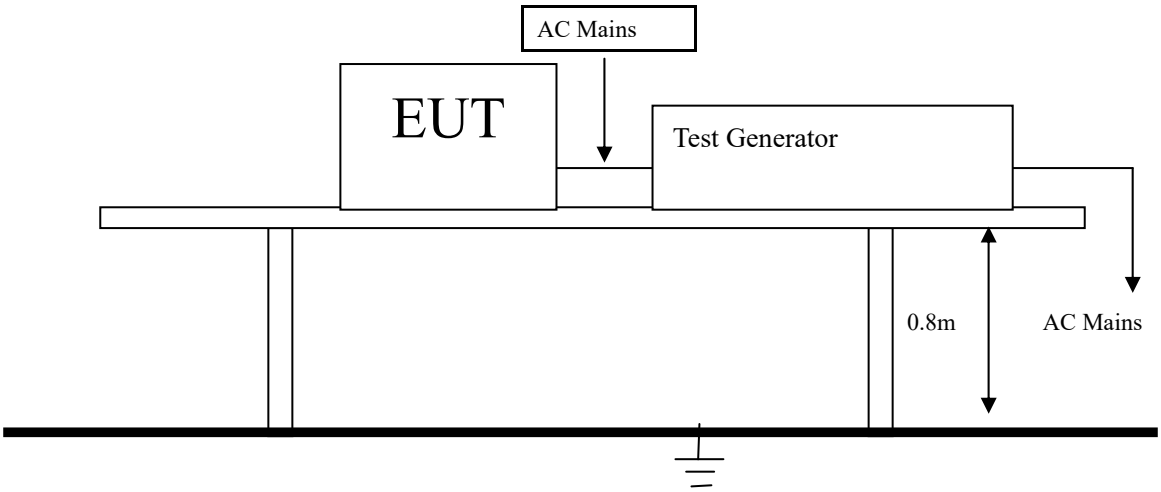

12.2 Test Method:

The test was performed in accordance with EN 61000-4-5:2014

Severity: Level 2 (Line to Neutral at 1kV)

Performance Criterion Require: C (Please see following table)

**Block diagram of Test setup**




12.3 Susceptibility performance Criteria and Severity Level

Susceptibility performance Criteria

| | |
|---|---|
| A | Normal performance within the specification limits |
| B | Temporary degradation or loss of function or performance which is self recoverable |
| C | Temporary degradation or loss of function or performance which requires operator intervention or system reset |
| D | Degradation or loss of function which is not recoverable due to damage of equipment(components) or software, or loss of data |

Severity Level

| Severity Level | Open-Circuit Test Voltage kV |
|---|---|
| 1 | 0.5 |
| 2 | 1.0 |
| 3 | 2.0 |
| 4 | 4.0 |
| * | Special |

12.4 Test Results

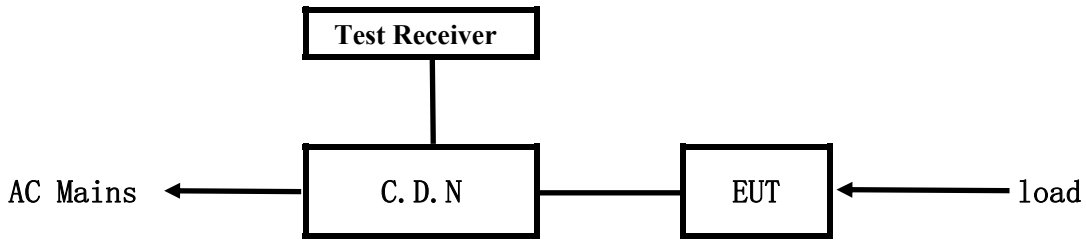
Please refer to following page.

Test location:

| Location | Polarity | Phase Angle | No of Pulse | Pulse Voltage(kV) | Results |
|---|---|---|---|---|---|
| L-N | + | 90 | 5 | 1.0 | Pass |
| | - | 270 | 5 | 1.0 | Pass |
| L, N -PE | + | 90 | 5 | 2.0 | N/A |
| | - | 270 | 5 | 2.0 | N/A |

## 13.0 Conducted Immunity test

13.1 Schematics of the test



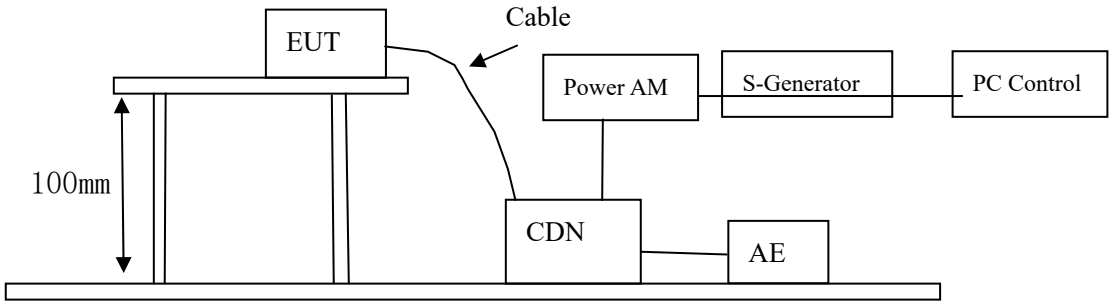

13.2 Test Method

The test was performed in accordance with EN 61000-4-6:2014

Severity: Level 2 (3 V rms),0.15MHz—230MHz

Performance Criterion Require: A (Please see following table)

**Block diagram of Test setup**




13.3 Susceptibility performance Criteria and Severity Level

Susceptibility performance Criteria

| | |
|---|---|
| A | Normal performance within the specification limits |
| B | Temporary degradation or loss of function or performance which is self recoverable |
| C | Temporary degradation or loss of function or performance which requires operator intervention or system reset |
| D | Degradation or loss of function which is not recoverable due to damage of equipment(components) or software, or loss of data |

Severity Level

| Severity Level | Field Strength V/m |
|---|---|
| 1 | 1 |
| 2 | 3 |
| 3 | 10 |
| * | Special |

13.4 Test Results:

Please refer to the following page

| Frequency Range (MHz) | Injected Position | Strength | Criterion | Result |
|---|---|---|---|---|
| 0.15 - 20 | AC Line | 3V (rms) Unmodulated | A | Pass |
| 20 - 230 | AC Line | 3V (rms) Unmodulated | A | Pass |

## 14.0 Voltage Dips/Interruptions immunity test

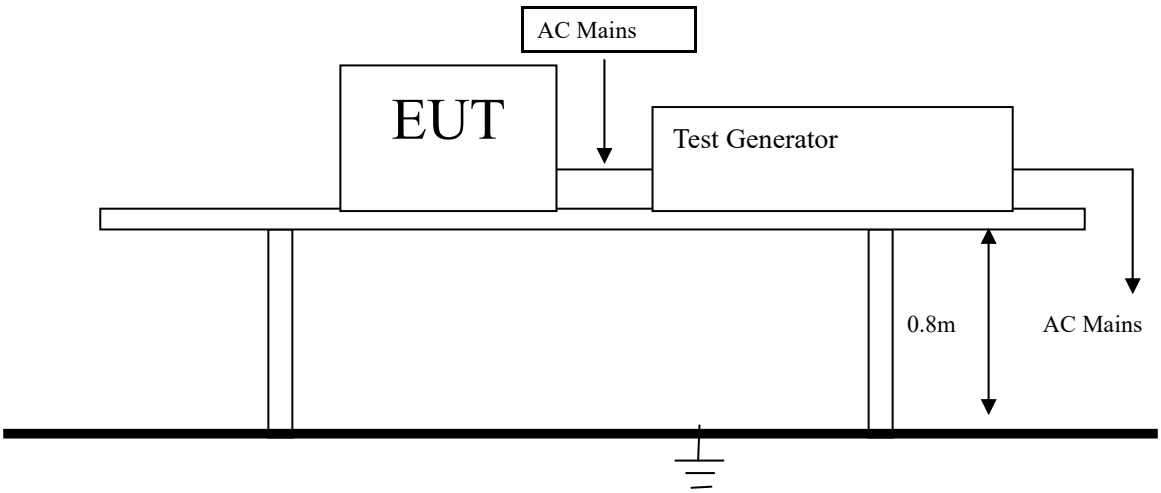
14.1 Schematics of the test


14.2 Test Method:

The test was performed in accordance with EN IEC 61000-4-11: 2020

Performance Criterion Require: C&B (Please see following table)

**Block diagram of Test setup**




14.3 Susceptibility performance Criteria and Severity Level

Susceptibility performance Criteria

| | |
|---|---|
| A | Normal performance within the specification limits |
| B | Temporary degradation or loss of function or performance which is self recoverable |
| C | Temporary degradation or loss of function or performance which requires operator intervention or system reset |
| D | Degradation or loss of function which is not recoverable due to damage of equipment(components) or software, or loss of data |

Severity Level

| Test Level %Ut | Voltage dip and short interruptions %Ut | Duration (in period) |
|---|---|---|
| 0 | 100 | 0.5<br>1<br>5<br>10<br>25<br>50<br>* |
| 40 | 60 | |
| 70 | 30 | |

14.4 Test Result:

Please refer to the following page

| Test Level % Ut | Voltage dips &short interruptions % Ut | Duration (in period) | Phase Angle | Criterion | Result |
|---|---|---|---|---|---|
| 50Hz | | | | | |
| 0 | 100 | 0.5P | 0° - 360° | B | Pass |
| 40 | 60 | 10P | 0° - 360° | C | Pass |
| 70 | 30 | 25P | 0° - 360° | C | Pass |
| 60Hz | | | | | |
| 0 | 100 | 0.5P | 0° - 360° | B | Pass |
| 40 | 60 | 12P | 0° - 360° | C | Pass |
| 70 | 30 | 30P | 0° - 360° | C | Pass |

15.0 Product Labelling

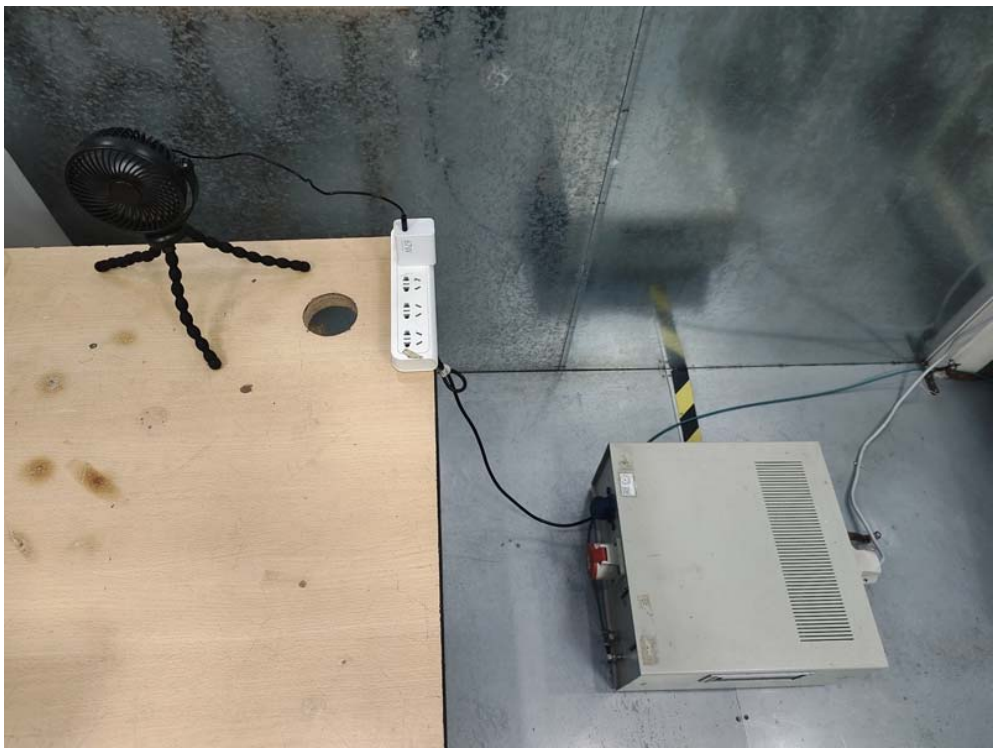
15.1 CE Mark label specification

Text of the mark is black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing and shall be affixed at a conspicuous location on the EUT or silk-screened onto the EUT.

15.2 Mark Location: **On rear enclosure**

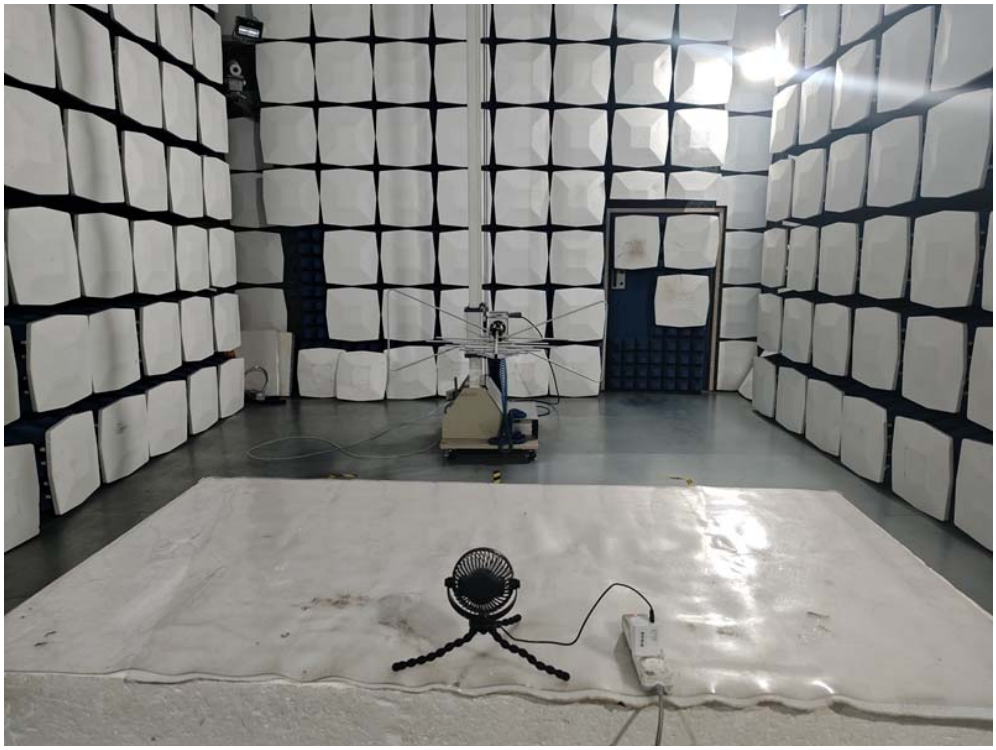
Appendix:

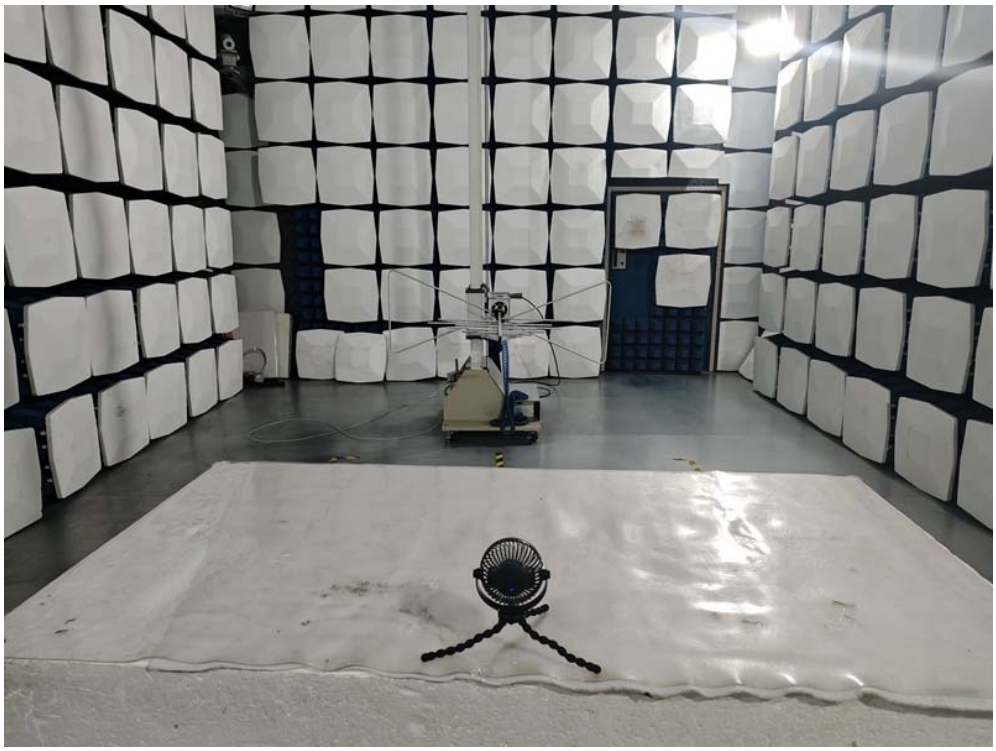
Conducted Emissions



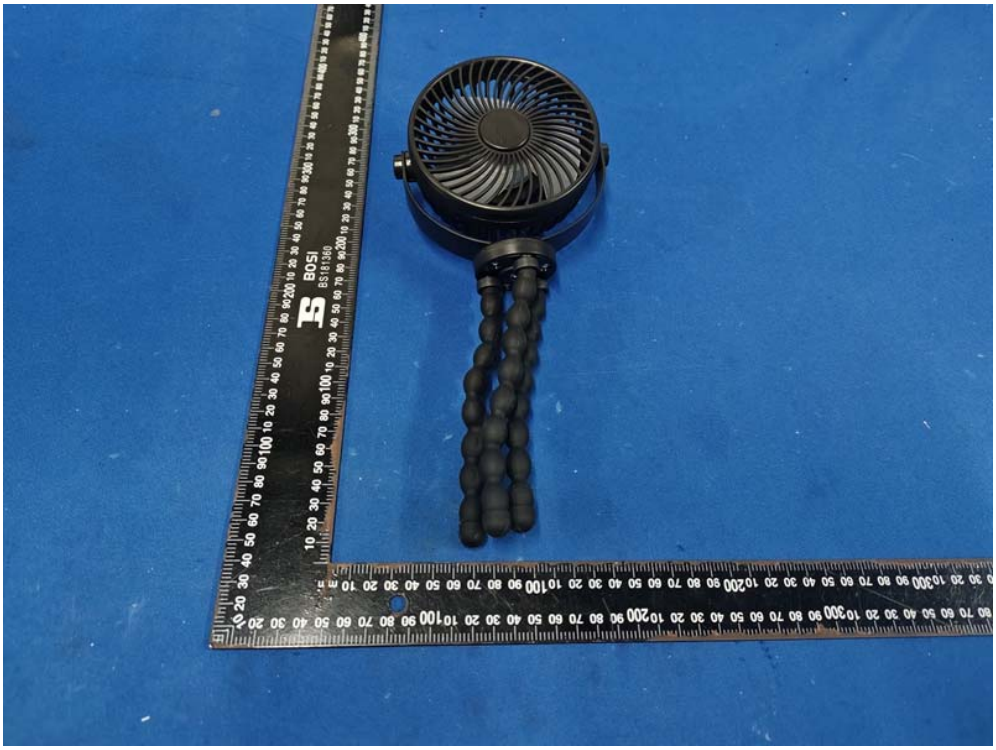
Appendix:

Radiated Emissions

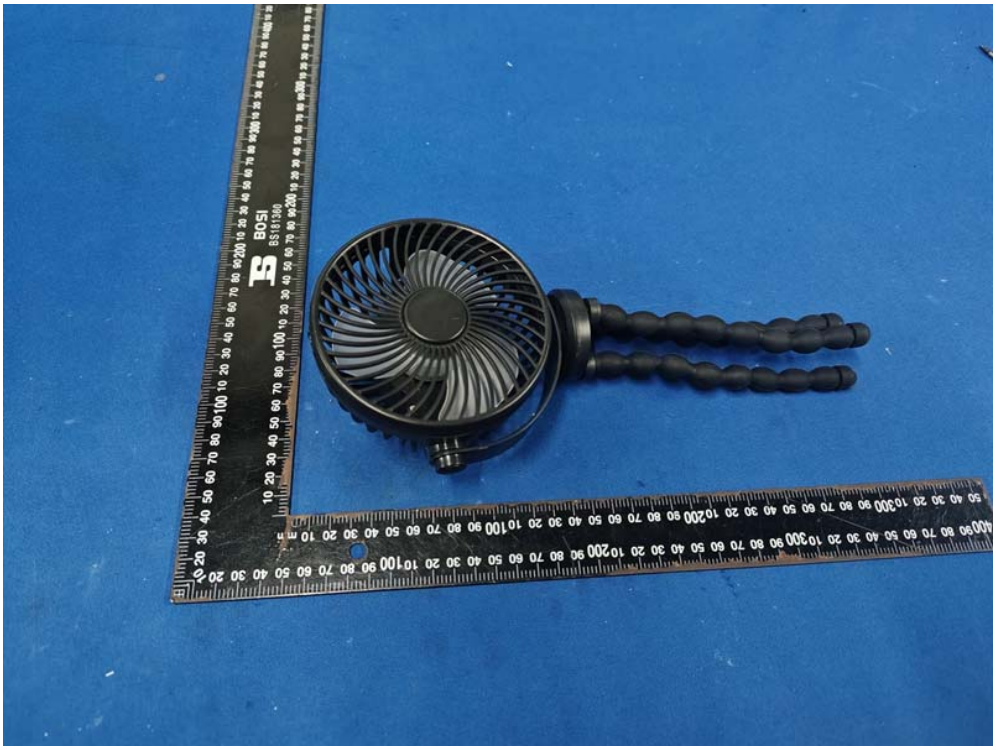




Photographs – EUT

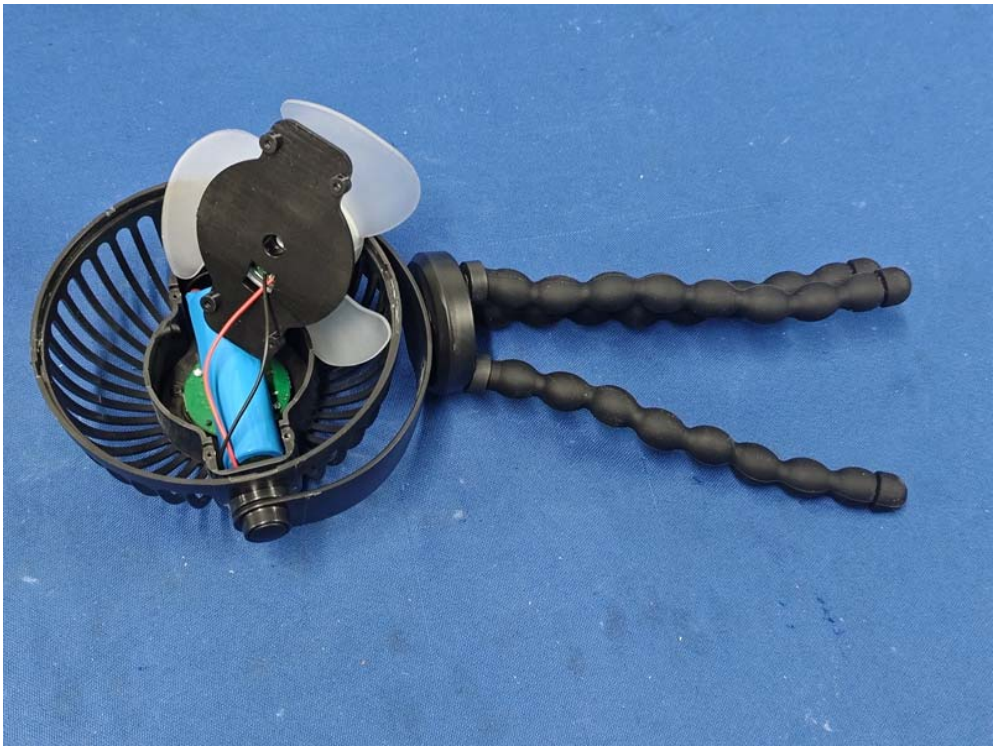


Photographs – EUT

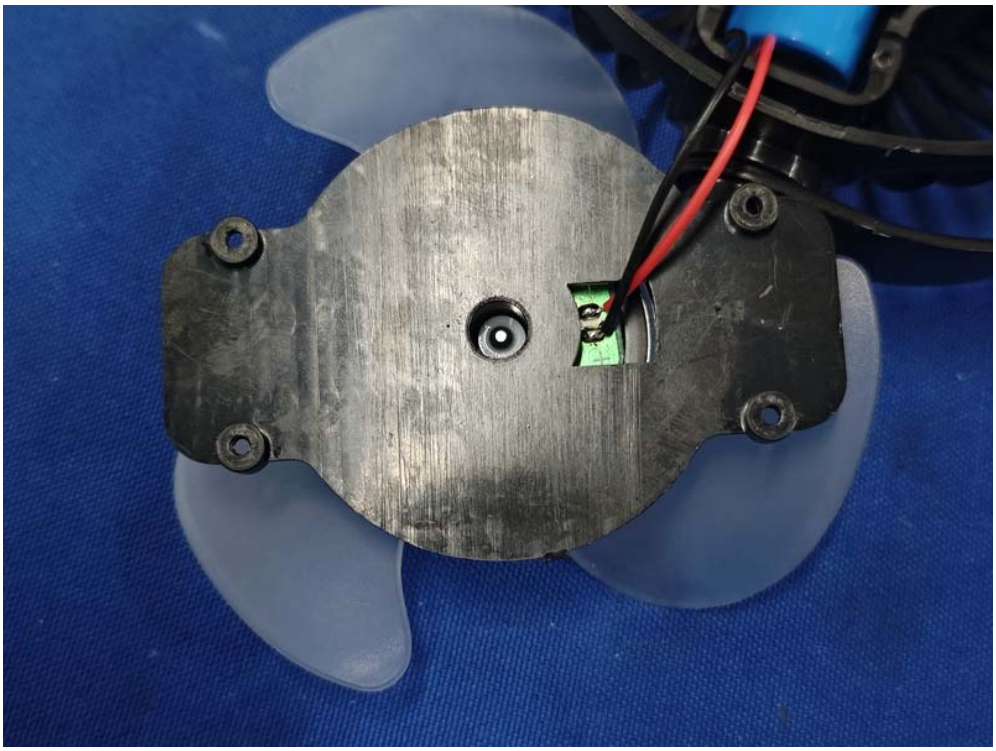


Photographs – EUT

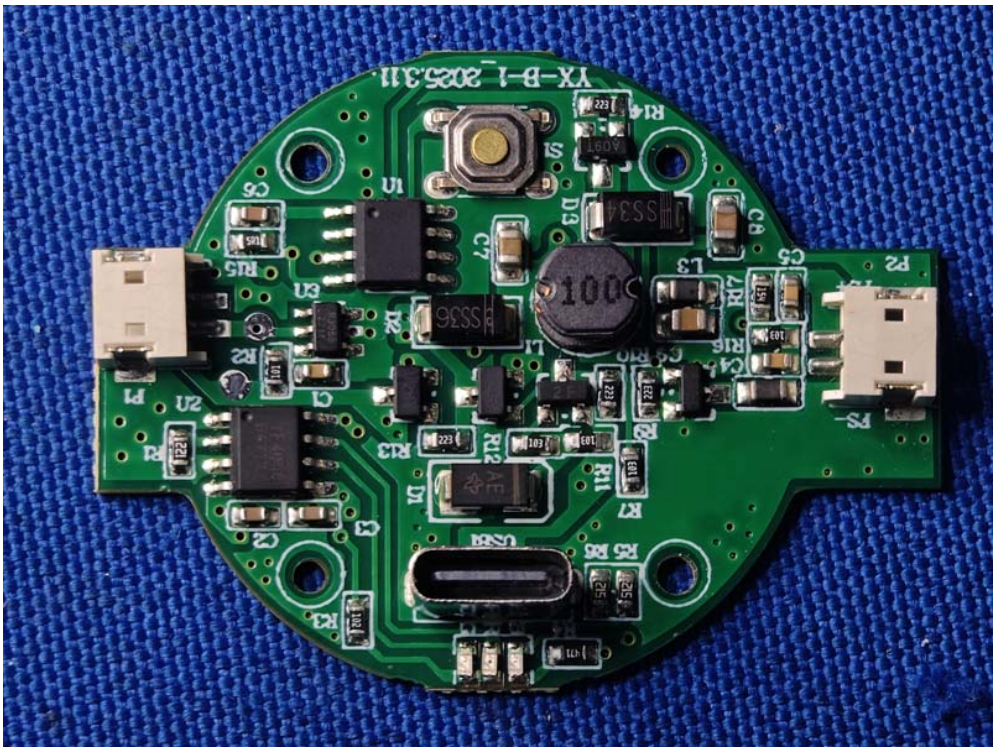
Photographs – EUT

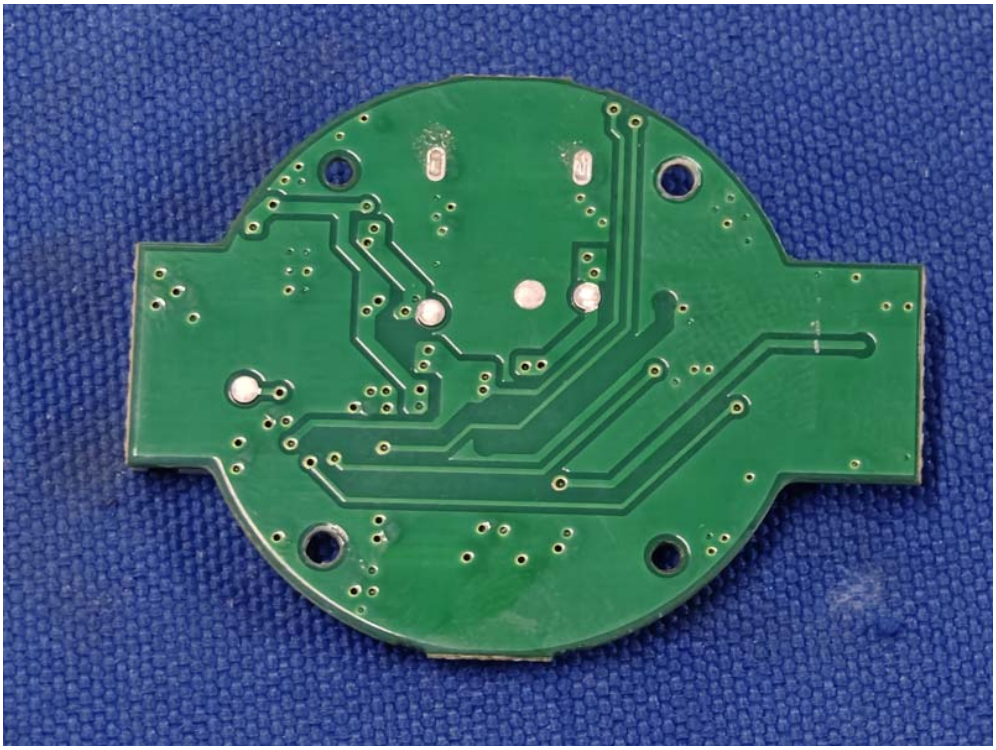


Photographs – EUT



Photographs – EUT





**--End of the report--**