

## EMC TEST REPORT

For

Shenzhen Huafurui Technology Co., Ltd.

Wireless Earphone

Test Model: Neo 1a

Additional Model No.: Please Refer to Page 9

Prepared for : Shenzhen Huafurui Technology Co., Ltd.  
Address : Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China

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Date of receipt of test sample : May 13, 2026  
Number of tested samples : 2  
Sample No. : A260511063-1, A260511063-2  
Serial number : Prototype  
Date of Test : May 13, 2026 ~ May 27, 2026  
Date of Report : May 28, 2026



# EMC TEST REPORT

## EN 55032:2015/A1:2020

## Electromagnetic compatibility of multimedia equipment - Emission Requirements

**EN 55035:2017/A11:2020**

## Electromagnetic compatibility of multimedia equipment – Immunity requirements

**Report Reference No. .... : LCSB05126038ED**

Date of Issue..... : May 28, 2026

**Testing Laboratory Name : Shenzhen Southern LCS Compliance Testing Co., Ltd.**

Address ..... : 101-201, Building 39, Xialang Industrial Zone, Heshuikou  
Community, Matian Street, Guangming District, Shenzhen,  
China.

Testing Location/ Procedure... : Full application of Harmonised standards ■  
 Partial application of Harmonised standards □  
 Other standard testing method □

**Applicant's Name..... : Shenzhen Huafurui Technology Co., Ltd.**

Address ..... : Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China

## Test Specification

Standard ..... : EN 55032:2015/A1:2020  
EN 55035:2017/A11:2020  
EN IEC 61000-3-2:2019+A1:2021+A2:2024  
EN 61000-3-3:2013+A1:2019+A2:2021

Test Report Form No. .... : TRF-4-E-006 A/0

TRF Originator ..... : Shenzhen Southern LCS Compliance Testing Co., Ltd.

Master TRF..... : Dated 2011-03

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**Test Item Description. .... : Wireless Earphone**

Trade Mark ..... : CUBOT

Test Model..... : Neo 1a

Ratings ..... : Please Refer to Page 9

**Result** ..... : **PASS**

**Compiled by:**

Sean Huang

Sean Huang/ Administrator

Reviewed by:

Kris. Mai

Kris Mai/ Project Engineer

**Approved by:**

Omgeu

DM Gu/ Manager

## EMC -- TEST REPORT

<b>Test Report No. :</b> LCSB05126038ED	<u>May 28, 2026</u> Date of issue
---	--------------------------------------

<b>Test Model.....</b>	<b>: Neo 1a</b>
<b>EUT.....</b>	<b>: Wireless Earphone</b>
<b>Applicant.....</b>	<b>: Shenzhen Huafurui Technology Co., Ltd.</b>
<b>Address.....</b>	<b>: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China</b>
<b>Telephone.....</b>	<b>: /</b>
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<b>Manufacturer.....</b>	<b>: Shenzhen Huafurui Technology Co., Ltd.</b>
<b>Address.....</b>	<b>: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China</b>
<b>Telephone.....</b>	<b>: /</b>
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<b>Factory.....</b>	<b>: Shenzhen Huafurui Technology Co., Ltd.</b>
<b>Address.....</b>	<b>: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China</b>
<b>Telephone.....</b>	<b>: /</b>
<b>Fax.....</b>	<b>: /</b>

<b>Test Result</b>	<b>PASS</b>
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The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

### Revision History

Report Version	Issue Date	Revision Content	Revised By
000	May 28, 2026	Initial Issue	---



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## 1. TEST STANDARDS

**The tests were performed according to following standards:**

EN 55032:2015/A1:2020 Electromagnetic compatibility of multimedia equipment - Emission Requirements

EN 55035:2017/A11:2020 Electromagnetic compatibility of multimedia equipment - Immunity requirements

EN IEC 61000-3-2:2019+A1:2021+A2:2024 Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)

EN 61000-3-3:2013+A1:2019+A2:2021 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  $\leq 16$  A per phase and not subject to conditional connection



## 2.SUMMARY OF STANDARDS AND RESULTS

### 2.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

Emission (EN 55032:2015/A1:2020)			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at mains terminals	EN 55032:2015/A1:2020	Class B	PASS
Conducted Emission (Wired Network Port)	EN 55032:2015/A1:2020	Class B	N/A
Radiated disturbance	EN 55032:2015/A1:2020	Class B	PASS
Harmonic current emissions	EN IEC 61000-3-2:2019+A1:2021+A2:2024	Class A	N/A
Voltage fluctuations & flicker	EN 61000-3-3:2013+A1:2019+A2:2021	-----	PASS
Immunity (EN 55035:2017/A11:2020)			
Description of Test Item	Basic Standard	Performance Criteria	Results
Electrostatic discharge (ESD)	EN 61000-4-2	B	PASS
Radio-frequency, Continuous radiated disturbance	EN IEC 61000-4-3	A	PASS
Electrical fast transient (EFT)	EN 61000-4-4	B	PASS
Surge (Input a.c. power ports)	EN 61000-4-5	B	PASS
Surge (Telecommunication ports)		B	PASS
Radio-frequency, Continuous conducted disturbance	EN 61000-4-6	A	PASS
Power frequency magnetic field	EN 61000-4-8	A	PASS
Voltage dips, >95% reduction	EN IEC 61000-4-11	B	PASS
Voltage dips, 30% reduction		C	PASS
Voltage interruptions		C	PASS
***Note: N/A is an abbreviation for Not Applicable.			

## 2.2. Description of Performance Criteria

### General Performance Criteria

Examples of functions defined by the manufacturer to be evaluated during testing include, but are not limited to, the following:

- essential operational modes and states;

#### 2.2.1. Performance criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacture when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

#### 2.2.2. Performance criterion B

After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacture, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

During the test, degradation of performance is allowed. However, no change of operation state or stored data is allowed to persist after the test.

If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

#### 2.2.3. Performance criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacture's instructions.

Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

### 3. GENERAL INFORMATION

#### 3.1. Description of Device (EUT)

EUT : Wireless Earphone

Test Model : Neo 1a

Additional Model No. : Neo 3, Neo 3a, Neo 3lite, Neo 3pro, Neo 5, Neo 5a, Neo 5pro, Neo 5lite, Neo Lite, Neo Pro, Neo Clip, Neo Clip S, Neo Bass, Neo S, Neo Fit

Model Declaration : PCB board, structure and internal of these model(s) are the same, So no additional models were tested

Ratings : Input: DC 5V, 1A  
Headset: DC 3.7V by Li-ion Battery(28mAh)  
Charging case: DC 3.7V by Li-ion Battery(350mAh)

Highest internal frequency (Fx)	Highest measured frequency
$F_x \leq 108 \text{ MHz}$ $108 \text{ MHz} < F_x \leq 500 \text{ MHz}$ $500 \text{ MHz} < F_x \leq 1 \text{ GHz}$ $F_x > 1 \text{ GHz}$	1 GHz 2 GHz 5 GHz $5 \times F_x$ up to a maximum of 6 GHz
NOTE 1 For FM and TV broadcast receivers, Fx is determined from the highest frequency generated or used excluding the local oscillator and tuned frequencies. NOTE 2 Fx is defined in EN 55032 Section 3.1.19. Where Fx is unknown, the radiated emission measurements shall be performed up to 6 GHz	

### 3.2. Description of Test Facility

Test Location	Shenzhen Southern LCS Compliance Testing Co., Ltd. 101-201, Building 39, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, China. CNAS Registration Number is L10160.
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### 3.3. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
SHENZHEN TIANYIN ELECTRONICS CO., LTD	Power Adapter	TPA-46050200 UU	---	CE

Note: Auxiliary equipment is provided by the laboratory.

### 3.4. External I/O

I/O Port Description	Quantity	Cable
Type-C Port	1	N/A

### 3.5. Statement of The Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

### 3.6. Measurement Uncertainty

Test	Parameters	Expanded uncertainty ( $U_{lab}$ )	Expanded uncertainty ( $U_{cispr}$ )
Conducted Emission	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	$\pm 2.63$ dB $\pm 2.35$ dB	$\pm 3.8$ dB $\pm 3.4$ dB
Radiated Emission	Level accuracy (9kHz to 30MHz)	$\pm 3.68$ dB	N/A
Radiated Emission	Level accuracy (30MHz to 1000MHz)	$\pm 3.48$ dB	$\pm 5.3$ dB
Radiated Emission	Level accuracy (above 1000MHz)	$\pm 3.90$ dB	$\pm 5.2$ dB
Mains Harmonic	Voltage	$\pm 0.510\%$	N/A
Voltage Fluctuations & Flicker	Voltage	$\pm 0.510\%$	N/A
1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus. 2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.			

### 3.7. Description of Test Modes

Test mode:		
Mode 1	Charging mode	Record

#### 4. MEASURING DEVICES AND TEST EQUIPMENT

CONDUCTED DISTURBANCE #1						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Shield Room #1	CHENGYU	843	/	2026-04-14	2029-04-13
2	EMI Test Receiver	R&S	ESCI	101142/003 (4.42 SP1)	2026-04-14	2027-04-13
3	10dB Attenuator	SCHWARZBECK	VTSD9561-F	9561-F159	2026-04-14	2027-04-13
4	Artificial Mains Network	SCHWARZBECK	NSLK 8163	00043	2026-04-14	2027-04-13
5	ISN	SCHWARZBECK	NTFM 8158	NTFM8158#120	2026-04-14	2027-04-13
6	Voltage Probe	SCHWARZBECK	KT 9420	9420401	2026-04-14	2027-04-13
7	Current Probe	R&S	EZ-17	101921	2025-12-12	2026-12-11
8	EMI Test Software	Farad	EZ_EMC	1.1.4.4	/	/

RADIATED DISTURBANCE #2						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Semi Anechoic Chamber #2	Maorui	966	202512	2025-12-31	2030-12-30
2	Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2024-07-13	2027-07-12
3	Log-periodic Antenna	SCHWARZBECK	VULB 9163	1865	2025-12-13	2028-12-12
4	Horn Antenna	ETS	3115	EABF-018	2025-07-19	2028-07-18
5	EMI Test Receiver	R&S	ESCI7	100967	2025-12-12	2026-12-11
6	Spectrum Analyzer	Agilent	N9020A	MY49061051	2026-04-14	2027-04-13
7	CDNE	SCHWARZBECK	CDNE M2	00251	2026-04-14	2027-04-13
8	CDNE	SCHWARZBECK	CDNE M3	00248	2026-04-14	2027-04-13
9	6dB Attenuator	EMC Solutions	ATT-6G-6dB	25002	2025-12-12	2026-12-11
10	Amplifier	EMC Solutions	TRLA-010180G50 N	25111101	2025-12-12	2026-12-11
11	EMI Test Software	Farad	EZ_EMC	1.1.4.4	/	/

HARMONIC CURRENT & FLICKER						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Harmonic and Flicker Analyzer	HTEC	AC2000A	/	2026-04-14	2027-04-13
2	Pure Power Supply	HTEC	HHF-5010	/	2026-04-14	2027-04-13
3	Test Software	HTEC	Harmonic	EHFM V2.1.8	/	/

ELECTROSTATIC DISCHARGE						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	ESD Simulator	TESEQ	NSG 437	1615	2025-12-15	2026-12-14

ELECTRICAL FAST TRANSIENT / BURST						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EFT Generator	HTEC	HEFT51	162201	2026-04-14	2027-04-13
2	EFT Coupling Clamp	HTEC	H3C	163701	2026-04-14	2027-04-13

SURGE						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Surge Generator	3CTEST	SG5006G	EC5581070	2026-04-14	2027-04-13
2	Coupling / Decoupling Network	3CTEST	SGN-5010G	EC5591033	2026-04-14	2027-04-13

INJECTED CURRENTS (RADIO-FREQUENCY COMMON MODE)						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Shield Room #2	Maorui	743	#2	2025-12-30	2030-12-29
2	Conducted Susceptibility Generator	HTEC	CDG6000	126A140012016	2026-04-14	2027-04-13
3	CDN	HTEC	CDN-M2+3	A22/0382/2016	2026-04-14	2027-04-13
4	6dB Attenuator	HTEC	ATT6	HA1601	2026-04-14	2027-04-13
5	Electromagnetic Clamp	LUTHI	EM101	35535	2026-04-14	2027-04-13
6	Test Software	HUBERT	CDG 6000	V1.4.1	/	/

POWER FREQUENCY MAGNETIC FIELD						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Power Frequency Mag-Field	HTEC	HPFMF100	100-2400	2026-04-14	2027-04-13

VOLTAGE DIPS AND SHORT INTERRUPTIONS						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Voltage Dips and Up Generator	HTEC	HPFS161P	162202	2026-04-14	2027-04-13

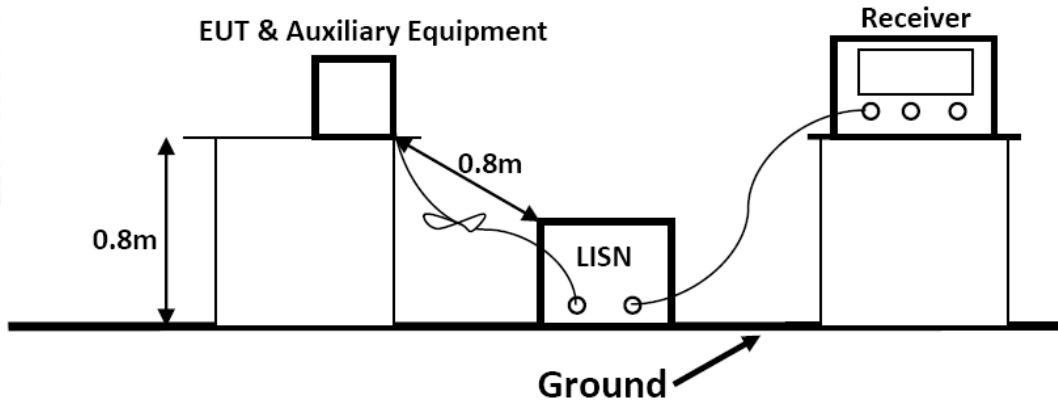
RADIO-FREQUENCY ELECTROMAGNETIC FIELDS						
Item	Test equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Semi Anechoic Chamber #2	Maorui	966	202512	2025-12-31	2030-12-30
2	Power Meter	R&S	NRP-Z11	115232	2025-12-12	2026-12-11
3	Power Meter	R&S	NRP-Z11	117755	2025-12-12	2026-12-11
4	Power Amplifier	SKET	LPA 0810-150	202302457	2025-12-12	2026-12-11
5	Power Amplifier	OPHIR	5273F	1019	2026-04-14	2027-04-13
6	Power Amplifier	SKET	HAP-0306G-50W	/	2026-04-14	2027-04-13
7	RF Signal Generator	Agilent	E4438C	MY42081396	2026-04-14	2027-04-13
8	Field Generating Antenna	SKET	STLP 9129 Plus	/	/	/
9	Test Software	SKET	EMC-S	V2.1.3.23	/	/

Note: N/A means no calibration requirement

## 5. TEST RESULTS

### 5.1. POWER LINE CONDUCTED EMISSION MEASUREMENT

#### 5.1.1. Block Diagram of Test Setup



#### 5.1.2. Test Standard

EN 55032:2015/A1:2020 Class B

Power Line Conducted Emission Limits (Class B)		
Frequency (MHz)	Limit (dB $\mu$ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0
NOTE1-The lower limit shall apply at the transition frequencies.		
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

#### 5.1.3. EUT Configuration on Test

The following equipments are installed on Power Line Conducted Emission Measurement to meet the EN 55032 requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

#### 5.1.4. Operating Condition of EUT

5.1.4.1. Setup the EUT as shown on Section 5.1.1

5.1.4.2. Turn on the power of all equipments.

5.1.4.3. Let the EUT work in measuring mode 1 and measure it.

#### 5.1.5. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided 50-ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the EN 55032 regulations during conducted emission measurement.

The bandwidth of the field strength meter is set at 9kHz in 150kHz~30MHz.

The frequency range from 150kHz to 30MHz is investigated.

#### 5.1.6. Test Results

**PASS.**

Refer to attached Annexe B.1



## 5.2. Conducted Emission (Wired Network Port)

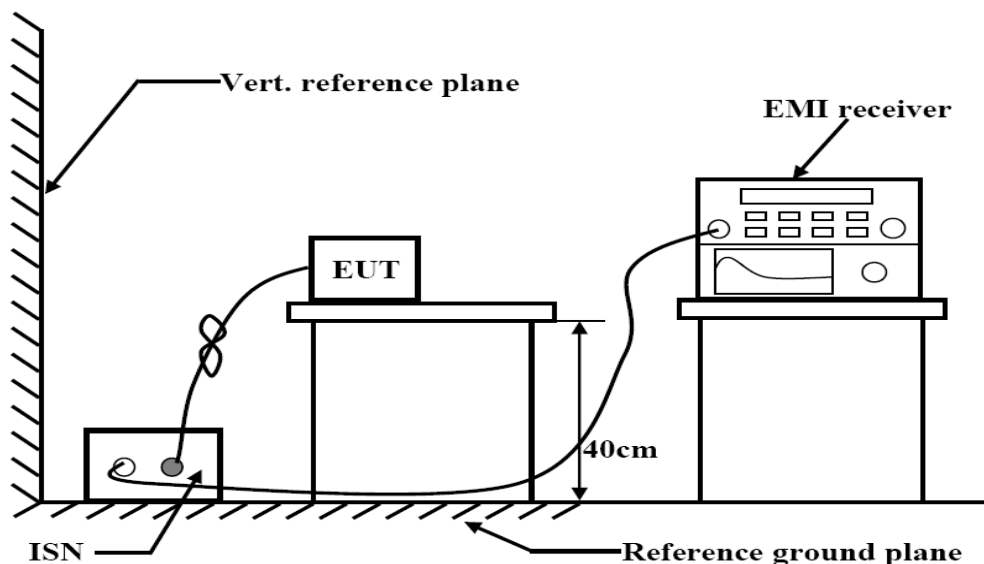
### 5.2.1 Conducted Emission Limit(Wired Network Port)

Limits for asymmetric mode conducted emissions				
Frequency (MHz)	Class B voltage limits (dB $\mu$ V)		Class B current limits (dB $\mu$ A)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ~ 0.50	84.0~74.0	74.0~64.0	40.0~30.0	30.0~20.0
0.50 ~ 30.00	74.0	64.0	30.0	20.0

NOTE 1-The limits decrease linearly with the logarithm of the frequency in the range 0,15 MHz to 0,5 MHz.

NOTE 2-The current and voltage disturbance limits are derived for use with an impedance stabilization network (ISN) which presents a common mode (asymmetric mode) impedance of 150 $\Omega$  to the telecommunication port under test (conversion factor is  $20 \log_{10} 150 / I = 44$  dB).

### 5.2.2 Test Configuration



### 5.2.3 EMI Test Receiver Setup

During the conducted emission test, the EMI test receiver was set with the following configurations:

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	150KHz ~ 30MHz
(IF)RBW	9kHz

All data was recorded in the Quasi-peak and average detection mode.

#### 5.2.4 Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the ISN through Line Impedance Stability Network (L.I.S.N). This provided 50-ohm coupling impedance for the tested equipments. Both sides of ISN are investigated to find out the maximum conducted emission according to the EN 55032 regulations during conducted emission measurement.

The bandwidth of the field strength meter is set at 9kHz in 150kHz~30MHz.

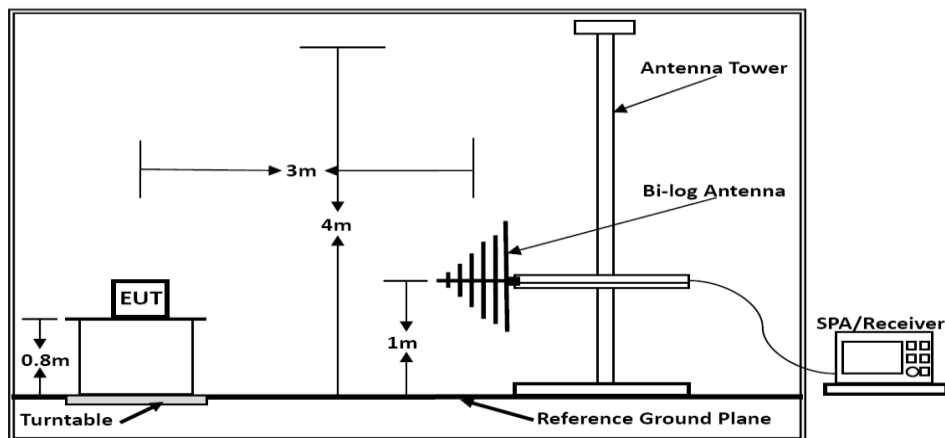
#### 5.2.5 Test Results

Not applicable.

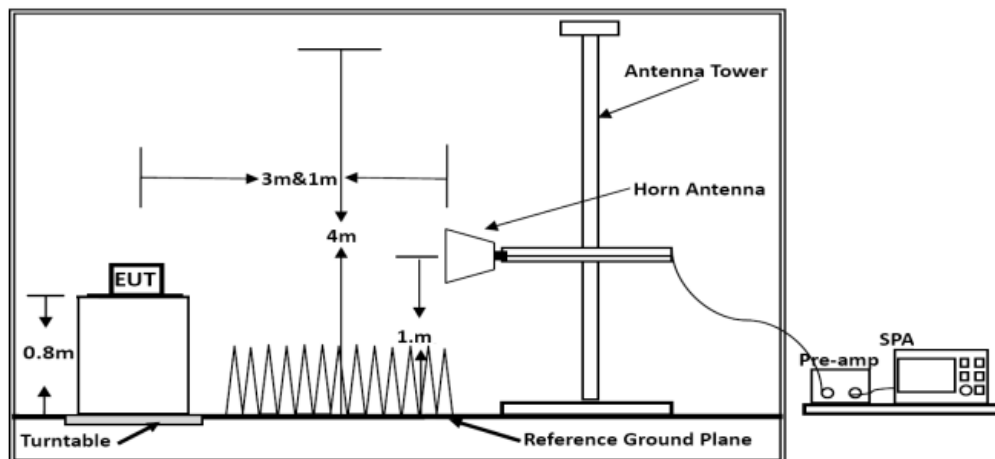


## 5.3. RADIATED EMISSION MEASUREMENT

### 5.3.1. Block Diagram of Test Setup



Below 1GHz



Above 1GHz

### 5.3.2. Test Standard

EN 55032:2015/A1:2020 Class B

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Limits for Radiated Emission Below 1GHz			
Frequency (MHz)	Distance (Meters)	Field Strengths Limit (dBμV/m)	
30 ~ 230	3	40	
230 ~ 1000	3	47	
***Note: (1) The smaller limit shall apply at the combination point between two frequency bands. (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.			
Limits for Radiated Emission Above 1GHz			
Frequency (MHz)	Distance (Meters)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)
1000 ~ 6000	3	74	54
***Note: The lower limit applies at the transition frequency.			

### 5.3.3. EUT Configuration on Test

The EN 55032 regulations test method must be used to find the maximum emission during radiated emission measurement.

### 5.3.4. Operating Condition of EUT

5.3.4.1. Turn on the power.

5.3.4.2. Let the EUT work in the test mode 1 and measure it.

### 5.3.5. Test Procedure

The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. By-log antenna is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The bandwidth of the EMI test receiver is set at RBW/VBW=120kHz/300kHz.

The frequency range from 30MHz to 1000MHz is checked.

The bandwidth of the Spectrum analyzer is set at RBW/VBW=1MHz/3MHz.

The frequency range from 1GHz to the frequency which about 5th carrier harmonic or 6GHz is checked.

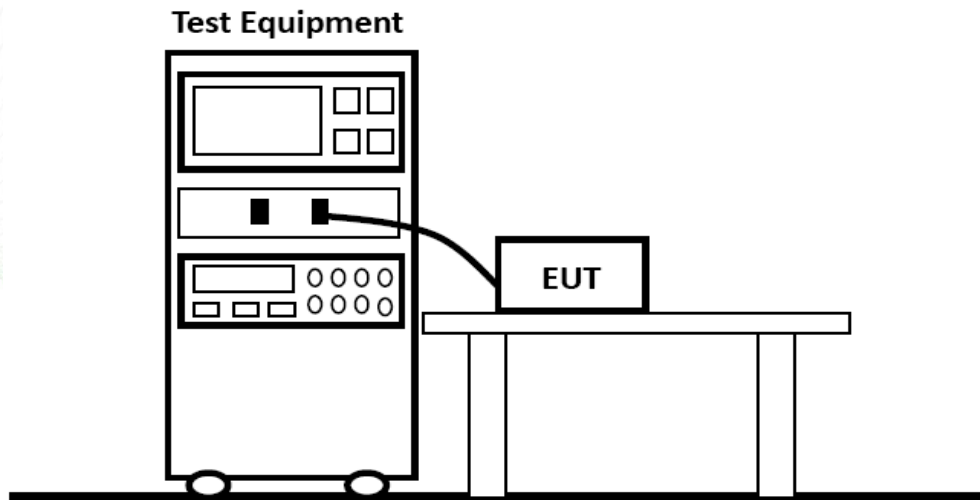
### 5.3.6. Test Results

**PASS.**

Refer to attached Annexe B.3

## 5.4. HARMONIC CURRENT EMISSION MEASUREMENT

### 5.4.1. Block Diagram of Test Setup



### 5.4.2. Test Standard

EN IEC 61000-3-2:2019+A1:2021+A2:2024

### 5.4.3. Operating Condition of EUT

Same as Section 5.2.4, except the test setup replaced as Section 5.4.1.

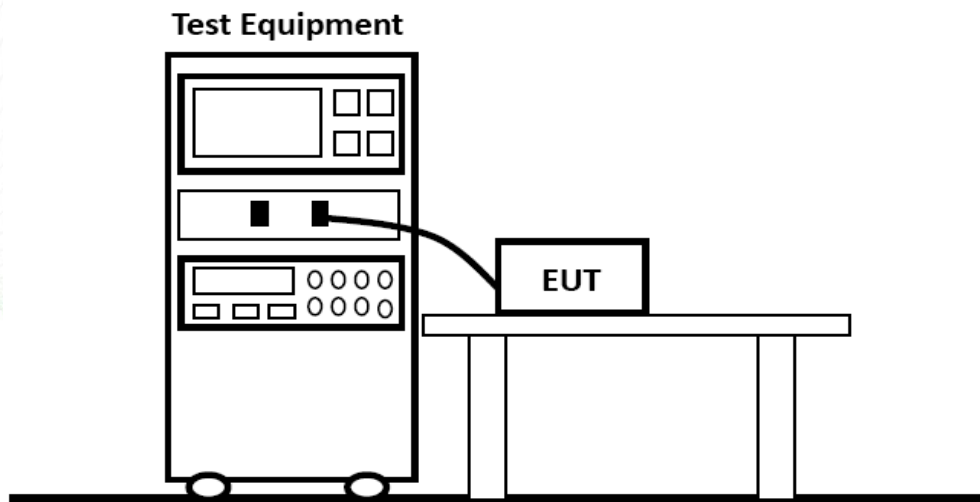
### 5.4.4. Test Results

N/A

Refer to attached Annexe B.4

## 5.5. VOLTAGE FLUCTUATION AND FLICKER MEASUREMENT

### 5.5.1. Block Diagram of Test Setup



### 5.5.2. Test Standard

EN 61000-3-3:2013+A1:2019+A2:2021

### 5.5.3. Operating Condition of EUT

Same as Section 5.2.4, except the test setup replaced as Section 5.4.1.

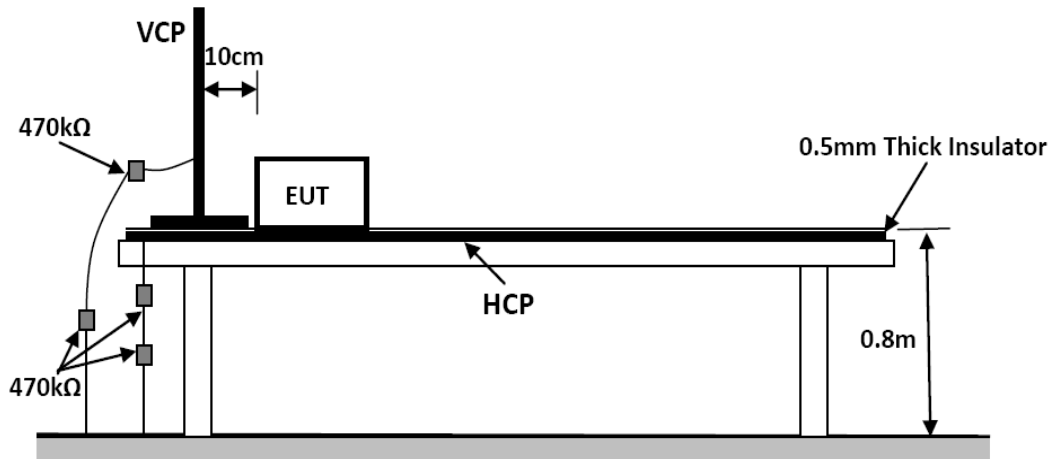
### 5.5.4. Test Results

**PASS.**

Refer to attached Annexe B.5

## 5.6. ELECTROSTATIC DISCHARGE IMMUNITY TEST

### 5.6.1. Block Diagram of Test Setup



### 5.6.2. Test Standard

EN 55035:2017/A11:2020 (EN 61000-4-2, Severity Level: 3 / Air Discharge:  $\pm 8\text{KV}$ , Level: 2 / Contact Discharge:  $\pm 4\text{KV}$ )

### 5.6.3. Severity Levels and Performance Criterion

#### 5.6.3.1. Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1	$\pm 2$	$\pm 2$
2	$\pm 4$	$\pm 4$
3	$\pm 6$	$\pm 8$
4	$\pm 8$	$\pm 15$
X	Special	Special

#### 5.6.3.2. Performance Criterion

Performance Criterion: B

### 5.6.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.6.1.

### 5.6.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 5.1.4. Except the test set up replaced by Section 5.6.1.

### 5.6.6. Test Procedure

#### 5.6.6.1. Air Discharge

This test is done on a non-conductive surfaces. The round discharge tip of the Electrostatic Discharge simulator shall be approached as fast as possible then to touch the EUT. After each discharge, the simulator shall be removed from the EUT. The simulator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

#### 5.6.6.2. Contact Discharge

All the procedure shall be same as air discharge, except using the acute discharge tip. The top end of the Electrostatic Discharge simulator is touch the EUT all the time when the simulator is re-triggered for a new single discharge and repeated 10 times for each pre-selected test point.

#### 5.6.6.3. Indirect Discharge For Horizontal Coupling Plane

The vertical coupling plane(VCP) is placed 0.1m away from EUT. The top end of Electrostatic Discharge simulator should aim at the center of one border of the VCP for at least 25 times discharge.

#### 5.6.6.4. Indirect Discharge For Vertical Coupling Plane

The top end of Electrostatic Discharge simulator should place at the point 0.1m away from EUT on the horizontal coupling plane(HCP). At least 25 times discharge should be done for every pre-selected point around EUT.

Record any performance degradation of the EUT during the test and judge the test result according to ce criterion.

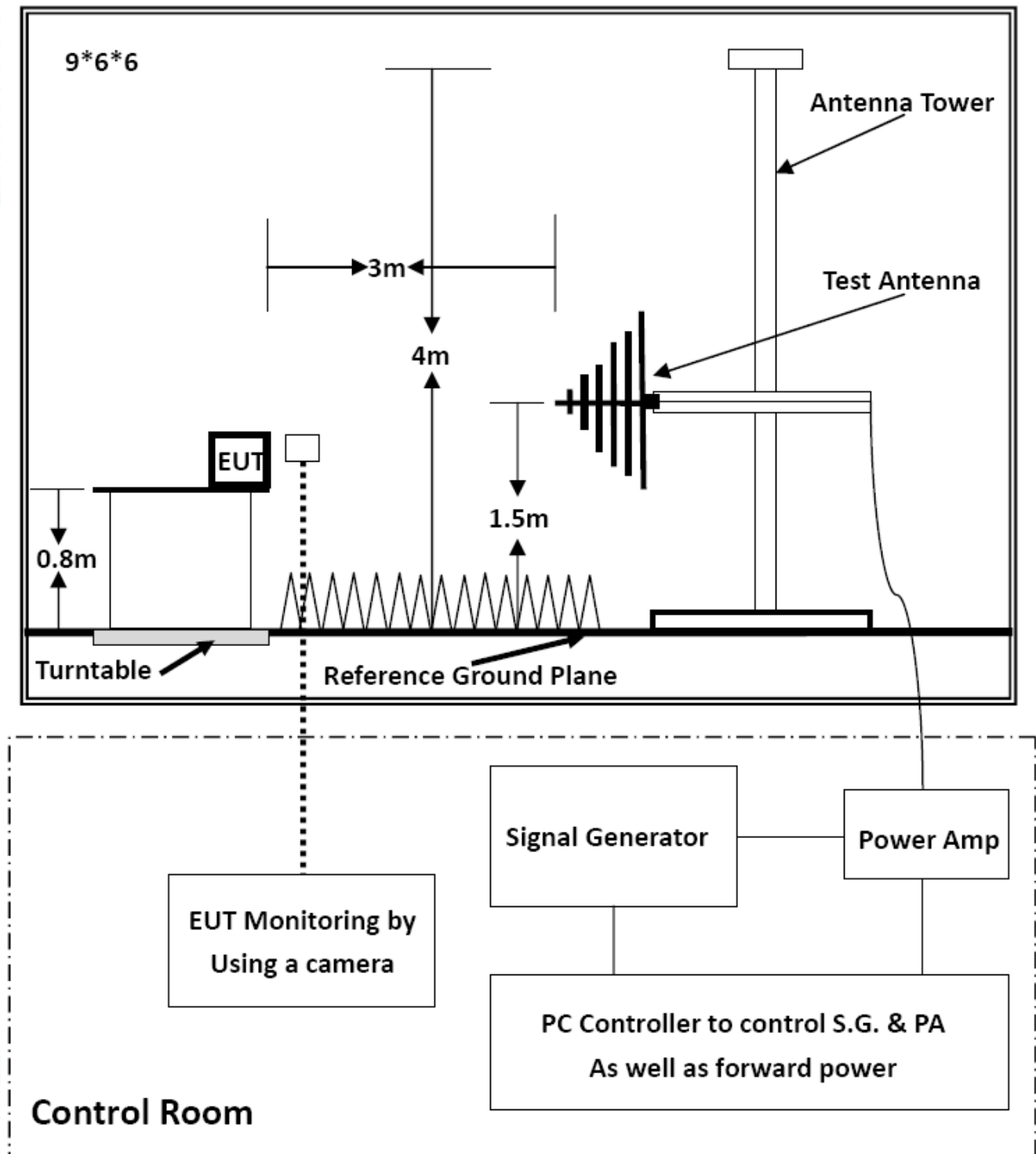
### 5.6.7. Test Results

**PASS.**

Refer to attached Annexe B.6

## 5.7. RF FIELD STRENGTH SUSCEPTIBILITY TEST

### 5.7.1. Block Diagram of Test Setup



### 5.7.2. Test Standard

EN 55035:2017/A11:2020 (EN 61000-4-3 Severity Level: 2, 3V/m)

### 5.7.3. Severity Levels and Performance Criterion

#### 5.7.3.1. Severity level

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

#### 5.7.3.2. Performance Criterion

Performance Criterion: A

### 5.7.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.7.1.

### 5.7.5. Operating Condition of EUT

Same as radiated emission measurement, which is listed in Section 5.2.4, except the test setup replaced as Section 5.7.1.

### 5.7.6. Test Procedure

The EUT are placed on a table, which is 0.8 meter high above the ground. The EUT is set 3 meters away from the transmitting antenna, which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna is set on test. Each of the four sides of the EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD Recording is used to monitor its screen. All the scanning conditions are as following:

Condition of Test	Remark
Fielded Strength	3 V/m (Severity Level 2)
Radiated Signal	Unmodulated
Test Frequency Range (swept test)	80-1000MHz
Test Frequency (spot test)	1800MHz, 2600MHz, 3500MHz, 5000MHz
Dwell time of radiated	0.0015 decade/s
Waiting Time	3 Sec.

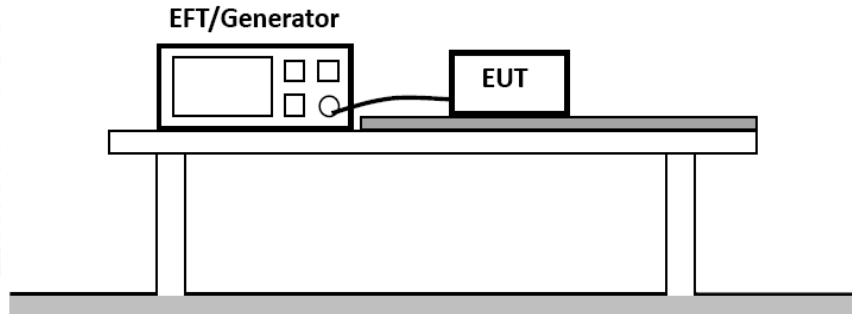
### 5.7.7. Test Results

**PASS.**

Refer to attached Annexe B.7

## 5.8. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

### 5.8.1. Block Diagram of Test Setup



### 5.8.2. Test Standard

EN 55035:2017/A11:2020 (EN 61000-4-4, Severity Level, Level 2: 1KV)

### 5.8.3. Severity Levels and Performance Criterion

#### 5.8.3.1. Severity level

Open Circuit Output Test Voltage $\pm 10\%$		
Level	On Power Supply Lines	On I/O (Input/Output) Signal data and control lines
1	0.5 KV	0.25 KV
2	1 KV	0.5 KV
3	2 KV	1 KV
4	4 KV	2 KV
X	Special	Special

#### 5.8.3.2. Performance Criterion

Performance Criterion: B

### 5.8.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.8.1.

### 5.8.5. Operating Condition of EUT

5.8.5.1. Setup the EUT as shown in Section 5.8.1.

5.8.5.2. Turn on the power of all equipments.

5.8.5.3. Let the EUT work in test mode 1 and measure it.

#### 5.8.6. Test Procedure

The EUT is put on the table, which is 0.8 meter high above the ground. This reference ground plane shall project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m.

##### 5.8.6.1. For input and output AC power ports:

The EUT is connected to the power mains by using a coupling device, which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 1 mins.

##### 5.8.6.2. For signal lines and control lines ports:

It's unnecessary to test.

##### 5.8.6.3. For DC output line ports:

It's unnecessary to test.

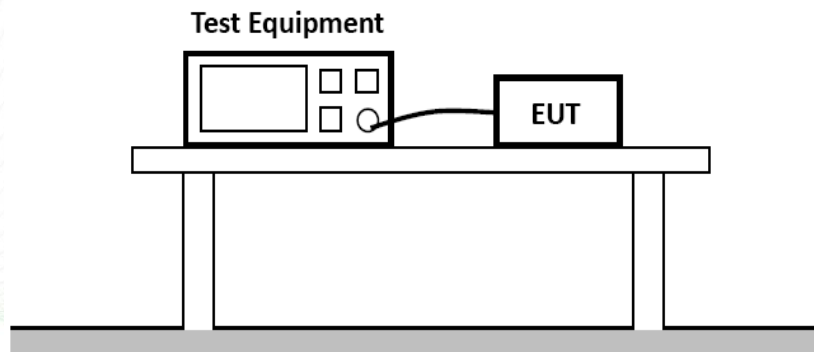
#### 5.8.7. Test Results

**PASS.**

Refer to attached Annexe B.8

## 5.9. SURGE IMMUNITY TEST

### 5.9.1. Block Diagram of Test Setup



### 5.9.2. Test Standard

EN 55035:2017/A11:2020 (EN 61000-4-5, Severity Level: Line to Line: Level 2, 1.0KV, Line to Earth: Level 3, 2.0KV)

### 5.9.3. Severity Levels and Performance Criterion

#### 5.9.3.1. Severity level

Severity Level	Open-Circuit Test Voltage (KV)
1	0.5
2	1.0
3	2.0
4	4.0
*	Special

#### 5.9.3.2. Performance Criterion

Performance Criterion: B

### 5.9.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.9.1.

### 5.9.5. Operating Condition of EUT

5.9.5.1. Setup the EUT as shown in Section 5.9.1.

5.9.5.1. Turn on the power of all equipments.

5.9.5.1. Let the EUT work in test mode 1 and measure it.

### 5.9.6. Test Procedure

5.9.6.1. Set up the EUT and test generator as shown on Section 5.9.1.

5.9.6.2. For line to line coupling mode, provide a 1.0 KV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.

5.9.6.3. At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.

5.9.6.4. Different phase angles are done individually.

5.9.6.5. Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

### 5.9.7. Test Results

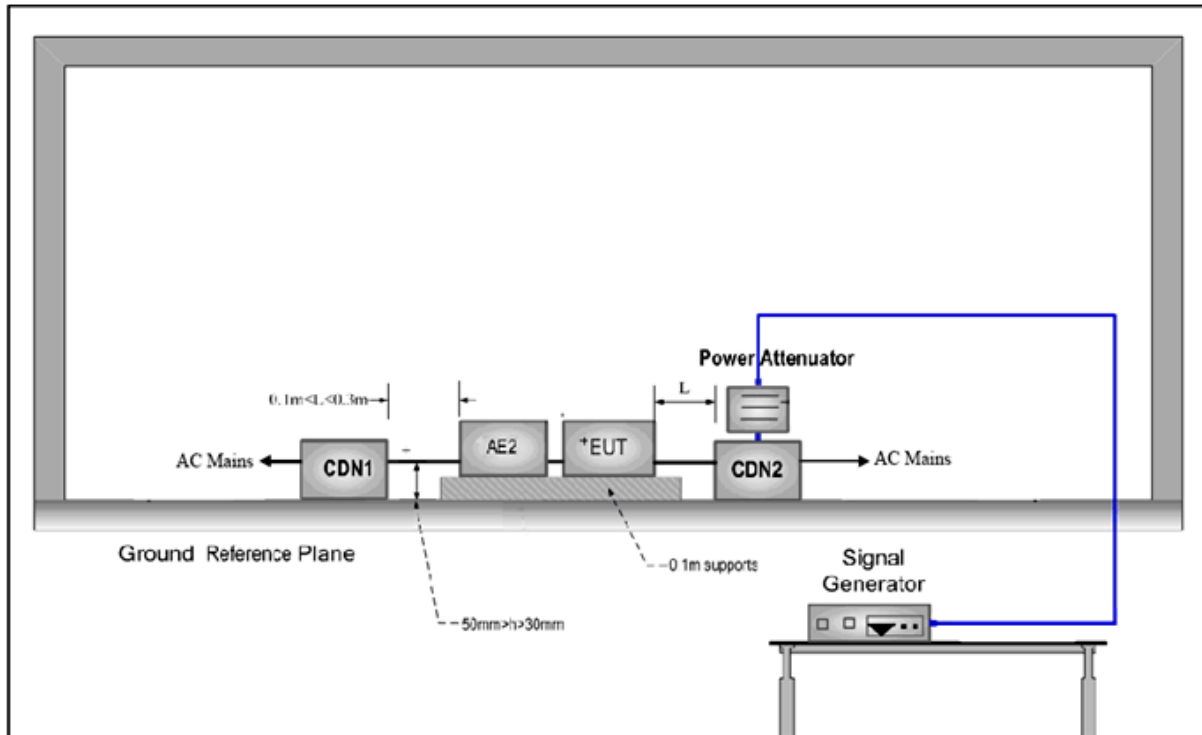
**PASS.**

Refer to attached Annexe B.9



## 5.10. INJECTED CURRENTS SUSCEPTIBILITY TEST

### 5.10.1. Block Diagram of Test Setup



### 5.10.2. Test Standard

EN 55035:2017/A11:2020(EN 61000-4-6, Severity Level: Level 2, (0.15MHz ~ 80MHz))

### 5.10.3. Severity Levels and Performance Criterion

#### 5.10.3.1. Severity level

Level	Field Strength (V)
1	1
2	3
3	10
X	Special

#### 5.10.3.2. Performance Criterion

Performance Criterion: A

### 5.10.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.10.1.

### 5.10.5. Operating Condition of EUT

5.10.5.1. Setup the EUT as shown in Section 5.10.1.

5.10.5.2. Turn on the power of all equipments.

5.10.5.3. Let the EUT work in test mode1 and measure it.

#### 5.10.6. Test Procedure

- 5.10.6.1. Set up the EUT, CDN and test generators as shown on Section 5.9.1.
- 5.10.6.2. Let the EUT work in test mode and measure it.
- 5.10.6.3. The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 5.10.6.4. The disturbance signal described below is injected to EUT through CDN.
- 5.10.6.5. The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 5.10.6.6. The frequency range is swept from 150kHz to 10MHz using 3V signal level, 10MHz to 30MHz using 3V to 1V signal level, 30MHz to 80MHz using 1V signal level, and with the disturbance signal 80% amplitude modulated with a 1kHz sine wave.
- 5.10.6.7. The rate of sweep shall not exceed  $1.5 \times 10^{-3}$  decades/s. where the frequency is swept incrementally; the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
- 5.10.6.8. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

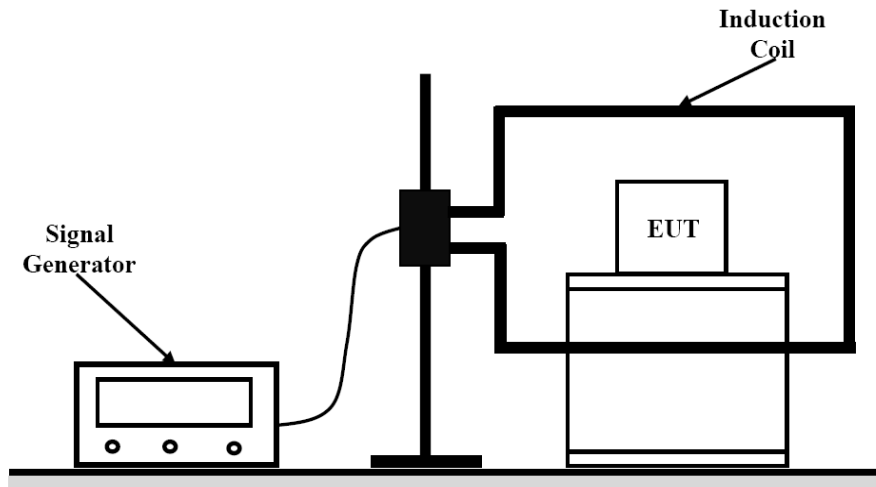
#### 5.10.7. Test Results

**PASS.**

Refer to attached Annexe B.10

## 5.11. MAGNETIC FIELD SUSCEPTIBILITY TEST

### 5.11.1. Block Diagram of Test Setup



### 5.11.2. Test Standard

EN 55035:2017/A11:2020 (EN 61000-4-8, Severity Level: Level 1, 1A/m)

### 5.1.3. Severity Levels and Performance Criterion

#### 5.11.3.1. Severity level

Level	Field Strength (A/m)
1	1
2	3
3	10
4	30
5	100
X	Special

#### 5.11.3.2. Performance Criterion

Performance Criterion: A

### 5.11.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.11.1.

### 5.11.5. Test Procedure

EUT is placed on an insulating support of 0.1m high above a table of 0.8m high. There is a minimum 1m\*1m ground metallic plane put on this table. EUT is put in the center of the magnetic coil then two orientations of the magnetic coil, horizontal and vertical, shall be rotated in order to expose the EUT to the difference polarization magnetic field.

Record any performance degradation of the EUT during the test and judge the test result according to performance criterion.

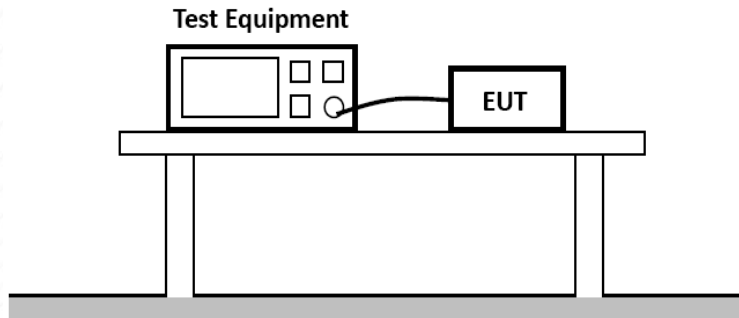
### 5.11.6. Test Results

**PASS.**

Refer to attached Annexe B.11

## 5.12. VOLTAGE DIPS AND INTERRUPTIONS TEST

### 5.12.1. Block Diagram of Test Setup



### 5.12.2. Test Standard

EN 55035:2017/A11:2020 (EN IEC 61000-4-11)

### 5.12.3. Severity Levels and Performance Criterion

#### 5.12.3.1. Severity level

Test Level		
Voltage Reduction $\%U_T$	Voltage Dips $\%U_T$	Duration (in Period)
100	0	0.5
100	0	1
30	70	5
Voltage Reduction $\%U_T$	Voltage Dips $\%U_T$	Duration (in Period)
100	0	250

#### 5.12.3.2. Performance Criterion

Performance Criterion: B&C

### 5.12.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.12.1.

### 5.12.5. Operating Condition of EUT

5.12.5.1. Setup the EUT as shown in Section 5.12.1.

5.12.5.2. Turn on the power of all equipments.

5.12.5.3. Let the EUT work in test mode 1 and measure it.

### 5.12.6. Test Procedure

5.12.6.1. Set up the EUT and test generator as shown on Section 5.12.1.

5.12.6.2. The interruptions are introduced at selected phase angles with specified duration.

5.12.6.3. Record any degradation of performance.

### 5.12.7. Test Results

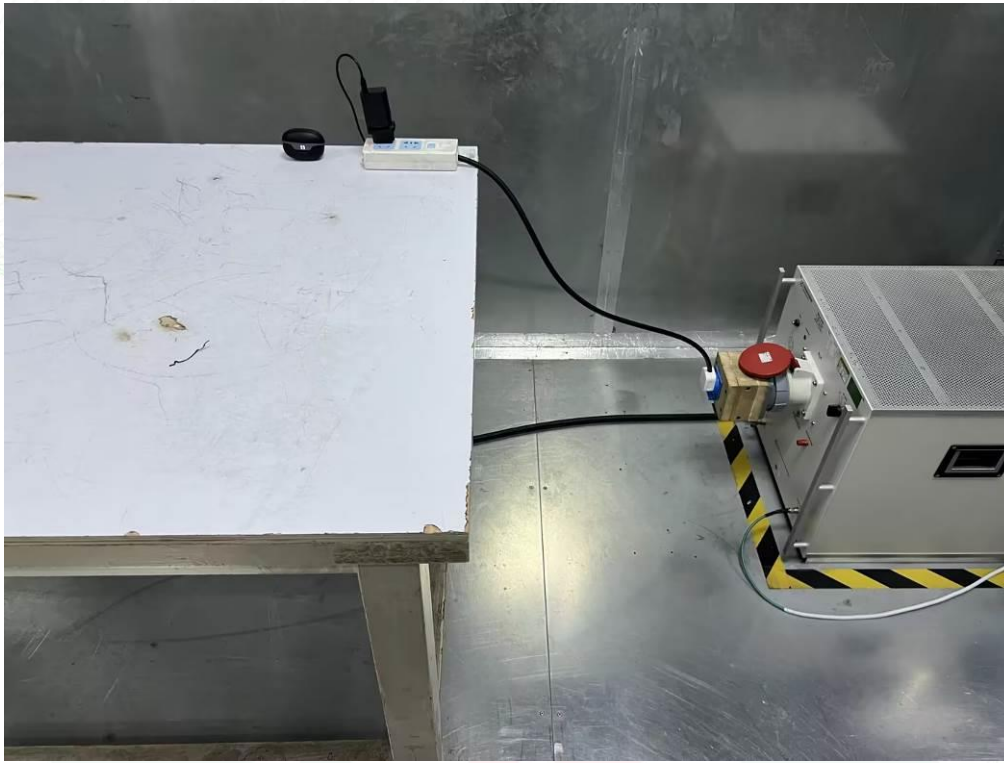
**PASS.**

Refer to attached Annexe B.12

## ANNEXE A

(Test photograph)

### A.1 Test Setup Photo of Power Line Conducted Measurement



### A.2 Test Setup Photo of Radiated Measurement (Below 1 GHz)



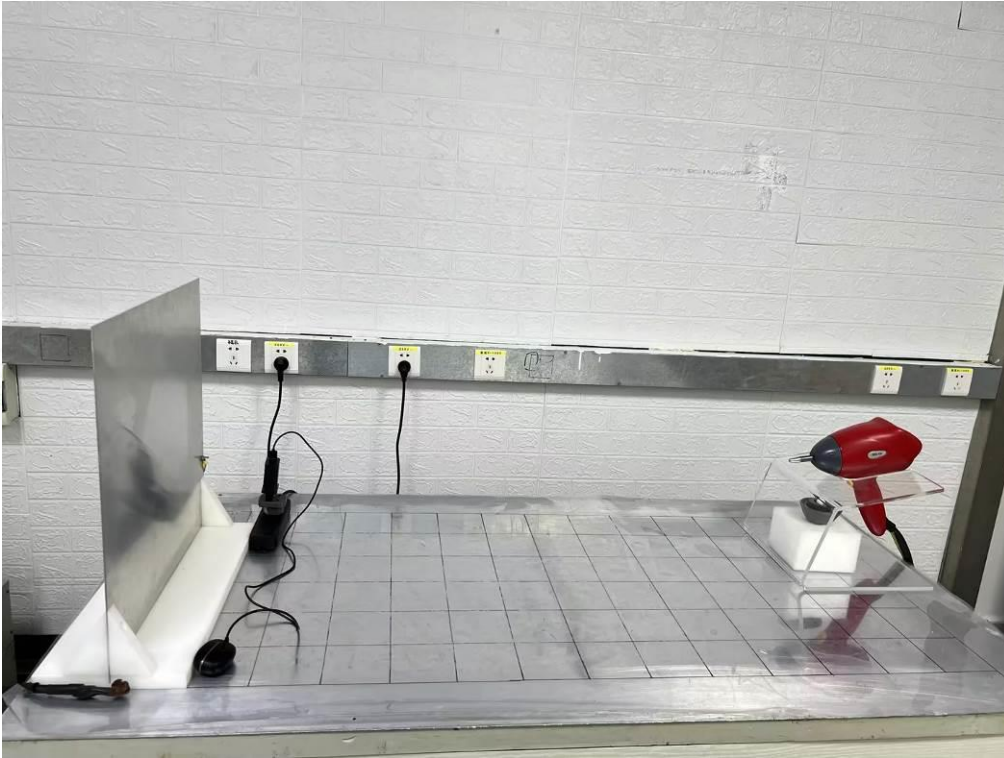
(Above 1 GHz)



### A.3 Test Setup Photo of Harmonic & Flicker Measurement



#### A.4 Test Setup Photo of Electrostatic Discharge Test



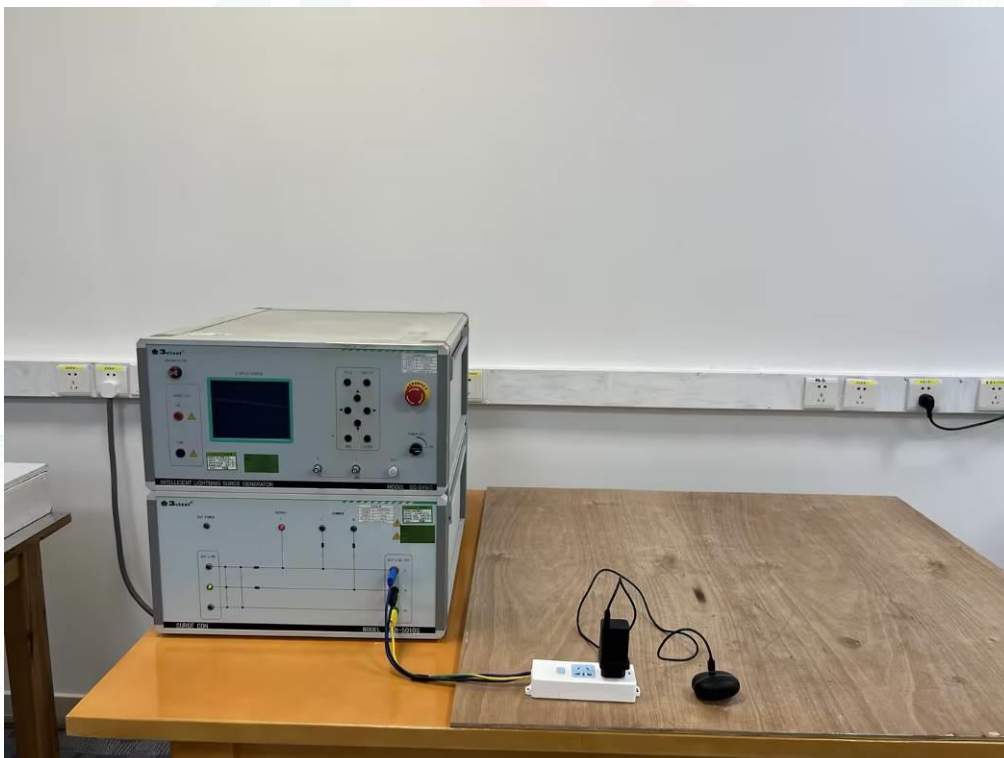
#### A.5 Test Setup Photo of RF Electromagnetic Field Measurement



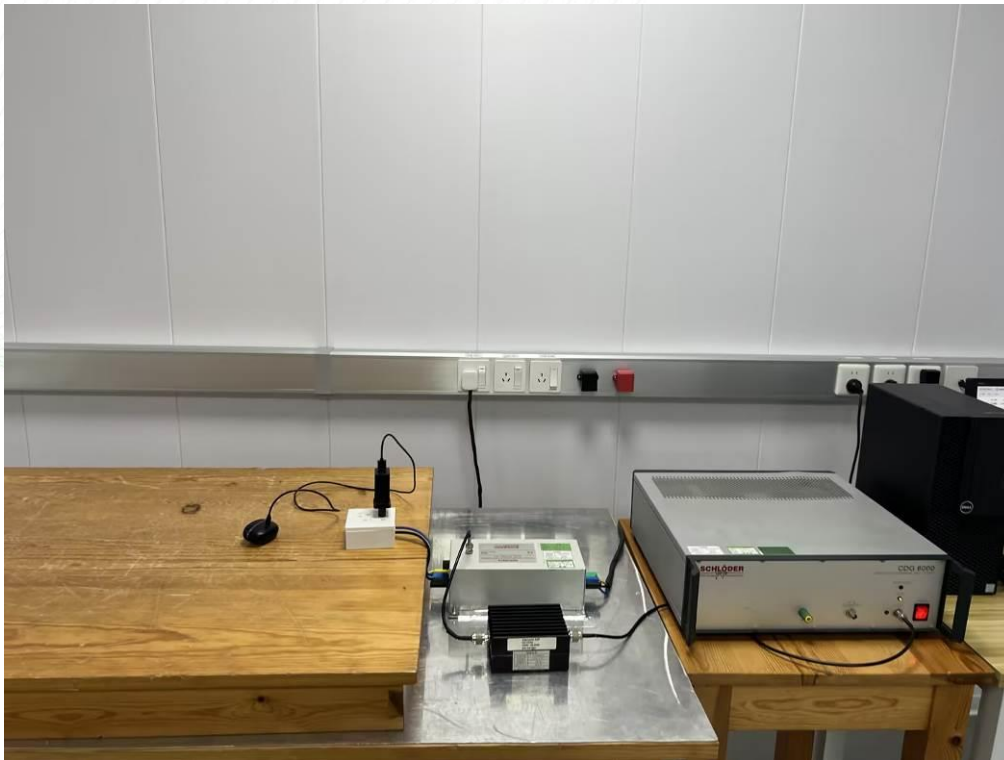
#### A.6 Photo of Electrical Fast Transient Burst Test



#### A.7 Photo of Surge Immunity Test



#### A.8 Test Setup Photo of Injected Currents Susceptibility Test



#### A.9 Test Setup Photo of Magnetic Field Immunity Test



## A.10 Test Setup Photo of Voltage Dips and Interruptions Test

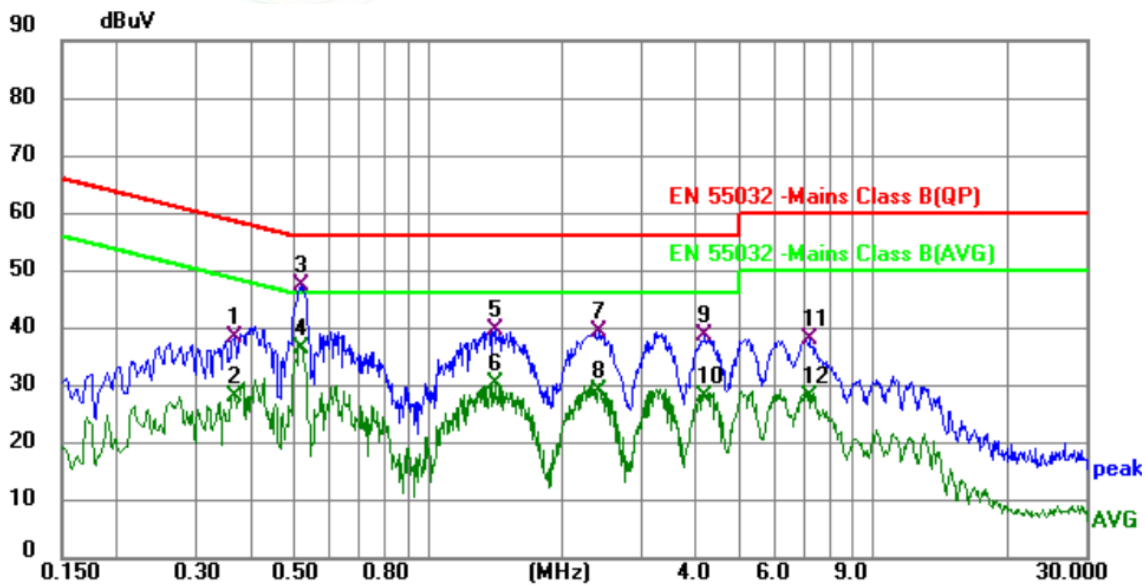


## ANNEXE B

(Emission and Immunity test results)

### B.1 POWER LINE CONDUCTED EMISSION MEASUREMENT

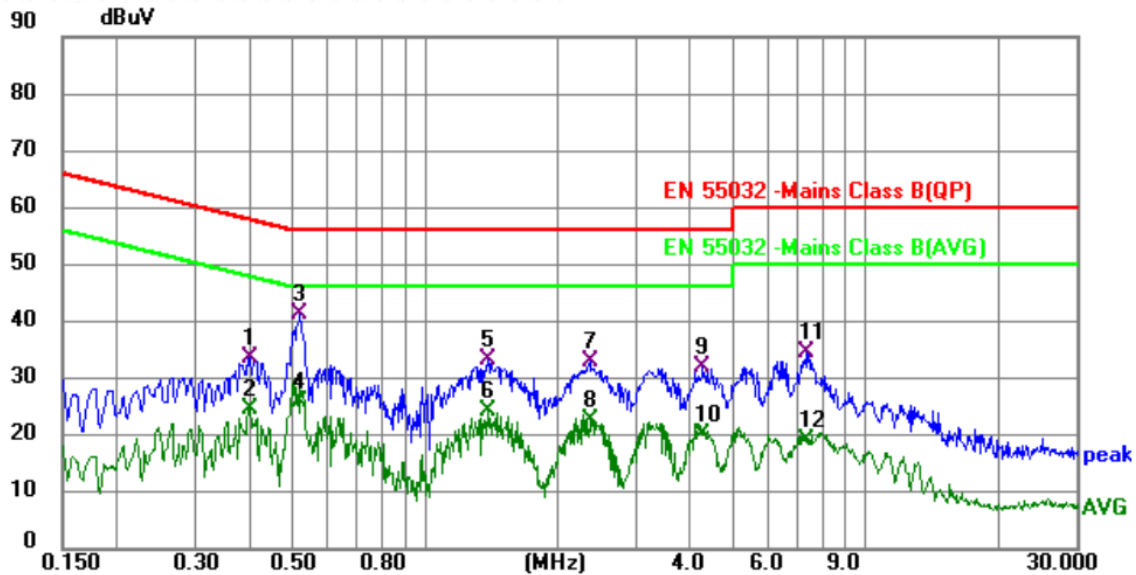
Environmental Conditions:	24.2°C, 53% RH
Test Voltage:	AC 230V,50Hz
Test Model:	Neo 1a
Test Mode:	Mode 1
Test Engineer:	Peng Dong
Pol:	Line
Detailed results are shown below	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3660	28.12	10.15	38.27	58.59	-20.32	QP
2	0.3660	18.10	10.15	28.25	48.59	-20.34	AVG
3 *	0.5140	37.22	10.15	47.37	56.00	-8.63	QP
4	0.5140	26.37	10.15	36.52	46.00	-9.48	AVG
5	1.4060	29.60	10.18	39.78	56.00	-16.22	QP
6	1.4060	20.10	10.18	30.28	46.00	-15.72	AVG
7	2.4100	29.27	10.21	39.48	56.00	-16.52	QP
8	2.4100	19.04	10.21	29.25	46.00	-16.75	AVG
9	4.1779	28.52	10.24	38.76	56.00	-17.24	QP
10	4.1779	17.95	10.24	28.19	46.00	-17.81	AVG
11	7.1420	27.66	10.30	37.96	60.00	-22.04	QP
12	7.1420	17.74	10.30	28.04	50.00	-21.96	AVG

Environmental Conditions:	24.2°C, 53% RH
Test Voltage:	AC 230V,50Hz
Test Model:	Neo 1a
Test Mode:	Mode 1
Test Engineer:	Peng Dong
Pol:	Neutral

Detailed results are shown below



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3980	23.55	10.19	33.74	57.90	-24.16	QP
2	0.3980	14.46	10.19	24.65	47.90	-23.25	AVG
3 *	0.5180	31.20	10.20	41.40	56.00	-14.60	QP
4	0.5180	15.69	10.20	25.89	46.00	-20.11	AVG
5	1.3740	22.94	10.20	33.14	56.00	-22.86	QP
6	1.3740	14.06	10.20	24.26	46.00	-21.74	AVG
7	2.3540	22.65	10.24	32.89	56.00	-23.11	QP
8	2.3540	12.38	10.24	22.62	46.00	-23.38	AVG
9	4.2300	21.67	10.24	31.91	56.00	-24.09	QP
10	4.2300	9.98	10.24	20.22	46.00	-25.78	AVG
11	7.3060	24.25	10.32	34.57	60.00	-25.43	QP
12	7.3060	8.79	10.32	19.11	50.00	-30.89	AVG

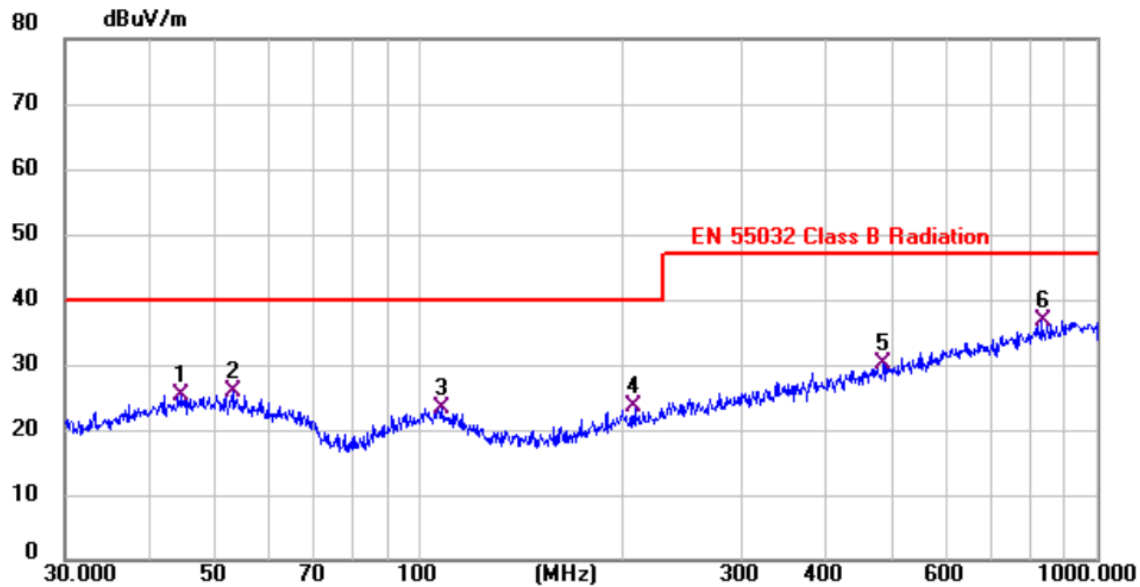
Note: For conducted emission and radiated emission test, a power supply of 230VAC and 120VAC was used for testing respectively, and only recorded the worst case of 230VAC.

Correct Factor= Lisen Factor+Cable Factor

Margin= Reading level + Correct factor – Limit

### B.3 Radiated Disturbance Test Results (30MHz to 1000MHz)

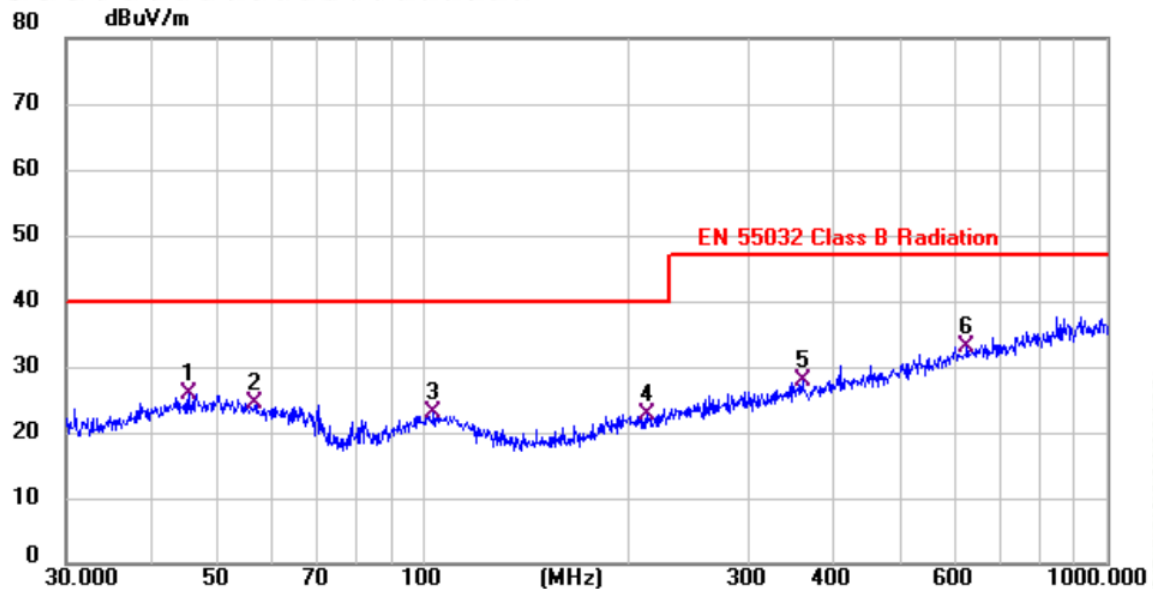
Environmental Conditions:	23.9℃, 53% RH
Test Voltage:	AC 230V, 50Hz
Test Model:	Neo 1a
Test Mode:	Mode 1
Test Engineer:	Peng Dong
Pol:	Horizontal
Detailed results are shown below	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	44.2946	4.93	20.45	25.38	40.00	-14.62	QP
2	53.0847	5.49	20.41	25.90	40.00	-14.10	QP
3	108.1244	4.61	18.65	23.26	40.00	-16.74	QP
4	207.9413	5.35	18.32	23.67	40.00	-16.33	QP
5	484.1216	5.44	24.67	30.11	47.00	-16.89	QP
6 *	830.4002	7.02	29.75	36.77	47.00	-10.23	QP

Environmental Conditions:	23.9°C, 53% RH
Test Voltage:	AC 230V,50Hz
Test Model:	Neo 1a
Test Mode:	Mode 1
Test Engineer:	Peng Dong
Pol:	Vertical

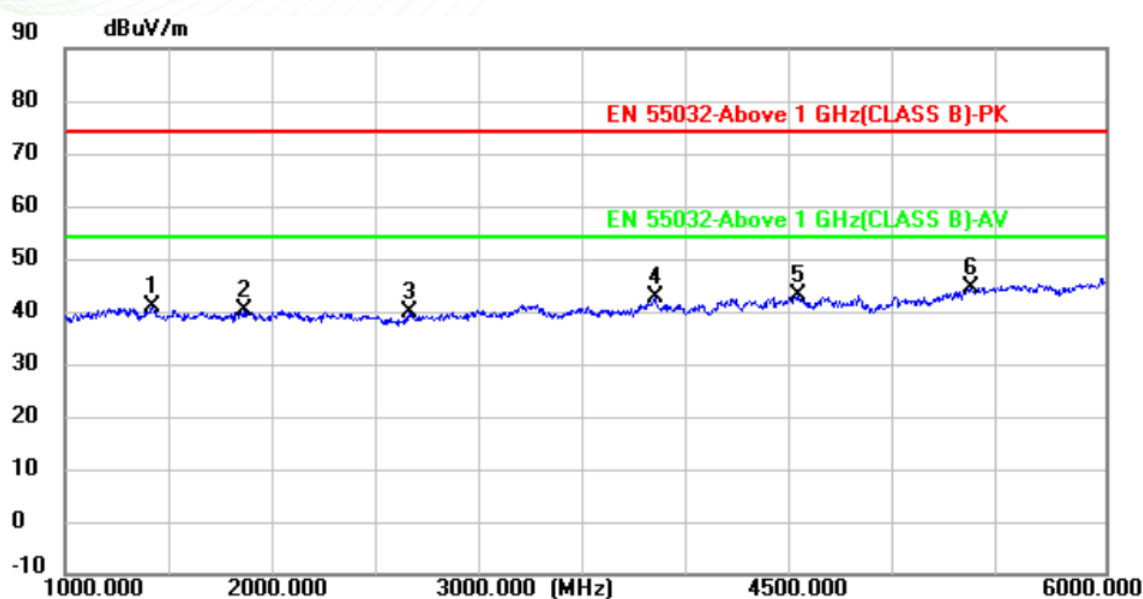
Detailed results are shown below



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	45.4750	5.32	20.51	25.83	40.00	-14.17	QP
2	56.9413	4.84	19.53	24.37	40.00	-15.63	QP
3	103.3515	4.22	18.74	22.96	40.00	-17.04	QP
4	211.7120	4.47	18.25	22.72	40.00	-17.28	QP
5	359.0285	5.39	22.56	27.95	47.00	-19.05	QP
6 *	623.1631	5.53	27.37	32.90	47.00	-14.10	QP

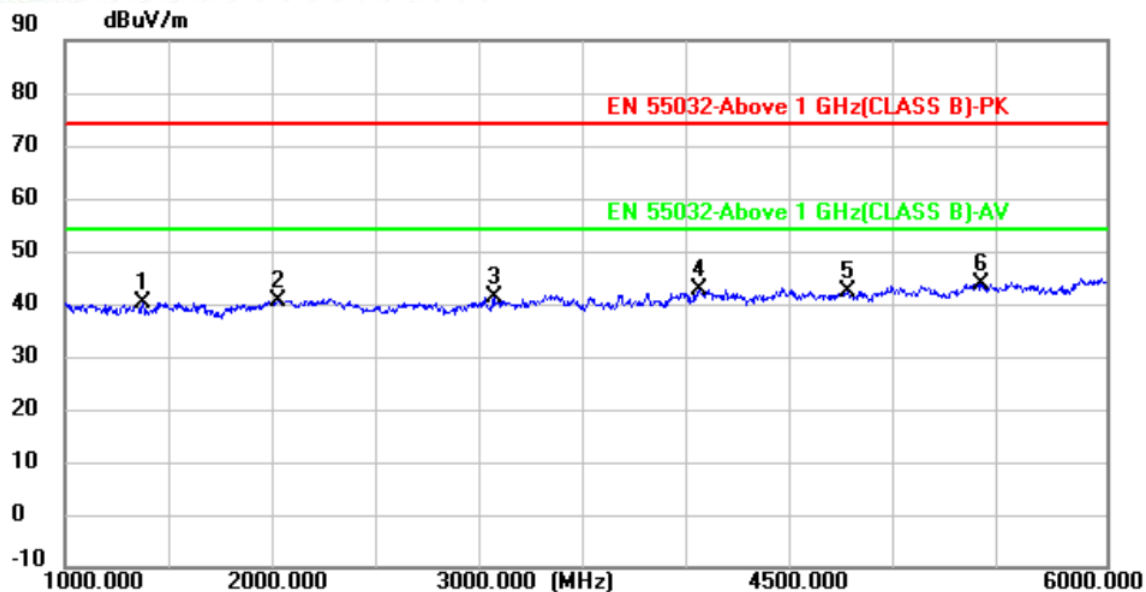
### Radiated Disturbance Test Results (Above 1GHz)

Environmental Conditions:	23.9℃, 53% RH
Test Voltage:	AC 230V,50Hz
Test Model:	Neo 1a
Test Mode:	Mode 1 (Above 1GHz)
Test Engineer:	Peng Dong
Detector Function:	Peak + AV
Pol:	Horizontal
Detailed results are shown below	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1420.0000	55.99	-15.19	40.80	74.00	-33.20	peak
2	1860.0000	53.92	-13.83	40.09	74.00	-33.91	peak
3	2655.0000	50.47	-10.81	39.66	74.00	-34.34	peak
4	3835.0000	51.37	-8.83	42.54	74.00	-31.46	peak
5	4520.0000	49.55	-6.48	43.07	74.00	-30.93	peak
6 *	5355.0000	47.82	-3.47	44.35	74.00	-29.65	peak

Environmental Conditions:	23.9℃, 53% RH
Test Voltage:	AC 230V,50Hz
Test Model:	Neo 1a
Test Mode:	Mode 1 (Above 1GHz)
Detector Function:	Peak + AV
Test Engineer:	Peng Dong
Pol:	Vertical
Detailed results are shown below	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1375.0000	55.40	-15.26	40.14	74.00	-33.86	peak
2	2025.0000	53.71	-13.01	40.70	74.00	-33.30	peak
3	3060.0000	50.77	-9.57	41.20	74.00	-32.80	peak
4	4045.0000	50.95	-8.37	42.58	74.00	-31.42	peak
5	4760.0000	47.56	-5.30	42.26	74.00	-31.74	peak
6 *	5400.0000	47.29	-3.38	43.91	74.00	-30.09	peak

Note:

1. Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
2. Measurements above show only up to 6 maximum emissions noted.
3. Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

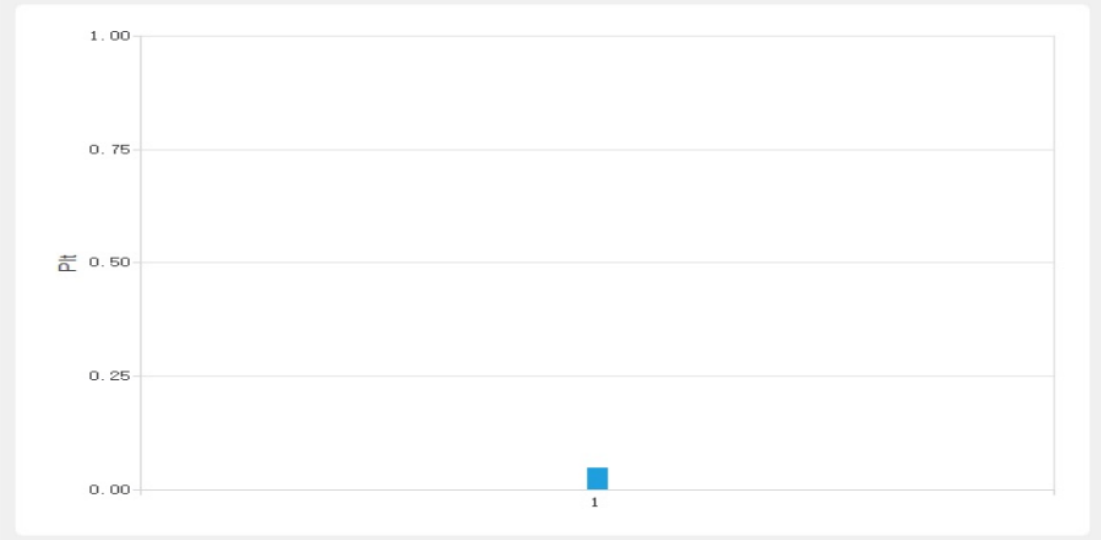
4. Margin= Reading level + Correct factor – Limit

Correct Factor=Antenna Factor+Cable Factor- Pre-amplifier Factor

## B.4 HARMONIC CURRENT EMISSION MEASUREMENT

Because power of EUT less than 75W, According standard EN 61000-3-2, Harmonic current unnecessary to test.

## B.5 VOLTAGE FLUCTUATION AND FLICKER MEASUREMENT

<b>Test Model</b>	Neo 1a	<b>Test Engineer</b>	Peng Dong																
<b>Test Voltage</b>	AC 230V/50Hz	<b>Environmental Conditions</b>	24.5°C, 55.7% RH																
<p>Test Result: <b>Pass</b>                      Status: Test Completed</p> <p>Load Power: 1.88                      Power Factor: 0.34</p> <p>Load Current: 23.82                      Crest Factor: 6.43</p> <p>Nominal Voltage: 230.78</p> <p>Pst and limit line                      European Limits</p> <div style="text-align: center;">  </div> <p>Result:</p> <table> <tr> <td>T-max(ms):</td><td>0.00ms</td><td>Test limit(ms): 500ms</td><td>pass</td></tr> <tr> <td>Highest dc(%):</td><td>0.00%</td><td>Test limit(%): 3.3%</td><td>pass</td></tr> <tr> <td>Highest dmax(%):</td><td>0.00%</td><td>Test limit(%): 4%</td><td>pass</td></tr> <tr> <td>Highest Pst (10 min. period):</td><td>0.05</td><td>Test limit:</td><td>1 pass</td></tr> </table>				T-max(ms):	0.00ms	Test limit(ms): 500ms	pass	Highest dc(%):	0.00%	Test limit(%): 3.3%	pass	Highest dmax(%):	0.00%	Test limit(%): 4%	pass	Highest Pst (10 min. period):	0.05	Test limit:	1 pass
T-max(ms):	0.00ms	Test limit(ms): 500ms	pass																
Highest dc(%):	0.00%	Test limit(%): 3.3%	pass																
Highest dmax(%):	0.00%	Test limit(%): 4%	pass																
Highest Pst (10 min. period):	0.05	Test limit:	1 pass																

## B.6 ELECTROSTATIC DISCHARGE IMMUNITY TEST

Electrostatic Discharge Test Results			
Standard	<input type="checkbox"/> IEC 61000-4-2 <input checked="" type="checkbox"/> EN 61000-4-2		
Applicant	Shenzhen Huafurui Technology Co., Ltd.		
EUT	Wireless Earphone	Temperature	22.3℃
M/N	Neo 1a	Humidity	52.4% .....
Criterion	B	Pressure	1021mbar
Test Mode	Mode 1	Test Engineer	Peng Dong

Air Discharge							
Test Points	Test Levels			Results			
	± 2kV	± 4kV	± 8kV	Passed	Fail	Performance Criterion	
Front	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B
Back	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B
Left	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B
Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B
Top	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B
Bottom	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B
Contact Discharge							
Test Points	Test Levels		Results				
	± 2 kV	±4 kV	Passed	Fail	Performance Criterion		
Front	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Back	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Left	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Top	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Bottom	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Discharge To Horizontal Coupling Plane							
Side of EUT	Test Levels		Results				
	± 2 kV	± 4 kV	Passed	Fail	Performance Criterion		
Front	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Back	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Left	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Discharge To Vertical Coupling Plane							
Side of EUT	Test Levels		Results				
	± 2 kV	± 4 kV	Passed	Fail	Performance Criterion		
Front	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Back	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Left	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	

## B.7 RF FIELD STRENGTH SUSCEPTIBILITY TEST

RF Field Strength Susceptibility Test Results			
<b>Standard</b>	<input type="checkbox"/> IEC 61000-4-3 <input checked="" type="checkbox"/> EN 61000-4-3		
<b>Applicant</b>	Shenzhen Huafurui Technology Co., Ltd.		
<b>EUT</b>	Wireless Earphone	<b>Temperature</b>	23.2℃
<b>M/N</b>	Neo 1a	<b>Humidity</b>	52.2%
<b>Field Strength</b>	3 V/m	<b>Criterion</b>	A
<b>Test Mode</b>	Mode 1	<b>Test Engineer</b>	Peng Dong
<b>Test Frequency</b>	80MHz to 1000MHz (swept test) 1800MHz, 2600MHz, 3500MHz, 5000MHz (spot test)		
<b>Modulation</b>	<input type="checkbox"/> None <input type="checkbox"/> Pulse <input checked="" type="checkbox"/> AM 1KHz 80%		
<b>Steps</b>	1%		

	Horizontal	Vertical
<b>Front</b>	PASS	PASS
<b>Right</b>	PASS	PASS
<b>Rear</b>	PASS	PASS
<b>Left</b>	PASS	PASS

### Test Equipment:

1. Signal Generator: 2031 (MARCONI)
2. Power Amplifier: 500A100 & 100W/1000M1 (A&R)
3. Power Antenna: 3108 (EMCO) & AT1080 (A&R)
4. Field Monitor: FM2000 (A&R)

### Note:

## B.8 ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

### Electrical Fast Transient/Burst Test Results

<b>Standard</b>	<input type="checkbox"/> IEC 61000-4-4 <input checked="" type="checkbox"/> EN 61000-4-4		
<b>Applicant</b>	Shenzhen Huafurui Technology Co., Ltd.		
<b>EUT</b>	Wireless Earphone	<b>Temperature</b>	22.5℃
<b>M/N</b>	Neo 1a	<b>Humidity</b>	52.4%
<b>Test Mode</b>	Mode 1	<b>Criterion</b>	B
<b>Test Engineer</b>	Peng Dong		

Line	Test Voltage	Result (+)	Result (-)
L	1KV	PASS	PASS
N	1KV	PASS	PASS
L-N	1KV	PASS	PASS
L-PE			
N-PE			
L-N-PE			
Signal Line			
I/O Cable			

Note:

**B.9 SURGE IMMUNITY TEST**

Surge Immunity Test Result			
<b>Standard</b>	<input type="checkbox"/> IEC 61000-4-5 <input checked="" type="checkbox"/> EN 61000-4-5		
<b>Applicant</b>	Shenzhen Huafurui Technology Co., Ltd.		
<b>EUT</b>	Wireless Earphone	<b>Temperature</b>	23.8°C
<b>M/N</b>	Neo 1a	<b>Humidity</b>	52.7%
<b>Test Mode</b>	Mode 1	<b>Criterion</b>	B
<b>Test Engineer</b>	Peng Dong		

Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (KV)	Result
L-N	+	0°, 90°, 180°, 270°	5	1.0	PASS
	-	0°, 90°, 180°, 270°	5	1.0	PASS
L-PE					
N-PE					
Signal Line					
Note					

**B.10 INJECTED CURRENTS SUSCEPTIBILITY TEST**

Injected Currents Susceptibility Test Results			
Standard	<input type="checkbox"/> IEC 61000-4-6 <input checked="" type="checkbox"/> EN 61000-4-6		
Applicant	Shenzhen Huafurui Technology Co., Ltd.		
EUT	Wireless Earphone	Temperature	21.7℃
M/N	Neo 1a	Humidity	53.6%
Test Mode	Mode 1	Criterion	A
Test Engineer	Peng Dong		

Frequency Range (MHz)	Injected Position	Strength (Unmodulated)	Criterion	Result
0.15 ~ 80	AC Mains	3V	A	PASS

Remark:

1. Modulation Signal:1kHz 80% AM

Note:

## B.11 MAGNETIC FIELD SUSCEPTIBILITY TEST

Magnetic Field Immunity Test Result			
<b>Standard</b>	<input type="checkbox"/> IEC 61000-4-8 <input checked="" type="checkbox"/> EN 61000-4-8		
<b>Applicant</b>	Shenzhen Huafurui Technology Co., Ltd.		
<b>EUT</b>	Wireless Earphone	<b>Temperature</b>	23.6℃
<b>M/N</b>	Neo 1a	<b>Humidity</b>	54.2%
<b>Test Mode</b>	Mode 1	<b>Criterion</b>	A
<b>Test Engineer</b>	Peng Dong		

Test Level (A/M)	Testing Duration	Coil Orientation	Criterion	Result
1	5 mins	X	A	PASS
1	5 mins	Y	A	PASS
1	5 mins	Z	A	PASS

Note:

## B.12 VOLTAGE DIPS AND INTERRUPTIONS TEST

Voltage Dips And Interruptions Test Results			
<b>Standard</b>	<input type="checkbox"/> IEC 61000-4-11 <input checked="" type="checkbox"/> EN 61000-4-11		
<b>Applicant</b>	Shenzhen Huafurui Technology Co., Ltd.		
<b>EUT</b>	Wireless Earphone	<b>Temperature</b>	24.3℃
<b>M/N</b>	Neo 1a	<b>Humidity</b>	53.5%
<b>Test Mode</b>	Mode 1	<b>Criterion</b>	B&C
<b>Test Engineer</b>	Peng Dong		

Test Level % U <sub>T</sub>	Voltage Dips & Short Interruptions % U <sub>T</sub>	Duration (in periods)	Criterion	Result
0	100	0.5P	B	PASS
70	30	25P	C	PASS
0	100	250P	C	PASS

Note:

## 6. PHOTOGRAPHS OF THE EUT

Please refer to separated files Appendix C for Photographs of The EUT.

----- THE END OF TEST REPORT -----

