



EMC TEST REPORT

Report reference No..... : CCTI-2021111210E

Date of issue : Nov. 17, 2021

Total number of pages..... : 31

Testing Laboratory name..... : Shenzhen CCTI Technology Co., Ltd.

Address..... : 7th Floor, Block A, Building E, Yongwei Industrial Park, No. 118,
Yongfu Road, Qiaotou, Fuhai Street, Bao'an District, Shenzhen,
Guangdong, China

Applicant's name : Jinhua Feimi Intelligent Technology Co.,Ltd

Address..... : No.252, Chengxin Road ,Yongkang Economic Development Zone,
Yongkang city, Zhejiang Province.

Test specification

Standard..... : EN IEC 61000-6-3:2021
EN IEC 61000-6-1:2019
EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019
EN 61000-4-2:2009, EN 61000-4-3:2006+A1:2009+A2:2010
EN 61000-4-4:2012, EN 61000-4-5:2014+A1:2017
EN 61000-4-6:2014/AC:2015
EN 61000-4-8:2010, EN 61000-4-11:2004+A1:2017

Test procedure : CE-EMC

Test Result : Pass

Test Report Form No..... : --

TRF Originator : CCTI testing

Master TRF : Dated 2018-03

This device described above has been tested by CCTI, and the test results show that the equipment under test (EUT) is in compliance with the EMC Directive 2014/30/EU requirements. The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only.

The document is issued by CCTI, may be altered or revised by CCTI, personal only, and shall be noted in the revision of the document. This document cannot be reproduced except in full with our prior written permission.

Test item description : Electric Scooter

Trademark : N/A

Manufacturer's name : Shenzhen City Heng Zhi He Technology Co.Ltd

Address..... : 4F4006, Shenzhou Computer Building, Madame Curie Avenue,
Wankecheng Community, Bantian Street, Longgang District,
Shenzhen, Guangdong, China

Model and/or type reference..... : G2 Pro

Rating(s) : For adapter: Input: 100V-240V~ 50/60 Hz, 3.0 A
Output: 54.6V== 2.0A, Class II
Electric vehicle input : 48V== 15A

Testing procedure and testing location:**Testing Laboratory.....: Shenzhen CCTI Technology Co., Ltd.****Address.....: 7th Floor, Block A, Building E, Yongwei Industrial Park,
No. 118, Yongfu Road, Qiaotou, Fuhai Street, Bao'an
District, Shenzhen, Guangdong, China.**
-----**Date of Test.....: Nov. 09, 2021 to Nov. 17, 2021**
-----**Tested by (name + signature).....: Nick Chan**
-----**Reviewed by (name + signature).....: Sandy Wang**
-----**Approved by (name + signature).....: Corey Mao**
-----

中鉴检测
CCTI TESTING

TABLE OF CONTENT

Test Report Declaration	Page
1. GENERAL INFORMATION.....	5
1.1. Description of Device (EUT).....	5
1.2. Test Facility.....	5
1.3. Tested System Details.....	5
1.4. Test Uncertainty.....	5
2. TEST INSTRUMENT USED.....	6
3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST.....	8
3.1. Block Diagram Of Test Setup.....	8
3.2. Test Standard.....	8
3.3. Power Line Conducted Emission Limit.....	8
3.4. EUT Configuration on Test.....	8
3.5. Operating Condition of EUT.....	8
3.6. Test Procedure.....	9
3.7. Test Result.....	9
4. RADIATION EMISSION TEST.....	12
4.1. Block Diagram of Test Setup.....	12
4.2. Test Standard.....	12
4.3. Radiation Limit.....	12
4.4. EUT Configuration on Test.....	13
4.5. Operating Condition of EUT.....	13
4.6. Test Procedure.....	13
4.7. Test Result.....	13
5. HARMONIC CURRENT EMISSION TEST.....	16
5.1. Block Diagram of Test Setup.....	16
5.2. Test Standard.....	16
5.3. Operating Condition of EUT.....	16
5.4. Test Procedure.....	16
5.5. Test Results.....	16
6. VOLTAGE FLUCTUATIONS & FLICKER TEST.....	17
6.1. Block Diagram of Test Setup.....	17
6.2. Test Standard.....	17
6.3. Operating Condition of EUT.....	17
6.4. Test Procedure.....	17
6.5. Test Results.....	17
7. ELECTROSTATIC DISCHARGE IMMUNITY TEST.....	18
7.1. Block Diagram of Test Setup.....	18
7.2. Test Standard.....	18
7.3. Severity Levels and Performance Criterion.....	18
7.4. EUT Configuration.....	19
7.5. Operating Condition of EUT.....	19
7.6. Test Procedure.....	19
7.7. Test Results.....	20
8. RF FIELD STRENGTH SUSCEPTIBILITY TEST.....	21
8.1. Block Diagram of Test Setup.....	21
8.2. Test Standard.....	21
8.3. Severity Levels and Performance Criterion.....	21
8.4. EUT Configuration on Test.....	22
8.5. Operating Condition of EUT.....	22

8.6.	Test Procedure.....	22
8.7.	Test Results.....	23
9.	ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST.....	24
9.1.	Block Diagram of EUT Test Setup.....	24
9.2.	Test Standard.....	24
9.3.	Severity Levels and Performance Criterion.....	24
9.4.	EUT Configuration on Test.....	25
9.5.	Operating Condition of EUT.....	25
9.6.	Test Procedure.....	25
9.7.	Test Results.....	25
10.	EUT PHOTOGRAPHS.....	26
11.	EUT TEST PHOTOGRAPHS.....	31



1. GENERAL INFORMATION

1.1 Description of Device (EUT)

EUT : Electric Scooter

Trademark : N/A

Model Number : G2 Pro

Serial Model : N/A

Model Difference : N/A

Power Supply : For adapter: Input: 100V-240V~ 50/60 Hz, 3.0 A
Output: 54.6V $\equiv$ 2.0A, Class II
Electric vehicle input : 48V $\equiv$ 15A

1.2. Test Facility

Shenzhen CCTI Technology Co., Ltd.
7th Floor, Block A, Building E, Yongwei Industrial Park, No. 118, Yongfu Road,
Qiaotou, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China.

1.3. Tested System Details

None.

1.4. Test Uncertainty

Conducted Emission : $\pm 2.66\text{dB}$
Uncertainty

Radiated Emission Uncertainty : $\pm 4.26\text{dB}$

2. TEST INSTRUMENT USED

For Conducted Emission at the mains terminals Test

Conducted Emission Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Mar. 11, 2021	Mar. 12, 2022
EMI Receiver	R&S	ESCI	101421	Mar. 11, 2021	Mar. 12, 2022
LISN	Schwarzbeck	NSLK8127	8127739	Mar. 11, 2021	Mar. 12, 2022
Attenuator	R&S	ESH3-Z2	CCTI021E	Mar. 11, 2021	Mar. 12, 2022
843 Cable 1#	FUJIKURA	843C1#	001	Mar. 11, 2021	Mar. 12, 2022

For Conducted Emission at the telecom port Test

Conducted Emission Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Mar. 11, 2021	Mar. 12, 2022
EMI Receiver	R&S	ESCI	101421	Mar. 11, 2021	Mar. 12, 2022
Coupling/ Decoupling Network	PH	ISN T800	S1509001	Mar. 11, 2021	Mar. 12, 2022
Attenuator	R&S	ESH3-Z2	CCTI021E	Mar. 11, 2021	Mar. 12, 2022
843 Cable 1#	FUJIKURA	843C1#	001	Mar. 11, 2021	Mar. 12, 2022

For Radiated Emission Test

Radiation Emission Test (966 chamber)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	Mar. 11, 2021	Mar. 12, 2022
Spectrum Analyzer	Agilent	E4407B	MY45109572	Mar. 11, 2021	Mar. 12, 2022
Amplifier	Schwarzbeck	BBV9743	9743-119	Mar. 11, 2021	Mar. 12, 2022
Amplifier	Schwarzbeck	BBV9718	9718-270	Mar. 11, 2021	Mar. 12, 2022
Log-periodic Antenna	Schwarzbeck	VULB9160	VULB9160-3369	Mar. 11, 2021	Mar. 12, 2022
EMI Receiver	R&S	ESCI	101421	Mar. 11, 2021	Mar. 12, 2022
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1275	Mar. 11, 2021	Mar. 12, 2022
966 Cable 1#	CHENGYU	966	004	Mar. 11, 2021	Mar. 12, 2022
966 Cable 2#	CHENGYU	966	003	Mar. 11, 2021	Mar. 12, 2022

For Harmonic & Flicker Test

For Harmonic / Flicker Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Harmonic / Flicker Analyzer	KIKUSUI	KHA1000	VA002445	Mar. 11, 2021	Mar. 12, 2022
AC Power Supply	KIKUSUI	PCR4000M	UK001879	Mar. 11, 2021	Mar. 12, 2022
Line Impedance network	KIKUSUI	LIN1020JF	UL001611	Mar. 11, 2021	Mar. 12, 2022

For Electrostatic Discharge Immunity Test

For Electrostatic Discharge Immunity Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
ESD Tester	KIKISUI	KES4201A	UH002321	Mar. 11, 2021	Mar. 12, 2022

For RF Field Strength Susceptibility Test(SMQ)

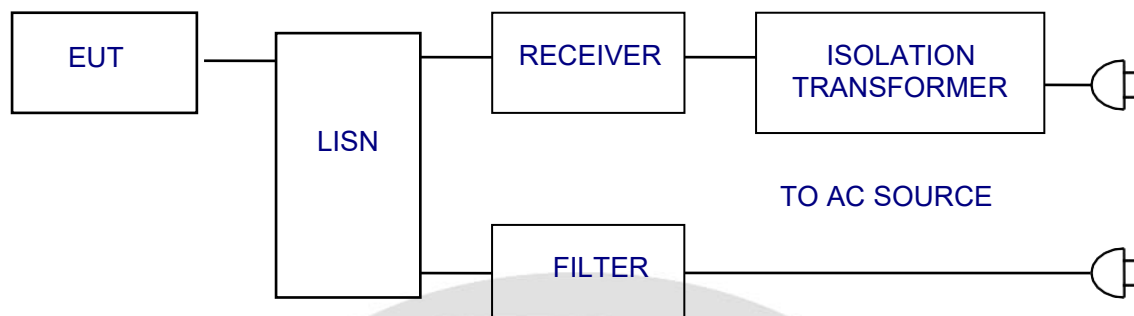
For RF Field Strength Susceptibility Test (SMQ --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Signal Generator	HP	8648A	3625U00573	Mar. 11, 2021	Mar. 12, 2022
Amplifier	A&R	500A100	17034	Mar. 11, 2021	Mar. 12, 2022
Amplifier	A&R	100W/1000M1	17028	Mar. 11, 2021	Mar. 12, 2022
Audio Analyzer (20Hz~1GHz)	Panasonic	2023B	202301/428	Mar. 11, 2021	Mar. 12, 2022
Isotropic Field Probe	A&R	FP2000	16755	Mar. 11, 2021	Mar. 12, 2022
Antenna	EMCO	3108	9507-2534	Mar. 11, 2021	Mar. 12, 2022
Log-periodic Antenna	A&R	AT1080	16812	Mar. 11, 2021	Mar. 12, 2022

For Electrical Fast Transient /Burst Immunity Test

For Electrical Fast Transient/Burst Immunity Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Burst Tester	Prima	EFT61004AG	PR14054467	Mar. 11, 2021	Mar. 12, 2022
Coupling Clamp	Prima	EFT61004AG	CCTI009E	Mar. 11, 2021	Mar. 12, 2022

3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1 Block Diagram Of Test Setup



3.2 Test Standard

EN IEC 61000-6-3:2021

3.3 Power Line Conducted Emission Limit

Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

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

3.4 EUT Configuration on Test

The following equipments are installed on conducted emission test to meet EN 55032 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT and simulators as shown in Section 3.1.
- 3.5.2 Turn on the power of all equipments.
- 3.5.3 Let the EUT work in test modes and test it.

3.6 Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the EN 55032 regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 10KHz.

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

3.7 Test Result

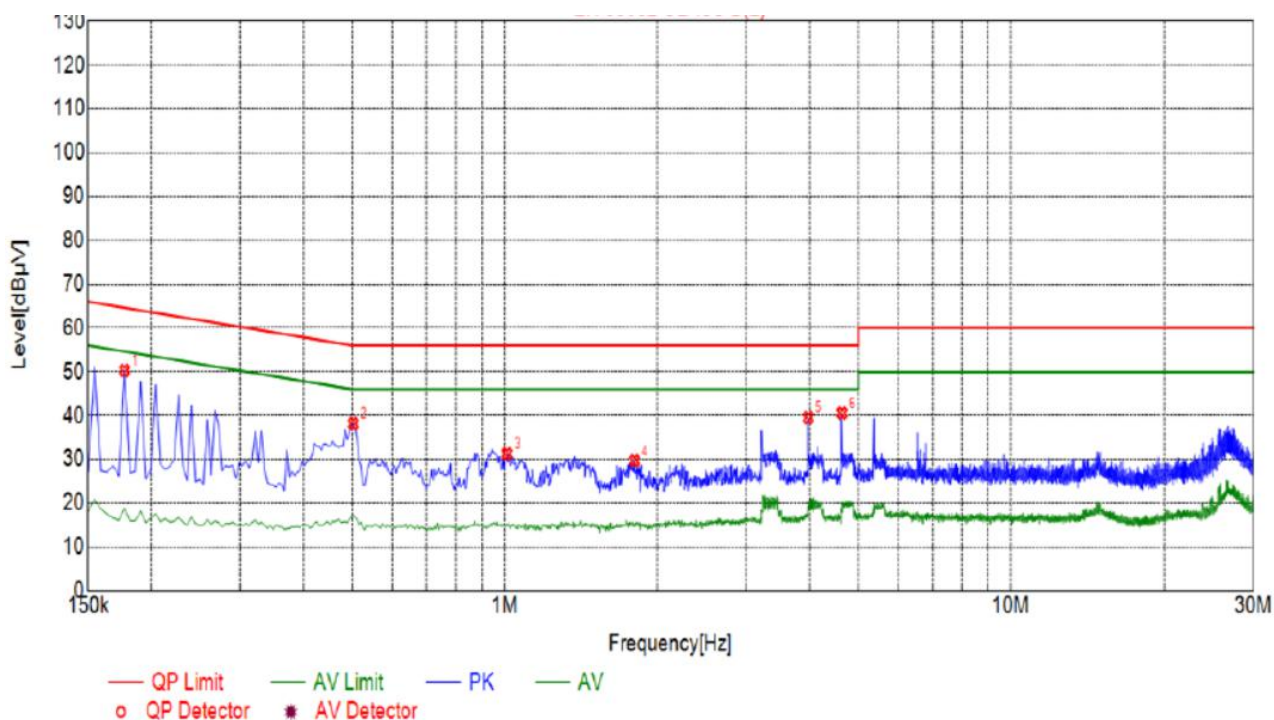
PASS

Please refer to the following page.



Conducted Emission At The Mains Terminals Test Data

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Line
Test Voltage :	DC 48V From Power Adapter Input AC 230V/50Hz	Test Mode:	Working

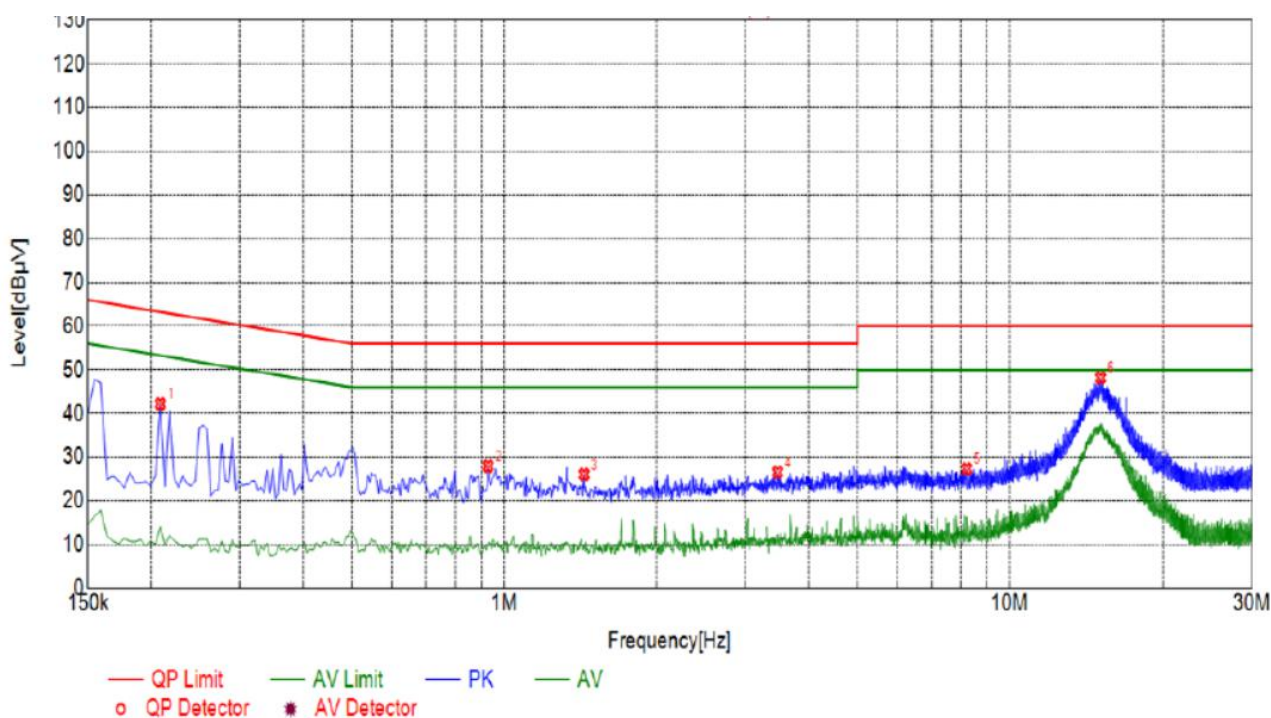


Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1770	50.31	20.05	64.63	14.32	30.26	PK	L
2	0.5010	38.18	20.04	56.00	17.82	18.14	PK	L
3	1.0095	31.30	20.06	56.00	24.70	11.24	PK	L
4	1.8015	29.70	20.14	56.00	26.30	9.56	PK	L
5	3.9795	39.56	20.25	56.00	16.44	19.31	PK	L
6	4.6410	40.58	20.26	56.00	15.42	20.32	PK	L

Conducted Emission At The Mains Terminals Test Data

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Neutral
Test Voltage :	DC 48V From Power Adapter Input AC 230V/50Hz	Test Mode:	Working

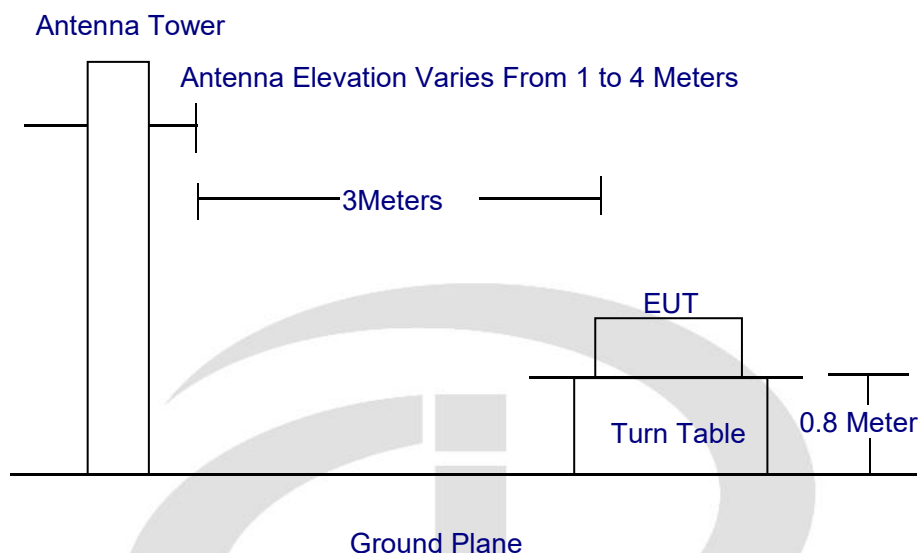


Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.2085	42.18	20.04	63.26	21.08	22.14	PK	N
2	0.9285	27.95	20.06	56.00	28.05	7.89	PK	N
3	1.4370	26.07	20.10	56.00	29.93	5.97	PK	N
4	3.4755	26.56	20.25	56.00	29.44	6.31	PK	N
5	8.2230	27.33	20.14	60.00	32.67	7.19	PK	N
6	15.1350	48.16	19.96	60.00	11.84	28.20	PK	N

4. RADIATION EMISSION TEST

4.1 Block Diagram of Test Setup



4.2 Test Standard

EN IEC 61000-6-3:2021

4.3 Radiation Limit

Equipment type	Source	Frequency MHz	Limit values dB(μV/m) Quasi-peak
Television receivers, video recorders and PC tuner cards	Local oscillator	≤1 000 30 to 300 300 to 1 000	Fundamental 57 Harmonics 52 Harmonics 56
	Other	30 to 300 300 to 1 000	40 47
Television and sound receivers for broadcast satellite transmissions(except outdoor units),Infrared remote control units and Infrared headphone systems	Other	30 to 300	40
		300 to 1 000	47
Frequency modulation sound receivers and PC tuner cards	Local oscillator	≤1 000 30 to 300 300 to 1 000	Fundamental 57 Harmonics 52 Harmonics 56
	Other	30 to 300 300 to 1 000	40 47

4.4 EUT Configuration on Test

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

The configuration of EUT is the same as used in conducted emission test. Please refer to Section 2.2.

4.5 Operating Condition of EUT

Same as conducted emission test, which is listed in Section 2.2 except the test set up replaced as Section 4.1.

4.6 Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to EN 55032 on radiated emission test.

The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz below 1GHz, set at 1MHz above 1GHz

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

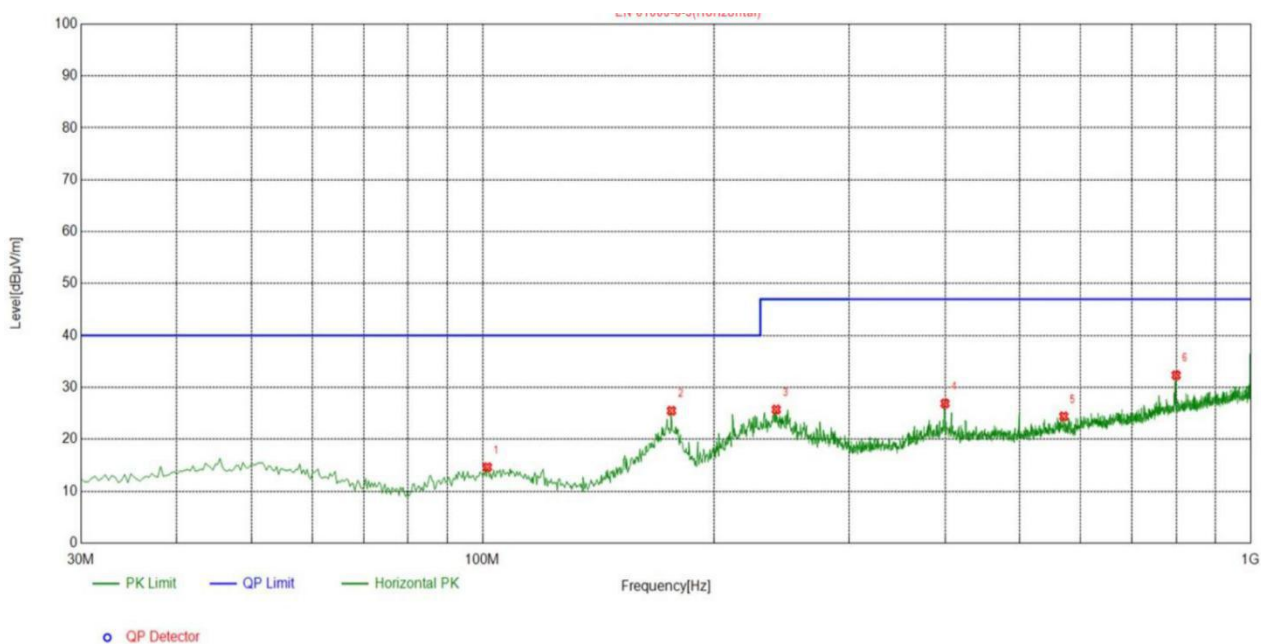
4.7 Test Result

PASS

Please refer to the following page.

Radiation Emission Test Data

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	DC 48VFrom Power Adapter Input AC 230V/50Hz	Test Mode:	Running

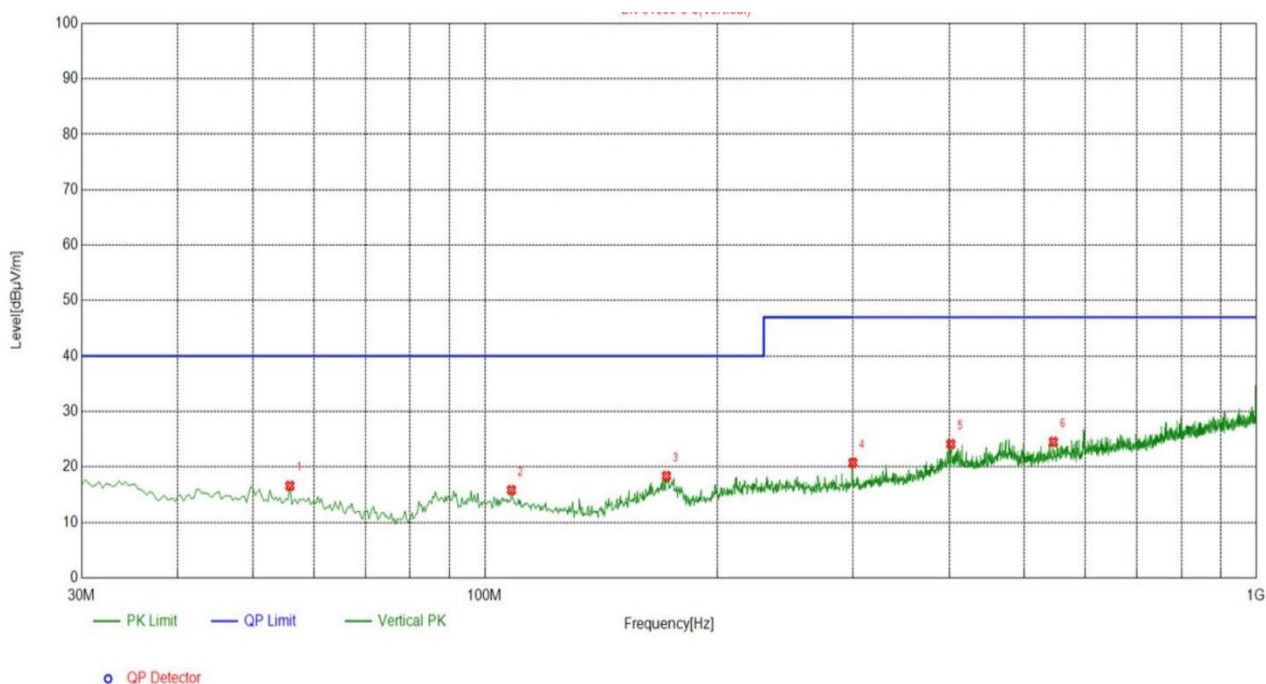


Suspected List

NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	101.4805	-15.40	30.01	14.61	40.00	25.39	100	312	Horizontal
2	176.1954	-17.02	42.50	25.48	40.00	14.52	100	230	Horizontal
3	241.2071	-13.80	39.52	25.72	47.00	21.28	100	302	Horizontal
4	400.0167	-10.40	37.30	26.90	47.00	20.10	100	348	Horizontal
5	571.1170	-6.42	30.82	24.40	47.00	22.60	100	0	Horizontal
6	799.7899	-3.12	35.46	32.34	47.00	14.66	100	97	Horizontal

Radiation Emission Test Data

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	DC 48VFrom Power Adapter Input AC 230V/50Hz	Test Mode:	Running

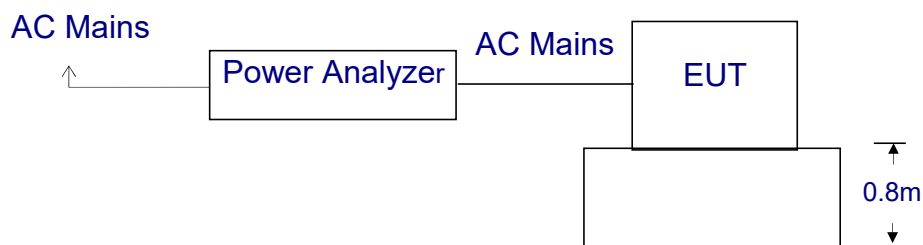


Suspected List

NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	55.8753	-14.54	31.13	16.59	40.00	23.41	100	324	Vertical
2	108.2728	-15.42	31.23	15.81	40.00	24.19	100	267	Vertical
3	171.9907	-17.21	35.56	18.35	40.00	21.65	100	156	Vertical
4	300.0734	-12.73	33.45	20.72	47.00	26.28	100	328	Vertical
5	401.9573	-10.37	34.48	24.11	47.00	22.89	100	360	Vertical
6	545.8886	-7.06	31.58	24.52	47.00	22.48	100	296	Vertical

5. HARMONIC CURRENT EMISSION TEST

5.1 Block Diagram of Test Setup



5.2 Test Standard

EN IEC 61000-3-2:2019

5.3 Operating Condition of EUT

- 5.3.1 Setup the EUT as shown in Section 5.1.
- 5.3.2 Turn on the power of all equipments.
- 5.3.3 Let the EUT work in test mode and test it.

5.4 Test Procedure

The power cord of the EUT is connected to the output of the test system. Turn on the power of the EUT and use the test system to test the harmonic current level.

5.5 Test Results

The EUT is powered by the DC only, the test item is not applicable.

6. VOLTAGE FLUCTUATIONS & FLICKER TEST

6.1 Block Diagram of Test Setup

Same as Section 5.1..

6.2 Test Standard

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

6.3 Operating Condition of EUT

Same as Section 5.3.. The power cord of the EUT is connected to the output of the test system. Turn on the power of the EUT and use the test system to test the harmonic current level.

Flicker Test Limit

Test items	Limits
Pst	1.0
dc	3.3%
dmax	4.0%
dt	Not exceed 3.3% for 500ms

6.4 Test Procedure

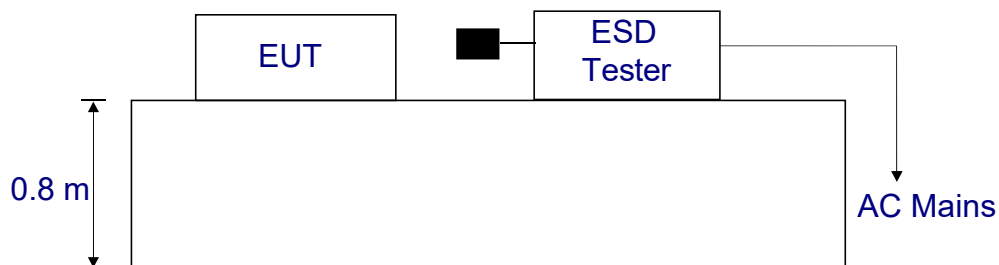
The power cord of the EUT is connected to the output of the test system. Turn on the power of the EUT and use the test system to test the harmonic current level.

6.5 Test Results

The EUT is powered by the DC only, the test item is not applicable.

7. ELECTROSTATIC DISCHARGE IMMUNITY TEST

7.1 Block Diagram of Test Setup



7.2 Test Standard

EN IEC 61000-6-1:2019, EN 61000-4-2:2009

Severity Level: 3 / Air Discharge: $\pm 8\text{KV}$

Level: 2 / Contact Discharge: $\pm 4\text{KV}$

7.3 Severity Levels and Performance Criterion

7.3.1 Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	± 2	± 2
2.	± 4	± 4
3.	± 6	± 8
4.	± 8	± 15
X	Special	Special

7.3.2 Performance criterion : B

A. The apparatus shall continue to operate as intended during and after the test.

No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.

B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance.

During the test, degradation of performance is however allowed.

C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

7.4 EUT Configuration

The following equipments are installed on Electrostatic Discharge Immunity test to meet EN IEC 61000-6-1:2019, EN 61000-4-2:2009, requirement and operating in a manner which tends to maximize its emission characteristics in a normal application. The configuration of EUT is the same as used in conducted emission test.

Please refer to Section 2.4.

7.5 Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 3.5 except the test setup replaced by Section 7.1.2.

7.6 Test Procedure

7.6.1 Air Discharge:

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator 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.

7.6.2 Contact Discharge:

All the procedure shall be same as Section 7.6.1. Except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

7.6.3 Indirect discharge for horizontal coupling plane

At least 10 single discharges (in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit (if applicable) of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

7.6.4 Indirect discharge for vertical coupling plane

At least 10 single discharges (in the most sensitive polarity) shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are complete illuminated.

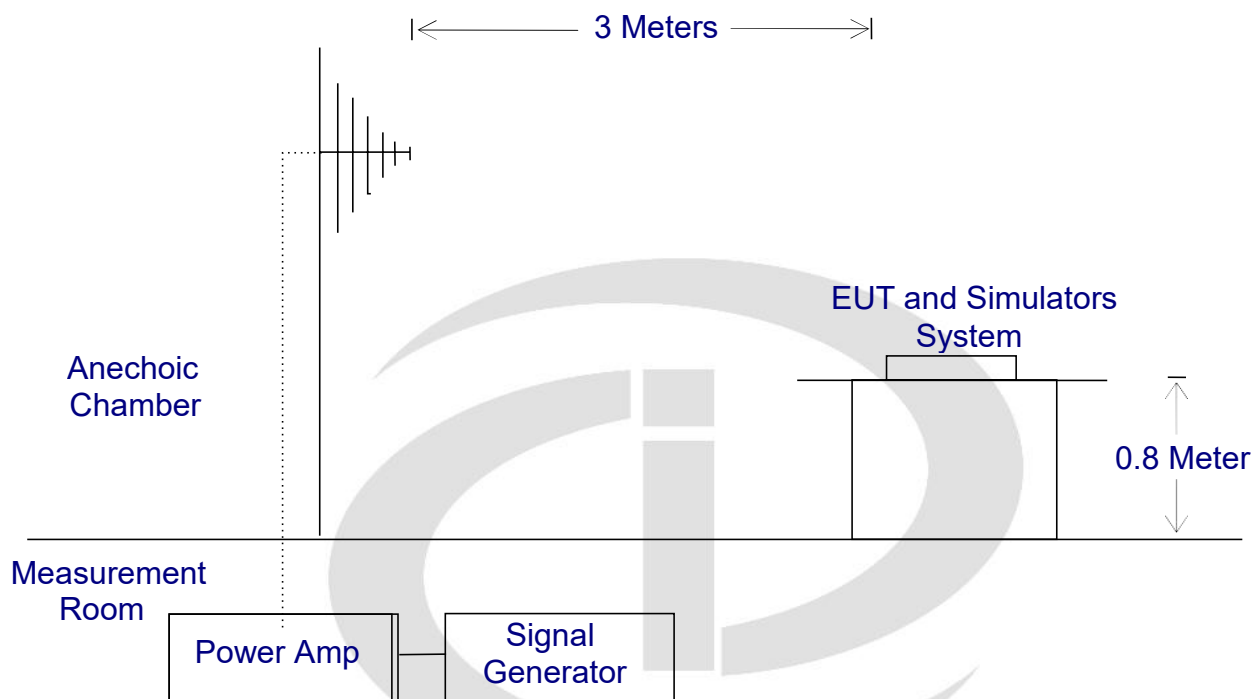
7.7 Test Results

PASS

ESD Test Data				
Temperature:	24.5°C	Humidity:	53%	
Power Supply :	DC 48V From Power Adapter Input AC 230V/50Hz	Test Mode:	On	
Air Discharge: $\pm 8\text{KV}$ Contact Discharge: $\pm 4\text{KV}$ # For each point positive 25 times and negative 25 times discharge				
Test Points	Air Discharge	Contact Discharge	Performance Criterion	Result
Enclosure	$\pm 2,4,8\text{KV}$	N/A	B	PASS
Slot	$\pm 2,4,8\text{KV}$	N/A	B	PASS
Metal Part	N/A	$\pm 2,4\text{KV}$	B	PASS
VCP	N/A	$\pm 2,4\text{KV}$	B	PASS
HCP	N/A	$\pm 2,4\text{KV}$	B	PASS
Note: N/A				

8. RF FIELD STRENGTH SUSCEPTIBILITY TEST

8.1 Block Diagram of Test Setup



8.2 Test Standard

EN IEC 61000-6-1:2019

EN 61000-4-3: 2006+A1:2008+A2:2010

Severity Level 2, 3V / m

8.3 Severity Levels and Performance Criterion

8.3.1 Severity level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X.	Special

8.3.2 Performance criterion: A

- A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

8.4 EUT Configuration on Test

The following equipments are installed on Electrical Fast Transient/Burst Immunity test to meet EN IEC 61000-6-1:2019, EN 61000-4-3: 2006+A1:2008+A2:2010, requirement and operating in a manner which tends to maximize its emission characteristics in a normal application. The configuration of EUT is the same as used in conducted emission test.

Please refer to Section 3.4.

8.5 Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5 except the test setup replaced by Section 8.1.

8.6 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. EUT is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually.

All the scanning conditions are as follows :

Condition of Test	Remarks
1. Fielded Strength	3 V/m (Severity Level 2)
2. Radiated Signal	Modulated
3. Scanning Frequency	80 – 1000 MHz
4. Dwell time of radiated	0.0015 decade/s
5. Waiting Time	1 Sec.

8.7 Test Results

PASS

R/S Test Data			
Temperature : 25℃		Humidity : 53%	
Field Strength: 3 V/m		Criterion: A	
Power Supply: DC 48VFrom Power Adapter Input AC 230V/50Hz		Frequency Range: 80 MHz to 1000 MHz	
Modulation: ☒ AM ☐ Pulse ☐ none 1 KHz 80%			
Test Mode : On			
	Frequency Range : 80-1000MHz		
Steps	1 %		
	Horizontal	Vertical	Result
Front	A	A	Pass
Right	A	A	Pass
Rear	A	A	Pass
Left	A	A	Pass
Note: N/A			

中鉴检测
CCTI TESTING

9. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

9.1 Block Diagram of EUT Test Setup



9.2 Test Standard

EN IEC 61000-6-1:2019, EN 61000-4-4:2012

9.3 Severity Levels and Performance Criterion

Severity Level 2 at 1KV, Pulse Rise time & Duration: 5 nS / 50 nS

Severity Level:

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

Performance criterion: B

- A. The equipment shall continue to operate as intended during the test. No change of actual operating state (for example change of channel) is allowed as a result of the application of the test. Multifunction equipment shall for each function meet the relevant requirements. Evaluation is carried out for audio and video functions. The equipment is supposed to operate as intended if the criteria of 4.1.1.1 and/or 4.1.1.2 are fulfilled.
- B. The equipment shall continue to operate as intended after the test. No loss of function is allowed after the test when the apparatus is used as intended, but failures which are recovered automatically but which cause temporary delay in processing, are permissible. No change of actual operating state for example change of channel or stored data and settings is allowed as a result of the application of the test. During the test, degradation of performance is allowed.

9.4 EUT Configuration on Test

The following equipments are installed on Electrical Fast Transient/Burst Immunity test to meet EN IEC 61000-6-1:2019, EN 61000-4-4:2012, requirement and operating in a manner which tends to maximize its emission characteristics in a normal application. The configuration of EUT is the same as used in conducted emission test.

Please refer to Section 3.4.

9.5 Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.6 except the test setup replaced by Section 9.1.

9.6 Test Procedure

EUT shall be placed 0.8m high above the ground reference plane which is a min. 1m*1m metallic sheet with 0.65mm minimum thickness. 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

9.6.1 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 2 minutes.

9.7 Test Results

The EUT is powered by the DC only, the test item is not applicable.

10. EUT PHOTOGRAPHS



EUT Photo 1



EUT Photo 2



EUT Photo 3



EUT Photo 4



EUT Photo 5



EUT Photo 6



EUT Photo 7



EUT Photo 8

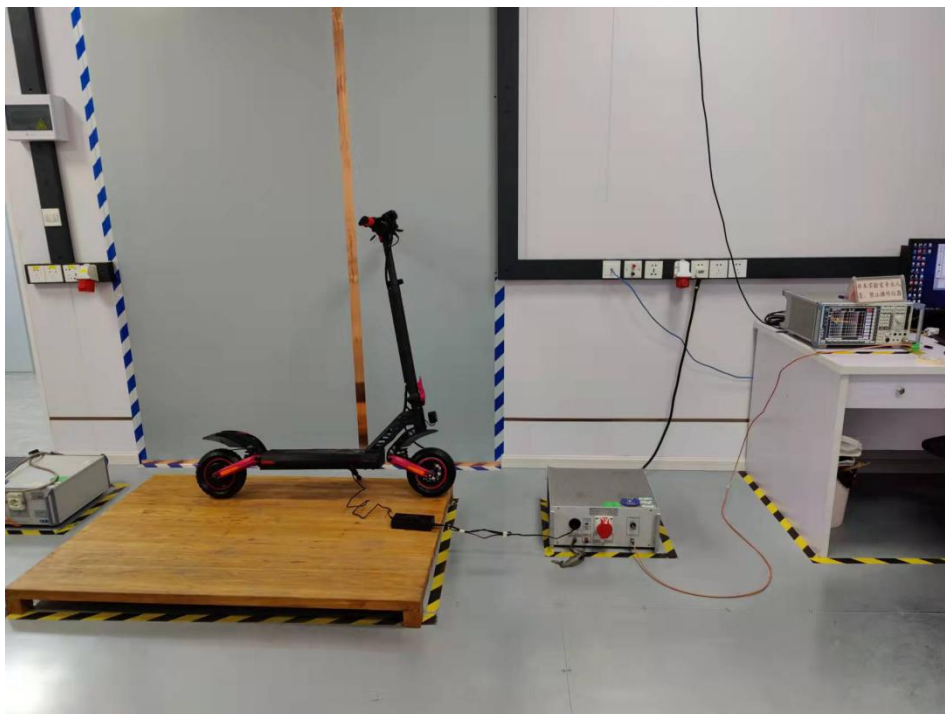


EUT Photo 9

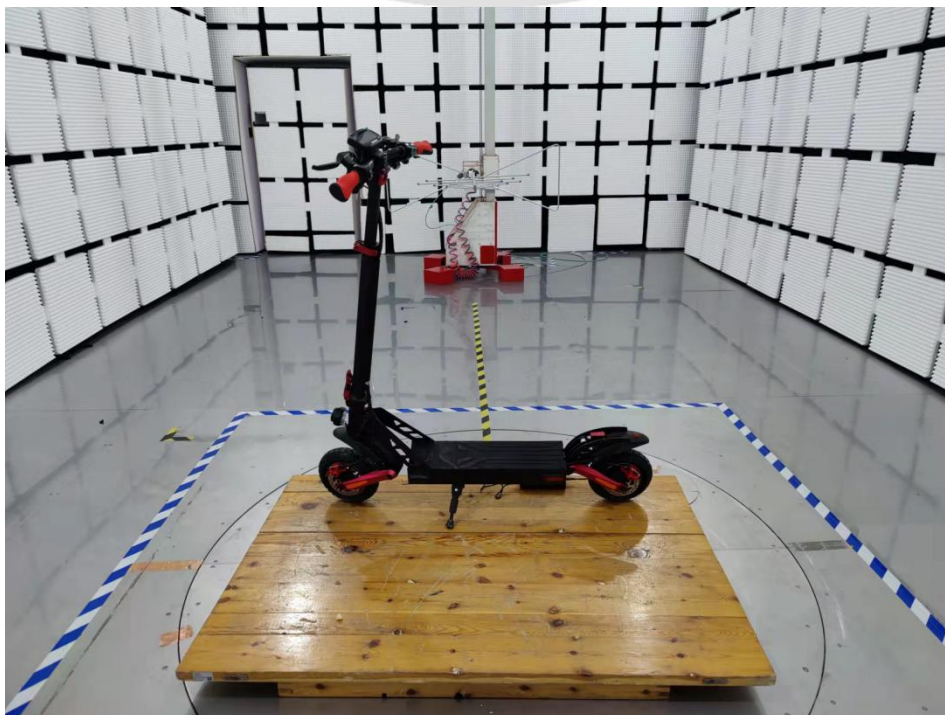


EUT Photo 10

11. EUT TEST PHOTOGRAPHS



EUT Photo RE



EUT Photo CE

***** END OF REPORT *****