



EMC TEST REPORT

For

Dongguan Hangchebao Energy Technology Co., Ltd.
 portable emergency car starting power supply

Test Model: Q9B

Additional Model No.: Jstar One, Nw100, Q10S, AL-JPZOB, Q9C, Q9S, Q10B

Prepared for : Dongguan Hangchebao Energy Technology Co., Ltd.
 Address : Room 201, 37 Changde Road, Humen Town, Dongguan City, Guangdong Province

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Date of receipt of test sample : January 04, 2021
 Number of tested samples : 1
 Serial number : Prototype
 Date of Test : January 04, 2021 ~ January 07, 2021
 Date of Report : February 02, 2021

EMC TEST REPORT**EN 55032: 2015+A11: 2020**

Electromagnetic compatibility of multimedia equipment - Emission Requirements

EN 55035: 2017+A11: 2020

Electromagnetic compatibility of multimedia equipment – Immunity requirements

Report Reference No. : **LCS201228115AE**

Date of Issue..... : February 02, 2021

Testing Laboratory Name..... : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

Address..... : Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

Testing Location/ Procedure.... : Full application of Harmonised standards
Partial application of Harmonised standards
Other standard testing method Applicant's Name..... : **Dongguan Hangchebao Energy Technology Co., Ltd.**

Address..... : Room 201, 37 Changde Road, Humen Town, Dongguan City, Guangdong Province

Test SpecificationStandard..... : EN 55032: 2015+A11: 2020
EN 55035: 2017+A11: 2020

Test Report Form No..... : LCSEMC-1.0

TRF Originator..... : Shenzhen LCS Compliance Testing Laboratory Ltd.

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

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Test Item Description..... : **portable emergency car starting power supply**

Trade Mark..... : N/A

Test Model..... : Q9B

Ratings : Please Refer To Page 9

Result : **Positive****Compiled by:**

Lucky.xie

Supervised by:

Jason Deng

Approved by:

Lucky Xie/ File administrators

Jason Deng/ Technique principal

Gavin Liang/ Manager

EMC -- TEST REPORT**Test Report No. : LCS201228115AE**February 02, 2021
Date of issue

Test Model..... : Q9B

EUT..... : portable emergency car starting power supply

Applicant..... : Dongguan Hangchebao Energy Technology Co., Ltd.Address..... : Room 201, 37 Changde Road, Humen Town, Dongguan C
ity, Guangdong Province

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ity, Guangdong Province

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Test Result**Positive**

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

Revision	Issue Date	Revisions	Revised By
000	February 02, 2021	Initial Issue	Gavin Liang

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1. TEST STANDARDS

The tests were performed according to following standards:

EN 55032: 2015+A11: 2020 Electromagnetic compatibility of multimedia equipment - Emission Requirements

EN 55035: 2017+A11: 2020 Electromagnetic compatibility of multimedia equipment – Immunity requirements

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+A11: 2020)			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at mains terminals	EN 55032: 2015+A11: 2020	Class B	N/A
Conducted disturbance at telecommunication port	EN 55032: 2015+A11: 2020	Class B	N/A
Radiated disturbance	EN 55032: 2015+A11: 2020	Class B	PASS
Harmonic current emissions	EN IEC 61000-3-2: 2019	Class A	N/A
Voltage fluctuations & flicker	EN 61000-3-3: 2013/A1: 2019	-----	N/A
Immunity (EN 55035: 2017+A11: 2020)			
Description of Test Item	Basic Standard	Performance Criteria	Results
Electrostatic Discharge (ESD)	EN 61000-4-2: 2009	B	PASS
Radio-frequency, Continuous Radiated Disturbance	EN 61000-4-3: 2006+A2: 2010	A	PASS
Electrical Fast Transient (EFT)	EN 61000-4-4: 2012	B	N/A
Surge (Input a.c. Power Ports)	EN 61000-4-5: 2014+A1: 2017	B	N/A
Surge (Telecommunication Ports)		B	N/A
Radio-frequency, Continuous Conducted Disturbance	EN 61000-4-6: 2014	A	N/A
Power Frequency Magnetic Field	EN 61000-4-8: 2010	A	PASS
Voltage Dips, >95% Reduction	EN 61000-4-11: 2004+A1: 2017	B	N/A
Voltage Dips, 30% Reduction		C	N/A
Voltage Interruptions		C	N/A
***Note: N/A is an abbreviation for Not Applicable.			

Test mode:

Mode 1	Discharging	Record
Mode 2	Charging	Pre-scan
***Note: All test modes were tested, but we only recorded the worst case in this report.		

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 : portable emergency car starting power supply

Trade Mark : N/A

Test Model : Q9B

Additional Model : Jstar One, Nw100, Q10S, AL-JPZOB, Q9C, Q9S, Q10B

Model Declaration : PCB board, structure and internal of these model(s) are the sa

Power Supply : Peak Current: 2500A
Capacity: 81.4Wh
Type-C Input: 5V \rightarrow 2A, 9V \rightarrow 2A, 12V \rightarrow 1.5A
USB 1: 5V \rightarrow 3A, 9V \rightarrow 2A, 12V1.5A
USB 2: 5V \rightarrow 2.1A
DC Output: 12V \rightarrow 10A

Highest internal frequency (F _x)	Highest measured frequency
F _x ≤ 108 MHz	1 GHz
108 MHz < F _x ≤ 500 MHz	2 GHz
500 MHz < F _x ≤ 1 GHz	5 GHz
F _x > 1 GHz	5 × F _x up to a maximum of 6 GHz

NOTE 1 For FM and TV broadcast receivers, F_x is determined from the highest frequency generated or used excluding the local oscillator and tuned frequencies.

NOTE 2 F_x is defined in EN 55032 Section 3.1.19.

Where F_x is unknown, the radiated emission measurements shall be performed up to 6 GHz.

3.2. Support Equipment List

Name	Manufacturers	M/N	S/N
--	--	--	--

3.3. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

3.4. 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.

3.5. Measurement Uncertainty

Test	Parameters	Expanded Uncertainty (U_{lab})	Expanded Uncertainty (U_{cisp})
Conducted Emission	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 2.63 dB ± 2.35 dB	± 3.8 dB ± 3.4 dB
Power Disturbance	Level accuracy (30MHz to 300MHz)	± 2.90 dB	± 4.5 dB
Electromagnetic Radiated Emission (3-loop)	Level accuracy (9kHz to 30MHz)	± 3.60 dB	± 3.3 dB
Radiated Emission	Level accuracy (9kHz to 30MHz)	± 3.68 dB	N/A
Radiated Emission	Level accuracy (30MHz to 1000MHz)	± 3.48 dB	± 5.3 dB
Radiated Emission	Level accuracy (above 1000MHz)	± 3.90 dB	± 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%.

4. MEASURING DEVICES AND TEST EQUIPMENT

Test Item: Radiated Disturbance (Electric Field)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
1	EMI Test Software	E3	E3-EMC	/	N/A	N/A
2	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2018-07-26	2021-07-25
3	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2018-07-02	2021-07-01
4	EMI Test Receiver	R&S	ESR 7	101181	2020-06-22	2021-06-21
5	Broadband Preamplifier	/	BP-01M18G	P190501	2020-06-22	2021-06-21

Test Item: Electrostatic Discharge

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
1	ESD Simulator	SCHLODER	SESD 230	604035	2020-07-21	2021-07-20

Test Item: RF Field Strength Susceptibility

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
1	ESG Vector Signal Generator	Agilent	E4438C	MY42081396	2020-11-21	2021-11-20
2	3m Full Anechoic Chamber	MRDIANZI	FAC-3M	MR009	2020-09-26	2020-09-25
3	RF POWER AMPLIFIER	OPHIR	5225R	1052	NCR	NCR
4	RF POWER AMPLIFIER	OPHIR	5273F	1019	NCR	NCR
5	RF POWER AMPLIFIER	SKET	HAP_0306G-50W	/	NCR	NCR
6	Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	NCR	NCR
7	Stacked Mikrowellen Log.-Per Antenna	SCHWARZBECK	STLP 9149	9149-484	NCR	NCR
8	Electric field probe	Narda S.TS./PMM	EP601	611WX80208	2020-03-26	2021-03-25

Note: NCR means no calibration requirement

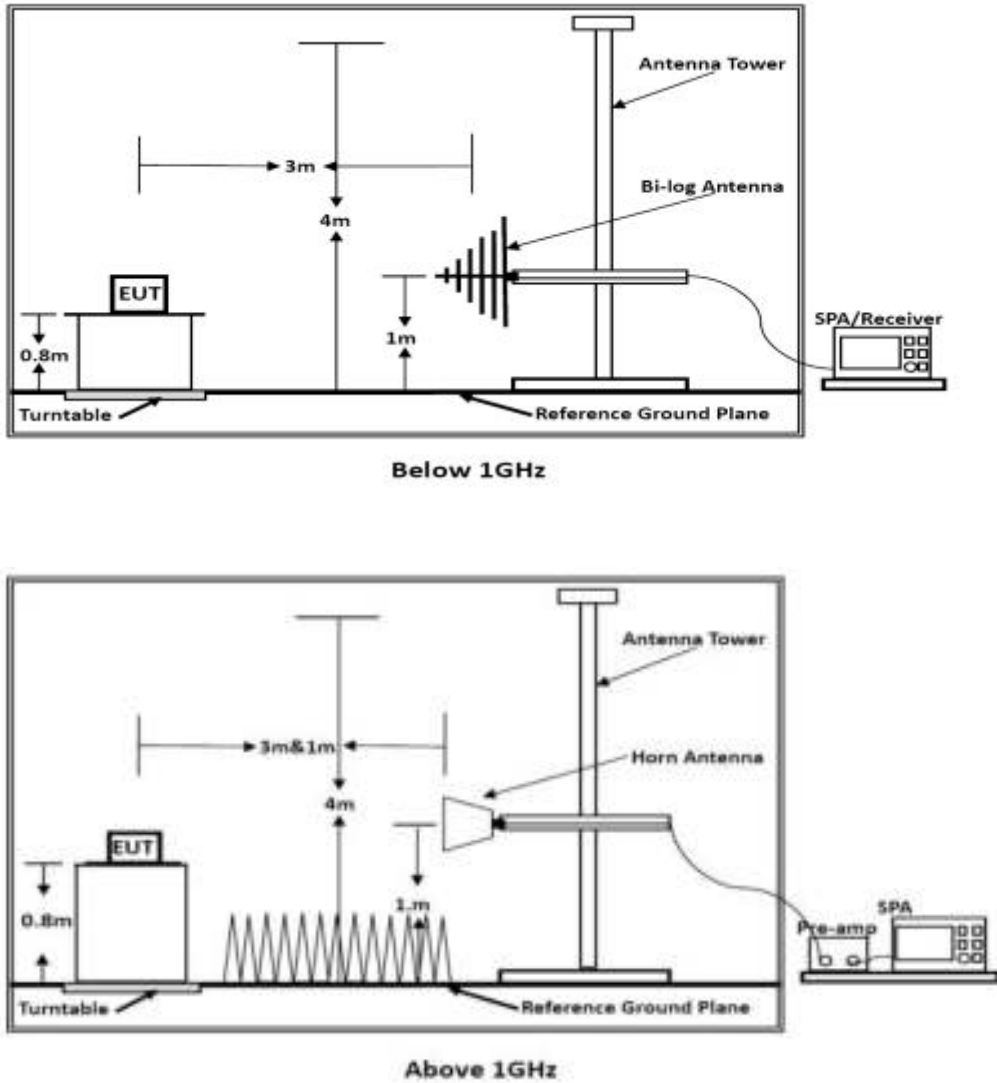
Test Item: Power Frequency Magnetic Field Susceptibility

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
1	Power frequency mag-field generator System	EVERFINE	EMS61000-8K	906003	2020-06-22	2021-06-21

5. TEST RESULTS

5.1. RADIATED EMISSION MEASUREMENT

5.1.1. Block Diagram of Test Setup



5.1.2. Test Standard

EN 55032: 2015+A11: 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 (dB μ V/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 (dB μ V/m)	Average Limit (dB μ V/m)
1000 ~ 3000	3	70	50
3000 ~ 6000	3	74	54
***Note: The lower limit applies at the transition frequency.			

5.1.3. EUT Configuration on Test

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

5.1.4. Operating Condition of EUT

5.1.4.1. Turn on the power.

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

5.1.5. 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.

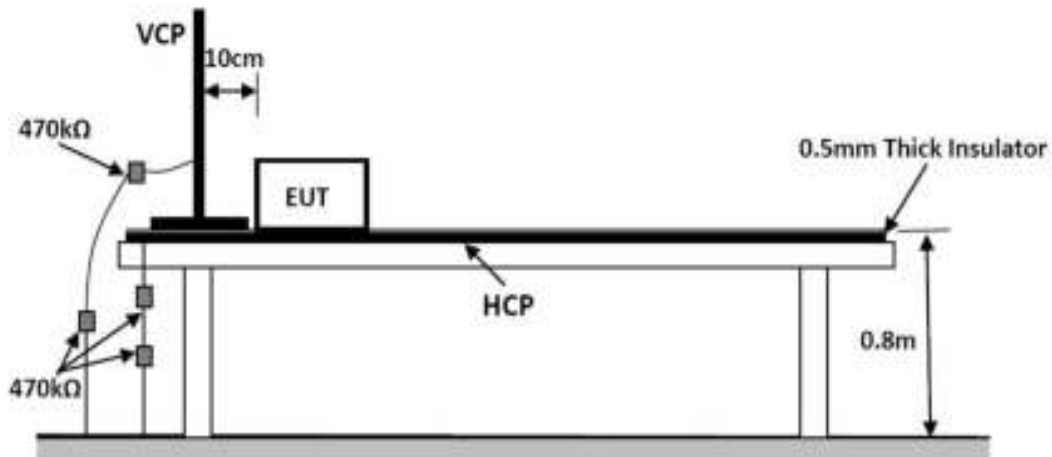
5.1.6. Test Results

PASS.

Refer to attached Annex B.1

5.2. ELECTROSTATIC DISCHARGE IMMUNITY TEST

5.2.1. Block Diagram of Test Setup



5.2.2. Test Standard

EN 55035: 2017+A11: 2020 (EN 61000-4-2: 2009, Severity Level: 3 / Air Discharge: ±8KV, Level: 2 / Contact Discharge: ±4KV)

5.2.3. Severity Levels and Performance Criterion

5.2.3.1. 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

5.2.3.2. Performance Criterion

Performance Criterion: B

5.2.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.2.1.

5.2.5. Operating Condition of EUT

Same as radiated emission measurement, which is listed in Section 5.1.4. Except the test set up replaced by Section 5.2.1.

5.2.6. Test Procedure

5.2.6.1. 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

5.2.6.2. 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.

5.2.6.3. 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.

5.2.6.4. 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.

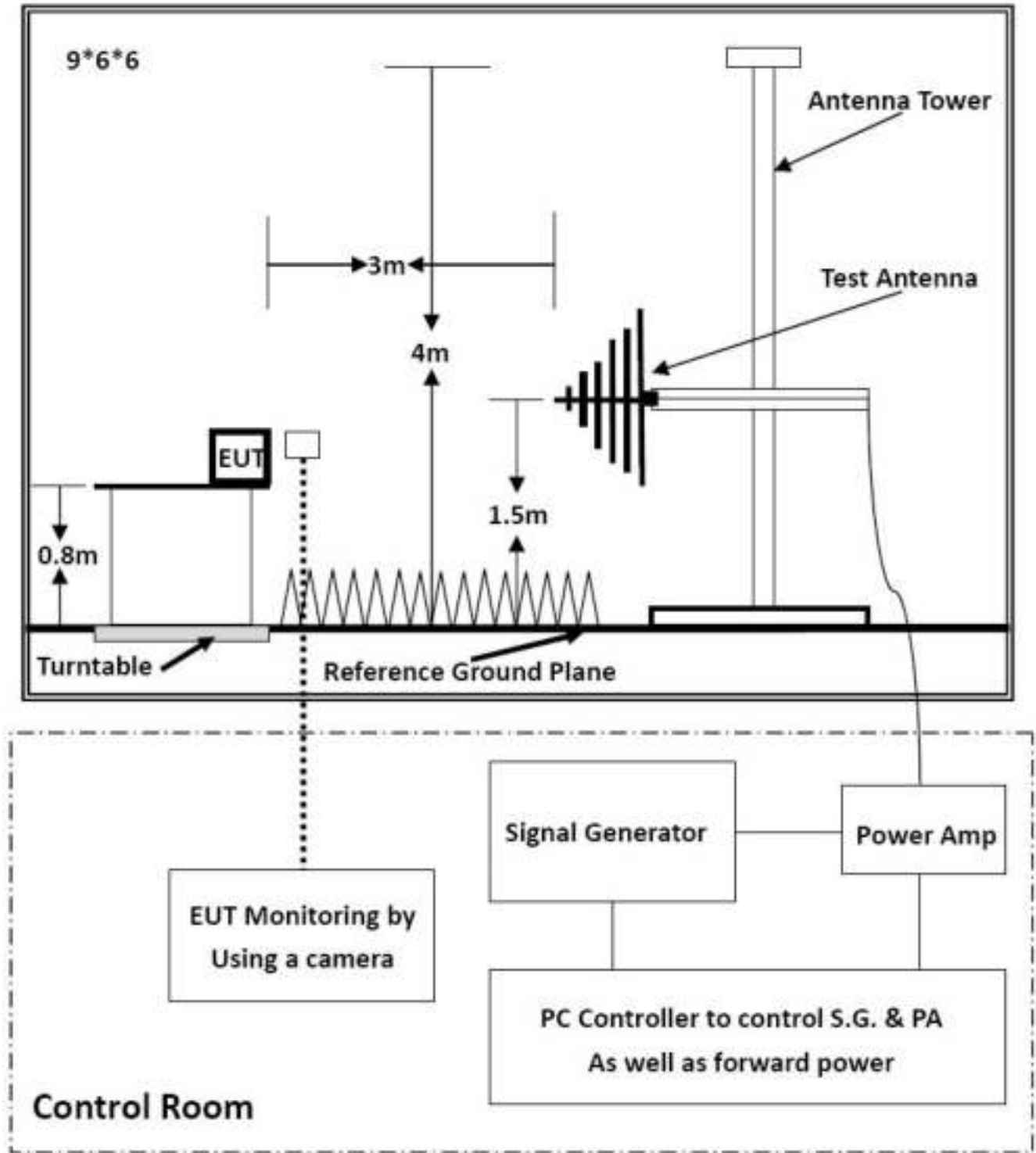
5.2.7. Test Results

PASS.

Refer to attached Annex B.2

5.3. RF FIELD STRENGTH SUSCEPTIBILITY TEST

5.3.1. Block Diagram of Test Setup



5.3.2. Test Standard

EN 55035: 2017+A11: 2020 (EN 61000-4-3: 2006+A2: 2010 Severity Level: 2, 3V/m)

5.3.3. Severity Levels and Performance Criterion**5.3.3.1. Severity level**

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

5.3.3.2. Performance Criterion

Performance Criterion: A

5.3.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.3.1.

5.3.5. Operating Condition of EUT

Same as radiated emission measurement, which is listed in Section 5.1.4, except the test setup replaced as Section 5.3.1.

5.3.6. 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.

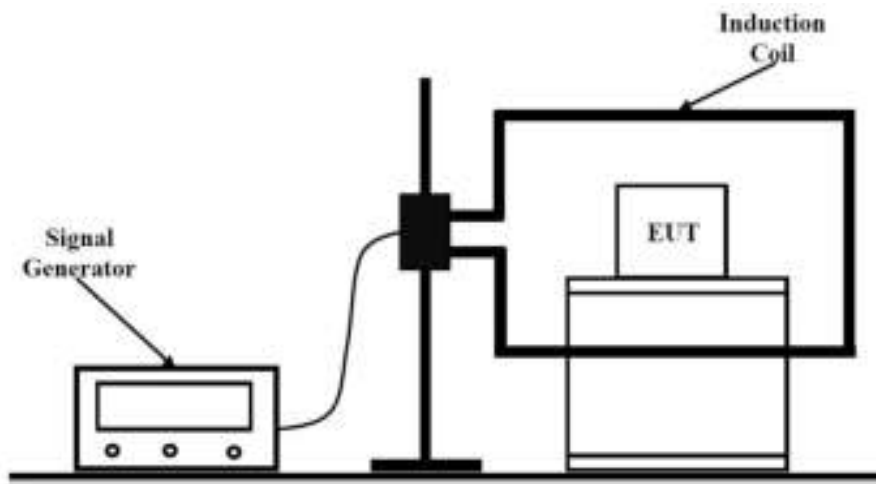
5.3.7. Test Results

PASS.

Refer to attached Annex B.3

5.4. MAGNETIC FIELD SUSCEPTIBILITY TEST

5.4.1. Block Diagram of Test Setup



5.4.2. Test Standard

EN 55035: 2017+A11: 2020 (EN 61000-4-8: 2010, Severity Level: Level 1, 1A/m)

5.4.3. Severity Levels and Performance Criterion

5.4.3.1. Severity level

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

5.4.3.2. Performance Criterion

Performance Criterion: A

5.4.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.4.1.

5.4.5. 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.

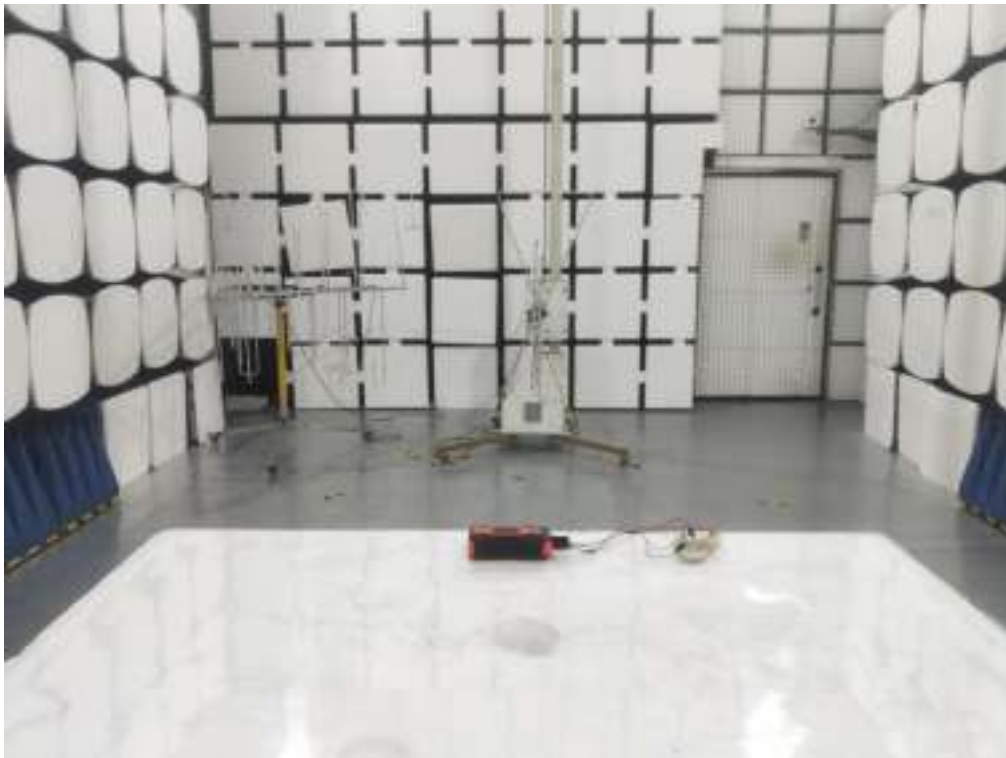
5.4.6. Test Results

PASS.

Refer to attached Annex B.4

ANNEX A

(Test photograph)



Test Setup Photo of Radiated Measurement (30MHz~1GHz)



Test Setup Photo of Electrostatic Discharge Test



Test Setup Photo of Magnetic Field Immunity Test

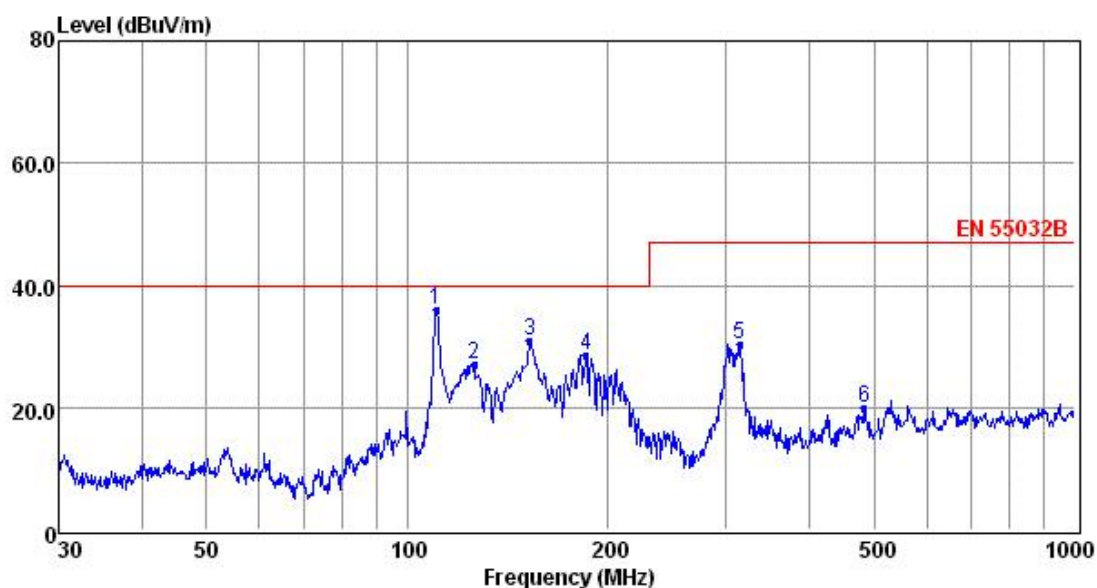
ANNEX B

(Emission and Immunity test results)

B.1 Radiated Disturbance Test Results (30MHz to 1000MHz)

Environmental Conditions:	22.2°C, 53.1% RH
Test Voltage:	DC 5V
Test Model:	Q9B
Test Mode:	Mode 1
Test Engineer:	Diawei Dai
Pol:	Vertical

Detailed results are shown below

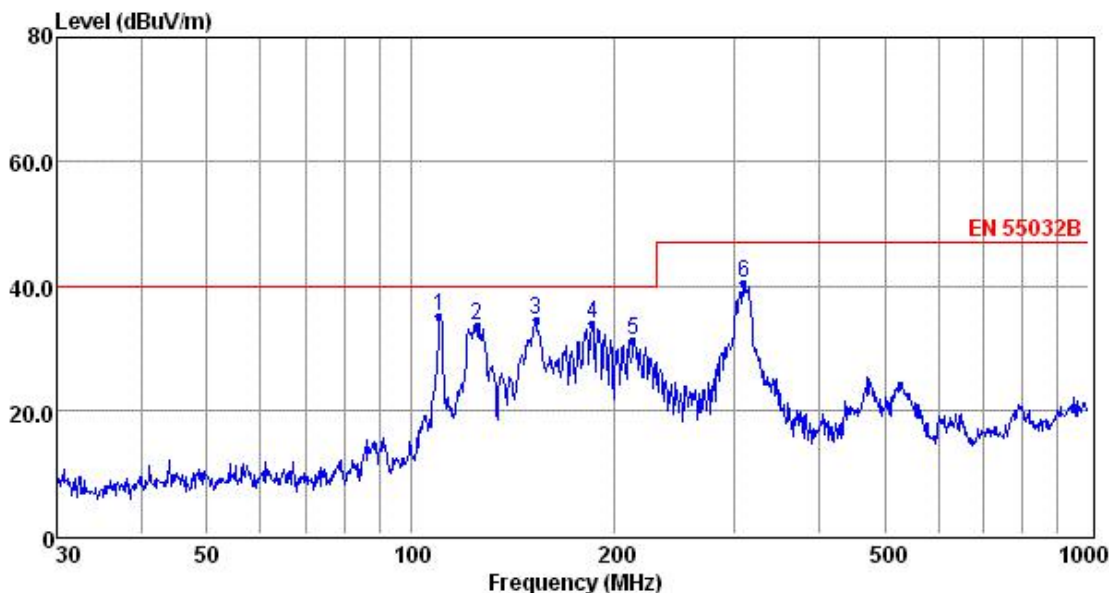


	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	110.57	53.28	0.61	12.15	35.90	40.00	-4.10	QP
2	125.89	46.87	0.71	9.57	26.97	40.00	-13.03	QP
3	152.66	52.03	0.73	8.37	30.88	40.00	-9.12	QP
4	185.14	48.16	0.70	10.13	28.67	40.00	-11.33	QP
5	314.38	46.63	1.09	13.25	30.42	47.00	-16.58	QP
6	483.91	33.46	1.39	16.17	19.96	47.00	-27.04	QP

-
- Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported

Environmental Conditions:	22.2°C, 53.1% RH
Test Voltage:	DC 5V
Test Model:	Q9B
Test Mode:	Mode 1
Test Engineer:	Diawei Dai
Pol:	Horizontal

Detailed results are shown below



	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	110.18	52.30	0.61	12.22	34.99	40.00	-5.01	QP
2	125.01	53.40	0.71	9.70	33.63	40.00	-6.37	QP
3	153.20	55.74	0.73	8.39	34.60	40.00	-5.40	QP
4	185.14	53.35	0.70	10.13	33.86	40.00	-6.14	QP
5	213.02	49.54	0.95	10.98	31.09	40.00	-8.91	QP
6	310.00	56.77	1.08	13.19	40.50	47.00	-6.50	QP

- Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported

B.2 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	Dongguan Hangchebao Energy Technology Co., Ltd.		
EUT	portable emergency car starting power supply	Temperature	24.7°C
M/N	Q9B	Humidity	51.4%
Criterion	B	Pressure	1021mbar
Test Mode	Mode 1	Test Engineer	Diawei Dai

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.3 RF FIELD STRENGTH SUSCEPTIBILITY TEST

RF Field Strength Susceptibility Test Results

Standard	<input type="checkbox"/> IEC 61000-4-3 <input checked="" type="checkbox"/> EN 61000-4-3		
Applicant	Dongguan Hangchebao Energy Technology Co., Ltd.		
EUT	portable emergency car starting power supply	Temperature	23.9°C
M/N	Q9B	Humidity	51.4%
Field Strength	3 V/m	Criterion	A
Test Mode	Mode 1	Test Engineer	Diawei Dai
Test Frequency	80MHz to 1000MHz (Swept Test) 1800MHz, 2600MHz, 3500MHz, 5000MHz (spot test)		
Modulation	<input type="checkbox"/> None <input type="checkbox"/> Pulse <input checked="" type="checkbox"/> AM 1KHz 80%		
Steps	1%		

	Horizontal	Vertical
Front	PASS	PASS
Right	PASS	PASS
Rear	PASS	PASS
Left	PASS	PASS

Test Equipment:

- 1.ESG Vector Signal Generator
- 2.3m Semi Anechoic Chamber
- 3.RF POWER AMPLIFIER
- 4.RF POWER AMPLIFIER
- 5.Stacked Broadband Log Periodic Antenna
- 6.Electric field probe

Note:

B.4 MAGNETIC FIELD SUSCEPTIBILITY TEST**Magnetic Field Immunity Test Result**

Standard	<input type="checkbox"/> IEC 61000-4-8 <input checked="" type="checkbox"/> EN 61000-4-8		
Applicant	Dongguan Hangchebao Energy Technology Co., Ltd.		
EUT	portable emergency car starting power supply	Temperature	24.5°C
M/N	Q9B	Humidity	51.2%
Test Mode	Mode 1	Criterion	A
Test Engineer	Diawei Dai		

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:

ANNEX C

(External and internal photos of the EUT)



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11

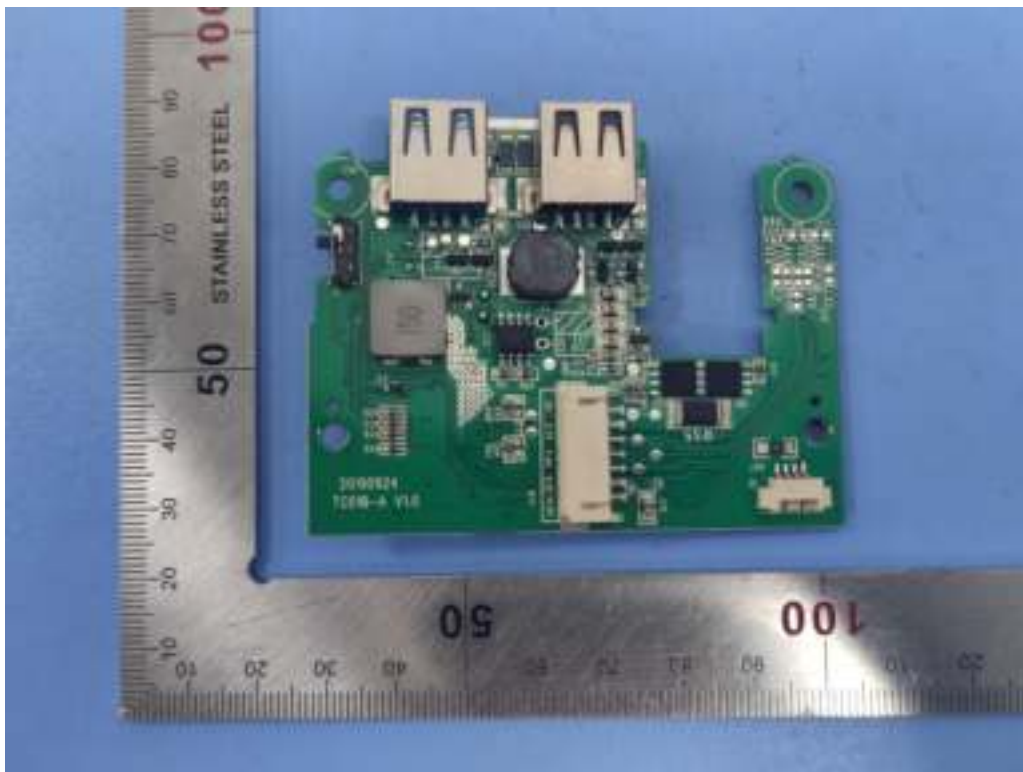


Fig. 12

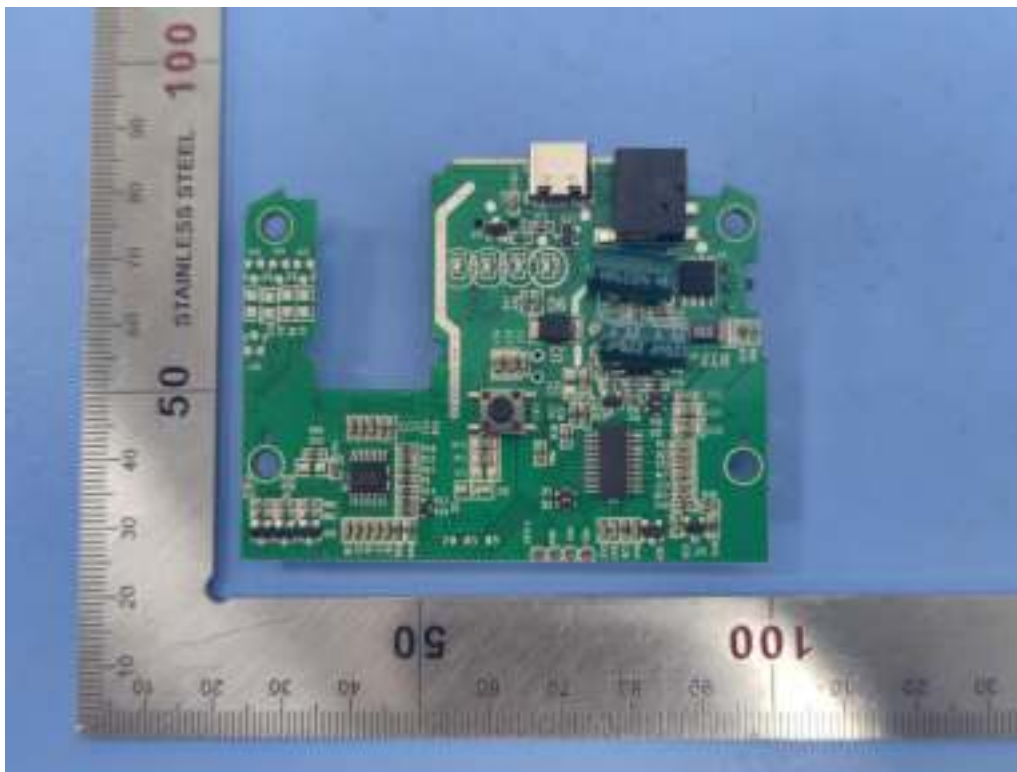


Fig. 13

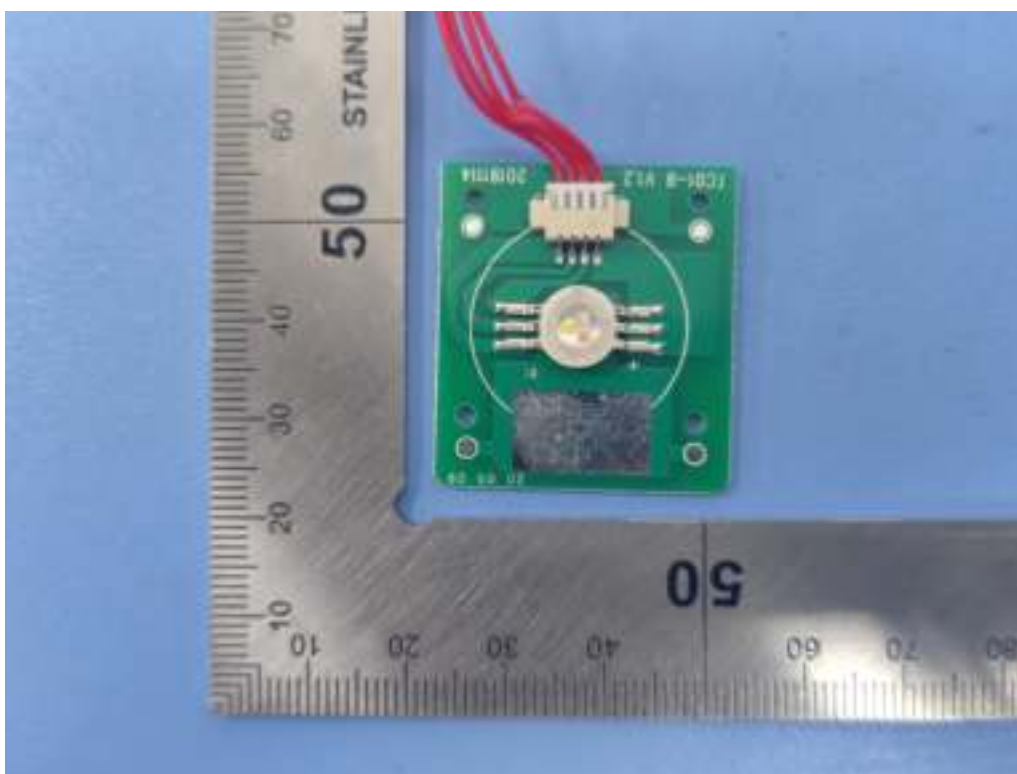


Fig. 14

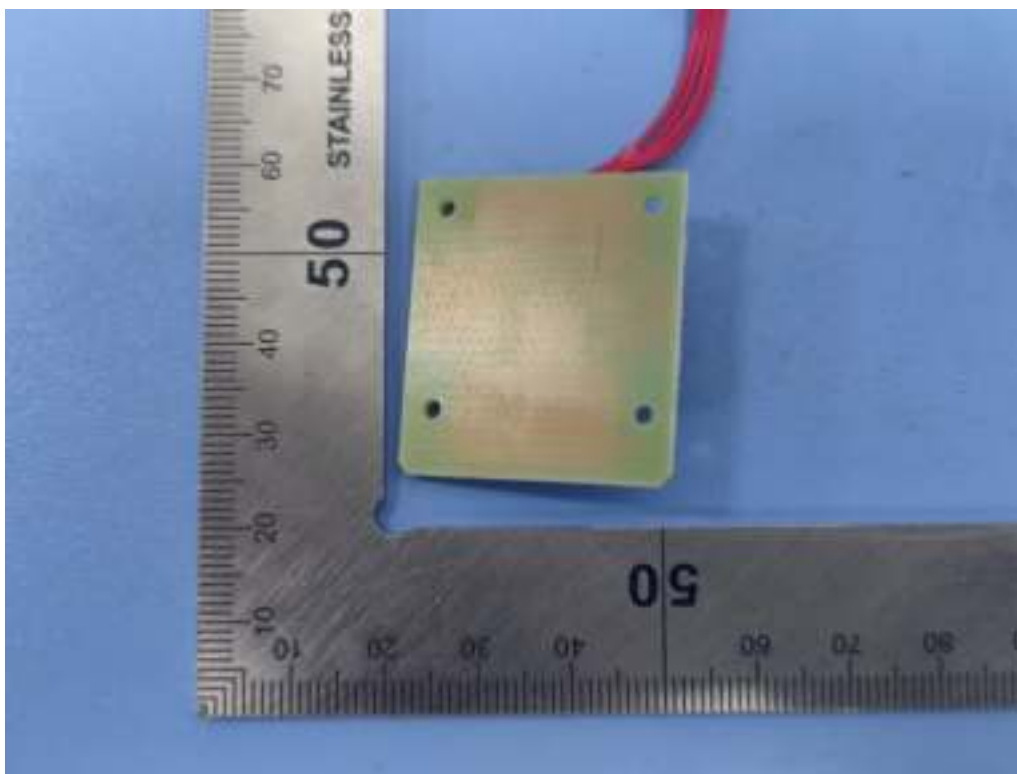


Fig. 15

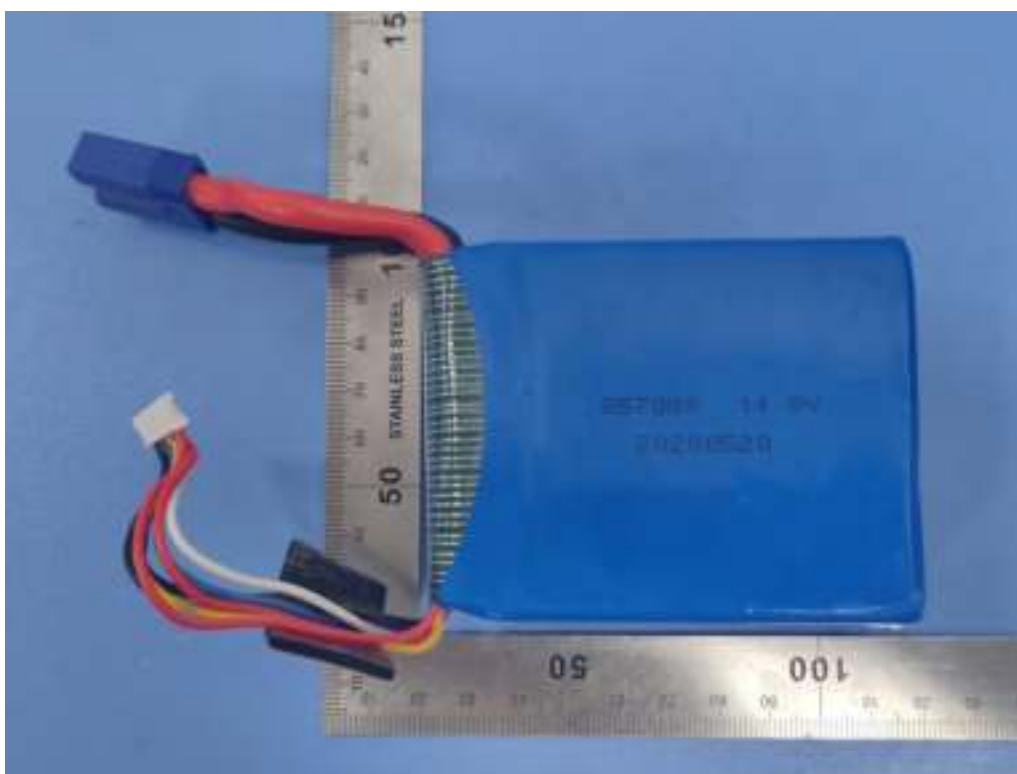


Fig. 16

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