EMC TEST REPORT

For

V-TAC EXPORT LIMITED

Portable Power Station

Test Model: YW-600

Additional Model No.: YW-600-A, YW-600-B, YW-600-C, YW-600-D, YW-600-E, YW-600-F, YW-600-G, YW-600-H, YW-600-I, YW-600-J, YW-600-K, YW-600-L, YW-600-M, YW-600-N, YW600-VT-606

Prepared for	:	V-TAC EXPORT LIMITED
Address	:	Room 301 Kam ON Building 176A, Queen's Road Central HongKong
Prepared by	:	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
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Date of receipt of test sample	:	November 16, 2021
Number of tested samples	:	2
Serial number	:	Prototype
Date of Test	:	November 16, 2021 ~ November 25, 2021
Date of Report	:	November 11, 2022

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.	:	**LCSA110122119ED**
Date of Issue.....	:	November 11, 2022
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.....	:	**V-TAC EXPORT LIMITED**
Address	:	Room 301 Kam ON Building 176A, Queen's Road Central HongKong
Test Specification		
Standard	:	EN 55032:2015/A11:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019 EN 61000-3-3:2013/A1:2019
Test Report Form No.	:	LCSEMC-1.0
TRF Originator	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF.....	:	Dated 2011-03

Test Item Description.	:	**Portable Power Station**
Trade Mark	:	N/A
Test Model.....	:	YW-600
Ratings	:	Please Refer to Page 9
Result	:	**Positive**

Compiled by:	**Supervised by:**	**Approved by:**
Kay Hu/ Administrator	Cary Luo/ Technique principal	Gavin Liang/ Manager

EMC -- TEST REPORT

Test Report No. : LCSA110122119ED	November 11, 2022 Date of issue

Test Model.....	**: YW-600**
EUT.....	: Portable Power Station
Applicant.....	**: V-TAC EXPORT LIMITED**
Address.....	: Room 301 Kam ON Building 176A, Queen's Road Central HongKong
Telephone.....	: /
Fax.....	: /
Manufacturer.....	**: Win-Power Technology Limited**
Address.....	: 201, No. 1, Shangwai Industrial Road 1, Zhangkeng Path community, Guanhu Street, Longhua district, Shenzhen City, China
Telephone.....	: /
Fax.....	: /
Factory.....	**: Dongguan Cloud Micro Electronics Co., Ltd.**
Address.....	: Room 502, Building 6, No. 10, Qiao Xin XI er road, Qiaotou town, Dongguan City, Guangdong province, China
Telephone.....	: /
Fax.....	: /

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

Report Version	Issue Date	Revision Content	Revised By
000	November 11, 2022	Initial Issue	--

At the customer's request, the revised report was submitted to LCS211111119AED applicant by quoting the test data of LCS211111119AED original report.
Applicant and Factory Name: Win-Power Technology Limited
Applicant and Factory Address: 201, No. 1, Shangwai Industrial Road 1, Zhangkeng Path community, Guanhu Street, Longhua district, Shenzhen City, China
Change to
Applicant Name: V-TAC EXPORT LIMITED
Applicant Address: Room 301 Kam ON Building 176A, Queen's Road Central HongKong
Factory Name: Dongguan Cloud Micro Electronics Co., Ltd.
Factory Address: Room 502, Building 6, No. 10, Qiao Xin XI er road, Qiaotou town, Dongguan City, Guangdong province, China
Added trade mark: V-TAC Meaningful Innovation.
Added Model: YW600-VT-606

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Test Report Description Page

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

EN IEC 61000-3-2:2019 Electromagnetic compatibility (EMC) –Part 3-2: Limits – Limits for harmonic current emissions (equipment inputcurrent ≤ 16 A per phase)

EN 61000-3-3:2013/A1:2019 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 ＜= 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/A11:2020)			
Description of Test Item	**Standard**	**Limits**	**Results**
Conducted disturbance at mains terminals	EN 55032:2015/A11:2020	Class B	PASS
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	PASS
Voltage fluctuations & flicker	EN 61000-3-3:2013/A1:2019	---------	PASS
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	PASS
Surge (Input a.c. power ports)	EN 61000-4-5:2014+A1:2017	B	PASS
Surge (Telecommunication ports)		B	N/A
Radio-frequency, Continuous conducted disturbance	EN 61000-4-6:2014+A1:2015	A	PASS
Power frequency magnetic field	EN 61000-4-8: 2010	A	PASS
Voltage dips, >95% reduction	EN IEC 61000-4-11:2020/AC:2020	B	PASS
Voltage dips, 30% reduction		C	PASS
Voltage interruptions		C	PASS
***Note: N/A is an abbreviation for Not Applicable.			

Test mode:		
Mode 1	Normal Operation	Record

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 deriver 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 deriver 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 loss.

3. GENERAL INFORMATION

3.1. Description of Device (EUT)

EUT : Portable Power Station

Trade Mark : N/A

Test Model : YW-600

Additional Model No. : YW-600-A, YW-600-B, YW-600-C, YW-600-D, YW-600-E, YW-600-F, YW-600-G, YW-600-H, YW-600-I, YW-600-J, YW-600-K, YW-600-L, YW-600-M, YW-600-N, YW600-VT-606

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

Power Supply : Battery Capacity(153600mAh) Recharged By DC 20V 5.0A
Output:(DC Output) DC 12V 8A Output:(USB) DC 5V 2.4A
Output:(Type-C USB) DC 5V 1.3A
Output:(QC 3.0) DC 5-12V 18W Output:(AC) 600W
Output:(Wireless Charging) 15W
Adapter Parameters: Input: AC 100-240V 50/60Hz 2.5A
Output: DC 20V 5.0A

Highest internal frequency (Fx) : Fx ≤ 108 MHz

Highest internal frequency (Fx)	Highest measured frequency
Fx ≤ 108 MHz 108 MHz < Fx ≤ 500 MHz 500 MHz < Fx ≤ 1 GHz Fx > 1 GHz	1 GHz 2 GHz 5 GHz 5 × Fx 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

NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024.
CAB identifier is CN0071.
CNAS Registration Number is L4595.

3.3. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
V-TAC EXPORT LIMITED	AC Adapter	LK150-2000500	--	CE

3.4. External I/O

I/O Port Description	Quantity	Cable
DC Input Port	1	N/A
DC Output Port	3	N/A
USB Port	2	N/A
Type-C USB Port	1	N/A
QC 3.0 Port	1	N/A
AC Output Port	2	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)	± 2.63 dB ± 2.35 dB	± 3.8 dB ± 3.4 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	± 0.510%	N/A
Voltage Fluctuations & Flicker	Voltage	± 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: Conducted Disturbance

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	Farad	EZ	/	N/A	N/A
2	EMI Test Receiver	R&S	ESR3	102311	2021-03-16	2022-03-15
3	Artificial Mains	R&S	ENV216	101288	2021-06-21	2022-06-20
4	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-001-0032	2021-06-21	2022-06-20
5	Impedance Stabilization Network	TESEQ	ISN T800	45130	2020-12-02	2021-12-01

Test Item: Radiated Disturbance (Electric Field)

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	Farad	EZ	/	N/A	N/A
2	3m Full Anechoic Chamber	MRDIANZI	FAC-3M	MR009	2021-09-25	2022-09-24
3	Positioning Controller	MF	MF7082	MF78020803	2021-06-21	2022-06-20
4	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2021-07-25	2024-07-24
5	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-07-01	2024-06-30
6	EMI Test Receiver	R&S	ESR3	102312	2021-06-21	2022-06-20
7	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2021-11-16	2022-11-15
8	Broadband Preamplifier	/	BP-01M18G	P190501	2021-06-21	2022-06-20

Test Item: Harmonic Current

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Power Analyzer Test System	Voltech	PM6000	200006700523	2021-06-21	2022-06-20

Test Item: Voltage fluctuation and Flicker

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Power Analyzer Test System	Voltech	PM6000	200006700523	2021-06-21	2022-06-20

Test Item: Electrostatic Discharge

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	ESD Simulator	SCHLODER	SESD 230	604035	2021-07-20	2022-07-19

Test Item: RF Field Strength Susceptibility

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	RS Test Software	Tonscend	/	/	N/A	N/A

2	ESG Vector Signal Generator	Agilent	E4438C	MY42081396	2021-11-16	2022-11-15
3	3m Full Anechoic Chamber	MRDIANZI	FAC-3M	MR009	2021-09-25	2022-09-24
4	RF POWER AMPLIFIER	OPHIR	5225R	1052	NCR	NCR
5	RF POWER AMPLIFIER	OPHIR	5273F	1019	NCR	NCR
6	RF POWER AMPLIFIER	SKET	HAP_0306G-50W	/	NCR	NCR
7	Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	NCR	NCR
8	Stacked Mikrowellen Log.-Per Antenna	SCHWARZBECK	STLP 9149	9149-484	NCR	NCR
9	Electric field probe	Narda S.TS./PMM	EP601	611WX80208	2021-03-25	2022-03-24
Note: NCR means no calibration requirement						

Test Item: Electrical Fast Transient/Burst

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Immunity Simulative Generator	EM TEST	UCS500-M4	0101-34	2021-06-22	2022-06-21

Test Item: Surge

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Immunity Simulative Generator	EM TEST	UCS500-M4	0101-34	2021-06-22	2022-06-21

Test Item: Conducted Susceptibility

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Simulator	FRANKONIA	CIT-10/75	A126A1195	2021-06-21	2022-06-20
2	CDN	FRANKONIA	CDN-M2+M3	A2210177	2021-06-21	2022-06-20
3	6dB Attenuator	FRANKONIA	DAM25W	1172040	2021-06-21	2022-06-20

Test Item: Power Frequency Magnetic Field Susceptibility

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Power frequency mag-field generator System	EVERFINE	EMS61000-8K	906003	2021-06-21	2022-06-20

Test Item: Voltage Dips

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2021-06-21	2022-06-20

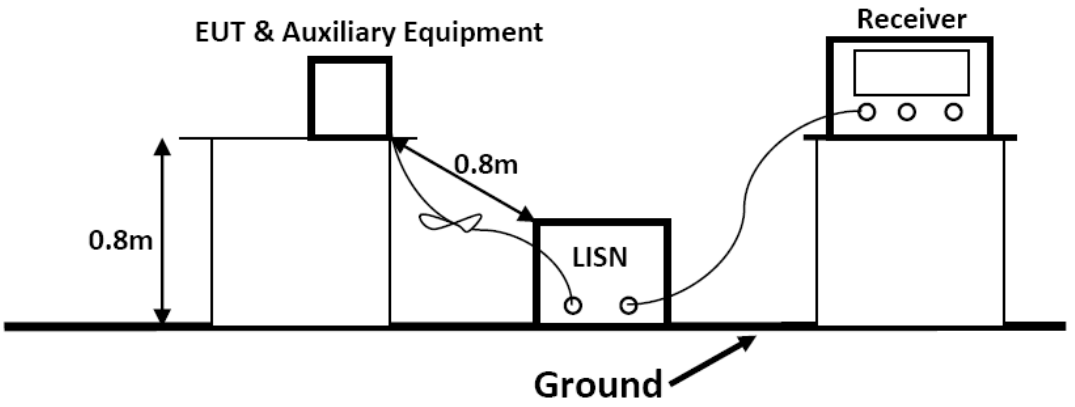
Test Item: Voltage Short Interruptions

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2021-06-21	2022-06-20

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/A11:2020 Class B

Power Line Conducted Emission Limits (Class B)		
Frequency (MHz)	Limit (dBμV)	
	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.

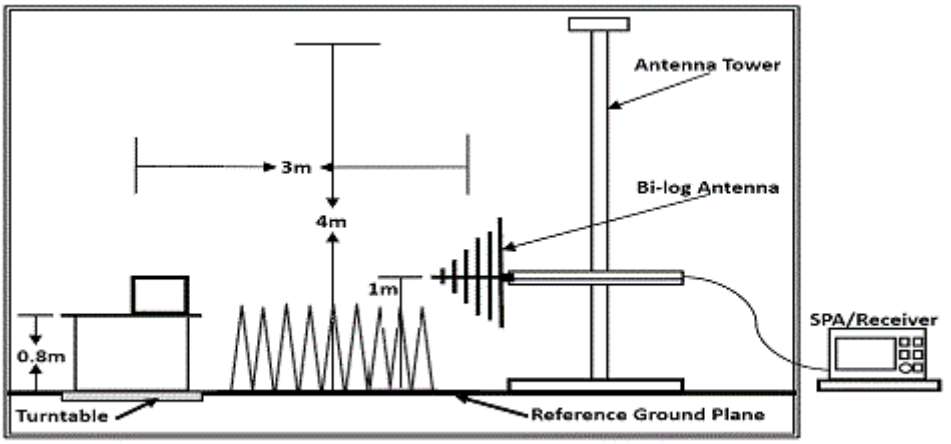
5.1.6. Test Results

PASS.

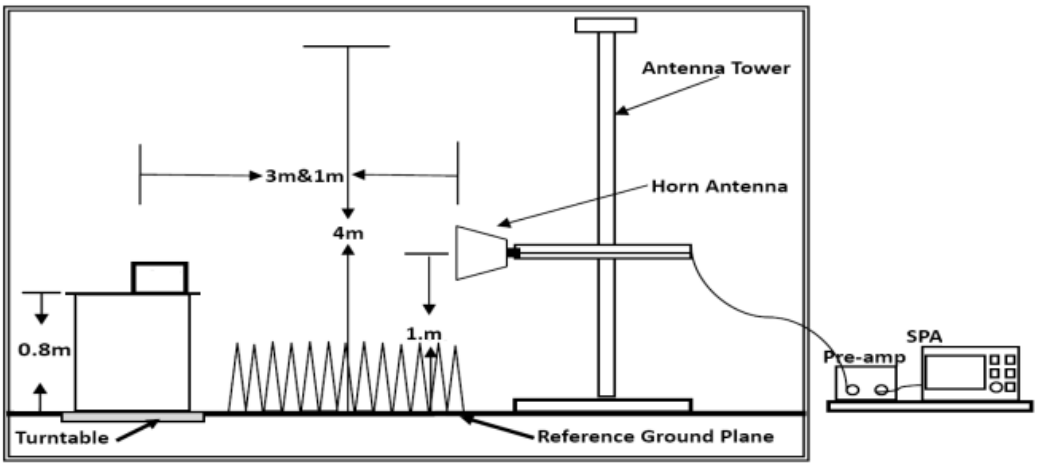
Refer to attached Annexe B.1

5.2. RADIATED EMISSION MEASUREMENT

5.2.1. Block Diagram of Test Setup



Below 1GHz



Above 1GHz

5.2.2. 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 (dBμV/m)
30 ~ 230	3	42-35
230 ~ 1000	3	42
***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 ~ 3000	3	70	50
3000 ~ 6000	3	74	54
***Note: The lower limit applies at the transition frequency.			

5.2.3. EUT Configuration on Test

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

5.2.4. Operating Condition of EUT

5.2.4.1.Turn on the power.

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

5.2.5. 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.

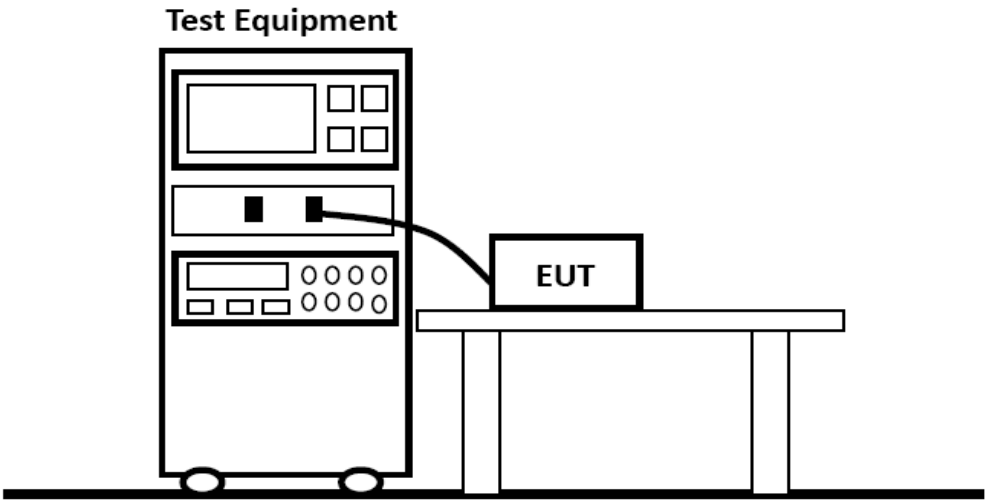
5.2.6. Test Results

PASS.

Refer to attached Annexe B.2

5.3. HARMONIC CURRENT EMISSION MEASUREMENT

5.3.1. Block Diagram of Test Setup



5.3.2. Test Standard

EN IEC 61000-3-2:2019

5.3.3. Operating Condition of EUT

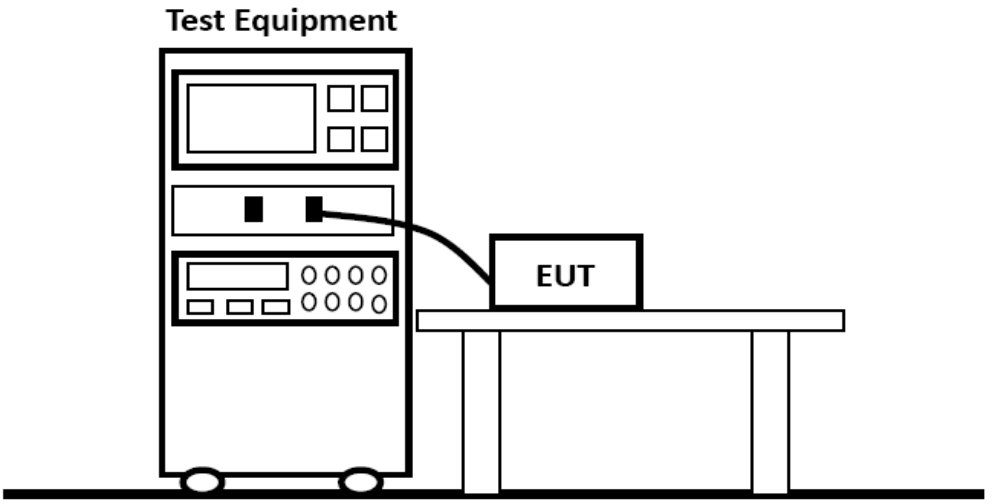
Same as Section 5.2.4, except the test setup replaced as Section 5.3.1.

5.3.4. Test Results

Refer to attached Annexe B.3

5.4. VOLTAGE FLUCTUATION AND FLICKER MEASUREMENT

5.4.1. Block Diagram of Test Setup



5.4.2. Test Standard

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

5.4.3. Operating Condition of EUT

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

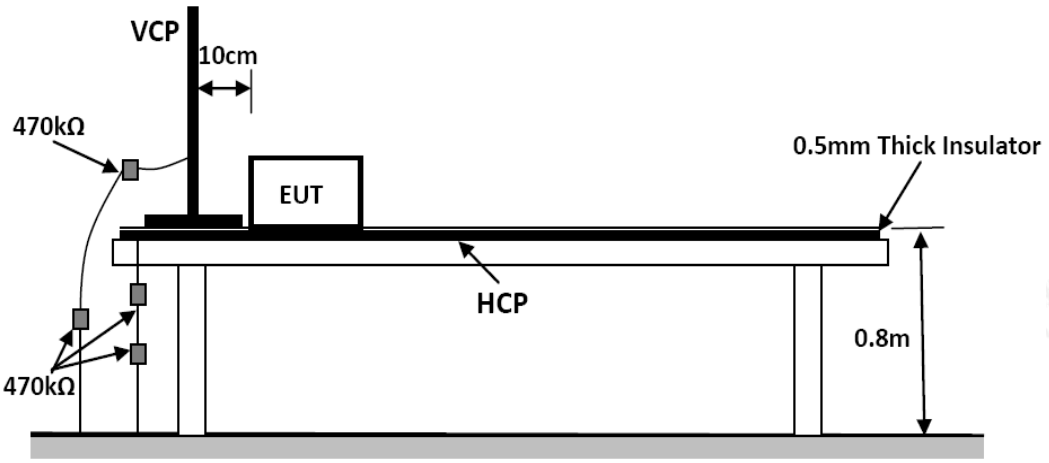
5.4.4. Test Results

PASS.

Refer to attached Annexe B.4

5.5. ELECTROSTATIC DISCHARGE IMMUNITY TEST

5.5.1. Block Diagram of Test Setup



5.5.2. Test Standard

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

5.5.3. Severity Levels and Performance Criterion

5.5.3.1. 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

5.5.3.2. Performance Criterion

Performance Criterion: B

5.5.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.5.1.

5.5.5. 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 5.5.1.

5.5.6. Test Procedure

5.5.6.1. 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

5.5.6.2. 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.

5.5.6.3. 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.

5.5.6.4. 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.

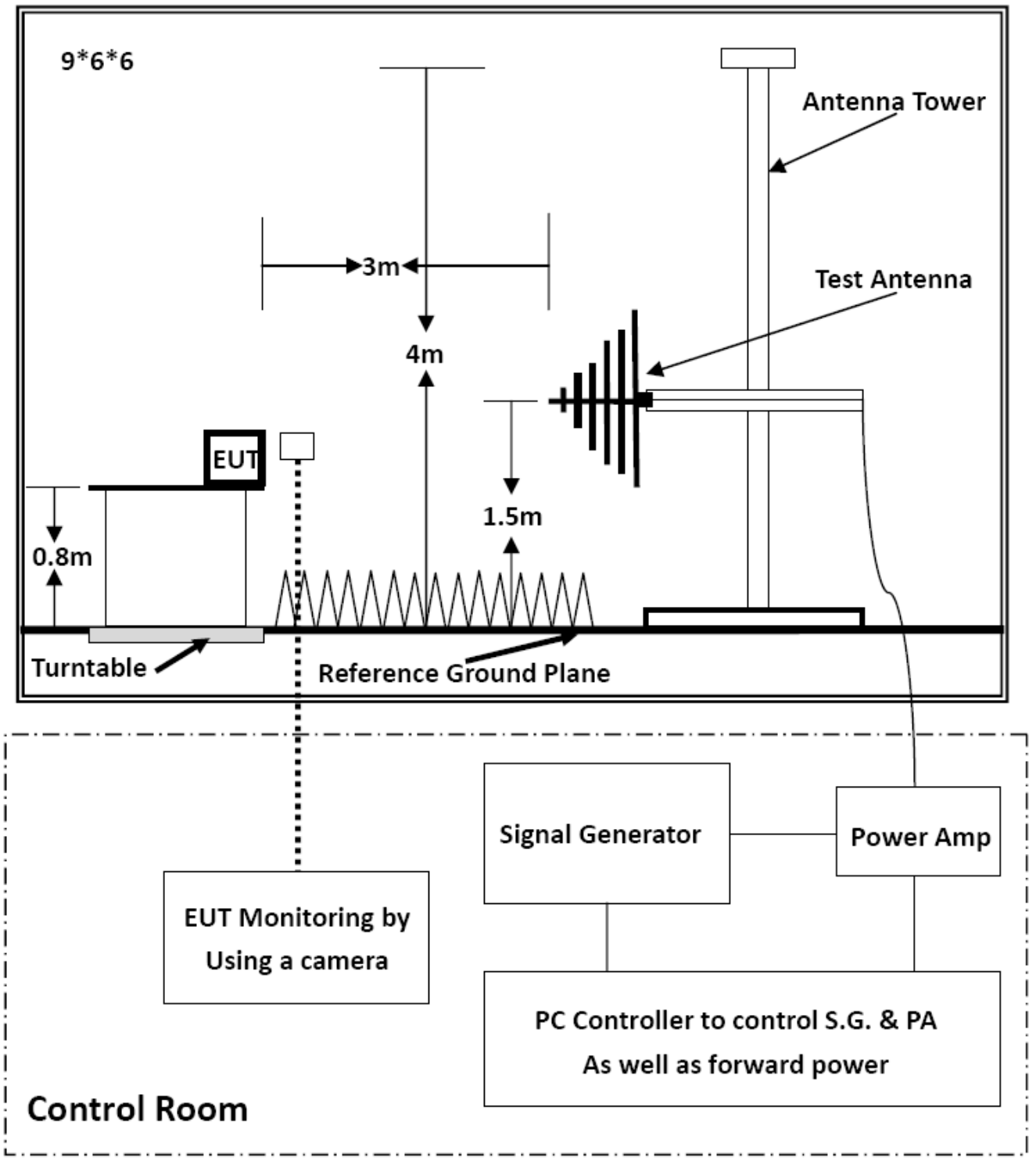
5.5.7. Test Results

PASS.

Refer to attached Annexe B.5

5.6. RF FIELD STRENGTH SUSCEPTIBILITY TEST

5.6.1. Block Diagram of Test Setup



5.6.2. Test Standard

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

5.6.3. Severity Levels and Performance Criterion

5.6.3.1. Severity level

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

5.6.3.2. Performance Criterion
Performance Criterion: A

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 radiated emission measurement, which is listed in Section 5.2.4, except the test setup replaced as Section 5.6.1.

5.6.6. 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.

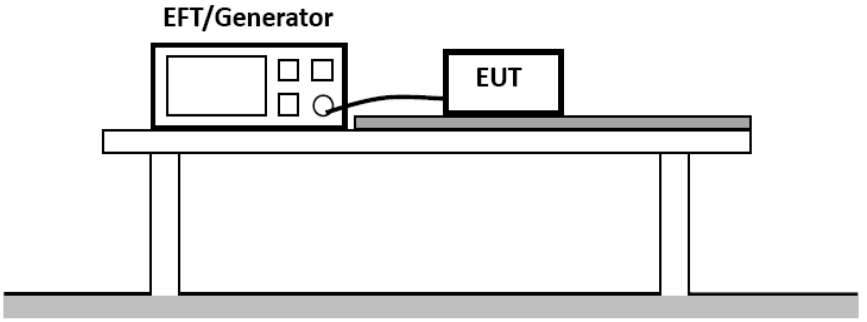
5.6.7. Test Results

PASS.

Refer to attached Annexe B.6

5.7. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

5.7.1. Block Diagram of Test Setup



5.7.2. Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-4: 2012, Severity Level, Level 2: 1KV)

5.7.3. Severity Levels and Performance Criterion

5.7.3.1. Severity level

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

5.7.3.2. Performance Criterion

Performance Criterion: B

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

5.7.5.1. Setup the EUT as shown in Section 5.7.1.

5.7.5.2. Turn on the power of all equipments.

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

5.7.6. 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.

5.7.6.1. 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.

5.7.6.2. For signal lines and control lines ports:
It's unnecessary to test.

5.7.6.3. For DC output line ports:
It's unnecessary to test.

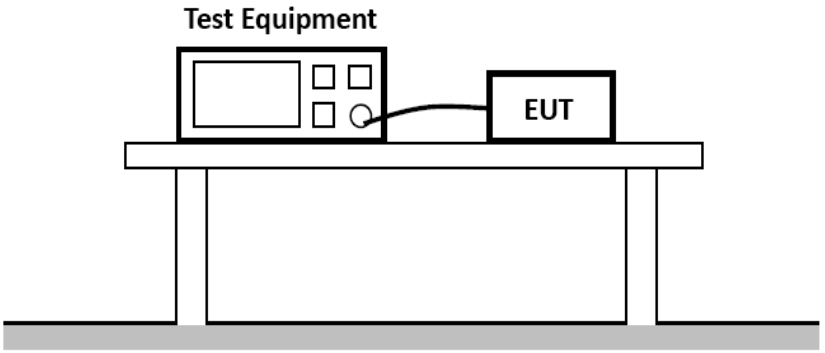
5.7.7. Test Results

PASS.

Refer to attached Annexe B.7

5.8. SURGE IMMUNITY TEST

5.8.1. Block Diagram of Test Setup



5.8.2. Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-5:2014+A1:2017, Severity Level: Line to Line: Level 2, 1.0KV, Line to Earth: Level 3, 2.0KV)

5.8.3. Severity Levels and Performance Criterion

5.8.3.1. Severity level

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

5.8.3.2. 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.
5.8.5.1.Turn on the power of all equipments.
5.8.5.1.Let the EUT work in test mode 1 and measure it.

5.8.6. Test Procedure

5.8.6.1. Set up the EUT and test generator as shown on Section 5.8.1.

5.8.6.2. 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.

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

5.8.6.4. Different phase angles are done individually.

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

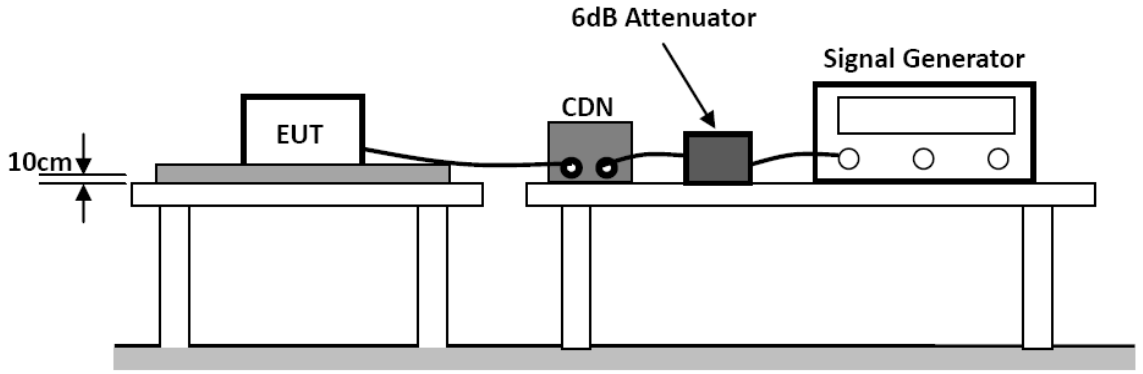
5.8.7. Test Results

PASS.

Refer to attached Annexe B.8

5.9. INJECTED CURRENTS SUSCEPTIBILITY TEST

5.9.1. Block Diagram of Test Setup



5.9.2. Test Standard

EN 55035:2017+A11:2020(EN 61000-4-6:2014+A1:2015, Severity Level: Level 2, (0.15MHz ~ 80MHz))

5.9.3. Severity Levels and Performance Criterion

5.9.3.1. Severity level

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

5.9.3.2. Performance Criterion
Performance Criterion: A

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.
5.9.5.2.Turn on the power of all equipments.
5.9.5.3.Let the EUT work in test mode1 and measure it.

5.9.6. Test Procedure

5.9.6.1. Set up the EUT, CDN and test generators as shown on Section 5.9.1.
5.9.6.2. Let the EUT work in test mode and measure it.
5.9.6.3. 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).
5.9.6.4. The disturbance signal described below is injected to EUT through CDN.
5.9.6.5. The EUT operates within its operational mode(s) under intended climatic conditions after power on.
5.9.6.6. 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.
5.9.6.7. The rate of sweep shall not exceed 1.5*10-3decades/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.
5.9.6.8. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

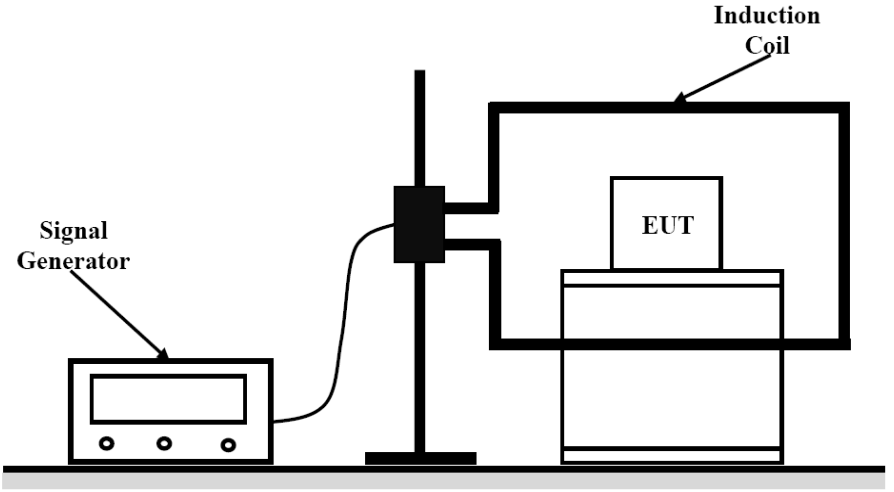
5.9.7. Test Results

PASS.

Refer to attached Annexe B.9

5.10. MAGNETIC FIELD SUSCEPTIBILITY TEST

5.10.1. Block Diagram of Test Setup



5.10.2. Test Standard

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

5.10.3. Severity Levels and Performance Criterion

5.10.3.1. Severity level

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

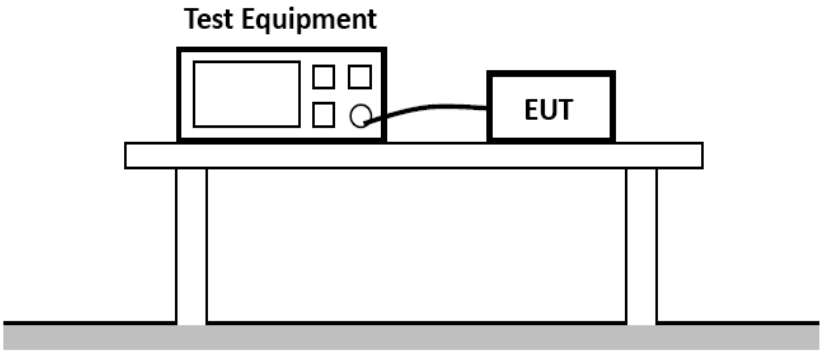
5.10.6. Test Results

PASS.

Refer to attached Annexe B.10

5.11. VOLTAGE DIPS AND INTERRUPTIONS TEST

5.11.1. Block Diagram of Test Setup



5.11.2. Test Standard

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

5.11.3. Severity Levels and Performance Criterion

5.11.3.1. 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

5.11.3.2. Performance Criterion

Performance Criterion: B&C

5.11.4. EUT Configuration on Test

The configuration of EUT is listed in Section 5.11.1.

5.11.5. Operating Condition of EUT

5.11.5.1. Setup the EUT as shown in Section 5.11.1.

5.11.5.2. Turn on the power of all equipments.

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

5.11.6. Test Procedure

5.11.6.1. Set up the EUT and test generator as shown on Section 5.11.1.

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

5.11.6.3. Record any degradation of performance.

5.11.7. Test Results

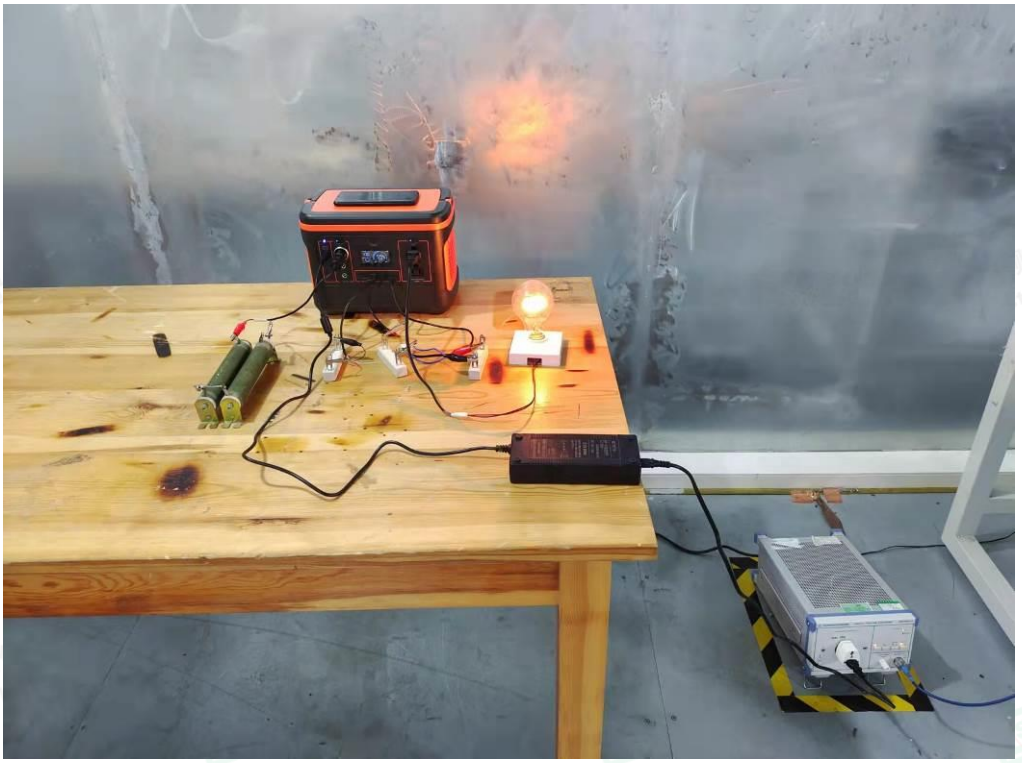
PASS.

Refer to attached Annexe B.11

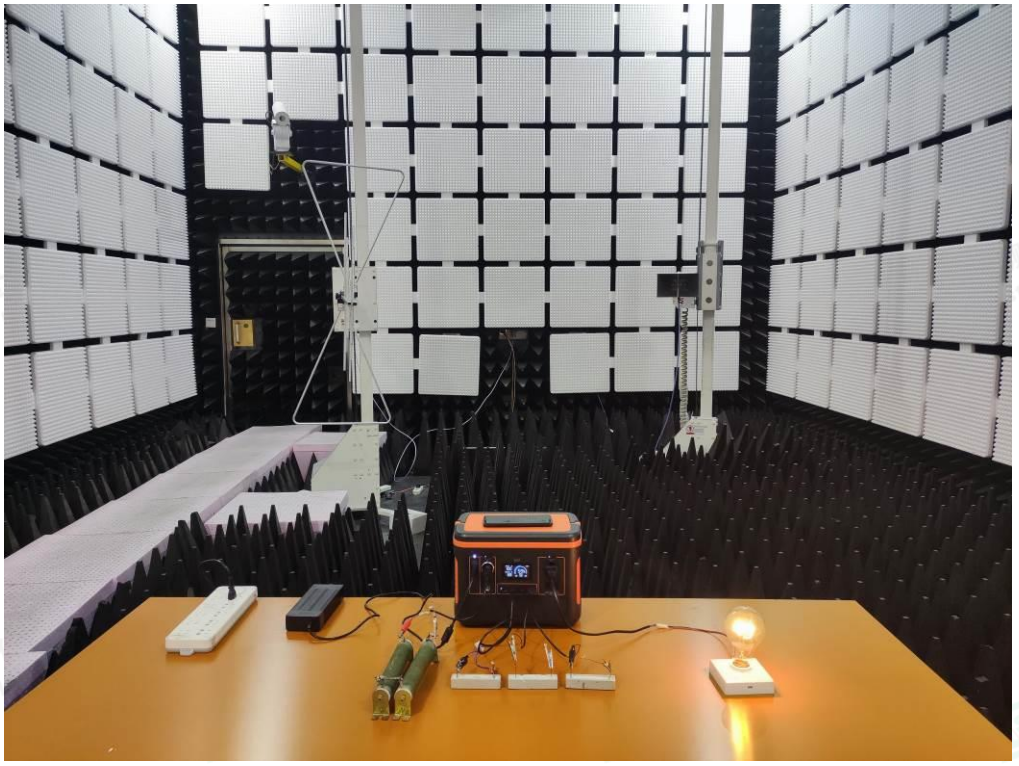
Annexe A

（Test photograph）

A.1 Test Setup Photo of Power Line Conducted Measurement



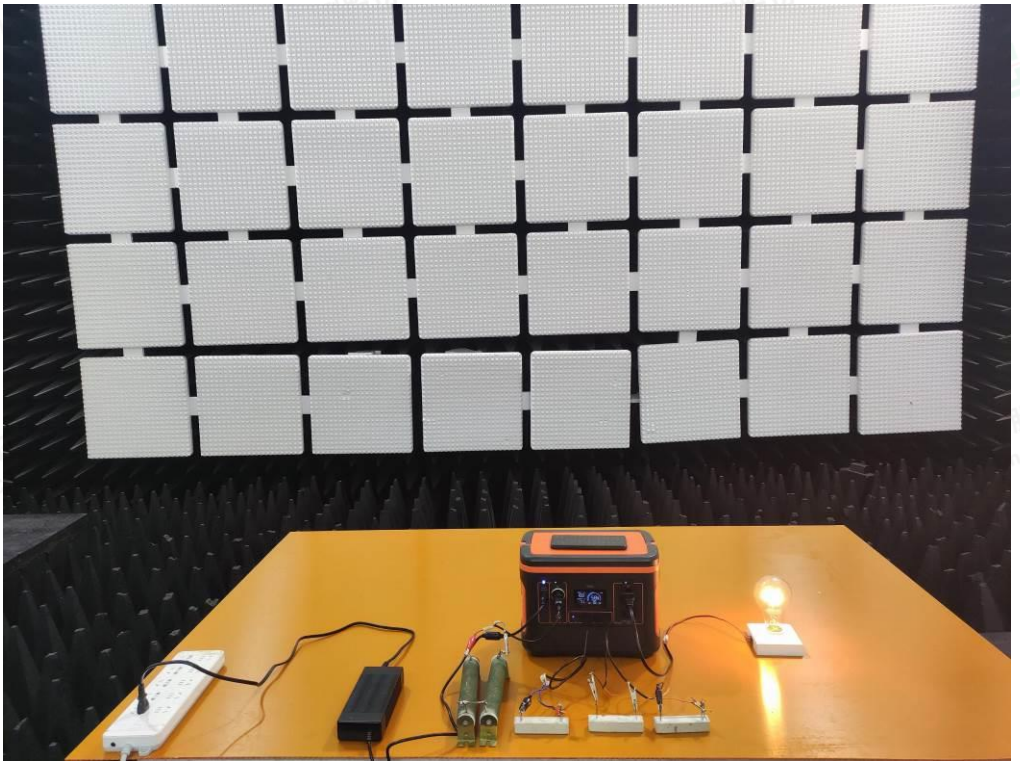
A.2 Test Setup Photo of Radiated Measurement (30MHz~1GHz)



A.3 Test Setup Photo of Harmonic & Flicker Measurement

A.4 Test Setup Photo of Electrostatic Discharge Test

A.5 RF Electromagnetic Field (80MHz to 6 000MHz)

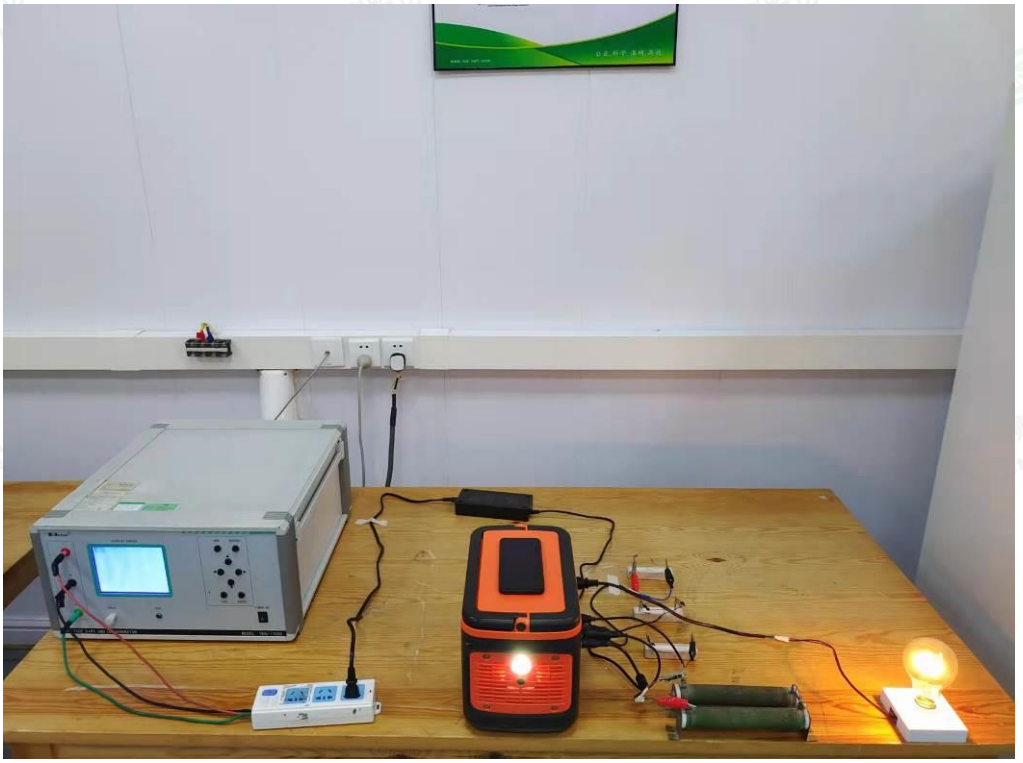


A.6 Photo of Electrical Fast Transient/Burst Test & Surge Immunity Test

A.7 Test Setup Photo of Injected Currents Susceptibility Test

A.8 Test Setup Photo of Magnetic Field Immunity Test

A.9 Test Setup Photo of Voltage Dips and Interruptions Test

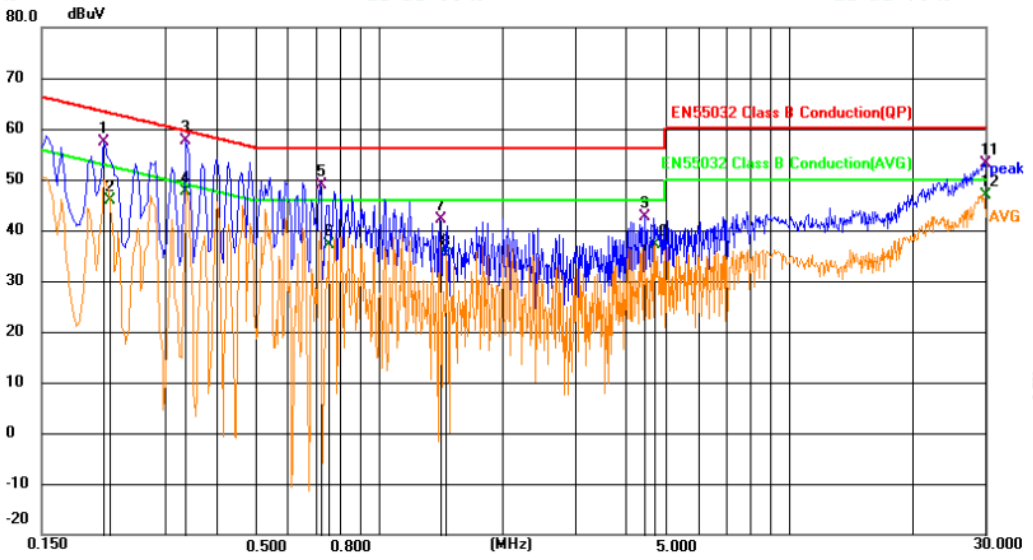


ANNEXE B

（Emission and Immunity test results）

B.1 POWER LINE CONDUCTED EMISSION MEASUREMENT

Environmental Conditions:	22.5℃, 53.7% RH
Test Voltage:	AC 230V,50Hz
Test Model:	YW-600
Test Mode:	Mode 1
Test Engineer:	Mark Chen
Pol:	Line
Detailed results are shown below	

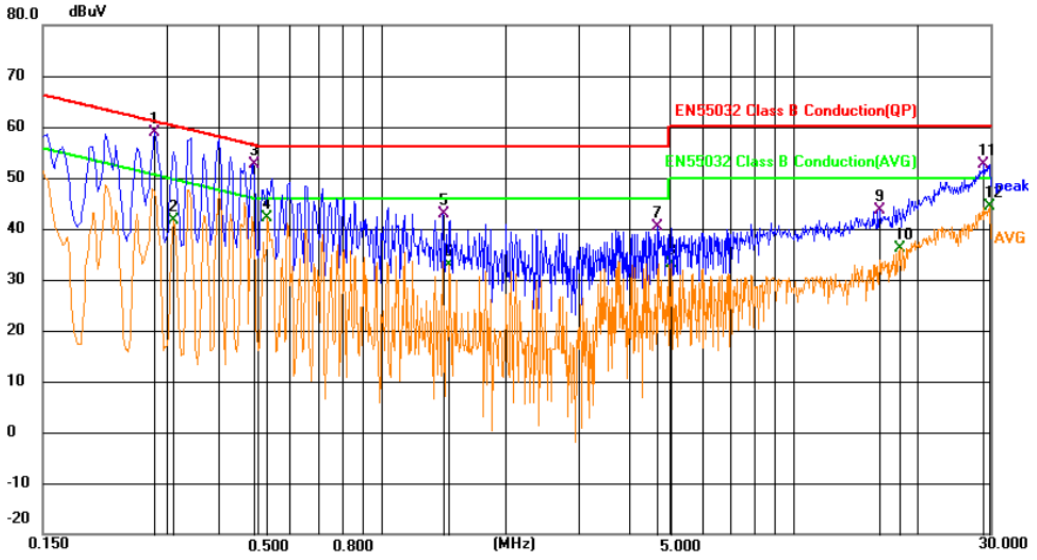


Site LAB Phase: *L1* Temperature: 22.5(C)

Limit: EN55032 Class B Conduction(QP) Power: AC 230V/50Hz Humidity: 53.7 %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.2131	37.72	19.75	57.47	63.08	-5.61	QP
2		0.2195	26.19	19.75	45.94	52.84	-6.90	AVG
3	*	0.3391	37.88	19.77	57.65	59.23	-1.58	QP
4		0.3391	27.84	19.77	47.61	49.23	-1.62	AVG
5		0.7168	28.95	19.81	48.76	56.00	-7.24	QP
6		0.7530	17.35	19.79	37.14	46.00	-8.86	AVG
7		1.4053	22.39	19.81	42.20	56.00	-13.80	QP
8		1.4595	15.25	19.81	35.06	46.00	-10.94	AVG
9		4.4476	22.63	19.90	42.53	56.00	-13.47	QP
10		4.7176	17.33	19.91	37.24	46.00	-8.76	AVG
11		29.9849	32.63	20.61	53.24	60.00	-6.76	QP
12		29.9849	26.18	20.61	46.79	50.00	-3.21	AVG

Environmental Conditions:	22.5℃, 53.7% RH
Test Voltage:	AC 230V,50Hz
Test Model:	YW-600
Test Mode:	Mode 1
Test Engineer:	Mark Chen
Pol:	Neutral
Detailed results are shown below	



Site LAB Phase: N Temperature: 22.5(C)

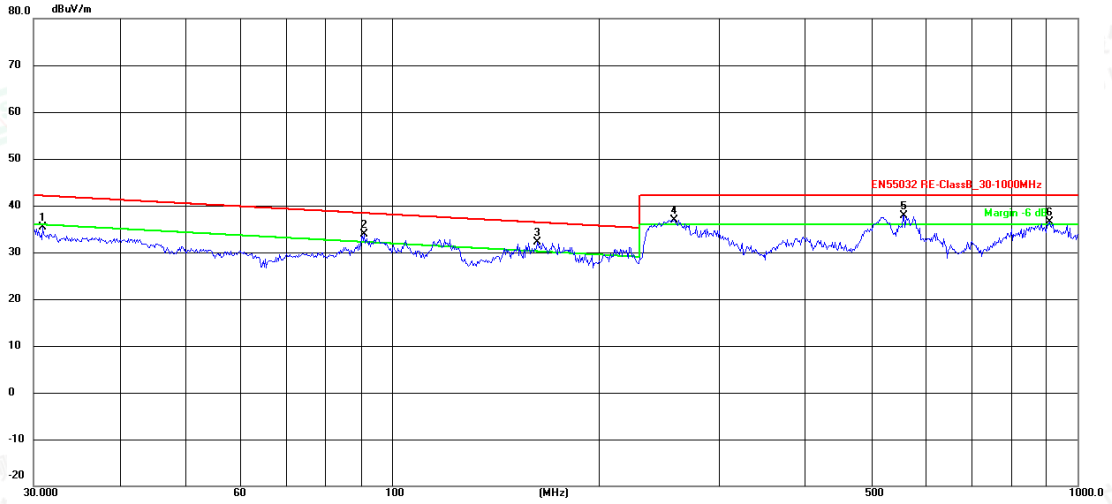
Limit: EN55032 Class B Conduction(QP) Power: AC 230V/50Hz Humidity: 53.7 %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.2806	39.22	19.75	58.97	60.80	-1.83	QP
2		0.3119	21.79	19.76	41.55	49.92	-8.37	AVG
3		0.4874	32.92	19.76	52.68	56.21	-3.53	QP
4		0.5280	22.46	19.77	42.23	46.00	-3.77	AVG
5		1.4053	23.19	19.80	42.99	56.00	-13.01	QP
6		1.4595	13.08	19.80	32.88	46.00	-13.12	AVG
7		4.6634	20.54	19.90	40.44	56.00	-15.56	QP
8		5.0415	13.21	19.92	33.13	50.00	-16.87	AVG
9		16.2149	22.99	20.61	43.60	60.00	-16.40	QP
10		18.1814	15.43	20.79	36.22	50.00	-13.78	AVG
11		28.9141	32.09	20.65	52.74	60.00	-7.26	QP
12		29.9581	23.65	20.66	44.31	50.00	-5.69	AVG

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

B.2 Radiated Disturbance Test Results（30MHz to 1000MHz）

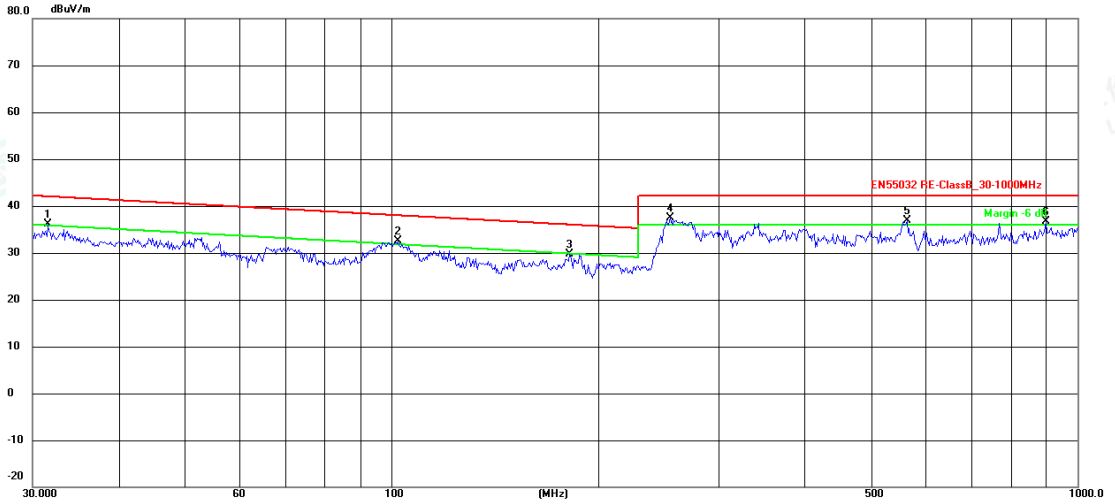
Environmental Conditions:	23.6℃, 52.2% RH
Test Voltage:	AC 230V,50Hz
Test Model:	YW-600
Test Mode:	Mode 1
Test Engineer:	Mark Chen
Pol:	Vertical
Detailed results are shown below	



Limit:	**EN55032 RE-ClassB_30-1000MHz**	**Antenna::Vertical**	**Temperature(C):23.6(C)**
Power Rating:	**AC 230V/50Hz**		**Humidity(%):52.2%**

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	30.9618	66.45	-31.04	35.41	41.89	-6.48	QP
2 !	91.1744	61.78	-27.82	33.96	38.18	-4.22	QP
3 *	163.1817	63.24	-31.13	32.11	36.18	-4.07	QP
4 !	258.3263	64.88	-27.93	36.95	42.00	-5.05	QP
5 !	558.7300	60.65	-22.75	37.90	42.00	-4.10	QP
6 !	909.6666	55.26	-18.73	36.53	42.00	-5.47	QP

Environmental Conditions:	23.6℃, 52.2% RH
Test Voltage:	AC 230V,50Hz
Test Model:	YW-600
Test Mode:	Mode 1
Test Engineer:	Mark Chen
Pol:	Horizontal
Detailed results are shown below	



Limit:	**EN55032 RE-ClassB_30-1000MHz**	**Antenna::Horizontal**	**Temperature(C):23.6(C)**
Power Rating:	**AC 230V/50Hz**		**Humidity(%):52.2%**

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1 !	31.6201	67.09	-30.96	36.13	41.82	-5.69	QP
2 !	102.3596	59.99	-27.46	32.53	37.78	-5.25	QP
3	181.9200	60.07	-30.34	29.73	35.81	-6.08	QP
4 *	254.7281	65.45	-27.97	37.48	42.00	-4.52	QP
5 !	564.6385	59.38	-22.51	36.87	42.00	-5.13	QP
6 !	900.1471	55.65	-18.88	36.77	42.00	-5.23	QP

B.3 HARMONIC CURRENT EMISSION MEASUREMENT

Test Model	YW-600	Test Engineer	Mark Chen
Test Voltage	AC 230V/50Hz		

Harmonic Results Against Chosen Limits:	Notes:
PASS	

Test Parameter Details	User Entered	Measured
Operating Frequency:	50	49.9840
Operating Voltage:	230	229.5668
Specified Power:	0.0000	131.8914
Fundamental Current:	0.0000	0.5744
Power Factor:	0.0000	1.0000
Average Input Current:		0.5735
Maximum POHC:		0.0009
POHC Limit:		0.2514
Maximum THC:		0.0052
Minimum Power:	75	
Class Multiplier:	1.0000	
Test Duration:	00:02:30	

Overall Result:	
PASS	

Class	Class A
Class Multiplier	1

Harm	Limit 1	Limit 2	Average Reading	<L1 <L2	Max Reading	<L2	Pass FAIL	Harm	Limit 1	Limit 2	Average Reading	<L1 <L2	Max Reading	<L2	Pass FAIL
2	1.0800A	1.6200A	0.703mA	N/A	0.760mA	N/A	N/A	3	2.3000A	3.4500A	4.420mA	N/A	4.486mA	N/A	N/A
4	430.0mA	645.0mA	0.284mA	N/A	0.318mA	N/A	N/A	5	1.1400A	1.7100A	1.866mA	N/A	1.919mA	N/A	N/A
6	300.0mA	450.0mA	0.371mA	N/A	0.405mA	N/A	N/A	7	770.0mA	1.1550A	0.449mA	N/A	0.506mA	N/A	N/A
8	230.0mA	345.0mA	0.195mA	N/A	0.267mA	N/A	N/A	9	400.0mA	600.0mA	0.437mA	N/A	0.493mA	N/A	N/A
10	184.0mA	276.0mA	0.368mA	N/A	0.390mA	N/A	N/A	11	330.0mA	495.0mA	0.502mA	N/A	0.533mA	N/A	N/A
12	153.3mA	230.0mA	0.263mA	N/A	0.291mA	N/A	N/A	13	210.0mA	315.0mA	0.378mA	N/A	0.404mA	N/A	N/A
14	131.4mA	197.1mA	0.167mA	N/A	0.186mA	N/A	N/A	15	150.0mA	225.0mA	0.578mA	N/A	0.609mA	N/A	N/A
16	115.0mA	172.5mA	0.294mA	N/A	0.316mA	N/A	N/A	17	132.3mA	198.5mA	0.261mA	N/A	0.288mA	N/A	N/A
18	102.2mA	153.3mA	0.189mA	N/A	0.209mA	N/A	N/A	19	118.4mA	177.6mA	0.209mA	N/A	0.233mA	N/A	N/A
20	92.00mA	138.0mA	0.277mA	N/A	0.301mA	N/A	N/A	21	107.1mA	160.7mA	0.253mA	N/A	0.280mA	N/A	N/A
22	83.63mA	125.4mA	0.158mA	N/A	0.174mA	N/A	N/A	23	97.82mA	146.7mA	0.369mA	N/A	0.394mA	N/A	N/A
24	76.66mA	115.0mA	0.382mA	N/A	0.408mA	N/A	N/A	25	90.00mA	135.0mA	0.434mA	N/A	0.461mA	N/A	N/A
26	70.76mA	106.1mA	0.339mA	N/A	0.374mA	N/A	N/A	27	83.33mA	125.0mA	0.392mA	N/A	0.419mA	N/A	N/A
28	65.71mA	98.57mA	0.168mA	N/A	0.188mA	N/A	N/A	29	77.58mA	116.3mA	0.185mA	N/A	0.206mA	N/A	N/A
30	61.33mA	92.00mA	0.196mA	N/A	0.217mA	N/A	N/A	31	72.58mA	108.8mA	0.189mA	N/A	0.210mA	N/A	N/A
32	57.50mA	86.25mA	0.186mA	N/A	0.211mA	N/A	N/A	33	68.18mA	102.2mA	0.235mA	N/A	0.254mA	N/A	N/A
34	54.11mA	81.17mA	0.156mA	N/A	0.171mA	N/A	N/A	35	64.28mA	96.42mA	0.172mA	N/A	0.199mA	N/A	N/A
36	51.11mA	76.66mA	0.175mA	N/A	0.195mA	N/A	N/A	37	60.81mA	91.21mA	0.203mA	N/A	0.227mA	N/A	N/A
38	48.42mA	72.63mA	0.197mA	N/A	0.215mA	N/A	N/A	39	57.69mA	86.53mA	0.158mA	N/A	0.176mA	N/A	N/A
40	46.00mA	69.00mA	0.238mA	N/A	0.258mA	N/A	N/A								

<L1 : Reading is below limit 1.

<L2 : Reading is below limit 2.

N/A : Harmonic current below 0.6% of rated current or 5mA, whichever is greater, are disregarded.

B.4 VOLTAGE FLUCTUATION AND FLICKER MEASUREMENT

Test Model	YW-600	Test Engineer	Mark Chen
Test Voltage	AC 230V/50Hz		

Type of Test:	Flickermeter Test - Table
Power Analyzer:	Voltech PM6000 SN: 200006700523 Firmware Version: v1.21.07RC2 Channel(s): 1. SN: 090015502053, 28 Adjusted Date: 22 JUN 2011. 2. SN:None Adjusted Date:None 3. SN:None Adjusted Date:None 4. SN:None Adjusted Date:None 5. SN:None Adjusted Date:None 6. SN:None Adjusted Date:None Shunt(s): 1. SN: 091024301916, 4 Adjusted Date: 23 JUN 2011. 2. SN:None Adjusted Date:None 3. SN:None Adjusted Date:None 4. SN:None Adjusted Date:None 5. SN:None Adjusted Date:None 6. SN:None Adjusted Date:None
AC Source:	Mains / Manual Source
Overall Result: **PASS**	Notes: Measurement method - Voltage

	Pst	dc (%)	dmax (%)	d(t) > 3.3%(ms)
Limit	1.000	3.300	4.000	500
Reading 1	0.089	0.011	0.113	0

B.5 ELECTROSTATIC DISCHARGE IMMUNITY TEST

Electrostatic Discharge Test Results

Standard	☐ IEC 61000-4-2 ☑ EN 61000-4-2		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	23.3℃
M/N	YW-600	**Humidity**	52.2%
Criterion	B	**Pressure**	1021mbar
Test Mode	Mode 1	**Test Engineer**	Mark Chen

Air Discharge

Test Points	Test Levels			Results		
	± 2kV	± 4kV	± 8kV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☒	☐	☐A ☒B
Top	☒	☒	☒	☒	☐	☐A ☒B
Bottom	☒	☒	☒	☒	☐	☐A ☒B

Contact Discharge

Test Points	Test Levels		Results		
	± 2 kV	±4 kV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B
Top	☒	☒	☒	☐	☐A ☒B
Bottom	☒	☒	☒	☐	☐A ☒B

Discharge To Horizontal Coupling Plane

Side of EUT	Test Levels		Results		
	± 2 kV	± 4 kV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B

Discharge To Vertical Coupling Plane

Side of EUT	Test Levels		Results		
	± 2 kV	± 4 kV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B

B.6 RF FIELD STRENGTH SUSCEPTIBILITY TEST

RF Field Strength Susceptibility Test Results			
Standard	☐ IEC 61000-4-3 ☑ EN 61000-4-3		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	23.4℃
M/N	YW-600	**Humidity**	52.6%
Field Strength	3 V/m	**Criterion**	A
Test Mode	Mode 1	**Test Engineer**	Mark Chen
Test Frequency	80MHz to 1000MHz (swept test) 1800MHz, 2600MHz, 3500MHz, 5000MHz (spot test)		
Modulation	☐None ☐ Pulse ☑AM 1KHz 80%		
Steps	1%		

	Horizontal	Vertical
Front	PASS	PASS
Right	PASS	PASS
Rear	PASS	PASS
Left	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.7 ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

Electrical Fast Transient/Burst Test Results			
Standard	☐ IEC 61000-4-4 ☑ EN 61000-4-4		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	22.3℃
M/N	YW-600	**Humidity**	52.3%
Test Mode	Mode 1	**Criterion**	B
Test Engineer	Mark Chen		

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.8 SURGE IMMUNITY TEST

Surge Immunity Test Result			
Standard	☐ IEC 61000-4-5 ☑ EN 61000-4-5		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	23.1℃
M/N	YW-600	**Humidity**	52.5%
Test Mode	Mode 1	**Criterion**	B
Test Engineer	Mark Chen		

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

B.9 INJECTED CURRENTS SUSCEPTIBILITY TEST

Injected Currents Susceptibility Test Results			
Standard	☐ IEC 61000-4-6 ☑ EN 61000-4-6		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	23.2℃
M/N	YW-600	**Humidity**	53.4%
Test Mode	Mode 1	**Criterion**	A
Test Engineer	Mark Chen		

Frequency Range (MHz)	Injected Position	Strength (Unmodulated)	Criterion	Result
0.15 ~ 10	AC Mains	3V	A	PASS
10 ~ 30		3V ~ 1V		
30 ~ 80		1V		

Remark:
1. Modulation Signal:1kHz 80% AM
2. Measurement Equipment :
Simulator: CIT-10 (FRANKONIA)
CDN : ☑CDN-M2 (FRANKONIA)
☐CDN-M3 (FRANKONIA)

Note:

B.10 MAGNETIC FIELD SUSCEPTIBILITY TEST

Magnetic Field Immunity Test Result			
Standard	☐ IEC 61000-4-8 ☑ EN 61000-4-8		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	22.4℃
M/N	YW-600	**Humidity**	52.2%
Test Mode	Mode 1	**Criterion**	A
Test Engineer	Mark Chen		

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.11 VOLTAGE DIPS AND INTERRUPTIONS TEST

Voltage Dips And Interruptions Test Results			
Standard	☐ IEC 61000-4-11 ☑ EN 61000-4-11		
Applicant	V-TAC EXPORT LIMITED		
EUT	Portable Power Station	**Temperature**	23.1℃
M/N	YW-600	**Humidity**	54.0%
Test Mode	Mode 1	**Criterion**	B&C
Test Engineer	Mark Chen		

Test Level % U_T	Voltage Dips & Short Interruptions % U_T	Duration (in periods)	Criterion	Result
0	100	0.5P	B	PASS
70	30	25P	C	PASS
0	100	250P	C	PASS

Note:

ANNEXE C

（External and internal photos of the EUT）

Fig.1

Fig.2

Fig.3

Fig.4

Fig.5

Fig.6


PURE SINE-WAVE

Fig.7


INPUT
12V-24V
DC
12V-8A
POWER
AC
USB
5V-2.4A
USB-C 65W
QC18W
PURE SINE-WAVE
600W

Fig.8

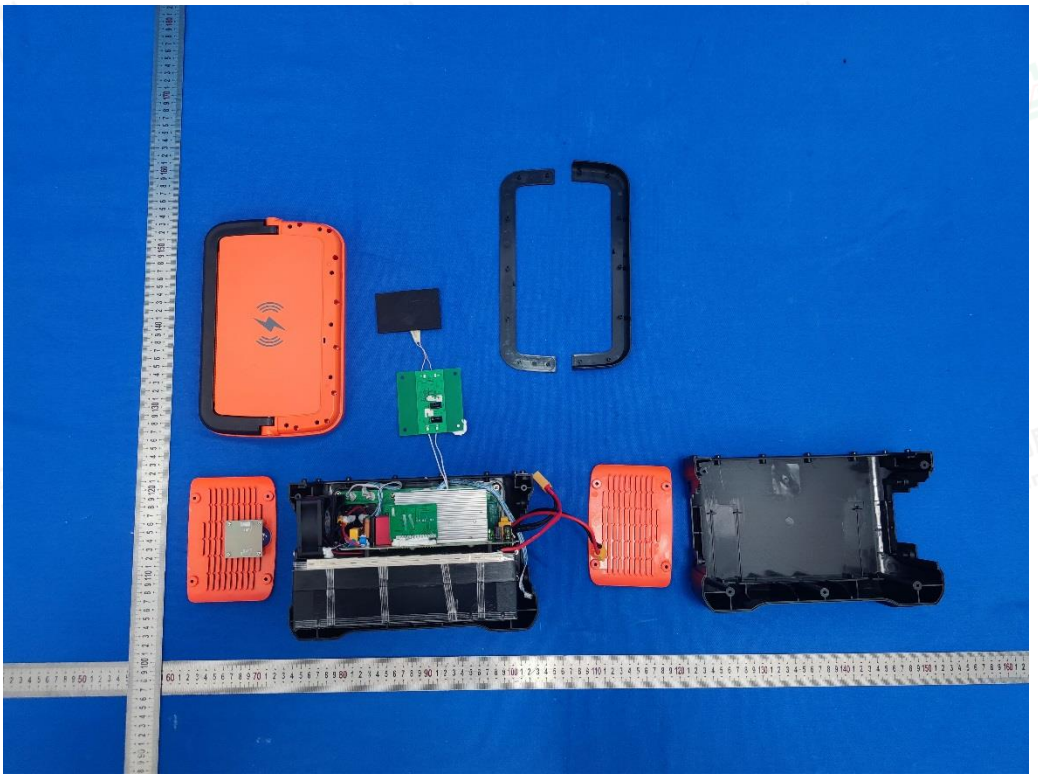


Fig.9

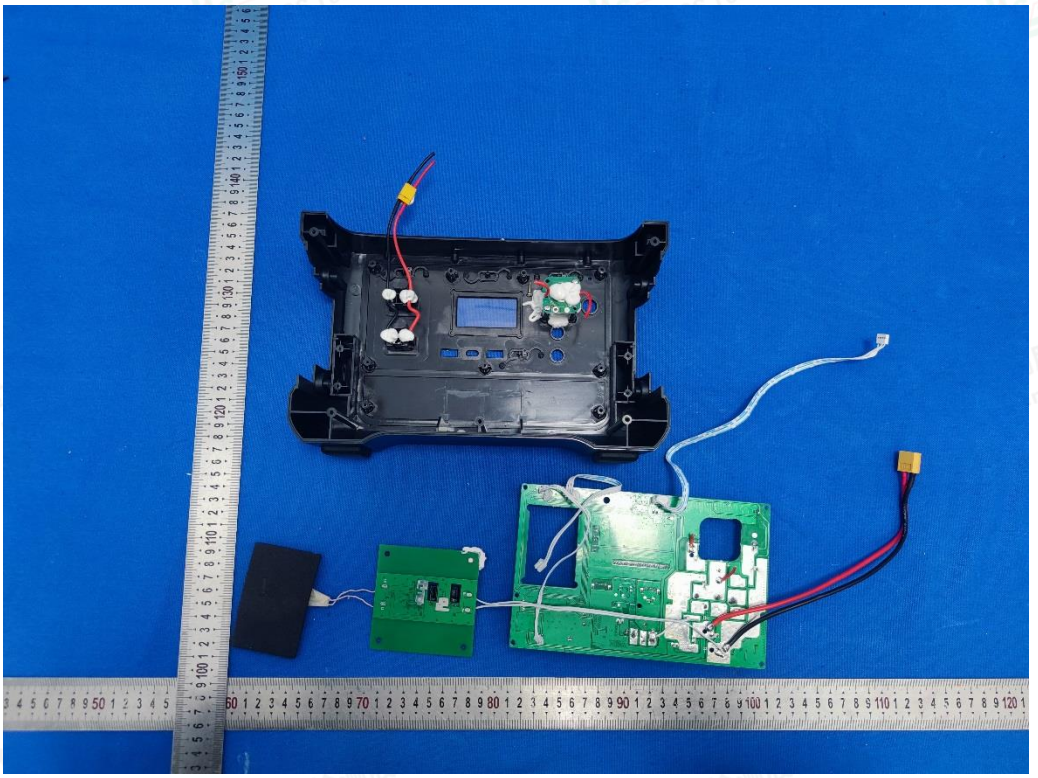


Fig.10

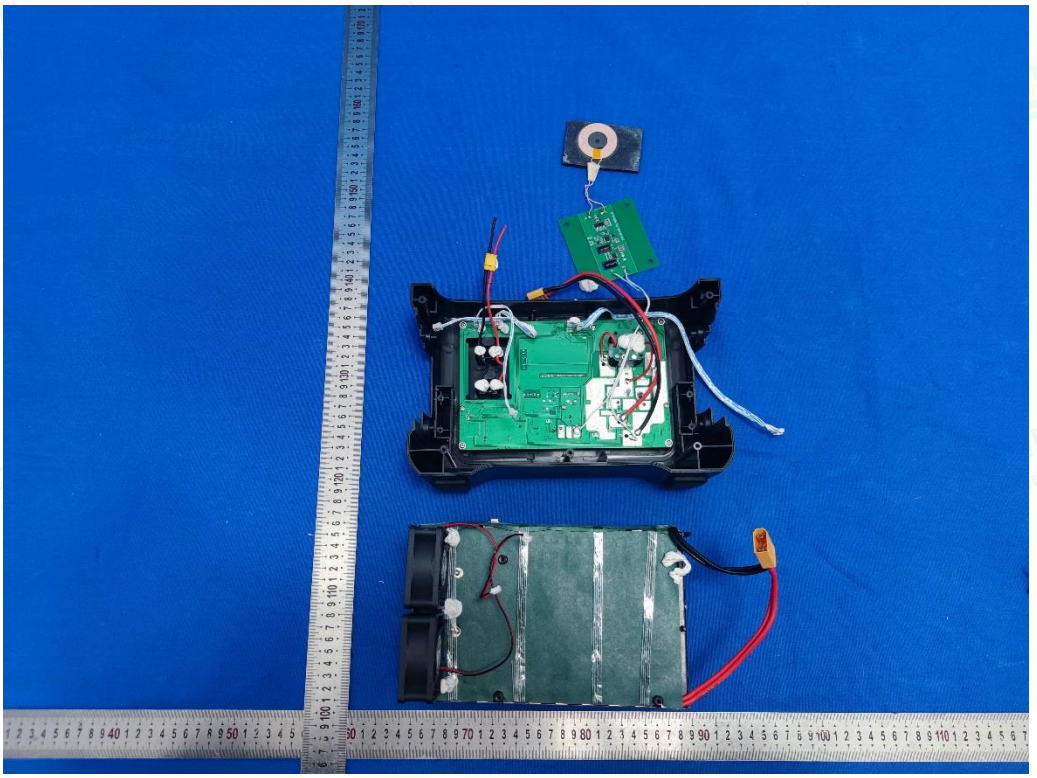


Fig.11

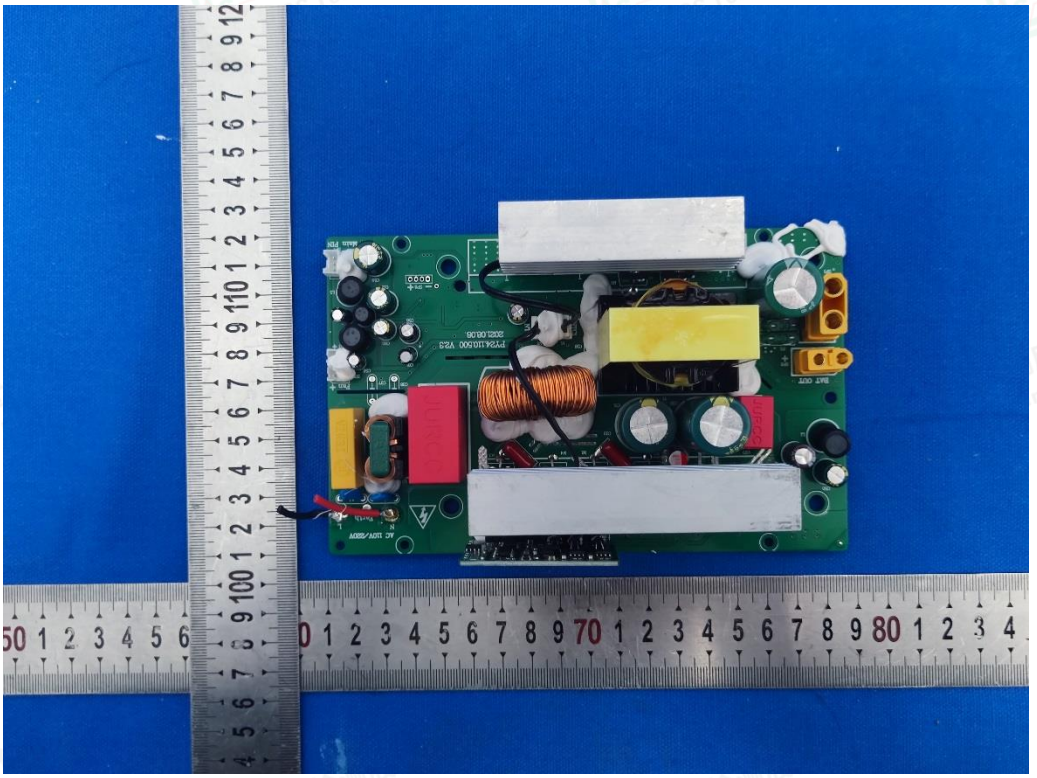


Fig.12

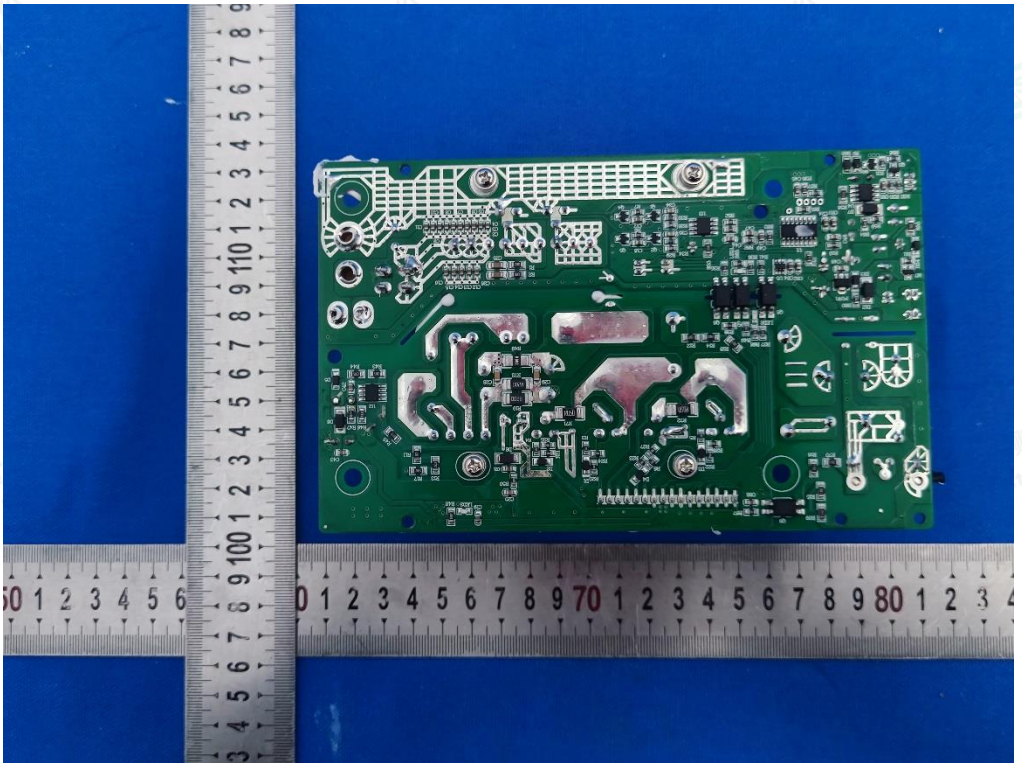


Fig.13

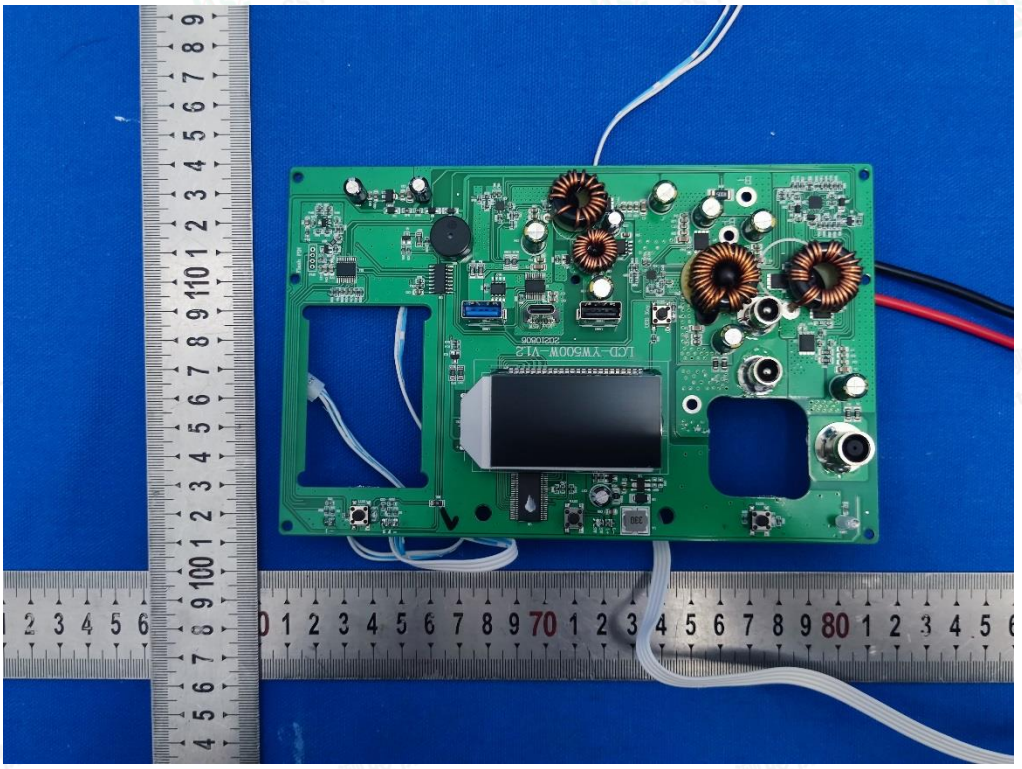


Fig.14

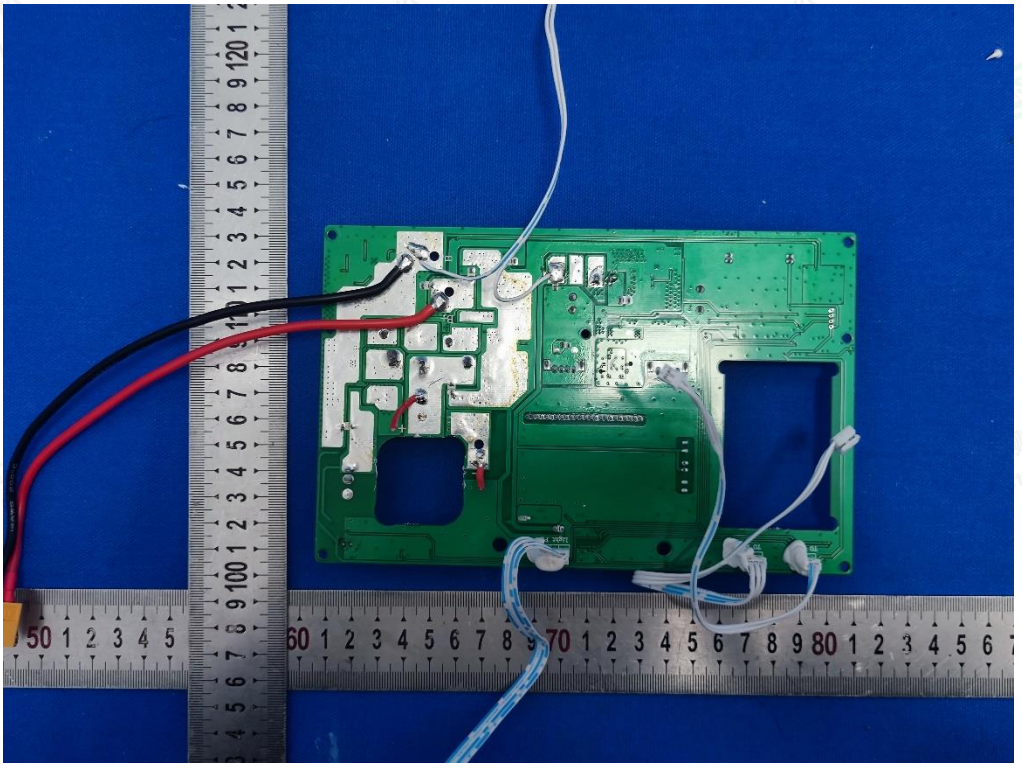


Fig.15

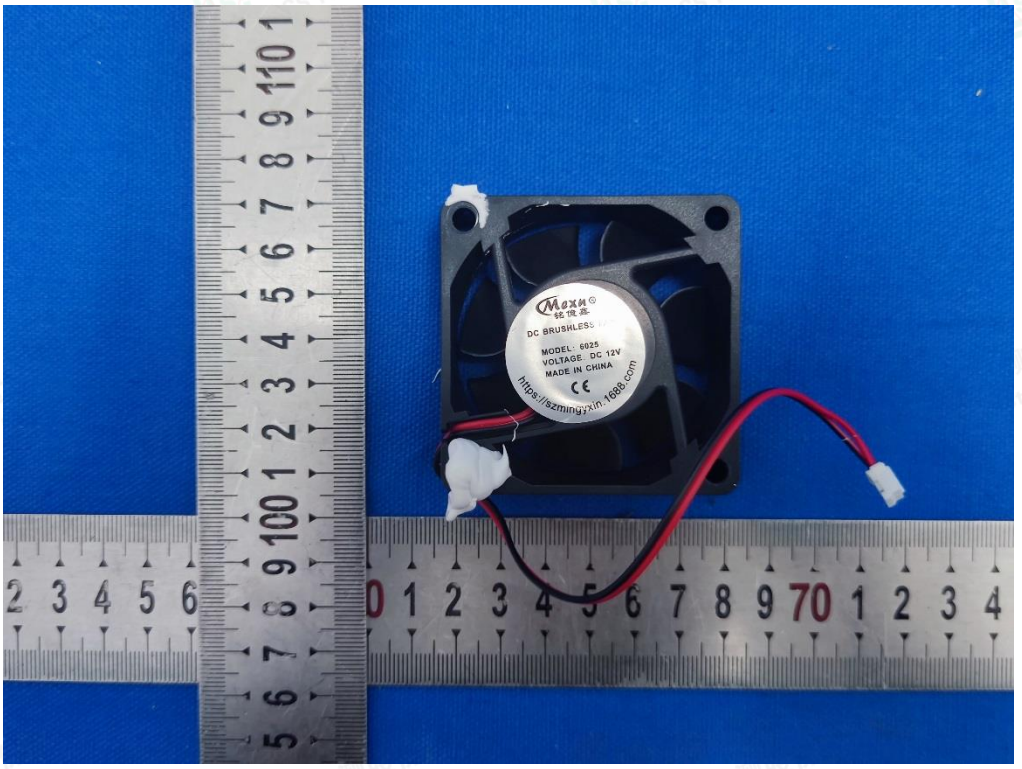


Fig.16

Fig.17

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