EMC TEST REPORT

For

MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD

LiFePO4 Battery

Test Model: LP16-48100

Additional Model No.: Please Refer to Page 8

Prepared for	:	MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD
Address	:	1-5F, 7F, 9F, 10Fof No.8 building, No. 115, Zhangcha Road 1, Chancheng district, Foshan city, Guangdong Province, P.R. China
Prepared by	:	Shenzhen STE Testing Laboratory Co., Ltd
Address	:	Room 301(left side), Building 9, Dehong Factory Building, No. 63 Yuchang Road, Niuhu Community, Guanlan Street, Longhua District, Shenzhen
Date of receipt of test sample	:	March 30, 2022
Number of tested samples	:	1
Serial number	:	Prototype
Date of Test	:	March 30, 2022 ~ April 07, 2022
Date of Report	:	April 07, 2022

EMC TEST REPORT

EN 61000-6-3: 2007+A1: 2011+AC: 2012

Emission standard for residential, commercial and light-industrial environments

EN IEC 61000-6-1:2019

Immunity for residential, commercial and light-industrial environments

Report Reference No. .....:	**STE22033001E**
Date Of Issue.....:	April 07, 2022
Testing Laboratory Name.....:	**Shenzhen STE Testing Laboratory Co., Ltd**
Address.....:	Room 301(left side), Building 9, Dehong Factory Buildin g, No. 63 Yuchang Road, Niuhu Community, Guanlan Str eet, Longhua District, Shenzhen
Testing Location/ Procedure....:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name.....:	**MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD**
Address.....:	1-5F, 7F, 9F, 10Fof No.8 building, No. 115, Zhangcha Road 1, Chancheng district, Foshan city, Guangdong Province, P.R. China
Test Specification:	
Standard.....:	EN 61000-6-3: 2007+A1: 2011+AC: 2012 EN IEC 61000-6-1:2019, EN IEC 61000-3-2:2019 EN 61000-3-3: 2013 +A1:2019
Test Report Form No.....:	EMC-1.0
TRF Originator.....:	Shenzhen STE Testing Laboratory Co., Ltd
Master TRF.....:	Dated 2011-03

Test Item Description.....:	**LiFePO4 Battery**
Trade Mark.....:	MUST
Test Model.....:	LP16-48100
Ratings.....:	DC 51.2V, 100Ah
Result .....:	**Pass**

Compiled by:	**Supervised by:**	**Approved by:**
Hunter Liang	Todd Qian	Fly Li
Hunter Liang/ File administrators	Todd Qian/ Technique principal	Fly Li/Manager

EMC -- TEST REPORT

Test Report No. : STE22033001E	April 07, 2022 Date of issue

Test Model	:	LP16-48100
EUT.....	:	LiFePO4 Battery
Applicant.....	**:**	**MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD**
Address.....	:	1-5F, 7F, 9F, 10Fof No.8 building, No. 115, Zhangcha Road 1, Chancheng district, Foshan city, Guangdong Province, P.R. China
Telephone.....	:	0757-82983699
Fax.....	:	/
Manufacturer.....	**:**	**MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD**
Address.....	:	1-5F, 7F, 9F, 10Fof No.8 building, No. 115, Zhangcha Road 1, Chancheng district, Foshan city, Guangdong Province, P.R. China
Telephone.....	:	0757-82983699
Fax.....	:	/
Factory.....	**:**	**MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD**
Address.....	:	1-5F, 7F, 9F, 10Fof No.8 building, No. 115, Zhangcha Road 1, Chancheng district, Foshan city, Guangdong Province, P.R. China
Telephone.....	:	0757-82983699
Fax.....	:	/

Test Result:	**Pass**

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	April 07, 2022	Initial Issue	Fly Li

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1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

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

EMISSION (EN 61000-6-3: 2007+A1: 2011+AC: 2012)			
Description of Test Item	**Standard**	**Limits**	**Results**
Conducted disturbance at mains terminals	EN 55032: 2015	Class B	N/A
Conducted disturbance at telecommunication port	EN 55032: 2015	Class B	N/A
Radiated disturbance	EN 55032: 2015	Class B	PASS
Harmonic current emissions	EN 61000-3-2: 2014	Class A	N/A
Voltage fluctuations & flicker	EN 61000-3-3: 2013	--------	N/A

IMMUNITY (EN IEC 61000-6-1:2019)			
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	C	N/A
Surge (Telecommunication ports)		C	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		B	N/A
Voltage interruptions		C	N/A
N/A is an abbreviation for Not Applicable.			

1.2.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;
— tests of all peripheral access (hard disks, floppy disks, printers, keyboard, mouse, etc.);
— quality of software execution;
— quality of data display and transmission;
— quality of speech transmission.

1.2.1.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.

1.2.2.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.

1.2.3.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.

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

EUT	:	LiFePO4 Battery
Trade mark	:	MUST
Test Model	:	LP16-48100
List Model	:	N/A
Additional Model No	:	LP16-4850, LP16-4890, LP16-48120, LP16-48150, LP16-48200, LP16-48220, LP16-48250, LP16-48260
Power Supply	:	DC 51.2V, 100Ah

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.	

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

2.2.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.

2.3.Measurement Uncertainty

Test Item	Frequency Range	Expanded uncertainty (Ulab)	Expanded uncertainty (Ucispr)
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)	± 2.90dB	± 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	± 0.510%	N/A
Voltage Fluctuations & Flicker	Voltage	± 0.510%	N/A
EMF		± 21.59%	N/A

(1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.

(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1.Radiated Disturbance (Electric Field)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Software	AUDIX	E3	/	2022-06-10
2	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2022-06-10
3	Positioning Controller	MF	MF-7082	/	2022-06-10
4	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2022-06-10
5	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2022-06-10
6	EMI Test Receiver	R&S	ESR 7	101181	2022-06-10
7	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2022-11-15
8	AMPLIFIER	QuieTek	QTK	CHM/0809065	2022-11-15
9	RF Cable-R03m	Jye Bao	RG142	CB021	2022-06-10
10	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2022-06-10

3.2.Electrostatic Discharge

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ESD Simulator	SCHLODER	SESD 230	604035	2022-06-10

3.3.RF Field Strength Susceptibility

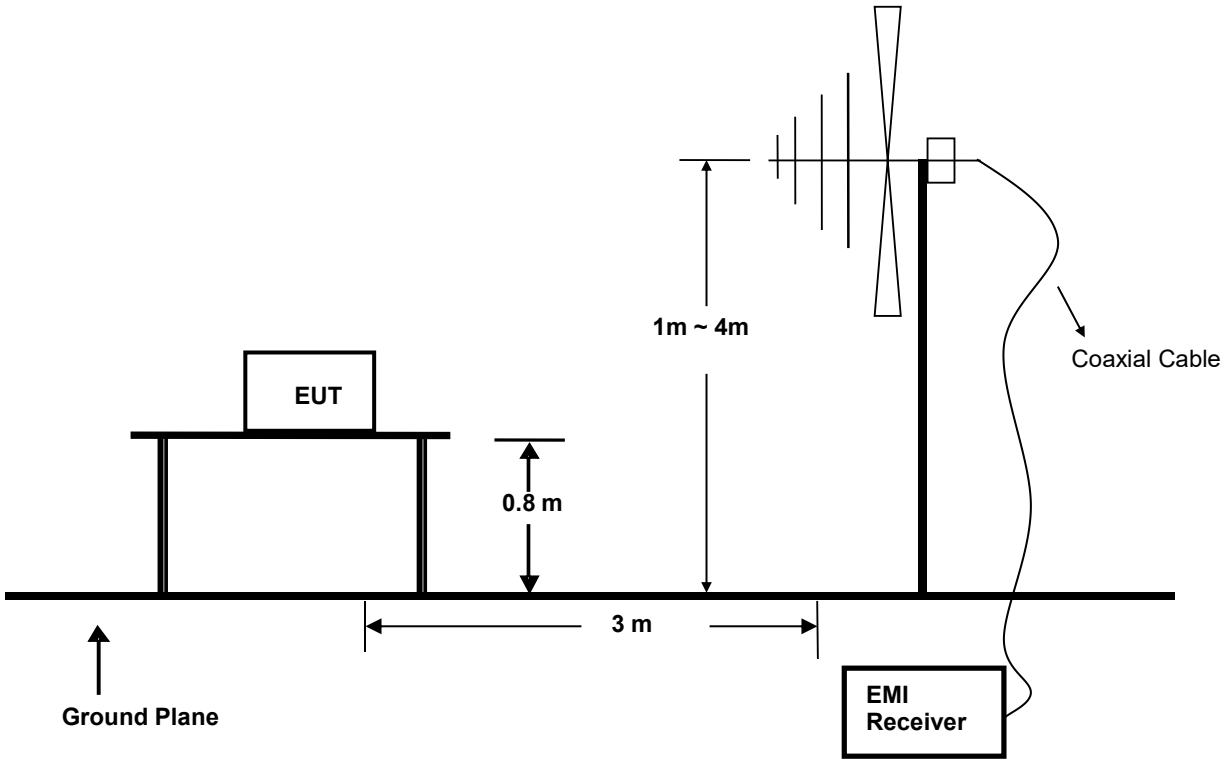
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	RS Test Software	Tonscend	/	/	N/A
2	ESG Vector Signal Generator	Agilent	E4438C	MY42081396	2022-11-14
3	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2022-06-11
4	RF POWER AMPLIFIER	OPHIR	5225R	1052	2022-11-21
5	RF POWER AMPLIFIER	OPHIR	5273F	1019	2022-11-21
6	Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	2022-11-21
7	Stacked Mikrowellen Log.-Per Antenna	SCHWARZBECK	STLP 9149	9149-484	2022-11-21
8	RS Test Software	Tonscend	/	/	2023-03-24
Note: NCR means no calibration requirement					

3.4.Power Frequency Magnetic Field Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power frequency mag-field generator System	EVERFINE	EMS61000-8K	906003	2022-06-10

4. RADIATED EMISSION MEASUREMENT

4.1.Block Diagram of Test Setup



4.2.Measuring Standard

EN 61000-6-3: 2007+A1: 2011+AC: 2012(EN 55032: 2015)

4.3.Radiated Emission Limits

EN 55032 Limits:

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:

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT (dBμV/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.
(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

4.4.EUT Configuration on Test

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

4.5.Operating Condition of EUT

4.5.1 Turn on the power.

4.5.2 After that, let the EUT work in test mode (Discharging) and measure it.

4.6.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 Receiver is set at 120kHz.

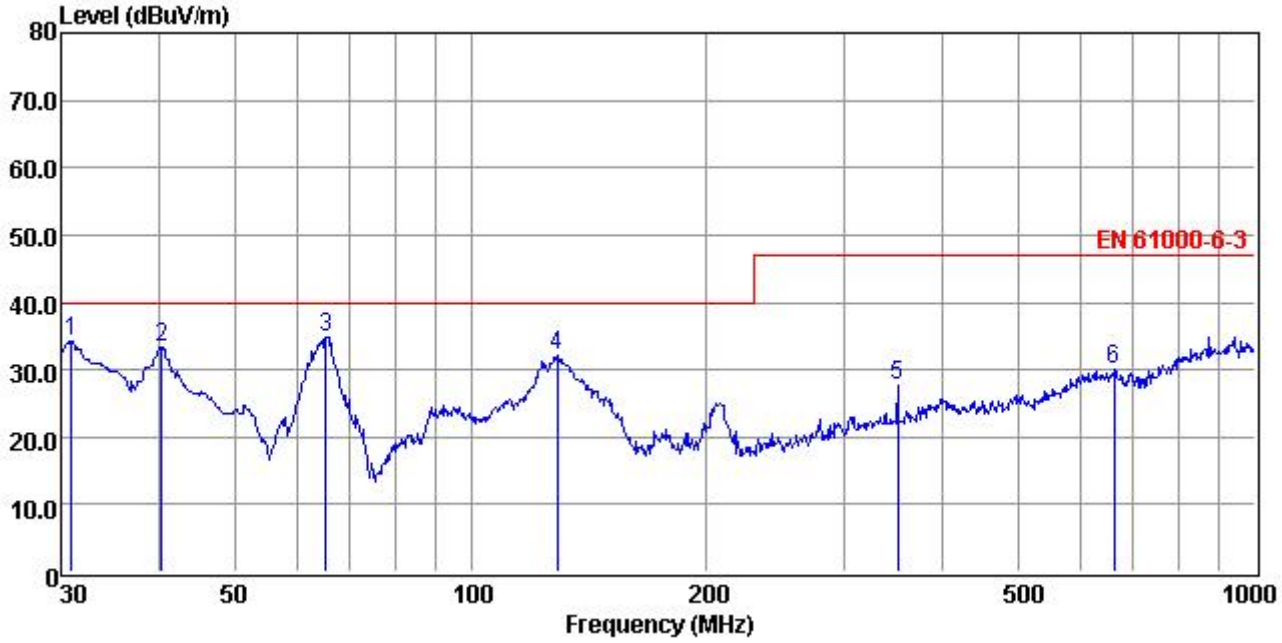
The frequency range from 30MHz to 1000MHz is investigated.

4.7.Test Results

PASS.

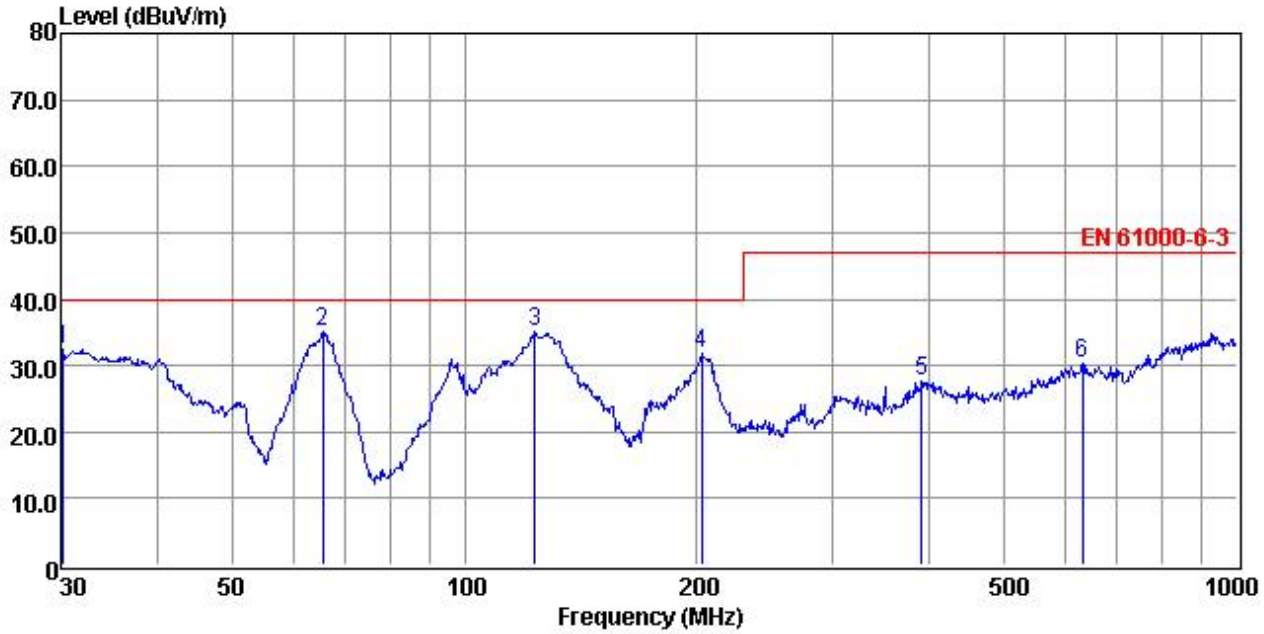
The test result please refer to the next page.

Test Model	LP16-48100	**Test Mode**	Charging
Environmental Conditions	22.7℃, 56.5% RH	**Detector Function**	Quasi-peak
Pol	Vertical	**Distance**	3m
Test Engineer	Feng Liang	**Test Voltage**	DC 51.2V



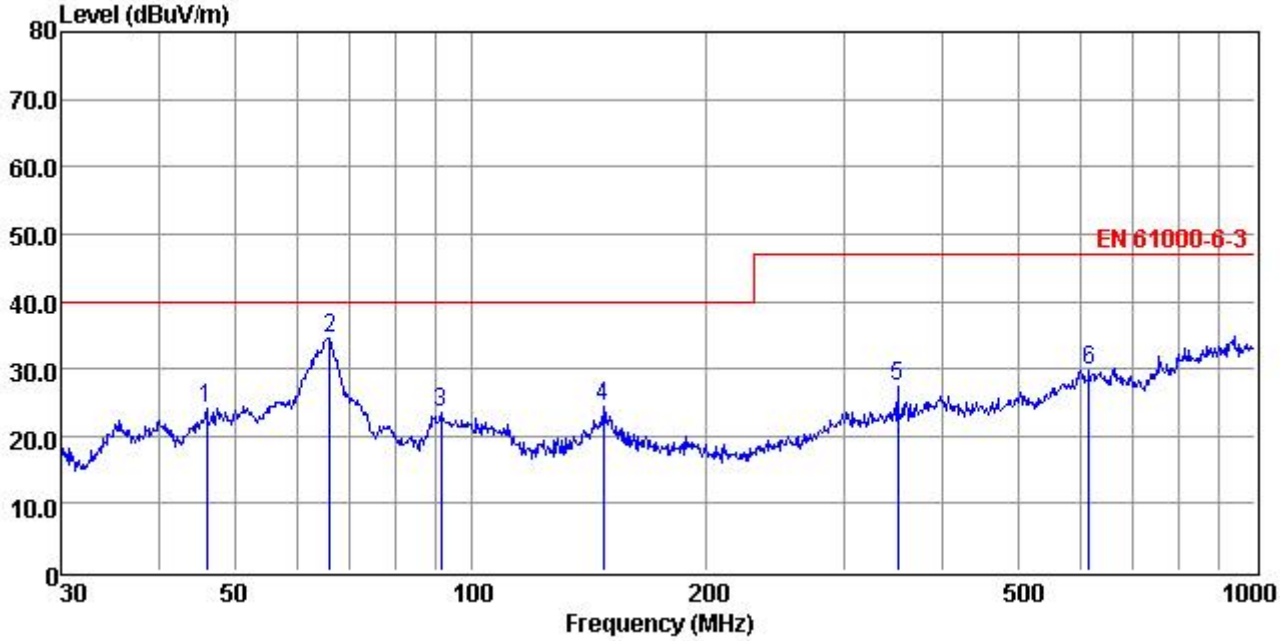
	Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	30.96	53.61	2.09	8.93	30.32	34.31	40.00	-5.69	QP
2	40.28	49.55	2.27	11.88	30.32	33.38	40.00	-6.62	QP
3	65.34	50.57	2.65	12.01	30.38	34.85	40.00	-5.15	QP
4	129.01	48.22	3.33	11.05	30.56	32.04	40.00	-7.96	QP
5	350.48	39.54	5.20	14.00	31.02	27.72	47.00	-19.28	QP
6	661.15	35.33	6.12	20.42	31.73	30.14	47.00	-16.86	QP

Test Model	LP16-48100	Test Mode	Charging
Environmental Conditions	22.7℃, 56.5% RH	Detector Function	Quasi-peak
Pol	Horizontal	Distance	3m
Test Engineer	Feng Liang	Test Voltage	DC 51.2V



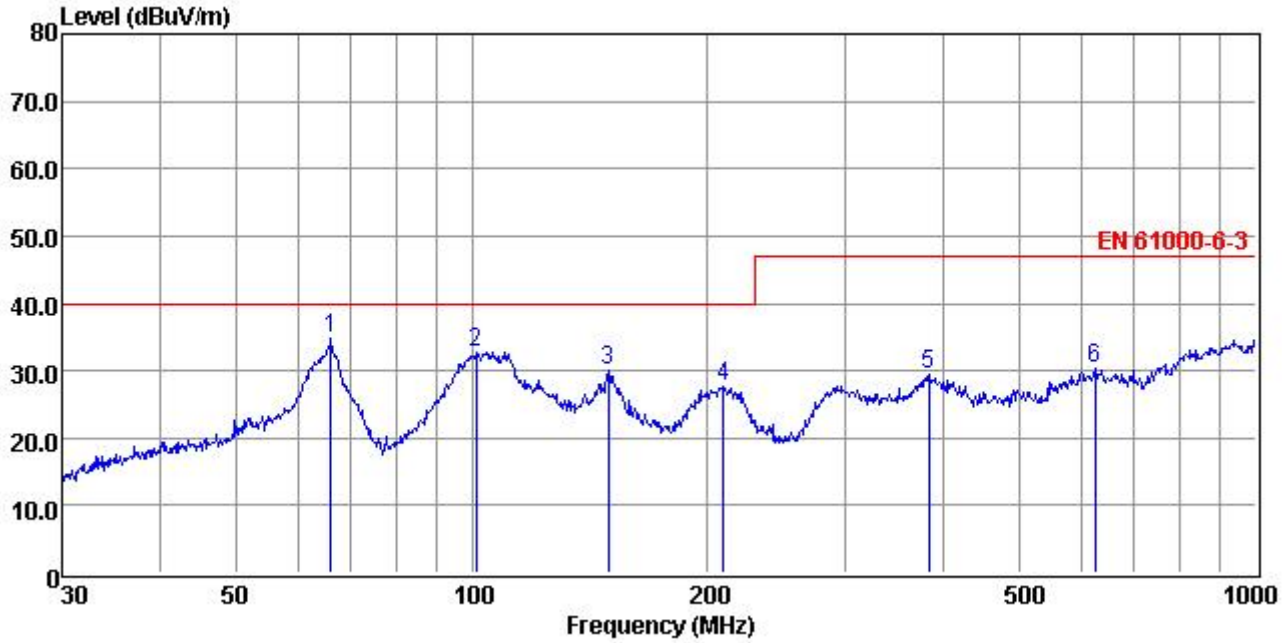
	Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	30.21	51.95	2.07	8.60	30.32	32.30	40.00	-7.70	QP
2	65.57	50.84	2.65	12.01	30.38	35.12	40.00	-4.88	QP
3	123.27	52.08	3.27	10.19	30.55	34.99	40.00	-5.01	QP
4	202.81	48.68	4.04	9.77	30.69	31.80	40.00	-8.20	QP
5	390.72	37.69	5.29	15.79	31.15	27.62	47.00	-19.38	QP
6	631.69	35.76	5.97	20.34	31.69	30.38	47.00	-16.62	QP

Test Model	LP16-48100	Test Mode	Discharging
Environmental Conditions	22.7℃, 56.5% RH	Detector Function	Quasi-peak
Pol	Vertical	Distance	3m
Test Engineer	Feng Liang	Test Voltage	DC 51.2V



	Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	46.02	39.17	2.35	12.95	30.32	24.15	40.00	-15.85	QP
2	66.03	50.30	2.66	12.02	30.38	34.60	40.00	-5.40	QP
3	91.49	41.32	2.99	9.53	30.48	23.36	40.00	-16.64	QP
4	147.40	37.57	3.52	13.94	30.59	24.44	40.00	-15.56	QP
5	350.48	39.16	5.20	14.00	31.02	27.34	47.00	-19.66	QP
6	614.21	35.13	5.92	20.26	31.66	29.65	47.00	-17.35	QP

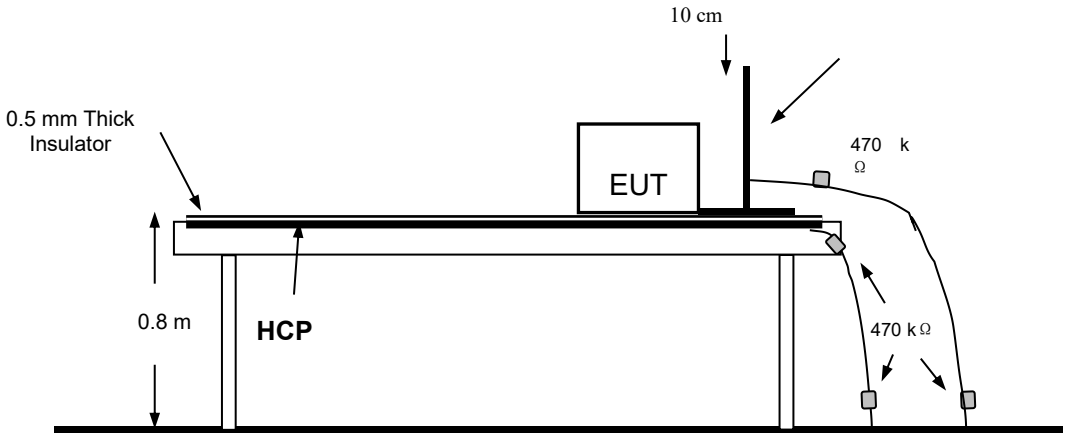
Test Model	LP16-48100	**Test Mode**	Discharging
Environmental Conditions	22.7℃, 56.5% RH	**Detector Function**	Quasi-peak
Pol	Horizontal	**Distance**	3m
Test Engineer	Feng Liang	**Test Voltage**	DC 51.2V



	Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	66.03	50.52	2.66	12.02	30.38	34.82	40.00	-5.18	QP
2	101.29	50.38	3.09	9.85	30.51	32.81	40.00	-7.19	QP
3	149.49	42.80	3.54	14.23	30.60	29.97	40.00	-10.03	QP
4	209.31	44.56	4.07	9.71	30.70	27.64	40.00	-12.36	QP
5	382.59	39.94	5.27	15.34	31.12	29.43	47.00	-17.57	QP
6	622.89	35.70	5.94	20.39	31.67	30.36	47.00	-16.64	QP

5. ELECTROSTATIC DISCHARGE IMMUNITY TEST

5.1.Block Diagram of Test Setup



5.2.Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-2: 2009,
Severity Level: 3 / Air Discharge: ±8KV, Level: 2 / Contact Discharge: ±4KV)

5.3.Severity Levels and Performance Criterion

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

5.3.2.Performance Criterion: **B**

5.4.EUT Configuration on Test

The configuration of EUT is listed in Section 3.

5.5.Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 4.5.
Except the test set up replaced by Section 5.1.

5.6.Test Procedure

5.6.1.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.

5.6.2.Contact Discharge

All the procedure shall be same as Section 5.6.1. Except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

5.6.3.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.

5.6.4.Indirect Discharge For Vertical Coupling Plane

At least 10 single discharge (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 completely illuminated.

5.7.Test Results

PASS.

Please refer to the following pages

Electrostatic Discharge Test Results

Standard	☐ IEC 61000-4-2 ☑ EN 61000-4-2		
Applicant	MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD		
EUT	LiFePO4 Battery	**Temperature**	25.1℃
M/N	LP16-48100	**Humidity**	55.9%
Criterion	B	**Pressure**	1021mbar
Test Mode	DISCHARGING	**Test Engineer**	Feng Liang

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

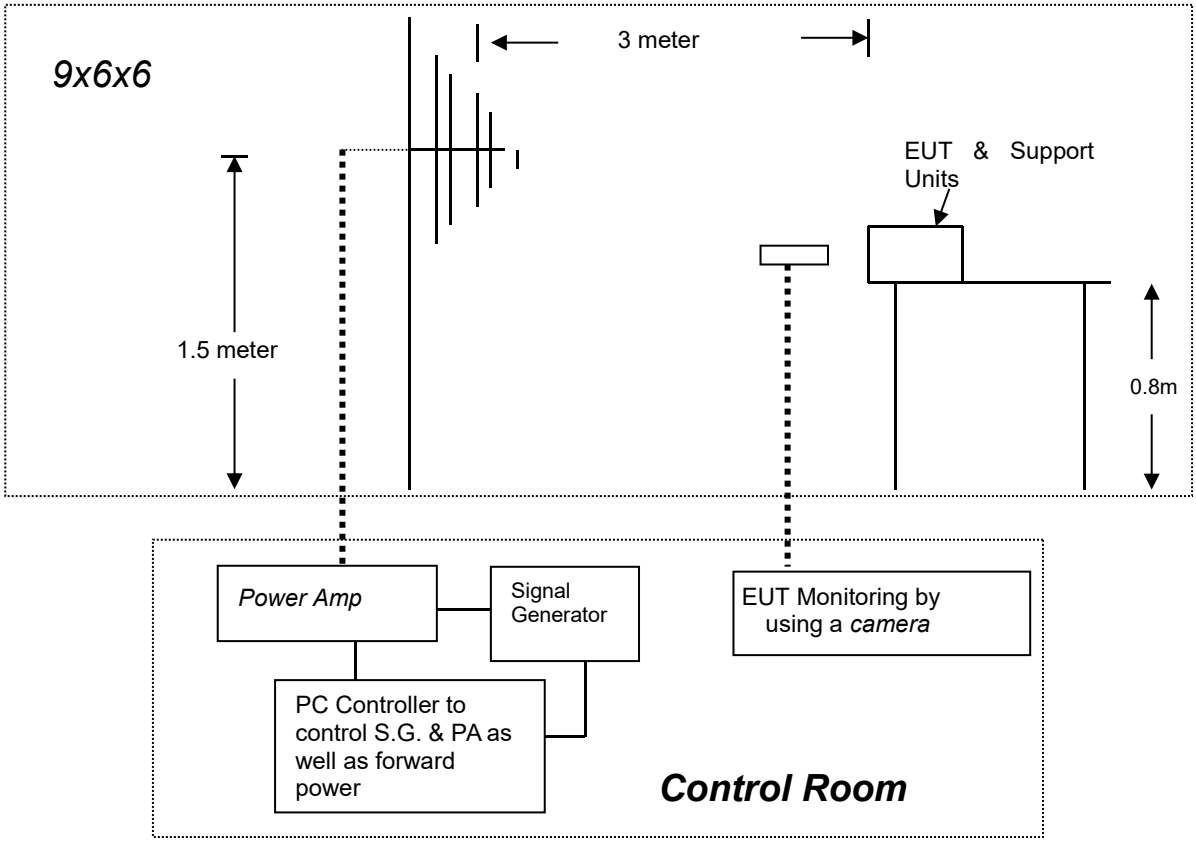
Side of EUT	Test Levels		Results		
	± 2 kV	± 4 kV	Passed	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐ A ☒ B
Back	☒	☒	☒	☐	☐ A ☒ B
Left	☒	☒	☒	☐	☐ A ☒ B
Right	☒	☒	☒	☐	☐ A ☒ B

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

6. RF FIELD STRENGTH SUSCEPTIBILITY TEST

6.1.Block Diagram of Test



6.2.Test Standard

EN IEC 61000-6-1:2019
(EN 61000-4-3: 2006+A2: 2010, Severity Level: 2, 3V/ m)

6.3.Severity Levels and Performance Criterion

6.3.1.Severity Levels

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

6.3.2.Performance Criterion: **A**

6.4.EUT Configuration on Test

The configuration of the EUT is same as Section 3.

6.5.Operating Condition of EUT

Same as radiated emission measurement, which is listed in Section 5.5, except the test setup replaced as Section 6.1.

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
1. Fielded Strength	3V/m (Severity Level 2)
2. Radiated Signal	Unmodulated
3. Scanning Frequency	80-6000MHz
4. Sweep time of radiated	0.0015 Decade/s
5. Dwell Time	3 Sec.

6.7.Test Results

PASS.

Please refer to the following page.

RF Field Strength Susceptibility Test Results

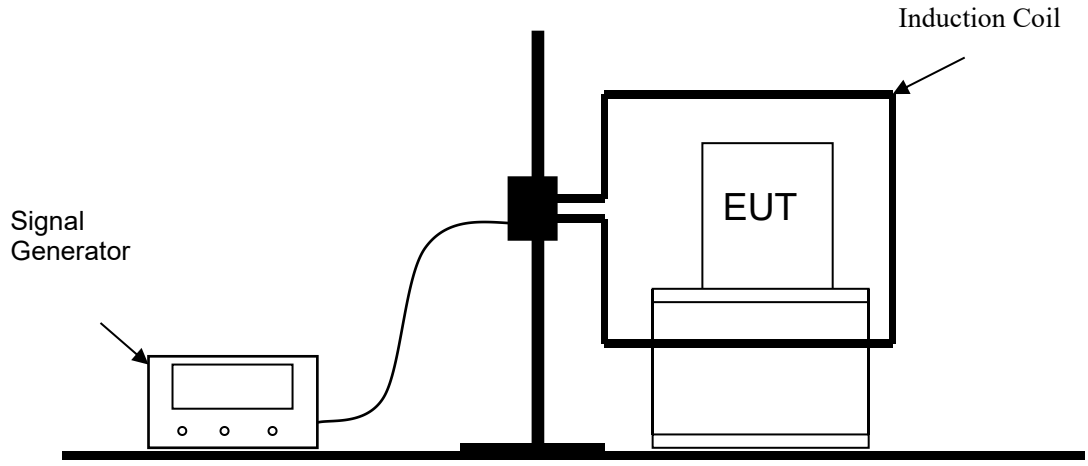
Standard	☐ IEC 61000-4-3 ☑ EN 61000-4-3		
Applicant	MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD		
EUT	LiFePO4 Battery	**Temperature**	25.7℃
M/N	LP16-48100	**Humidity**	58.8%
Field Strength	3 V/m	**Criterion**	A
Test Mode	Discharging	**Test Engineer**	Feng Liang
Frequency Range	80 MHz to 6000 MHz		
Modulation	☐None ☐ Pulse ☑AM 1KHz 80%		
Steps	1%		

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

Note:

7. MAGNETIC FIELD SUSCEPTIBILITY TEST

7.1.Block Diagram of Test Setup



7.2.Test Standard

EN IEC 61000-6-1:2019
(EN 61000-4-8: 2010, Severity Level: Level 2, 3A/ m)

7.3.Severity Levels and Performance Criterion

7.3.1.Severity Levels

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

7.3.2.Performance Criterion: **A**

7.4.EUT Configuration on Test

The configuration of the EUT is same as Section 3.

7.5.Test Procedure

The EUT is placed in the middle of a induction coil (1*1m), under which is a 1*1*0.1m (high) table, this small table is also placed on a larger table, 0.8 m above the ground. Both horizontal and vertical polarization of the induction coil is set on test, so that each side of the EUT is affected by the magnetic field. Also can reach the same aim by change the position of the EUT.

7.6.Test Results

PASS.

Please refer to the following page.

Magnetic Field Immunity Test Result

Standard	☐ IEC 61000-4-8 ☑ EN 61000-4-8		
Applicant	MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD		
EUT	LiFePO4 Battery	**Temperature**	25.9℃
M/N	LP16-48100	**Humidity**	56.2%
Test Mode	Discharging	**Criterion**	A
Test Engineer	Feng Liang		

Test Level (A/M)	Testing Duration	Coil Orientation	Criterion	Result
3	5 mins	X	A	PASS
3	5 mins	Y	A	PASS
3	5 mins	Z	A	PASS

Note:

8. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Fig. 1

Fig. 2

Fig. 3

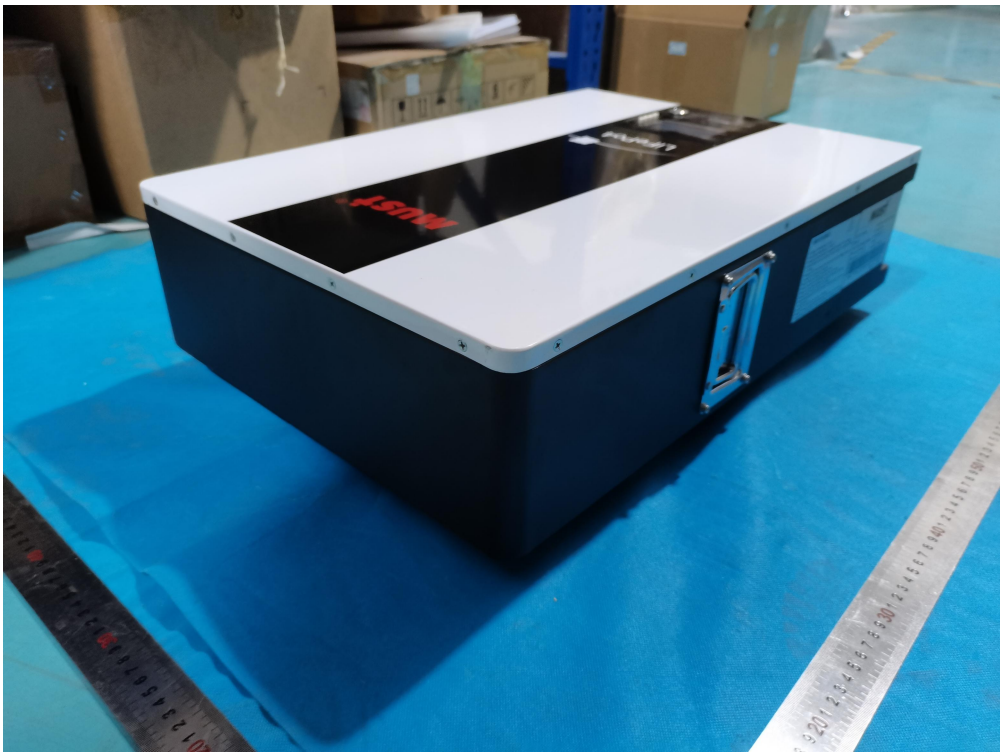


Fig. 4

Fig. 5

Fig. 6

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