EMC TEST REPORT

For

SRNE Solar Co., Ltd.

Solar Charge Controller

Test Model: MC4870N25

Additional Model No.: Please Refer To Page 10 Model List

Prepared for : SRNE Solar Co., Ltd.
Address : 4-5F, 13A Wutong Island, Neihuan Rd, Xixiang, Bao'an, Shenzhen, Guangdong, China

Prepared by : Shenzhen Southern LCS Compliance Testing Laboratory Ltd.
Address : 101-201, No.39 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, China
Tel : (+86)755-29871520
Fax : (+86)755-29871521
Web : www.LCS-cert.com
Mail : webmaster@LCS-cert.com

Date of receipt of test sample : April 215, 2020
Number of tested samples : 1
Serial number : Prototype
Date of Test : April 15, 2020 ~ April 21, 2020
Date of Report : April 21, 2020

EMC TEST REPORT

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

Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments

EN IEC 61000-6-1: 2019

Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments

Report Reference No. ....:	**LCS200415005BE**
Date of Issue ....:	April 21, 2020
Testing Laboratory Name......:	**Shenzhen Southern LCS Compliance Testing Laboratory Ltd.**
Address ....:	101-201, No.39 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, China
Testing Location/ Procedure ... :	Full application of Harmonised standards ■ Partial application of Harmonised standards ☐ Other standard testing method ☐
Applicant's Name ....:	**SRNE Solar Co., Ltd.**
Address ....:	4-5F, 13A Wutong Island, Neihuan Rd, Xixiang, Bao'an, Shenzhen, Guangdong, China
Test Specification	
Standard ....:	EN 61000-6-3:2007/A1:2011/AC:2012 EN IEC 61000-6-1: 2019
Test Report Form No...............:	LCSEMC-1.0
TRF Originator ....:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF.............................:	Dated 2016-08

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Test Item Description............:	**Solar Charge Controller**
Trade Mark ....:	N/A
Test Model..............................:	MC4870N25
Ratings....................................:	See page 10 model list
Result	**: Positive**

Compiled by:	**Supervised by:**	**Approved by:**
Aimee Yang		Cherry Chen
Aimee Yang/ File administrators	Dm Gu/ Technique principal	Cherry Chen/ Manager

EMC -- TEST REPORT

Test Report No. : LCS200415005BE	April 21, 2020 Date of issue

Test Model.......................... : MC4870N25

EUT................................... : Solar Charge Controller

Applicant........................... : SRNE Solar Co., Ltd.
Address............................. : 4-5F, 13A Wutong Island, Neihuan Rd, Xixiang, Bao'an, Shenzhen, Guangdong, China
Telephone.......................... : /
Fax.................................... : /

Manufacturer..................... : SRNE Solar Co., Ltd.
Address............................. : 4-5F, 13A Wutong Island, Neihuan Rd, Xixiang, Bao'an, Shenzhen, Guangdong, China
Telephone.......................... : /
Fax.................................... : /

Factory.............................. : SRNE Solar Co., Ltd
Address............................. : Room 401, building 2, no. 10, xinju road, chengjiao village, chang'an, dongguan, guangdong
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

Revision	Issue Date	Revisions	Revised By
000	April 21, 2020	Initial Issue	Cherry Chen

TABLE OF CONTENTS

Test Report Description Page

1. TEST STANDARDS

The tests were performed according to following standards:

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

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 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	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	Charging	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;
─ 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.

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 : Solar Charge Controller

Trade Mark : N/A

Test Model : MC4870N25

Additional Model : See page 10 model list

Power Supply : See page 10 model list

EUT Clock Frequency : ≤108MHz

3.2. Description of Test Facility

EMC Lab. : TUV RH Registration Number. is UA 50418075 0001.
UL Registration Number. is 100571-492.
NVLAP Registration Code is 600112-0.

Test Facilities : Shenzhen Southern LCS Compliance Testing Laboratory Ltd.
101-201, No.39 Building, Xialang Industrial Zone, Heshuikou
Community, Matian Street, Guangming District, Shenzhen, China

RF Field Strength Susceptibility : Shenzhen LCS Compliance Testing Laboratory Ltd.
101, 201 Building A and 301 Building C, Juji Industrial Park,
Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, Guangdong,
China.

3.3. 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.

3.4. Measurement Uncertainty

Test	Parameters	Expanded uncertainty (Ulab)	Expanded uncertainty (Ucispr)
Conducted Disturbance	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 1.40 dB ± 2.80 dB	± 4.0 dB ± 3.6 dB
Electromagnetic Radiated Emission (3-loop)	Level accuracy (9kHz to 30MHz)	± 3.46 dB	N/A
Radiated Disturbance	Level accuracy (9kHz to 30MHz)	± 3.12 dB	N/A
Radiated Disturbance	Level accuracy (30MHz to 200MHz)	± 4.66 dB	± 5.2 dB
Radiated Disturbance	Level accuracy (200MHz to 1000MHz)	± 4.64 dB	± 5.0 dB
Harmonic Current	Voltage	± 0.640%	N/A
Voltage Fluctuations & Flicker	Voltage	± 0.530%	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%.

3.5. Model List

Model	Rating
MC4860N25	Solar Input voltage:≤250V Input power:800W/12V;1600W/24V;3200W/48V
MC4870N25	Solar Input voltage:≤250V Input power:920W/12V;1840W/24V;3680W/48V

4. MEASURING DEVICES AND TEST EQUIPMENT

Radiated Disturbance(30MHz to 300MHz)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Due Date.
1	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2021-08-05
2	EMI Test Receiver	R&S	ESCI	101010	2020-06-20
3	Log per Antenna	SCHWARZBECK	VULB9163	5094	2020-06-23
4	EMI Test Software	AUDIX	E3	N/A	2020-06-20
5	Positioning Controller	MF	BK8807-4A-2T	2016-0808-008	2020-06-20

Electrostatic Discharge Immunity Test (ESD)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Due Date.
1	ESD Simulator	KIKUSUI	KES4021	KC001311	2020-06-24

Power Frequency Magnetic Field Immunity Test

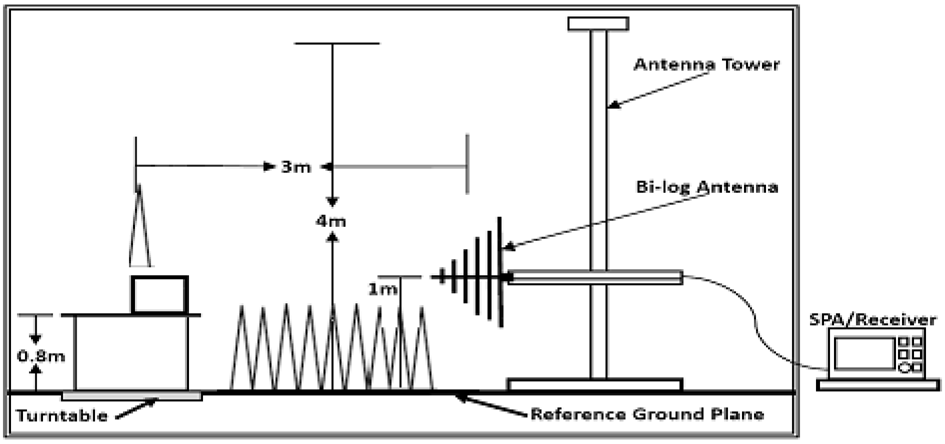
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Due Date.
1	Power frequency mag-field generator System	HTEC	HPFMF100	100-2400	2020-06-20

Radiated, Radio-Frequency, Electromagnetic Field Immunity Test (RS)-LCS

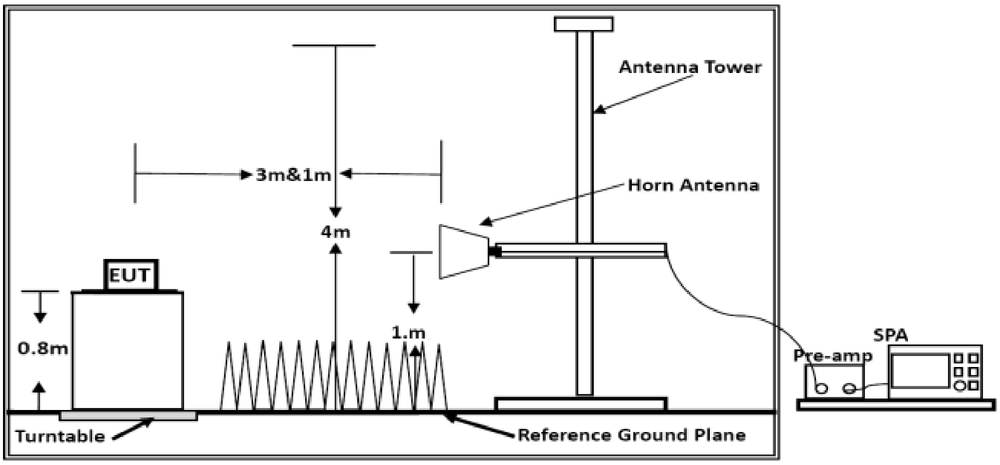
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Due Date.
1	RS Test Software	Tonscend	/	/	N/A
2	ESG Vector Signal Generator	Agilent	E4438C	MY42081396	2020-11-14
3	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2020-06-11
4	RF POWER AMPLIFIER	OPHIR	5225R	1052	2020-11-21
5	RF POWER AMPLIFIER	OPHIR	5273F	1019	2020-11-21
6	Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	2020-11-21
7	Stacked Mikrowellen Log.-Per Antenna	SCHWARZBECK	STLP 9149	9149-484	2020-11-21
8	RS Test Software	Tonscend	/	/	2021-03-25

5. RADIATED EMISSION MEASUREMENT

5. 1. Block Diagram of Test Setup



Below 1GHz



Above 1GHz

5.2 Test Standard

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

5.3. EUT Configuration on Test

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

5.4. Operating Condition of EUT

5.4.1.Turn on the power.
5.4.2.Let the EUT work in the test Mode 1 and measure it.

5.5. Test Procedure

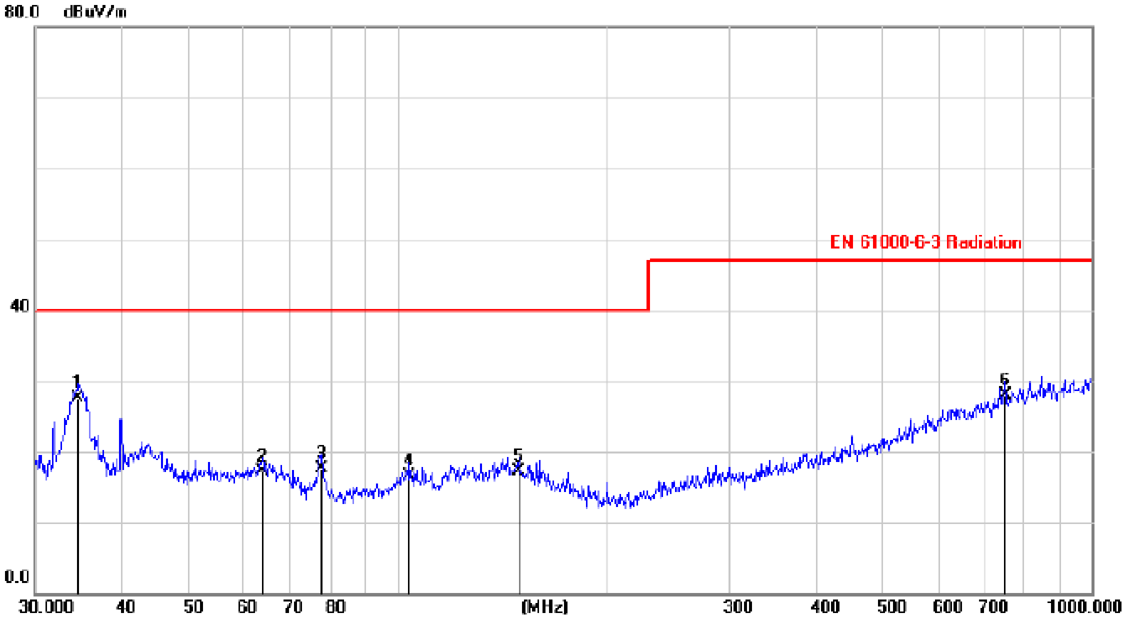
The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down 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/1000kHz.
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. 6. Test Results

PASS.

The test result please refer to the next page.

Test Model	MC4870N25	**Test Mode**	Mode 1
Environmental Conditions	23.8℃, 53% RH	**Detector Function**	Quasi-peak
Pol.	Vertical	**Distance**	3m
Test Engineer	Link Li	**Test Voltage**	DC 48V



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector	cm	degree	Comment
1	*	34.6689	13.51	13.92	27.43	40.00	-12.57	QP			
2		63.7588	4.75	12.30	17.05	40.00	-22.95	QP			
3		77.6948	7.69	9.86	17.55	40.00	-22.45	QP			
4		103.9877	5.40	11.14	16.54	40.00	-23.46	QP			
5		149.2893	3.71	13.48	17.19	40.00	-22.81	QP			
6		748.4661	5.18	22.63	27.81	47.00	-19.19	QP			

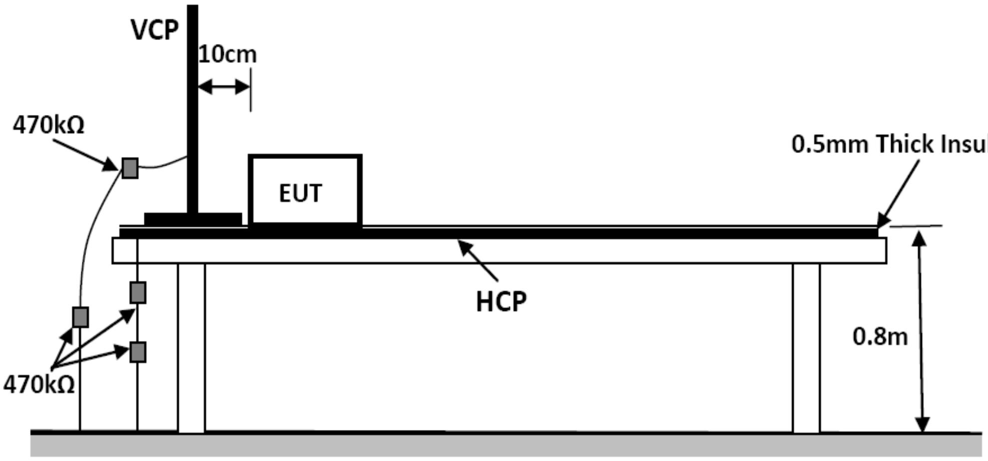
Test Model	MC4870N25	**Test Mode**	Mode 1
Environmental Conditions	23.8℃, 53% RH	**Detector Function**	Quasi-peak
Pol.	Horizontal	**Distance**	3m
Test Engineer	Link Li	**Test Voltage**	DC 48V

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector	cm	degree	Comment
1		39.9767	6.05	14.02	20.07	40.00	-19.93	QP			
2		64.2357	5.56	12.21	17.77	40.00	-22.23	QP			
3	*	117.8758	13.29	12.35	25.64	40.00	-14.36	QP			
4		423.1691	2.79	16.02	18.81	47.00	-28.19	QP			
5		647.3856	5.77	20.65	26.42	47.00	-20.58	QP			
6		912.0621	7.00	23.40	30.40	47.00	-16.60	QP			

Note: Pre-Scan all mode, Thus record worse case mode result in this report.

6. ELECTROSTATIC DISCHARGE IMMUNITY TEST

6.1. Block Diagram of Test Setup



6.2. Test Standard

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

6.3. Severity Levels and Performance Criterion

6.3.1. 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

6.3.2. Performance Criterion
Performance Criterion: B

6.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4.

6.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 5.1.4. Except the test set up replaced by Section 5.4.1.

6.6. Test Procedure

6.6.1. 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

6.6.2. Contact Discharge

All the procedure shall be same as Section 5.4.6.1. Except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

6.6.3. 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.

6.6.4. 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.

6.7. Test Results

PASS.

The test result please refer to the next page.

Electrostatic Discharge Test Results

Standard	☐ IEC 61000-4-2 ☑ EN 61000-4-2		
Applicant	SRNE Solar Co., Ltd.		
EUT	Solar Charge Controller	**Temperature**	23.7℃
M/N	MC4870N25	**Humidity**	52％
Criterion	B	**Pressure**	1021mbar
Test Mode	Mode 1	**Test Engineer**	Link Li
Test Voltage	DC 48V	**Test voltage**	DC 48V

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

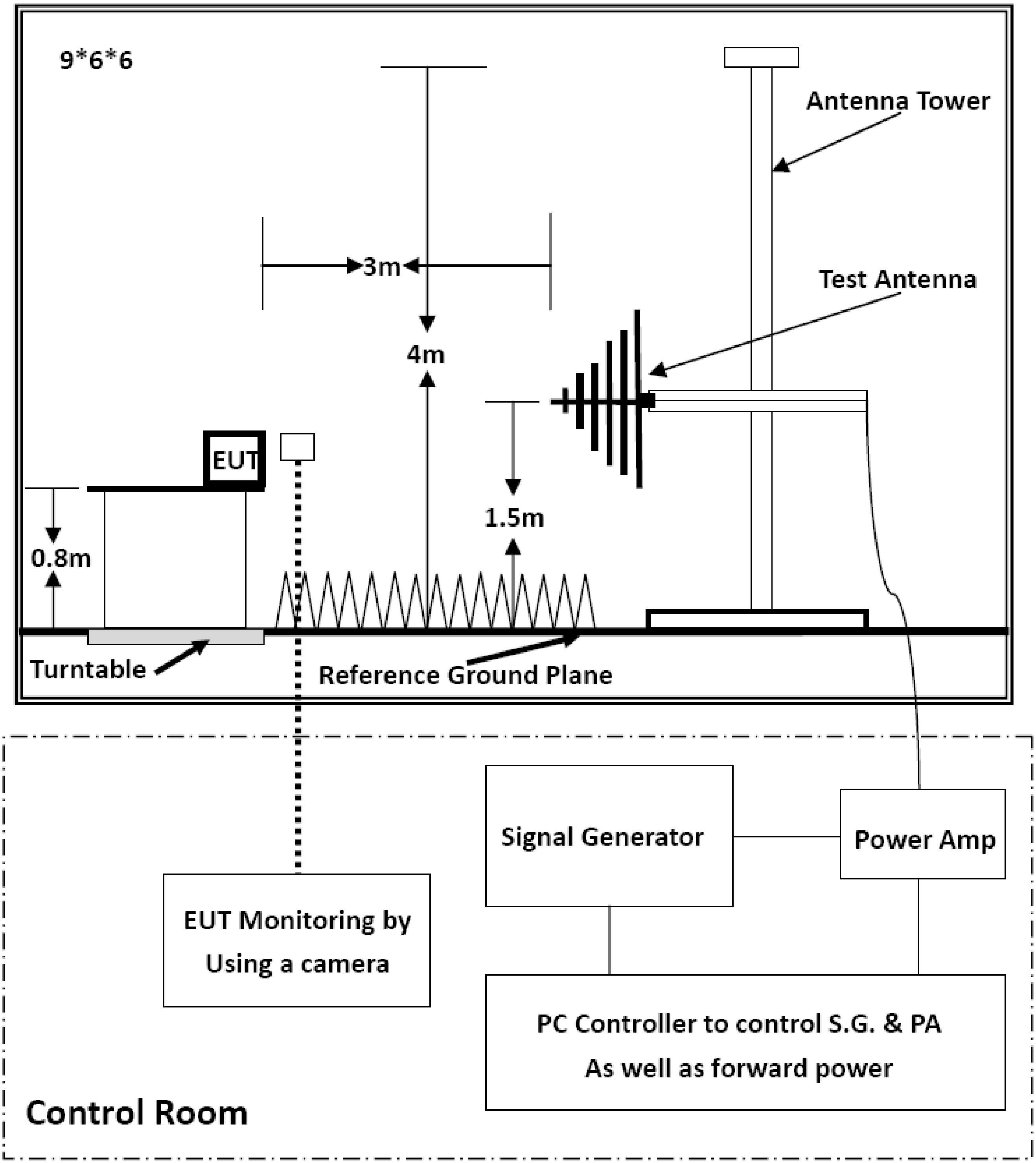
Side of EUT	**Test Levels**		**Results**		
	± 2 kV	**± 4 kV**	**Passed**	**Fail**	**Performance Criterion**
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B

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

7. RF FIELD STRENGTH SUSCEPTIBILITY TEST

7.1. Block Diagram of Test Setup



7.2. Test Standard

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

7.3. Severity Levels and Performance Criterion

7.3.1. Severity level

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

7.3.2. Performance Criterion

Performance Criterion: A

7.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4

7.5. Operating Condition of EUT

Same as radiated emission measurement, which is listed in Section 5.2.4, except the test setup replaced as Section 5.5.1.

7.6. Test Procedure

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

In order to judge the EUT performance, a CCD Recording is used to monitor its screen.

All the scanning conditions are as following:

	Condition of Test	Remark
1.	Fielded Strength	3V/m (Severity Level 2)
2.	Radiated Signal	Unmodulated
3.	Scanning Frequency	80-1GHz
4.	Sweep Time of Radiated	0.0015 Decade/s
5.	Dwell Time	3 Sec.
6.	Fielded Strength	3V/m (Severity Level 2)
7.	Radiated Signal	Unmodulated
8.	Scanning Frequency	1.4-2.0GHz
9.	Sweep time of radiated	0.0015 Decade/s
	Dwell Time	3 Sec.
10.	Fielded Strength	1V/m (Severity Level 1)
11.	Radiated Signal	Unmodulated
12.	Scanning Frequency	2.0-2.7GHz
13.	Sweep time of radiated	0.0015 Decade/s
14.	Dwell Time	3 Sec.

7.7. Test Results

PASS.

The test result please refer to the next page.

RF Field Strength Susceptibility Test Results

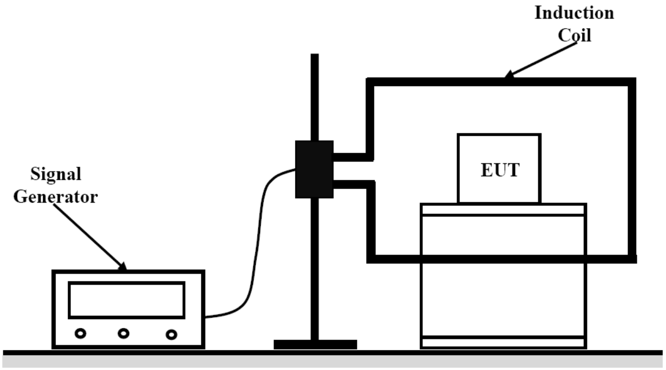
Standard	☐ IEC 61000-4-3 ☑ EN 61000-4-3		
Applicant	SRNE Solar Co., Ltd.		
EUT	Solar Charge Controller	**Temperature**	24.7℃
M/N	MC4870N25	**Humidity**	53％
Test Mode	Mode 1	**Criterion**	A
Field Strength	3v/m	**Frequency Range**	80 MHz to1.0 GHz
	3 V/m		1.4 GHz to2.0 GHz
	1 V/m		2.0 GHz to2.7 GHz
Test Engineer	Jason deng	**Test Voltage**	DC 48V
Modulation	☐None ☐ Pulse ☑AM 1KHz 80%		
Steps	1%		

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

Note:

8. MAGNETIC FIELD SUSCEPTIBILITY TEST

8.1. Block Diagram of Test Setup



8.2. Test Standard

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

8.3. Severity Levels and Performance Criterion

8.3.1. Severity level

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

8.3.2. Performance Criterion

Performance Criterion: A

8.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4

8.5. 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.

8.6. Test Results

PASS.

The test result please refer to the next page.

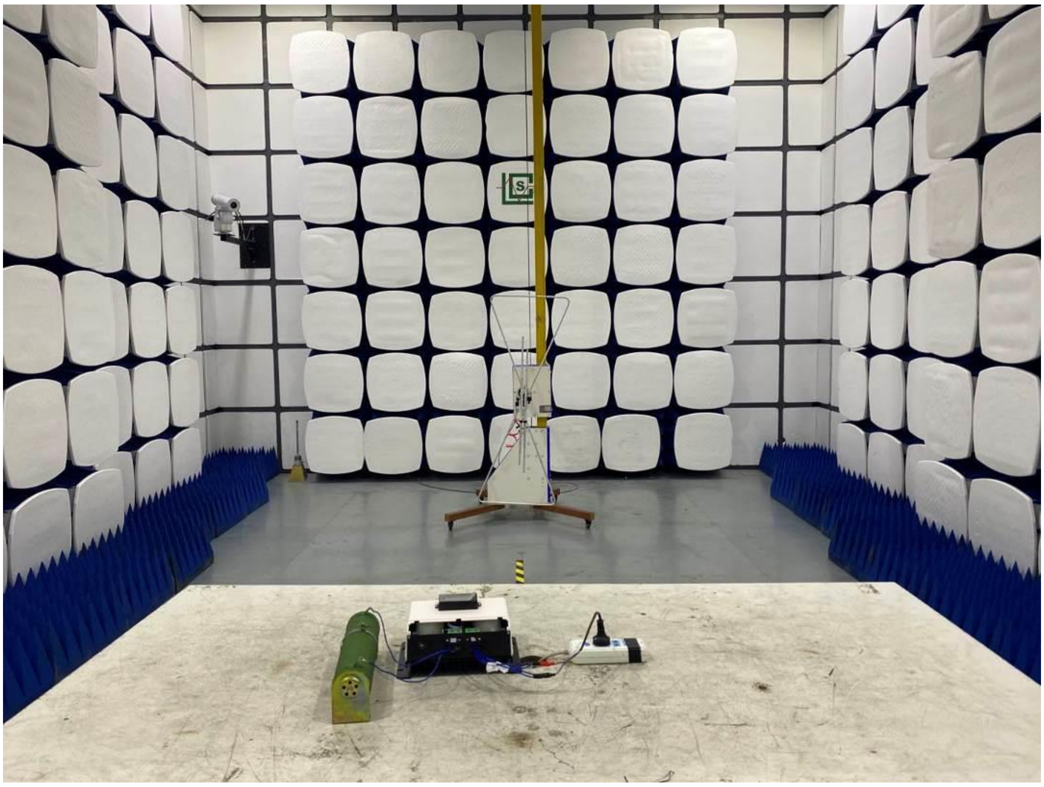
Magnetic Field Immunity Test Result

Standard	☐ IEC 61000-4-8 ☑ EN 61000-4-8		
Applicant	SRNE Solar Co., Ltd.		
EUT	Solar Charge Controller	**Temperature**	23.7℃
M/N	MC4870N25	**Humidity**	53％
Test Mode	Mode 1	**Criterion**	A
Test Engineer	Link Li	**Test Voltage**	DC48V

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:

9. PHOTOGRAPHS OF TEST SETUP



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

Test Setup Photo of Electrostatic Discharge Test

Test Setup Photo of Magnetic Field Immunity Test

10. PHOTOGRAPHS OF THE EUT

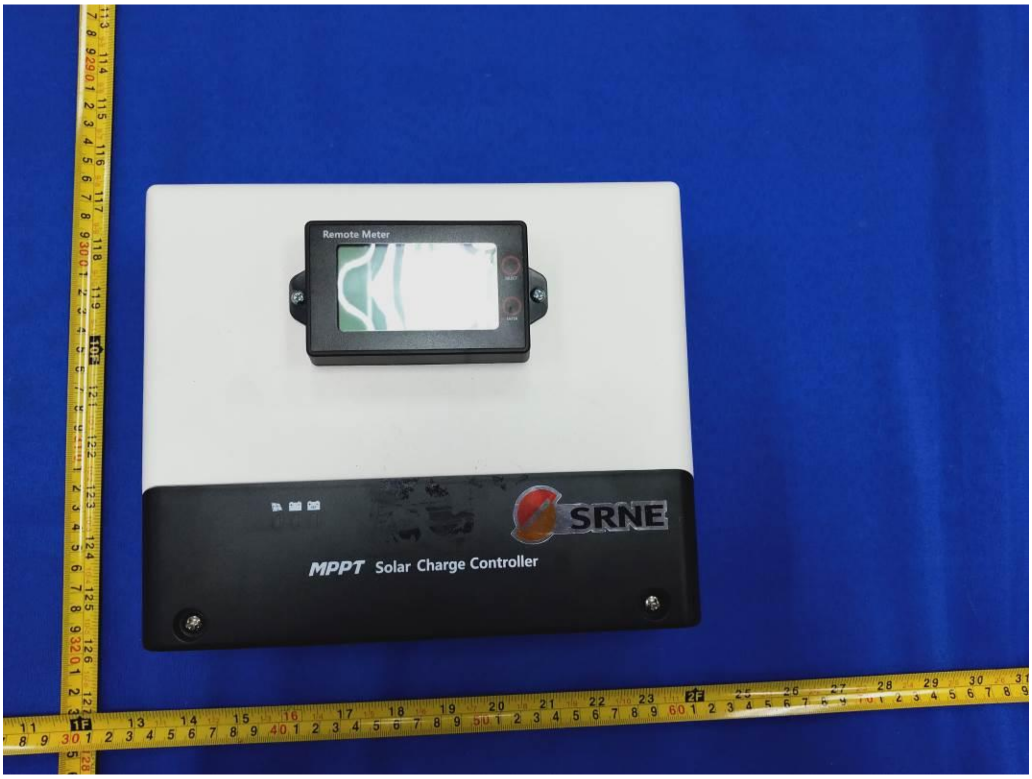


Fig. 1

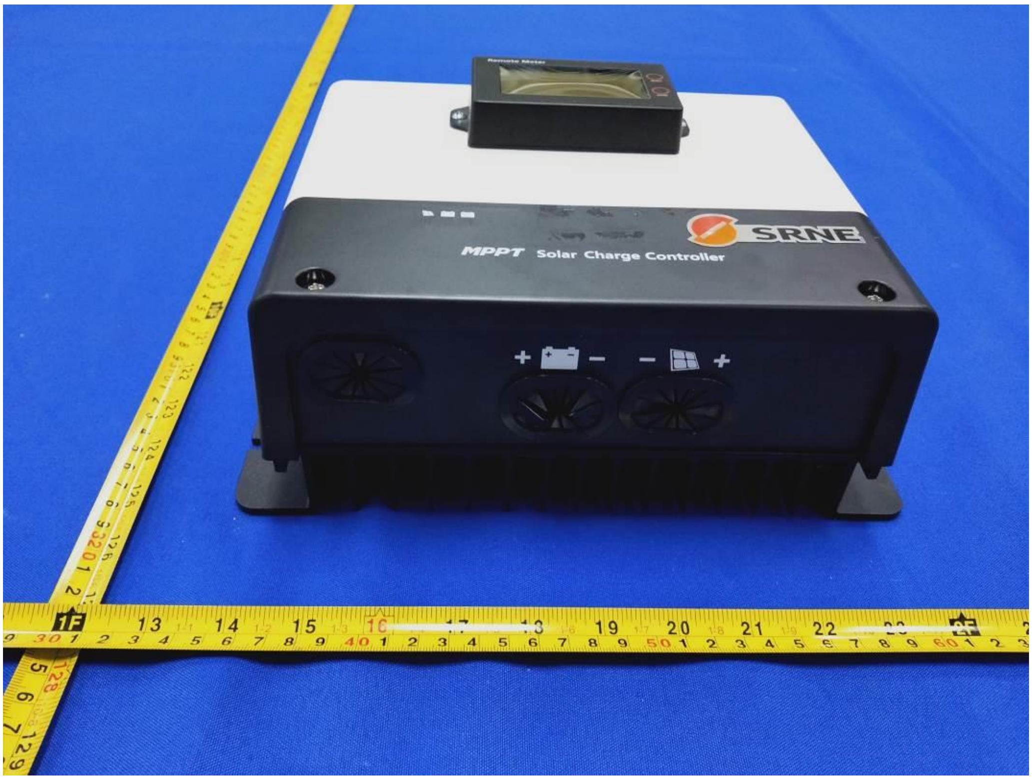


Fig. 2

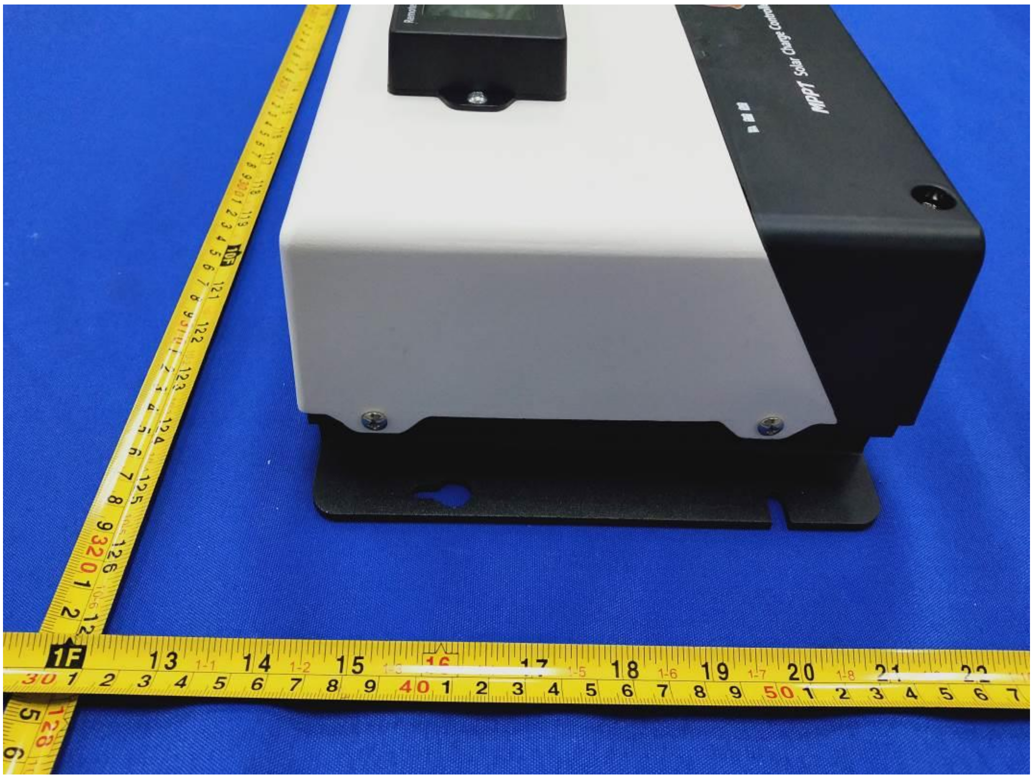

MPPT Solar Charge Controller

Fig. 3

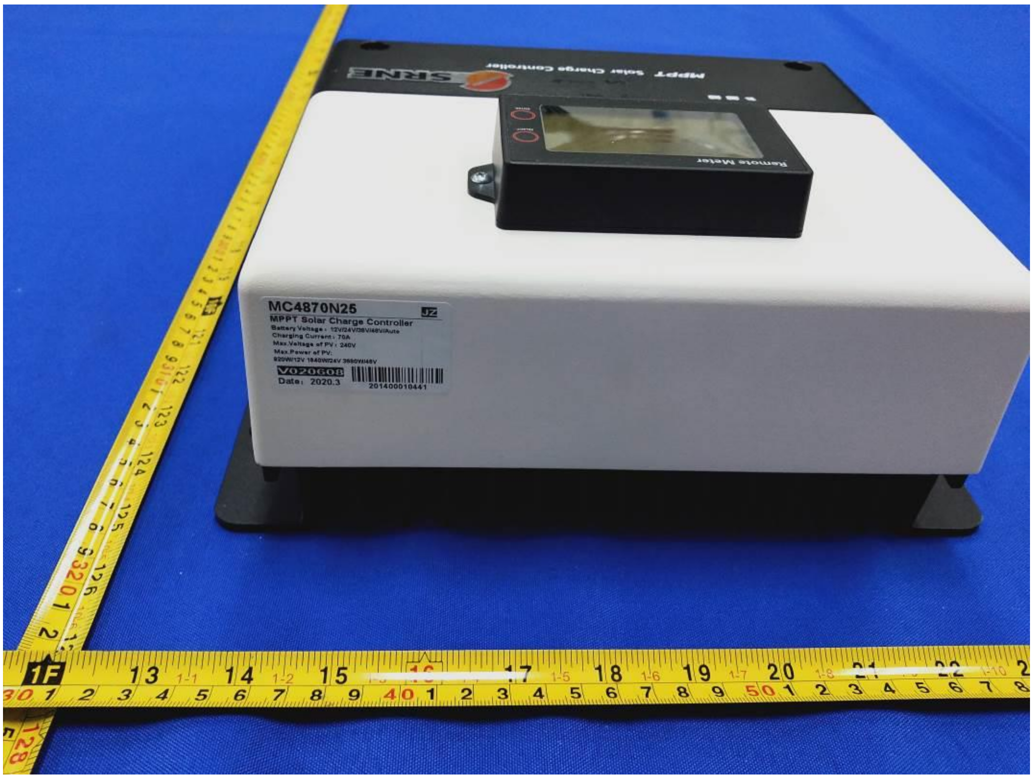

SRNE
MPPT Solar Charge Controller
Remote Meter
MC4870N25
JZ
MPPT Solar Charge Controller
Battery Voltage：12V/24V/36V/48V/Auto
Charging Current：70A
Max.Voltage of PV：240V
Max.Power of PV:
920W/12V 1840W/24V 3680W/48V
V020608
Date：2020.3
201400010441

Fig. 4

Fig. 5


MC4870N25
JZ
MPPT Solar Charge Controller
Battery Voltage : 12V/24V/36V/48V/Auto
Charging Current : 70A
Max.Voltage of PV : 240V
Max.Power of PV:
920W/12V 1840W/24V 3680W/48V
V020608
Date: 2020.3
201400010441

Fig. 6

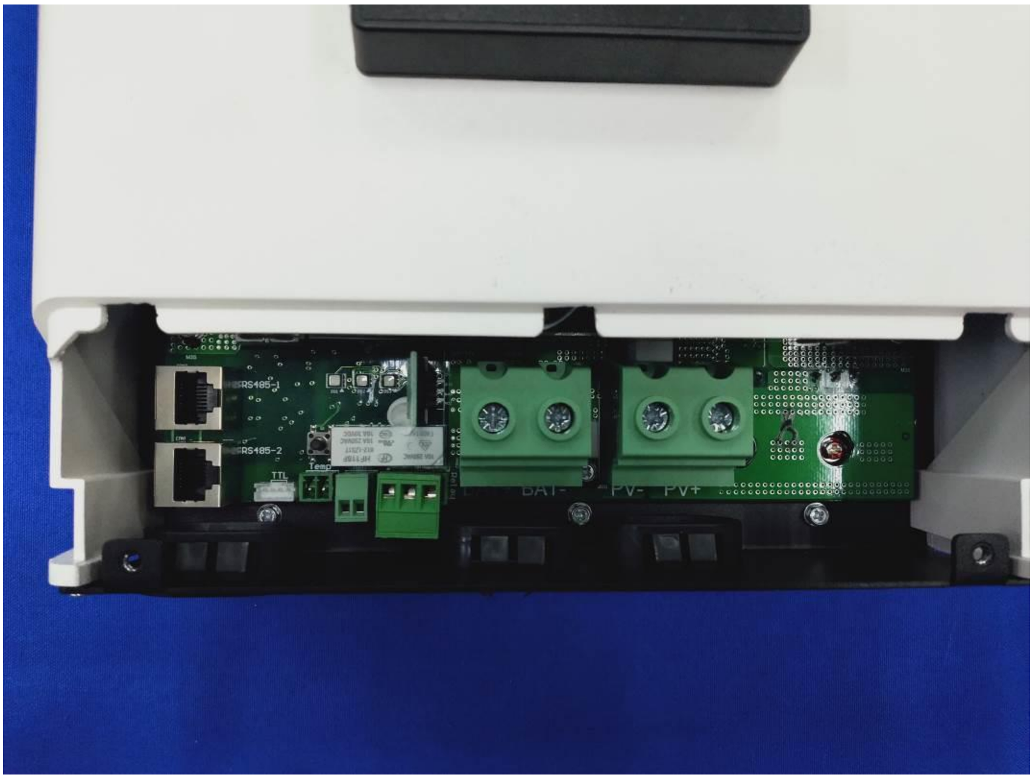


Fig. 7

Fig. 8

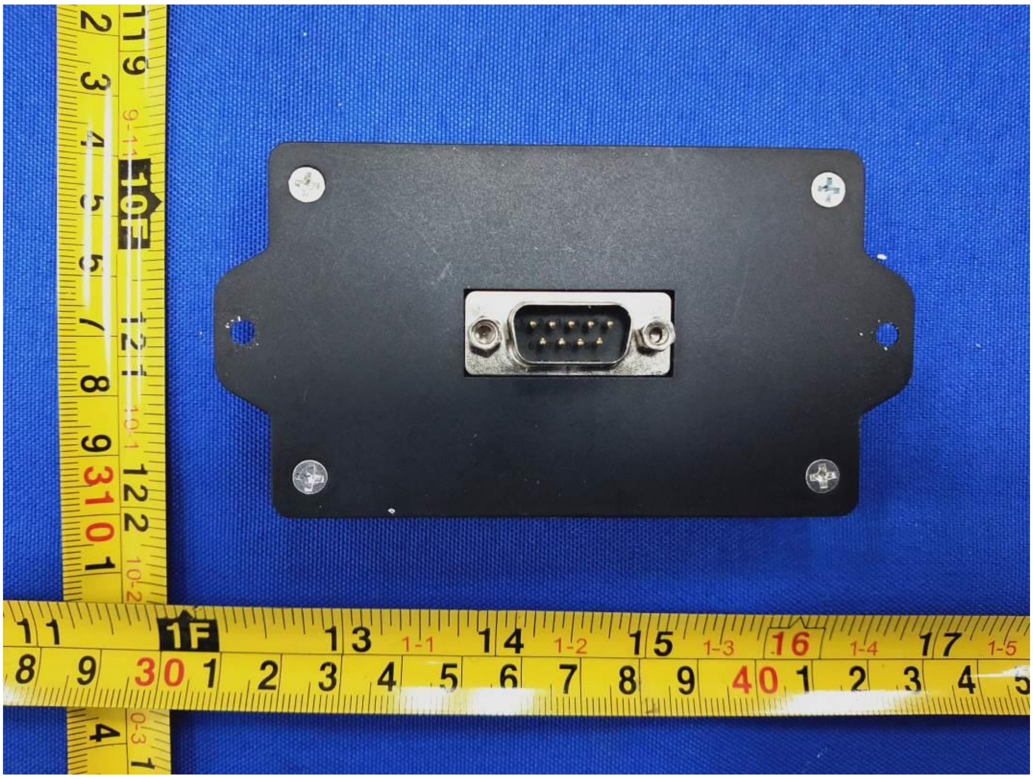


Fig. 9

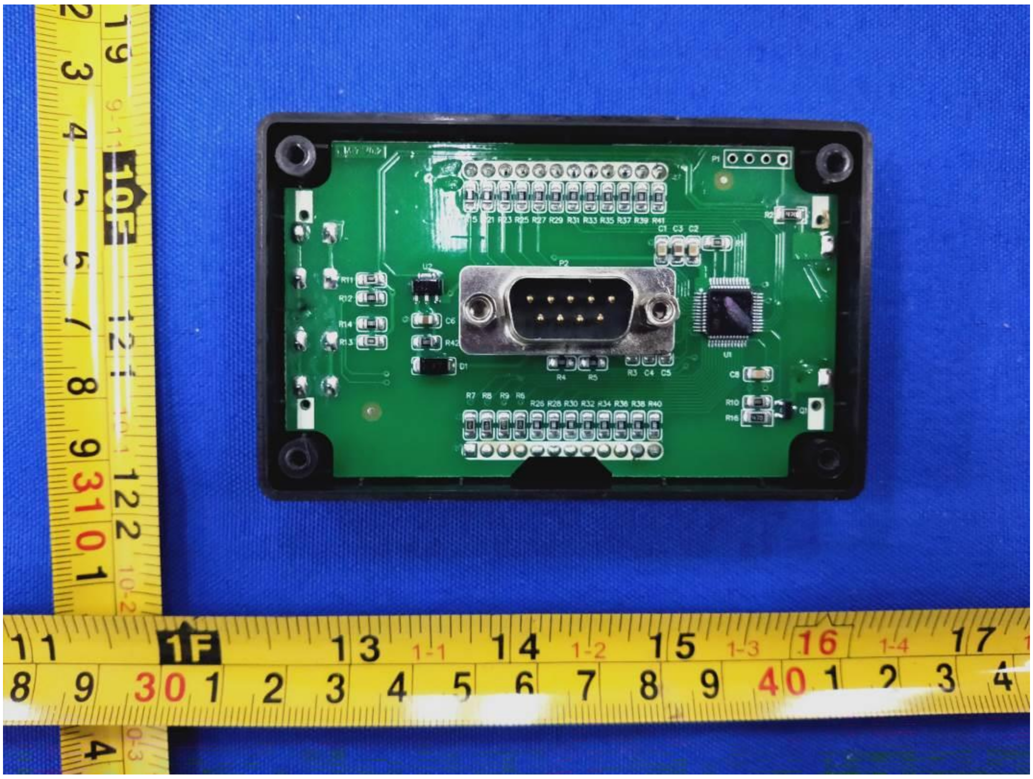


Fig. 10

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