

FCC TEST REPORT

On Behalf of

Global Tech China Limited

Solar Light(Large)/28W,16W

Model No.: 00013022

Additional Model No: Please Refer To Page 15

Prepared for : Global Tech China Limited
Address : 3 Flat A, Wai Yip Industrial Building, 171 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : December 04, 2014
Number of tested samples : 1
Serial number : Prototype
Date of Test : December 04, 2014 - December 09, 2014
Date of Report : December 09, 2014

FCC TEST REPORT
FCC CFR 47 PART 15 Subpart B: 2013, ANSI C63.4-2009

Report Reference No. : **LCS1412090521E**

Date Of Issue : December 09, 2014

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

Address : 1F., Xingyuan Industrial Park, Tongda Road, Bao'an Blvd.,
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 : **Global Tech China Limited**

Address : 3 Flat A, Wai Yip Industrial Building, 171 Wai Yip Street,
Kwun Tong, Kowloon, Hong Kong

Test Specification

Standard : FCC CFR 47 PART 15 Subpart B: 2013, ANSI C63.4-2009

Test Report Form No. : LCSEMC-1.0

TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

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Test Item Description : **Solar Light(Large)/28W,16W**

Trade Mark : N/A

Model/Type Reference : 00013022

Ratings : DC 6V, 28W

Result : **Positive**

Compiled by:

Supervised by:

Approved by:

Yoyo Wang/ File administrators

Danny Huang/ Technique principal

Gavin Liang/ Manager

FCC -- TEST REPORT

Test Report No. : LCS1412090521E

December 09, 2014
Date of issue

Type / Model..... : 00013022

EUT..... : Solar Light(Large)/28W,16W

Applicant..... : Global Tech China Limited

Address..... : 3 Flat A, Wai Yip Industrial Building, 171 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Manufacturer..... : Global Tech China Limited

Address..... : 3 Flat A, Wai Yip Industrial Building, 171 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Factory..... : Global Tech China Limited

Address..... : 3 Flat A, Wai Yip Industrial Building, 171 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Test Result according to the standards on page 5: **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.

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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			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at mains terminals	FCC CFR 47 PART 15 Subpart B: 2013	Class B	N/A
Radiated disturbance	FCC CFR 47 PART 15 Subpart B: 2013	Class B	PASS

N/A is an abbreviation for Not Applicable.

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : Solar Light(Large)/28W,16W

Model Number : 00013022

Power Supply : DC 6V, 28W

EUT Clock Frequency : \leq 108MHz

2.2. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS, April 28, 2013
The Certificate Registration Number. is L4595.
Accredited by FCC, July 14, 2011
The Certificate Registration Number. is 899208.
Accredited by Industry Canada, May. 02, 2011
The Certificate Registration Number. is 9642A-1
Accredited by VCCI, Japan January 30, 2012
The Certificate Registration Number. is C-4260 and R-3804
Accredited by ESMD, April 24, 2012
The Certificate Registration Number. is ARCB0108.
Accredited by UL, July 25, 2013
The Certificate Registration Number. is 100571-492.
Accredited by TUV, December 23, 2013
The Certificate Registration Number. is SCN1134
Accredited by Intertek, October 30, 2013
The Certificate Registration Number. is 2011-RTL-L1-50.

2.3. 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.

2.4.Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Radiation Uncertainty :	30MHz~200MHz	$\pm 2.96\text{dB}$	(1)
	200MHz~1000MHz	$\pm 3.10\text{dB}$	(1)
Conduction Uncertainty :	150kHz~30MHz	$\pm 1.63\text{dB}$	(1)
Power disturbance :	30MHz~300MHz	$\pm 1.60\text{dB}$	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

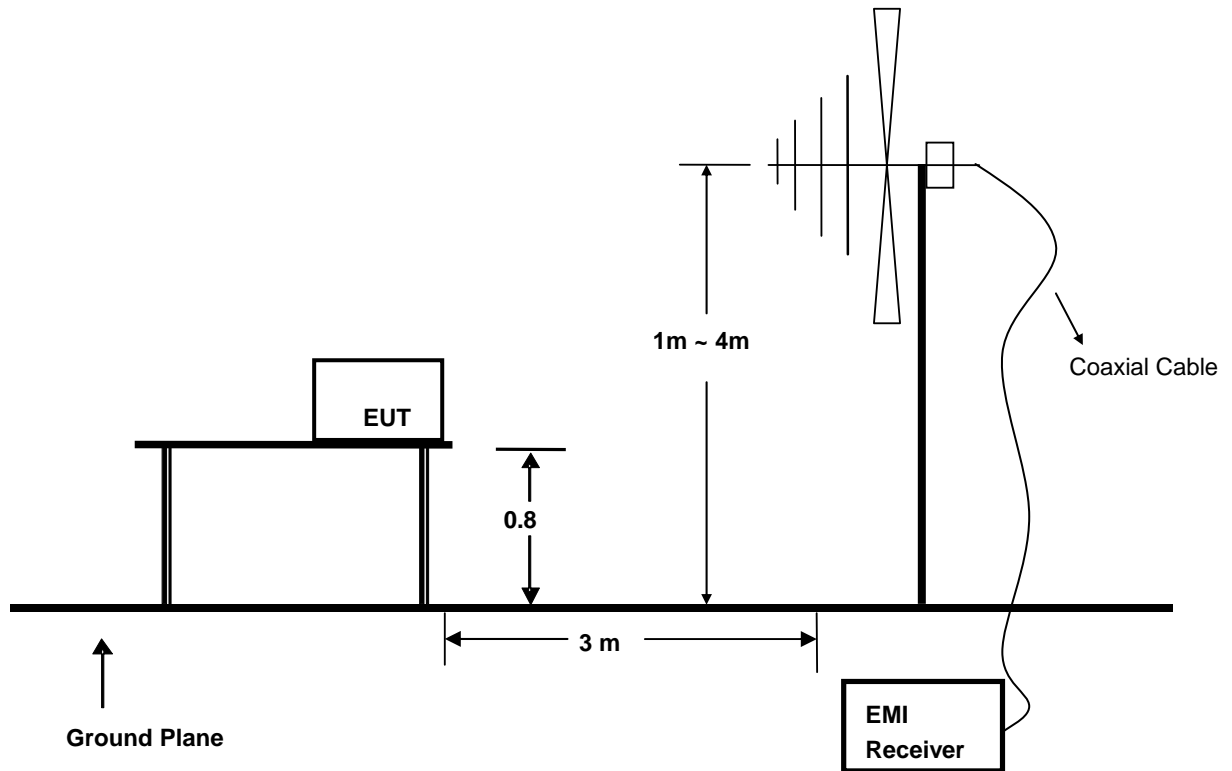
3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2014/06/18
2	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2014/06/18
3	Log per Antenna	SCHWARZBECK	VULB9163	9163-470	2014/06/18
4	Amplifier	Compliance Direction	PAP-0102	21001	2014/06/18
5	EMI Test Software	AUDIX	E3	N/A	2014/06/18

3.2. Block Diagram of Test Setup



3.3. Radiated Emission Limit (Class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

- Remark :
- (1) Emission level (dB)μV = 20 log Emission level μV/m
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.4.EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.5.Operating Condition of EUT

3.5.1.Setup the EUT as shown in Section 3.2.

3.5.2.Let the EUT work in test mode (on) and measure it.

3.6.Test Procedure

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated by-log antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009 on radiated emission measurement.

The bandwidth of the EMI test receiver is set at 120kHz.

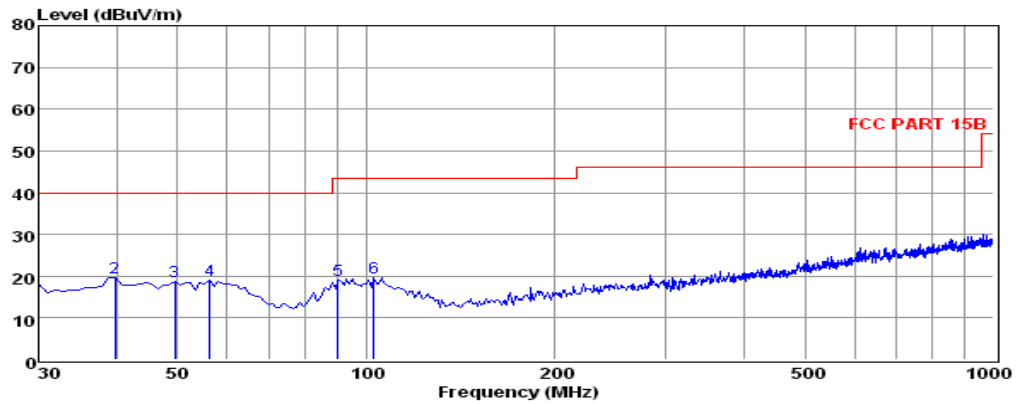
The frequency range from 30MHz to 1000MHz is checked.

3.7.Radiated Emission Noise Measurement Result

PASS.

The scanning waveforms please refer to the next page.

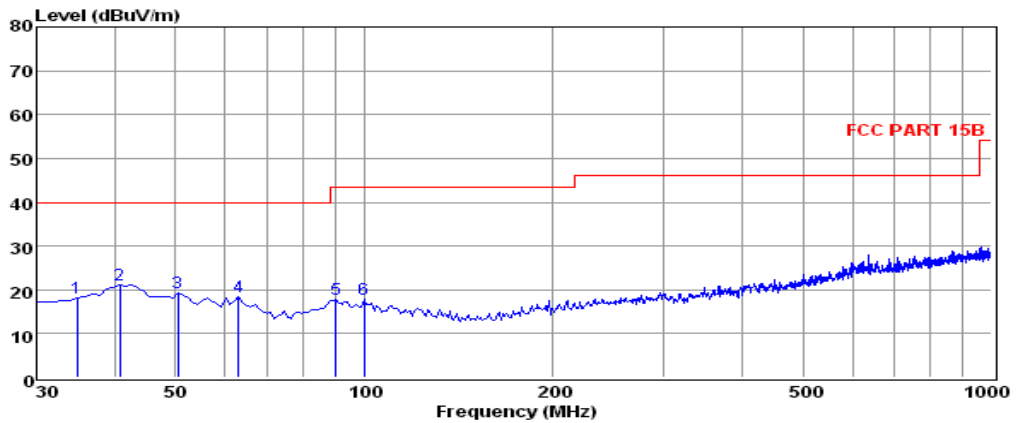
Model No.	00013022	Test Mode	ON
Environmental Conditions	24°C/ 56% RH	Detector Function	Quasi-peak
Pol	Vertical	Distance	3m
Test Engineer	Kevin		



	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	30.00	5.46	0.39	12.33	18.18	40.00	-21.82	QP
2	39.70	5.88	0.38	13.50	19.76	40.00	-20.24	QP
3	49.40	5.01	0.54	13.29	18.84	40.00	-21.16	QP
4	56.19	5.57	0.47	12.94	18.98	40.00	-21.02	QP
5	90.14	6.32	0.68	11.93	18.93	43.50	-24.57	QP
6	102.75	6.14	0.60	12.91	19.65	43.50	-23.85	QP

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

Model No.	00013022	Test Mode	ON
Environmental Conditions	24°C/ 56% RH	Detector Function	Quasi-peak
Pol	Horizontal	Distance	3m
Test Engineer	Kevin		



	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	34.85	5.38	0.41	12.30	18.09	40.00	-21.91	QP
2	40.67	6.94	0.50	13.58	21.02	40.00	-18.98	QP
3	50.37	5.55	0.54	13.23	19.32	40.00	-20.68	QP
4	62.98	6.41	0.48	11.51	18.40	40.00	-21.60	QP
5	90.14	5.17	0.68	11.93	17.78	43.50	-25.72	QP
6	99.84	4.21	0.60	13.15	17.96	43.50	-25.54	QP

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

4. PHOTOGRAPH

4.1. Photo of Radiated Measurement



5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

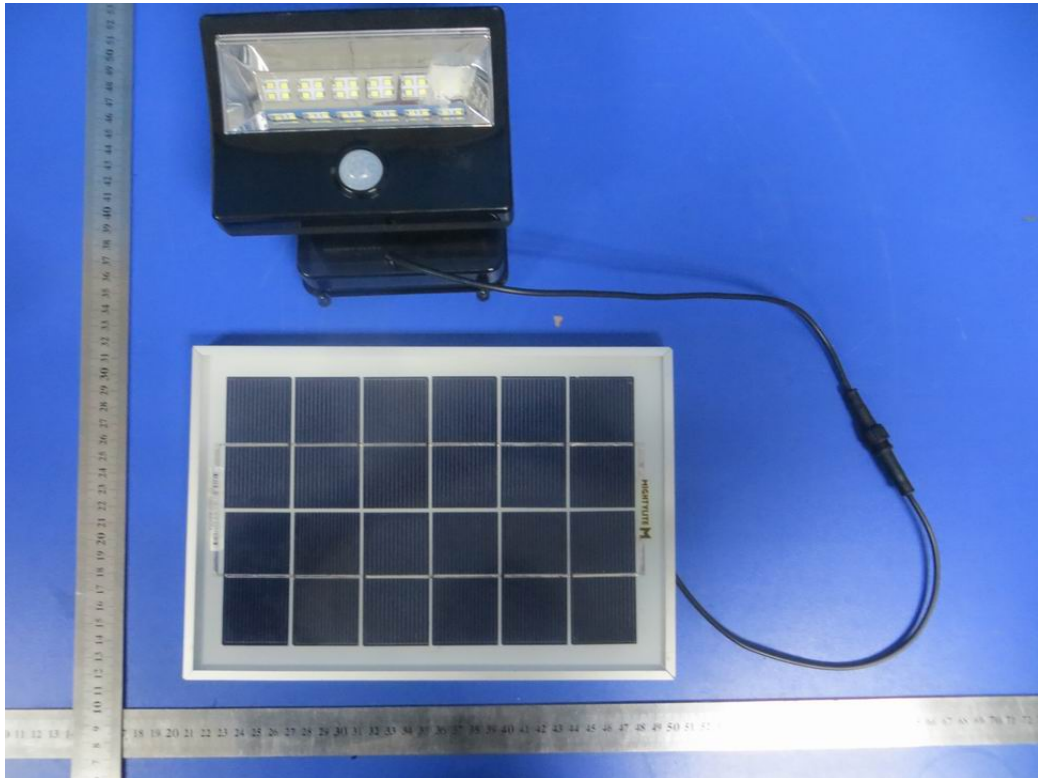


Fig.1



Fig.2



Fig.3

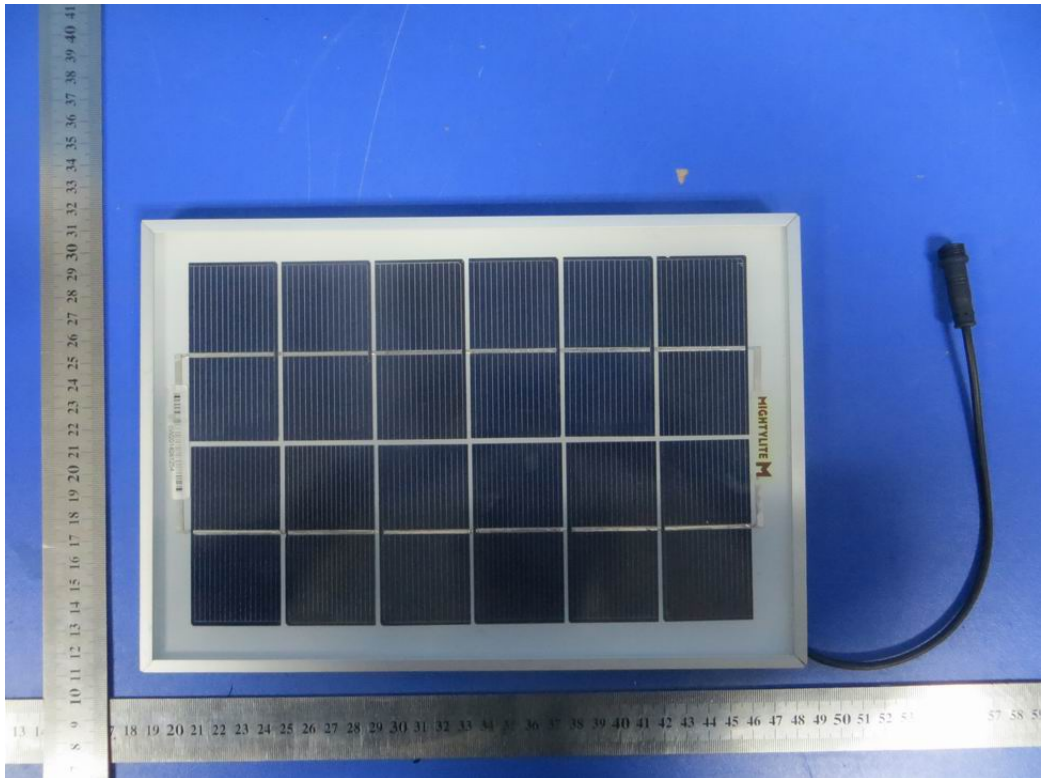


Fig.4

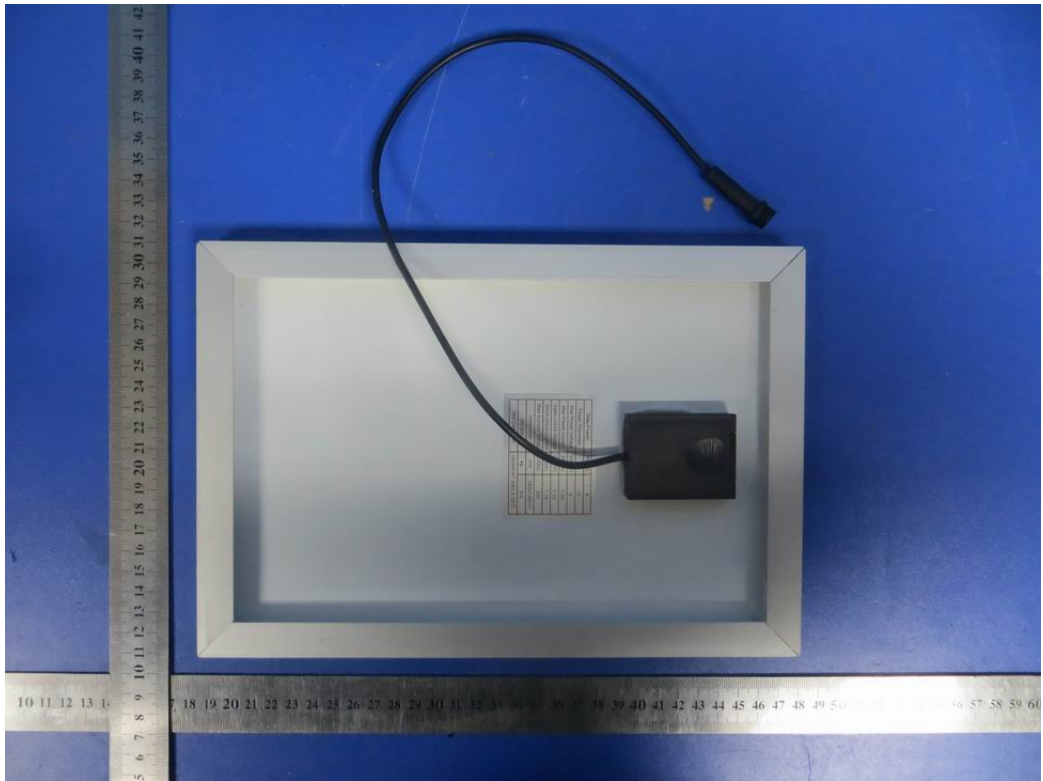


Fig.5

6. MANUFACTURER/ APPROVAL HOLDER DECLARATION

The following identical model(s):

00013021	00013222	00013062	00013061
00013262	00013261	--	--

Belong to the tested device:

Product description : Solar Light(Large)/28W,16W
Model name : 00013022

Remark: So no additional models were tested.

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