

EMC TEST REPORT  
for  
Smart Team Holdings Limited

Portable Solar Charger - High Capacity & Dual Outputs  
Model No.: SZ-PSC2013

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Report Number : 201304847E  
Date of Test : Apr. 22~28, 2013  
Date of Report : May 07, 2013

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### TEST REPORT VERIFICATION

Applicant : Smart Team Holdings Limited  
Manufacturer : Shenzhen Smart Team Technology Ltd.  
EUT : Portable Solar Charger - High Capacity & Dual Outputs  
Model No. : SZ-PSC2013  
Rating : Input: DC 5V, 500mA-1000mA  
Output 1: DC 5V, 1A(MAX)  
Output 2: DC 5V, 2.1A(MAX)  
Trade Mark : ST

Measurement Procedure Used:

EN 55022: 2010;

EN 55024: 2010;

(IEC 61000-4-2: 2008; IEC 61000-4-3: 2006+A1 ;2007+A2: 2010)

The device described above is tested by Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the EN 55022 and EN 55024 requirements. The Project in IEC 61000-4-3 was tested in Shenzhen EMTEK Co., Ltd.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Anbotek Compliance Laboratory Limited.

Date of Test :

Apr. 22~28, 2013

Prepared by :

*Barak Ban*

( Engineer/ Barak Ban )

*Amy Ding*

Reviewer :

( Project Manager/ Amy Ding )

Approved & Authorized Signer :

*Tom. Chen*

( Manager/ Tom Chen )

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT : Portable Solar Charger - High Capacity & Dual Outputs

Model Number : SZ-PSC2013

Test Power Supply : DC 5V

Applicant : Smart Team Holdings Limited  
Address : FLAT A01, 5/F., Great Wall Fty Bldg., 11 Cheung Shun Street, Lai Chi Kwok, Kowloon, HK

Manufacturer : Shenzhen Smart Team Technology Ltd.  
Address : Xutai Industrial Zone, Long Wo Road, Long Tian Village, Keng Zi Town, Longgang District, Shenzhen, Guangdong, China

Date of Receipt : Apr. 22, 2013  
Date of Test : Apr. 22~28, 2013

## 1.2. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### **FCC-Registration No.: 752021**

Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, August 20, 2010.

### **IC-Registration No.: 8058A-1**

Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A-1, February 22, 2013.

### **CNAS - LAB Code: L3503**

Anbotek Compliance Laboratory Limited., Laboratory has been assessed and in compliance with CNAS/CL01: 2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

### **Test Location**

All Emissions tests were performed  
Anbotek Compliance Laboratory Limited. at 1/F, 1/Building, SEC Industrial Park, No.4 Qianhai Road, Nanshan District, Shenzhen, 518054, China

## 1.3. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 4.3dB
Conduction Uncertainty	:	Uc = 3.4dB

### 1.4. Test Summary

For the EUT described above. The standards used were EN 55022 for Emissions & EN 55024 for Immunity.

Table 1 : Tests Carried Out Under EN 55022: 2010

Standard	Test Items	Status
EN 55022: 2010	Power Line Conducted Emission Test (150KHz To 30MHz)	√
EN 55022: 2010	Radiated Emission Test (30MHz To 1000MHz)	√

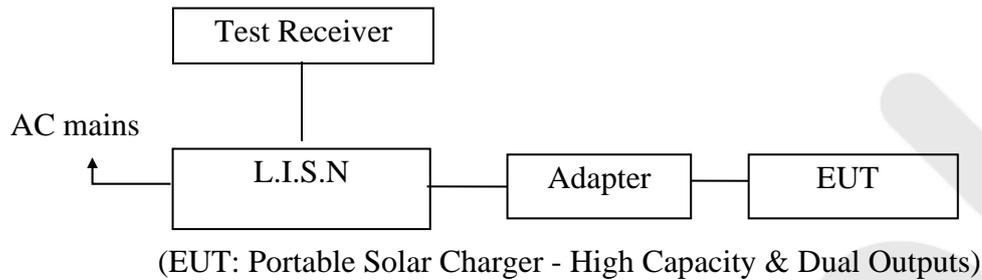
Table 2 : Tests Carried Out Under EN 55024: 2010

Standard	Test Items	Status
EN 55024: 2010	Electrostatic Discharge immunity Test	√
EN 55024: 2010	RF Field Strength susceptibility Test	√
EN 55024: 2010	Electrical Fast Transient/Burst Immunity Test	x
EN 55024: 2010	Surge Immunity Test	x
EN 55024: 2010	Injected Currents Susceptibility Test	x
EN 55024: 2010	Magnetic Field Susceptibility Test	x
EN 55024: 2010	Voltage Dips and Interruptions Test	x

- √ Indicates that the test is applicable
- x Indicates that the test is not applicable

## 2. POWER LINE CONDUCTED EMISSION TEST

### 2.1. Block Diagram of Test Setup



### 2.2. Measuring Standard

EN 55022: 2010

### 2.3. Power Line Conducted Emission Limits

Frequency (MHz)	Limit (dB $\mu$ V)	
	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.

### 2.4. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet EN 55022 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

#### 2.4.1. Portable Solar Charger - High Capacity & Dual Outputs

Model Number : SZ-PSC2013  
Serial Number : N/A  
Applicant : Smart Team Holdings Limited

## 2.5. Operating Condition of EUT

2.5.1. Setup the EUT as shown on Section 2.1.

2.5.2. Turn on the power of all equipments.

2.5.3. Let the EUT work in measuring mode (Charging to adapter) and measure it.

## 2.6. 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 a 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the EN 55022 regulations during conducted emission measurement.

The bandwidth of the test receiver (ESCI) is set at 9KHz in 150KHz~30MHz.

The frequency range from 150KHz to 30MHz is investigated for AC mains.

The test results are listed in Section 2.8.

## 2.7. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Nov. 12, 2012	1 Year
2.	LISN	SchwarzBeck	NSLK 8126	8126377	May 19, 2012	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2012	1 Year
4.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A

## 2.8. Measuring Results

**PASS.**

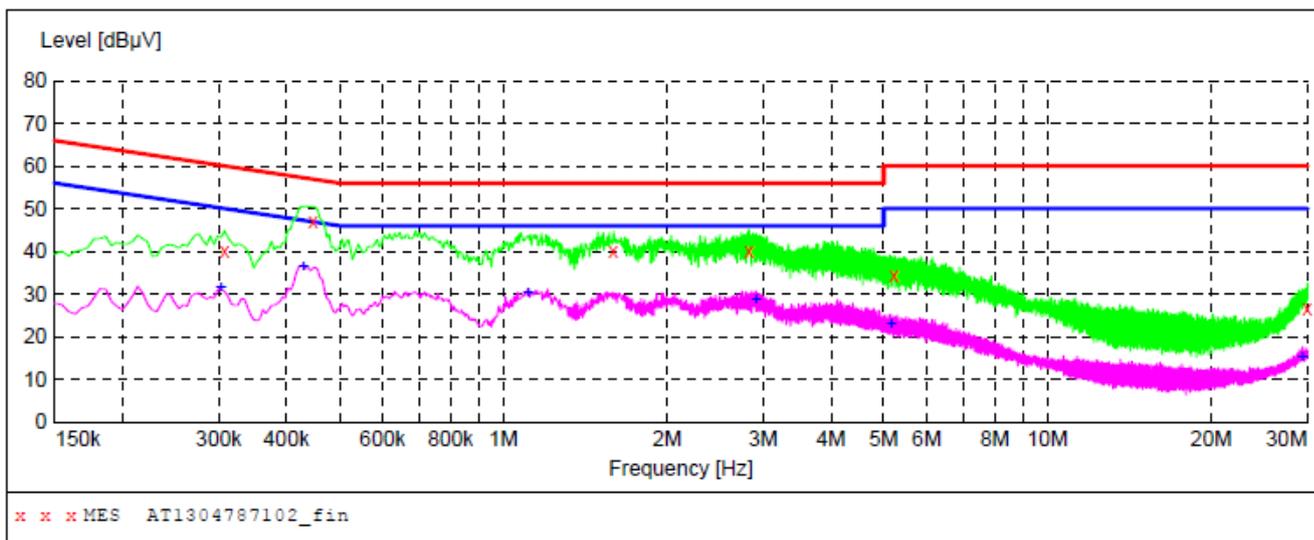
The frequency range 150KHz to 30MHz is investigated

The test curves are shown in the following pages.

**CONDUCTED EMISSION TEST DATA**

EUT: Portable Solar Charger - High Capacity & Dual Outputs M/N: SZ-PSC2013  
 Operating Condition: Charging to adapter  
 Test Site: 1# Shielded Room  
 Operator: Finley Li  
 Test Specification: DC 5V  
 Comment: N  
 Tem: 22.2°C Hum: 60%

**SCAN TABLE: "Voltage (150K~30M) FIN"**  
 Short Description: 150K-30M Disturbance Voltages



**MEASUREMENT RESULT: "AT1304787102\_fin"**

4/23/2013 7:44PM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.307500	40.30	20.1	60	19.7	QP	N	GND
0.447000	47.20	20.1	57	9.7	QP	N	GND
1.594000	39.90	20.3	56	16.1	QP	N	GND
2.827000	40.20	20.4	56	15.8	QP	N	GND
5.230000	34.20	20.5	60	25.8	QP	N	GND
29.998000	26.60	20.9	60	33.4	QP	N	GND

**MEASUREMENT RESULT: "AT1304787102\_fin2"**

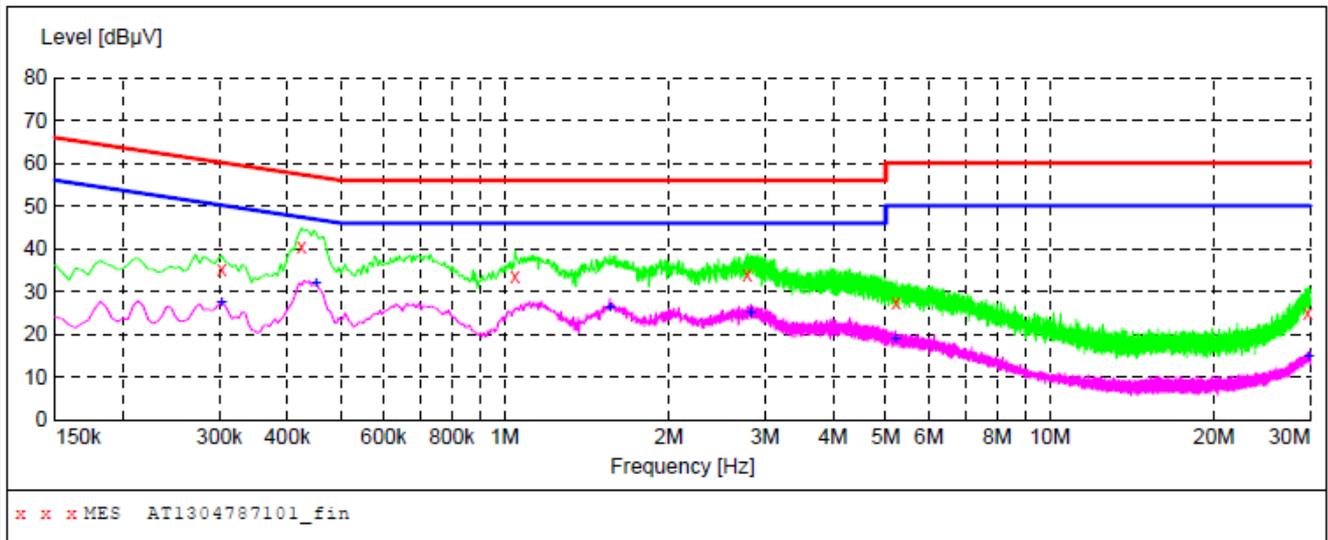
4/23/2013 7:44PM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.303000	31.50	20.1	50	18.7	AV	N	GND
0.429000	36.50	20.1	47	10.8	AV	N	GND
1.112500	30.20	20.2	46	15.8	AV	N	GND
2.912500	28.70	20.4	46	17.3	AV	N	GND
5.153500	22.90	20.5	50	27.1	AV	N	GND
29.386000	15.40	20.9	50	34.6	AV	N	GND

**CONDUCTED EMISSION TEST DATA**

EUT: Portable Solar Charger - High Capacity & Dual Outputs M/N: SZ-PSC2013  
 Operating Condition: Charging to adapter  
 Test Site: 1# Shielded Room  
 Operator: Finley Li  
 Test Specification: DC 5V  
 Comment: L  
 Tem: 22.2°C Hum: 60%

**SCAN TABLE: "Voltage (150K~30M) FIN"**  
 Short Description: 150K-30M Disturbance Voltages



**MEASUREMENT RESULT: "AT1304787101\_fin"**

4/23/2013 7:41PM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.303000	35.00	20.1	60	25.2	QP	L1	GND
0.424500	40.60	20.1	57	16.8	QP	L1	GND
1.045000	33.70	20.2	56	22.3	QP	L1	GND
2.786500	33.90	20.4	56	22.1	QP	L1	GND
5.225500	27.40	20.5	60	32.6	QP	L1	GND
29.746000	24.90	20.9	60	35.1	QP	L1	GND

**MEASUREMENT RESULT: "AT1304787101\_fin2"**

4/23/2013 7:41PM

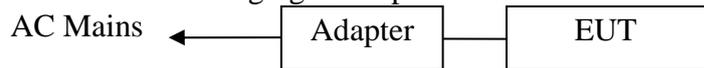
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.303000	27.50	20.1	50	22.7	AV	L1	GND
0.451500	32.00	20.1	47	14.8	AV	L1	GND
1.558000	26.20	20.3	46	19.8	AV	L1	GND
2.827000	25.10	20.4	46	20.9	AV	L1	GND
5.212000	18.70	20.5	50	31.3	AV	L1	GND
29.840500	14.70	20.9	50	35.3	AV	L1	GND

### 3. RADIATED EMISSION TEST

#### 3.1. Block Diagram of Test

##### 3.1.1. Block diagram of connection between the EUT and simulators

##### 3.1.1.1 For Charging to adapter mode

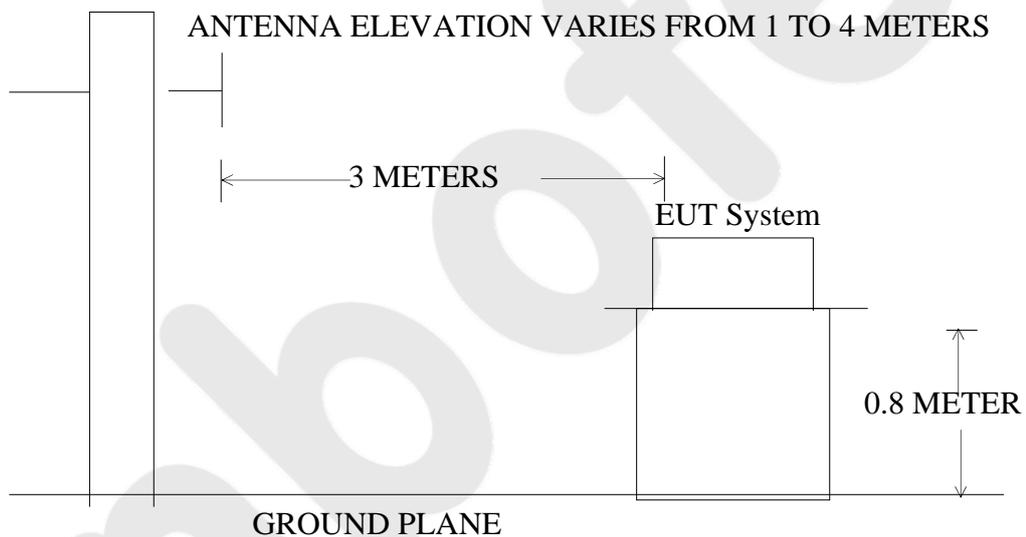


##### 3.1.1.2 For Discharging mode



(EUT: Portable Solar Charger - High Capacity & Dual Outputs)

##### 3.1.2. Block diagram of test setup (In chamber)



(EUT: Portable Solar Charger - High Capacity & Dual Outputs)

#### 3.2. Measuring Standard

EN 55022: 2010

#### 3.3. Radiated Emission Limits

##### 3.3.1. EN 55022: 2010

##### Radiated Emission Limits

All emanations from an EN 55022 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 (dB $\mu$ V/m)
30 ~ 230	3	40
230 ~ 1000	3	47

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

### 3.4. EUT Configuration on Test

The EN 55022 regulations test method must be used to find the maximum emission during radiated emission measurement.

### 3.5. Operating Condition of EUT

3.5.1. Turn on the power.

3.5.2. Let the EUT work in test mode (Charging to adapter/Discharging) and measure it.

### 3.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table 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. Bilog antenna is used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver (ESCI) is set at 120kHz.

The EUT is tested in 9\*6\*6 Chamber.

The test results are listed in Section 3.8.

### 3.7. Test Equipment

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

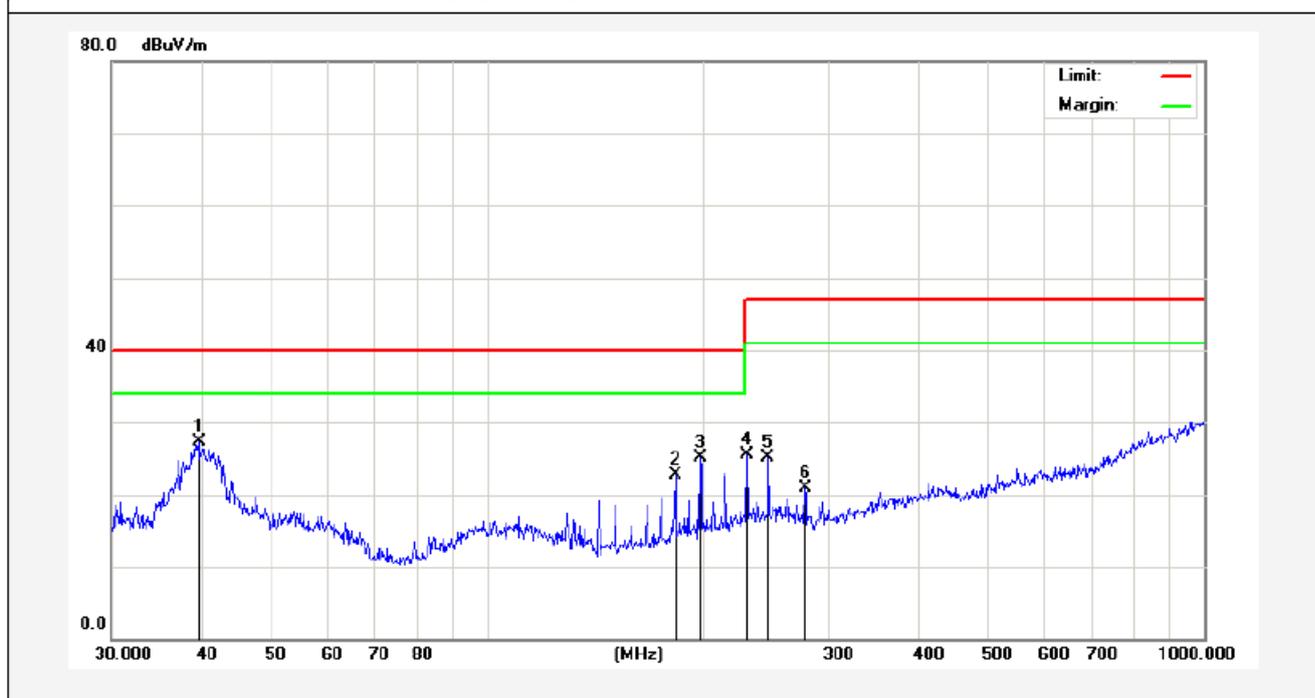
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 12, 2012	1 Year
2.	Trilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 17, 2012	1 Year
3.	Pre-amplifier	Compliance Direction	PAP-0203	22008	May 19, 2012	1 Year
4.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A

### 3.8. Measuring Results

**PASS.**

The frequency range from 30MHz to 1000MHz is investigated.  
The test curves are shown in the following pages.

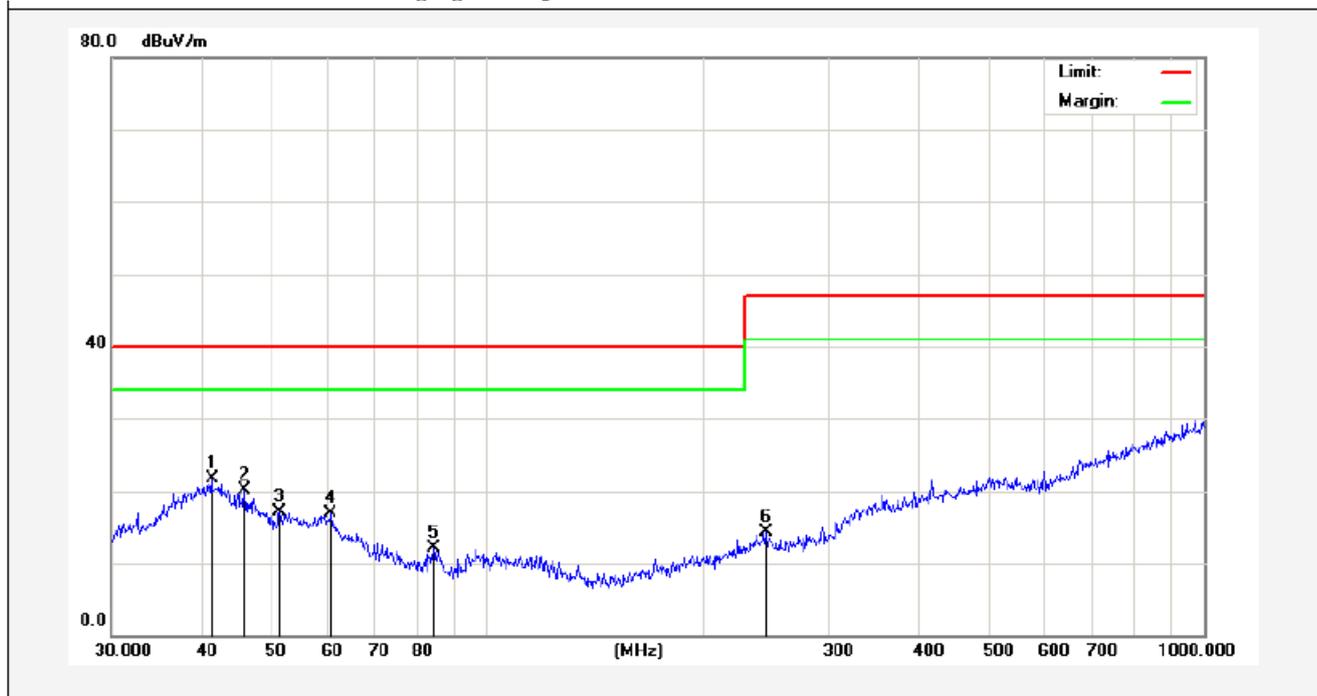
<b>Job No.:</b>	AT1304787E	<b>Polarization:</b>	Vertical
<b>Standard:</b>	(RE)EN 55022_class B_3m	<b>Power Source:</b>	DC 5V
<b>Test item:</b>	Radiation Test	<b>Date:</b>	2013/04/23
<b>Temp.(C)/Hum.(%RH):</b>	24.3( C)/55%RH	<b>Time:</b>	20:43:53
<b>EUT:</b>	Portable Solar Charger - High Capacity & Dual Outputs	<b>Test By:</b>	Jimly Chen
<b>Model:</b>	SZ-PSC2013	<b>Distance:</b>	3m
<b>Note:</b>	Charging to adapter		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	39.7146	37.93	-10.59	27.34	40.00	-12.66	peak			
2	183.2005	39.24	-16.55	22.69	40.00	-17.31	peak			
3	198.5880	41.02	-15.88	25.14	40.00	-14.86	peak			
4	230.9068	40.00	-14.55	25.45	47.00	-21.55	peak			
5	246.8149	39.25	-14.06	25.19	47.00	-21.81	peak			
6	278.0668	35.99	-15.11	20.88	47.00	-26.12	peak			

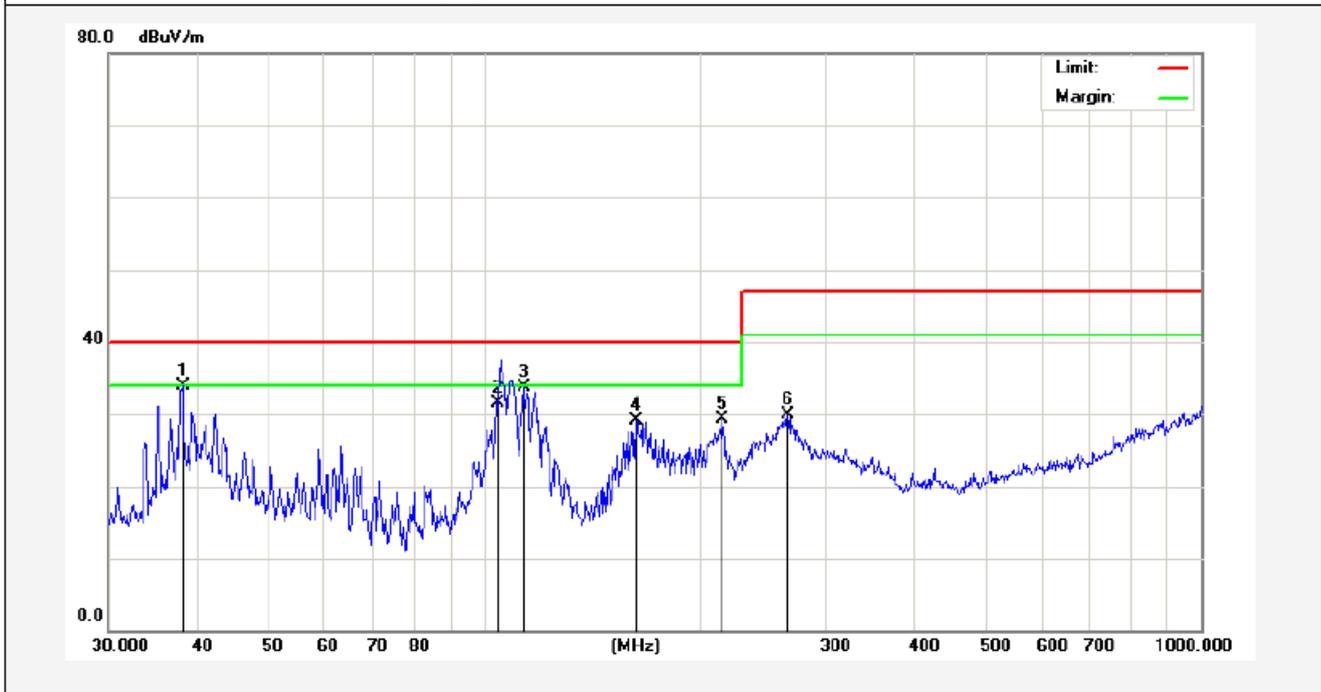
<b>Job No.:</b>	AT1304787E	<b>Polarization:</b>	Horizontal
<b>Standard:</b>	(RE)EN 55022_class B_3m	<b>Power Source:</b>	DC 5V
<b>Test item:</b>	Radiation Test	<b>Date:</b>	2013/04/23
<b>Temp.(C)/Hum.(%RH):</b>	24.3( C)/55%RH	<b>Time:</b>	20:46:15
<b>EUT:</b>	Portable Solar Charger - High Capacity & Dual Outputs	<b>Test By:</b>	Jimly Chen
<b>Model:</b>	SZ-PSC2013	<b>Distance:</b>	3m

**Note:** Charging to adapter



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	41.4215	32.58	-10.93	21.65	40.00	-18.35	peak			
2	46.0164	32.92	-12.79	20.13	40.00	-19.87	peak			
3	51.4807	31.72	-14.68	17.04	40.00	-22.96	peak			
4	60.7044	32.62	-15.69	16.93	40.00	-23.07	peak			
5	84.4054	32.58	-20.54	12.04	40.00	-27.96	peak			
6	245.0900	32.58	-18.31	14.27	47.00	-32.73	peak			

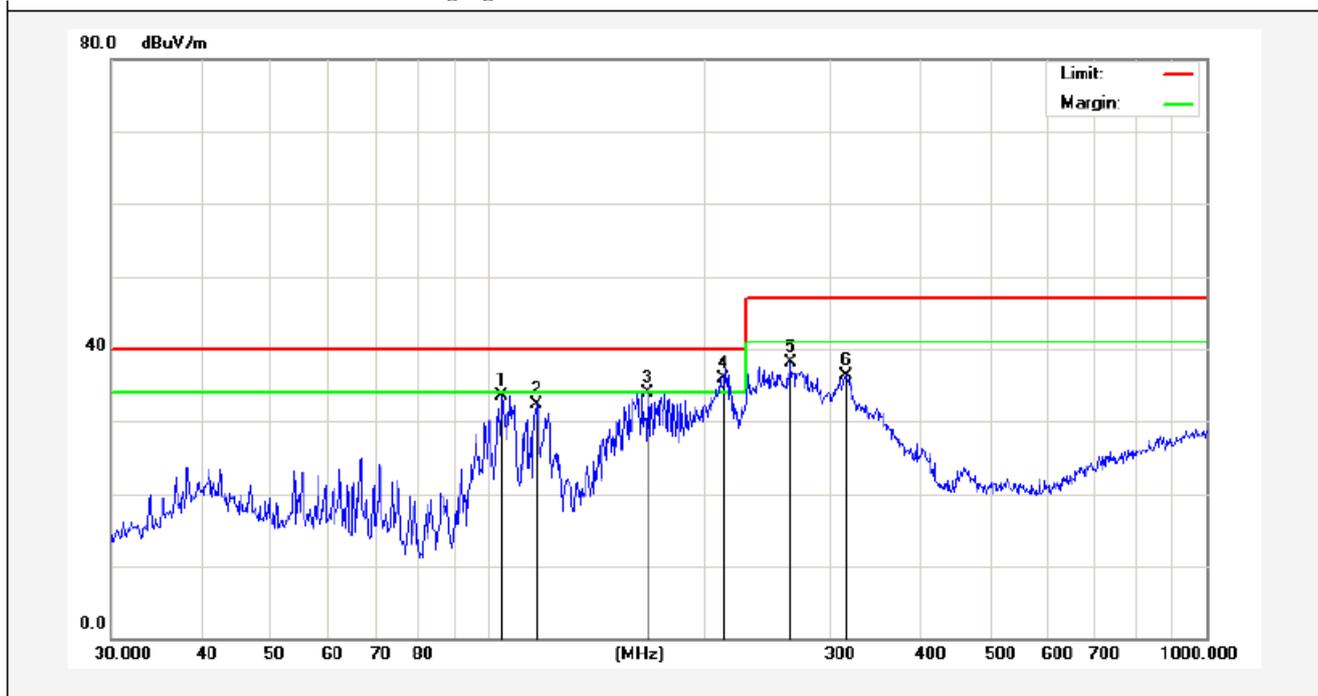
<b>Job No.:</b>	AT1304787E	<b>Polarization:</b>	Vertical
<b>Standard:</b>	(RE)EN 55022_class B_3m	<b>Power Source:</b>	DC 5V
<b>Test item:</b>	Radiation Test	<b>Date:</b>	2013/04/27
<b>Temp.(C)/Hum.(%RH):</b>	24.3( C)/55%RH	<b>Time:</b>	09:15:44
<b>EUT:</b>	Portable Solar Charger - High Capacity & Dual Outputs	<b>Test By:</b>	Jimly Chen
<b>Model:</b>	SZ-PSC2013	<b>Distance:</b>	3m
<b>Note:</b>	Discharging		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	38.0783	45.83	-11.88	33.95	40.00	-6.05	peak			
2	104.6015	47.25	-15.70	31.55	40.00	-8.45	QP	100	0	
3	113.7143	49.62	-15.88	33.74	40.00	-6.26	peak			
4	163.1818	46.96	-17.77	29.19	40.00	-10.81	peak			
5	215.2678	44.56	-15.29	29.27	40.00	-10.73	peak			
6	265.6757	44.23	-14.34	29.89	47.00	-17.11	peak			

<b>Job No.:</b>	AT1304787E	<b>Polarization:</b>	Horizontal
<b>Standard:</b>	(RE)EN 55022_class B_3m	<b>Power Source:</b>	DC 5V
<b>Test item:</b>	Radiation Test	<b>Date:</b>	2013/04/23
<b>Temp.(C)/Hum.(%RH):</b>	24.3( C)/55%RH	<b>Time:</b>	09:17:59
<b>EUT:</b>	Portable Solar Charger - High Capacity & Dual Outputs	<b>Test By:</b>	Jimly Chen
<b>Model:</b>	SZ-PSC2013	<b>Distance:</b>	3m

**Note:** Discharging



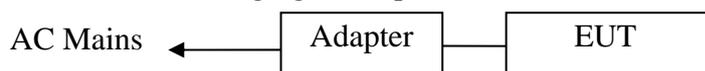
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	104.9033	54.27	-20.71	33.56	40.00	-6.44	peak			
2	117.3602	53.43	-21.14	32.29	40.00	-7.71	peak			
3	167.2366	56.48	-22.64	33.84	40.00	-6.16	peak			
4	212.8834	56.37	-20.38	35.99	40.00	-4.01	QP	100	0	
5	264.7456	56.99	-18.80	38.19	47.00	-8.81	peak			
6	315.4806	52.19	-15.80	36.39	47.00	-10.61	peak			

## 4. ELECTROSTATIC DISCHARGE IMMUNITY TEST

### 4.1. Block Diagram of Test Setup

#### 4.1.1. Block diagram of connection between the EUT and simulators

##### 4.1.1.1 For Charging to adapter mode

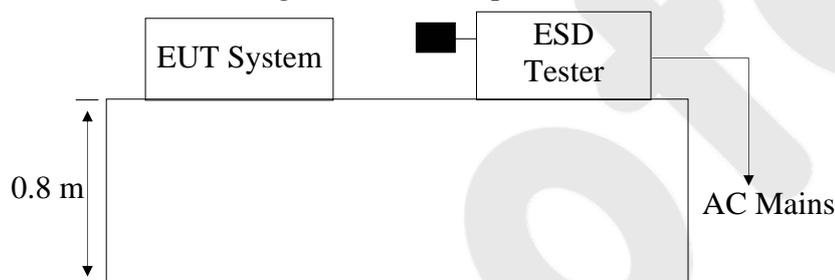


##### 4.1.1.2 For Discharging mode



(EUT: Portable Solar Charger - High Capacity & Dual Outputs)

#### 4.1.2. Block diagram of test setup



(EUT: Portable Solar Charger - High Capacity & Dual Outputs)

### 4.2. Measuring Standard

EN 55024: 2010

IEC 61000-4-2: 2008

Severity Level: 3 / Air Discharge:  $\pm 8$ kV Level: 2 / Contact Discharge:  $\pm 4$ kV

### 4.3. Severity Levels and Performance Criterion

#### 4.3.1. Severity level

Level	Test Voltage Contact Discharge (kV)	Test Voltage Air Discharge (kV)
1.	$\pm 2$	$\pm 2$
2.	$\pm 4$	$\pm 4$
3.	$\pm 6$	$\pm 8$
4.	$\pm 8$	$\pm 15$
X	Special	Special

#### 4.3.2. Performance criterion: **B**

#### 4.4. EUT Configuration

The configuration of EUT are listed in Section 2.4.

#### 4.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5 except the test set up replaced by Section 4.1.

#### 4.6. Test Procedure

##### 4.6.1. 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 100 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

##### 4.6.2. Contact Discharge:

All the procedure shall be same as Section 4.6.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

##### 4.6.3. Indirect discharge for horizontal coupling plane

At least 50 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

##### 4.6.4. Indirect discharge for vertical coupling plane

At least 50 single discharge 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.

#### 4.7. Test Equipment

The following test equipments are used during the electrostatic discharge immunity measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Simulators	KIKUSUI	KES4021	LJ003477	May 25, 2012	1 Year

#### 4.8. Measuring Results

PASS

Please refer to the following page

## Electrostatic Discharge Test Results

Anbotek Compliance Laboratory Limited

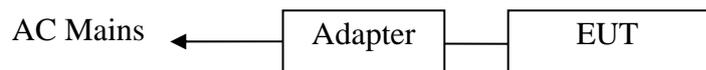
Applicant : Smart Team Holdings Limited	Test Date : Apr. 24, 2013	
EUT : Portable Solar Charger - High Capacity & Dual Outputs	Temperature : 25°C	
M/N : SZ-PSC2013	Humidity : 54%	
Air discharge : ±8.0kV	Criterion : B	
Contact discharge: ±4.0kV	Test Engineer: Jimmy Zhou	
Test Mode : Charging to adapter/Discharging		
Location	Kind A-Air Discharge C-Contact Discharge	Result
Slot of the EUT <span style="float: right;">8 points</span>	A	PASS
Others <span style="float: right;">8 points</span>	A	PASS
USB Port <span style="float: right;">2 points</span>	A	PASS
Solar panel <span style="float: right;">8 points</span>	A	PASS
HCP <span style="float: right;">4 points</span>	C	PASS
VCP of front <span style="float: right;">4 points</span>	C	PASS
VCP of rear <span style="float: right;">4 points</span>	C	PASS
VCP of left <span style="float: right;">4 points</span>	C	PASS
VCP of right <span style="float: right;">4 points</span>	C	PASS
Note:		

## 5. RF FIELD STRENGTH SUSCEPTIBILITY TEST

### 5.1. Block Diagram of Test

#### 5.1.1. Block diagram of connection between the EUT and simulators

##### 5.1.1.1 For Charging to adapter mode

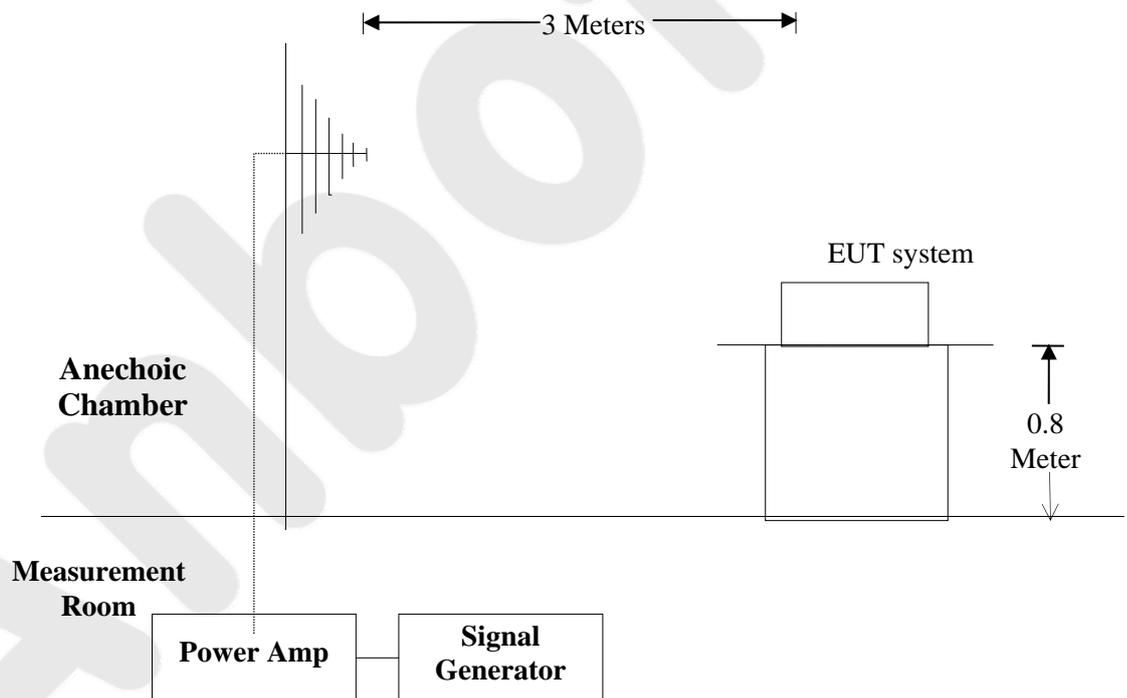


##### 5.1.1.2 For Discharging mode



(EUT: Portable Solar Charger - High Capacity & Dual Outputs)

#### 5.1.2. Block diagram of RS test setup



(EUT: Portable Solar Charger - High Capacity & Dual Outputs)

### 5.2. Measuring Standard

EN 55024: 2010

IEC 61000-4-3: 2006+A1 :2007+A2: 2010

Severity Level: 2, 3V / m

### 5.3. Severity Levels and Performance Criterion

#### 5.3.1. Severity Levels

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

#### 5.3.2. Performance Criterion: A

### 5.4. EUT Configuration on Test

The configuration of the EUT is same as Section 2.4.

### 5.5. Operating Condition of EUT

Same as conducted emission measurement which is listed in Section 2.5. except the test setup replaced as Section 5.1.

### 5.6. 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 are 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 camera 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	80-1000MHz
4. Sweep time of radiated	0.0015 Decade/s
2. Dwell Time	1 Sec.

### 5.7. Test Equipment

The following test equipments are used during the RF Field Strength susceptibility measurement:

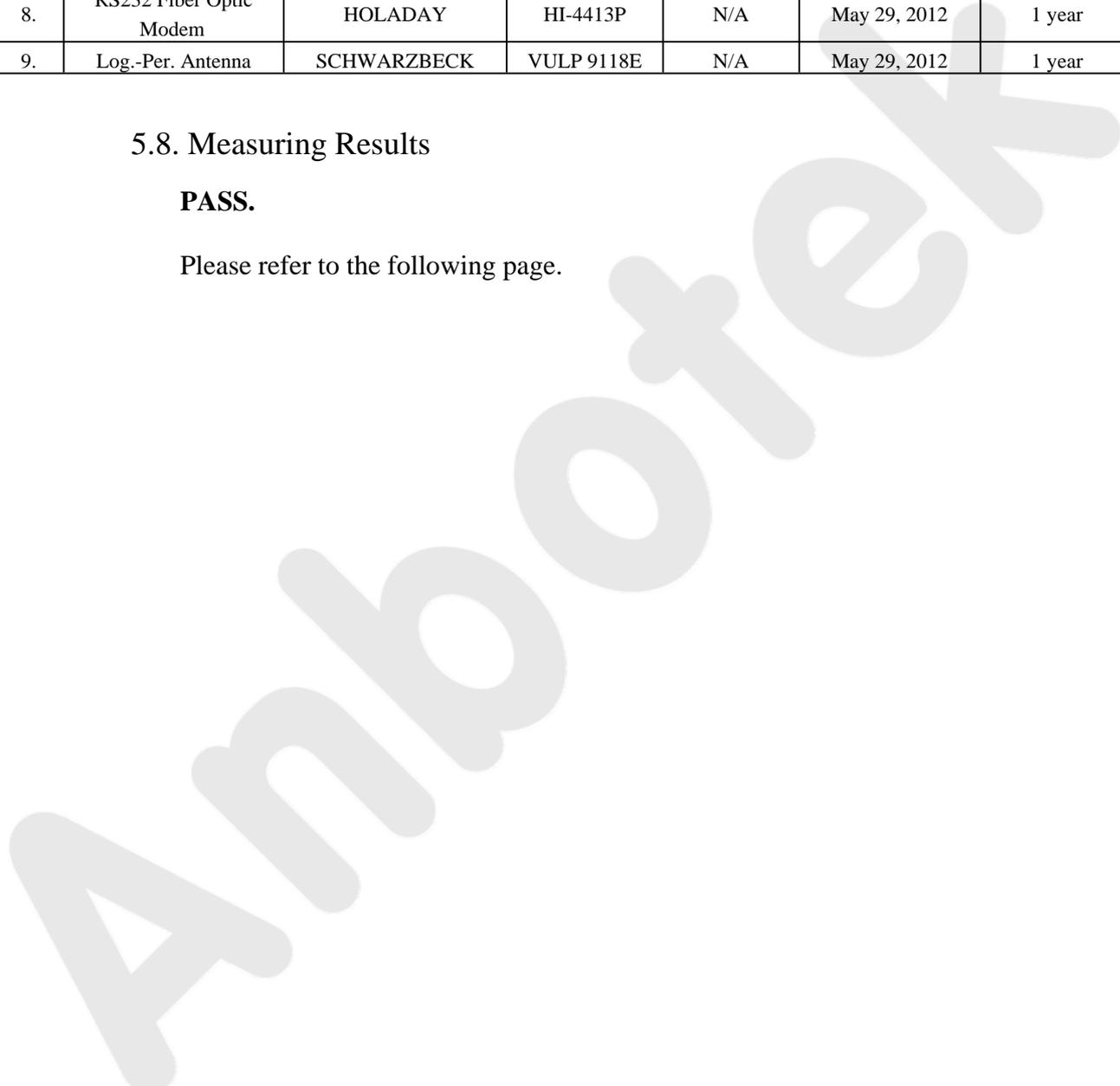
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	RF Power Meter. Dual Channel	BOONTON	4232A	10539	May 29, 2012	1 year

2.	50ohm Diode Power Sensor	BOONTON	51011EMC	34236/34238	May 29, 2012	1 year
3.	Broad-Band Horn Antenna	SCHWARZBECK	BBHA9120 L3F	332	May 29, 2012	1 year
4.	Power Amplifier	PRANA	AP32MT215	N/A	May 29, 2012	1 year
5.	Power Amplifier	MILMEGA	AS0102-55	N/A	May 29, 2012	1 year
6.	Signal Generator	AEROFLEX	2023B	N/A	May 29, 2012	1 year
7.	Field Strength Meter	HOLADAY	HI-6005	N/A	May 29, 2012	1 year
8.	RS232 Fiber Optic Modem	HOLADAY	HI-4413P	N/A	May 29, 2012	1 year
9.	Log.-Per. Antenna	SCHWARZBECK	VULP 9118E	N/A	May 29, 2012	1 year

### 5.8. Measuring Results

**PASS.**

Please refer to the following page.



## RF Field Strength Susceptibility Test Results

Anbotek Compliance Laboratory Limited

Applicant : Smart Team Holdings Limited	Test Date : Apr. 24, 2013
EUT : Portable Solar Charger - High Capacity & Dual Outputs	Temperature : 25°C
M/N : SZ-PSC2013	Humidity : 54%
Field Strength : 3 V/m	Criterion : A
Test Mode : Charging to adapter/Discharging	Test Engineer : Jimly Chen
Frequency Range: 80 MHz to 1000 MHz	

Modulation: <input type="checkbox"/> None		<input type="checkbox"/> Pulse		<input checked="" type="checkbox"/> AM 1KHz 80%		
	Frequency Rang 1: 80~ 1000MHz		Frequency Rang 2:			
Steps	#	/	%	#	/	%
	Horizontal		Vertical			
Front	PASS		PASS			
Right	PASS		PASS			
Rear	PASS		PASS			
Left	PASS		PASS			

Test Equipment :

Note: Tested by EMTEK.

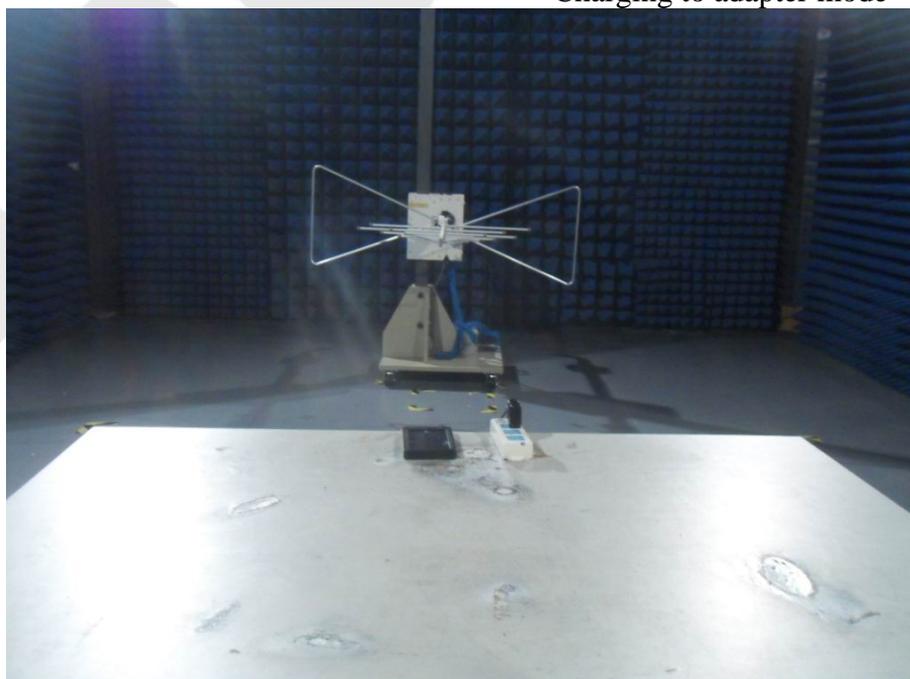
## 6. PHOTOGRAPHS

### 6.1. Photo of Power Line Conducted Emission Test

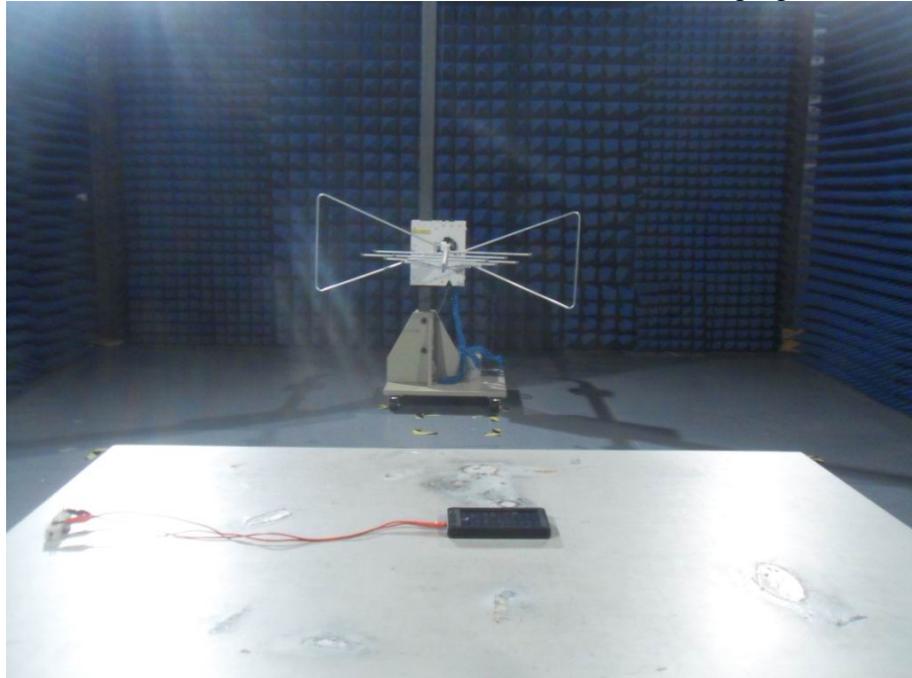


### 6.2. Photo of Radiated Emission Test

Charging to adapter mode

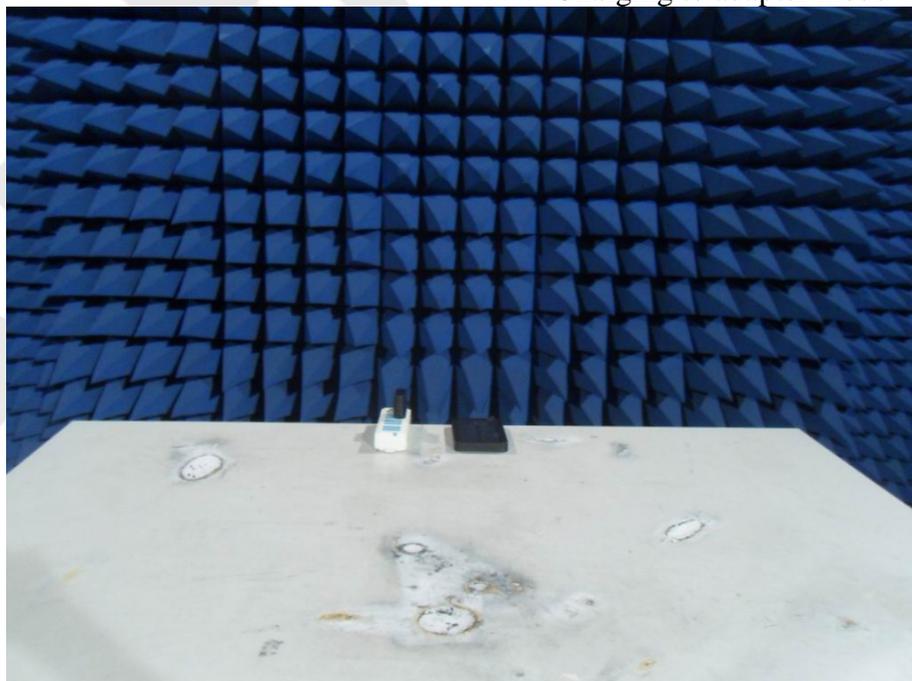


Discharging mode

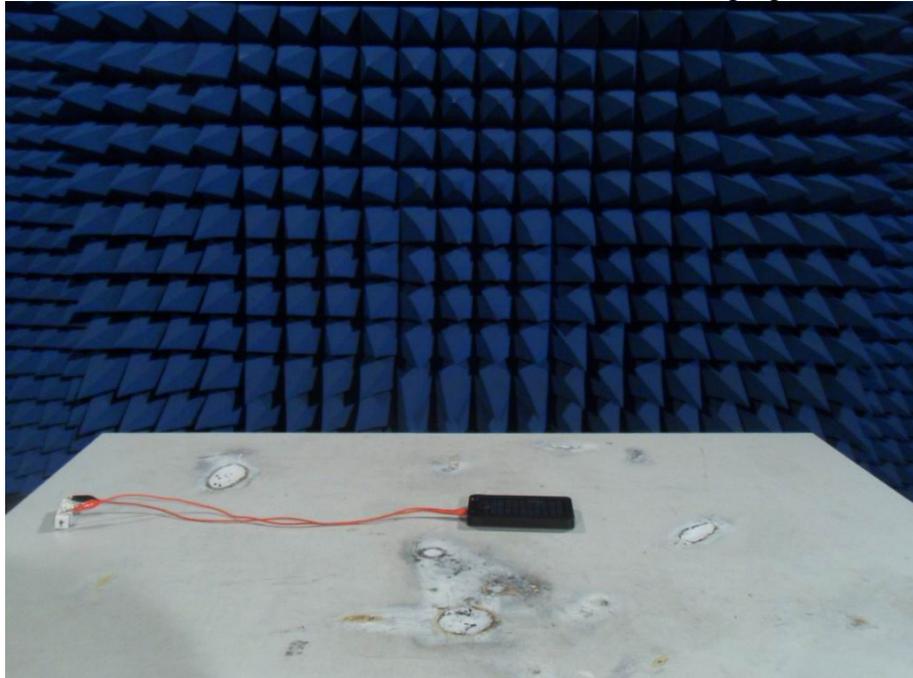


### 6.3 Photo of RF Field Strength susceptibility Test

Charging to adapter mode



Discharging mode



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**APPENDIX I**  
**(Photos of EUT)**

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Figure 1  
The EUT- Front View

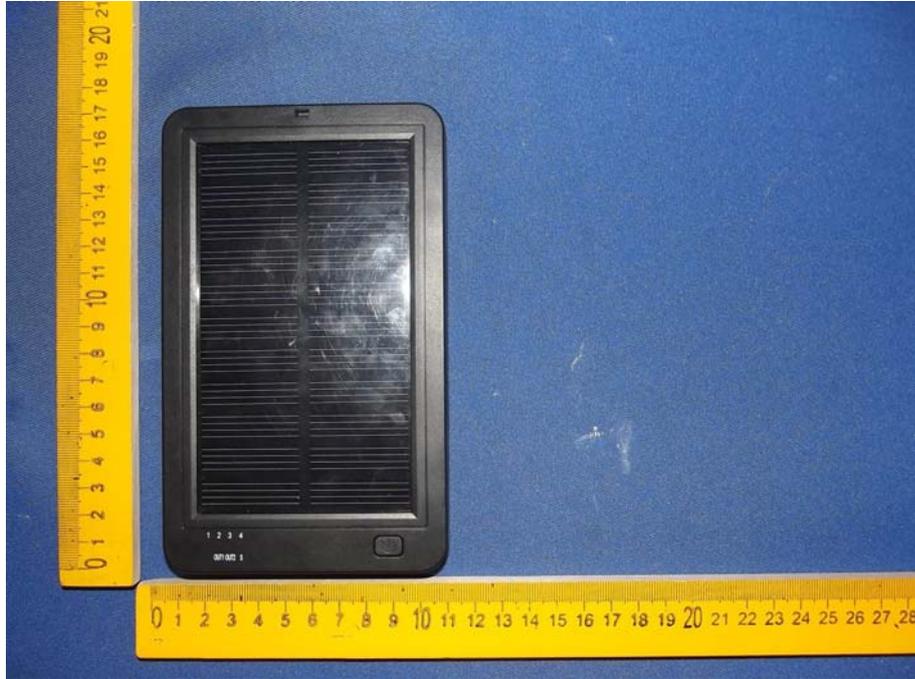


Figure 2  
The EUT- Back View



Figure 3  
The EUT- Side View



Figure 4  
The EUT- Inside View



Figure 5  
PCB Of The EUT- Front View

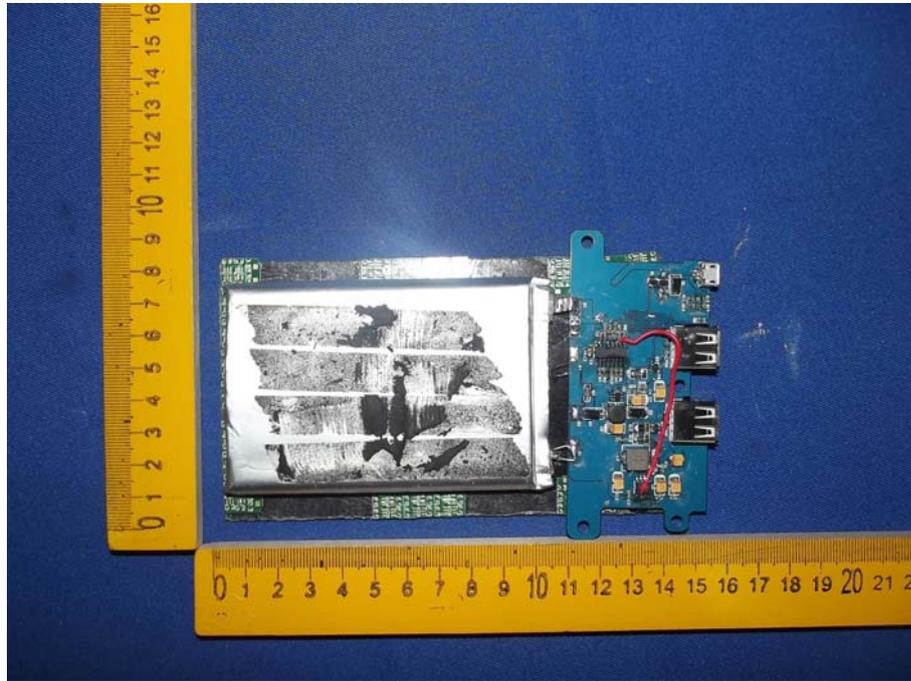


Figure 6  
PCB Of The EUT- Back View



**APPENDIX II  
(CE Label)**

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## CE Label

1. The CE conformity marking must consist of the initials 'CE' taking the following form:  
If the CE marking is reduced or enlarged, the proportions given in the above graduated drawing must be respected.
2. The CE marking must have a height of at least 5 mm except where this is not possible on account of the nature of the apparatus.
3. The CE marking must be affixed to the product or to its data plate. Additionally it must be affixed to the packaging, if any, and to the accompanying documents.
4. The CE marking must be affixed visibly, legibly and indelibly.  
It must have the same height as the initials 'CE'

Proposed Label Location on EUT  
EUT Back View/proposed CE Mark Location

