



SGS

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Technical Services  
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Report No.: SHEMO1011013960  
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### VERIFICATION OF EMC COMPLIANCE

No.: SHEMO10110139601TXC  
 Applicant: Qinhuangdao Xinch Photoelectricity Technology Co., Ltd  
 Economic and Technological Development Zone, Qinhuangdao  
 City, Hebei Province  
 Manufacturer: Qinhuangdao Xinch Photoelectricity Technology Co., Ltd  
 Economic and Technological Development Zone, Qinhuangdao  
 City, Hebei Province  
 Product Description: Lithium ion battery  
 Model No: 18650, 26650  
 Technical Data: 18650:3.65V/1.4A/10W; 26650:3.65V/3.2A/20W  
 Sufficient samples of the product have been tested and found to be in conformity with  
 Test Standard: EN 61000-6-1: 2007  
 EN 61000-6-3: 2007  
 as shown in the  
 Test Report Number(s): SHEMO10110139601

This verification of EMC Compliance has been granted to the applicant based on the results of the tests, performed by laboratory of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. on the sample of the above-mentioned product in accordance with the provisions of the relevant specific standards and Directive 2004/108/EC. The affixing of the CE marking presumes in addition that the conditions in annexes III and V of the Directive are fulfilled.



Tino Pan  
E&E Section Manager  
SGS-CSTC

November 30, 2010

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Note: You may contact us to validate this document by email address: [se.shanghai@sgs.com](mailto:se.shanghai@sgs.com)

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SGSPAPER  
10717188



### EMC TEST REPORT

Application No.: SHEMO10110139601  
 Applicant: Qinhuangdao Xinch Photoelectricity Technology Co., Ltd  
 Equipment Under Test (EUT):  
 NOTE: The following sample(s) submitted was/were identified on behalf of the client as  
 EUT Name: Lithium ion battery  
 Model No.: 18650, 26650  
 Serial No.: Not supplied by client  
 Standards: EN 61000-6-1: 2007  
 EN 61000-6-3: 2007  
 Date of Receipt: Nov 12, 2010  
 Date of Test: Nov 15, 2010 to Nov 25, 2010  
 Date of Issue: Nov 30, 2010

Test Result :	PASS
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The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.



Tino Pan  
E&E Section Manager  
SGS-CSTC(Shanghai) Co., Ltd.

Jianguo Chen  
Jianguo Chen  
E&E Project Engineer  
SGS-CSTC(Shanghai)Co.,Ltd

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## 2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission (150K to 30MHz)	EN 61000-6-3: 2007	CISPR 16-1-2: 2006 CISPR 16-2-1: 2005	N/A	N/A $\Psi$
Radiated Emission (30MHz to 1000MHz)	EN 61000-6-3: 2007	CISPR 16-2-3: 2006	N/A	N/A
ESD	EN 61000-6-1: 2007	IEC 61000-4-2 :2008	Contact $\pm 4$ kV Air $\pm 8$ kV	PASS
Radio frequency electromagnetic fields, 80MHz to 1 GHz, 1.4GHz to 2 GHz, 2GHz to 2.7 GHz	EN 61000-6-1: 2007	IEC 61000-4-3: 2008	3V/m or 1V/m 80%, 1kHz, AM	N/A
Electrical Fast Transients (EFT) on AC	EN 61000-6-1: 2007	IEC 61000-4-4:2004	$\pm 1.0$ kV	N/A
Surges on AC	EN 61000-6-1: 2007	IEC 61000-4-5 :2005	$\pm 1$ kV D.M.† $\pm 2$ kV C.M.‡	N/A
Injected Currents on AC, 150kHz to 80MHz	EN 61000-6-1: 2007	IEC 61000-4-6 :2006	3Vrms (emf), 80%, 1kHz Amp. Mod.	N/A
Power-frequency magnetic field	EN 61000-6-1: 2007	IEC 61000-4-8 :2001	50,60 Hz 3A/m	N/A
Voltage Dips and Interruptions on AC	EN 61000-6-1: 2007	IEC 61000-4-11 :2004	0% UT* for 0.5per 0% UT* for 1per 70% UT* for 25per 0% UT* for 250per	N/A

### Remark:

- \*  $U_T$  is the nominal supply voltage.
- † D.M. – Differential Mode.
- ‡ C.M. – Common Mode.
- $\Psi$  N/A –Not Applicable

Note There are two models mentioned in this report, and they are the same in electrical and electronic characters. So we just have the model 18650 tested.

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Table 2: Tests carried out under EN 61000-6-1: 2007

Standard	Status
IEC 61000-4-2 :2008 Electrostatic discharge test	√
IEC 61000-4-3 :2008 Radio frequency electromagnetic fields test	×
IEC 61000-4-4 :2004 Electrical fast transients/burst test	×
IEC 61000-4-5 :2005 Surges test	×
IEC 61000-4-6 :2006 Injected Currents test	×
IEC 61000-4-8 :2001 Power-frequency magnetic field test	×
IEC 61000-4-11 :2004 Voltage dips and interruptions test	×

× Indicates that the test is not applicable  
√ Indicates that the test is applicable

#### 4.6 Deviation from Standards

None.

#### 4.7 Abnormalities from Standard Conditions

None.

#### 4.8 Monitoring of EUT for All Immunity Test

Visual:

#### 4.9 Test Location

All the tests were performed at:  
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
No.588 West Jindu Road, Songjiang District, Shanghai, China. 201612.  
Tel: +86 21 6191 5666 Fax: +86 21 6191 5655



#### 4.10 Test Facility

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

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2011-07-29.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2012-03-17.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2011-09-29.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3172 and C-3514 respectively. Date of Registration: 2009-11-30. Date of Expiry: 2012-03-17.

#### 4.11 Measurement Uncertainty

According to CISPR 16-4-2.

Test Item	Frequency Range	Measurement Uncertainty
Conducted Emission	9KHz – 150KHz	3.9dB
	150KHz – 30MHz	3.5dB
Radiated Emission	30MHz – 1000MHz	4.0dB

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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