

5 Equipments Used during Test

Electrostatic Discharge Test

Item	Test Equipment	Manufacturer	Model No.	Series No.	Cal. Date	Cal. Du
1	Electrostatic Discharge Simulator	KIKUSUI	KES4021	LL004261	2010-04-25	2011-

General Equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal.I
1	Atmosphere pressure meter	Shanghai ZhongXuan Electronic Co;Ltd	BY-2003P	/	2010-11-15	201
2	Digital Multimeter	FLUKE	17B	10560713	2010-09-16	201
3	Thermo-Hygrometer	ZHICHEN	ZC1-2	01050033	2010-10-21	201
4	Digital illuminance meter	TES electrical electronic Corp.	TES-1330A	050602219	2010-11-16	201

6 Immunity Test Results

6.1 Performance Criteria Description in Clause 4 of EN 61000-6-1: 2007

Performance Criterion A: The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus 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, either of these may be derived from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.

Performance Criterion B: The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and what the user may reasonably expect from the apparatus if used as intended.

Performance Criterion C: Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

6.2 ESD

Test Requirement: EN 61000-6-1: 2007

Test Method: IEC 61000-4-2 :2008

Test Date: Nov 20, 2010

Discharge Impedance: 330 Ω / 150 pF

Discharge Voltage: Air Discharge: ±8 kV

Contact Discharge: ±4 kV

HCP: ±4 kV

VCP: ±4 kV

Polarity: Positive & Negative

Number of Discharge: Minimum 10 times at each test point for Contact and VCP Discharge; Minimum 10 times at each test point for Air Discharge

Discharge Mode: Single Discharge

Discharge Period: 1 second minimum

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0°C Humidity: 49% RH Atmospheric Pressure: 1007 mbar

EUT Operation: The EUT is in representative work mode.

6.2.2 Direct Application Test Results

- Observations: Test Point:
1. All insulated enclosure & seams around EUT.
 2. All touchable metal material of EUT

Direct Application			Test Results	
Discharge Level (kV)	Polarity (+/-)	Test Points	Contact Discharge	Air Discharge
8	+/-	1	N/A	A
4	+/-	2	A	N/A

Indirect Application Test Results

- Observations: Test Point: 1. All sides.

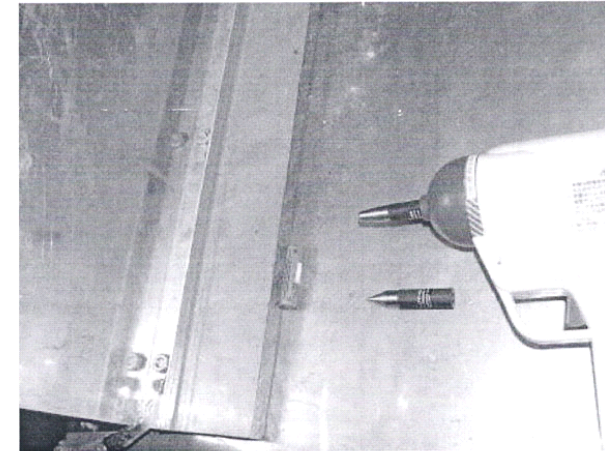
Indirect Application			Test Results	
Discharge Level (kV)	Polarity (+/-)	Test Point	Horizontal Coupling	Vertical Coupling
4	+/-	1	A	A

Results:

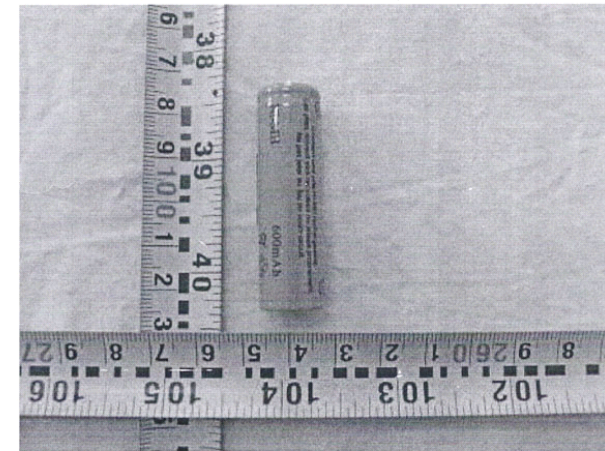
- A: No degradation in the performance of the EUT was observed.
N/A: Not applicable (not required in the standard or floor mounted the EUT)

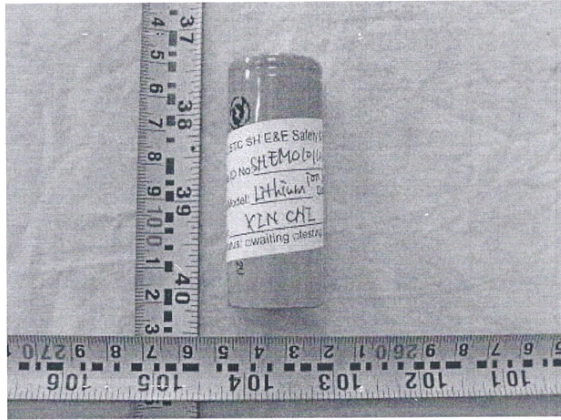
7 Photographs

7.1 ESD Test Setup



7.2 EUT Constructional Details





THE END OF REPORT

4 General Information

4.1 Client Information

Applicant: Qinquangdao Xinch Photoelectricity Technology Co., Ltd
Address of Applicant: Economic and Technological Development Zone, Qinquangdao City, Hebei Province
Manufacturer: Qinquangdao Xinch Photoelectricity Technology Co., Ltd
Address of Manufacturer: Economic and Technological Development Zone, Qinquangdao City, Hebei Province

4.2 General Description of E.U.T.

EUT Name: Lithium ion battery
Model No.: 18650, 26650
Serial No.: Not supplied by client

4.3 Details of E.U.T.

Power Supply: N/A
Power Cord: N/A

4.4 Description of Support Units

Name / Function	Model No.	Remark
N/A	N/A	N/A

4.5 Standards Applicable for Testing

The customer requested EMC tests for Lithium ion battery.

The standards used were EN 61000-6-1: 2007 and EN 61000-6-3: 2007.

Table 1 : Tests Carried Out Under EN 61000-6-3: 2007

Standard	Status
CISPR 16-1-2: 2006	
CISPR 16-2-1: 2005	Conducted Emissions on Mains ×
CISPR 16-2-3: 2006	Radiated Emissions ×

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

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