

## TEST REPORT

<b>Application No:</b>	2023996/EE
<b>Applicant:</b>	FUZHOU LEXINDA ELECTRONIC CO LTD
<b>Product Description:</b>	Night Light Clock with Projection
<b>Model No:</b>	EC-1056 (AIE CODE : 816232)
<b>Standards:</b>	EN 55014-1:2006+A1:2009, EN 55014-2:1997+A1:2001+A2:2008
<b>Date of Receipt:</b>	2011-06-27, 2011-07-25
<b>Date of Test:</b>	2011-07-28
<b>Date of Issue:</b>	2011-07-29
<b>Test Result :</b>	Pass*

\* In the configuration tested, the EUT complied with the standards specified above.



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. The protection requirements with respect to electromagnetic compatibility contained in Directive 2004/108/EC are considered.




**Mok Chi Yin**  
**Senior Technical Manager**

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

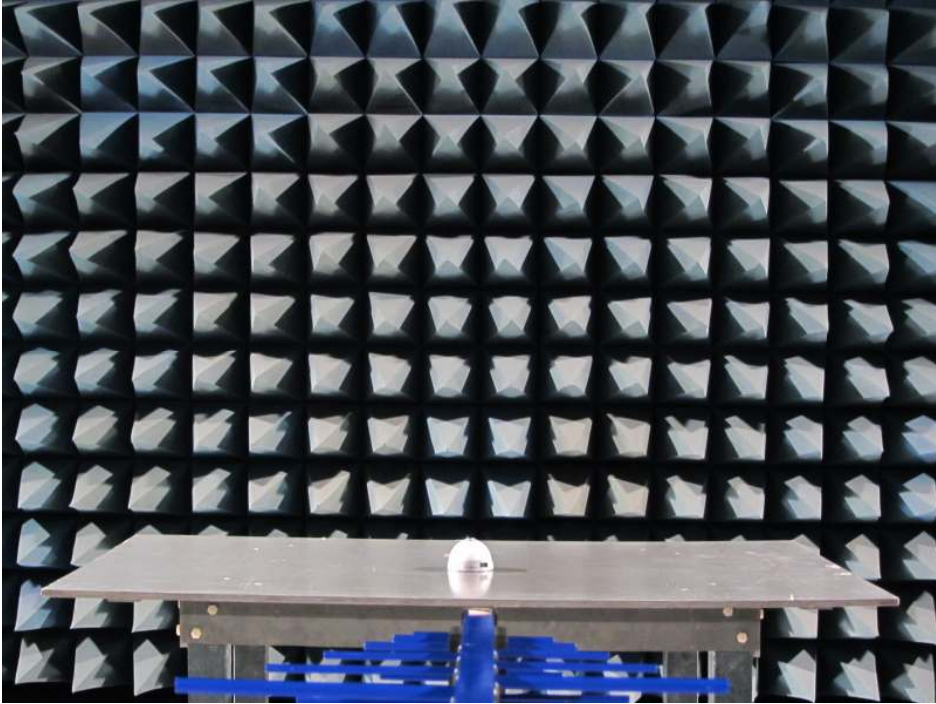
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## 2 Test Summary

<b>Electromagnetic Interference (EMI)</b>				
<b>Test</b>	<b>Test Requirement</b>	<b>Test Method</b>	<b>Class / Severity</b>	<b>Result</b>
Conducted Emission on AC, 150kHz to 30MHz	EN 55014-1: 2006+A1:2009	EN 55014-1: 2006+A1:2009	Table 1 Columns 2&3	N/A
Disturbance Power, 30MHz to 300MHz	EN 55014-1: 2006+A1:2009	EN 55014-1:2006+ A1:2009	Table 2a, Table 2b Columns 2&3	N/A
Radiated Emission (30MHz to 1GHz)	EN 55014-1: 2006 + A1:2009	CISPR 16-2-3:2006	Table 3	PASS
Discontinuous Interference on AC 150kHz - 30MHz	EN 55014-1: 2006+A1:2009	EN 55014-1: 2006+A1:2009	Clause 4.2 of EN 55014-1	N/A
<b>Electromagnetic Susceptibility(EMS)</b>				
<b>Test</b>	<b>Test Requirement</b>	<b>Test Method</b>	<b>Class / Severity</b>	<b>Result</b>
ESD	EN 55014-2:1997 +A1:2001+A2:2008	EN 61000-4-2: 2009	Contact ±4 kV Air ±8 kV	PASS
Radiated Immunity, 80 MHz to 1 GHz	EN 55014-2:1997 +A1:2001+A2:2008	EN 61000-4-3: 2006+A1:2008	3 V/m, 80 %, 1 kHz, A.M.	N/A
<b>Remark :</b>				
1) : The EUT belongs to <b>Category III of EN 55014-2:1997 + A1: 2001+A2:2008.</b>				
N/A : Not applicable, please refer to Section 6.1, 6.2, 6.4 & 7.3 of this report for details.				
** The EUT passed the ESD test after modification made by the client themselves.				

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## 4 General Information

### 4.1 Client Information

Applicant: FUZHOU LEXINDA ELECTRONIC CO LTD  
Address of Applicant: No. 815 Nanping Road  
Fuzhou, Fujian  
China

### 4.2 General Description of E.U.T.

Product Description: Night Light Clock with Projection  
Model No.: EC-1056 (AIE CODE : 816232)

### 4.3 Details of E.U.T.

Power Supply: DC 4.5V (AAA battery x3)  
Function: Night light clock with projection

### 4.4 Description of Support Units

The EUT has been tested as an independent unit.

### 4.5 Deviation from Standards

None

### 4.6 Abnormalities from Standard Conditions

None

### 4.7 Monitoring of EUT for All Immunity Test

Audio: N/A  
Visual: Monitor the normal operation of the EUT

### 4.8 Test Location

All tests were performed at:  
International Electrical Certification Centre Ltd. (wholly owned by SGS HK Ltd)  
Units 602-605, 6/F., 31 Lok Yip Road, On Lok Tsuen, Fanling, N.T., Hong Kong  
Tel: +852 2305 2570 Fax: +852 2756 4480  
No tests were sub-contracted.

#### 4.9 Test Facility

Measurement facility located at Fanling (Hong Kong), placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules (FCC Registration No. : 97774).

Measurement facility located at Fanling (Hong Kong), which meets the Industry Canada requirements of RSS 212, Issue 1 (Provisional) – reference file number (5193A-1).

## 5 Equipment Used during Test

<b>Radiated Emission</b>			
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model / Serial No.</b>	<b>Calibration Due</b>
Test Receiver	Rohde & Schwarz	ESCS 30 / 100388	2011-11-10
Antenna (30-1000 MHz)	Schaffner	CBL6111C / 2791	2012-09-29
Antenna Mast System	Schwarzbeck	AM9104 / -	--
Turntable with Controller	Drehtisch	DT312 / -	--

<b>Electrostatic Discharge (ESD) Test (I1)</b>			
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model / Serial No.</b>	<b>Calibration Due</b>
Electrostatic Discharge Tester	Schaffner	NSG435 / 005540	2012-06-13

## 6 Electromagnetic Interference Test Results

### 6.1 Conducted Emissions on Mains Terminals, 150 kHz to 30MHz

Test Requirement: EN 55014-1  
Test Method: EN 55014-1  
Test Date: Not Applicable

**Remark:**

The product is battery operated and this test is not applicable.

### 6.2 Disturbance Power Test, 30MHz to 300MHz

Test Requirement: EN 55014-1  
Test Method: EN 55014-1  
Test Date: Not Applicable

**Remark:**

The product is battery operated and there is no external connection wires / cables to the product. Hence, this test is not applicable.



### 6.3 Radiated Emissions, 30MHz to 1GHz

Test Requirement: EN 55014-1  
Test Method: CISPR 16-2-3, semi-anechoic chamber  
Test Date: 2011-07-28  
Test voltage: DC 4.5V (AAA battery x3)  
Frequency Range: 30 MHz to 1GHz  
Measurement Distance: 3 m  
Detector: Peak for pre-scan (120 kHz resolution bandwidth)  
Quasi-Peak for final test (120 kHz resolution bandwidth)

Limit:

For 3m

Frequency range	Quasi-peak limits
MHz	dB (µV/m)
30 to 230	40
230 to 1000	47
At transitional frequencies the lower limit applies.	

Limit:

For 10m

Frequency range	Quasi-peak limits
MHz	dB (µV/m)
30 to 230	30
230 to 1000	37
At transitional frequencies the lower limit applies.	

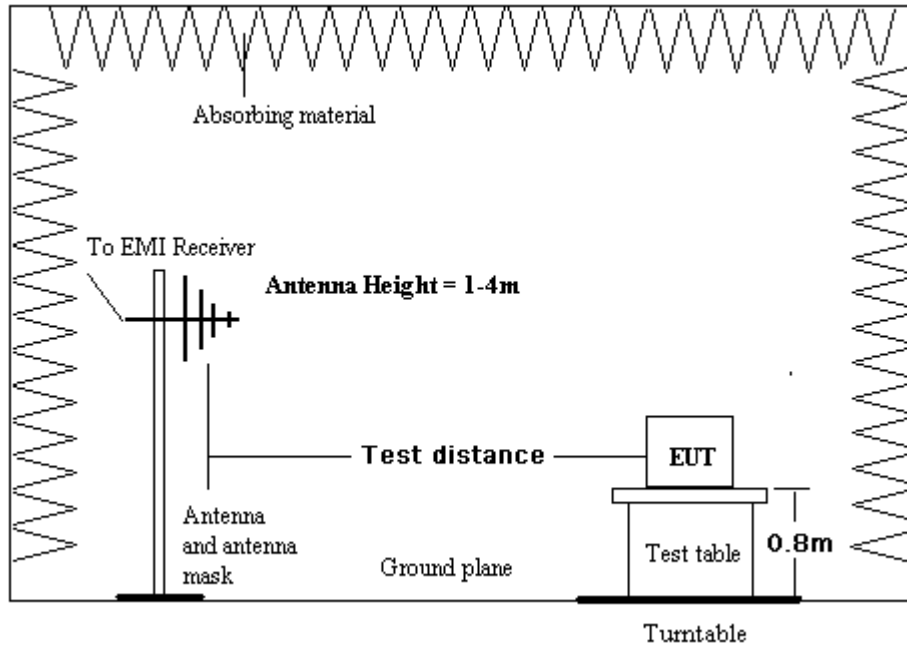
#### 6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C      Humidity: 65 % RH      Atmospheric Pressure: 1004 mbar

EUT Operation: Test the EUT under normal operation.

### 6.3.2 Test Setup and Procedure

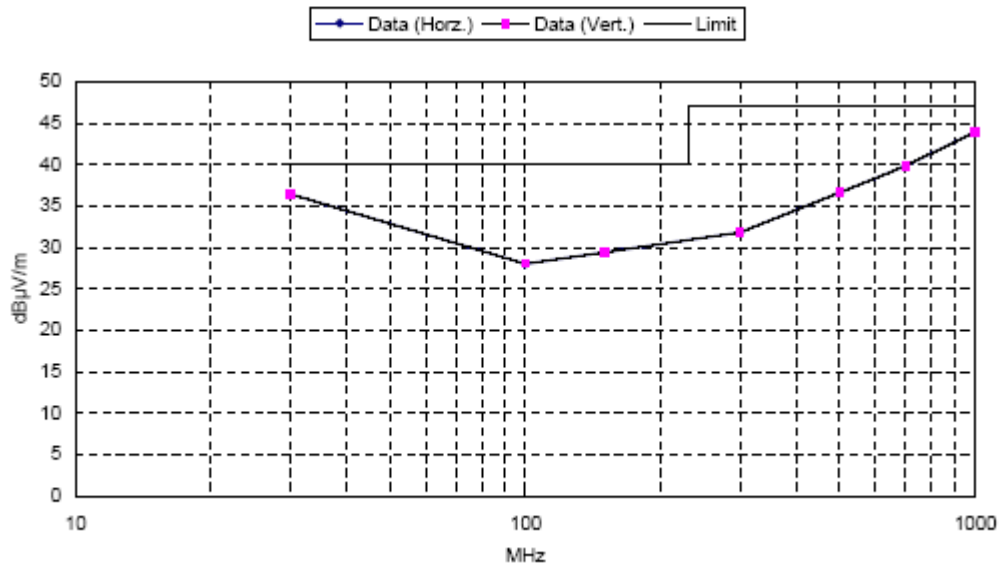


1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. The EUT was operated with new batteries.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emission spectrum signature data plots of the EUT.
5. The frequencies of maximum emission were determined in the final radiated emissions measurement, The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.

### 6.3.3 Measurement Data

Quasi-peak measurement:

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Corr. Factor (dB)	Horiz. Test Result dB(μV/m)	Vert. Test Result dB(μV/m)	Limit dB(μV/m)
30	< 16	< 16	20.5	< 36.5	< 36.5	40
100	< 16	< 16	12.0	< 28.0	< 28.0	40
150	< 16	< 16	13.4	< 29.4	< 29.4	40
300	< 16	< 16	15.8	< 31.8	< 31.8	47
500	< 16	< 16	20.6	< 36.6	< 36.6	47
700	< 16	< 16	23.8	< 39.8	< 39.8	47
1000	< 16	< 16	28.0	< 44.0	< 44.0	47



**Note : Test Result = Reading + Correction Factor**

#### 6.4 Discontinuous Interference, 150kHz to 30MHz

Test Requirement: EN 55014-1  
Test Method: Clause 7.3.4.3 of EN 55014-1  
Test Date: Not Applicable

**Remark:**

The product is battery operated and this test is not applicable.

## 7 Electromagnetic Susceptibility Test Results

### 7.1 Performance Criteria Description in Clause 6 of EN 55014-2

<b>Criterion A:</b>	The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
<b>Criterion B:</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 (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. 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, then either of these may be derived from the product description and documentation and from what the user may reasonably expect from the apparatus if used as intended.
<b>Criterion C:</b>	Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

### 7.2 ESD

Test Requirement:	EN 55014-2	
Test Method:	EN 61000-4-2	
Criterion Required:	C for the toys not using score or data entered by the user; sounding toys. B for other toys.	
Test Date:	2011-07-28	
Test voltage	DC 4.5V (AAA battery x3)	
Discharge Impedance:	330 $\Omega$ / 150 pF	
Discharge Voltage:	Air Discharge:	8 kV
	Contact Discharge:	4 kV
	VCP:	4 kV
Polarity:	Positive & Negative	
Number of Discharge:	Minimum 10 times at each test point	
Discharge Mode:	Single Discharge	
Discharge Period:	1 second minimum	

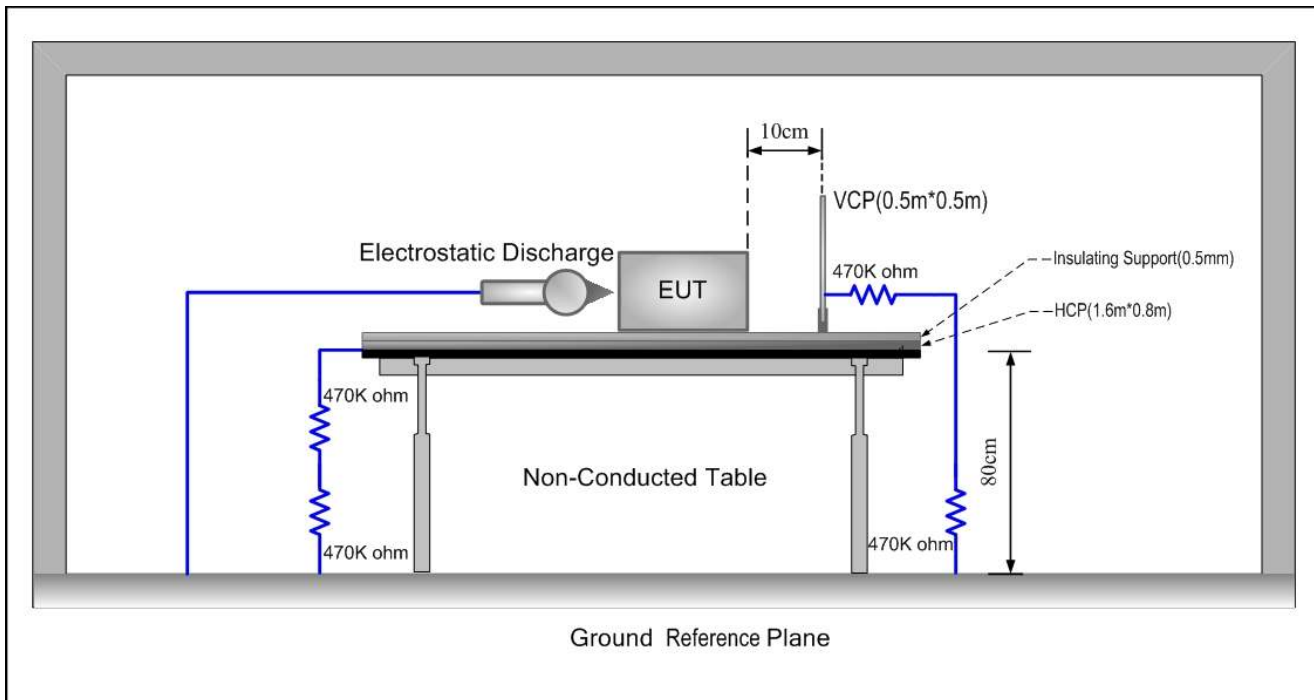
## 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 50 % RH Atmospheric Pressure: 1004 mbar

EUT Operation: Test the EUT under normal operation.

## 7.2.2 Test Setup and Procedure



1. Contact discharge was applied only to conductive surfaces of the EUT. Air discharge was applied only to non-conducted surfaces of the EUT.
2. The EUT was put on a 0.8m high wooden table for table-top equipment or 0.1m high for floor standing equipment standing on the ground reference plane (GRP).
3. A horizontal coupling plane(HCP) 1.6m by 0.8m in size was placed on the table, and the EUT with its cables were isolated from the HCP by an insulating support thick than 0.5mm. The VCP 0.5m by 0.5m in size while HCP were constructed from the same material type and thickness as that of the GRP, and connected to the GRP via a 470kΩ resistor at each end. The distance between EUT and any of the other metallic surface excepted the GRP, HCP and VCP was greater than 1m.
4. During the contact discharges, the tip of the discharge electrode was touch the EUT before the discharge switch is operated. During the air discharges, the round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT.
5. After each discharge, the ESD generator was removed from the EUT, the generator is then retriggered for a new single discharge. For ungrounded product, a discharge cable with two resistances were used after each discharge to remove remnant electrostatic voltage. 10 times of each polarity single discharge were applied to HCP and VCP.

### 7.2.3 Test Results

#### Direct Application Test Results

- Observations: Test Point:  
1. All insulated enclosure & seams.  
2. All accessible metal parts of the enclosure.

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

### 7.3 Radiated Immunity 80 MHz to 1000 MHz

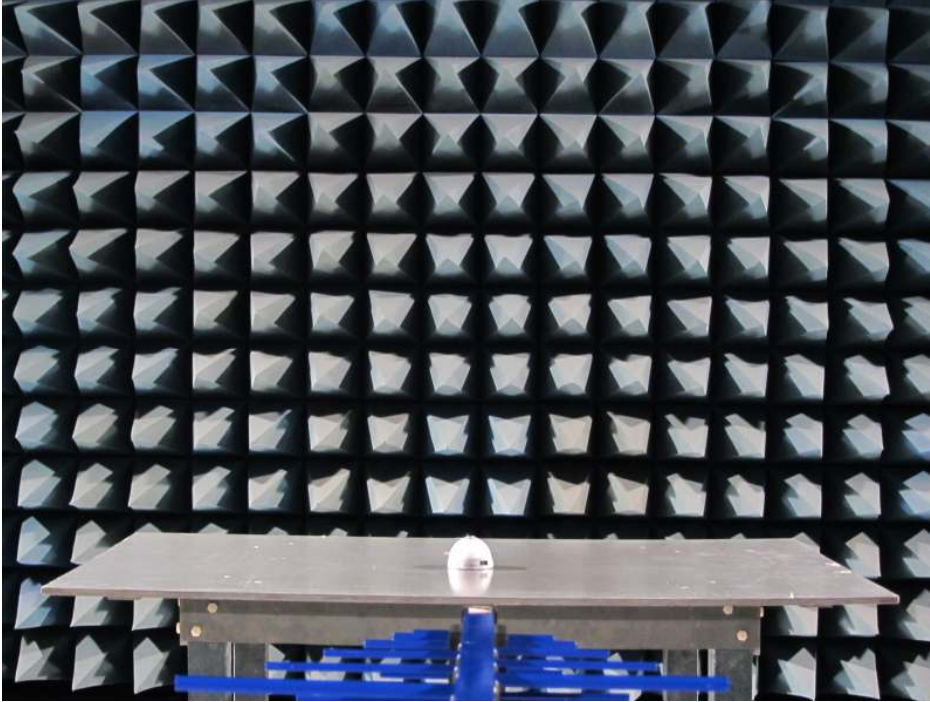
- Test Requirement: EN 55014-2  
Test Method: EN 61000-4-3  
Test Date: Not Applicable

#### Remark:

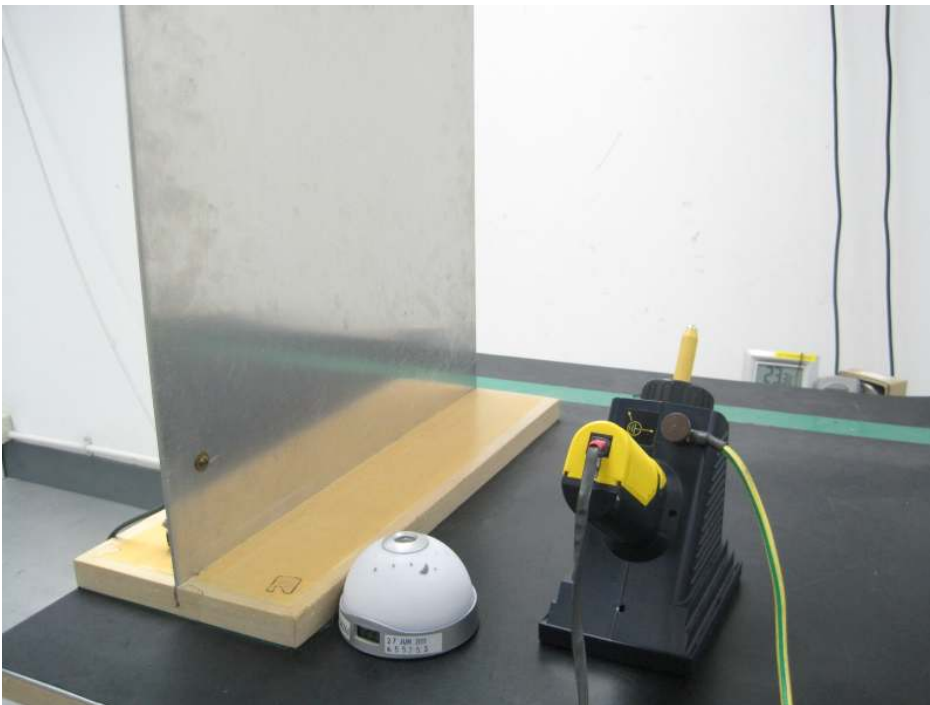
The product is not a ride on toy and this test is not applicable.

## 8 Photographs

### 8.1 Radiated Emission Test Setup



### 8.2 ESD Test Setup





### 8.3 EUT Constructional Details



--End of Report--